Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
*This represents the final version (updated 30 April, 2021). New publications since our last update have been **highlighted in blue.***							
Lung ultrasonography, pregnant women, interobserver variability, obstetricians, Turkey	30-Jun-20	Lung ultrasonography in pregnant women during the COVID-19 pandemic: an interobserver agreement study among obstetricians	Ultrasonography	Original Study	This study investigated interobserver agreement in lung ultrasonography (LUS) on pregnant women performed by obstetricians with different levels of expertise, with confirmation by an expert radiologist. This prospective study was conducted at a tertiary "Coronavirus Pandemic Hospital" in April 2020 in Istanbul, Turkey. Pregnant women suspected to have COVID-19 were included. Two blinded experienced obstetricians performed LUS on pregnant women separately and noted their scores for 14 lung zones. Following a theoretical and hands-on practical course, one experienced obstetrician, two novice obstetric residents, and an experienced radiologist blindly evaluated anonymized and randomized still images and videoclips, retrospectively. 52 pregnant women were included, with a confirmed COVID-19 diagnosis rate of 82.7%. In total, 336 eligible still images and 115 videoclips were included in the final analysis. The overall weighted Cohen's kappa values ranged from 0.706 to 0.912 for the 14 lung zones. There were only 7 instances of major disagreement (>1 point) in the evaluation of 14 lung zones of 52 patients (n=728). The authors concluded that the interobserver agreement between obstetricians with different levels of experience on still images and videoclips of LUS was good. Following a brief theoretical course, obstetricians' performance of LUS in pregnant women and interpretation of pre-acquired LUS images can be considered consistent.	The authors of this study examined interobserver agreement in lung ultrasonography (LUS) on pregnant women during the COVID-19 pandemic among different obstetricians. The findings show that LUS performed on pregnant women by obstetricians after completing a brief theoretical and practical course may be considered consistent.	Yassa M, Mutlu MA, Birol P, Kuzan TY, Kalafat E, Usta C, Yavuz E, Keskin I, Tug N. Lung ultrasonography in pregnant women during the COVID-19 pandemic: an interobserver agreement study among obstetricians. Ultrasonography. 2020 Oct;39(4):340-349. doi: 10.14366/usg.20084. Epub 2020 Jun 30. PMID: 32660204; PMCID: PMC7515667.
Breastfeeding, postpartum, maternal health, mental health, stigma, India	30-Jun-20	Why I Can't Breastfeed My New-born Baby? Psychosocial Dilemma of a COVID-Positive Post-LSCS Mother	Indian Journal of Palliative Care	Case Report	This case report describes a 26-year-old postpartum mother who tested positive for SARS-CoV-2 via RT-PCR and was admitted to a COVID isolation facility at a tertiary care center in India. Her infant was delivered prematurely at gestational age 28 weeks, tested negative for SARS-CoV-2, and was transferred to a neonatal ICU. The authors detail her physical, psychological, social, and spiritual concerns and each concern is elaborated with direct quotes from the mother. Her primary physical concern was suture site pain and concerns related to discarding expressed breast milk. Her psychological concerns included distrust of her COVID-19 test results (due to consecutive samples with conflicting results and absence of symptoms), separation from and inability to breastfeed her newborn, belief of unjust isolation, lack of family support, loneliness, fear, anxiety, anger, stress, and depression. Her social concerns centered around anticipated stigma towards herself and her newborn. She also expressed spiritual concerns because she was not able to create harmony between herself and environment. The authors recommend psychological interventions in the event of maternal-infant separation, sensitivity around stigmatizing language in written and verbal communications, and allowing asymptomatic mothers to breastfeed their infants under strict infection control measures.	This case report details the physical, psychological, social, and spiritual concerns of a 26-year old postpartum mother with asymptomatic SARS-CoV-2 infection who was separated from her newborn and admitted to an isolation facility in India. The authors recommend psychological intervention, use of destigmatizing language, and greater flexibility in allowing asymptomatic mothers to breastfeed their infants.	Kumar S, Rathore P, Shweta, et al. Why I Can't Breastfeed My New-born Baby? Psychosocial Dilemma of a COVID-Positive Post-LSCS Mother. Indian J Palliat Care. 2020 Jun;26(Suppl 1):S150-S152. doi: 10.4103/IJPC.IJPC_157_20. Epub 2020 Jun 30. PMID: 33088107; PMCID: PMC7534992.
Symptomatic expectant mothers, symptomless expectant mothers,	30-Jun-20	Coronavirus (COVID 19) Infection in Pregnancy	Colombia Medica	Review	This review incorporates practices for managing SARS-CoV-2 infection for pregnant women and newborns to promote useful interventions to prevent new infections. Guidance promotes prompt and adequate attention to avoid serious complications or deaths and to adapt to the different contexts in which attention to expectant mothers is provided. This review offers general guidelines focused on decision-making people, managers, and health teams	This review offers general guidelines focused on decision-making people, managers, and health teams related to pregnant women	Ortiz EI, Herrera E, De La Torre A. Coronavirus (COVID 19) Infection in Pregnancy. Colomb Med (Cali). 2020;51(2):e4271. Published 2020 Jun 30.

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childbirth, lactation, newborn					related to pregnant women and infants during COVID-19 pandemic. Guidelines are supported by scientific evidence and available recommendations to prevent transmission, including guidance on maternal lactation. The review also provides practices that must be taken into account to protect the health of the mother, the fetus and the newborn during COVID 19 infection and at the same time protect the health team in charge of obstetric care, which are applicable in a low and high complexity care setting.	attention and newborns during COVID-19 pandemic.	doi:10.25100/cm.v51i2.4271
Pediatrics, adolescents, multisystem inflammatory syndrome, Latin America	30-Jun-20	Multisystem inflammatory syndrome associated with COVID19 in children and adolescents: calling for diagnosis	Revista chilena de infectología	Editorial	The authors describe the evolution of the description and clinical criteria for MIS-C, a newly encountered illness of hyper-inflammatory shock in the pediatric population following COVID-19 infection. The WHO uses the following case definition: children and adolescents aged 0 to 19 years of age fulfilling the criteria of fever ≥ 3 days AND 2 of the following: Rash or bilateral non-suppurative conjunctivitis or mucocutaneous inflammation (mouth, hands or feet), hypotension or shock, findings of myocardial dysfunction, pericarditis, valvulitis, or coronary abnormalities, evidence of coagulopathy (by PT, PTT, elevated d-dimers), or acute gastrointestinal manifestations (diarrhea, vomiting, or abdominal pain). They also must have elevated inflammation markers such as erythrosedimentation rate, C-reactive protein, or procalcitonin, absence of other microbial cause of inflammation, including bacterial sepsis, staphylococcal or streptococcal shock syndromes, AND have evidence of COVID-19. The authors summarize recent literature on MIS-C and conclude with a call for prospective data from multicenter networks in Latin America.	The definition and clinical criteria for MIS-C, a new hyper-inflammatory syndrome in children and adolescents following COVID-19 infection, have evolved as new knowledge about the condition has emerged. More data is still needed to identify the clinical spectrum of manifestations and optimal treatment strategies.	Ulloa-Gutiérrez R, Ivankovich-Escoto G, Yamazaki-Nakashimada MA. Multisystem inflammatory syndrome associated with COVID19 in children and adolescents: calling for diagnosis. Síndrome inflamatorio multisistémico asociado a COVID-19 en niños y adolescentes: un llamado al diagnóstico. Rev Chilena Infectol. 2020;37(3):199-201. doi:10.4067/s0716-10182020000300199
Breastfeeding, human milk, breast milk, newborn, swab test	30-Jun-20	SARS-CoV-2 in Human Breast Milk and Neonatal Outcome: A Collaborative Study	The Lancet	Preprint (not peer reviewed)	Though identification of all potential infective vehicles for SARS-CoV-2 is important for disease prevention, possible transmission of SARS-CoV-2 via breastmilk remains largely unexplored. In this study, authors collected breastmilk from twelve SARS-CoV-2 positive mothers and analyzed samples for viral RNA using RT PCR. Eleven of the twelve samples were negative for viral RNA. Eleven of the twelve newborns were exclusively breastfed in the first month of life and closely monitored, and clinical outcome was uneventful. Four newborns tested positive for SARS-CoV-2 and were all detected in the first 48 hours of life after onset of maternal symptoms. The remaining eight infants were not positive and/or symptomatic in the first month of life. The clinical course of infected infants was uneventful, including the infant that received SARS-CoV-2 positive breastmilk. Study authors hypothesize that the SARS-CoV-2 positive breastmilk could be caused by viral shedding and/or lack of compliance to hygiene protocols. The authors conclude that SARS-CoV-2 positive mothers pose no additional risk to their infants by breastfeeding and that breastmilk, even when positive for SARS-CoV-2, is not a vehicle of infection; however, mothers must follow strict hygiene protocols to minimize infants' risk of infection via other modes of transmission.	The authors argue that SARS-CoV-2 positive mothers do not expose their newborns to an additional risk of infection by breastfeeding. They state that mothers should breastfeed, irrespective of swab test results, considering the immunological and anti-infective properties of mother's milk.	Bernito E, Moro GE, De Renzi G, et al. SARS-CoV-2 in Human Breast Milk and Neonatal Outcome: A Collaborative Study. The Lancet. Published 30 June 2020. doi: 10.2139/ssrn.3611974
Contraception, reproductive	30-Jun-20	Contraception in the Era of COVID-19	Global Health: Science and Practice	Viewpoint	In low- and middle-income countries, unintended pregnancies can have dire consequences ranging from unsafe abortion to serious pregnancy complications that contribute to maternal and infant mortality. The authors	The authors argue that during the COVID-19 pandemic, healthcare	Nanda K, Lebetkin E, Steiner MJ et al. Contraception in the Era

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healthcare, public health					state that as such, contraception is a life-saving and essential component of reproductive healthcare. Therefore, healthcare providers should strive to ensure continuity of reproductive healthcare to women and girls in the face of facility service interruption due to the COVID-19 pandemic. The authors argue that telehealth should be used for counseling and screening of patients to minimize in-person contact. They provide several practical considerations for providers to optimize how clients access contraceptive methods. They conclude by calling on the public health community to continue to provide guidance and support in order to ensure that everyone can access safe and affordable contraception and contraceptive services during the COVID-19 pandemic.	providers should strive to maintain continuity of reproductive healthcare as an essential service. Telehealth should be used whenever possible for counseling, shared decision-making, and medication management to ensure continued access.	of COVID-19. [published 2020 Jun 30]. Glob Health Sci Pract. doi:10.9745/GHSP-D-20-00119
Contraception, reproductive healthcare, supply, mitigation strategies, Kenya, Nigeria	30-Jun-20	Doing Things Differently: What It Would Take to Ensure Continued Access to Contraception During COVID-19	Global Health: Science and Practice	Original Article	In this article, the authors share a model predicting changes in demand for various contraceptive methods as a result of the pandemic, which they based on data from the 2019 Commodity Gap Analysis conducted by the Reproductive Health Supplies Coalition. They predict women will increasingly seek easily accessible self-care methods such as pills, condoms, and emergency contraception, and reduce their use of long-acting reversible contraceptives (LARCs) and provider-administered injectables in avoidance of direct contact with the healthcare system. The authors pose 2 simulated scenarios, each of which estimates the potential for contraceptive method switching under different levels of COVID-19 related service disruption, one in Kenya and one in Nigeria. The changes would have substantial implications for the production and delivery of supplies, and the authors propose several mitigation strategies, such as leveraging existing private, nongovernmental organizations and social marketing supply chains. In addition, they bring to attention challenges in equity and quality, highlighting the need to explore strategies such as strategic purchasing and vouchers to ensure that changes in the contraceptive landscape do not burden the most vulnerable.	Women may begin to change their preference for various contraceptive options as a result of the pandemic. Countries may have to adapt their supply-chain, financing, and manufacturing strategies to ensure women continue to have access to contraceptive choices.	Weinberger M, Hayes B, White J, Skibiak J. Doing Things Differently: What It Would Take to Ensure Continued Access to Contraception During COVID-19. Glob Health Sci Pract. 2020;8(2):169-175. Published 2020 Jun 30. doi:10.9745/GHSP-D-20-00171
Pregnancy, tocilizumab, remdesivir, USA	30-Jun-20	Tocilizumab and Remdesivir in a Pregnant Patient With Coronavirus Disease 2019 (COVID-19)	Obstetrics & Gynecology	Case report	A 35-year-old primigravid patient at 22 2/7 weeks of gestation presented to the emergency department after 7 days of fever, cough, anosmia, and dyspnea. She had underlying hypertension, type 2 diabetes, and intermittent asthma and a BMI of 28 kg/m2. Findings from a detailed ultrasound scan for fetal anatomy were normal. The nasopharyngeal swab was positive for SARS-CoV-2, and a chest X-ray demonstrated bilateral patchy infiltrates. Laboratory evaluation was notable for marked elevation of interleukin-6 and C-reactive protein concentrations. On hospital day 3, her dyspnea and cough worsened. Owing to increased dyspnea and oxygen requirement, the patient was treated with tocilizumab followed by 5 days of remdesivir. She responded well, recovered to room air, and was discharged home after a 9-day hospitalization.	This report describes detailed clinical and laboratory data before and after the use of tocilizumab and remdesivir for treatment of a pregnant woman with severe COVID-19, suggesting that tocilizumab and remdesivir may be effective for treatment of severe COVID-19 in pregnancy.	Naqvi Mariam, Zakowski Phillip, Glucksman Lindsey et al. Tocilizumab and Remdesivir in a Pregnant Patient With Coronavirus Disease 2019 (COVID-19), Obstetrics & Gynecology: June 30, 2020 doi: 10.1097/AOG.0000000000004050
Neonate, newborn, ambulatory care, post-partum discharge	30-Jun-20	Management of Neonates After Postpartum Discharge and All Children in the Ambulatory Setting During the	Current Opinion in Pediatrics	Review Article	The COVID-19 pandemic has created additional challenges by increasing the number of presumed healthy, full-term newborns discharged at 24-hours after delivery. Such a short length of stay does not imply that the mother-infant dyad is ready for discharge. Extra precautions are necessary during the transition period between post-partum discharge and ambulatory follow-up to ensure the safety of patients and healthcare team members. This should include restructuring office flow, limiting in-person visits, instituting proper	This review provides guidance for the post-discharge management of newborns born to mothers with confirmed or suspected disease in the ambulatory setting as well	Harriel KL, Nolt D, Moore S et al. Management of neonates after postpartum discharge and all children in the ambulatory setting during the coronavirus

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		Coronavirus Disease 2019 Pandemic [Full article was not accessible as link did not work 6 July 2020]			procedures for PPE and for cleaning of the office, and expanding telemedicine capabilities. Based on current limited evidence, the authors provide guidance for the post-discharge management in the ambulatory setting for newborns born to mothers with confirmed or suspected COVID-19. They also endorse prioritizing universal immunizations and routine screenings during the COVID-19 pandemic.	as prioritizing universal immunizations and routine screenings during the COVID-19 pandemic	disease 2019 pandemic [published online , 2020 Jun 30]. Curr Opin Pediatr. doi:10.1097/MOP.0000000000000931
Pediatrics, CPR, resuscitation, emergency response, protocols, United States	30-Jun-20	Pediatric Resuscitation Practices During the Coronavirus Disease 2019 Pandemic	Pediatric Critical Care Medicine	Original Research	This multi-institutional internet-based survey of Pediatric ICU representatives assessed inpatient resuscitation practices during the COVID-19 pandemic. 130 institutions were surveyed, 78 (60%) responded. Sixty-seven respondents (86%) had implemented changes to inpatient emergency response systems. The most common changes were as follows: limited number of personnel entering patient rooms (75; 96%), limited resident involvement (71; 91%), and new or refined team roles (74; 95%). New or adapted technology and enhanced PPE are being used for COVID-19 resuscitations in 58 centers (74%) and 57 (73%) of institutions, respectively. Most are intubating earlier during cardiopulmonary resuscitation (CPR) (56; 72%), utilizing video laryngoscopy (67; 86%), pausing chest compressions during laryngoscopy (56; 72%), and leaving patients connected to the ventilator during CPR (56; 72%). Most institutions (46; 59%) do not have policies regarding limitations of resuscitation efforts in COVID-19 patients.	Most U.S. pediatric institutions rapidly adapted their resuscitation practices in response to the COVID-19 pandemic. Changes were related to team members and roles, PPE, and airway and breathing management, reflecting attempts to balance quality resuscitation with healthcare provider safety.	Morgan RW, Kienzle M, Sen AI, et al. Pediatric Resuscitation Practices During the Coronavirus Disease 2019 Pandemic [published 2020 Jun 30]. Pediatr Crit Care Med. doi:10.1097/PCC.0000000000002512
Children, respiratory system, gastrointestinal system, viral shedding, Australia	30-Jun-20	Duration of Respiratory and Gastrointestinal Viral Shedding in Children With SARS-CoV-2: A Systematic Review and Synthesis of Data	The Pediatric Infectious Disease Journal	Review Article	Little is known about the duration of respiratory and gastrointestinal viral shedding in children with COVID-19. The authors performed a systematic literature search for studies reporting RT-PCR results in children with COVID-19, then extracted and synthesized data on duration of viral shedding from symptom onset in respiratory and gastrointestinal samples. Based on data compiled from 69 pediatric cases, the duration of viral shedding through the respiratory tract is up to 24 days from symptom onset with a mean of 11.1 ± 5.8 days. Of the children who underwent testing with stool PCR, rectal swab or anal swab, 86% returned a positive result. The mean duration of viral shedding via the gastrointestinal tract was 23.6 ± 8.8 days from symptom onset. In 89% of cases, viral shedding via the gastrointestinal tract persisted after nasopharyngeal or throat swabs became negative, for as long as 4 weeks.	The results summarized in this article for viral shedding may have implications for infection control strategies. Mean duration of viral shedding in the respiratory tract was approx. 11 days from symptom onset, while this was more than twice as long in the gastrointestinal tract.	Xu CLH, Raval M, Schnall JA, et al. Duration of Respiratory and Gastrointestinal Viral Shedding in Children With SARS-CoV-2: A Systematic Review and Synthesis of Data [published online 2020 Jun 30]. Pediatr Infect Dis J. 2020. doi:10.1097/INF.0000000000002814
Pregnancy, ethnic minority, public health, UK	30-Jun-20	Covid-19: Admit ethnic minority pregnant women to hospital earlier, says NHS England	The BMJ	News	A recent report by Knight et al. 2020 showed that more than half of pregnant women hospitalized with COVID-19 in England and Wales are from an ethnic minority background even though they only make up a quarter of births. NHS England therefore stated that due to the increased risk, clinicians should have a lower threshold for hospital admission in pregnant women from ethnic minority backgrounds with COVID-19 symptoms. Additionally, maternity units should reach out to pregnant ethnic minority women with tailored communications. They also recommended that NHS trust maternity information systems record ethnicity with other risk factors in order to identify the women most at risk for poor outcomes. The Royal College of Midwives supported the measures put forth by NHS England.	In order to combat the disproportionate burden of poor outcomes in ethnic minority pregnant women with COVID-19 in the UK, NHS England provided several recommendations to clinicians. One such recommendation was to lower the admission threshold for pregnant women from ethnic	Iacobucci G. Covid-19: Admit ethnic minority pregnant women to hospital earlier, says NHS England. [published online, 2020 Jun 30]. The BMJ. doi:https://doi.org/10.1136/bmj.m2628

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						minority backgrounds with COVID-19 symptoms.	
Infant, coinfection, adenovirus, USA	30-Jun-20	4-month-old boy coinfected with COVID-19 and adenovirus	BMJ	Case report	A 4-month-old boy with a history of muscular ventricular septal defect and atopic dermatitis presented with decreased oral intake, loose stools, stuffy nose, mild cough and diaphoresis. The patient had an in-home exposure to COVID-19. The initial respiratory pathogen panel was positive for adenovirus, consistent with his symptoms. The following day, the COVID-19 PCR was also positive. The patient was treated with supportive care, isolation precautions were implemented, and the patient was discharged on day 4.	This is the first case presented of an infant coinfected with COVID-19 and adenovirus, demonstrating the importance of testing for COVID-19 even if a patient tests positive for another virus due to the possibility of coinfection, especially in children, to limit spread of COVID-19 to others.	Danley K, Kent P4-month-old boy coinfected with COVID-19 and adenovirusBMJ Case Reports CP 2020;13:e236264.
Gynecology, emergencies, Italy	30-Jun-20	The impact of COVID-19 lockdown on admission to gynecological emergency departments: Results from a multicenter Italian study (only abstract freely available)	International Journal of Gynecology and Obstetrics	Clinical article	To assess the impact of the COVID-19 lockdown on visits to gynecologic emergency departments (ED), this retrospective study included the 691 women evaluated in the gynecologic EDs of three hospitals in Italy from November 1-30, 2019, and March 11-April 9, 2020. There was a relative decrease of 56.6% (95% CI 52.2-61.1) in women evaluated from March 11-April 9, 2020. Time spent in the ED was also significantly shorter during this period (P =0.02) in comparison to November 1-30, 2019. The most evident decrease was observed for pelvic pain (–68.9% [95% CI 60.3–76.7]; –91 cases). The management of women suggests a more effective use of the ED, with higher rates of hospitalization (P =0.001) and recourse to emergent surgeries (P =0.005) and lower rates of discharge to home (P =0.03).	The COVID-19 lockdown greatly reduced the rate of visits to gynecological EDs, with the women evaluated much more likely to be hospitalized and in need for emergent surgery than during the baseline time period.	Grandi G, Del Savio M, Caroli M, et al. The impact of COVID-19 lockdown on admission to gynecological emergency departments: Results from a multicenter Italian study [published online 2020 Jun 30]. Int J Gynecol Obstet. 2020. doi:10.1002/ijgo.13289
Children, school closures, communication, Australia	30-Jun-20	How Risk Communication Could Have Reduced Controversy About School Closures in Australia During the COVID-19 Pandemic	Public Health Research and Practice	Perspectives	The question of whether children should be kept home from school has attracted extensive and often divisive public debate in Australia. The authors analyze the factors that drove high levels of concern among parents, teachers and the public and led to both demands for school closures in late March 2020, and to many parents' reluctance to return their children to school in May 2020. The authors discuss how the use of well-established principles of risk communication might have reduced much of this community concern and offer practical suggestions for communication practices that build trust and hence diminish concerns in relation to managing schools over the long term of the COVID-19 pandemic.	Good risk communication can reduce or mitigate the intensity of public responses to hazards in a health emergency. The authors recommend governments prepare for two-way communication by listening to stakeholders, communicating early and frankly, sharing information and the questions they are exploring, and respecting and trusting their audiences	Leask J, Hooker C. How risk communication could have reduced controversy about school closures in Australia during the COVID-19 pandemic [published online 2020 Jun 30]. Public Health Res Pract. doi:10.17061/phrp3022007
Childbirth, pregnancy, postpartum, abortion care, Brazil	30-Jun-20	Childbirth, Puerperium and Abortion Care Protocol During the COVID-19 Pandemic	Revista da Associação Médica Brasileira	Review	This article provides a comprehensive review of clinical recommendations in Brazil regarding childbirth, postpartum, and abortion care during the COVID-19 pandemic for suspected and confirmed cases of maternal COVID-19. The authors review the risks and clinical characteristics of COVID-19 in pregnancy and provide recommendations for laboratory assessments, location and timing of delivery, visitors, labor induction, operative delivery, fetal	This review article provides clinical recommendations to Brazilian obstetricians regarding childbirth, postpartum and abortion care during the pandemic.	Trapani Júnior A, Vanhoni LR, Silveira SK, Marcolin AC. Childbirth, Puerperium and Abortion Care Protocol during the COVID-19 Pandemic. Rev Bras Ginecol Obstet.

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					assessment, anesthesia, intrauterine resuscitation, cord clamping, skin-to-skin, breastfeeding, and medications.		doi:10.1055/s-0040-1713587
Pregnancy, pre-term delivery, corticosteroids, treatment, management, USA	30-Jun-20	Antenatal Corticosteroids for Pregnant Women at High Risk of Preterm Delivery With COVID-19 Infection: A Decision Analysis	American Journal of Perinatology	Original Article	As steroid administration in the setting of a viral respiratory infection can worsen maternal outcomes, the decision to administer corticosteroids prior to preterm deliveries must balance the neonatal benefits with the potential harm to the mother if she is infected with COVID-19. This study aimed to determine the gestational ages for which administering antenatal corticosteroids to women at high risk of preterm labor with concurrent COVID-19 infection results in improved combined maternal and infant outcomes. A decision-analytic model was constructed for a theoretical cohort of 10,000 hospitalized women delivering between 24 and 33 weeks of gestation with COVID-19 in the United States. Corticosteroid administration resulted in 2,200 women admitted to the ICU and 110 maternal deaths. No antenatal corticosteroid use resulted in 1,500 ICU admissions and 75 maternal deaths. Corticosteroid administration resulted in higher combined QALYs up to 31 weeks of gestation in all hospitalized patients, and up to 29 weeks of gestation in ICU patients.	Administration of antenatal corticosteroids at less than 32 weeks of gestation for hospitalized patients and less than 30 weeks of gestation for patients admitted to the ICU resulted in higher combined maternal and infant outcomes compared with expectant management for women at high risk of preterm birth with COVID-19 infection. These results can guide clinicians in their counseling and management of these pregnant women.	Packer CH, Zhou CG, Hersh AR, et al. Antenatal Corticosteroids for Pregnant Women at High Risk of Preterm Delivery with COVID-19 Infection: A Decision Analysis [published online 2020 Jun 30]. Am J Perinatol. 2020. doi:10.1055/s-0040-1713145
Pregnancy, labor and delivery, neonates, management, Africa, LMIC	30-Jun-20	Management of mothers and neonates in low resources setting during covid-19 pandemia [Free Access to Abstract only]	The Journal of Maternal-Fetal and Neonatal Medicine	Commentary	Recommendations for the care of neonates born to suspected or confirmed COVD-19 positive mothers in low-resource settings are very limited, with guidelines varying significantly among the official neonatal societies around the world. This perspective aims to provide practical support for the planning of delivery, resuscitating, stabilizing, and providing postnatal care to an infant born to a mother with suspected or confirmed COVID-19 in settings where resources for managing emergency situations are limited. The authors argue that programs aimed to optimize structural, instrumental and human resources are of key importance in limited resource settings.	Knowledge and application of simple rules including maintenance of spatial distance, frequent handwashing, identification and isolation of suspected or known cases, and careful use of PPE and disinfectant products are critical in the care of mothers and neonates. This publication provides practical guidance, solutions for neonatal care in low resource settings, illustrated by various visual (photos, drawings).	Trevisanuto D, Weiner G, Lakshminrusimha S, et al. Management of mothers and neonates in low resources setting during covid-19 pandemia [published online 2020 June 30]. J Matern Fetal Neonatal Med. doi: 10.1080/14767058.2020.1784873
Transmission, children, viral shedding, Switzerland	30-Jun-20	Culture-Competent SARS-CoV-2 in Nasopharynx of Symptomatic Neonates, Children, and Adolescents	Emerging Infectious Diseases	Letter	Previous data suggests that children do not seem to be major drivers of transmission of SARS-CoV-2. Yet the authors claim that despite the high proportion of mild or asymptomatic infections, children should be considered transmitters until proven otherwise. To investigate this, they used cell culture to systemically assess for cultivatable SARS-CoV-2 in the upper respiratory tract of 23 children (COVID-19 positive by RT-PCR) in Switzerland from 25 January- 31 March 2020. A total of 638 patients (aged < 16 years) were tested for SARS-CoV-2 during this time. They were able to isolate SARS-CoV-2 from 12 (52%) children. They found that the SARS-CoV-2 viral load and shedding patterns of culture-competent virus in the 12 symptomatic children	Among 23 children with COVID-19 in Switzerland, the authors were able to cultivate SARS-CoV-2 from the upper respiratory tract of twelve children (52%). In this subgroup, viral load and shedding patterns resembled those in adults, suggesting that SARS-CoV-2	L'Huillier AG, Torriani G, Pigny F, Kaiser L, Eckerle I. Culture-Competent SARS-CoV-2 in Nasopharynx of Symptomatic Neonates, Children, and Adolescents [published online, 2020 Jun 30]. Emerg Infect Dis.

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					resembled those in adults. Therefore, transmission of SARS-CoV-2 from children is plausible.	transmission is plausible from these children.	doi:10.3201/eid2610.202403
Outcomes, clinical symptoms, laboratory and imaging data, children, Italy	30-Jun-20	The Early Experiences of a Single Tertiary Italian Emergency Department Treating COVID-19 in Children	Acta Paediatrica	Brief report	In this brief report, the authors describe the clinical features, laboratory and imaging data, and outcomes of pediatric patients who presented to a single emergency department (ED)/hospital in Genoa, Italy from 24 February- 16 April 2020. They tested for 150 children with epidemiological links for SARS-CoV-2 and identified 19 individuals who were positive. An additional five patients with confirmed COVID-19 were accepted from other hospitals. Fever (20/24, 83%) and dry cough (14/24, 58%) were the most frequent symptoms at onset. The majority (13/24, 54%) of patients were discharged after ED evaluation. Three (12.5%) children had pre-existing conditions. The authors conclude that further research and surveillance are needed to clarify how COVID-19 affects children and how children with pre-existing conditions should be managed.	The authors present the experience of a single Italian center's pediatric COVID-19 patients (n=24). They found that even patients with moderate disease did not develop clinical worsening and respiratory distress.	Brisca G, Ferretti M, Sartoris G, et al. The early experiences of a single tertiary Italian emergency department treating COVID-19 in children [published online, 2020 Jun 30]. Acta Paediatr. doi:10.1111/apa.15451
Children, serology, Seattle, USA	30-Jun-20	Serological identification of SARS-CoV-2 infections among children visiting a hospital during the initial Seattle outbreak	medRxiv	Pre-print (not peer reviewed)	In the United States, children represent 22% of the population but only 1.7% of confirmed SARS-CoV-2 cases. One possibility is that symptom-based viral testing is less likely to identify infected children, since they often experience milder disease than adults. To better assess the frequency of pediatric SARS-CoV-2 infection, the authors serologically screened 1,775 residual samples that a children's hospital in Seattle collected from 1,076 children seeking medical care during March and April of 2020. Only one child was seropositive in March, but nine were seropositive in April for a period seroprevalence of >1%. Most seropositive children (8/10) were not suspected of having had COVID-19. The sera of most seropositive children had neutralizing activity.	Among children seeking medical care, the frequency of SARS-CoV-2 infection increased markedly during the early Seattle outbreak despite few positive viral tests.	Dingens A, Crawford K, Adler A, et al. Serological identification of SARS-CoV-2 infections among children visiting a hospital during the initial Seattle outbreak [published online 2020 Jun 30]. medRxiv. doi: 10.1101/2020.05.26.20114124
Vertical transmission, induction of labor, neonatal testing, rooming in, Netherlands	30-Jun-20	No Evidence of Vertical Transmission of SARS-CoV-2 After Induction of Labor in an Immune-Suppressed SARS-CoV-2-positive Patient	British Medical Journal Case Reports	Case Report	In March 2020 in the Netherlands, a 31-year-old patient, G1P0 at 38+1 weeks was scheduled for induction of labor due to hypertension and stable Systemic Lupus Erythematosus (SLE). Her medications included methyldopa, prednisolone and azathioprine, and acetylsalicylic acid and fetal biometry was normal. Due to presence of maternal cough, a PCR for SARS-CoV-2 was performed and found positive. Induction of labor was performed with foley catheter and augmented with artificial rupture of membranes and oxytocin. An epidural was used for pain control and a stress dose of corticosteroids was given intrapartum. Delivery of a 2880g female infant was uncomplicated with Apgar score of 9/10 at 5 and 10 minutes. The infant was roomed with both parents and bottle fed, with maternal mask and gloves worn during direct contact. PCRs for SARS-CoV-2 were sampled from the vagina prior to and directly after rupture of membranes, the catheter urine during delivery, the placenta, and the neonatal oropharynx. All tested negative with no signs of neonatal infection with SARS-CoV-2.	Vertical transmission of SARS-CoV-2 was not observed during induction of labor and subsequent vaginal delivery of an infant to a COVID-19 positive patient, based on negative oropharyngeal, vaginal, urinary, placental and neonatal PCRs for SARS-CoV-2 during the period of admission.	Grimminck K, Santegoets LAM, Siemens FC, Fraaij PLA, Reiss IKM, Schoenmakers S. No evidence of vertical transmission of SARS-CoV-2 after induction of labor in an immune-suppressed SARS-CoV-2-positive patient. BMJ Case Rep. 2020;13(6):e235581. Published 2020 Jun 30. doi:10.1136/bcr-2020-235581
COVID-19; children; lockdown; psychological impact; Spain	29-Jun-20	Psychological impact of lockdown (confinement) on young children and how to mitigate its	Anales de Pediatría (English Edition)	Scientific Letter	The authors discuss the potential deleterious psychological impact of prolonged school closure and home confinement for children during the COVID-19 lockdown in Spain. They performed a rapid review of the psychological impact of lockdowns on children following the recommendations of the WHO, by searching on PubMed, EMBASE, and Google Academics. Evidence in the literature suggested an association of mental health problems with prolonged quarantine in children. Adolescents	The authors discuss the potential deleterious psychological impact of prolonged school closure and home confinement for children during the COVID-19 lockdown in Spain.	García Ron A, Cuéllar-Flores I. Psychological impact of lockdown (confinement) on young children and how to mitigate its effects: Rapid review of the evidence.

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		effects: Rapid review of the evidence			also had difficulty adhering to quarantine rules and were more likely to break quarantine. No studies were found examining which factors were associated with decreased stress or distress in children subjected to a lockdown. A summary of expert recommendations for mitigating the negative impact of confinement in children are presented. These include providing an age-appropriate explanation of the situation and education on risk-reducing measures, promoting virtual contact with family and friends, and providing structured activities and a clear routine. Help from a mental health professional should be sought if a child exhibits symptoms of severe anxiety or depression, such as suicidal ideation, panic, or marked irritability. It is important to remain alert for the development of symptoms, including changes in appetite, sleep disturbances, aggression, irritability, fear of being alone, or social withdrawal. Studies should be urgently performed to establish the psychological impact of lockdowns and health-related crises in children, and to assess the effectiveness of any related short- or long-term interventions.	Recommendations for mitigating the impact include clear communication, promotion of virtual contact with family and friends, and following a structured routine. It is important to stay alert for symptoms of mental issues, and to seek professional help if needed.	An Pediatr (Engl Ed). 2020;93(1):57-58. doi:10.1016/j.anpede.2020.04.008.
Schools, lockdown, China, children, internet, social media, video games	29-Jun-20	Internet-Related Behaviors and Psychological Distress Among Schoolchildren During COVID-19 School Suspension	Journal of the American Academy of Child and Adolescent Psychiatry	Letter to the Editor	In this letter to the editor, the authors present data examining potential psychological distress predictors among schoolchildren in China during COVID-19 school closures. The authors used data collected October 22-November 1, 2019 ("time 1") for an ongoing longitudinal study as a baseline and collected new data March 4-16, 2020 ("time 2"). Time 1 surveys were administered via teachers after obtaining informed consent from parents and children (n=1108; mean age =10.65 years, SD=0.90 years; 51% F). For time 2, teachers sent the survey to parents and children (n=2026; mean age= 10.71 years, SD=1.07; 50% F), who gave informed consent on the survey's first page. [Note: no age ranges were given]. During school closures, children reported more time spent using smartphones and social media. Problematic social media use and gaming levels were lower during time 2 than during time 1; however, children reported increased psychological distress during time 2. Longitudinal data indicated that problematic smartphone and gaming use were significantly associated with psychological distress in time 2. The authors urge parents to monitor their children's smartphone and social media use during the COVID-19 outbreak.	This letter to the editor examines psychological distress predictors among schoolchildren in China during COVID-19 school closures. Despite decreased overall levels of problematic internet use, disordered smartphone use and gaming were significantly associated with psychological distress during school closures. The authors recommend parents monitor their children's device use during the COVID-19 outbreak.	Chen IH, Chen CY, Pakpour AH, et al. Internet-Related Behaviors and Psychological Distress Among Schoolchildren During COVID-19 School Suspension. J Am Acad Child Adolesc Psychiatry. 2020;59(10):1099-1102.e1. doi:10.1016/j.jaac.2020.06.007
Adolescent, depression, mental disorder, post-traumatic stress disorder, intrafamily violence	29-Jun-20	Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown	Psychiatry Research	Review	This review discusses the literature on adolescent psychiatric disorders related to the COVID-19 pandemic and lockdown. A narrative literature review was conducted on MEDLINE and Google scholar using the following MeSH words: "adolescent", "mental disorder", "disasters", "pandemics", "COVID-19". Further searches were conducted based on the issues found in the first articles: "trauma", "depression", "domestic violence", and "intrafamilial violence". Adolescents have reported increased symptoms of depression and anxiety in the current pandemic, and adolescents with mental health histories have reported worsening mental health and decreased access to mental health support. Lockdowns and school closures increase risk of child abuse and neglect and decrease professional detection and intervention of child abuse. Using current data and previous studies on mental health impacts of disasters and epidemics, the authors project increases in adolescent suicidality, substance use disorder, internet addiction, post-traumatic stress	The COVID-19 pandemic places children, especially adolescents, at greater risk of developing psychiatric disorders and experiencing intra-family violence. The authors provide suggestions to mental health care providers, school administrators, parents, and adolescents to minimize potential COVID-19-associated adverse mental health impacts.	Guessoum SB, Lachal J, Radjack R, et al. Adolescent psychiatric disorders during the COVID-19 pandemic and lockdown. Psychiatry Res. 2020; 291:113264. doi:10.1016/j.psychres.2020.113264

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					disorder, and trauma as a result of the pandemic, which could have adverse impacts on adolescent brain development. The authors urge mental health professionals to utilize tele-consultation to ensure continuity of care and recommend classroom psycho-social interventions following school re-openings. The authors also provide resources for adolescents and parents of adolescents, including WHO recommendations for adolescent stress management.		
Children, pediatric, asymptomatic, immunology, antibody	29-Jun-20	COVID-19 in children and young people	The Lancet Rheumatology	Comment	The authors review the current state of knowledge regarding children and the SARS-CoV-2 virus, including age-specific variables. Children and young have severe disease less frequently than adults with lower risk for hospitalization and life-threatening complications. A possible explanation for the mild disease phenotypes of COVID-19 in the majority of children and young people is higher titers of antibodies directed against seasonal coronaviruses contributing to immune complex deposition and antibody-dependent enhancement. Higher ACE2 expression in children might facilitate infection yet also enables maintenance of a less inflammatory state. Finally, non-specific protective effects after live vaccination and a more diverse T-cell repertoire in children and young people might contribute to mild presentations. Children with systemic auto-immune or inflammatory conditions might be further protected by overcoming immune evasion mechanisms of SARS-CoV-2, and some of their associated treatments might protect from the development of cytokine storm syndrome later in the disease course.	In this article, the authors discuss the possible reasons behind the age-specific differences in frequency and severity of SARS-CoV-2 infection in children and young people compared to adults.	Felsenstein S, Hedrich CM. COVID-19 in children and young people [published online, 2020 Jun 29]. Lancet Rheumatol. doi:10.1016/S2665-9913(20)30212-5
Pregnancy, CT, pneumonia, radiation, India, diagnostics	29-Jun-20	Coronavirus (COVID-19) Infection in Pregnancy: Does Non-contrast Chest Computed Tomography (CT) Have a Role in Its Evaluation and Management?	Journal of Obstetrics and Gynecology of India	Viewpoint	Chest CT plays a crucial role in the initial evaluation, management and follow-up of COVID-19 patients, and several studies have shown the sensitivity of chest CT to be superior to that of RT-PCR for the early detection of COVID-19. In one of the largest studies on COVID-19 patients involving 1014 patients, Ai et al. evaluated the diagnostic value and consistency of chest CT in comparison with RT-PCR assay. They found that the sensitivity, specificity and accuracy of chest CT were 97%, 25% and 68%, respectively, while the positive and negative predictive values were 65% and 83%, respectively. Additionally, 60–93% had initial positive chest CT findings before the initial positive RT-PCR tests. Some experts consider chest CT without contrast to be a useful investigation to confirm or exclude viral pneumonia in symptomatic pregnant women, considering the fact that radiation exposure to the fetus is very small. Techniques such as abdominal and pelvic shielding using lead sheets and limiting exposure times can be employed to reduce radiation exposure. The authors urge clinicians to consider the potential role of chest CT in symptomatic suspected or confirmed COVID-19 pregnant women but for use as a screening tool for COVID-19.	The authors conclude that CT plays a critical role in the evaluation of COVID-19 pneumonia and should be considered for symptomatic pregnant women, especially those who are not responding to treatment, with the appropriate precautions.	Francis S, Mathew RP, Khalid ZA. Coronavirus (COVID-19) Infection in Pregnancy: Does Non-contrast Chest Computed Tomography (CT) Have a Role in Its Evaluation and Management?. J Obstet Gynaecol India. 2020;70(4):272-274. doi:10.1007/s13224-020-01341-5
Adolescents, social distancing, hoarding, teen behavior, psychology, United States	29-Jun-20	Attitudes and Psychological Factors Associated With News Monitoring, Social Distancing, Disinfecting, and	JAMA Pediatrics	Original Research	There is variation in the way youth are responding to the COVID-19 pandemic, with some participating in preventive behaviors such as news monitoring, social distancing, and disinfecting, and some responding with individualistic or antisocial behaviors such as hoarding. A convenience sample of 770 English-speaking adolescents aged 13 to 18 years in the United States participated in a survey from March 20 through March 22, 2020 to examine which psychological factors in youth were associated with preventive behaviors,	Directly targeting youth psychological beliefs to promote positive health behaviors could serve as a preventive measure for public health concerns. In addition, ensuring that	Oosterhoff B, Palmer CA. Attitudes and Psychological Factors Associated With News Monitoring, Social Distancing, Disinfecting, and Hoarding Behaviors

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		Hoarding Behaviors Among US Adolescents During the Coronavirus Disease 2019 Pandemic			versus those that were associated with antisocial behaviors. Based on self-reporting, a majority 528 (68.6%) of teens were not "pure" social distancing, but most were monitoring the news (89.4%) and disinfecting daily (87.8%). Adolescents who perceived COVID-19 as more severe were practicing more social distancing, disinfecting, and news monitoring, but were also hoarding more. Those who reported a greater sense of social responsibility were more likely to be disinfecting and monitoring the news, and less likely to be hoarding. Those who highly valued their own self-interest were social distancing less, and those with a lot of social trust were hoarding less. These findings indicate that adolescents' beliefs about the severity of the virus, the extent to which they value social responsibility, their social trust, and their prioritization of their own self-interest over others all contributed to their behaviors.	adolescents view the COVID-19 virus as a serious threat in a way that does not encourage hoarding may motivate adolescents to act in socially responsible ways.	Among US Adolescents During the Coronavirus Disease 2019 Pandemic. JAMA Pediatr. Published online June 29, 2020. doi:10.1001/jamapediatrics.2020.1876
Children, transmission, UK	29-Jun-20	The Role of Children in Transmission of SARS-CoV-2: A Rapid Review	Journal of Global Health	Rapid review	The authors conducted a rapid review of studies that investigated the role of children in the transmission of SARS-CoV-2, an urgent area of investigation given the policy implications for reopening of schools and intergenerational contacts. 16 studies were included for narrative synthesis. There is limited evidence detailing transmission of SARS-CoV-2 from infected children or in school settings. Two studies reported a 3-month-old whose parents developed symptomatic COVID-19 seven days after caring for the infant and two children who may have contracted COVID-19 from initial cases at a school. Six studies presented indirect evidence on the potential for SARS-CoV-2 transmission by children, three of which found prolonged virus shedding in stools. Two studies reported outbreaks of COVID-19 in school settings and one case report described a child attending classes but not infecting any other pupils or staff. Six studies (five population-based and one hospital-based) suggest children may be less likely to be infected.	Preliminary results from population-based and school-based studies suggest that children may be less frequently infected or infect others, however current evidence is limited. Prolonged faecal shedding observed in studies highlights the potentially increased risk of faeco-oral transmission in children.	Li X, Xu W, Dozier M, et al. The role of children in transmission of SARS-CoV-2: A rapid review. J Glob Health. 2020;10(1):011101. doi:10.7189/jogh.10.011101
Pediatrics, emergency, lockdown, hospital admissions, Italy	29-Jun-20	The Impact of the COVID-19 Lockdown in Italy on a Pediatric Emergency Setting	Acta Paediatrica	Original Research	This retrospective study describes the impact of a national lockdown on the Pediatric Emergency Department in Trieste, Italy. The authors compare urgent visits and admissions before and after the lockdown and between the post lockdown period in 2020 and the same period in 2019. The number of pediatric emergency department visits declined after the national lockdown by 76.3%, from 2719 to 646 visits. The decrease from 2019 to 2020 was 77.5%. Despite a decline in both urgent and non-urgent visits, the percentage of urgent triage codes and hospital admissions increased.	The volume of urgent and non-urgent visits to a pediatric emergency department in Italy declined during the national lockdown, but the percentage of hospital admissions increased.	Cozzi G, Zanchi C, Giangreco M, et al. The impact of the COVID-19 lockdown in Italy on a pediatric emergency setting [published 2020 Jun 29]. Acta Paediatr. doi:10.1111/apa.15454
Pediatrics, emergency, hospital admissions, Italy, severity of illness, delays in care	29-Jun-20	Reluctance to Seek Pediatric Care During the COVID-19 Pandemic and the Risks of Delayed Diagnosis	Italian Journal of Pediatrics	Letter to the Editor	While COVID-19 itself has low lethality and a typically more benign course in the pediatric population, the pandemic could have indirect consequences on the management of pediatric emergencies and the overall health of children. The authors evaluated the number of admissions to The Cesare Arrigo Children's Hospital pediatric emergency department in northern Italy during March 2020 to the corresponding time frame of the previous year. There was a 76% reduction of the number of admissions from 1934 to 461 during the same time span. The authors provide examples of four cases where severity of illness at presentation was increased due to a delay in care.	Fewer admissions to pediatric emergency departments in Italy during the pandemic could reflect delays in care and result in heightened severity of pediatric illness at presentation.	Ciacchini B, Tonioli F, Marciano C, et al. Reluctance to seek pediatric care during the COVID-19 pandemic and the risks of delayed diagnosis. Ital J Pediatr. Published 2020 Jun 29. doi:10.1186/s13052-020-00849-w

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Pregnancy, anxiety, psychology, Italy	29-Jun-20	Effects of Coronavirus 19 Pandemic on Maternal Anxiety During Pregnancy: A Prospectic Observational Study	Journal of Perinatal Medicine	Original Research	This study aimed to evaluate the psychological impact of the COVID-19 pandemic on pregnant women in Italy. A questionnaire was completed by 178/200 women attending an antenatal clinic during the maximum spread of COVID-19 in Rome, Italy. This included the State-trait anxiety inventory (STAI) about basal anxiety (STAI-T) and anxiety related to the pandemic (STAI-S). An abnormal value was considered for scores ≥40. 38.2% of the study group scored ≥40 on STAI-T. STAI-S values were significantly higher than STAI-T values, with a median increase of 12 points (p≤0.0001). Consequently, there was a significantly higher prevalence of women that met the cut-off score for state of anxiety when STAI-S was applied (77.0% 95% CI 70.1–82.5%). This demonstrates that the outbreak of COVID 19 and the subsequent national lockdown induced a significant increase in maternal anxiety.	The results of this questionnaire provide further evidence of increased anxiety in pregnant women during the COVID-19 outbreak.	Mappa I, Distefano FA, Rizzo G. Effects of coronavirus 19 pandemic on maternal anxiety during pregnancy: a prospectic observational study [published 2020 Jun 29]. J Perinat Med. doi:10.1515/jpm-2020-0182
Children, immunization, vaccination, polio, health inequity, health disparities, Pakistan	29-Jun-20	Impact of COVID-19 lockdown on routine immunization in Karachi, Pakistan	The Lancet Global Health	Correspondence	Karachi, the largest megacity in Pakistan, has the highest number of under-vaccinated children of other megacities in Pakistan and globally, and is one of the last reservoirs of wild-type poliovirus. Lockdown issued due to COVID-19 affected provision of immunizations, and the authors compared vaccination data from September 23 2019 to March 22 2020, the six months prior to lockdown, with March 23-May 9 2020, the first six weeks of lockdown. Mean number of daily immunization visits decreased by 52.8% during lockdown, with outreach services affected more than fixed-location services. The decline can be attributed to a combination of demand and supply factors, and slums and squatter settlements were the worst hit areas, revealing hotspots with a rapid accumulation of unvaccinated children.	Inequities in immunization coverage have been exacerbated during the COVID-19 lockdown, with decline in immunization coverage in areas affected by poliovirus of particular concern. Immediate governmental response is needed to cover children who have missed vaccine doses.	Chandir S, Siddiqi D, Setayesh H, et al. Impact of COVID-19 lockdown on routine immunization in Karachi, Pakistan [published online 2020 Jun 29]. Lancet Glob Health. 2020. doi: 10.1016/S2214-109X(20)30290-4
Pregnancy, ethics, clinical trials, Canada	29-Jun-20	The Moral Imperative to Include Pregnant Women in Clinical Trials of Interventions for COVID-19	Annals of Internal Medicine	Editorial	Despite ethical and professional society statements that recommend pregnant women be considered for inclusion in clinical studies, pregnant women are systematically excluded from clinical trials. 52% of clinical trials for patients with COVID-19 excluded pregnant women, and 46% failed to address pregnancy. The lack of information could lead to major consequences for pregnant women, including delay or denial of treatment, under- or over-treatment, inappropriate treatment, or unanticipated maternal and/or fetal toxicity.	Including pregnant women in clinical trials of interventions for COVID-19 and adapting ongoing clinical trials to accommodate their inclusion should be considered a moral imperative to ensure better representation of this population in clinical research.	Malhamé I, D'Souza R, Cheng MP. The Moral Imperative to Include Pregnant Women in Clinical Trials of Interventions for COVID-19 [published online 2020 Jun 29]. Ann Intern Med. 2020;10.7326/M20-3106. doi:10.7326/M20-3106
Adolescent and child health, refugee health, epidemiology, UK	29-Jun-20	COVID-19: Children on the Front Line	Archives of disease in childhood	Viewpoint	Individuals with uncertain immigration status in the UK can be charged for NHS services, and non-payment of those bills can be used as a reason for the denial of settled status. Even during the COVID-19 pandemic, this system actively discourages healthcare seeking through the threat of immigration enforcement, resulting in a negative impact on child health. Effective contact tracing during the pandemic will require cooperation from all sections of the community when contacted by NHS/public health staff. Several professional medical societies in the UK have called for the suspension of the charging regulations. The author reiterates this call and insists on the implementation of the demands with immediate effect to aid the pandemic response.	Current NHS charging regulations for individuals with uncertain immigration status in the UK have a potential negative impact on child health. During the COVID-19 pandemic, these regulations can lead to decreased care seeking and decreased contact tracing effectiveness.	Puntis JW. COVID-19: children on the front line [published online, 2020 Jun 29]. Arch Dis Child. doi:10.1136/archdischild-2020-319671

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Coinfection, infant, pneumonia, streptococcus, Spain	29-Jun-20	SARS-CoV-2 and Streptococcus Pneumoniae Coinfection as a Cause of Severe Pneumonia in an Infant	Pediatric Pulmonology	Letter to the Editor	The authors present the clinical course of a previously healthy 8-month-old infant admitted to a pediatric ICU in Spain for a severe pneumonia with SARS-CoV-2 and Streptococcus pneumoniae co-infection. The co-infection was identified from fluid from a pleural effusion. To the authors' knowledge, this is the first case reporting this specific type of co-infection as well as the first case of SARS-CoV-2 detection in a pleural effusion. The authors also note that the infant clinically worsened when taken off of steroids, a treatment that could play a role in severe COVID-19 but that is not usually used for a bacterial pneumonia. The authors conclude that the clinical consequences of SARS-CoV-2 co-infections should continue to be reported.	The authors report the first case of a SARS-CoV-2 and S. pneumoniae co-infection as well as the first case of detection of SARS-CoV-2 in a pleural effusion.	Nieto-Moro M, Ecclesia FG, Tomé-Masa I, et al. SARS-CoV-2 and Streptococcus pneumoniae coinfection as a cause of severe pneumonia in an infant [published online, 2020 Jun 29]. Pediatr Pulmonol. doi:10.1002/ppul.24916
Children, food insecurity, respiratory health	29-Jun-20	Child poverty, food insecurity, and respiratory health during the COVID-19 pandemic	The Lancet Respiratory Medicine	Spotlight	The World Food Program estimates that, in the wake of the COVID-19 pandemic, acute food insecurity could double from 135 to 265 million people worldwide. In the absence of mitigating policies, poverty leading to food insecurity will damage the respiratory health of a generation of children. Inequalities in lifelong respiratory health originate in childhood when adequate nutrition is essential. Disruption to this development in childhood contributes considerably to the early onset of adult illnesses, such as COPD. Poor nutrition is intricately linked to other poverty-related risk factors for respiratory illness. Poor children are more likely to live in overcrowded and damp housing, less likely to be vaccinated, and more likely to catch infections that damage the respiratory system early in life.	COVID-19 recovery policies must ensure that no child goes hungry. National programs to reduce inequalities in respiratory health will not succeed unless addressing these issues.	Ian P Sinha, Alice R Lee, Davara Bennett, et al. Child poverty, food insecurity, and respiratory health during the COVID-19 pandemic, The Lancet Respiratory Medicine, 2020, doi: 10.1016/S2213-2600(20)30280-0.
MIS-C, USA	29-Jun-20	Multisystem Inflammatory Syndrome in Children in New York State	The New England Journal of Medicine	Original article	The New York State Department of Health established active, statewide surveillance to describe hospitalized patients with MIS-C. A total of 191 potential cases were reported. Of 95 patients with confirmed MIS-C and 4 with suspected MIS-C, 53 (54%) were male. A total of 31 patients (31%) were 0 to 5 years of age, 42 (42%) were 6 to 12 years of age, and 26 (26%) were 13 to 20 years of age. All presented with subjective fever or chills; 97% had tachycardia, 80% had gastrointestinal symptoms, 60% had a rash, 56% had a conjunctival injection, and 27% had mucosal changes. 62% received vasopressor support, 53% had evidence of myocarditis, 80% were admitted to an ICU, and 2 died. The median length of hospital stay was 6 days.	The emergence of MIS-C in New York State coincided with widespread SARS-CoV-2 transmission; this syndrome was associated with cardiac dysfunction.	Dufort EM, Koumans EH, Chow EJ, et al. Multisystem Inflammatory Syndrome in Children in New York State [published online, 2020 Jun 29]. N Engl J Med. doi:10.1056/NEJMoa2021756
MIS-C, USA	29-Jun-20	Multisystem Inflammatory Syndrome in U.S. Children and Adolescents	The New England Journal of Medicine	Original article	The authors conducted targeted surveillance for MIS-C from March 15 to May 20, 2020, in pediatric health centers across the United States. They report on 186 patients with MIS-C in 26 states. The median age was 8.3 years (interquartile range, 3.3 to 12.5 years), 115 patients (62%) were male, 135 (73%) had previously been healthy, 131 (70%) were positive for SARS-CoV-2, and 164 (88%) were hospitalized after April 16, 2020. Organ-system involvement included the gastrointestinal system in 171 patients (92%), cardiovascular in 149 (80%), hematologic in 142 (76%), mucocutaneous in 137 (74%), and respiratory in 131 (70%). The median duration of hospitalization was 7 days (interquartile range, 4 to 10); 148 patients (80%) received intensive care, 37 (20%) received mechanical ventilation, 90 (48%) received vasoactive support, and 4 (2%) died. Coronary-artery aneurysms (z scores ≥2.5) were documented in 15 patients (8%), and Kawasaki's disease-like features were documented in 74 (40%). The use of immunomodulating therapies was common.	MIS-C associated with SARS-CoV-2 led to serious and life-threatening illness in previously healthy children and adolescents.	Feldstein LR, Rose EB, Horwitz SM, et al. Multisystem Inflammatory Syndrome in U.S. Children and Adolescents [published online, 2020 Jun 29]. N Engl J Med. doi:10.1056/NEJMoa2021680

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Children, clinical symptoms, newborn, Turkey	29-Jun-20	The Epidemiological and Clinical Characteristics of 81 Children With COVID-19 in a Pandemic Hospital in Turkey: An Observational Cohort Study	Journal of Korean Medical Science	Original article	The epidemiological, laboratory, radiological, and treatment features of the pediatric patients who were positive for SARS-CoV-2, were investigated retrospectively in Turkey. The median age of 81 children included in the study was 9.5 years (0–17.8 years). The most frequent symptoms at the time of admission were fever (58%), cough (52%), and fatigue, or myalgia (19%). The abnormal laboratory findings in these cases were decreased lymphocytes (2.5%, n=2), leucopenia (5%, n=4), and increased lactate dehydrogenase (17.2%, n=14), C-reactive protein (16%, n=13), procalcitonin (3.7%, n=3), and D-dimer (12.3%, n=10). None of the patients needed intensive care except for the newborns. The median time to turn SARS-CoV-2 negative was 5 (3–10) days. The median length of hospital stay was 5 (4–10) days. The time to turn SARS-CoV-2 negative in the RT-PCR test and the length of hospital stay were significantly longer for those aged five years or younger than others (P = 0.037, P = 0.01).	Compared to adults, COVID-19 is milder and more distinctive in children. This study showed that the main clinical features of COVID-19 in children are fever, dry cough, and mild pneumonia. More conservative approaches might be preferred in children for the diagnostic, clinical, and even therapeutic applications.	Korkmaz MF, Türe E, Dorum BA, Kılıç ZB. The Epidemiological and Clinical Characteristics of 81 Children with COVID-19 in a Pandemic Hospital in Turkey: an Observational Cohort Study. J Korean Med Sci. 2020;35(25):e236. Published 2020 Jun 29. doi:10.3346/jkms.2020.35.e236
Children, pharmacologic treatment, clinical trials	29-Jun-20	COVID-19 Pharmacologic Treatments for Children: Research Priorities and Approach to Pediatric Studies	Clinical Infectious Diseases	Commentary	Children are often not considered during development of novel treatments for infectious diseases until very late. Although children appear to have a lower risk compared to adults of severe COVID-19 disease, children globally will benefit from pharmacologic treatments. It will be reasonable to extrapolate efficacy of most treatments from adult trials to children. Pediatric trials should focus on characterizing a treatment's pharmacokinetics, optimal dose and safety, across the age spectrum. Trials should use an adaptive design to efficiently add or remove arms in what will be a rapidly evolving treatment landscape and should involve a large number of sites across the globe in a collaborative effort to facilitate efficient implementation. All stakeholders must commit to equitable access to any effective, safe treatment for children.	This paper proposes an approach and key considerations for research on COVID-19 pharmacologic treatments for children. Pharmacologic treatment efficacy for children can be reasonably extrapolated from adult trials for most indications. Pediatric trials should establish a treatment's pharmacokinetics, optimal dose, and safety, use adaptive designs, and include domestic and international trial sites.	Garcia-Prats AJ, Salazar-Austin N, Conway JH, et al. COVID-19 pharmacologic treatments for children: research priorities and approach to pediatric studies [published online 2020 Jun 29]. Clin Infect Dis. doi:10.1093/cid/ciaa885
Seasonal coronavirus, cross-protective immunity, antibodies, pediatric, France	29-Jun-20	Prior infection by seasonal coronaviruses does not prevent SARS-CoV-2 infection and associated Multisystem Inflammatory Syndrome in children	medRxiv	Pre-print (not peer reviewed)	Children have a lower rate of COVID-19, potentially due to cross-protective immunity conferred by seasonal coronaviruses (HCoVs). The authors report the results from a cross-sectional multi-center study in Paris, France from 1 April-1 June 2020, which included 739 asymptomatic children (aged ≤ 18 years) and 36 children with suspected MIS-C. Prevalence, antigen specificity, and neutralizing capability of SARS-CoV-2 antibodies were tested. They identified 172 (22%) SARS-CoV-2 positive patients who were hospitalized either for MIS-C (n=25) or for any other reason (n=147). Antibody frequency and titers against four HCoVs were measured in a subset of seropositive patients (n=54), of MIS-C patients (n=15), and of matched SARS-CoV-2 seronegative patients (n=178). Neutralizing antibodies for SARS-CoV-2 were found in 55.6% of seropositive children and in 100% of MIS-C patients. The seropositive, MIS-C, and seronegative subgroups had a similar prevalence of antibodies against the four HCoVs (66.9-100%). The level of anti-SARS-CoV-2 antibodies was not significantly different in children who had prior HCoV	The majority of SARS-CoV-2 positive pediatric patients in a study in France had neutralizing antibodies against the virus (55.6%). Prior infection with a seasonal coronavirus did not protect against SARS-CoV-2 infection or MIS-C nor did it increase the level of SARS-CoV-2 antibodies produced.	Gaudelus-Sermet I, Temmam S, Huon C et al. Prior infection by seasonal coronaviruses does not prevent SARS-CoV-2 infection and associated Multisystem Inflammatory Syndrome in children. [pre-print published online, 2020 Jun 29]. medRxiv. doi:https://doi.org/10.1101/2020.06.29.20142596

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					infection. Therefore, prior infection with HCoVs was not found to prevent SARS-CoV-2 infection and MIS-C in children.		
Children, social vulnerability, Brazil	29-Jun-20	Children's (In)visibility in Social Vulnerability and the Impact of the Novel Coronavirus (COVID-19)	Brazilian Journal of Nursing	Original article	The authors aim to examine the impact of COVID-19 infection on Brazilian children in situations of social vulnerability based on the Millennium Sustainable Development Goals (MSDG). It is a reflective study based on the formulation in three aspects: principles of the objectives and goals for the millennium sustainable development; impact of the pandemic on the health of children and their families living in social vulnerability; and the role of pediatric nursing in the care provided - limits and challenges. In Brazil, children and families are still without access to basic rights, thereby increasing their risks of social vulnerability because of the quarantine. The nursing field has an important role in monitoring children and their families, offering guidance in search for solutions and preventing contamination.	In line with the sustainable millennium goals, there are still challenges to be overcome for Brazilian children and their families in vulnerable situations in the fight against the COVID-19, such as access to water for personal and environmental hygiene and responding to the decrease in family income through quarantine. Therefore, the authors argue the importance of pediatric nursing in promoting prevention measures, as well as in detecting and evaluating suspected cases of COVID-19.	Christoffel MM, Gomes ALM, Souza TV, Ciuffo LL. Children's (in)visibility in social vulnerability and the impact of the novel coronavirus (COVID-19). Rev Bras Enferm. 2020;73Suppl 2(Suppl 2):e20200302. Published 2020 Jun 29. doi:10.1590/0034-7167-2020-0302
Pregnancy, immunology, ACE2, pathophysiology, risk	28-Jun-20	Is COVID-19 Similar in Pregnant and Non-Pregnant Women?	Cureus	Review Article	Approximately one-third of infected pregnant women died during the SARS-CoV and MERS-CoV epidemics. It is logical to predict that pregnant women infected with SARS-CoV-2 might also be at higher risk for severe illness, morbidity, or mortality compared with non-pregnant women. Yet a review of the literature indicates that pregnant women are not more likely to be seriously ill than other healthy non-pregnant women if they develop COVID-19. Therefore, the authors sought to answer the following questions: why does pregnancy not increase the risk for acquiring SARS-CoV-2 infection and why does it not worsen the clinical course of COVID-19 compared with non-pregnant individuals? In this review, they discuss how the immunologic changes and other physiologic adaptations of pregnancy may affect the virulence and course of SARS-CoV-2 infection. Although the answer remains unclear, the authors discuss the mechanisms that could explain these observations.	Although it is unclear why pregnancy does not worsen outcomes from COVID-19, the unique immunologic changes of pregnancy, changes in ACE-2 receptor modulation and expression, as well as maternal adaption in lung tissue may explain this clinical finding.	Selim M, Mohamed S, Abdo M, Abdelhaffez A. Is COVID-19 Similar in Pregnant and Non-Pregnant Women?. [published online, 2020 Jun 28]. Cureus. doi:10.7759/cureus.8888
Children, immunization, vaccination, Michigan, USA	28-Jun-20	Decline in Child Vaccination Coverage During the COVID-19 Pandemic - Michigan Care Improvement Registry, May 2016-May 2020	American Journal of Transplantation	CDC Report	The authors analyzed data from Michigan's immunization information system in the U.S. to evaluate whether vaccination coverage has changed during the COVID-19 pandemic. Changes in vaccine doses administered and up-to-date vaccination status of milestone age cohorts were assessed, with each cohort an average sample size of 9,269 for 2016-2019 and 9,539 for 2020. Vaccination coverage declined in all milestone age cohorts except for birth-dose hepatitis B. Up-to-date coverage for Medicaid-enrolled children was lower than for children not enrolled in Medicaid.	Observed declines in vaccination coverage might leave young children and communities vulnerable to vaccine-preventable diseases, and concerted efforts are needed to ensure rapid catch-up for children who are not up-to-date on routine vaccinations.	Bramer CA, Kimmins LM, Swanson R, et al. Decline in child vaccination coverage during the COVID-19 pandemic - Michigan Care Improvement Registry, May 2016-May 2020. Am J Transplant. 2020;20(7):1930-1931. doi:10.1111/ajt.16112

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Pediatrics, coinfection, France, infant	28-Jun-20	Infant Case of Co-infection With SARS-CoV-2 and Citrobacter Koseri Urinary Infection	Journal of Tropical Pediatrics	Case report	A 6-week-old male child was admitted on 23 March 2020 to the Pediatric Emergency Services of University Hospital of Amiens in France due to fever (38.9°C). He was born full term without complications. Initial exam revealed a mildly whiny and hypotonic infant but was otherwise unremarkable. Labs on admission were notable for a normal leukocyte count with elevated lymphocytes and elevated lactate dehydrogenase. Additional labs were normal. The child was admitted to the COVID-19 pediatric unit and blood cultures, cyto-bacteriological urine test, lumbar puncture, and SARS-CoV-2 testing was performed. Intravenous Cefotaxime, Gentamycin, and probiotics treatment was started empirically. The patient's clinical condition improved 24 hours after hospitalization. Nasopharyngeal swab and stool tested positive for SARS-CoV-2 by rRT-PCR assay and urine tested positive for Citrobacter koseri. The infant was discharged five days after admission in good health with home monitoring.	This case report describes the first confirmed infant case of co-infection with SARS-CoV-2 and Citrobacter koseri urinary infection in a 6-week-old child admitted with mild symptoms.	Tchidjou HK, Romeo B. Infant Case of Co-infection with SARS-CoV-2 and Citrobacter koseri Urinary Infection [published 2020 Jun 28]. J Trop Pediatr. 2020;fmaa032. doi:10.1093/tropej/fmaa032
Pregnancy, C-section, thrombosis, management, Brazil	27-Jun-20	Possible Formation of Pulmonary Microthrombi in the Early Puerperium of Pregnant Women Critically Ill With COVID-19: Two Case Reports	Case Reports in Women's Health	Case report	The authors present the clinical course, pre- and post-partum management, and outcomes of two pregnant women critically ill with COVID-19. Both women had confirmed SARS-CoV-2 pneumonia with rapid clinical decompensation that required ICU admission, intubation, and delivery by emergency C-section at 32 and 29 weeks. Both patients clinically improved in the first two post-operative days, but this was followed by clinical, laboratory and radiological deterioration on the third post-operative day. Both improved again after full anti-coagulation. This pattern suggests the possible formation of pulmonary microthrombi in the early puerperium. The authors discuss the challenges faced by the multi-professional team in the management of these patients.	The deterioration of these two critically ill post-partum women with COVID-19 following C-sections, and subsequent improvement with full anti-coagulation, suggests possible microthrombi in pulmonary blood vessels.	Tutiya CT, Siaulys MM, Kondo MM, et al. Possible formation of pulmonary microthrombi in the early puerperium of pregnant women critically ill with COVID-19: Two case reports [published online 2020 Jun 27]. Case Rep Womens Health. 2020. doi:10.1016/j.crwh.2020.e00237
Pregnancy, vertical transmission, immunology, South Africa	27-Jun-20	Is Pregnancy a Risk Factor of COVID-19?	European Journal of Obstetrics and Gynecology and Reproductive Biology	Review article	This review evaluates whether pregnancy is a risk factor for COVID-19 by looking at the expression of immune markers such as immune cells and cytokines. Studies demonstrate that COVID-19 infection is marked by reduced lymphocytes and elevated selected pro-inflammatory cytokines, and similar immune expression has been demonstrated in pregnancy. In addition, the placenta has been shown to possess ACE2 receptors on the villous cytotrophoblast and the syncytiotrophoblast; findings suggest that SARS-CoV-2 enters the host cells via these ACE2 receptors. Both normal pregnancy and COVID-19 are marked by decreased lymphocytes, NKG2A inhibitory receptors, and increased ACE2, IL-8, IL-10, and IP-10. The authors conclude that the immune response in pregnancy increases the risk of contracting COVID-19. The presence of the ACE2 receptors in the placenta may increase the risk of vertical transmission of the virus.	The authors conclude that healthy pregnant women are more susceptible to developing COVID-19 due to their immune response.	Phoswa WN, Khaliq OP. Is pregnancy a risk factor of COVID-19? [published online 2020 Jun 27]. Eur J Obstet Gynecol Reprod Biol. 2020; doi:10.1016/j.ejogrb.2020.06.058
Myocarditis, adolescent, chest pain, Italy	27-Jun-20	Myocarditis in a 16-year-old boy positive for SARS-CoV-2	The Lancet	Clinical Picture	In this case report, the authors describe the course of a COVID-19 positive 16-year-old male with acute myocarditis. He initially presented with a fever and intense chest pain radiating to the left arm. He was admitted for possible acute myocarditis, and he had negative tests for autoantibodies and cardiotropic viruses. He was found to be positive for SARS-CoV-2. The authors note that throughout his hospital course, the patient had no typical signs or symptoms of COVID-19 apart from a fever. They conclude that pediatric	This report describes a COVID-19 positive adolescent patient who presented with acute myocarditis in the absence of respiratory symptoms or pulmonary findings.	Gnecchi M. Moretti F. Bassi E et al. Myocarditis in a 16-year-old boy positive for SARS-CoV-2. [published online, 2020 Jun 27]. The Lancet. doi:

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					patients reporting chest pain and other features of acute myocarditis should be tested for SARS-CoV-2, regardless of the presence of respiratory symptoms.		10.1016/S0140-6736(20)31307-6
Immune response, chemokines, T cells, pediatrics	27-Jun-20	Immune Response in Children With COVID-19 Is Characterized by Lower Levels of T Cell Activation Than Infected Adults	European Journal of Immunology	Letter	Multiple chemokines were measured in plasma of 14 children and 9 adults with COVID-19 and compared with uninfected controls. Levels of plasmatic CCL5/RANTES were significantly higher in both children and adults with COVID-19. Comparison of terminally differentiated CD8 cells between infected children and adults showed a significantly higher number in adults. Evaluation of the T-cell activation marker HLA-DR showed that the percentage of CD4 and CD8 subsets expressing HLA-DR was significantly higher in the infected adults as compared to controls, but not in infected children. IL-12 (p70) and IL-1B were significantly higher in plasma of COVID-19 children as compared with adults.	The authors conclude from a small cohort that chemokine and T cell markers differ between pediatric and adult responses to COVID-19. Children may have lower T cell activation.	Moratto D, Giacomelli M, Chiarini M, et al. Immune response in children with COVID-19 is characterized by lower levels of T cell activation than infected adults [published 2020 Jun 27]. Eur J Immunol. doi:10.1002/eji.202048724
Italy, nasopharyngeal swab, diagnostic criteria	26-Jun-20	Is SARSCoV-2 nasopharyngeal swab still a gold standard in children?	Medical Hypotheses	Letter to Editor	In this letter, the authors report the experience of their pediatric SARS-CoV-2 center in Italy. From March 16- May 2020, 55 children with suspected or confirmed SARS-CoV-2 were hospitalized. Among 55 children, 6 had a positive nasopharyngeal swab following sudden fever, a lack of appetite, and a SARS-CoV-2 positive family member. Nasopharyngeal swabs collected 24 hours and 48 hours later tested negative in all cases. In 5 of 6 children, the appearance of cough caused them to undergo a chest X-ray, which was negative for pneumopathy. However, a chest CT was performed showing bilateral pneumonia compatible with SARS-CoV-2 infection. The authors cite that the preliminary data support that a nasopharyngeal swab is not the gold standard for diagnosis in the pediatric cohort. The potential mildness of the infection may be due to lower expression of ACE2 receptors in children leading to a negative swab. These findings suggest that the nasopharyngeal and/or oropharyngeal swab may not be suitable to confirm COVID-19 infection in children.	While nasopharyngeal and/or oropharyngeal swabs are currently the gold standard to test for SARS-CoV-2 in children and adults, the authors present data that questions the swabs' suitability for pediatric patients. Since children experience milder symptoms and lower ACE2 expression levels, this may cause a false negative swab test. Accurate, easy, and quick tests are needed to identify infection children.	Silvia Marino, Martino Ruggieri, Raffaele Falsaperla. Is SARSCoV-2 nasopharyngeal swab still a gold standard in children?, Medical Hypotheses, Volume 144, 2020, 110041, ISSN 0306-9877, https://doi.org/10.1016/j.mehy.2020.110041.
Children, diagnosis, clinical characteristics, treatment, meta-analysis	26-Jun-20	COVID-19 in 7780 pediatric patients: A systematic review	The Lancet	Review Article	In this review, the authors characterize the clinical symptoms, laboratory and imaging findings, as well as treatment of pediatric cases of COVID-19. Four medical databases were queried between 1 Dec. 2019-14 May 2020 for published or in-press peer-reviewed articles describing pediatric COVID-19 patients. They identified 131 studies across 26 countries with 7780 patients. Although fever (59.1%) and cough (55.9%) were the most frequent symptoms, 19.3% of children were asymptomatic. Immunocompromised children or those with respiratory/cardiac disease comprised the largest subset of COVID-19 children with underlying medical conditions (152 of 233 individuals). Abnormal laboratory markers included serum D-dimer, procalcitonin, creatine kinase, and interleukin-6. Seven deaths were reported (0.09%) and 11 children (0.14%) met criteria for MIS-C. This review demonstrates that children with COVID-19 have an excellent prognosis. Future longitudinal studies are needed to confirm these findings and to better understand which patients are at an increased risk for developing severe inflammation and multi-organ failure.	To the authors' knowledge, this is the largest and most comprehensive review of published studies involving pediatric patients with COVID-19 (n=7780). They found that most children have an uneventful disease course but that there is potential for severe inflammation in a subset of patients.	Hoang A, Chorath K, Moreira A, et al. COVID-19 in 7780 pediatric patients: A systematic review. [published online, 2020 Jun 26]. The Lancet. doi: https://doi.org/10.1016/j.eclinm.2020.100433

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Congenital heart disease, pediatric, cardiology, Turkey	26-Jun-20	Evaluation and Follow-Up of Pediatric COVID-19 in Terms of Cardiac Involvement: A Scientific Statement From the Association of Turkish Pediatric Cardiology and Pediatric Cardiac Surgery	The Anatolian Journal of Cardiology	Consensus Report	The Association of Turkish Pediatric Cardiology and Pediatric Cardiac Surgery produced this consensus report for pediatric cardiologists and pediatricians to serve as a guide in the management of their patients during the COVID-19 pandemic. The first part of the guide provides recommendations for evaluation of the cardiovascular system and management of complications in COVID-19 positive children without underlying cardiac disease. In this section, the authors discuss acute myocardial injury, arrhythmias, drug-induced QT prolongation, and QT monitoring. The second part focuses on the follow-up and treatment of a SARS-CoV-2 infection in children with congenital or acquired heart disease. The authors state that while the risk of children with cardiac disease for COVID-19 infection is not increased, this population does have higher rates of morbidity and mortality following viral pulmonary infections. Therefore, parents should be informed to increase awareness of infection prevention in this group of patients. There should also be close monitoring and a low threshold for hospitalization when a child with heart disease has COVID-19.	In this consensus report from Turkey, the authors provide practical recommendations for the care of COVID-19 pediatric patients with cardiac complications of the infection. They also provide suggestions for the management of children with heart disease during the COVID-19 pandemic.	Koçak G, Ergul Y, Nişli K, et al. Evaluation and follow-up of pediatric COVID-19 in terms of cardiac involvement: A scientific statement from the Association of Turkish Pediatric Cardiology and Pediatric Cardiac Surgery. [published online, 2020 Jun 26]. Anatol J Cardiol. doi:10.14744/AnatolJCardiol.2020.36559
Pediatrics, children, family aggregation, Zhejiang Province, China	26-Jun-20	Childhood COVID-19: A Multi-Center Retrospective Study	Clinical Microbiology and Infection	Original Research	This is a multi-center retrospective analysis of 32 pediatric patients diagnosed with COVID-19 from January 15 to March 15, 2020, in Zhejiang Province, China. COVID-19 tended to be clustered in families, 22 of the 32 children had at least one family member confirmed as a COVID-19 patient. This family aggregation occurred in 87.5% (7/8) of infant and preschool-aged children, 87.5% (14/16) of school-aged children, and only 12.5% (1/8) of adolescents. Pneumonia was found in 14 children with no statistical significance among different age groups. The average viral RNA duration in respiratory samples (pharyngeal swab or sputum) was 15.8 days, much longer than clinical symptoms. Gastrointestinal samples (feces or anal swabs) had a much longer average virus duration (28.9 days). Thirty patients were treated with antiviral drugs. All patients were stable and improved after admission, with no severe or critical cases. The average hospital stay was 21.29 days.	Most of the pediatric COVID-19 cases in Zhejiang Province, China were characterized by mild symptoms, good prognosis, and a high occurrence of COVID-19 positive family members. The authors observed that SARS-CoV-2 viral RNA lasted longer in the gastrointestinal system than the respiratory tract.	Chen Z, Tong L, Zhou Y, et al. Childhood COVID-19: a multi-center retrospective study [published 2020 Jun 26]. Clin Microbiol Infect. doi:10.1016/j.cmi.2020.06.015
Pregnancy, fetal development, vertical transmission, MERS-CoV	26-Jun-20	SARS-CoV, MERS-CoV and SARS-CoV-2 Infections in Pregnancy and Fetal Development	Journal of Gynecology Obstetrics and Human Reproduction	Review	This review of 145 articles aimed to outline the consequences, in pregnancy and fetal development, caused by SARS-CoV, MERS-CoV, and SARS-CoV-2 infections. MERS-CoV may be most dangerous for newborns, inducing maternal high blood pressure, pre-eclampsia, pneumonia, acute renal failure, and multiple organ failure. Meanwhile, SARS-CoV and SARS-CoV-2 appear to have less severe symptoms. Although the ACE2 receptor, used by SARS-CoV-2, is widely distributed in specific cell types of the maternal-fetal interface, there is no evidence of vertical transmission for any of the coronaviruses.	This review discusses the epidemiological, immunological, and clinical differences between the coronaviruses. MERS-CoV has higher maternal and neonatal adverse outcomes than SARS-CoV and SARS-CoV-2.	de Souza Silva GA, da Silva SP, da Costa MAS, et al. SARS-CoV, MERS-CoV and SARS-CoV-2 infections in pregnancy and fetal development [published 2020 Jun 26]. J Gynecol Obstet Hum Reprod. doi:10.1016/j.jogoh.2020.101846
Health disparities, resource allocation, triage, pediatrician	26-Jun-20	Seeking Normalcy as the Curve Flattens: Ethical Considerations for Pediatricians Managing	The Journal of Pediatrics	Editorial	The secondary effects of the COVID-19 pandemic on the pediatric population pose a large challenge for pediatricians. The pandemic presents multiple quickly evolving ethical challenges. The authors discuss the following issues: moral distress, reprioritizing clinical goals, responding to unique vulnerabilities in children, uncertainty in shared decision-making, and pediatric clinical research. The authors state that pediatricians must use the challenges of the pandemic as opportunities to improve child health.	Pediatricians should act as advocates for the children in their communities. The COVID-19 pandemic poses many challenges that pediatricians should view as opportunities to improve	Feltman DM, Moore GP, Beck AF et al. Seeking Normalcy as the Curve Flattens: Ethical Considerations for Pediatricians Managing Collateral Damage of

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		Collateral Damage of COVID-19			Pediatricians should not ignore discrepancies in the social determinants of health as they have a responsibility to individual patients and the population of children in their communities.	the overall health of the pediatric population.	COVID-19 [published online, 2020 Jun 26]. J Pediatr. 2020;S0022-3476(20)30820-9.
Obstetric nursing, pregnancy, obstetrics, prenatal care, infectious disease transmission, vertical transmission	26-Jun-20	COVID-19 and the Production of Knowledge Regarding Recommendations During Pregnancy: A Scoping Review	Revista Latino-Americana de Enfermagem	Review	The authors conduct a scoping review using a broadened strategy to search databases and repositories, with the objective to map the recommendations for providing care to pregnant women and COVID-19. From 24 records the content was synthesized in the following conceptual categories: clinical manifestations, diagnosis, treatment, working pregnant women, vaccine development, complications, prenatal care, vertical transmission, and placental transmissibility. The authors stress the importance of early confirmation of pregnancy and disease, the use technological resources for screening and the provision of guidance and support to pregnant women. Recommendations emphasize isolation, proper rest, sleep, nutrition, hydration, medications, and in the more severe cases, oxygen support, monitoring of vital signs, emotional support, and multi-professional and individualized care. Medications should be used with caution due to a lack of evidence.	This review mapped all information available so far regarding the care provided to pregnant women during the COVID-19 pandemic.	Mascarenhas VHA, Caroci-Becker A, Venâncio KCMP, Baraldi NG, Durkin AC, Riesco MLG. COVID-19 and the production of knowledge regarding recommendations during pregnancy: a scoping review. Rev Lat Am Enfermagem. Published 2020 Jun 26. doi:10.1590/1518-8345.4523.3348
Pregnancy, maternal morbidity and mortality, hospital admissions	26-Jun-20	Characteristics of Women of Reproductive Age With Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status - United States, January 22-June 7, 2020	Morbidity and Mortality Weekly Report	Review Article	From January 22-June 7, the CDC received reports of 326,335 women of reproductive age (15-44 years) with laboratory-confirmed SARS-CoV-2. Data on pregnancy status were available for 91,412 (28.0%) women; among these, 8,207 (9.0%) were pregnant. Symptomatic pregnant and non-pregnant women with COVID-19 reported similar frequencies of cough (>50%) and shortness of breath (30%), but pregnant women less frequently reported headache, muscle aches, fever, chills, and diarrhea. Approximately one third (31.5%) of pregnant women were hospitalized compared with 5.8% of non-pregnant women. Pregnant women were significantly more likely to be admitted to the intensive care unit (absolute Risk Reduction (aRR) = 1.5, 95% confidence interval [CI] = 1.2-1.8) and receive mechanical ventilation (aRR = 1.7, 95% CI = 1.2-2.4). Sixteen (0.2%) COVID-19-related deaths were reported among pregnant women aged 15-44 years, and 208 (0.2%) were reported among nonpregnant women (aRR = 0.9, 95% CI = 0.5-1.5). Although data on race/ethnicity were missing for 20% of pregnant women in this study, the findings suggest that pregnant women who are Hispanic and black might be disproportionately affected by SARS-CoV-2 infection during pregnancy.	The findings suggest that pregnant women with COVID-19 are more likely to be hospitalized and at increased risk for ICU admission and mechanical ventilation compared with nonpregnant women, but have similar mortality risk.	Ellington S, Strid P, Tong VT, et al. Characteristics of Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status - United States, January 22-June 7, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(25):769-775. Published 2020 Jun 26. doi:10.15585/mmwr.mm6925a1
Oncology, cancer, pediatric, triage system, India	26-Jun-20	Delivering Pediatric Oncology Services During a COVID-19 Pandemic in India	Pediatric Blood and Cancer	Letter to the Editor	In this letter, the authors describe their strategy for providing high-quality oncology services to their pediatric population in India during the COVID-19 pandemic. They carried out several preventative measures involving patients and their caregivers during hospital visits. They also discuss their management of patients during the initial phases of the pandemic and after a national lockdown was put into place. After the lockdown, a triage system was developed for treatment ranging from very low risk (green) to high risk (red) patients. The authors also describe strategies for infection control, social distancing, telehealth, and blood component therapy in their practice.	In the management of pediatric oncology patients during the pandemic, there must be a balance between timely treatment and managing the risks associated with COVID-19. The authors describe several strategies they utilized within their practice.	Seth R, Das G, Kaur K, et al. Delivering pediatric oncology services during a COVID-19 pandemic in India [published online, 2020 Jun 26]. Pediatr Blood Cancer. doi:10.1002/pbc.28519

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Hematology, oncology, cancer, stem cell transplant, pediatric, USA	26-Jun-20	COVID-19 Disease in New York City Pediatric Hematology and Oncology Patients	Pediatric Blood and Cancer	Letter to the Editor	Immunocompromised children are known to be at increased risk of severe lower respiratory tract disease caused by human coronavirus strains. The authors therefore desired to determine the impact of COVID-19 on hematology, oncology, and hematopoietic stem cell transplant patients. All pediatric hematology or oncology patients (aged < 21 years) at two large New York City hospitals from 10 March-6 April 2020 were included in the study (n=174). Of these, 19 (11%) patients were found to be COVID-19 positive by RT-PCR of which 16 (84%) were symptomatic and 11 were hospitalized. Five male patients required care in the pediatric ICU, and one patient died of COVID-19-related complications. Overall, the authors found a low infection rate in their population and that most of the COVID-19-positive patients had relatively mild disease and could be treated outpatient or without respiratory support. They note that nearly two-thirds of cancer patients in their cohorts experienced treatment delays due to the pandemic.	At two large NYC hospitals, 11% of pediatric hematology or oncology patients were found to be COVID-19 positive. Treatment delays caused by COVID-19 can have a significant impact on this population.	Gampel B, Troullioud Lucas AG, Broglie L, et al. COVID-19 disease in New York City pediatric hematology and oncology patients [published online, 2020 Jun 26]. Pediatr Blood Cancer. doi:10.1002/pbc.28420
Hematology, oncology, cancer, survey, pediatric, Italy	26-Jun-20	How We Have Protected Our Patients: The Italian Pediatric Onco-Hematology Units' Response to the COVID-19 Pandemic	Pediatric Blood and Cancer	Letter to the Editor	Immunocompromised children are known to be at increased risk of severe lower respiratory tract disease caused by human coronavirus strains. The authors therefore desired to determine the impact of COVID-19 on hematology, oncology, and hematopoietic stem cell transplant patients. All pediatric hematology or oncology patients (aged < 21 years) at two large New York City hospitals from 10 March-6 April 2020 were included in the study (n=174). Of these, 19 (11%) patients were found to be COVID-19 positive by RT-PCR of which 16 (84%) were symptomatic and 11 were hospitalized. Five male patients required care in the pediatric ICU, and one patient died of COVID-19-related complications. Overall, the authors found a low infection rate in their population and that most of the COVID-19-positive patients had relatively mild disease and could be treated outpatient or without respiratory support. They note that nearly two-thirds of cancer patients in their cohorts experienced treatment delays due to the pandemic.	In a large Italian healthcare network for pediatric hematology and oncology practices, differences in practices in the field of containment measures during the COVID-19 pandemic were observed.	Amicucci M, Canesi M, Rostagno E, et al. How we have protected our patients: The Italian pediatric onco-hematology units' response to the COVID-19 pandemic [published online, 2020 Jun 26]. Pediatr Blood Cancer. doi:10.1002/pbc.28505
Emergency medicine, pediatric, delayed presentation, UK	26-Jun-20	Children's emergency presentations during the COVID-19 pandemic	The Lancet	Correspondence	As families are urged to stay home during the COVID-19 pandemic in the UK, there were concerns for potential delays in presentations to children's emergency departments (ED). The authors describe a rapid, multi-center surveillance project via the Pediatric Emergency Research United Kingdom and Ireland network with the goal to identify children with delayed presentations to the ED during the COVID-19 pandemic. Data from all presentations of children aged < 16 years between 27 April-15 May 2020 were collected at each site (n=1349). Most patients (1262, 93.5%) were not felt to have a delay; however, of the 51 (3.8%) patients for whom their attending physician felt there was a delay in their presentation, 40 were due to a parental concern and 11 were due to the NHS 111 helpline. Six (11.8%) of these 51 patients were admitted. Red flag symptoms were reported in 81 (6%) of 1349 patients yet of these, only two (2.5%) were felt to have a delay. The authors conclude that there was a low rate of reported delays and a low rate of hospital admission within the delayed group.	This is the first national evaluation (UK) of potential delays in children's presentations to the ED during COVID-19 pandemic. A low rate of delays and a low rate of hospital admission among the delayed group were identified. Public health messages need to reinforce that emergency services area open to the pediatric population.	Roland D. Harwood R. Bishop N et al. Children's emergency presentations during the COVID-19 pandemic. [published online, 2020 Jun 26]. The Lancet. doi: 10.1016/S2352-4642(20)30206-6
Cancer, healthcare system, children, USA	26-Jun-20	Delayed Cancer Diagnoses and High Mortality in Children During	Pediatric Blood & Cancer	Letter to the Editor	The authors report five cases of children who presented critically ill to two U.S. tertiary referral centers in April 2020. All patients tested SARS-CoV-2 negative and experienced delays in cancer diagnosis due to the COVID-19 pandemic with grave consequences. Each patient required emergent life-	These pediatric cases with cancer suggest that additional factors specific to the ongoing COVID-19	Ding YY, Ramakrishna S, Long AH, et al. Delayed cancer diagnoses and high mortality in children

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		the COVID-19 Pandemic			saving interventions shortly after the presentation, including resuscitation following cardiac arrest, emergent intubation, and emergent pericardiocentesis for tamponade. Two patients died within days of presentation. These cases illustrate the indirect impact of this pandemic on morbidity in COVID-19–negative patients for whom care delays can be fatal.	pandemic contributed to care delays and higher acute care for patients.	during the COVID-19 pandemic [published online, 2020 Jun 26]. Pediatr Blood Cancer. doi:10.1002/pbc.28427
Bonding, guidelines, separation, neonates	26-Jun-20	Promoting Attachment Between Parents and Neonates Despite the COVID-19 Pandemic	Acta Paediatrica	Clinical overview	Social distancing is the only option available during the COVID-19 pandemic until a vaccine is developed. However, this is having a major impact on human relationships and bonding between parents and neonates is a major concern. Separation during this health emergency could have lifelong consequences for offspring and there are even greater concerns if newborn infants are sick or vulnerable and need intensive care. The authors look at how bonding can be safely supported and maintained without risking infecting neonates, by comparing the international guidelines and proposing safe actions within those frameworks.	This paper examines the guidelines and clinical evidence and explores how transmission risks can be balanced with neonates' needs for early bonding and nutrition, including skin-to-skin contact and breastfeeding.	Tscherning C, Sizun J, Kuhn P. Promoting attachment between parents and neonates despite the COVID-19 pandemic [published online, 2020 Jun 26]. Acta Paediatr. doi:10.1111/apa.15455
Practice, guideline	26-Jun-20	A COVID-19 Pandemic Guideline in Evidence-Based Medicine	Nature: Evidence-Based Dentistry	Summary review	This review article scrutinized 16 clinical studies (clinical trials and observational studies) concerning COVID-19, as well as 18 guidelines about the COVID-19. Based on the results of this study, non-pharmaceutical interventions, including strict social isolation and distancing measures, might reduce the spread of the SARS-CoV-2 by nearly 99.3% (reproduction number mitigating from 406 to 2.5 in 30 days). In the supportive management section, monitoring vital signs and neonatal feeding were stated as the most important factors to consider. For symptomatic neonates, medical management and intervention were mentioned as essential.	The study warns about possible exponential spread of COVID-19 and proposes to adhere to tighter restrictions of social distancing.	Shamsoddin E. A COVID-19 pandemic guideline in evidence-based medicine. Evid Based Dent. 2020;21(2):71-73. doi:10.1038/s41432-020-0105-7
SARS-CoV-2, pediatric, testing	25-Jun-20	Testing strategy for SARS-CoV-2 in the paediatric emergency department	Archives of Disease in Childhood	Letter	The authors detail an observational cohort study of SARS-CoV-2 positivity in children and their caregivers upon hospital admission in Turin, Italy from March 2 – April 22, 2020. A total of 344 patients were studied (median age 3.91 years, range 0-18 years; 169 females and 175 males) and separated into 2 cohorts based on presence of COVID-19 symptoms in the emergency department (ED). Tests of nasal swabs were performed on all children and 1 caregiver to detect presence of SARS-CoV-2.Cohort A consisted of 244 children (46.7% female) who visited the ED from March 2 – April 22, 2020 with COVID-19 related symptoms. Of these, 18 parents tested positive, 25 children tested positive, and an additional 5 children were placed in the COVID-19 unit due to a parent's positive test. Cohort B consisted of 100 children (55% female) who visited the ED between March 31 – April 22, 2020 without any COVID-19 related symptoms. Of these, 1 child and 2 parents tested positive. This study identifies 7% parent positivity and 2% parent positivity in Cohort A & B respectively despite a local population rate of 0.4%. Furthermore, analysis of COVID-19 symptoms in ED revealed a significant association of SARS-CoV-2 infection with dry cough (p=0.025); fever with at least one other symptom (p=0.0489); and fever with at least one other upper airway respiratory symptom (p=0.021). Using this data, the authors advocate for regular SARS-CoV-2 testing for all patient and caregivers on admission to the hospital to minimize in-hospital spread of infection.	The authors describe a study examining the SARS-CoV-2 positivity in caregivers of children presenting to an Italian hospital in March-April 2020. Rates of 7% and 2% parent positivity of children, with and without COVID-19 symptoms respectively, compared to local population rate of 0.4%, suggest all patients and caregivers should be tested for SARS-CoV-2 upon admission to minimize in-hospital spread of infection.	Denina M, Aguzzi S, Versace A, et al. Testing strategy for SARS-CoV-2 in the paediatric emergency department. Arch Dis Child. 2021;106(3):e11. doi:10.1136/archdischild-2020-319806
COVID-19, seizures, afebrile,	25-Jun-20	New-Onset Seizure as the Only Presentation	Cureus	Case report	The authors present an 11-year-old Hispanic boy with SARS-CoV-2 and a new onset of afebrile seizure. The patient was brought to the emergency room in New York, USA on May 1, 2020, after experiencing a seizure at home. The	This is a case presentation of an 11-year-old Hispanic boy with a new onset of	Bhatta S, Sayed A, Ranabhat B, et al. New-Onset Seizure as the Only

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pediatrics, children, clinical presentation		in a Child With COVID-19			second episode happened during the ER visit and lasted for 2-3 minutes. Aside from a generalized tonic-clonic seizure, the patient had not experienced fever, respiratory, or gastro-intestinal symptoms. All physical examinations, laboratory tests, chest X-rays, and CT scans were normal, thus ruling out other serious seizure etiologies. The patient tested positive for SARS-CoV-2. His condition improved with levetiracetam 500 mg twice daily, and he was discharged the next day. This case highlights seizure as an uncommon yet potential COVID-19 presentations in children. SARS-CoV-2 can enter the brain via olfactory bulbs, resulting in inflammation and myelin damage. A research of 214 COVID-19-confirmed patients revealed that one-fourth of the patients had central nervous system manifestations, with dizziness and headache being the most common of these presentations. While seizure is an uncommon neurological manifestation of COVID-19, it can lead to severe complications and long-term sequelae; therefore, it is crucial to generate guidelines with detailed clinical investigations and neurological examinations to manage the condition without delay.	afebrile seizure triggered by COVID-19 in the US. Recognizing seizure as a potential COVID-19 presentation in pediatrics is essential to prevent severe complications.	Presentation in a Child With COVID-19. Cureus. 2020;12(6). Published 2020 Jun 25. doi:10.7759/cureus.8820
COVID-19, Kawasaki disease, Multisystem Inflammatory Syndrome, Kawasaki Disease Shock Syndrome, USA	25-Jun-20	COVID-19 associated Kawasaki-like multisystem inflammatory disease in an adult	American Journal of Emergency Medicine	Case Report	Recent reports have described multi-system inflammatory syndrome in children with SARS-CoV-2 infection. This is a case report for a 35-year-old Hispanic woman who presented at the emergency department (USA) with classic symptoms of Kawasaki disease (including nonexudative conjunctivitis, cracked lips, edema of the hands and feet, palmar erythema, a diffuse maculopapular rash, and cervical lymphadenopathy). Initial laboratory studies were significant for hyponatremia, elevated liver function tests including direct hyperbilirubinemia, and leukocytosis with neutrophilia. Imaging revealed mild gallbladder wall edema, a small area of colitis, and small pleural effusion. She was treated for Kawasaki Disease Shock Syndrome (KDSS) with pulse dose solumedrol, IV immunoglobulin, and aspirin with near resolution of symptoms and normalization of vital signs within 1 day and subsequent improvement in her laboratory abnormalities. Subsequently she was found to be positive for SARS-CoV-2 IgG, suggesting prior exposure. Authors assert that the SARS-CoV-2 virus can cause a post-infectious inflammatory syndrome similar to Kawasaki Disease in adults as well as children. The authors recommend physicians remain vigilant for secondary inflammatory syndromes that mimic KD/KDSS which may warrant prompt treatment with IVIG and steroids.	This case report describes Kawasaki Disease onset and treatment in a 35-year-old Hispanic woman who had previously been exposed to SARS-CoV-2. Thus, the authors assert that SARS-CoV-2 can cause a post-infectious inflammatory syndrome similar to Kawasaki Disease in adults as well as children.	Sokolovsky S, Soni P, Hoffman T, Kahn P, Scheers-Masters J. COVID-19 associated Kawasaki-like multisystem inflammatory disease in an adult. Am J Emerg Med. 2021;39:253.e1-253.e2. doi:10.1016/j.ajem.2020.06.053
Preeclampsia, emergency medicine, pregnancy, maternal health, neonatal outcomes, vertical transmission	25-Jun-20	COVID-19 and preeclampsia with severe features at 34-weeks gestation	The American Journal of Emergency Medicine	Case Report	One area of particular focus in the evolving COVID-19 pandemic is the effect that this illness may have on pregnancy and maternal-fetal disease. Existing evidence on the spectrum of coronaviruses in pregnancy shows increased rates of adverse outcomes associated with this group of infections. The authors report the case of a 31-year-old COVID-19 positive pregnant woman presenting to a US emergency department at 34 weeks' gestation with pre-eclampsia, 3 days of cough, and shortness of breath. Nasopharyngeal (NP) swab for COVID-19 resulted positive on hospital day 2. Due to her COVID-19 status and complicated course, contact between mother and infant was restricted to video conferencing and provision of breast milk for her neonate. Due to persistent hypertension and climbing liver enzymes (peak AST 225 U/L, ALT 288 IU/L), she underwent C-section for management of superimposed	This case of a 31-year-old COVID-19 positive pregnant woman in the US highlights the unique diagnostic and therapeutic challenges associated with treating patients with concomitant COVID-19 and pre-eclampsia.	Hansen JN, Hine J, Strout TD. COVID-19 and preeclampsia with severe features at 34-weeks gestation [published online ahead of print, 2020 Jun 25]. Am J Emerg Med. 2020;doi:10.1016/j.ajem.2020.06.052

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					pre-eclampsia with severe features. Her postoperative course was complicated by endometritis treated with 7 days of antibiotics. Mother and infant were discharged on day 17 after 2 negative NP swabs (days 13 and 14). This case highlights the unique diagnostic and therapeutic challenges associated with treating patients with concomitant COVID-19 and pre-eclampsia.		
Diagnosis, sensitivity, chest CT scan, children	25-Jun-20	The value of chest CT as a COVID-19 screening tool in children	European Respiratory Journal	Letter to the Editor	It is difficult to identify children infected with SARS-CoV-2 who have little or no respiratory symptoms. Routine PCR is recognized as the gold standard but can be falsely negative due to sampling errors. The authors conducted a literature search of records published up to 29 April 2020 to assess what is known about the sensitivity of chest CT as a screening tool to rule out COVID-19 infections in children. Most studies did not include subjects with negative PCR, so the true negative rate or specificity of CT scanning could not be calculated. In pediatric COVID-19-positive patients with little or minor upper airway symptoms, a chest CT may be normal in 35–50% of cases. Hence, the reported sensitivities of CT scanning to detect abnormalities in pediatric COVID-19 patients range 50–74% (median 60%). CT scanning should always be carefully considered in children due to the potential harm that ionizing radiation may cause. A negative chest CT scan failed to rule out COVID-19 in at least one-third of pediatric COVID-19 patients who test positive but had little or no respiratory symptoms. The authors therefore consider CT scanning of the chest to be unsuitable as a screening tool to rule out COVID-19 in pediatric patients.	This literature search reviewed existing evidence on the sensitivity of chest CT as a screening tool to rule out COVID-19 infections in children. Based on their findings, the authors consider CT scanning of the chest to be unsuitable as a screening tool to rule out COVID-19 in pediatric patients.	Merkus PJFM, Klein WM. The value of chest CT as a COVID-19 screening tool in children. Eur Respir J. 2020 Jun 25;55(6):2001241. doi: 10.1183/13993003.01241-2020. PMID: 32398302; PMCID: PMC7236836.
Children, social distancing, food insecurity, child care, mental health, school closures, USA	25-Jun-20	School Nurses on the Front Lines of Healthcare: The Approach to Maintaining Student Health and Wellness During COVID-19 School Closures	National Association of School Nurses (NASN) School Nurse	Research Article	The extended durations of school closures in the US in response to the COVID-19 pandemic present unique challenges as many families rely on the school as a source of physical activity, mental health services, psychosocial support, child care, and food security. The school nurse can still play a vital role in emergency management. This article discusses challenges and proposes solutions to maintaining student health and wellness during extended school closures due to the COVID-19 pandemic. The authors provide US-specific resources for families related to emergency child care, food security, mental health, maintaining physical activity, and establishing daily routines. They also reference national guidelines for schools and youth programs to maintain safety and minimize risk as they consider re-opening strategies.	This article discusses challenges to maintaining student health and wellness during extended school closures due to the COVID-19 pandemic and offers US-specific resources related to child care, food security, mental health, physical activity, and daily routines.	Rothstein R, Olympia RP. School Nurses on the Front Lines of Healthcare: The Approach to Maintaining Student Health and Wellness During COVID-19 School Closures. NASN Sch Nurse. 2020;35(5):269-275. doi:10.1177/1942602X20935612
Pediatrics, cardiology, neonatal intervention, balloon atrial septostomy	25-Jun-20	Performing an urgent neonatal cardiac intervention safely during the COVID-19 pandemic	Progress in Pediatric Cardiology	Original Article	The authors of this report sought to understand the specific challenges caused by the COVID-19 pandemic during neonatal cardiac procedures and to recognize the measures that can be taken to minimize health care workers' exposure to the virus. These measures include wearing appropriate PPE, physical distancing, designating separate delivery and transport teams, and limiting the number of providers in direct contact with any patient who is infected or whose infection status is unknown. They describe the case of a patient's mother who was a pregnant 33-year-old woman with symptoms of dry cough, malaise, and fever. The mother, father, and sibling were diagnosed with COVID-19 shortly before delivery. The fetus had transposition of the great arteries with an intact ventricular septum and an anticipated need for an emergent postnatal balloon atrial septostomy (BAS). Given the anticipated	Hospitals should provide care in the safest way possible for both patients and health care workers during the COVID-19 pandemic. In this report, the authors identified measures to help avoid occupational transmission of SARS-CoV-2 during urgent neonatal cardiac interventions.	Spencer R, Chaves D, Brooks M.m et al. Performing an urgent neonatal cardiac intervention safely during the COVID-19 pandemic. Prog Pediatr Cardiol. 2020:101265. doi:10.1016/j.ppedcard.2020.101265

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					critical status of a neonate born to a mother with COVID-19, extensive discussions between the care teams and infection control were undertaken to optimize coordination of postnatal care for the optimum clinical outcome as well as protection for health care workers. It was determined that BAS can be performed safely and effectively in neonates with complex congenital heart disease born to mothers with COVID-19 when proper precautions are taken by the intensive care, interventional, and imaging staff involved.		
Pregnancy, management, remdesivir, compassionate use, Philadelphia, USA	25-Jun-20	Compassionate use of remdesivir for treatment of severe coronavirus disease 2019 in pregnant women at a United States academic center	American Journal of Obstetrics and Gynecology MFM	Research letter	The safety of remdesivir use in pregnancy has thus far only been evaluated in animal studies and a small clinical trial of treatments for Ebola, which did not indicate any maternal, fetal, or neonatal adverse events. The authors describe in a retrospective case series their experiences at a hospital in Philadelphia, USA, with compassionate use of remdesivir in 5 pregnant patients severely ill with COVID-19. They present the decision criteria used to offer remdesivir, as well as the treatment protocol used and clinical parameters monitored during treatment. 3 patients required mechanical ventilation. All 5 recovered and were ultimately discharged from the hospital on room air. 2 patients completed the 10-day treatment course. 2 were discharged before completion and 1 discontinued the treatment because of elevated aminotransferases attributed to the medication. The small number of patients does not allow for conclusions about the clinical efficacy or safety of remdesivir use in pregnant women to be drawn, highlighting the need for inclusion of pregnant women in clinical trials.	The authors summarize the cases of 5 pregnant women who received remdesivir for COVID-19, all of whom recovered. The authors advocate for the inclusion of pregnant women in clinical trials to evaluate remdesivir and other treatments for COVID-19.	McCoy JA, Short WR, Srinivas SK, et al. Compassionate use of remdesivir for treatment of severe coronavirus disease 2019 in pregnant women at a United States academic center [published online 2020 Jun 25]. Am J Obstet Gynecol MFM. 2020. doi:10.1016/j.ajogmf.2020.100164
Pediatric, child, clinical picture, diagnosis, CT, treatment	25-Jun-20	COVID-19 in Children: An Ample Review	Risk Management Healthcare Policy	Review article	This review aimed to describe the current knowledge about COVID-19 in children, from epidemiological, clinical, and laboratory perspectives, including knowledge on the disease course, treatment, and prognosis. An extensive literature search was performed to identify papers on COVID-19 (SARS-CoV-2 infection) in children, published 1 January - 1 April, 2020. There were 44 relevant papers on COVID-19 in children. The results showed that COVID-19 occurs in 0.39–12.3% of children. Clinical signs and symptoms are comparable to those in adults, but milder forms and a large percentage of asymptomatic carriers are found among children. Elevated inflammatory markers are associated with complications and linked to various co-infections. CT scans in children revealed structural changes similar to those found in adults, with consolidations surrounded by halos being somewhat specific for children with COVID-19. The recommended treatment includes providing symptomatic therapy, with no specific drug recommendations for children. The prognosis is much better for children compared to adults. This review highlights that COVID-19 in children is similar to the disease in the adult population, but with particularities regarding clinical manifestations, laboratory test results, chest imaging, and treatment.	This review highlights that even if COVID-19 is rare in children, asymptomatic SARS-CoV-2 infection is more frequent than in adults. The authors state that infection prophylaxis through isolation of infected children is essential.	Ciuca IM. COVID-19 in Children: An Ample Review. Risk Manag Healthc Policy. 2020;13:661-669. Published 2020 Jun 25. doi:10.2147/RMHP.S257180
Child, indirect effects, low-middle income countries, resource allocation	25-Jun-20	Challenges of COVID-19 in children in low- and middle-income countries	Pediatric Respiratory Reviews	Review	As the coronavirus pandemic extends to LMICs, there are growing concerns about the risk of COVID-19 in populations with a high prevalence of comorbidities, the impact on health and economies more broadly and the capacity of existing health systems to manage the additional burden of COVID-19. The direct effects of COVID-19 are less of a concern in children, who seem to be largely asymptomatic or to develop a mild illness as occurs in high-income countries; however, children in LMICs constitute a high	The authors argue that children in LMICs are not at major risk for severe COVID-19, but there are major negative indirect effects on child health, which are described in this review.	Zar HJ, Dawa J, Fischer GB, Castro-Rodriguez JA. Challenges of COVID-19 in children in low- and middle-income countries [published online, 2020 Jun 25]. Paediatr Respir

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					proportion of the population and may have a high prevalence of risk factors for severe lower respiratory infection such as HIV or malnutrition. Further diversion of resources from child health to address the pandemic among adults may further impact on care for children. Poor living conditions in LMICs including lack of sanitation, running water, and overcrowding may facilitate the transmission of SARS-CoV-2. The indirect effects of the pandemic on child health are of considerable concern, including increasing poverty levels, disrupted schooling, lack of access to school feeding schemes, reduced access to health facilities, and interruptions in vaccination and other child health programs. Further challenges in LMICs include the inability to implement effective public health measures such as social distancing, hand hygiene, timely identification of infected people with self-isolation, and universal use of masks. While continued schooling is crucial for children in LMICs, the provision of safe environments is especially challenging in overcrowded resource-constrained schools. The current crisis is a harsh reminder of the global inequity in health in LMICs.		Rev. 2020; doi:10.1016/j.prrv.2020.06.016
Nosocomial infection, outbreak, containment, contact-tracing, South Korea	25-Jun-20	Investigation of a Nosocomial Outbreak of COVID-19 in a Pediatric Ward in South Korea: Successful Control by Early Detection and Extensive Contact Tracing With Testing	Clinical Microbiology and Infection	Letter to the Editor	The authors describe a nosocomial outbreak investigation related to a 9-year-old girl with COVID-19 admitted at a pediatric ward in a tertiary hospital in South Korea. The pediatric wards were placed under isolation and extensive contact-tracing was carried out. Of 1,206 close and casual contacts, a female asymptomatic guardian of an infant that shared the room with the index patient was found positive for SARS-CoV-2 (secondary case). Thirteen days after the diagnosis, her asymptomatic 2-year-old daughter (tertiary case) was found positive. All other contacts were negative. Early detection of an asymptomatic case based on epidemiologic link followed by extensive contact-tracing and testing for SARS-CoV-2 appears to be important in effectively containing a nosocomial outbreak of COVID-19.	The authors discuss data indicating that the transmission from asymptomatic children with 98 COVID-19 to adults can occur. This letter highlights the role of extensive contact-tracing and testing for SARS-CoV-2 in containing nosocomial outbreaks of COVID-19.	Jung J, Hong MJ, Kim EO, Lee J, Kim MN, Kim SH. Investigation of a nosocomial outbreak of COVID-19 in a pediatric ward in South Korea: Successful control by early detection and extensive contact tracing with testing [published 2020 Jun 25]. Clin Microbiol Infect. doi:10.1016/j.cmi.2020.06.021
Pregnancy, obstetric interventions, evidence-based medicine	25-Jun-20	Are Covid-19-positive Mothers Dangerous for Their Term and Well Newborn Babies? Is There an Answer?	Journal of Perinatal Medicine	Viewpoint	In this viewpoint article, the author calls for further evaluation of obstetric interventions with potential for overuse and unintended harm in the response to COVID-19, such as performance of C-sections. COVID-19 infection in pregnant women resembles infection in the non-pregnant adult population, with evidence of low probability for adverse maternal or perinatal outcomes and likely no vertical transmission from mother to fetus. The most controversial procedures in the care of COVID-19-suspected or -positive asymptomatic women in labor are: mode of delivery, companion during birth and labor, cord clamping, skin-to-skin contact, breastfeeding, and visits during a hospital stay. Interventions should be evidence-based and optimize outcomes for mothers, babies and families.	Obstetric interventions intended to save lives have the potential for overuse and unintended harm (e.g. C-sections, use of infant formula). Further evidence will help inform care regarding mode of delivery, presence of companion during birth and labor, cord clamping, skin-to-skin contact, and breastfeeding for pregnant women with COVID-19.	Stanojević M. Are Covid-19-positive mothers dangerous for their term and well newborn babies? Is there an answer?. J Perinat Med. 2020;48(5):441-445. doi:10.1515/jpm-2020-0186
Pregnancy, fetal neuro-protection,	25-Jun-20	COVID-19 Infection During Pregnancy: Fetus	Journal of Perinatal Medicine	Viewpoint	In this viewpoint, the author calls for greater consideration of fetal health during obstetric management of COVID-19 patients. COVID-19 infection in pregnancy has been associated with premature birth, yet data are lacking on	The author calls for reconsideration of guidelines on use of	Stefanovic V. COVID-19 infection during pregnancy: fetus as a

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antenatal steroids, fetal neuro-protection, magnesium sulfate, preterm birth		as a Patient Deserves More Attention			antenatal steroid use and fetal neuroprotection. Previous studies that indicated worse outcomes for COVID-19 patients receiving corticosteroids did not include obstetric patients or assess the obstetric dosages used for antenatal indications. Translating these results to obstetric care could be detrimental to fetal maturation. In addition, antenatal magnesium sulfate given prior to preterm birth for fetal neuroprotection prevents cerebral palsy (CP) and reduces the combined risk of fetal/infant death or CP. Recent concern about the possible detrimental impact of magnesium sulfate on the respiratory depression in pregnant women with severe COVID-19 has not been associated with serious maternal adverse effects. Finally, C-section deliveries have frequently been reported for COVID-19 pregnant patients, and can increase the risk of neonatal respiratory distress syndrome.	antenatal steroids, magnesium for fetal neuroprotection, and C-section deliveries in pregnant patients with COVID-19, given the impact of these interventions on fetal wellbeing.	patient deserves more attention. J Perinat Med. 2020;48(5):438-440. doi:10.1515/jpm-2020-0181
Infection rate, children, asymptomatic, transmission, Italy	25-Jun-20	Children and SARS-CoV-2 Infection: Innocent bystanders…until Proven Otherwise	Clinical Microbiology and Infection	Commentary	In this commentary, the authors describe the information that is known about SARS-CoV-2 infection in the pediatric population, both from the published literature as well as from national data from Italy. They discuss the possible and different explanations for understanding why the SARS-CoV-2 infection seems to be more benign and have a low attack rate in children. They also comment on the possible role of children in transmission during the COVID-19 pandemic. They conclude by providing suggestions related to future research as well as to containment strategies for the management of viral spread.	Although information continues to emerge, data from several countries indicate that there is a low attack rate and milder symptoms in COVID-19 positive children compared to adults. Understanding the role of children in the COVID-19 pandemic requires further studies; however, child-to-adult transmission is thought to be uncommon.	Lanari M, Chiereghin A, Biserni GB et al. Children and SARS-CoV-2 infection: innocent bystanders…until proven otherwise [published online, 2020 Jun 25]. Clin Microbiol Infect. doi:10.1016/j.cmi.2020.06.017
Pregnant, transmission, Venezuela	25-Jun-20	The First Pregnant Woman With COVID-19 in Venezuela: Pre-symptomatic Transmission	Travel Medicine and Infectious Disease	Letter to the Editor	On March 28th, a 32-year-old female, with 38-week of pregnancy, without comorbidities, presented to the University Hospital of Caracas, Venezuela, with a dry cough and fatigue. Her symptoms started 12 days prior. She had no previous travel history or contact with any respiratory-symptomatic person before the onset of symptoms. The patient consulted accompanied by her mother, who had been in the United States since October 2019, followed by a trip to Peru on February 22nd where she remained until March 10th, and then returned to Venezuela. The mother was asymptomatic until March 25th. The pregnant patient and her mother lived together. Nasopharyngeal swab samples from both tested positive for SARS-CoV-2. The patient's husband and her two other children were asymptomatic, nasopharyngeal swab samples tested negative for SARS-CoV-2. On March 31st, 2020, she was admitted for a C-section. Her son was born without complications, testing negative for SARS-CoV-2.	This pregnant woman developed symptoms before her contact did. This could be explained in part, by the immunosuppressed state of pregnancy where there is an attenuation of the cell-mediated immunity by Th1 cells.	Forero-Peña DA, Rodríguez MI, Flora-Noda DM, et al. The first pregnant woman with COVID-19 in Venezuela: Pre-symptomatic transmission [published online, 2020 Jun 25]. Travel Med Infect Dis. doi:10.1016/j.tmaid.2020.101805
Pregnancy, stress, epigenetics, Italy	25-Jun-20	Coronavirus Disease 2019 (COVID-19) and Pregnancy: Responding to a Rapidly Evolving Situation	Obstetrics and Gynecology	Letter to the Editor	During the COVID-19 pandemic, pregnant women may be exposed to an increased level of stress. Emotional health of pregnant women should be cared for to protect their children, as several studies have shown that stress exposure during pregnancy is related to epigenetic changes and may affect children's later-life health outcomes. This complex interplay suggests that the COVID-19 outbreak may have multiple, widespread, and long-term effects on children born during it, even if not directly exposed to the virus. Providing	Support and interventions to manage the stress experienced by pregnant women during the COVID-19 pandemic may help mitigate detrimental effects	Bresesti I, Rossi L. Coronavirus Disease 2019 (COVID-19) and Pregnancy: Responding to a Rapidly Evolving Situation. Obstet Gynecol.

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					preventive support and prompt interventions to women during their pregnancies is particularly important during this pandemic. Current knowledge of the consequences of this pandemic stress exposure on fetal development is lacking. Research on the epigenetic effects of the COVID-19 outbreak may contribute to the evaluation of the long-term and transgenerational effects of this pandemic on our society.	of this stress on their children.	2020;136(1):193. doi:10.1097/AOG.0000000000003965
Pregnancy, health care workers, PPE, N95 respirators, Singapore	25-Jun-20	Coronavirus Disease 2019 (COVID-19) and Pregnancy: Responding to a Rapidly Evolving Situation	Obstetrics and Gynecology	Letter to the Editor	In response to a commentary regarding special considerations for pregnant health care workers during the COVID-19 pandemic, the authors highlight the potential hazards of N95 respirators in pregnancy. N95 respirators are associated with airflow resistance and increased static dead space volumes, which may affect maternal cardiorespiratory function and fetal oxygenation when worn for prolonged periods. Breathing against resistance affects venous return and stroke volume, and uncompensated maternal hypoxia can lead to reduced placental perfusion and fetal growth restriction. The authors caution against the use of N95 respirators in pregnant women with fetuses who are growth-restricted and with other high-risk obstetric factors, recommending scheduled breaks and exemptions for these women from procedures that necessitate prolonged N95 use and from frontline duties during the COVID-19 pandemic.	The authors advocate for pregnant health care workers to be given accommodations during the COVID-19 pandemic that would minimize the potential risks of using N95 respirators in pregnancy.	Dashraath P, Wong JJL, Su LL, et al. Coronavirus Disease 2019 (COVID-19) and Pregnancy: Responding to a Rapidly Evolving Situation. Obstet Gynecol. 2020;136(1):191-192. doi:10.1097/AOG.0000000000003963
Zika, healthcare systems, Florida, USA	25-Jun-20	An Evaluation of Florida's Zika Response Using the WHO Health Systems Framework: Can We Apply These Lessons to COVID-19?	Maternal and Child Health Journal	From the Field	This qualitative study conducted 15 focus groups and interviews with 33 public health and healthcare workers to evaluate Florida's response and care for pregnant women and families with infants exposed to Zika virus. Results were framed by the WHO's Healthcare Systems Framework of six building blocks: health service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership and governance. Results highlighted coordination of resources, essential services and treatment, data collection, communication among public health and healthcare systems, and dissemination of information. Community education, testing accuracy and turnaround time, financing, and continuity of health services were areas of need, and there was room for improvement in all indicator areas.	Lessons learned from Florida's Zika response concerning care for pregnant women and infants to be considered in the COVID-19 response include the importance of coordination across sectors and levels, resilience at the local level, an effective testing strategy, policy and funding to support all levels of prevention and treatment, and effective risk communication.	Marshall J, Scott B, Delva J, et al. An Evaluation of Florida's Zika Response Using the WHO Health Systems Framework: Can We Apply These Lessons to COVID-19? [published online 2020 Jun 25]. Matern Child Health J. 2020. doi:10.1007/s10995-020-02969-5
Children, schools, testing, Singapore	25-Jun-20	Novel Coronavirus 2019 Transmission Risk in Educational Settings	Clinical Infectious Diseases	Brief report	As transmission risk of SARS-CoV-2 in schools is unknown, this retrospective analysis reviewed clinical and epidemiological data of confirmed cases and their contacts from school from three potential SARS-CoV-2 seeding incidents in three educational settings (two preschools and one secondary school). The authors' investigations did not detect SARS-CoV-2 transmission after an index case was identified at each school, despite symptomatic and asymptomatic testing of 50 and 69 children, respectively.	The authors suggest that data indicate children are not the primary drivers of SARS-CoV-2 transmission in schools, which could help inform exit strategies for lifting of lockdowns as well as the use of more targeted control measures instead of blanket-wide closures.	Yung CF, Kam KQ, Nadua KD, et al. Novel coronavirus 2019 transmission risk in educational settings [published online 2020 Jun 25]. Clin Infect Dis. 2020. doi:10.1093/cid/ciaa794
Children, adolescents,	25-Jun-20	COVID-19 in children and adolescents in	The Lancet	Original article	This multicenter cohort study involved 82 participating health-care institutions across 25 European countries. 582 individuals with PCR-confirmed SARS-CoV-2 infection were included. 145 (25%) had pre-existing medical	COVID-19 is generally a mild disease in children, including infants. However,	Florian Götzinger, Begoña Santiago-García, Antoni Noguera-Julián et al.

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risk factors, Europe		Europe: a multinational, multicentre cohort study			conditions. 363 (62%) individuals were admitted to the hospital. 48 (8%) individuals required ICU admission, 25 (4%) mechanical ventilation (median duration 7 days, IQR 2–11, range 1–34 days), 19 (3%) inotropic support. Significant risk factors for requiring ICU admission in multivariable analyses were being younger than 1 month (odds ratio 5.06, 95% CI 1.72–14.87; p=0.0035), male sex (2.12, 95% CI 1.06–4.21; p=0.033), pre-existing medical conditions (3.27, 95% CI 1.67–6.42; p=0.0015), and presence of lower respiratory tract infection signs or symptoms at presentation (10.46, 95% CI 5.16–21.23; p<0.0001). The most frequently used drug with antiviral activity was hydroxychloroquine (40 [7%] patients). Immunomodulatory medication used included corticosteroids, intravenous immunoglobulin, tocilizumab, anakinra, and siltuximab.	a small proportion develop severe disease requiring ICU admission and prolonged ventilation, although fatal outcome is overall rare.	COVID-19 in children and adolescents in Europe: a multinational, multicenter cohort study. The Lancet. doi: 10.1016/S2352-4642(20)30177-2
Children, MIS-C	25-Jun-20	Human and Novel Coronavirus Infections in Children: A Review	Pediatrics and International Child Health	Review article	Novel coronaviruses are known to cause severe illness and death predominantly in older adults and those with underlying comorbidities. Consistent with what has been observed during the outbreaks of SARS and MERS, children with COVID-19 are more likely to be asymptomatic or to have mild-to-moderate illness, with few deaths reported in children globally thus far. Clinical symptoms and laboratory and radiological abnormalities in children have been similar to those reported in adults but are generally less severe. A rare multisystem inflammatory syndrome in children (MIS-C) which has resulted in critical illness and some deaths has recently been described. Clinical trials for therapeutics and vaccine development should include pediatric considerations.	Children may play an important role in the transmission of infection and outbreak dynamics and could be a key target population for effective measures to control outbreaks.	Rajapakse N, Dixit D. Human and novel coronavirus infections in children: a review [published online, 2020 Jun 25]. Paediatr Int Child Health. doi:10.1080/20469047.2020.1781356
Children, asthma, management, remote monitoring, UK	25-Jun-20	Asthma in children during the COVID-19 pandemic: lessons from lockdown and future directions for management	The Lancet	Comment	UK asthma outcomes are among the worst in Europe. It could be expected that SARS-CoV-2 would lead to increased asthma attacks; however, Kenyon et al. 2020 reported a 76% drop in emergency visits for asthma of all severities during the pandemic in a U.S. hospital, a similar drop to the author's UK experience. This huge reduction in asthma attacks has been achieved by behavioral changes, not new drugs. The authors argue that we need to challenge ourselves to be more rigorous in preventing the transmission of respiratory viruses and to reduce air pollution globally. The COVID-19 pandemic has also changed asthma management. Nearly all routine checks in secondary and tertiary care are now being done remotely. The authors state that remote consultation should be the default for care of these patients from now on. They call for the design of remote monitoring systems to optimize remote consultations and improve outcomes in this population. They conclude that the challenge is to improve clinical practice post-COVID-19, not default to the past.	Remote collection of health information combined with individual and societal behavioral change could reduce asthma attacks and improve outcomes in pediatric asthma patients. Telemedicine should be the default for this population and steps need to be taken to optimize remote monitoring systems.	Gupta A, Bush A, Nagakumar P. Asthma in children during the COVID-19 pandemic: lessons from lockdown and future directions for management. [published online, 2020 Jun 25]. The Lancet. doi: 10.1016/S2213-2600(20)30278-2
Neurological, MIS-C complications, hyper-coagulability, children, USA	25-Jun-20	Neurological manifestations of pediatric multi-system inflammatory syndrome potentially associated with COVID-19	Child's Nervous System	Letter to the Editor	Associated neurological manifestations of MIS-C have not yet been described. The authors present two pediatric cases with MIS-C who develop neurological complications. The first was a COVID-19-positive 5-year-old male who developed cardiopulmonary failure requiring ECMO. After 5 days, he had a right middle cerebral artery infarction, cerebral edema, and diffuse contralateral subarachnoid hemorrhage. Brain death was confirmed three days later. The second case was a 2-month-old male who developed refractory respiratory failure requiring ECMO and non-convulsive status epilepticus. He was negative for COVID-19 antibodies. On the first day of	The authors present two pediatric cases, one fatal, of neurological complications of MIS-C, which have not been before described.	Schupper AJ, Yaeger KA, Morgenstern PF. Neurological manifestations of pediatric multi-system inflammatory syndrome potentially associated with COVID-19 [published online, 2020 Jun 25].

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					ECMO, the infant had bilateral large infarctions with hemorrhagic transformation, thought to be cardioembolic. The mechanism of end-organ damage in MIS-C has not been elucidated. These cases highlight a need for further investigation into the hypercoagulable manifestations of this syndrome.		Childs Nerv Syst. doi:10.1007/s00381-020-04755-8
MIS-C, radiology, pediatric, UK, England	25-Jun-20	Spectrum of Imaging Findings on Chest Radiographs, US, CT, and MRI Images in Multisystem Inflammatory Syndrome in Children (MIS-C) Associated With COVID-19	Radiology	Case Series	This case series examines the spectrum of imaging findings on chest radiographs, ultrasound, CT, and MRI images in 35 children admitted to a tertiary pediatric hospital in the London, England from April-May 2020 with post-COVID-19 MIS-C. The constellation of findings includes airway inflammation and rapid development of pulmonary edema on thoracic imaging, coronary artery aneurysms, and extensive right iliac fossa inflammatory changes on abdominal imaging. Awareness of this emerging condition and the expected multi-organ imaging findings will aid radiologists in the assessment of these complex cases.	As data about post-COVID-19 MIS-C continues to emerge, the authors present several radiologic findings and identified a pattern of this syndrome in a case series from London.	Hameed S, Elbaaly H, Reid CEL, et al. Spectrum of Imaging Findings on Chest Radiographs, US, CT, and MRI Images in Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with COVID-19 [published online, 2020 Jun 25]. Radiology. doi:10.1148/radiol.2020202543
Dermatology, acral lesions, perniosis, pediatric, Spain	25-Jun-20	Assessment of Acute Acral Lesions in a Case Series of Children and Adolescents During the COVID-19 Pandemic	JAMA Dermatology	Brief report	In this brief report, the authors attempted to understand the association between acute acral lesions and COVID-19 in children and adolescents. They identified 20 patients (1-18 years old) at a tertiary referral hospital in Valencia, Spain with new-onset acral inflammatory lesions presenting between 9 April-15 April 2020. These patients all lacked systemic manifestations of COVID-19. Each patient tested negative for SARS-CoV-2 by RT-PCR and serology. A skin biopsy identified Raynaud phenomenon (perniosis) by histology in six patients. The authors conclude that an association between acral skin disease and COVID-19 has yet to be proven.	Pediatric patients in Spain with acute acral lesions were evaluated for COVID-19 yet clinical findings and laboratory testing were negative for the virus. This report does not show an association between these types of lesions and COVID-19.	Roca-Ginés J, Torres-Navarro I, Sánchez-Arráez J, et al. Assessment of Acute Acral Lesions in a Case Series of Children and Adolescents During the COVID-19 Pandemic [published online, 2020 Jun 25]. JAMA Dermatol. doi:10.1001/jamadermatol.2020.2340
MIS-C, cytokine, Kawasaki disease, pediatric, USA	25-Jun-20	Multisystem Inflammatory Syndrome in Children (MIS-C) Related to COVID-19: A New York City Experience	Journal of Medical Virology	Original article	Initially, the pediatric population was described as low risk for severe COVID-19. However, reports have emerged recently of cases of COVID-19 in children with a systemic inflammatory disease, with features that overlap with Kawasaki Disease. The authors describe the first 15 cases with multi-system inflammatory syndrome in children (MIS-C), temporally related to COVID-19, who presented for care to a tertiary pediatric referral center in New York City, USA. In the article, they discuss the disproportionate burden of disease among Hispanic/Latino and black/African American ancestry, the distinct cytokine signature across the disease spectrum (IL-1/IL-6), and the potential role and pathogenesis of SARS-CoV-2 in this new clinical entity.	MIS-C associated with COVID-19 is a severe and newly recognized cytokine-mediated presentation of SARS-CoV-2 in pediatric patients. In contrast to Kawasaki Disease, MIS-C patients are likely to have an elevated IL-6 level but an IL-1 level within normal limits.	Riollano-Cruz M, Akkoyun E, Briceno-Brito E, et al. Multisystem Inflammatory Syndrome in Children (MIS-C) Related to COVID-19: A New York City Experience [published online, 2020 Jun 25]. J Med Virol. doi:10.1002/jmv.26224
Inequality, research ethics, public health, children	25-Jun-20	Disease and Age-Related Inequalities in Paediatric Research, Funding and Communication:	Acta Pediatrica	Viewpoint	COVID-19 has already caused millions of infections, thousands of deaths and countless indirect and poorly estimated consequences on other diseases and the global economy. All ages are potentially susceptible, but the virus has had a lower direct impact on children, with fewer severe cases and low mortality rates. However, the reasons for this are still unclear and the author states that disease transmission by children we cannot rule out children's role in transmitting the disease cannot be ruled out. The serious impact that	Due to the low rates of severe cases and mortality from COVID-19 in children, the other impacts of the pandemic on this population have not been the focus of public health	Buonsenso D. Disease and age-related inequalities in pediatric research, funding and communication: lessons from the COVID-19 pandemic [published

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		Lessons From the COVID-19 Pandemic			restrictive measures have had on children's lives have not been fully considered. Because children are less affected by COVID-19, the scientific community, health agencies and governments have not focused much attention on them during this pandemic.	agencies. The author argues for the investment in the long-term health of children.	online, 2020 Jun 25]. Acta Paediatr. doi:10.1111/apa.15450
Health disparities, racial disparities, maternal morbidity and mortality, community engagement	25-Jun-20	You Don't Have To Be Infected To Suffer: COVID-19 and Racial Disparities in Severe Maternal Morbidity and Mortality	American Journal of Perinatology	Viewpoint	Residential segregation and environmental risk factors in poorer communities have been shown to have a deleterious effect on perinatal outcomes including premature birth, stillbirth, and low birthweight. Other risk factors, for example, obesity and diabetes related to fewer green spaces for exercise and food deserts are the same factors that may accelerate the progression from COVID-19 infection to death from COVID-19. The pandemic has brought disparities to national attention and has exacerbated them. Women may be scared of crowded buses that they use to go to clinics and may be uncomfortable with the new technology platforms. To address the upstream disparities, physicians have to engage community partners in addressing complex social circumstances.	The authors suggest that partnerships between physicians and community organizations are key to addressing health disparities exacerbated by the COVID-19 pandemic.	Minkoff H. You Don't Have To Be Infected To Suffer: COVID-19 and Racial Disparities in Severe Maternal Morbidity and Mortality [published 2020 Jun 25]. Am J Perinatol. doi:10.1055/s-0040-1713852
China, pediatrics, respiratory clinics, infection control, best practices	25-Jun-20	Best Practice for Infection Prevention in Pediatric Respiratory Clinics During the COVID-19 Epidemic	World Journal of Pediatrics	Practice Advisory	This article summarizes best practices for infection control in pediatric respiratory clinics in China. During the COVID-19 epidemic, children suspected of SARS-CoV-2 infection should be managed at fever clinics and not pediatric respiratory clinics, which can avoid cross-infection. Screening and triage should occur prior to entering the clinic, and contact history with infected patients is very important. Rooms should be well ventilated and sanitized, and staff should have appropriate PPE and protective masks, including N95s. Pulmonary function testing and bronchoscopy require additional infection control. Quality control is important for minimizing transmission.	The authors describe in detail best practices for infection control in pediatric respiratory clinics in China.	Zhang J, Zhang L, Yin Y, et al. Best practice for infection prevention in pediatric respiratory clinics during the COVID-19 epidemic [published 2020 Jun 25]. World J Pediatr. doi:10.1007/s12519-020-00377-x
Vertical transmission, neonatal infection, pregnancy	25-Jun-20	Incidence of SARS-CoV-2 Vertical Transmission: A Meta-Analysis	Archives of Disease in Childhood	Review Article	The authors conducted a systematic review of vertical transmission using PubMed, Medline, Embase and China National Knowledge Infrastructure until 23 May 2020. Studies reporting mothers who tested positive for SARS-CoV-2 by reverse transcriptase PCR (RT-PCR) and whose newborns were tested by RT-PCR were included. An early-onset neonatal infection was defined as newborns with a positive RT-PCR test within the first 2 days of life and determined to not have acquired the infection postnatally. Seventeen studies were included, with 402 COVID-19-positive mothers who delivered 405 newborns, of which 330 newborns underwent early RT-PCR tests. Nine of 330 newborns tested positive for SARS-CoV-2. The average pooled incidence of vertical transmission was 16 per 1000 newborns (95% CI 3.40 to 73.11). Therefore, current evidence shows that the risk of vertical transmission of SARS-CoV-2 is low.	This systematic review contributes to the growing evidence that the risk of vertical transmission of COVID-19 is low.	Goh XL, Low YF, Ng CH, Amin Z, Ng YPM. Incidence of SARS-CoV-2 vertical transmission: a meta-analysis [published 2020 Jun 25]. Arch Dis Child Fetal Neonatal Ed. 2020; doi:10.1136/archdischild-2020-319791
Health services research, mortality, UK, Ireland	25-Jun-20	Delayed Access to Care and Late Presentations in Children During the COVID-19 Pandemic: A Snapshot Survey of 4075	Archives of Disease in Childhood	Letter	The British Pediatric Surveillance Unit undertook a snapshot electronic survey on 24 April 2020 of 4075 pediatric consultants representing >90% of pediatric consultants in the UK and Ireland, asking whether, during the previous 14 days, they had seen any children who presented later than they would have expected before the COVID-19 pandemic. 2433 (60%) pediatricians responded. Overall, 241 (32%) of 752 pediatricians had witnessed delayed presentations, with 57 (8%) reporting ≥3 patients with delayed presentation. Delayed presentation reports ranged between 14% in Wales and 47% in the Midlands. Free text responses revealed diabetes mellitus as by far the most	The authors found that there is a widespread concern among pediatricians for delayed presentation of potentially sick children. They suggest that parents should continue to access medical care if they are concerned	Lynn RM, Avis JL, Lenton S, Amin-Chowdhury Z, Ladhani SN. Delayed access to care and late presentations in children during the COVID-19 pandemic: a snapshot survey of 4075 pediatricians in the UK

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		Paediatricians in the UK and Ireland			common delayed presentation, but also sepsis and malignancy. There were also nine deaths where delayed presentation was considered a contributing factor, resulting mainly from sepsis and malignancy.	and must not delay getting emergency treatment if their child appears seriously ill.	and Ireland [published online, 2020 Jun 25]. Arch Dis Child. doi:10.1136/archdischild-2020-319848
Children, chilblains, dermatology, Belgium	25-Jun-20	Evaluation of Chilblains as a Manifestation of the COVID-19 Pandemic	JAMA Dermatology	Brief report	This case series was conducted at one tertiary care hospital in Brussels, Belgium, between April 10 and April 17, 2020. 31 referred patients who had recently developed chilblains were evaluated, with the objective of determining whether chilblains are associated with COVID-19. The 31 patients were generally in good health. Histopathologic analysis of skin biopsy specimens (22 patients) confirmed the diagnosis of chilblains and showed occasional lymphocytic or micro-thrombotic phenomena. Immunofluorescence analyses showed vasculitis of small-diameter vessels in 7 patients. In all patients, SARS-CoV-2 RNA remained undetected by RT-PCR on nasopharyngeal swabs and in biopsy samples of the skin lesions. The IgM and IgG antibody titers were negative for SARS-CoV-2 in all patients (<1.0 arbitrary unit/mL). No significant abnormalities in blood test results were suggestive of systemic disease.	In this case series, chilblains appear not to be directly associated with COVID-19. Lifestyle changes associated with community containment and lockdown measures are a possible explanation for these lesions.	Herman A, Peeters C, Verroken A, et al. Evaluation of Chilblains as a Manifestation of the COVID-19 Pandemic [published online 2020 June 25]. JAMA Dermatol. doi:10.1001/jamadermatol.2020.2368
Hemo-phagocytic syndrome, lympho-histiocytosis, cytokine storm	25-Jun-20	Hemophagocytic Lymphohistiocytosis: A Review Inspired by the COVID-19 Pandemic	Rheumatology International	Review Article	Hemophagocytic syndrome (HPS) or hemophagocytic lymphohistiocytosis (HLH) is an acute and rapidly progressive systemic inflammatory disorder. HPS has primary (genetic, familial) and acquired (secondary, reactive) forms. In this paper, the authors review the pathogenesis and clinical picture of HLH with an emphasis of the developed classification criteria sets for rheumatologists. A literature search was conducted on MED-LINE/PubMed (2015-April 2020) using several key terms. In the final review, 47 studies, together with four sections of an online book were used. In COVID-19 patients, secondary HLH and cytokine storm may be responsible for unexplained progressive fever, cytopenia, ARDS, neurological and renal impairment. Differentiation between primary and secondary HLH is important due to treatment differences. Further studies addressing the performance of HScore, a diagnostic tool for HLH, and other recommendations in the classification of these COVID-19 positive patients is necessary.	Secondary hemophagocytic lymphohistiocytosis and cytokine storm may be responsible for many clinical findings observed in COVID-19 patients.	Soy M, Atagündüz P, Atagündüz I, Sucak GT. Hemophagocytic lymphohistiocytosis: a review inspired by the COVID-19 pandemic [published online, 2020 Jun 25]. Rheumatol Int. doi:10.1007/s00296-020-04636-y
COVID-19; SARS-CoV-2; gastric organoids; in vitro model	24-Jun-20	SARS-CoV-2 infection and replication in human fetal and pediatric gastric organoids	bioRxiv	Preprint (not peer-reviewed)	This cell culture study out of the United Kingdom investigated how SARS-CoV-2 might cause gastrointestinal (GI) symptoms in children as they develop from the fetal stage. Human fetal stomach tissue was obtained from pregnancies terminated between 8-21 weeks post-conception, and gastric mucosa from children undergoing gastric surgery (no age information provided). The tissues were used to create organoids, split into early fetal, late fetal, and pediatric sample groups. ACE2 receptor expression was significantly higher in pediatric tissues than early fetal stomach tissues and had high variability in late fetal samples. TMPRSS2 SARS-CoV-2 receptors were expressed at high levels in each group of samples. Cultures were infected with isolated SARS-CoV-2 and were found to be fully susceptible. Infected cells were found to undergo apoptosis, which could explain the GI symptoms reported in children with COVID-19. Several genes that inhibit viral infection were upregulated in infected cells from late fetal and pediatric groups, but not in early fetal cells. These results show that pathogenesis of COVID-19 in the GI system is at least	In this investigation of fetal and pediatric gastro-intestinal cell cultures, researchers found that the differences in SARS-CoV-2 infection of children versus fetuses may be due to a reduction in the innate antiviral response, as the cells reach new developmental stages.	Giobbe GG, Bonfante F, Zambaiti E, et al. SARS-CoV-2 infection and replication in human fetal and pediatric gastric organoids. bioRx [preprint]. 2020. doi: https://doi.org/10.1101/2020.06.24.167049.

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					partially dependent on a reduction in the innate antiviral response. However, it is unclear whether the virus can produce a GI primary infection or if it is the product of passive transport from the upper respiratory tract.		
PIMS-TS, inflammation, children, Afro-Caribbean ethnic group, Asian ethnic groups	24-Jun-20	Understanding Covid and the associated post-infectious hyper-inflammatory state (PIMS-TS) in children	Medical Hypotheses	Original Article	Afro-Caribbean and Asian children disproportionately presented with a post infectious hyper-inflammatory state resulting in critical illness and requiring the highest levels of pediatric intensive care support for COVID-19. The authors argue that Afro-Caribbean and Asian children display an ethnically determined predisposition to hyper-inflammation which leads to severe SARS-CoV-2 related disease. The authors detail the impacts of lung development, hyperinflammation, Vitamin D, and BMI on severe COVID-19. Low levels of Vitamin D due to skin color in sunshine poor regions results in a reduced anti-inflammatory effect whereas higher BMI results in a pro-inflammatory effect which is further compounded by the association of reduction of vitamin D levels in higher BMI groups. The authors conclude that in Europe and North America, children with Afro-Caribbean and Asian backgrounds are likely to be more affected because of earlier developmental maturation, low levels of Vitamin D, and higher BMI.	The authors argue that Afro-Caribbean and Asian children display a predisposition to hyper-inflammation which leads to severe SARS-CoV-2 related disease. In Europe and North America, children with Afro-Caribbean and Asian backgrounds are likely to be more affected because of earlier developmental maturation, low levels of Vitamin D, and higher BMI.	Riphagen S. Understanding Covid and the associated post-infectious hyper-inflammatory state (PIMS-TS) in children [published online 2020 Jun 24]. Med Hypotheses. 2020;144:110029. doi:10.1016/j.mehy.2020.110029
Children, physical activity, school closures, virtual learning, interactive learning environments	24-Jun-20	Engaging children and parents in physically active maths sessions [Free Access to Abstract Only]	Association for Computing Machinery	Research Article	At least 1.38 billion children and young people have been affected by school closures worldwide due to the COVID-19 pandemic. Evidence suggests that when children return to school after a period of closure, they display accelerated weight gain partly due to the lack of daily structure and loss of cardio-respiratory fitness activity. Taking into account the particular constraints on children's education and physical activity caused by the COVID-19 pandemic, this conference abstract presents an interactive computer program, “Numberfit,” that combines physically active games with mathematics. This program was designed to keep children physically active during COVID-19 lockdowns and encourage parental engagement while also allowing for autonomous play so that parents or caregivers can attend their other duties. Ultimately, the authors hope to evaluate this technology with children and families to investigate its effectiveness in maintaining physical activity levels throughout school closures.	Taking into account the particular constraints on children's education and physical activity caused by the COVID-19 pandemic, this conference abstract presents an interactive computer program, "Numberfit," that combines physically active games with mathematics.	Estibaliz Fraca, Rakhi Nair, Carys Hubbard, et al. Engaging children and parents in physically active maths sessions. Association for Computing Machinery. 2020. doi:https://doi.org/10.1145/3397617.3402032
Pediatric, hematology, autoimmune hemolytic anemia, psoriasis	24-Jun-20	Autoimmune Hemolytic Anemia in a Pediatric Patient With Severe Acute Respiratory Syndrome Coronavirus 2 Infection	The Pediatric Infectious Disease Journal	Letter to the Editor	The authors describe the first case of severe auto-immune hemolytic anemia (AIHA), to their knowledge, in a pediatric female patient with a SARS-CoV-2 infection. The 13-year-old patient presented with a seven-day history of fever, asthenia, headache, and syncopal episode without loss of consciousness. She had a personal medical history of psoriasis. She had decreased hemoglobin (6.3 g/dL), hematocrit (17.8%), mean corpuscular volume (90.4 fl), mean corpuscular hemoglobin (32 pg), and haptoglobin (<7.38 µmol/L) associating reticulocytosis (301,600 mm3). Increased lactate dehydrogenase and hyperbilirubinemia were found. Direct Coombs test was performed with a positive result (positive immunoglobulin G4 [IgG4] and negative C3d). The authors note that two studies recently reported cases of AIHA associated with COVID-19 in adults. By ruling out immunodeficiency, auto-immune disorder, or other viral infection, they suggest that SARS CoV-2 could have triggered AIHA in their pediatric patient.	In this article, the authors present the first case of severe auto-immune hemolytic anemia (AIHA) associated with SARS-CoV-2 infection in a pediatric patient. This case suggests that SARS-CoV-2 can trigger AIHA in pre-disposed children.	Vega Hernández P, Borges Rivas Y, Ortega Sánchez E, et al. Autoimmune Hemolytic Anemia in a Pediatric Patient With Severe Acute Respiratory Syndrome Coronavirus 2 Infection. [published online, 2020 Jun 24]. Pediatr Infect Dis J. 2020;39(9):e288. doi:10.1097/INF.0000000000002809

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
Children, adolescents, underlying conditions	24-Jun-20	SARS-CoV-2 in children and adolescents in Norway: confirmed infection, hospitalisations and underlying conditions	Tidsskriftet Den Norske Legeforening	Original Article	Children and adolescents are at lower risk of disease caused by SARS-CoV-2. Data was collected from all persons living in Norway as of March 1, 2020, with data on confirmed infection until May 13, 2020, and on hospitalizations until April 30, 2020. Out of 8,125 persons with confirmed SARS-CoV-2 in the population, 493 (6.1%) were under 20 years old. The median age of those <20 years was 15 years, and 252 (51 %) were girls. 3% was hospitalized. No deaths were registered among patients < 20 years in Norway. The authors note that few children and adolescents have had SARS-CoV-2 confirmed, and only a very few have been hospitalized. Underlying conditions may result in a lower threshold for testing, and hence a higher incidence of confirmed infection in this group, although higher risk cannot be excluded.	The authors describe the incidence of confirmed infection and hospitalization of children and adolescents < 20 years old in Norway, and specifically among those with underlying conditions.	Størdal K, Bakken IJ, Greve-Isdahl M, et al. SARS-CoV-2 in children and adolescents in Norway: confirmed infection, hospitalisations and underlying conditions. Sars-CoV-2 hos barn og ungdom i Norge: påvist smitte, sykehusinnleggelser og underliggende tilstander. Tidsskr Nor Laegeforen. 2020;140(11):10.4045/tidsskr.20.0457. Published 2020 Jun 24. doi:10.4045/tidsskr.20.0457
Pregnancy, integrative medicine, China	24-Jun-20	The potential benefits of Chinese integrative medicine for pregnancy women during the COVID-19 pandemic	Integrative Medicine Research	Commentary	The authors express that Chinese integrative medicine has potential anti-viral, anti-inflammatory, immune regulatory and organ protective effects in the management of COVID-19, along with the potential to prevent threatened abortion via regulating body immune functions. Due to these properties, the authors argue that it can be applied as a preventive approach for pregnant women during the COVID-19 pandemic. Historically, traditional Chinese medicine approaches have been used for infectious disease prevention. Certain Chinese herbs have been recommended by health authorities in some Chinese provinces for pregnant women to prevent COVID-19. The authors argue that acupuncture and moxibustion also have potential benefit. Mental health of pregnant women has been a concern during the pandemic, and the authors express that integrative medicine therapies have previously been beneficial for managing anxiety in high-risk pregnant women. Chinese integrative medicine could bring potential benefits to pregnant women during the COVID-19 pandemic, but evaluation of its safety in pregnancy should be emphasized.	The authors articulate potential benefits of Chinese integrative medicine for pregnant women during the COVID-19 pandemic.	Wang W, Zhang Q, Qu F. The potential benefits of Chinese integrative medicine for pregnancy women during the COVID-19 pandemic. Integr Med Res. 2020;9(3):100461. doi:10.1016/j.imr.2020.100461
Pregnancy, anxiety, obstetric decisions, China	24-Jun-20	Prenatal Anxiety and Obstetric Decisions Among Pregnant Women in Wuhan and Chongqing During the COVID-19 Outbreak: A Cross-Sectional Study	BJOG: An International Journal of Obstetrics & Gynecology	Research article	This cross-sectional study of 1,947 pregnant women in Wuhan (epidemic epicenter) and Chongqing (a less affected city), China, sought to investigate the mental status of pregnant women and to determine their obstetric decisions during the COVID-19 outbreak. Differences were observed between cities in some background characteristics, and women's attitudes towards COVID-19 in Wuhan were more extreme. More women in Wuhan felt anxious (24.5% vs 10.4%). Other factors that influenced anxiety included household income, subjective symptoms, and attitudes. Overall, obstetric decisions also revealed city-based differences; these decisions mainly concerned hospital preference, time of prenatal care or delivery, mode of delivery and infant feeding.	This study demonstrates that the outbreak aggravated prenatal anxiety and changed key obstetric decision-making, emphasizing the need for pertinent professional advice and special support for pregnant women during epidemics.	Liu X, Chen M, Wang Y, et al. Prenatal anxiety and obstetric decisions among pregnant women in Wuhan and Chongqing during the COVID-19 outbreak: a cross-sectional study [published online 2020 Jun 24]. BJOG. 2020. doi:10.1111/1471-0528.16381

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Pregnancy, immune-modulation, progesterone, disease severity	24-Jun-20	Do Pregnant Women Have Protective Immunity Against COVID-19?	British Journal of Obstetrics and Gynecology	Letter	This letter in response to the Thornton article "COVID-19 in pregnancy" presents an explanation for why pregnant women could experience less severe disease from COVID-19. In pregnancy, progesterone has immunomodulatory properties allowing maternal tolerance of the fetus which can impact immune pathways involved in autoimmune disease and immune-mediated injury. During pregnancy, there are increased circulating levels of anti-inflammatory molecules interleukin-1 receptor antagonist (IL-RA) and soluble tumor necrosis factor-α receptor (TNF-R), along with decreased IL-1β and TNF-α.2 Pregnant women could be preserved by the state of immunomodulation during pregnancy	The authors propose that immunomodulatory properties of progesterone during pregnancy could provide an explanation for decreased disease severity from COVID-19 in pregnancy.	Bouchghoul H, Vigoureux S. Do pregnant women have protective immunity against COVID-19? [published 2020 Jun 24]. BJOG. doi:10.1111/1471-0528.16342
Children, clinic features	24-Jun-20	Clinical Features and Outcome of SARS-CoV-2 Infection in Children: A Systematic Review and Meta-analysis	Indian Pediatrics	Review article	This systematic review aims to synthesize the current data that will help on a better understanding of COVID-19 in children. 27 studies (4857 patients) were included, from a total of 883 records that were identified through search of databases. About half of the patients had fever and/or cough, 11% (6-17%) had fast breathing, and 6-13% had gastrointestinal manifestations. Most of the patients had mild to moderate disease, and only 4% had a severe or critical illness. Leukopenia was the commonest reported laboratory abnormality. Even among the symptomatic COVID-19 cases, severe manifestations are seen in very few children.	Though fever and respiratory symptoms are most common, many children also have gastrointestinal manifestations. A comprehensive screening strategy including respiratory as well as gastrointestinal features (diarrhea and vomiting) may be more useful.	Meena J, Yadav J, Saini L, Yadav A, Kumar J. Clinical Features and Outcome of SARS-CoV-2 Infection in Children: A Systematic Review and Meta-analysis [published online, 2020 Jun 24]. Indian Pediatr.
Cytokine storm, disseminated intravascular coagulation, immunosuppression, children	24-Jun-20	COVID-19-associated Hemophagocytic Lymphohistiocytosis and Coagulopathy: Targeting the Duumvirate	Indian Pediatrics	Review Article	Preliminary data on the coexistence of secondary hemophagocytic lymphohistiocytosis syndrome (HLH) and disseminated intravascular coagulation (DIC) in critically ill children with COVID-19 are emerging. The authors summarize the available literature and fill-in the gaps in this regard. Children presenting with moderate-severe COVID-19 and Kawasaki disease shock-like syndrome exhibit peripheral blood picture analogous to HLH. HScore, a validated tool to diagnose HLH, has been suggested to screen severe COVID-19 patients for cytokine storm yet has certain limitations in this scenario. COVID-19 associated coagulopathy resembles hypercoagulable disseminated intravascular coagulation. Data is lacking for patients <14 years of age regarding use of low molecular weight heparin. However, the authors caution uses of unfractionated heparin. The authors conclude that children with moderate-to-severe COVID-19, especially those with documented thrombocytopenia or chilblains, should be regularly monitored for coagulopathy.	HScore can be used as a complement for the decision to initiate immunosuppression in the setting of cytokine storm in COVID-19 pediatric patients. The presence of a coagulopathy should be regularly monitored for in moderate-to-severe COVID-19 pediatric patients.	Bhattacharjee S, Banerjee M, Pal R. COVID-19-associated Hemophagocytic Lymphohistiocytosis and Coagulopathy: Targeting the Duumvirate [published online, 2020 Jun 24]. Indian Pediatr. 2020;S097475591600204.
Healthcare, children, young people	24-Jun-20	Addressing the Indirect Effects of COVID-19 on the Health of Children and Young People	Canadian Medical Association Journal	Analysis	Illness and hospital admissions directly related to COVID-19 have been infrequent for children and young people; however, pandemic-related service closures have resulted in limited access to primary and secondary health care, parental fear of seeking health care, closures of daycares and schools, and employment and financial instability. Adverse childhood experiences, including family violence, non-accidental trauma, and mental illness, are expected to increase during the lockdown and worsen during the anticipated economic recession. Safe care must continue to be provided in the community and in the hospital. Clear and transparent communication with children, young people, and their families is needed regarding uncertainties	Although severe COVID-19 seems to be rare in children and young people, this demographic group will likely experience a high burden of indirect physical, social and mental health effects related to reduced non-urgent care and	Chanchlani N, Buchanan F, Gill PJ. Addressing the indirect effects of COVID-19 on the health of children and young people [published online, 2020 Jun 24]. CMAJ. doi:10.1503/cmaj.201008

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					about ongoing care and the reorganization of services. Social re-introduction policies, resumption of normal health care services, and changes to services should be informed by systematically collected data and understanding of families' lived experiences.	general pandemic control measures.	
Pregnancy, neonates, health care workers, training	24-Jun-20	Voices From the Frontline: Findings From a Thematic Analysis of a Rapid Online Global Survey of Maternal and Newborn Health Professionals Facing the COVID-19 Pandemic	BMJ Global Health	Original research	This study surveyed 714 frontline maternal and newborn healthcare providers in a global, cross-sectional study between 24 March and 10 April 2020. One-third received training on COVID-19 from their health facility and nearly all searched for information themselves. Half of respondents in LMICs received updated guidelines for care provision compared with 82% in HICs. 47% of respondents in LMICs and 69% in HICs felt mostly or completely knowledgeable in how to care for COVID-19 maternity patients. Globally, 90% of respondents reported somewhat or substantially higher levels of stress. There was a widespread perception of reduced use of routine maternity care services, and of modification in care processes, some of which were not evidence-based practices.	Substantial knowledge gaps exist in guidance on management of maternity cases with or without COVID-19. Surveys of maternity care providers can help track the situation, capture innovations and support rapid development of effective responses.	Semaan A, Audet C, Huysmans E, et al. Voices from the frontline: findings from a thematic analysis of a rapid online global survey of maternal and newborn health professionals facing the COVID-19 pandemic. BMJ Glob Health. 2020;5(6):e002967. doi:10.1136/bmjgh-2020-002967
Children, immunization, implementation science, health systems, Africa	24-Jun-20	COVID-19 and Routine Childhood Immunization in Africa: Leveraging Systems Thinking and Implementation Science to Improve Immunization System Performance	International Journal of Infectious Diseases	Perspective	Because of reliance on functioning health facilities, childhood immunization in Africa is being disrupted by COVID-19, increasing the risk of epidemics of vaccine-preventable diseases which can increase child mortality. Policymakers must quickly identify robust and context-specific strategies to rapidly scale-up routine immunization in order to mitigate the impact of COVID-19. The authors propose a paradigm shift towards systems thinking, to inform a more nuanced and holistic approach, and use of implementation science in immunization decision making. Tools like causal loop diagrams can be used to explicitly illustrate the systems structure by identifying the feedback loops. Implementation science can be used to guide the utilization of evidence-based innovations in complex practice settings. These emerging fields can contribute significantly in Africa in accelerating progress toward universal access to vaccines for all children despite COVID-19.	Using systems thinking can advance the understanding of the interaction and relationships between COVID-19 and immunization. Implementation science models can be used to guide the use of evidence-based innovations to re-design local systems, enhancing access and utilization of immunization services during the COVID-19 outbreak.	Adamu AA, Jalo RI, Habonimana D. COVID-19 and routine childhood immunization in Africa: leveraging systems thinking and implementation science to improve immunization system performance [published online 2020 Jun 24]. Int J Infect Dis. 2020;S1201-9712(20)30507-5. doi:10.1016/j.ijid.2020.06.072
Antimicrobials, stewardship, pediatric, outbreak management, Spain	24-Jun-20	Pediatric Antimicrobial Stewardship in the COVID-19 Outbreak	Infection Control & Hospital Epidemiology	Letter to the Editor	The authors describe the impact of the COVID-19 pandemic on antimicrobial use in a Spanish pediatric referral hospital and propose a role for antimicrobial stewardship programs in local management of the outbreak. They randomly selected 210 prescriptions from 16 March-30 April 2020 for quality assessment. They found that antimicrobial use was significantly higher during these two months compared to the same time period in 2019. Despite major changes in use, they did not observe a critical deterioration of antimicrobial prescription quality to date. Of 210 prescriptions, 79.5% were considered 'optimal' in accordance to current principles compared to 79% in 2019. The authors conclude that the SARS-CoV-2 pandemic has the potential to have a significant impact on antimicrobial use in the pediatric inpatient population. They recommend widespread integration of antimicrobial stewardship programs in the guideline development, response integration, and evaluation strategies.	While antimicrobial use statistically increased in March-April 2020 compared to March-April 2019, the quality of prescriptions remained the same. Antimicrobial stewardship programs should play an active role in outbreak response to maintain high quality care for the pediatric inpatient population.	Velasco Arnaiz E, Lopez Ramos MG, SimÓ Nebot S, et al. Pediatric antimicrobial stewardship in the COVID-19 outbreak [published online, 2020 Jun 24]. Infect Control Hosp Epidemiol. doi:10.1017/ice.2020.312

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Children, immunization, Africa	24-Jun-20	Benefit-risk analysis of health benefits of routine childhood immunization against the excess risk of SARS-CoV-2 infections during the COVID-19 pandemic in Africa	medRxiv	Pre-print (not peer reviewed)	National immunization programs globally are at risk of suspension due to the COVID-19 pandemic. The authors compare the health benefits of sustaining routine childhood immunization in Africa against the risk of acquiring SARS-CoV-2 infections through visiting routine vaccination service delivery points. Two scenarios are used to approximate the child deaths that may be caused by immunization coverage reductions during COVID-19 outbreak. For everyone excess COVID-19 death attributable to SARS-CoV-2 infections acquired during routine vaccination clinic visits, there could be 84 (14-267) deaths in children prevented by sustaining routine childhood immunization in Africa. The benefit-risk ratio for the vaccinated children, siblings, parents or adult caregivers, and older adults in the households of vaccinated children are 85,000 (4,900 - 546,000), 75,000 (4,400 - 483,000), 769 (148 - 2,700), and 96 (14 - 307) respectively.	This analysis suggests that the health benefits of sustaining routine childhood immunization in Africa far outweigh the risk of COVID-19 deaths associated with vaccination clinic visits. However, other factors that must be considered in sustaining routine childhood immunization include logistical constraints, reallocation of providers and staffing shortages, decreased vaccination demand, and infection risk to staff.	Abbas K, Procter S, van Zandvoort K, et al. Benefit-risk analysis of health benefits of routine childhood immunisation against the excess risk of SARS-CoV-2 infections during the COVID-19 pandemic in Africa. [published online 2020 June 24]. medRxiv. doi: 10.1101/2020.05.19.20106278
Neonates, NICU, Italy	24-Jun-20	Reshaping of Neonatal Intensive Care Units to Avoid the Spread of COVID-19 to High-Risk Infants	Infection Control & Hospital Epidemiology	Letter to the Editor	Given concern for spread of COVID-19 infection in infants and healthcare workers of NICUs, this retrospective observational study looked at 101 infants admitted to a tertiary level NICU. All infants were tested for SARS-CoV-2 upon admission and were isolated until the test negative test result was available before NICU admission. resulted. Healthcare workers used a surgical mask at all times in the NICU and underwent daily body temperature checks. Parents' visits had restricted hours, screening, and PPE requirements. 1 infant tested positive on admission and was subsequently hospitalized in a dedicated pediatric COVID-19 unit instead of the NICU. Of the remaining 100 infants hospitalized in the NICU, no SARS-CoV-2 infections were documented during their hospitalizations, and none of the NICU healthcare workers acquired COVID-19 during the study's duration.	The authors recommend that all newborns be tested for SARS-CoV-2 before NICU admission to reduce the possibility of transmission within the NICU. They further emphasize the importance of strict preventive measures being adopted in all NICUs.	De Rose DU, Auriti C, Landolfo F, et al. Reshaping of Neonatal Intensive Care Units to avoid the spread of COVID-19 to high-risk infants [published online 2020 Jun 24]. Infect Control Hosp Epidemiol. 2020;1-8. doi:10.1017/ice.2020.310
Cardiology, congenital cardiac disorders, surgical decision making, Turkey, prioritization, congenital surgery	24-Jun-20	Congenital Cardiac Interventions during the Peak Phase of COVID-19 Pandemics in the Country in a Pandemic Hospital in Istanbul	Cardiology in the Young	Original Research	Several challenges are present when approaching congenital cardiac disorders during a pandemic, as highlighted by this retrospective study of 31 patients who underwent surgical or interventional congenital cardiac procedures at a hospital in Turkey from March 10-April 30, 2020. COVID-19 is more severe in patients with existing cardiovascular disorders and may be worse in a postoperative cardiac case. In addition, shortages of ICU space, supplies, and workforce contribute to the challenge of prioritization and timing of surgery. Elective cases were postponed, and priority was given to interventional procedures. Palliative procedures were preferred in patients requiring long hospital stay, while corrective procedures were not delayed in prioritized stable patients. Mortality occurred in one patient. Eight patients out of 151 intensive care unit admissions were diagnosed with COVID-19 and transferred to COVID-19 intensive care. Three nurses became infected with SARS-CoV-2; however, their patients did not catch the disease.	Mandatory and emergent congenital cardiac procedures, with meticulous care and preventive measures, may be performed with similar postoperative risks in pandemics.	Ugurlucan, M., Yildiz, Y., Oztas, D., et al. Congenital Cardiac Interventions during the Peak Phase of COVID-19 Pandemics in the Country in a Pandemic Hospital in Istanbul. Cardiology in the Young, 1-28. doi:10.1017/S1047951120002000
Antepartum and Postpartum depression,	24-Jun-20	Perinatal Mental Health and COVID-19 in Japan	Psychiatry and Clinical Neurosciences	Letter to the Editor	COVID-19 has had widespread effects on perinatal mental health. MTI, an information distribution app for pregnant women in Japan, conducted a recent survey of 2872 pregnant women which revealed women's main concerns were: the effect on the fetus of COVID-19 (91.0%), the possibility of	This letter adds to the data regarding concerns of pregnant women during the pandemic and proposes	Haruna M, Nishi D. Perinatal mental health and COVID-19 in Japan [published 2020 Jun 24].

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social support, smartphones, cognitive behavioral therapy, Japan					having serious complications when infected (74.3%), the lack of therapeutic drugs to treat COVID-19 (71.2 %), infections of children after childbirth (69.1%), and infections at medical institutions (64.8%). 68.4% answered that antenatal support was insufficient. In addition, pregnant women in Japan are urged not to visit their hometowns and participate in satogaeri childbirth to prevent further spread of the virus, which may reduce their social support. In response, the authors have developed a smartphone-based cognitive-behavioral therapy (iCBT) program and are conducting a randomized controlled trial to evaluate the effectiveness of iCBT to prevent the onset of antenatal and postpartum depression.	using a smartphone program to prevent antenatal and postpartum depression.	Psychiatry Clin Neurosci. doi:10.1111/pcn.13091
Children, clinical characteristics, China	24-Jun-20	Clinical Characteristics of Acute Respiratory Syndrome With SARS-CoV-2 Infection in Children in South China	Pediatric Pulmonology	Original Article	This retrospective study includes 52 children with SARS-CoV-2 infection in 11 hospitals from three provinces of South China. 44.2% were clustered occurrences. 40.4% with fever and 48.1% with cough. 46.2% had a high lymphocyte count. No abnormalities were found in liver and kidney function. 82.7% received antiviral therapy, but such therapy did not shorten the virus-negative time or hospital stay (P=0.082). Virus negative time was 12.0 days (IQR, 8.0-16.8), and hospital stay was 14.5 days (IQR, 10.3-17.9). Compared with reports in Wuhan, there were more acute upper respiratory tract infections, and fewer pneumonia cases (P=0.000). Compared with the non-ICU adult COVID-19 in Wuhan, these children's diseases were relatively mild, with fewer complications.	Children with SARS-CoV-2 infection had a mild fever, lymphocyte elevation was more common than reduction, antiviral treatment had no obvious effect. The overall clinical manifestations were mild, and the prognosis was good.	Zheng G, Wang B, Zhang H, et al. Clinical Characteristics of Acute Respiratory Syndrome with SARS-CoV-2 Infection in Children in South China [published online, 2020 Jun 24]. Pediatr Pulmonol. doi:10.1002/ppul.24921
non-accidental injury (NAI); child abuse; COVID-19; pandemic; social stressors; child abuse signs	23-Jun-20	Physical child abuse demands increased awarenes during health and socioeconomic crises like COVID-19	Acta Orthopaedica	Review	The authors report a surge in domestic violence during the COVID-19 pandemic and want to present educational material for healthcare workers to identify child abuse. Traditionally healthcare workers identify only 17% of cases of suspected maltreatment of children, with the vast majority reported by school personnel. The authors identify 7 pathways for how pandemics might increase violence against intimate partners and children: 1) economic insecurity and poverty-related stress, 2) quarantines and social isolation, 3) disaster and conflicted-related unrest and instability, 4) exposure to exploitative relationships due to changing demographics, 5) reduced health service availability, 6) inability to escape the abuser, 7) virus-specific sources of violence. Due to increased chances for child abuse and decreased access to school personnel, the authors stress the need for healthcare workers to be mindful of red flags in physical and paraclinical examinations and watch for risk indicators concerning the child, caregiver, or the environment. Skin manifestations (bruises, bite marks, thermal injury) are evident in 90% of victims of physical abuse, and thus a physical exam of the entire body is necessary. It is also imperative for healthcare workers to be aware of radiologic red flags, including highly specific fractures and head trauma. Medical personnel are often presented with victims of abuse in emergency settings for a short time. They must detect and refer to appropriate follow-up, especially as the usual mechanisms to keep children safe are unavailable during the COVID-19 pandemic lockdowns.	The authors report a surge in domestic violence during the COVID-19 pandemic and want to present educational material for healthcare workers to identify child abuse. Medical personnel are often presented with victims of abuse in emergency settings for a short time. They must detect and refer for appropriate follow-up, especially as the usual mechanisms to keep children safe are in lockdown during the COVID-19 pandemic.	Martinkevich P, Larsen LL, Græsholt-Knudsen T, et al. Physical child abuse demands increased awareness during health and socioeconomic crises like COVID-19. *Acta Orthop*. 2020;91(5):527-533. doi:10.1080/17453674.2020.1782012
Nutrition, food security, China	23-Jun-20	How to prevent a global food and nutrition security	China Agricultural Economic Review	Review Article	This paper reviews the impact of pandemics and the 2018 food price crisis on food and nutrition security, with a focus on Chinese experiences and lessons, to propose policy actions to prevent a global food and nutrition security crisis. The authors utilized a noncomprehensive review of peer-reviewed and	The review and analysis of this paper is intended to help policymakers in China and other countries design	Fan S, Si W, Zhang Y. How to prevent a global food and nutrition security crisis under COVID-19?

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		crisis under COVID-19?			nonpeer-reviewed literature, and case studies. Under the ongoing COVID-19 pandemic, China's food and nutrition situation is relatively secure in the short run, largely due to pro-active governmental policies, but may face uncertainties in livestock production and imports of soybean in the medium and long terms. Given the global spread of COVID-19, global cooperation and coordination are needed to prevent systemic risks to global food and nutrition security.	strategies and actions to prevent a food and nutrition security crisis under the ongoing COVID-19 emergency and other similar threats in the future.	[published online 2020 Jun 23]. China Agr Econ Rev. doi: 10.1108/CAER-04-2020-0065
Children, comorbidities, biphasic disease, clinical characteristics, Brazil	23-Jun-20	Management and Clinical Characteristics in Children with SARS-CoV-2 Infection: Experience in a highly complex public hospital in the city of Sao Paulo	medRxiv	Pre-print (not peer reviewed)	This prospective study was carried out between November 4, 2020 to May 25, 2020 among 39 children (mean age 94.5 months, range 24 days to 19 years old) with confirmed diagnosis of COVID-19, at a public pediatric hospital in São Paulo, Brazil. Of the 39 patients, 26 (66.7%) were hospitalized, 27 (69. 2%) received antibiotic therapy, and 26 (66.7%) had some comorbidity. Seven (17.9%) had complementary exams suggestive of secondary bacterial infection, 7 (17.9%) evolved clinical complications requiring ICU admission, and 5 (12.8%) needed mechanical ventilation. While there was no significant difference in length of hospital stay between groups with and without comorbidities, there was a tendency for a greater number of days of hospitalization for patients who had biphasic evolution. One patient had a clinical suspicion of MIS-C, and all patients experienced clinical improvement.	In general, most pediatric patients with COVID-19 in this study from Brazil did not experience major clinical severity, with some cases demonstrating biphasic disease (initial improvement followed by clinical worsening).	Vieira RSR, Aguiar EL, Verlangieri HAR, et al. Management and Clinical Characteristics in Children with SARS-CoV-2 Infection: Experience in a highly complex public hospital in the city of Sao Paulo. Preprint. MedRxiv. [posted online, 2020 Jun 23] doi: 10.1101/2020.06.22.20136994
Mode of delivery, critical care, forceps vaginal delivery, pregnancy	23-Jun-20	Induction of Labor in an Intubated Patient With Coronavirus Disease 2019 (COVID-19)	Obstetrics and Gynecology	Case Report	In the COVID-19 pandemic, delivery of critically ill pregnant patients has predominantly been by C-section. This case describes a 27-year-old pregnant woman who was admitted to a 166-bed community hospital at 33 weeks of gestation with acute hypoxemic respiratory failure secondary to COVID-19. She underwent mechanical ventilation for 9 days. While ventilated, she underwent induction of labor, resulting in a successful forceps assisted-vaginal birth. She was extubated on postpartum day 5 and discharged on postpartum day 10. The neonate was intubated for 24 hours but was otherwise healthy and discharged home at 36 2/7 weeks. Critically ill patients requiring mechanical ventilation, in this case due to COVID-19, may undergo induction of labor and vaginal delivery when carefully selected.	This case describes a successful induction of labor and forceps-assisted vaginal birth in a critically ill COVID-19 pregnant patient.	Slayton-Milam S, Sheffels S, Chan D, Alkinj B. Induction of Labor in an Intubated Patient With Coronavirus Disease 2019 (COVID-19) [published 2020 Jun 23]. Obstet Gynecol. doi:10.1097/AOG.0000000000004044
Hematology, oncology, pediatric	23-Jun-20	COVID-19 in Children With Blood and Cancer Disorders: What Do We Know So Far?	Journal of Pediatric Hematology/ Oncology	Letter to the Editor	The author provides an overview of the published literature regarding the outcomes of pediatric hematology and oncology patients with COVID-19. The article summarizes data from several registries including from North American PICUs, the Sickle Cell Disease registry, the American Society of Hematology registry, the Centre for International Blood and Marrow Transplant Research registry, and St. Jude's global registry. The author concludes that there are limited data available regarding the treatment of outcomes of COVID-19-positive patients with blood and cancer disorders. Overall, most children have a mild course and mostly recover.	Several registries are collecting data regarding the outcomes of COVID-19-positive pediatric hematology and oncology patients, yet the data that exists are still limited.	Yadav SP. COVID-19 in Children With Blood and Cancer Disorders: What Do We Know So Far? [published online, 2020 Jun 23]. J Pediatr Hematol Oncol. doi:10.1097/MPH.0000000000001872
Children, young people, diabetes	23-Jun-20	Severe COVID-19 in Children and Young Adults	The Journal of Pediatrics	Letter to the Editor	The authors respond to a report by DeBiasi et al. stating that 3% of the pediatric patients who tested positive with SARS-CoV-2 at their center had a history of diabetes. Two of the five patients with diabetes required hospitalization. The authors argue that it would be informative to know the type of diabetes, duration of diagnosis, and glycemic control for those patients. Data on whether the patients presented with symptoms related to diabetes versus symptoms related to SARS-CoV-2, whether any of the patients	To date as part of the ongoing Type 1 diabetes COVID-19 Surveillance Study COVID-19 coordinated by the T1D Exchange, there have been over 20 reported cases of	Wilkes M, Ebekozien O, Issa R, et al. Severe COVID-19 in Children and Young Adults [published online 2020 Jun 23]. J Pediatr.

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					with SARS-CoV-2 newly diagnosed with diabetes would be informative too. At the Mount Sinai Kravis Children's Hospital in New York City, 10 pediatric patients (average age 14.5 years, 8 females, 5 with new-onset diabetes) were treated in the emergency department (ED) or hospitalized with diabetes-related complications. Compared to the prior 3 years at the authors' children's hospital, no significant difference was noted in the number of Type 1 Diabetes patients admitted or treated in the ED. There were also no significant differences in the number of newly diagnosed patients or severity of diabetic keto-acidosis.	SARS-CoV-2 nationally in pediatric patients with Type 1 diabetes.	doi:10.1016/j.jpeds.2020.06.061
Pregnancy, clinical guidelines, management	23-Jun-20	Putting It All Together: Clinical Considerations in the Care of Critically Ill Obstetric Patients With COVID-19	American Journal of Perinatology	Clinical opinion	Pregnant patients with SARS-CoV-2 and illness severity that warrant intensive care have a complex disease process that must involve multiple disciplines. Guidelines from various clinical societies, along with direction from local health authorities, must be considered. The authors synthesize various high-level guidelines of clinical relevance in the management of pregnant patients with critical illness due to COVID-19. When caring for severely ill obstetric patients with COVID-19, complications that may need to be managed include adult respiratory distress syndrome with need for mechanical ventilation, approach to refractory hypoxemia, hemodynamic shock, and multiorgan system failure. Prone positioning can be done safely in gravid patients but requires key areas of support to avoid abdominal compression. The focus should be on supportive care as a bridge to recovery rather than delivery as a solution to recovery.	The authors provide guidance for management of critically ill pregnant patients with COVID-19 that synthesizes high-level clinical guidelines. Key recommendations include ability to manage complications that may arise, safety of prone positioning, and an emphasis on supportive care rather than delivery as a route to recovery.	Oxford-Horrey C, Savage M, Prabhu M, et al. Putting It All Together: Clinical Considerations in the Care of Critically Ill Obstetric Patients with COVID-19 [published online 2020 Jun 23]. Am J Perinatol. 2020. doi:10.1055/s-0040-1713121
Children, oncology, immuno-suppression, management	23-Jun-20	Benign Course of SARS-CoV-2 Infection in a Series of Pediatric Oncology Patients	Pediatric Blood and Cancer	Letter to the Editor	There is a paucity of data describing SARS-CoV-2 infection in pediatric patients with cancer. The authors report on six pediatric oncology patients who tested positive for SARS-CoV-2 infection. All patients had relatively mild SARS-CoV-2-related symptoms. None were hospitalized due to COVID-19 and none required respiratory support at diagnosis. The findings in these patients were comparable to the presentation of SARS-CoV-2 infection in the general, non-immunosuppressed pediatric population. These findings are consistent with reports from Italy and New York City. Given the risk of disease progression with treatment delay, this experience suggests that cancer therapy can be safely administered in some patients even while they have detectable SARS-CoV-2 RNA.	This series of pediatric oncology patients with SARS-CoV-2 infection demonstrated comparable clinical presentation of COVID-19 to that of the general pediatric population, suggesting that cancer therapy can be safely administered even with co-existing SARS-CoV-2 infection.	Rossoff J, Patel AB, Muscat E, Kociolek LK, Muller WJ. Benign course of SARS-CoV-2 infection in a series of pediatric oncology patients [published online 2020 Jun 23]. Pediatr Blood Cancer. 2020;e28504. doi:10.1002/pbc.28504
Children, oncology, management, LMIC, Pakistan	23-Jun-20	Pediatric Hematology Oncology During SARS-CoV-2: A Brief Communication of 28 Patients and Changes in Clinical Practice from a Single Institute in Pakistan	Pediatric Blood and Cancer	Letter to the Editor	This is a case-control study in Pakistan that assesses all the pediatric hematology/oncology patients who underwent SARS-CoV-2 nasopharyngeal swab RT-PCR testing. Patients were tested following universal screening if they were classified as medium to high risk, if they were electively admitted to an inpatient service, and prior to a bone marrow transplant. 28 patients were tested. All patients with febrile illness were isolated and tested for SARS-CoV-2, with the anticancer regimen delivered if the test resulted negative. The authors describe challenges to practicing pediatric oncology in an LMIC setting amidst a pandemic, including the cost of testing, cascade of exposed contacts from any healthcare worker suspected to have COVID-19, low rate of children testing positive, families withholding chemotherapy, and care access challenges.	The authors highlight challenges to adapting specialized care such as pediatric oncology in the midst of a pandemic and in an LMIC setting, including issues regarding cost and access to care.	Sajid MI, Altaf S, Mushtaq N, Belgaumi A, Fadoo Z. Pediatric hematology oncology during SARS-CoV-2: A brief communication of 28 patients and changes in clinical practice from a single institute in Pakistan [published online 2020 Jun 23]. Pediatr Blood Cancer.

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							2020;e28527. doi:10.1002/pbc.28527
Pregnancy, neonates, placenta, infection	23-Jun-20	Maternal and Neonatal Response to COVID-19	American Journal of Physiology	Perspective	The risk of SARS-CoV-2 to maternal and newborn health has yet to be determined. Several reports suggest pregnancy does not typically increase the severity of the disease, however, several cases of pre-eclampsia and preterm birth have been reported. Reports of placental infection and vertical transmission are rare. Interestingly, despite the lack of SARS-CoV-2 placenta productive infection, there are several reports of significant abnormalities in placenta morphology. It is important to note that the placenta abnormalities that have been described occur mostly in women who are asymptomatic or have mild to moderate disease, suggesting that these defects are not simply due to severe COVID-19 disease. The presence of ACE2 in the placenta suggests there is potential to bind SARS-CoV-2 initiating viral infection, however, the mechanisms underlying the inability of SARS-CoV-2 to infect and replicate in the placenta are unknown.	Vertical transmission of SARS-CoV-2 is considered unlikely, however, it appears that there is considerable potential for SARS-CoV-2 to affect the placental function and fetal development.	Golden TN, Simmons RA. Maternal and Neonatal Response to COVID-19 [published online, 2020 Jun 23]. Am J Physiol Endocrinol Metab. doi:10.1152/ajpendo.00287.2020
Pregnancy, clinical characteristics, perinatal outcomes	23-Jun-20	Clinical Presentation and Outcomes of Pregnant Women With COVID-19: A Systematic Review and Meta-Analysis	Clinical Infectious Diseases	Review article	This review of clinical characteristics and perinatal outcomes of COVID-19 in pregnancy was conducted from December 2019 to April 30th, 2020. Twenty-four studies (136 women) were included. The most common symptoms were fever (62.9%) and cough (36.8%). Laboratory findings included elevated C-Reactive Protein (57%) and lymphocytopenia (50%). Ground-glass opacity was the most common radiological finding (81.7%). Preterm birth rate was 37.7% and cesarean delivery rate was 76%. There was one maternal death and two fetal COVID-19 cases. Overall, the clinical picture in pregnant women with COVID-19 did not differ from the non-pregnant population, however, the rate of preterm birth and cesarean delivery were considerably higher than international averages.	The clinical picture of COVID-19 during pregnancy resembles that of non-pregnant patients, with higher rates of preterm birth and cesarean delivery.	Matar R, Alrahmani L, Monzer N, et al. Clinical Presentation and Outcomes of Pregnant Women with COVID-19: A Systematic Review and Meta-Analysis [2020 Jun 23]. Clin Infect Dis. doi:10.1093/cid/ciaa828
Maternal morbidity, preeclampsia, placental infection, molecular pathology	23-Jun-20	SARS-CoV-2 Infection of the Placenta	Journal of Clinical Investigation	Case Report	This report describes a case of second trimester COVID-19 associated with pre-eclampsia and SARS-CoV-2 infection of the placenta. A previously healthy 35-year old gravida 3 para 1011 woman presented at 22 weeks' gestation with symptoms of COVID-19, vaginal bleeding, and abdominal pain. SARS-CoV-2 RNA was detected by RT-PCR in a nasopharyngeal swab. Laboratory studies revealed elevated liver transaminases, profound thrombocytopenia, and increased urine protein consistent with pre-eclampsia, as well as coagulation studies consistent with disseminated intravascular coagulation. Following maternal resuscitation and termination of the pre-viable pregnancy, the US CDC RT-PCR assay demonstrated the placenta and umbilical cord were positive for SARS-CoV-2 RNA. The placenta showed a focal placental infarct indicative of abruption. Histological examination of the placenta showed diffuse perivillous fibrin and an inflammatory infiltrate. SARS-CoV2 localized predominantly to the syncytiotrophoblast cells of the placenta. These findings suggest that COVID-19 may have contributed to placental inflammation that ultimately resulted in early onset pre-eclampsia and worsening maternal disease.	This case demonstrated SARS-CoV-2 invasion of the placenta in a woman with early onset severe pre-eclampsia, suggesting a possible contribution of COVID-19 to maternal morbidity.	Hosier H, Farhadian SF, Morotti RA, et al. SARS-CoV-2 infection of the placenta [published 2020 Jun 23]. J Clin Invest. doi:10.1172/JCI139569
Reproductive health, ectopic pregnancy,	23-Jun-20	Increased Rate of Ruptured Ectopic Pregnancy in the COVID-19	Ultrasound in Obstetrics and Gynecology	Original Research	This retrospective study compared the proportion of ruptured tubal ectopic pregnancy necessitating emergency surgical intervention before lockdown (January 1st, 2014 until February 29th, 2020) and during COVID-19 lockdown (March 1st to 30th April 30th, 2020) at a University Hospital in Bologna, Italy.	The proportion of ruptured ectopic pregnancies was higher during lockdown than during pre-lockdown	Casadio P, Youssef A, Arena A, et al. Increased rate of ruptured ectopic pregnancy in the COVID-

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ruptured ectopic, Italy		Pandemic: An Analysis from the North of Italy			Overall, 201 women in the first time period and 9 women in the second time period were admitted with tubal ectopic pregnancies. The proportion of ruptured ectopic pregnancies were significantly higher during the lockdown in comparison with the pre-lockdown period (6/9; 66.7% vs. 52/201; 25.9%, P = 0.02). This raises concern regarding the consequences of the COVID-19 pandemic in women of reproductive age.	time periods in Bologna, Italy.	19 pandemic: an analysis from the North of Italy [published 2020 Jun 23]. Ultrasound Obstet Gynecol. doi:10.1002/uog.22126
Anxiety, psychological distress, pregnancy, Israel	23-Jun-20	Distress and Anxiety Associated With COVID-19 Among Jewish and Arab Pregnant Women in Israel	Journal of Reproductive and Infant Psychology	Original Article	Since little is known about the possible implications of COVID-19 for pregnancy, pregnant women are at greater risk of heightened anxiety and psychological distress. In this study, the authors explore the psychological distress and COVID-19-related anxiety of pregnant women during the crisis. They provided questionnaires to Israeli Jewish and Arab pregnant women (n = 336) aged 20–47 years in March 2020. The levels of all COVID-19-related anxieties were relatively high (much or very much), with the highest regarding public places and transportation (87.5%, 70%, respectively), followed by concerns over the possible infection of other family members and the health of the fetus (71.7%, 70%, respectively), going for pregnancy check-ups (68.7%,), being infected themselves, and the delivery (59.2%, 55.4%, respectively). Although COVID-19-related anxieties were shared by pregnant women characterized by diverse sociodemographic variables, with very small nuances, Arab women were more anxious about each of the issues than Jewish women.	It is important to assess COVID-19-related anxiety and distress in pregnant women, particularly in vulnerable subgroups such as cultural minorities. The authors found high levels of COVID-19 related anxiety and distress identified in Israeli Jewish and Arab women.	Taubman-Ben-Ari O, Chasson M, Abu Sharkia S et al. Distress and anxiety associated with COVID-19 among Jewish and Arab pregnant women in Israel [published online, 2020 Jun 23]. J Reprod Infant Psychol. doi:10.1080/02646838.2020.1786037
HSCT, bone marrow transplant, pediatric, Spain	23-Jun-20	COVID-19 in Pediatric Hematopoietic Stem Cell Transplantation: The Experience of Spanish Group of Transplant (GETMON/GETH)	Pediatric Blood and Cancer	Letter to the Editor	The authors provide the first published experience of the impact of COVID-19 after pediatric hematopoietic stem cell transplantation (HSCT). This letter reports the outcomes of eight posttransplant cases of COVID-19 from a single group in Spain. None of the patients were asymptomatic, with the most common symptoms were fever (62.5%), respiratory symptoms (50%), and diarrhea (25%). Two patients (25%) were hospitalized with COVID-19, three patients (37.5%) were already hospitalized, and three patients (37.5%) remained outpatient. Two patients were admitted to the ICU for mechanical ventilation, one was placed on ECMO, and one patient died from alveolar hemorrhage. The authors conclude that the incidence of COVID-19 is lower after HSCT in children than adults. They also state the patients with an immunodeficiency have a higher risk of COVID-19 as they accounted for a third of their cases while only comprising 10% of the indication for pediatric HSCT.	The first published case series of post-HSCT pediatric cases of COVID-19 demonstrated a lower incidence of infection compared to adult HSCT. It also showed that patients who underwent transplant for an immunodeficiency were at a higher risk of COVID-19.	Vicent MG, Martinez AP, Trabazo Del Castillo M, et al. COVID-19 in pediatric hematopoietic stem cell transplantation: The experience of Spanish Group of Transplant (GETMON/GETH) [published online, 2020 Jun 23]. Pediatr Blood Cancer. doi:10.1002/pbc.28514
Social distancing, quarantine, pediatric, guidelines	23-Jun-20	Isolating Children Is Not the Answer to COVID-19	Pediatric Pulmonology	Letter to the Editor	In this response to Lin et al. 2020, the author disagrees with the recommendation to extend quarantine periods based on the observation of a single case. He acknowledges that while social distancing appears to be a useful tool in outbreak management, the benefits and risks of social quarantines continue to be debated by the public health field. He maintains that while the effects of prolonged quarantines on children in societies used to freedom are yet to be measured, but they will surely have a striking impact. In conclusion, he cautions making recommendations for a disease that has such a widespread impact based on a single case.	Recommendations for social isolation during the COVID-19 pandemic have a wide-reaching impact, particularly on the pediatric population in which the benefits and harms are not yet fully understood. Guidelines can therefore not be based on only one case.	Ferrero F. Isolating children is not the answer to COVID-19 [published online, 2020 Jun 23]. Pediatr Pulmonol. doi:10.1002/ppul.24911

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Healthcare access, vulnerable population, pediatric, essential healthcare, UK	23-Jun-20	Double-edged Sword of Limiting Healthcare Provision for Children in Times of COVID-19: The Hidden Price We Pay	Archives of disease in childhood	Viewpoint	In this viewpoint article, the author argues that during the pandemic, pediatric patients who are SARS-CoV-2 negative are also being hurt by this crisis. He states that the 'flatten-the-curve imperative' inevitably comes at a price. Children may be disproportionally impacted by the policy of 'essential healthcare only'. The global non-COVID-19 burden remains the same, yet clinical activities have largely been restricted leading to a potential backlog of untreated disease. The author argues further that social distancing policies and school closures have decreased access for vulnerable children. In particular, food insecurity and loss of academic achievement are expected to significantly contribute to the exacerbation of the already existing inequalities. The authors call on physicians to advocate for their patients and to spread the message: in COVID-19 times, there is not just one diagnosis that matters.	The author contends that the restriction of "non-essential" clinical activities during the COVID-19 pandemic may be caused a hidden healthcare crisis to develop in the pediatric population.	Hensel KO. Double-edged sword of limiting healthcare provision for children in times of COVID-19: the hidden price we pay [published online, 2020 Jun 23]. Arch Dis Child. doi:10.1136/archdischild-2020-319575
Neonate, mother-newborn separation	23-Jun-20	Care of Newborns Born to Mothers With COVID-19 Infection; A Review of Existing Evidence	The Journal of Maternal-Fetal and Neonatal Medicine	Review article	The authors discuss how to care for a newborn of a mother with suspected or confirmed COVID-19 using existing evidence. As of 16 April 2020, the authors reviewed articles and guidelines related to COVID-19 in the reproductive health field, mother, and newborn health. The findings showed that the possibility of intra-uterine or perinatal transmission of COVID-19 is still questionable and ambiguous. However, close contact of mother and infant after birth can transmit the virus through droplets or micro-droplets. Based on these findings, it is recommended to separate the newborn from the mother with suspected or confirmed COVID-19 infection for at least 2 weeks. The mothers should be taught about breast milk expression skills, common breast problems, and principles of personal hygiene to protect the infant against COVID-19 infection.	The authors contend that based on information available as of 16 April 2020, mother-newborn separation is recommended for two weeks in the setting of suspected or confirmed maternal COVID-19 infection to prevent possible transmission to the newborn.	Shahbazi Sighaldeh S, Ebrahimi Kalan M. Care of newborns born to mothers with COVID-19 infection; a review of existing evidence [published online 2020 Jun 23]. J Matern Fetal Neonatal Med. 2020;1-13. doi:10.1080/14767058.2020.1777969
Vaccination, BCG vaccine, protective effect, innate immunity, epigenetics, Italy	23-Jun-20	Could Anti-Tubercular Vaccination Protect Against Covid-19 Infection?	Allergy	Letter to the Editor	In response to the article by C. Ozdemir et al, the authors describe potential mechanisms for enhanced immune response to COVID-19 as a result of the tuberculosis (BCG) vaccine. After BCG stimulation, innate immunity cells undergo an epigenetic reprogramming of some transcription factors; promoters of cytokine genes are de-phased or de novo created. The epigenetic upgrade of monocyte-macrophage lines may favor a more effective interferon response, with resolution of the SARS-CoV-2 infectious process. Another proposed mechanism is the inhibition of natural killer cells, with consequent decrease of Th1 response and reduction of direct cytotoxic action of the infected cells. The authors are undertaking an observational study to assess TB vaccinated Italian physicians and their ability to respond to the viral COVID-19 infection.	Vaccination with the tuberculosis BCG vaccine may enhance the innate immune response to SARS-CoV-2 and further evidence is needed to evaluate the protective effect.	Patella V, Florio G, Raffaele B, Delfino G. Could Anti-Tubercular Vaccination Protect Against Covid-19 Infection? [published 2020 Jun 23]. Allergy. doi:10.1111/all.14443
Children, MIS-C, severe pediatric presentation	23-Jun-20	COVID-19 Disease in Children: Not as Mild as We Have Been Led to Believe	World Journal of Pediatrics	Letter	In April 2020, pediatricians from different European countries and the U.S. began reporting cases of COVID-19 in children, requiring ICU treatment and associating severe cardiac-symptoms, generally presenting 3–5 weeks after the COVID-19 peak. Children can present with a wide range of clinical symptoms, with respiratory symptoms not always being present and some previously healthy children can present with skin-lesions, hypotension, and tachycardia developing in the next hours an acute cardiac failure. The authors expect to learn more about this severe pediatric presentation, also referred as "Kawasaki-like" or "pediatric inflammatory multisystem syndrome".	The severe pediatric presentation is related to COVID-19 but it seems to affect in a late phase of the disease, therefore, it might be related to a systemic inflammatory response or a delayed immune response.	Moreno-Galarraga L, Taveras EM. COVID-19 disease in children: not as mild as we have been led to believe [published online, 2020 Jun 23]. World J Pediatr. doi:10.1007/s12519-020-00380-2

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COVID-19; pediatric; cancer; Japan	22-Jun-20	Statement on the prevention and treatment of COVID-19 in patients with pediatric cancer in Japan	Pediatric Blood and Cancer	Letter to the Editor	The authors discuss prevention and treatment regimens for SARS-CoV-2 infection in pediatric cancer patients in Japan. These patients are presumed to be at high risk of infection. Any patient presenting with sore throat, cough, malaise, persistent fever, and abnormal sense of smell or taste should be suspected of being positive for SARS-CoV-2 and subjected to measures against droplet/contact infections for 14 days. If the patient and his/her family members have high exposure risks, they should be treated as suspected infected cases. It is crucial to wear a mask, practice social distancing, and ensure thorough hand hygiene. If the patient's condition is stable, the intervals between tests to observe the clinical course shall be extended to reduce the frequency of hospital visits. Use of chemotherapy should be avoided in patients with positive PCR test results for SARS-CoV-2. Chemotherapy, radiation therapy, surgery, or stem cell transplantation should be started after confirming SARS-CoV-2 PCR negativity in 2 tests conducted 24 hrs apart. However, patients with high-risk cancer should prioritize cancer treatment. There have been no reports on the concurrent administration of antineoplastic agents with antiviral drugs.	The authors discuss prevention and treatment regimens for SARS-CoV-2 infection in pediatric cancer patients in Japan. Suspected infected patients should be subjected to measures against droplet/contact infections for 14 days. Chemotherapy, radiation therapy, surgery, or stem cell transplantation should be started after confirming PCR negativity in 2 tests conducted 24 hrs apart.	Iehara T, Manabe A, Hosoi H. Statement on the prevention and treatment of COVID-19 in patients with pediatric cancer in Japan. Pediatr Blood Cancer. 2020;67(9):e28440. doi:10.1002/pbc.28440.
Child and adolescent psychiatry; depressive disorders; anxiety; COVID-19	22-Jun-20	COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities	The Canadian Journal of Psychiatry	Commentary	The authors present the viewpoint that children and adolescents are highly vulnerable to the impact of sustained stressors during developmentally sensitive times, and their mental health during the COVID-19 pandemic warrants special consideration. As access to health care services is more restricted during the pandemic, various conditions may not be treated optimally, including depression and anxiety in children and youth. Children and youth have lost many of their activities that provide structures and a daily rhythm to life, such as school, extracurricular activities, social interactions, and physical activities. These losses may worsen depression and further entrench social withdrawal and hopelessness. Behaviors that were once red flags for emotional distress are now considered positive, such as social withdrawal and physical distancing; these changes lead to the need for increased risk assessments and appointments, which are harder to get. As the family system influences child and youth mental health, prolonged home confinement may become a key risk factor for the mental health of children and youth, especially as parents are battling their own stressors (loss of jobs, deaths of loved ones, worsening of their mental health, and substance abuse). Domestic violence and child abuse concerns must also be considered. Despite decreased reports of child maltreatment, it is feared that these reports are due to the loss of contacts with peers and protective adults that may notice and report signs of abuse or distress. Furthermore, the pandemic's closures have limited access to mental health treatment facilities for those in need of in-patient mental health care. The extent of tele-psychiatry has grown significantly and is effective in treating depressed youth. Access to these services must continue along with other innovative ways to treat children and youth's mental health.	The authors state that children and adolescents are highly vulnerable to the impact of sustained stressors during developmentally sensitive times, and their mental health during the COVID-19 pandemic warrants special consideration. As access to health care services is more restricted during the pandemic, various conditions may not be treated optimally, including depression and anxiety.	Courtney D, Watson P, Battaglia M, Mulsant BH, Szatmari P. COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities. *Can J Psychiatry*. 2020;65(10):688-691. doi:10.1177/0706743720935646
Food insecurity, nutrition, ethnicity,	22-Jun-20	High Level of Food Insecurity among Families with Children Seeking	The Journal of Pediatrics: X	Original Article	To assess levels of food insecurity during the COVID-19 pandemic, interviews were performed with 200 families presenting for pediatric care in Central Texas (USA) from April 14 to May 20, 2020. Interviews combined a 2-question screen with a qualitative component to determine whether food insecurity	Interviews of 200 families receiving pediatric care in Central Texas (USA) showed around one-half of families	Abrams SA, Avalos A, Gray M, et al. High Level of Food Insecurity among Families with Children

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pediatric care, screening, USA		Routine Care at Federally Qualified Health Centers during the Coronavirus Disease 2019 Pandemic			had worsened since the pandemic. 47% of families screened positive for food insecurity; over 90% of these families worried about food running out and 94% indicated this had begun or worsened during the pandemic. Of the 115 families volunteering information about employment, 46% reported job loss. Both ethnicity ($p<0.001$) and Special Supplementation Nutrition Program for Women, Infants and Children (WIC) participation ($p=0.03$) were associated with greater levels of food insecurity. Among primarily Spanish-speaking families participating in the WIC program, 64% reported food insecurity. The authors recommend screening families for food insecurity and referral to community resources as a part of routine pediatric care.	reported food insecurity caused or exacerbated by the COVID-19 pandemic. Greater levels of food insecurity were experienced by primarily Spanish-speaking families and families enrolled in food assistance programs, indicating these programs are not sufficiently protective against food insecurity.	Seeking Routine Care at Federally Qualified Health Centers during the Coronavirus Disease 2019 Pandemic [published online, 2020 Jun 22]. J Pediatr X. 2020;4:100044. doi:10.1016/j.ympdx.2020.100044
Pregnancy, New York City, USA, China	22-Jun-20	Coronavirus disease 2019 infection among asymptomatic and symptomatic pregnant women: two weeks of confirmed presentations to an affiliated pair of New York City hospitals	American Journal of Obstetrics & Gynecology - Maternal and Fetal Medicine	Letter to the Editors	The authors present a critical response to the study by Breslin et al. and its conclusion that COVID-19 severity in pregnant women mirrors that in nonpregnant adults. Because this conclusion was largely based on comparing a cohort of pregnant women in New York City (NYC), USA with data published in China by Wu and McGoogan it overlooks important differences in the populations being compared. Testing criteria differed greatly between the two populations resulting in a greater percentage of asymptomatic cases in the NYC cohort which may have skewed the population toward less severe outcomes. Furthermore, the median age of the NYC cohort was younger at 29 years, whereas 90% of the China cohort was over 29 years old. An age-specific comparison shows over double the rate of ICU admissions for pregnant women aged 15-40 years in the NYC cohort (4.7% vs 2%). The authors warn that overlooking these key differences may provide false reassurance regarding the risk of complications from COVID-19 in pregnant women.	This letter questions the conclusion of a study which claimed to demonstrate comparable severity of COVID-19 between a cohort of pregnant women in New York City (NYC), USA and a cohort of nonpregnant adults in China. The authors argue that key differences in age and testing criteria skewed the NYC cohort population toward less severe outcomes and the study's conclusion provides false reassurance.	Hirshberg JS, Stout MJ, Raghuraman N. Coronavirus disease 2019 infection among asymptomatic and symptomatic pregnant women: two weeks of confirmed presentations to an affiliated pair of New York City hospitals [published online, 2020 Jun 22]. Am J Obstet Gynecol MFM. 2020;100162. doi:10.1016/j.ajogmf.2020.100162
MIS-C, Kawasaki disease, diagnostic uncertainty, pediatric	22-Jun-20	Multisystem Inflammatory Syndrome in Children (MIS-C) and Kawasaki Disease: Two Different Illnesses With Overlapping Clinical Features	Journal of Pediatrics	Commentary	As data on MIS-C began to emerge, similarities in the clinical and laboratory features of this condition and Kawasaki disease (KD) were recognized. Yet classic KD diagnostic criteria were rarely present in MIS-C patients. Further, the median age of MIS-C cases was 9-10 years in contrast to KD, which occurs predominately in children < 5 years old. According to the author, the current case definition of MIS-C is problematic because many conditions of childhood fulfill the criteria. The author also finds it problematic that the similarities between MIS-C and KD can lead to diagnostic uncertainty in pediatric patients. To help discern the correct diagnosis, she presents distinct clinical features of the two conditions. She concludes by asserting that the development of a diagnostic test for KD would enable distinguishing this condition from many other infectious and inflammatory diseases, which includes MIS-C.	While MIS-C shares many features with Kawasaki disease (KD), the author presents clinical and laboratory findings that can help distinguish between these two conditions. She rejects the possible etiologic relationship between MIS-C and KD and acknowledges that more data is needed to understand the pathogenesis of MIS-C.	Rowley AH. Multisystem Inflammatory Syndrome in Children (MIS-C) and Kawasaki Disease: Two Different Illnesses with Overlapping Clinical Features [published online , 2020 Jun 22]. J Pediatr. doi:10.1016/j.jpeds.2020.06.057
Healthcare providers, lived experience, pediatrics, PPE, Italy	22-Jun-20	COVID-19 Pandemic: Perspective From Italian Pediatric	Disaster Medicine and Public Health Preparedness	Perspective	The objective of this study was to document via structured interviews the experience of pediatric healthcare providers in Italy during the initial phase of the 2020 COVID-19 pandemic. 13 participants from Maggiore della Carità University Hospital completed a 30-minute interview. Participants reported fear of becoming infected and infecting their families, especially given the	The article presents real-life experiences of pediatricians in northern Italy during the pandemic. Providers changed their behaviors to	Monzani A, Ragazzoni L, Della Corte F, et al. COVID-19 Pandemic: Perspective from Italian Pediatric Emergency

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		Emergency Physicians			possibility of asymptomatic transmission and conservation of PPE. There was a dramatic reduction in pediatric emergency visits and a greater proportion of severe conditions and trauma. Respondents reported changing their physical exams to reduce unnecessary maneuvers and conserve PPE, changing their visitor policies, and interacting less with colleagues. Some of the biggest challenges reported were conducting physical exams, learning to don/doff PPE, and keeping up with the rapidly changing guidelines.	prioritize essential interventions and their safety.	Physicians [published 2020 Jun 22]. Disaster Med Public Health Prep. 2020;1-11. doi:10.1017/dmp.2020.198
Children, herd immunity, vaccination, immunization, Africa	22-Jun-20	Herd Immunity and Vaccination of Children for COVID19	International Journal of Infectious Diseases	Editorial	The relative importance of children, and asymptomatic children in particular, in SARS-CoV-2 transmission is unclear. Immunization of children to induce herd immunity where children play a significant role in transmission has been successful in preventing the spread of many infectious diseases. The indirect benefits of COVID-19 vaccination in children may provide some protection for older, unvaccinated populations and make it easier to achieve enough immunity needed for overall protection in a given population. As Africa has a comparably younger population than other continents, children might be an important target for COVID-19 immunization. Safety and efficacy vaccination trials in adults will be important before initiating pediatric studies.	It may be necessary to obtain high population coverage with vaccines to reach herd immunity, including the pediatric population. COVID-19 vaccine trials in children will allow development of evidence-based vaccination policy and, combined with more robust data on the role of children in transmission, could greatly assist decision-making.	Velavan TP, Pollard AJ, Kremsner PG. Herd Immunity and Vaccination of children for COVID19 [published online 2020 Jun 22]. Int J Infect Dis. 2020. doi:10.1016/j.ijid.2020.06.065
Placenta, histology, vertical transmission, Italy, asymptomatic in pregnancy	22-Jun-20	Report of Positive Placental Swabs for SARS-CoV-2 in an Asymptomatic Pregnant Woman With COVID-19	Medicina	Case Report	An asymptomatic 30-year-old Italian Gravida 1 Para 0-0-0-0 at 38 3/7 weeks was hospitalized for an elective C-section for breech presentation. After a swab and serology for SARS-CoV-2, she was admitted with unknown infective status and normal vitals. After 8 hours, an urgent C-section was performed due to contractions, with the protocol for suspected cases of COVID-19 applied. Preventively, the newborn was separated from the mother until the definitive results of the rhino-pharyngeal swab of the woman were available. A rhinopharyngeal swab was also performed in the newborn. After the procedure, the maternal swab was positive for SARS-CoV-2 RNA; the serology showed positive anti-SARS-CoV-2 IgG and negative anti-SARS-CoV-2 IgM. Two days later, the placental swabs were positive for SARS-CoV-2 RNA. Histological analysis of the placenta showed mild sub-chorionic deposition of fibrin and an ischemic area in the thickness of the chorionic disc. Moderate deposition of fibrin, appearance of villous agglutination, and multiple organizing intervillous hemorrhages were also observed. The neonate remained asymptomatic with negative testing and the mother remained asymptomatic with normal vitals.	This case highlights an asymptomatic woman with a positive rhino-pharyngeal swab and a positive placental swab for SARS-CoV-2, with evidence of placental changes and no vertical transmission.	Ferraiolo A, Barra F, Kratochwila C, et al. Report of Positive Placental Swabs for SARS-CoV-2 in an Asymptomatic Pregnant Woman with COVID-19. Medicina (Kaunas). 2020;56(6):E306. Published 2020 Jun 22. doi:10.3390/medicina56060306
Children, vulnerable groups, underlying medical conditions, specialist hospital, UK	22-Jun-20	Children with COVID-19 at a specialist center: initial experience and outcome	The Lancet Child & Adolescent Health	Correspondence	Among 65 pediatric COVID-19 positive patients (median age 9 years [IQR 0·9–14]) presenting to a specialist children's hospital in London, UK between March 1 and May 15, 2020, 31 (48%) were classed as vulnerable. The most common provisional diagnosis codes for the group were sepsis, fever, and pneumonia. 29 (45%) patients required admission to the intensive care unit, of whom, 14 (48%) were classed as vulnerable. Compared with patients classed as non-vulnerable, those classed as vulnerable had a significantly longer stay of 11 days (3.7–15.1; Mann-Whitney U test p<0.001). Of the 29 patients admitted to the intensive care unit, 18 (62%) required mechanical ventilation, of whom ten (56%) were classed as vulnerable (p=0.53). During	These data confirm that some children with SARS-CoV-2 infection might have severe disease with requirement for intensive care admission. Also, susceptibility for COVID-19 in vulnerable groups might be both disease-specific and related to patient age.	Issit RW, Booth J, Bryant WA, et al. Children with COVID-19 at a specialist centre: initial experience and outcome [published online 2020 Jun 20). Lancet Chil Adol Health. doi:10.1016/S2352-4642(20)30204-2

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					the study, on average ten inpatients were positive for SARS-CoV-2 at any time, representing around 3% of the hospital inpatient population, much lower than the estimated 25% COVID-19-positive population reported across adult London trusts.		
Preeclampsia, COVID-19 in pregnancy, biochemical markers	22-Jun-20	Can COVID-19 in pregnancy cause preeclampsia?	British Journal of Obstetrics and Gynaecology	Mini Commentary	This observational study examined the occurrence of a pre-eclampsia-like syndrome in six out of eight pregnant patients with novel coronavirus disease (COVID-19) who were admitted to the Intensive Care Unit (ICU) with severe pneumonia. There were no symptoms of pre-eclampsia amongst the 34 pregnant women who had mild forms of COVID-19. The authors measured biophysical and biochemical markers that are typically altered in women with pre-eclampsia (uterine artery pulsatility index on Doppler ultrasound, serum soluble fms-like tyrosine kinase-1 [sFLT-1] and placental growth factor [PlGF]). Such markers were normal in five of the six cases, in whom the symptoms of pre-eclampsia resolved after improvement of the maternal clinical situation.	The preliminary data indicate that delivery during severe coronavirus disease should not be based on preeclampsia symptoms alone, and that the use of ultrasound and serum biomarkers might help guide clinical management by distinguishing COVID-19-related inflammation from true preeclampsia.	Rolnik DL. Can COVID-19 in pregnancy cause preeclampsia? 2020 Jun 22. BJOG. 2020; doi:10.1111/1471-0528.16369
Abortion, contraception, family planning, lockdown, LMIC, domestic violence, access to care, essential services	22-Jun-20	COVID 19 era: a beginning of upsurge in unwanted pregnancies, unmet need for contraception and other women related issues	European Journal of Contraception & Reproductive Health Care	Short communication	To achieve social distancing and stop transmission of COVID-19 Infection, many countries went into complete lockdown, stopping import and export of sexual and reproductive care. Additionally, the supply of modern contraceptives and their manufacture were severely affected due to lockdown of various low-and middle-income countries. The most serious impact of unmet needs for contraception is rise in unintended pregnancies and its associated complications, including unsafe abortions and maternal deaths. In addition, emerging data has revealed that the risk of violence against women and girls, especially domestic violence, has exaggerated since the start of COVID 19 pandemic. Early recognition and better implementation of sexual and reproductive health services can save lives, and family planning and contraceptives, abortion care, maternal and newborn care should be considered essential during the pandemic.	This communication calls to attention the impact of imposing lockdowns on sexual and reproductive health services, to include unmet need for modern contraceptives, unintended pregnancies, increased unsafe abortions, maternal and neonatal deaths and other harmful practices in developing countries.	Kumar N. COVID 19 era: a beginning of upsurge in unwanted pregnancies, unmet need for contraception and other women related issues. 2020 Jun 22. Eur J Contracept Reprod Health Care. 2020;1-3. doi:10.1080/13625187.2020.1777398
Children, caregivers, isolation, transmission, Thailand	22-Jun-20	Risk of Novel Coronavirus 2019 Transmission from Children to Caregivers: A Case Series	Journal of Pediatrics and Child Health	Case series	The potential risk of SARS-CoV-2 transmission from infected children to adults is of concern due to prolonged detection of the SARS-CoV-2 RNA in respiratory specimens and feces. The authors studied the possibility of transmission from infected children to their caregivers. Of the three children admitted to the study site, two were placed in isolation with one caregiver each. The caregivers were serially tested by nasopharyngeal and throat swabs. Testing occurred on the first day of isolation within the hospital, weekly, and upon discharge. Children and their caregivers were advised to wash hands frequently and not share personal items, and were provided surgical masks. All caregiver tests were negative, and caregivers remained asymptomatic through a follow-up phone call 14 days after discharge. The study revealed no evidence of transmission from mildly ill, afebrile children to their caregivers despite prolonged positivity of the SARS-CoV-2 RNA in their respiratory specimens.	While a small sample size (n=2), this study revealed no evidence of SARS-CoV-2 transmission from mildly ill, afebrile children to their caregivers, findings consistent with WHO's recommendations for alternatively managing patients with mild COVID-19 disease at home.	Wongsawat J, Moolasart V, Srikirin P, et al. Risk of novel coronavirus 2019 transmission from children to caregivers: A case series. J Paediatr Child Health. 2020;56(6):984-985. doi:10.1111/jpc.14965
De-isolation, negative pressure rooms,	22-Jun-20	Early Challenges in Isolation and De-isolation of Children during	Journal of Pediatrics and Child Health	Letter to the Editor	Children frequently have viral acute respiratory illness (ARI) that is clinically indistinguishable from SARS-CoV-2 infection. Appropriate investigation and disposition of children suspected of COVID-19 is important to utilize negative pressure rooms efficiently. In the authors' tertiary pediatric unit, from 22	During the COVID-19 pandemic, there are many challenges that arise from isolating children with	Chan SM, Chiong T, Chhabra M, et al. EARLY CHALLENGES IN ISOLATION AND DE-

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exposure, children		the Severe Acute Respiratory Syndrome Coronavirus-2 Pandemic			January to 22 April 2020, they isolated 305 inpatients with ARI. There were several isolation challenges to contend with during the pandemic, including the complex nature of de-isolating suspected cases with ongoing ARI symptoms. The authors conclude that optimal use of scarce isolation rooms will require rapid diagnosis and better understanding of SARS-CoV-2 transmission.	symptoms of an acute viral respiratory illness. This impedes the optimal use of isolation rooms.	ISOLATION OF CHILDREN DURING THE SEVERE ACUTE RESPIRATORY SYNDROME CORONAVIRUS-2 PANDEMIC. [published 2020 Jun 22]. J Paediatr Child Health. doi:10.1111/jpc.14962
Insurance, hospitalization, pediatrics, cost analysis, Korea	22-Jun-20	Financial Burden of Hospitalization of Children with Coronavirus Disease 2019 Under the National Health Insurance Service in Korea	Journal of Korean Medical Science	Brief communication	COVID-19 has resulted in an ongoing pandemic; however, the socio-economic burden of COVID-19 treatment in the pediatric population remains unclear. This study in Korea aimed to determine the hospitalization periods and medical costs for children with COVID-19. In total, 145 billing statements for pediatric patients receiving healthcare services because of COVID-19 from February 1, 2020 to March 31, 2020 were used. The study showed that individual treatment costs for children with COVID-19 are approximately USD 2,192 under the Korean National Health Insurance Service System. This study revealed the differences in cost among age groups, determined by the type of hospital wherein admission occurred, as a trend of increasing age, increasing hospitalization time, and increasing cost was observed. Tailored COVID-19 treatment strategies by age group may lower costs and increase the effectiveness of resource allocation.	This study provides an estimation of the financial burden of hospitalized children with COVID-19 in Korea. The findings are applicable in allocation of limited medical resources.	Lee JK, Kwak BO, Choi JH et al. Financial Burden of Hospitalization of Children with Coronavirus Disease 2019 under the National Health Insurance Service in Korea. [published 2020 Jun 22]. J Korean Med. doi:10.3346/jkms.2020.35.e224
Preterm infant, intensive care, Sweden	22-Jun-20	Invasive mechanical ventilation in a former preterm infant with COVID-19.	Acta Paediatrica	Brief report	This report looks at a set of preterm twins born at the University Children's Hospital in Uppsala, Sweden. The twins were delivered by C-section at a post-menstrual age of 30 weeks, as the mother had pre-eclampsia and the male twin was showing intra-uterine growth restriction. At 39 weeks the boy developed severe apnea and was taken by ambulance to the hospital's emergency room. Within a few hours, RT-PCR for SARS-CoV-2 tested positive. The twin sister had mild symptoms and tested negative, and both parents were asymptomatic and tested positive. The girl only stayed 24-hours at the pediatric ward and was then cared for at home, but the boy required intensive care and invasive ventilatory support.	This report suggests that even infants can get severe COVID-19 that may require intensive care and invasive ventilatory support.	Nyholm S, Edner A, Myrelid Å, Janols H, Dörenberg R, Diderholm B. Invasive mechanical ventilation in a former preterm infant with COVID-19 [published online, 2020 Jun 22]. Acta Paediatr. doi:10.1111/apa.15437
Pediatric intensive care, pediatrics, therapy	22-Jun-20	Protecting Children from Iatrogenic Harm During COVID19 Pandemic	Journal of Pediatrics and Child Health	Viewpoint	Critical care management of patients with COVID-19 has been influenced by a mixture of public, media, and societal pressure, as well as clinical and anecdotal observations from many prominent researchers and key opinion leaders. These factors may have affected the principles of evidence-based medicine and encouraged the widespread use of non-tested pharmacological and aggressive respiratory support therapies, even in ICUs. The COVID-19 pandemic has predominantly affected adult populations, while children appear to be relatively spared of severe disease. Notwithstanding, PICU clinicians may already have been influenced by changes in practices of adult ICUs, and these changes may pose unintended consequences to the vulnerable population in the PICU. Pediatric critical care may be particularly susceptible to threats against evidence-based medicine.	The authors suggest that there must always be sufficient justification to administer a medication to a critically ill patient and that this justification must not be anecdotal.	Camporesi A, Díaz-Rubio F, Carroll CL, González-Dambrauskas S. Protecting children from iatrogenic harm during COVID19 pandemic [published online, 2020 Jun 22]. J Paediatr Child Health. doi:10.1111/jpc.14989
Multisystem, inflammatory, PIMS-TS, UK	22-Jun-20	COVID-19 Multisystem Inflammatory	Journal of Medical Virology	Short communication	Coronavirus Disease 2019 (COVID-19) is generally a relatively mild illness in children. An emerging disease entity coined as pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS) has	The authors recommend that studies on PIMS-TS children should include	Ng KF, Kothari T, Bandi S, et al. COVID-19 Multisystem

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		Syndrome in Three Teenagers with Confirmed SARS-CoV-2 Infection			been reported recently. This article describes the clinical presentations and outcomes of three teenagers with serologically confirmed SARS-CoV-2 infection admitted to the PICU for PIMS-TS. Although their initial presentations were very similar, their COVID-19 related disease varied in severity. The authors emphasize that cases of PIMS-TS are very rare and will only affect a very small minority of children.	cytokine profiling, immunological tests, and investigations to compare and contrast PIMS-TS from Kawasaki disease and macrophage activation syndrome to better understand the pathogenesis of PIMS-TS.	Inflammatory Syndrome in Three Teenagers with Confirmed SARS-CoV-2 Infection [published online, 2020 Jun 22]. J Med Virol. doi:10.1002/jmv.26206
Children, Kawasaki-like disease, MIS-C, supervised walks, public policy, Peru	22-Jun-20	Covid-19 in Peru: From Supervised Walks for Children to the First Case of Kawasaki-like Syndrome	BMJ	Letter	On May 18, 2020 the Peruvian government started allowing supervised walks for people under 14 years old, following the Spanish measure implemented on April 26. The authors criticize this measure because it could lead to a rise in cases of COVID-19 among children, who typically exhibit milder symptoms. In Peru, the cases in children under 11 increased from 1.9% of total cases on May 12 to 2.6% on May 26, and from 1.1% to 1.6% in 12-17year old. In early June, the first cases of Kawasaki-like symptoms in children with COVID-19 and multisystem inflammatory syndrome in children were reported in Peru.	The authors link recent public policies in Peru to an increase in COVID-19 cases and reports of MIS-C among children.	Yáñez JA, Alvarez-Risco A, Delgado-Zegarra J. Covid-19 in Peru: from supervised walks for children to the first case of Kawasaki-like syndrome. BMJ. 2020;369:m2418. doi:10.1136/bmj.m2418
Children, healthcare utilization, Italy	22-Jun-20	Impact of Covid-19 Epidemics in Pediatric Morbidity and Utilization of Hospital Pediatric Services in Italy	Acta Paediatrica	Letter to the Editor	During the COVID-19 pandemic children and infants may have inappropriately reduced healthcare utilization. The authors performed a retrospective, multicenter study in Italy comparing March-April 2019 to March-April 2020 and assessed hospital referrals of children aged 0-14 years at 2 tertiary centers in areas differently affected by COVID-19. An 84% absolute decrease in daily visits and 75% decrease in daily admissions occurred in 2020 compared to 2019. The number of children who eventually underwent urgent surgery was unvaried, while a 75 to 96% reduction was seen for all other morbidities. Compared with 2019, during the pandemic children were significantly more often referred for acute surgical conditions, acute traumatisms, and seizures, vouching for a generally higher severity of clinical patterns that prompted children to hospital. Accordingly, the rate of hospitalization was 90% higher in 2020 (0.9 vs. 0.5%; p<0.001). An overall decreased burden of pediatric morbidity during lockdown may largely account for these findings, but there is concern that the reduction may also be attributable to parents' fear of going to a hospital during epidemic conditions.	The authors found a significant reduction in pediatric hospital visits and admissions during the COVID-19 epidemic, supporting concerns that needed healthcare services are being inappropriately avoided and may have a long-term detrimental impact on pediatric health. Continued monitoring of health indicators in vulnerable pediatric populations living in areas affected by the pandemic is recommended.	Manzoni P, Militello MA, Fiorica L, Manzionna M, Cappiello A. Impact of Covid-19 epidemics in Pediatric Morbidity and utilization of Hospital Pediatric Services in Italy [published online 2020 Jun 22]. Acta Paediatr. 2020. doi:10.1111/apa.15435
Children, PICU, Spain	22-Jun-20	A Multicenter National Survey of Children With SARS-CoV-2 Infection Admitted to Spanish Pediatric Intensive Care Units	Intensive Care Medicine	Letter	This paper describes the preliminary result of a national multicenter registry of SARS-CoV-2 infection in children requiring intensive care. 50 patients were included in the registry between March 1st and May 1st, 2020. Underlying health conditions were reported in 24% of the patients. Even though SARS-CoV-2 infection has a mild clinical course in most cases, some children can present with severe disease requiring respiratory and hemodynamic support. The need for mechanical ventilation was higher in younger patients, in those with higher organ failure scores, pre-existing medical conditions and respiratory difficulty, and ARDS. Nevertheless, there is no statistically significant difference regarding total leukocyte and lymphocyte count, C-reactive protein, or procalcitonin in these patients. None of the participating units reported any COVID-19 deaths as of the date of data collection.	This letter suggests an urgent need for multicenter international studies to better understand the specific features, needs, and challenges of critically ill children with SARS-COV-2 infection, especially in those with pre-existing medical conditions.	González Cortés R, García-Salido A, Roca Pascual D, Slöcker Barrio M, de Carlos Vicente JC; SECIP Study Group on SARS-CoV-2 in Critically Ill Pediatric Patients. A multicenter national survey of children with SARS-CoV-2 infection admitted to Spanish Pediatric Intensive Care

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							Units [published online, 2020 Jun 22]. Intensive Care Med. doi:10.1007/s00134-020-06146-8
Pregnancy, neonates, birth outcome, China	22-Jun-20	Impact of COVID-19 Pneumonia on Neonatal Birth Outcomes	The Indian Journal of Pediatrics	Letter	This case study includes 27–34 y old pregnant women (n = 7) infected with COVID-19 and admitted to five different Hubei Provincial Hospitals from Jan 29 through Feb 14, 2020. The women delivered babies via C-section in the third trimester of pregnancy. Two of seven pregnant women (28.5%) had underlying medical conditions such as moderate anemia. None of the pregnant women died. One of seven neonates had a low birth weight and fetal distress. Three of seven neonates (42.8%) were delivered prematurely and had Newborn Respiratory Distress Syndrome (NRDS). Two of seven neonates (28.5%) were transferred to a NICU and given non-invasive ventilation. All neonates were found negative for COVID-19 pneumonia.	The authors suggest that COVID-19 pneumonia in pregnant women may have an adverse effect on neonatal birth outcomes, causing problems including premature birth, fetal distress, and NRDS	Nawsherwan, Khan S, Nabi G, Fan C, Wang S. Impact of COVID-19 Pneumonia on Neonatal Birth Outcomes [published online, 2020 Jun 22]. Indian J Pediatr. doi:10.1007/s12098-020-03372-2
Pregnancy, laboratory characteristics, lymphocyte count	22-Jun-20	Laboratory Characteristics of Pregnant Compared to Non-Pregnant Women Infected With SARS-CoV-2	Archives of Gynecology and Obstetrics	Original Research	This was a retrospective cohort study of 11 pregnant women with SARS-CoV-2 examined at a tertiary obstetric emergency room between March and April 2020, compared to 25 non-pregnant controls with SARS-CoV-2 matched by age, who were examined at the general emergency room. Clinical characteristics and laboratory results were compared between the groups. Respiratory complaints were the most frequent reason for visit, and were reported in 54.5% and 80.0% of the pregnant and control groups, respectively (p = 0.12). White blood cells, hemoglobin, platelets, and liver enzymes counts were within the normal range in both groups. Lymphocytopenia was observed in 45.5% and 32% of the pregnant and control groups, respectively (p = 0.44). The relative lymphocyte count to WBC was significantly reduced in the pregnant group compared to the controls [13.6% (4.5-19.3) vs. 26.5% (15.7-29.9); p = 0.003]. C-reactive protein [20(5-41) vs. 14 (2-52) mg/dl; p = 0.81] levels were elevated in both groups but without significant difference between them.	Laboratory characteristics of SARS-CoV-2 infection did not differ between pregnant and non-pregnant women, although a trend of lower lymphocyte count was observed in the pregnant women group.	Mohr-Sasson A, Chayo J, Bart Y, et al. Laboratory characteristics of pregnant compared to non-pregnant women infected with SARS-CoV-2 [published 2020 Jun 22]. Arch Gynecol Obstet. doi:10.1007/s00404-020-05655-7
Contact tracing, transmission, neonate, India	22-Jun-20	The Challenges of Contact Tracing in a Case of Early Neonatal Sepsis With COVID-19	The Indian Journal of Pediatrics	Letter to the Editor	In this letter, the authors utilize the case of a neonate with COVID-19 to illustrate the challenges of contact tracing. Contact tracing is a key component to slowing the chain of transmission in pandemics. It entails screening the contacts of the case during the infectious stage, reaching out to those contacts, monitoring them for symptoms, and isolating them if diagnosed. Their case presentation, a 13-day-old female infant was admitted for respiratory distress with a positive COVID-19 test. The authors attempted to identify the source of transmission by testing family members and hospital staff for COVID-19 by PCR and antibodies. These were all negative. The authors suggest that since the infecting dose for neonates may be lower, this may explain why only the infant was symptomatic. This case demonstrated the need for thorough contact tracing using sensitive diagnostic tools.	Contact tracing is a vital component is slowing down transmission in a pandemic, but it can be difficult to accomplish. In the case of an infant with COVID-19, the authors were not able to identify the source of transmission as all COVID-19 tests of close contacts were negative.	Kanburoglu MK, Altuntas O, Cicek AC. The Challenges of Contact Tracing in a Case of Early Neonatal Sepsis with COVID-19 [published online, 2020 Jun 22]. Indian J Pediatr. doi:10.1007/s12098-020-03400-1
Research, pregnancy, USA, clinical trial	21-Jun-20	Conducting research during the COVID-19 pandemic	Seminars in Perinatology	Commentary	While obstetricians have a duty to care for pregnant women and their fetuses, they also have an obligation to conduct research to improve the provision of care. The COVID-19 pandemic has created specific challenges for ongoing and new pregnancy research. This commentary describes the impact of SARS-CoVo-2 on pregnancy research, outlines the challenges encountered, and	It is imperative to advocate for the inclusion of pregnant women in SARS-CoV-2 clinical trials and research so they can receive	Mourad M, Bousleiman S, Wapner R, Gyamfi-Bannerman C. Conducting research during the COVID-19

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					summarizes strategies to create a successful research environment. During the pandemic, academic medical centers in the USA have paused clinical research, redeployed research staff, and limited in-person research activities. Additionally, many clinical trials were paused or had their start-up phase suspended. Ensuring the inclusion of pregnant women in clinical trials about COVID-19 is essential to understanding how the virus impacts this group. Clinicians should consider carefully categorizing patient symptoms so these can be documented in future research. A deferred consent model or telephone consent process can be used to contact patients about participating in research. Furthermore, consolidating research efforts between investigators within the same academic institution can decrease workload and increase productivity.	the potential benefits and clinicians can understand the risks. Additionally, researchers should consider implementing pregnancy-specific stopping criteria for studies.	pandemic [published online ahead of print, 2020 Jul 21]. Semin Perinatol. 2020;151287. doi:10.1016/j.semperi.2020.151287
Children, transmission, social distancing	21-Jun-20	Role of Children in the Transmission of the COVID-19 Pandemic: A Rapid Scoping Review	BMJ	Review	A rapid scoping review was carried out by searching PubMed, Google Scholar, and MedRxiv/bioRxiv to know if children are more contagious than adults, and the proportion of asymptomatic cases in children. Fourteen out of 1099 identified articles were finally included. Studies included cases from China (n=9 to 2143), China and Taiwan (n=536), Korea (n=1), Vietnam (n=1), Australia (n=9), Geneva (n=40), the Netherlands (n=116), Ireland (n=3) and Spain (population-based study of IgG, n=8243). Although no complete data were available, between 15% and 55%–60% were asymptomatic, and 75%–100% of cases were from the family transmission. Studies analyzing school transmission showed children as not a driver of transmission. Prevalence of the COVID-19 IgG antibody in children <15 years was lower than the general population in the Spanish study.	Children are not transmitters to a greater extent than adults. There is a need to improve the validity of epidemiological surveillance to solve current uncertainties.	Rajmil L. Role of children in the transmission of the COVID-19 pandemic: a rapid scoping review. BMJ Paediatr Open. Published 2020 Jun 21. doi:10.1136/bmjpo-2020-000722
Breastfeeding, neonatal infection, mother-newborn separation	21-Jun-20	Breastmilk and COVID-19: What Do We Know?	Clinical Infectious Diseases	Commentary	The American Academy of Pediatrics (AAP) provided initial guidance that took the conservative stance of recommending that COVID-19 infected mothers be temporarily separated from their newborns immediately after delivery and being fed expressed breast milk rather than directly breastfeeding during the period of high maternal infectivity. Nutritional and immunological benefits of breastfeeding are well established, with breastfeeding recommended by the AAP except in the case of a few infectious diseases. Initial reports did not detect SARS-CoV-2 in breastmilk; there are now case reports of the virus being found in breastmilk, but the question of contamination by respiratory secretions remains. With the currently available evidence, it is recommended that a mother who becomes infected with SARS-CoV-2 continue to breastfeed her infant, although the milk could be given by a non-infected caregiver if possible. Future studies are needed on presence of live virus in breastmilk, and on development of IgG or IgA antibodies against SARS-CoV-2.	Current evidence does not clearly demonstrate that SARS-CoV-2 can be transmitted through breastmilk. Until there is clear evidence the breast milk is a source of SARS-CoV-2 infection and that acquiring infection via breast milk harms the infant, the proven short-term and long-term benefits of breast milk feeding should be the primary consideration in parent counsel.	Kimberlin DW, Puopolo KM. Breastmilk and COVID-19: What Do We Know? [published online 2020 Jun 21]. Clin Infect Dis. doi:10.1093/cid/ciaa800
Pediatric admissions, hospitalization, school closures, incidence, Sweden	21-Jun-20	Pediatric COVID-19 Admissions in a Region With Open Schools During the Two First Months of the Pandemic	Acta Paediatrica	Brief report	According to the UNESCO, 194 countries had implemented country-wide school closures by April 1st 2020 in an effort to combat the COVID-19 pandemic. Sweden adopted a different approach and allowed day care centers and schools for children up to 15 years of age to remain open. The authors carried out a two-month review of pediatric admissions aged 0-17 years who tested positive for SARS-CoV-2 in the Stockholm region (13 March-14 May 2020). A total of 63 patients were identified. The cumulative incidence	Pediatric admissions accounted for a minor part of the total admissions due to COVID-19 during the first two months of the pandemic in Stockholm. The authors suggest that,	Hildenwall H, Luthander J, Rhedin S, et al. Paediatric COVID-19 admissions in a region with open schools during the two first months of the pandemic [published

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					for hospitalization with a non-incidental diagnosis of COVID -19 among children was 9 per 100,000 children. 39/63 (62%) presented with fever and 32/63 (51%) had respiratory symptoms. Infants represented more than half of all symptomatic admissions (16/30, 53%) whereas the proportion of all SARS-CoV-2 positive admitted children aged 16-18 years (10/63, 16%), for whom schools have been operating on distance, were similar to proportions of children aged 1-5 years (11/63, 17%). The results point toward a low incidence of severe illness due to COVID-19 among Swedish children, even though day care centers and primary schools remained open. This suggests that the Swedish strategy did not aggravate the course of the pandemic for children in Sweden, when it is compared to countries with stricter lockdown measures	though day care centers and primary schools remained open throughout it did not aggravate the course of the pandemic for children in Sweden, when it is compared to countries with stricter lockdown measures	online, 2020 Jun 21]. Acta Paediatr. doi:10.1111/apa.15432
Aerosol, Children, MRI	21-Jun-20	Anesthesia and Potential Aerosol Generation During Magnetic Resonance Imaging in Children With COVID-19	Paediatric Anaesthesia	Short report	The American College of Radiology recommends minimizing Magnetic Resonance Imaging (MRI) in COVID-19 patients, postponing non-urgent exams, and using alternative imaging. Sedation/anesthesia are aerosol generating procedures (AGP) due to the requirement of bag-mask ventilation, intubation, and extubation with consequent risk of exposure to healthcare workers. This is complicated by limitation in the use of personal protective equipment (PPE) in the magnet zone (Zone IV). This report describes the experience for children requiring anesthesia for emergency MRI during the COVID-19 outbreak in Philadelphia.	The authors describe changes in MRI technique for COVID-19 positive children, to reduce aerosol generation and risk of viral transmission.	Drum E, McClung Pasqualino H, Subramanyam R. Anesthesia and potential aerosol generation during Magnetic Resonance Imaging in Children with COVID-19 [published online, 2020 Jun 21]. Paediatr Anaesth. doi:10.1111/pan.13951
Autoimmune cytopenia, ITP, AIHA, pediatric	21-Jun-20	SARS-CoV-2 Infection in Two Pediatric Patients With Immune Cytopenias: A Single Institution Experience During the Pandemic	Pediatric Blood and Cancer	Letter to the Editor	The authors describe two pediatric cases of autoimmune cytopenia associated temporarily with SARS-CoV-2 viral infection. The first case, a 16-year-old male, presented with rash and mouth sores. He was diagnosed with acute immune thrombocytopenia and after his petechia/purpura worsened, he had positive COVID-19 serology. He improved on corticosteroid treatment. The second case was a 14-year-old female who presented with fever, headache, fatigue with myalgia, vomiting, and abdominal pain. Her evaluation suggested a mixed-type autoimmune hemolytic anemia. She had a positive result on SARS-CoV-2 testing. Her hemoglobin improved on a 4-week course of rituximab. Neither of the two patients exhibited symptoms of an acute infection with SARS-CoV-2 prior to or at the time of presentation. These cases suggest the utility of COVID-19 testing in pediatric patients who present with autoimmune cytopenias during this pandemic.	Two cases of autoimmune cytopenia associated with COVID-19 infection without symptoms were identified. This could be the manifestation of a less severe phenotype of immune dysregulation know to be caused by the virus.	Rosenzweig JD, McThenia SS, Kaicker S. SARS-CoV-2 infection in two pediatric patients with immune cytopenias: A single institution experience during the pandemic [published online, 2020 Jun 21]. Pediatr Blood Cancer. doi:10.1002/pbc.28503
Chilblains, pediatrics	20-Jun-20	SARS-CoV-2 endothelial infection causes COVID-19 chilblains: histopathological, immunohistochemical and ultrastructural study of seven paediatric cases	British Journal of Dermatology	Case Study	Chilblains are being seen with increasing frequency in children and young adults during the COVID-19 pandemic, yet most of these patients are negative for SARS-CoV-2 when tested via RT PCR. In this case study, the authors assessed skin biopsies from 7 pediatric patients (4M/3F, age range=11-17 years) presenting with chilblains at a hospital in Madrid, Spain. The authors found that histo-pathology showed variable degrees of lymphocytic vasculitis ranging from endothelial swelling and endotheliitis to fibrinoid necrosis and thrombosis. SARS-CoV-2 immuno-histochemistry was positive in endothelial cells and epithelial cells of eccrine glands, despite negative RT PCR results in the 6 patients tested. Coronavirus particles were found in the cytoplasm of endothelial cells on electron microscopy. The presence of viral particles in the	The authors found SARS-CoV-2 particles in the endothelium of pediatric patients presenting with chilblains. This result, in combination with histological evidence of vascular damage, supports a causal relationship of the chilblain lesions with SARS-CoV-2.	Colmenero I, Santonja C, Alonso-Riaño M, et al. SARS-CoV-2 endothelial infection causes COVID-19 chilblains: histopathological, immunohistochemical and ultrastructural study of seven paediatric cases. Br J Dermatol. 2020. doi:10.1111/bjd.19327

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					endothelium and the histological evidence of vascular damage support a causal relationship of the lesions with SARS-CoV-2. Endothelial damage induced by the virus could be the key mechanism in the pathogenesis of COVID-19 chilblains.		
Pediatric, endoscopy, PPE, transmission	20-Jun-20	Pediatric Endoscopy in the Era of Coronavirus Disease 2019: A North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition Position Paper	Journal of Pediatric Gastroenterology and Nutrition	Special Feature	The North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) Endoscopy and Procedures Committee formulated this statement to help standardize endoscopy services for pediatric patients with the aims of minimizing COVID-19 transmission and conserving PPE. Pediatric endoscopic procedures are considered at high risk for COVID-19 transmission. They recommend that all pediatric endoscopic procedures be done in a negative pressure room with all staff using proper airborne, contact, and droplet precautions regardless of patient risk stratification. In deciding which endoscopic procedures should proceed, they propose a framework for stratifying procedures as emergent, urgent, and elective (postpone). This statement was based on emerging evidence and is meant to serve as a guide. The authors note that it is important that all pediatric endoscopy facilities follow current recommendations from public health agencies within their jurisdiction regarding infection prevention and control of COVID-19.	The authors offer practical guidance to pediatric endoscopy facilities during the COVID-19 pandemic as these procedures are considered high risk for COVID-19 transmission.	Walsh CM, Fishman DS, Lerner DG et al. Pediatric Endoscopy in the Era of Coronavirus Disease 2019: A North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition Position Paper. [published online, 2020 Jun]. J Pediatr Gastroenterol Nutr. doi:10.1097/MPG.0000000000002750
COVID-19, 'essential' vs. 'non-essential', pediatrician	20-Jun-20	Rethinking 'essential' and 'nonessential': the developmental paediatrician's COVID-19 response	Pediatrics and Child Health	Commentary	While terms such as 'essential' and 'nonessential' used amidst the COVID-19 pandemic may serve a practical purpose, they also pose a risk of obstructing our view of the harmful indirect health consequences of this crisis. SARS-CoV-2 cases and deaths in children are minimal compared to adults, but the pandemic impacts other 'essential' aspects of children's health including child development and the associated areas of pediatric behavior, mental health, and maltreatment. Alongside the management of severe SARS-CoV-2 cases in emergency rooms and ICUs, continuing to care for children with developmental disabilities must also be concurrently championed as 'essential' during this crisis. The potentially devastating lifelong effects of the pandemic and isolation on an already vulnerable population demand that action be taken now. Video conferences and phone calls are 'essential' instruments that can be used to continue to provide quality care for patients.	It should be anticipated that the secondary stressors from the COVID-19 pandemic will escalate the number of children with developmental, behavioral, psychological, and maltreatment concerns both during and in the aftermath of this crisis. Therefore, the words 'essential' and 'nonessential' must be used carefully.	Alastair Fung, M Florencia Ricci. Rethinking 'essential' and 'nonessential': the developmental paediatrician's COVID-19 response, Paediatrics & Child Health, Volume 25, Issue 5, August 2020, Pages 265–267, https://doi.org/10.1093/pch/pxaa077
Receptor expression, tissue susceptibility, ACE2, female reproductive organs, cathepsins	20-Jun-20	Female Reproductive Tract Has Low Concentration of SARS-CoV2 Receptors [upload from link might take a long time (on 3 July 2020)]	bioRxiv	Pre-print (not peer-reviewed)	SARS-CoV2 binds to the angiotensin-converting enzyme 2 (ACE2) receptor on host cells, and entry of the virus into the host cell is additionally mediated by the protease TMPRSS2. In the absence of TMPRSS2, SARS-CoV2 is known to use cathepsins CTSB and CTSL as an alternate for entry. The authors analyzed single-cell sequencing datasets from uterine, ovarian, fallopian tube, and breast epithelial tissue to investigate the presence of ACE2/TMPRSS2 receptor expression. They did not detect significant expression of either ACE2 or TMPRSS2 in any of the female reproductive organs assessed. Furthermore, none of the cell types showed co-expression of ACE2 with proteases TMPRSS2, Cathepsin B (CTSB), and Cathepsin L (CTSL). These results suggest that myometrium, uterus, ovaries, fallopian tube, and breast are unlikely to be susceptible to infection by SARS-CoV2.	The epithelia of female reproductive organs (uterus, myometrium, ovary, fallopian tube, breast) lack the co-location of the ACE2 receptor with proteases known to facilitate SARS-CoV-2 viral entry into host cells. They are therefore not likely susceptible to SARS-CoV-2 infection.	Goad J, Rudolph J, Rajkovic A. Female reproductive tract has low concentration of SARS-CoV2 receptors. Preprint. bioRxiv. 2020;2020.06.20.163097. Published 2020 Jun 22. doi:10.1101/2020.06.20.163097
Pregnancy, prenatal care,	20-Jun-20	Implementation of Obstetric Telehealth During	Maternal and Child Health Journal	From the Field	This article illustrates and discusses the impact of the COVID-19 pandemic on the delivery of obstetric care, including a discussion on the preexisting barriers, prenatal framework and need for transition to telehealth. The	Due to the COVID-19 pandemic, implementation of telehealth has become	Fryer K, Delgado A, Foti T, et al. Implementation of Obstetric Telehealth

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telehealth, Florida, USA		COVID-19 and Beyond			obstetric population already faces multiple barriers to receiving quality healthcare due to personal, environmental and economic barriers, now challenged with the additional risks of COVID-19 exposure and limited care in times much defined by social distancing. The current prenatal care framework requires patients to attend multiple in-office prenatal visits that can increase with maternal and fetal comorbidities. To decrease the rate of COVID-19 transmission and limit exposure to patients, providers in Hillsborough County, Florida (and nationwide) are rapidly transitioning to telehealth. The use of a virtual care model allows providers to reduce in-person visits and incorporate virtual visits into the schedule of prenatal care.	crucial to ensure safe and effective delivery of obstetric care, and efforts will be needed to ensure the sustainability of telehealth longer-term.	During COVID-19 and Beyond [published online 2020 Jun 20]. Matern Child Health J. doi:10.1007/s10995-020-02967-7
Breast milk, donor milk, pasteurized, cold storage	20-Jun-20	SARS-CoV-2 in human milk is inactivated by Holder pasteurization but not cold storage	medRxiv	Preprint (not peer reviewed)	As the COVID-19 pandemic evolves, human milk banks worldwide continue to provide donor human milk to vulnerable infants who lack access to the mother's milk. Under these circumstances, ensuring the safety of donor human milk is paramount, as the risk of vertical transmission of SARS-CoV-2 is not well understood. The authors investigate the inactivation of SARS-CoV-2 in human milk by pasteurization and the stability of SARS-CoV-2 in human milk under cold storage (freezing or refrigeration). Following heating to 63°C or 56°C for 30 minutes, SARS-CoV-2 replication competent (i.e. live) virus was undetected in both human milk and the control medium. Cold storage of SARS-CoV-2 in human milk (either at 4°C or - 30°C) did not significantly impact infectious viral load over 48 hours.	The findings demonstrate that SARS-CoV-2 can be effectively inactivated by Holder pasteurization and confirm that existing milk bank processes will effectively mitigate the risk of transmission of SARS-COV-2 to vulnerable infants through pasteurized donor human milk.	Walker GJ, Clifford V, Bansal V, et al. SARS-CoV-2 in human milk is inactivated by Holder pasteurization but not cold storage. medRxiv. doi:10.1101/2020.06.18.20134395
First trimester, pregnancy, spontaneous abortion, Italy	20-Jun-20	COVID-19 and first trimester spontaneous abortion: a case-control study of 225 pregnant patients	medRxiv	Preprint (not peer reviewed)	Evidence for the impact of COVID-19 on the first trimester are scant. This case control study evaluated COVID-19 infection as a risk factor for spontaneous abortion in first trimester of pregnancy. It was conducted from February 22 and May 21, 2020 at a hospital in Torino, among first trimester pregnant women, paired for last menstruation. The cumulative incidence of COVID-19 was compared between women with spontaneous abortion (case group, n=100) and those with ongoing pregnancy (control group, n=125). Current or past infection was determined by detection of SARS-CoV-2 from nasopharyngeal swab and SARS-CoV-2 IgG/IgM antibodies in blood sample. Twenty-three (10.2%) of the 225 women tested positive for COVID-19 infection. There was no difference in the cumulative incidence of COVID-19 between the cases (11/100, 11%) and the controls (12/125, 9.6%) (p=0.73). COVID-19 infection during the first trimester of pregnancy does not appear to predispose to abortion; its cumulative incidence did not differ from that of women with ongoing pregnancy.	COVID-19 infection during the first trimester does not appear to predispose to abortion.	Cosma S, et al. COVID-19 and first trimester spontaneous abortion: a case-control study of 225 pregnant patients. medRxiv. doi: 10.1101/2020.06.19.20135749
Ethics, pregnancy, research, autonomy, treatment	20-Jun-20	Pregnant Women in Trials of COVID-19: A Critical Time to Consider Ethical Frameworks of Inclusion in Clinical Trials	Ethics & Human Research	Original article	The COVID-19 pandemic is a call to revisit existing frameworks for the inclusion of pregnant women in research. Despite the clear interests of pregnant women, these individuals are not actively being recruited to participate in COVID-19 vaccine and treatment trials. The drug hydroxychloroquine was one of the first pharmaceutical agents under investigation for treatment, yet the initial published trial data does not include data from pregnant trial participants, even though its use in pregnant women with pre-existing autoimmune disease has already been studied. Many current trials registered to study remdesivir in participants with moderate to severe infection also exclude pregnant women. Pregnant women are excluded from all ten vaccine trials at this time. In a rush to prevent and	Research on the impact of COVID-19 on pregnant women is lagging. The global pandemic calls for a revisiting of frameworks for the inclusion of pregnant women in research, as these women have an important stake in the prevention and treatment of Covid-19.	Farrell R, Michie M, Pope R. Pregnant Women in Trials of COVID-19: A Critical Time to Consider Ethical Frameworks of Inclusion in Clinical Trials. 2020 Jun 20. Ethics Hum Res. doi:10.1002/eahr.500060

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					treat SARS-CoV-2 infection, it is crucial that the interests of pregnant women be prioritized to enable them to make autonomous, informed decisions about participating in clinical trials.		
Chilblains, children, skin biopsy, histopathology	20-Jun-20	SARS-CoV-2 Endothelial Infection Causes COVID-19 Chilblains: Histo-pathological, Immuno-histochemical and Ultra-estructural Study of 7 Paediatric Cases	British Journal of Dermatology	Original Article	Chilblains ("COVID toes") are being seen with increasing frequency in children and young adults during the COVID-19 pandemic. The authors sought to describe the histopathological features of COVID-19 chilblains and explore the presence of SARS-CoV-2 in the tissue. They examined skin biopsies from 7 pediatric patients presenting with chilblains during the COVID-19 pandemic. Histopathology showed variable degrees of lymphocytic vasculitis ranging from endothelial swelling and endothelialitis to fibrinoid necrosis and thrombosis. Purpura, superficial and deep perivascular lymphocytic inflammation with peri-eccrine accentuation, edema, and mild vacuolar interface damage were also seen. SARS-CoV-2 immunohistochemistry was positive in endothelial cells and epithelial cells of eccrine glands. Coronavirus particles were found in the cytoplasm of endothelial cells on electron microscopy. Although the clinical and histopathological features were similar to other forms of chilblains, the presence of viral particles in the endothelium and the histological evidence of vascular damage, support a causal relation of lesions with SARS-CoV-2.	Endothelial damage induced by the virus could be the key mechanism in the pathogenesis of COVID-19 chilblains and perhaps also in a group of patients severely affected by COVID-19 presenting with features of microangiopathic damage.	Colmenero I, Santonja C, Alonso-Riaño M, et al. SARS-CoV-2 endothelial infection causes COVID-19 chilblains: histopathological, immunohistochemical and ultraestructural study of 7 pediatric cases [published online, 2020 Jun 20]. Br J Dermatol. doi:10.1111/bjd.19327
Pediatric, mask, child safety	20-Jun-20	Re: Esposito Et Al.: To Mask or Not to Mask Children to Overcome COVID-19	European Journal of Pediatrics	Letter to the Editor	The authors agree with a previous article written by Esposito et al. arguing that children younger than 2 years of age should not wear any type of mask due to their small airways and risk of suffocation. However, there are several issues worth noting for children over 3 years old. First, children should be properly educated on how to wear and take off the mask correctly and how to avoid touching the mask while wearing it. Second, it may not be necessary for children to wear masks in areas with low density of people. Third, some interventions to improve feasibility, safety, and efficacy of wearing masks for children should be considered, like taking off masks during exercise. Fourth, the authors suggest a modified method of wearing a surgical mask to fit more snugly on children's faces while decreasing the risk of contaminated air access.	The authors discuss several considerations and modifications for mask wearing among children, to promote feasibility and efficacy of this protective measure.	Jin K, Min J, Jin X. Re: Esposito et al.: To mask or not to mask children to overcome COVID-19. Eur J Pediatr. doi:10.1007/s00431-020-03720-6
social media; adolescent; parents; depression; disclosure; qualitative research; COVID-19	19-Jun-20	Social Media Use and Monitoring for Adolescents With Depression and Implications for the COVID-19 Pandemic: Qualitative Study of Parent and Child Perspectives	JMIR Pediatrics and Parenting	Original Research	This qualitative study examined how a previous study of social media (SM) activity and perceptions among adolescents with depression and their parents could be newly applicable in the context of COVID-19. The COVID-19 pandemic has increased SM use while reducing access to counselling, mentorship, and in-person peer interactions. Additionally, since SM activity is so ubiquitous during the pandemic, parents' knowledge and considerations of their children's SM use might change. A series of interviews with adolescents (n = 23; age range: 13-20 years) diagnosed with depression and with their parents were completed July 2013-September 2014. This study reported that both adolescents and parents saw SM as a place to receive support for depression as well as a potential harm. Adolescents often felt resentful of parental monitoring of SM, but if parents monitored activity in a way that protected the parent-child relationship, children were more likely to value privacy online. The researchers concluded that when parents decide adolescents' privacy and access to SM, they should consider the child's age and maturity level and utilize monitoring methods that do not compromise	This qualitative study from 2014 was recontextualized to understand how the COVID-19 pandemic might influence adolescent and parental attitudes towards social media activity. The authors state that clinicians must be able to navigate the need for adolescents with depression to have autonomous conversations with their peers while assisting parents in finding monitoring strategies that	Biernesser C, Montano G, Miller E et al. Social Media Use and Monitoring for Adolescents With Depression and Implications for the COVID-19 Pandemic: Qualitative Study of Parent and Child Perspectives. JMIR Pediatr Parent. 2020;3(2):e21644 doi: 10.2196/21644

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					the parent-child relationship. In the context of the COVID-19 pandemic, it is vital that clinicians are aware of adolescents' need to be able to communicate autonomously with their peers and assist parents in navigating effective communication methods concerning SM	protect the child-parent relationship.	
Hyperinflammation, pregnancy, obstetrics, liver injury, breast milk, China	19-Jun-20	Characteristics of pregnant patients with COVID-19 and liver injury	Journal of Hepatology	Letter to the Editor	Although liver injury has been associated with COVID-19 in the general population, little attention has been paid to livery injury in pregnant women with COVID-19. The authors collected admissions data from 37 pregnant patients with COVID-19 (mean age 31.18 years); [no range provided] from Jan 28 - Feb 28, 2020 in Wuhan, China and assessed presence of liver injury and calculated synthetic inflammatory markers from the full blood count at admission. 11 (29.7%) patients had laboratory findings consistent with liver injury and 26 (70.3%) patients did not. Compared with those without liver injury, pregnant patients with liver injury had higher levels of procalcitonin (p=0.008), interleukin-6 (IL-6) (p=0.011), and lactic dehydrogenase (p=0.006). Samples of breast milk (n=6), neonatal throat swab (n=4) and neonatal anal swab (n=1) all tested negative for SARS-CoV-2 by RT-PCR. The observed prevalence of liver injury in this cohort (29.7%) is consistent with findings in similar cohorts of pregnant COVID-19 patients, but lower than reports in the general population (45.7%). The authors note that anti-inflammatory protections in the 2nd trimester of pregnancy might confer some protection against severe COVID-19; however, only 13.5% of patients in this cohort were in their 2nd trimester. Results indicate that pregnant patients with liver injury had worse inflammation than those without liver injury, and therefore liver function should be monitored in pregnant patients with COVID-19.	This retrospective study collected admissions data on pregnant women with COVID-19 in Wuhan, China and compared inflammatory markers in between patients with and without liver injury. Results indicate that pregnant patients with liver injury had worse inflammation than those without liver injury, and therefore liver function should be monitored in pregnant patients with COVID-19.	Deng G, Zeng F, Zhang L, Chen H, Chen X, Yin M. Characteristics of pregnant patients with COVID-19 and liver injury. J Hepatol. 2020 Oct;73(4):989-991. doi: 10.1016/j.jhep.2020.06.022. Epub 2020 Jun 20. PMID: 32569609; PMCID: PMC7305728.
children, nutrition, stunting, sanitation, child malnutrition, low- and middle-income countries, LMICs	19-Jun-20	COVID-19 pandemic and mitigation strategies: implications for maternal and child health and nutrition	The American Journal of Clinical Nutrition	Special Article	COVID-19 continues to ravage health and economic metrics globally, including progress in maternal and child nutrition due to increased poverty, disrupted access to nutritious foods, and increased isolation. This review highlights key areas of concern for maternal and child nutrition and provides a set of recommendations across sectors based on the Global Health's Stunting Reduction Exemplars project. These include interventions to strengthen the food-supply chain, reduce food insecurity, and bolster social safety net programs such as payment deferrals, tax breaks, and cash-support programs. These interventions can target the most marginalized households in rural populations and urban slums by taking advantage of COVID-19 response measures like contact tracing and utilizing community health workers and community-led sanitation programs.	This review highlights key areas of concern for maternal and child nutrition in the wake of the COVID-19 pandemic and provides a set of recommendations to address food insecurity, reduced income, restricted health services, and poor sanitation.	Akseer N, Kandru G, Keats EC, et al. COVID-19 pandemic and mitigation strategies: Implications for maternal and child health and nutrition. [published online, 2020 Jun 19]. Am J Clin Nutr. 2020;112(2):251-256. doi: 10.1093/ajcn/nqaa171.
Children, COVID-19 susceptibility	19-Jun-20	Why Children are Less Likely to Contract COVID-19 Infection than Adults?	International Journal of Preventative Medicine	Article	The reported cases of COVID-19 among children have been less severe than those in adults. In a recent clinical study of more than 2000 infants and preschool-aged children with suspected COVID-19, it was found that 4% of virologically confirmed cases were symptomatic and among children who were symptomatic, 5% experienced dyspnea and hypoxemia, and only 0.6% progressed to acute respiratory distress syndrome, a substantially lower percentage rate than has been reported in adults. The hypothesis is that children have plenty of ACE2 but it easily counteracts the ACE pathway. Thus, children have the same (or higher) risk of infection with SARS-CoV-2 but are protected (in part) from the (likely) angiotensin II-mediated acute lung (and possibly heart/kidney/brain) injury that is seen in COVID-19.	In COVID-19, the hypothesis is that children have plenty of ACE2 but it easily counteracts the ACE pathway. Thus, children have the same (or higher) risk of infection with SARS-CoV-2 but are protected (in part) from the (likely) angiotensin II-mediated acute lung (and possibly	Assadi F. Why children are less likely to contract COVID-19 infection than adults?. Int J Prev Med. 2020;11(1):74. doi:10.4103/ijpvm.ijpvm_199_20

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						heart/kidney/brain) injury that we see in COVID-19.	
Children, clinical symptoms, diagnosis, treatment	19-Jun-20	SARS-CoV-2 infection in children	Turkish Archives of Pediatrics	Review	In children, the primary symptoms at presentation of COVID-19 include fever, cough, sore throat, malaise, nasal discharge, and rarely, vomiting and diarrhea. Although the majority of pediatric patients are asymptomatic or have a mild clinical course, severe cases have been reported in children with underlying chronic diseases. There is currently no specific antiviral treatment against infection with SARS-CoV-2. Supportive treatment is recommended in children with a mild course, and some treatments are recommended in children with comorbidities or in children who are observed to have a more severe disease course. Asymptomatic pediatric patients or pediatric patients who have a mild course constitute an important group in terms of transmission of the infection to the advanced age group who carry high risk. Prevention of infection is very important in terms of reducing new cases and alleviating the load on the healthcare system. To prevent transmission of SARS-CoV-2, hygienic rules should be pursued in the community, social distancing should be observed, and the family members and contacts of patients who have been diagnosed should be screened and isolated.	Although COVID-19 seems to have a mild course in children, a severe clinical picture can be observed in children with existing morbidities, so it is important to separate these children from adults infected with COVID-19. The authors state that asymptomatic individuals and patients with mild clinical course (the group in which children are also generally included) have a very important role in terms of spreading the disease in the community.	Çokuğraş H, Önal P. SARS-CoV-2 infection in children. Turk Pediatri Ars. 2020;55(2):95-102. Published 2020 Jun 19. doi:10.14744/TurkPediatriArs.2020.20270
Pregnant, liver injury, China	19-Jun-20	Characteristics of pregnant COVID-19 patients with liver injury.	Journal of Hepatology	Original article	The admission data on 37 pregnant COVID-19 patients from Jan 28 to Feb 28, 2020, at Wuhan Union Hospital were collected. 11 (29.7%) patients had laboratory findings consistent with liver injury and 26 (70.3%) patients had normal baseline AST, ALT, and TBIL levels. In the laboratory test, compared with the pregnant patients without liver injury, those with liver injury had a higher level of procalcitonin (PCT), interleukin (IL)-6, AST, ALT, and lactic dehydrogenase. There were no statistical differences in signs, the severity of COVID-19, the interval from onset to hospitalization, hospital stay, radiological findings, and obstetric management between pregnant patients with and without liver injury. Finally, six live births were recorded with no fetal death, neonatal death, or neonatal asphyxia observed, and the rest did not reach the delivery time. SARS-CoV-2 in breastmilk (n=6), neonatal throat swab (n=4), and neonatal anal swab (n=1) were negative.	This study demonstrated that pregnant patients with liver injury had a higher inflammation than those without liver injury. Monitoring and evaluation of liver function in pregnant patients should be performed.	Deng G, Zeng F, Zhang L, Chen H, Chen X, Yin M. Characteristics of pregnant COVID-19 patients with liver injury [published online, 2020 Jun 19]. J Hepatol. doi:10.1016/j.jhep.2020.06.022
Pregnancy, antenatal care, psychological stress, maternal mortality, Indonesia	19-Jun-20	Mortality and Psychological Stress in Pregnant and Postnatal Women During COVID-19 Outbreak in West Sumatra, Indonesia	Journal of Psychosomatic Obstetrics and Gynecology	Letter to the Editor	This letter describes the experience of pregnant women due to COVID-19 in West Sumatra, Indonesia, between March and May 2020. It reports increased stress and anxiety levels, in particular related to concerns about antenatal care due to hospitals and community health centers providing limited services. 16 high-risk pregnant women have died in this time frame, with an increased risk of death among women who experienced psychological distress due to unavailability of care. Postpartum women have also experienced increased psychological distress, including postpartum depression. The Indonesian Ministry of Health has issued guidelines regarding health services for pregnant women, but there is an outstanding need for online psychological treatment services.	The authors advocate for sufficient attention to treating depression and psychological distress in pregnant and postpartum women, in order to reduce maternal and infant mortality rates.	Ifdil I, Fadli RP, Gusmaliza B, et al. Mortality and psychological stress in pregnant and postnatal women during COVID-19 outbreak in West Sumatra, Indonesia [published online 2020 Jun 19]. J Psychosom Obstet Gynaecol. 2020;1-2. doi:10.1080/0167482X.2020.1779216

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Obstetric violence, delivery method, mother-newborn separation, breastfeeding	19-Jun-20	COVID-19 as a Risk Factor for Obstetric Violence	Sexual and Reproductive Health Matters	Commentary	This commentary expresses concern that COVID-19 related restrictions and interventions during labor, delivery and the immediate postpartum period may not be medically necessary and may instead constitute obstetric violence. Specific concerns are raised about interventions during labor without medical indication, such as Cesarean sections, mother-newborn separation following delivery, prohibition of companionship during labor, and prevention of breastfeeding. The commentary describes that these practices are at odds with WHO guidelines issued for COVID-19 management and can have long-term detrimental effects but have been undertaken in many countries and articulates that these disrespect the patient's dignities and deny women's rights during childbirth.	This commentary describes practices that have been undertaken during childbirth due to the COVID-19 pandemic and expresses concern that these practices are not evidence-based but rather represent obstetric violence in disrespecting women's rights during childbirth.	Sadler M, Leiva G, Olza I. COVID-19 as a risk factor for obstetric violence [published online 2020 Jun 19]. Sex Reprod Health Matters. 2020;1-4. doi:10.1080/26410397.2020.1785379
Breastfeeding, infant feeding, maternal mental health, lockdown, UK	19-Jun-20	The impact of the Covid-19 lockdown on the experiences and feeding practices of new mothers in the UK: Preliminary data from the COVID-19 New Mum Study	medRxiv	Preprint (not peer reviewed)	The COVID-19 New Mum Study is recording maternal experiences and infant feeding during the period of UK lockdown via an anonymous online survey completed by women living in the UK aged ≥18 years with an infant ≤12 months of age. Between May 27 and June 3, 2020, the first week of the survey, 1365 women responded (94% white, 95% married/with partner). 1049 (77%) delivered before lockdown (BL) and 316 (23%) during lockdown (DL). Delivery mode, skin-to-skin contact and breastfeeding initiation did not differ between groups. DL women had shorter hospital stays ($p<0.001$) and 39% reported changes to their birth plan. Reflecting younger infant age, 59% of DL infants were exclusively breast-fed or mixed fed versus 39% of BL ($p<0.05$). 13% reported a change in feeding, often related to lack of breastfeeding support, and 45% of DL women reported insufficient support with feeding. Among BL women, 57% and 69% reported decreased feeding support and childcare, respectively. 40% BL/45% DL women reported insufficient support with their own health, 8%/9% contacted a mental health professional and 11% reported their mental health was affected.	Lockdown has had an impact on maternal experiences, resulting in distress for many women as well as decreased feeding support. Survey participants are currently not representative of the population; notably, groups at greater risk are under-represented.	Vazquez-Vazquez A, Dib S, Rougeaux E, et al. The impact of the Covid-19 lockdown on the experiences and feeding practices of new mothers in the UK: Preliminary data from the COVID-19 New Mum Study [published online 2020 Jun 19]. medRxiv. doi:10.1101/2020.06.17.20133868
Children, interventions, nutrition, stunting, women	19-Jun-20	COVID-19 Pandemic and Mitigation Strategies: Implications for Maternal and Child Health and Nutrition	The American Journal of Clinical Nutrition	Special Article	Although there has been focus on rising rates of childhood wasting in the short term, maternal and child undernutrition rates are also likely to increase as a consequence of COVID-19 and its impacts on poverty, coverage of essential interventions, and access to appropriate nutritious foods. This review highlights key areas of concern for maternal and child nutrition during and in the aftermath of COVID-19 while providing strategic guidance for countries in their efforts to reduce maternal and child undernutrition. These include interventions to strengthen the food supply chain and reducing food insecurity to assist those at immediate risk of food shortages. Other strategies include targeted social safety net programs, payment deferrals, or tax breaks as well as suitable cash-support programs for the most vulnerable. Community-led sanitation programs could be key to ensuring healthy household environments and reducing undernutrition. Additionally, several COVID-19 response measures such as contact tracing and self-isolation could also be exploited for nutrition protection.	This article suggests that global health and improvements in undernutrition will require governments, donors, and development partners to re-strategize and reprioritize investments for the COVID-19 era, and will necessitate data-driven decision making, political will and commitment, and international unity.	Akseer N, Kandru G, Keats EC, Bhutta ZA. COVID-19 pandemic and mitigation strategies: implications for maternal and child health and nutrition [published online, 2020 Jun 19]. Am J Clin Nutr. doi:10.1093/ajcn/nqaa171
Pregnancy, symptoms, perinatal outcomes	19-Jun-20	Covid19 and Pregnancy: An Overview	The Brazilian Journal of Gynecology and Obstetrics	Review Article	A systematic review of the prenatal and perinatal effects of corona virus (CoV) infections on pregnancy was performed with 27 of 538 articles selected for analysis. Of the cases, 51.9% were COVID-19, 32.9% were SARS-CoV, and 15.2% were MERS-CoV. Of the pregnant women with CoV infection that evolved to pneumonia, 82.6% presented with fever, 57.1% presented with	The review provides a brief overarching analysis of COVID-19, pregnancy in the COVID-19 era, and the	Castro P, et al. Covid19 and Pregnancy: An Overview 2020 Jun 19. Rev Bras Ginecol Obstet.

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					cough, and 27% presented with dyspnea. Lymphopenia was found in 79% and elevated liver enzymes in 36.6%. In total, 34.1% were admitted to the ICU. Mechanical ventilation was required in 26.3%. When the most severe forms of CoV infections requiring ICU care were compared, COVID-19 presented better outcomes than SARS-CoV and MERS-CoV. Ground-glass opacity was the most common early finding on CT. Premature rupture of the membranes occurred in 18.8% and pre-eclampsia occurred in 13.6% of pregnant women with COVID-19. 41% of deliveries occurred before 37 weeks and 15% before 34 weeks. No evidence of vertical transmission was reported. In pregnant patients with auto-immune diseases, hydroxychloroquine is strongly recommended for disease control and is a potential therapeutic agent in cases of SARS-CoV-2 infections in pregnancy. The association of lopinavir/ritonavir is not contra-indicated in pregnancy, except for Kaletra oral solution. Darunavir/ritonavir should be evaluated case by case, and the use of darunavir/cobicistat is not recommended. Currently, there is a lack of data about remdesivir.	effects of COVID-19 on pregnancy.	doi:10.1055/s-0040-1713408
Epidemiology, pediatric prevalence, pediatric clinical course, testing, USA	19-Jun-20	The Epidemiology of SARS-CoV-2 in a Pediatric Healthcare Network in the United States	Journal of the Pediatric Infectious Diseases Society	Original Research	This retrospective case series aimed to understand the prevalence and clinical presentation of COVID-19 in patients tested for SARS-CoV-2 across a pediatric healthcare network in the U.S.. Of 7,256 unique children tested for SARS-CoV-2, 424 (5.8%) tested positive. Patients 18-21 years of age had the highest test positive rate (11.2%) while those 1-5 years of age had the lowest (3.9%). By race, 10.6% (226/2132) of Black children tested positive vs. 3.3% (117/3592) of White children. Of those with an indication for testing, 21.1% (371/1756) of patients with reported exposures or clinical symptoms tested positive vs. 3.8% (53/1410) of those undergoing pre-procedural or pre-admission testing. Of the 424 patients who tested positive for SARS-CoV-2, 182 (42.9%) had no comorbid medical conditions, 87 (20.5%) had asthma, 55 (13.0%) had obesity, and 38 (9.0%) had mental health disorders. Overall, 52.1% had cough, 51.2% fever, and 14.6% shortness of breath. Seventy-seven (18.2%) SARS-CoV-2 positive patients were hospitalized, of which 24 (31.2%) required any respiratory support. SARS-CoV-2-targeted antiviral therapy was given to 9 patients, and immunomodulatory therapy to 18 patients. Twelve (2.8%) SARS-CoV-2 positive patients developed critical illness requiring mechanical ventilation and 2 patients required extracorporeal membrane oxygenation. Two patients died.	This study adds data from a large cohort of pediatric patients tested for SARS-CoV-2 and found that the rate of infection was low but varied by testing indication. The majority of cases were mild, few children had critical illness. Understanding the prevalence and clinical presentation of COVID-19 in pediatric patients can help healthcare providers and systems prepare and respond.	Otto WR, Geoghegan S, Posch LC, et al. The Epidemiology of SARS-CoV-2 in a Pediatric Healthcare Network in the United States. 2020 Jun 19. J Pediatric Infect Dis Soc. 2020 doi:10.1093/jpids/piaa074
Pregnancy, first trimester, seroprevalence, testing, asymptomatic	19-Jun-20	Seroprevalence and Clinical Spectrum of SARS-CoV-2 Infection in the First Versus Third Trimester of Pregnancy.	medRxiv	Preprint (not peer reviewed)	Since most published COVID-19 cases were in the third trimester of pregnancy, this study evaluated the seroprevalence and clinical presentation of SARS-CoV-2 infection in pregnant women in the first and third trimester. 874 participants were recruited at first trimester screening or delivery from April 14 to May 5, 2020. All women were interviewed for COVID-19 symptoms two months prior to sampling. SARS-CoV-2 IgG and IgM/IgA antibodies were tested. A total of 125 of 874 women (14.3%) were positive for either IgG or IgM/IgA SARS-CoV-2 antibodies, 54/372 (14.5%) in the first and 71/502 (14.1%) in the third trimester. A total of 75/125 (60%) reported no symptoms of COVID-19 in the past 2 months, whereas 44 (35.2%) reported one or more symptoms, of which 31 (24.8%) had at least 3 symptoms or anosmia and 8 (6.4%) had dyspnea. Overall, 7 women (5.6%) were admitted for persistent	This report expands the current body of information about seroprevalence and clinical presentation of COVID-19 in pregnancy to include the first trimester. Based on the findings, the rates of symptomatic infection were significantly higher in third trimester women and COVID-19 is asymptomatic in the	Crovetto F, et al. Seroprevalence and Clinical Spectrum of SARS-CoV-2 Infection in the First versus Third Trimester of Pregnancy. medRxiv doi:10.1101/2020.06.17.20134098

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					fever despite paracetamol and dyspnea, of which 3 had signs of pneumonia on chest radiography. All 3 had criteria for severity and required oxygen support but not critical care or mechanical ventilation. The rates of symptomatic infection, hospital admission or dyspnea were significantly higher in third trimester women.	majority of pregnant women.	
Children, infection, clinical features	19-Jun-20	The Clinical Characteristics of Pediatric Inpatients With SARS-CoV-2 Infection: A Meta-Analysis and Systematic Review	Journal of Medical Virology	Review Article: a meta-analysis and systematic review	Studies with more than 5 pediatric inpatients with SARS-CoV-2 infection were included in this meta-analysis. Among patients described in 15 included studies, fever (46%) and cough (42%) were the main clinical characteristics. The proportion of asymptomatic cases was 0.42 (95%CI: 0.27-0.59), and the proportion of severe cases was 0.03 (95%CI: 0.01-0.06). For laboratory measures, leukopenia (21%) and lymphocytosis (22%) were the main indicators for pediatric inpatients. With regard to chest imaging features, unilateral and bilateral findings were found in 22% of pediatric inpatients.	Results from this meta-analysis show milder clinical characteristics, laboratory indicators, and imaging features in children with SARS-CoV-2 infection, compared to adults.	Ma X, Liu S, Chen L, et al.,. The clinical characteristics of pediatric inpatients with SARS-CoV-2 infection: a meta-analysis and systematic review. Virol. doi:10.1002/jmv.26208
COVID-19, child neglect, child abuse, child protection	18-Jun-20	Who has been missed? Dramatic decrease in numbers of children seen for child protection assessments during the pandemic	Archives of Disease in Childhood	Letter	This letter was written by pediatricians serving in areas with a high need for child safeguarding services. The authors analyzed monthly referral data for children and young people (0-16 years old) attending for child protection medical examination as part of a child safeguarding assessment across 4 local authority areas of the North East of England from January to April in each of 2018, 2019, and 2020. Considering the increase of household stress during the pandemic, the authors anticipated that the need for these services would have increased. However, they noted a decrease in incoming referrals, particularly following stay-at-home orders. The analysis showed that the child protection assessment was drastically lower in April 2020: only 13 assessments compared to 50 in April 2018 and 30 in April 2019. The total number of assessments within 4 months was 99 in 2020, lower than assessments conducted in 2018 (152) and 2019 (156). This finding raises concerns that children at risk of harm are not being identified by services that could keep them safe. The authors encourage all child health practitioners to urgently consider what more can be done to ensure the safety of vulnerable children.	The authors analyzed monthly child protection assessment referral data for children and young people (0-16 years) in the North East of England from January to April in 2018, 2019, and 2020. Contrary to their expectation, the number of referrals dramatically decreased following stay-at-home orders during the pandemic. This indicates the lack of identification of at-risk children by safeguarding services.	Bhopal S, Buckland A, McCrone R, et al. Who has been missed? Dramatic decrease in numbers of children seen for child protection assessments during the pandemic. Arch Dis Child. 2021;106(2):e6. doi:10.1136/archdischild-2020-319783
COVID-19; children; education; social services; psychology; economy	18-Jun-20	COVID-19 and the Nigerian child: the time to act is now	The Pan African Medical Journal	Essay	While African leaders grapple with the COVID-19 pandemic, the authors of this essay argue African children should not be the 'hidden victims' because they are among the most vulnerable. This essay highlights the effects of the pandemic on the economic, education, health, mental and socio-cultural well-being of the Nigerian child and suggests ways to mitigate it. The slowing down in the global economy and lockdown of countries around the world as a result of COVID-19 has resulted in a decline on foreign trade in oil, which Nigeria is dependent. Since school closures, many families in Nigeria have found themselves unable to help their children keep track with their education. These children are more disadvantaged and hence underserved because they have no access to formal education in this period. With the on-going restriction of movements, children on antiretroviral and anti-tuberculosis medications may face the challenges of stock outs and adherence issues. It is plausible that prolonged physical and social distancing, lockdowns, and closure of schools can harm the psychosocial wellbeing of children and young adults. The possible solutions would ultimately depend on the unique epidemiological context, political will, health care financing and the variations	This essay highlights the effects of the pandemic on the economic, education, health, mental and socio-cultural well-being of the Nigerian child and suggests ways to mitigate it. The author recommends prioritizing social programs, education programs and support services to protect children and prepare for future pandemics.	Briggs DC, Numbere TW. COVID-19 and the Nigerian child: the time to act is now. *Pan Afr Med J*. 2020;35(Suppl 2):82. Published 2020 Jun 18. doi:10.11604/pamj.supp.2020.35.23286

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					in health service provision patterns in Nigeria. The author recommends prioritizing the following: provisions of meals to support vulnerable children, education in rural/semi-urban areas without access to technology, management guidelines for pediatric patients with COVID-19, provide instructions for supporting needs of vulnerable/orphaned children, psychological support services, child protection-focused programs, and other indirect mitigation methods.		
Ear protrusion, external ear, surgical face mask, infant	18-Jun-20	Can the Elastic of Surgical Face Masks Stimulate Ear Protrusion in Children?	Aesthetic Plastic Surgery	Article	The authors discuss the potential effect of using protective masks to contain virus transmission during the COVID-19 pandemic on ear protrusion in children. The imminent need for masks has led many governments to produce them, including surgical masks with elastic loops or masks with side cuts at the ears. Among those on the market, surgical masks with elastic loops are the ones most chosen by parents for their children. These elastics cause constant compression on the skin and, consequently, on the cartilage of the auricle, leading to erythematous and painful lesions of the retro-auricular skin when the masks are used for many hours a day. Pre-adolescent children have undeveloped auricular cartilage with less resistance to deformation; prolonged pressure from the elastic loops of the mask at the hollow or, even worse, at the anthelix level can influence the correct growth and angulation of the outer ear. In fact, unlike when using conservative methods for the treatment of protruding ears, this prolonged pressure can increase the cephalon-auricular angle of the outer auricle. It is important for the authorities supplying the masks to be aware of the potential risk and for alternative solutions to be found while preventing the potential spread of the virus.	The authors discuss the potential impact of prolonged usage of protective masks to contain virus transmission during the COVID-19 pandemic on external ear development in children.	Zanotti B, Parodi PC, Riccio M. Can the Elastic of Surgical Face Masks Stimulate Ear Protrusion in Children? Aesthetic Plast Surg. 2020 Oct;44(5):1947-1950. doi: 10.1007/s00266-020-01833-9.
Advocacy, cancer, inflammation, pediatrics, relapse, research, systemic acute respiratory syndrome, tumor	18-Jun-20	Pediatric cancer research: Surviving COVID-19	Pediatric Blood & Cancer	Special Report	A diverse panel of pediatric cancer advocates and experts met in April 2020, to discuss challenges for pediatric cancer research in the context of COVID-19. Specifically, this special report addresses four focus areas. (A) Collaborative clinical-translational research has improved outcomes for children with cancer. Such research and its supporting infrastructure must continue in both the near and long term. (B) In contrast to the maintained continuity in clinical pediatric cancer care, pediatric cancer research has been significantly interrupted by the COVID-19 pandemic. The authors present COVID-19-related challenges to research faced by academic institutions, advocacy groups, and pharmaceutical industries. (C) Emerging data on SARS-CoV-2 infection may help to explain why pediatric patients experience less severe COVID-19, and to implement potential therapies that would either augment helpful or inhibit harmful immune responses to SARS-CoV-2. These findings may have application in immunity, oncogenesis, and therapeutic discovery. (D) Pediatric cancer remains the primary disease-related cause of mortality in children. Therefore, the authors present future considerations and directions in maintaining pediatric cancer research during and after COVID-19.	A diverse panel of pediatric cancer advocates and experts met in April 2020, to discuss challenges for pediatric cancer research in the context of COVID-19. Topics pertinent to current and future directions for pediatric cancer care and research are summarized in this special report.	Auletta, JJ, Adamson, PC, Agin, JE, et al. Pediatric cancer research: Surviving COVID-19. Pediatr Blood Cancer. 2020; 67:e28435. https://doi.org/10.1002/pbc.28435
Children, emergency department, utilization,	18-Jun-20	Impact of the COVID-19 pandemic in the paediatric emergency	Archives of Disease in Childhood	Letter	To assess decline in pediatric emergency department visits during the COVID-19 pandemic, the authors conducted a retrospective study comparing weekly visits of patients <18 years of age to the emergency department of a pediatric hospital in Buenos Aires, Argentina from January-May 2019 to January-May 2020. The number of visits were similar in January and February across the	This study adds to the literature documenting decreased pediatric emergency department utilization during the	Ferrero F, Ossorio MF, Torres FA, et al. Impact of the COVID-19 pandemic in the paediatric emergency department

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Buenos Aires, Argentina		department attendances in Argentina			two years. In subsequent months, the visits in 2020 decreased compared to 2019. 38.5%, 77.2% and 88.6% of 2019 visits occurred in March, April and May of 2020, respectively. A figure compares these volume decreases to key dates in Argentina's pandemic response. The authors hypothesize that fear of attending a health institution during a pandemic contributed to this decrease, and they comment on the importance of looking for possible sequelae of this decreased utilization.	COVID-19 pandemic, and the authors emphasize that possible sequelae from this decreased use should be looked for once the pandemic is over.	attendances in Argentina [published online 2020 Jun 18]. Arch Dis Child. 2020. doi:10.1136/archdischild-2020-319833
Sickle cell anemia, pregnant, Brazil	18-Jun-20	COVID-19 as a trigger of acute chest syndrome in a pregnant woman with sickle cell anemia	Hematology, Transfusion and Cell Therapy	Case report	A 35-year-old woman in Brazil, with a history of sickle cell anemia (SCA), 28 weeks pregnant, has a history of acute chest syndrome (ACS) in 2012, pulmonary thromboembolism in 2017 with pulmonary hypertension, leg ulcers in 2012, and 2 previous pregnancies. The patient presented to the emergency room on May 4, 2020, referring to myalgia and fever for the last 10 days and cough and dyspnea for the last seven days. At the presentation, dyspnea and hypoxia (SpO2 84%) were observed and corrected with 3 L/min of supplemental oxygen. She was treated with ceftriaxone and azithromycin and received a blood transfusion. On day 3 of hospitalization, she received positive testing for COVID-19. On day 9 of hospitalization (day 18 of symptoms), the SARS-CoV-2 PCR nasopharyngeal swab testing was repeated and resulted in negative. She remained in blood transfusion therapy during hospitalization. Obstetric monitoring was provided at admission and during the entire hospitalization, with no complications detected, and maintaining good fetal mobility.	The evolution of this pregnant woman with sickle cell anemia (SCA) seems to corroborate the proposal of Hussain et al. that anemia, hemolysis and chronic inflammation, physiopathological characteristics of SCD, might have a favorable influence in the clinical course of COVID-19 infection in these patients.	Justino CC, Campanharo FF, Augusto MN, Morais SC, Figueiredo MS. COVID-19 as a trigger of acute chest syndrome in a pregnant woman with sickle cell anemia [published online, 2020 Jun 18]. Hematol Transfus Cell Ther. 2020; doi:10.1016/j.htct.2020.06.003
Malaria, global health, pediatric, resource distribution, Africa	18-Jun-20	Pausing the Fight Against Malaria to Combat the COVID-19 Pandemic in Africa: Is the Future of Malaria Bleak?	Frontiers in Microbiology	Perspective	In this article, the authors present perspectives on the collateral impact of the COVID-19 pandemic on malaria, particularly in Africa. Malaria remains a major global health burden. While children under 5 years old are largely asymptomatic from COVID-19, they suffer from a high malaria-attributable mortality rate. In low-income tropical countries with a high malaria burden, the current pandemic is likely to hamper the fight against malaria in several ways. Access to healthcare has generally been limited, and lockdowns have caused suspension of malaria interventions. There has been repurposing of anti-malarial drugs for COVID-19 treatment and a shift to the production of rapid diagnostic tests for COVID-19 instead of for malaria. Due to fears of contracting COVID-19, the elderly may not take children to receive their malaria medication. COVID-19 has disproportionately affected developed countries, threatening their donation capacity. These concerns related to the COVID-19 pandemic are likely to thwart malaria control efforts in low-income regions.	Although SARS-CoV-2 is less pathogenic in young children, this population has the highest burden of malaria. The authors argue that neglecting efforts to control malaria in favor of COVID-19 could prove catastrophic for global health, particularly in Africa.	Nghochuzie NN, Olwal CO, Udoakang AJ et al. Pausing the Fight Against Malaria to Combat the COVID-19 Pandemic in Africa: Is the Future of Malaria Bleak?. [published online, 2020 Jun 18]. Front Microbiol. doi:10.3389/fmicb.2020.01476
Pregnancy, Ulcerative colitis, inflammatory bowel disease, steroids, spontaneous abortion, United States, New York	18-Jun-20	Management of Acute Severe Ulcerative Colitis in a Pregnant Woman With COVID-19 Infection: A Case Report and Review of the Literature	Inflammatory Bowel Disease	Case Report	A 26-year-old female from Brooklyn, New York, with a history of ulcerative pancolitis (UC) was hospitalized with abdominal pain, diarrhea, hematochezia, and urgency in the setting of a UC flare. A pregnancy test was positive without detection on transvaginal ultrasound. A flexible sigmoidoscopy revealed Mayo 3 proctitis and she received intravenous methylprednisolone followed by a home oral prednisone taper. Two days later, she returned to the emergency department with bloody diarrhea, abdominal pain, and an elevated CRP. RT-PCR testing for SARS-CoV-2 by nasopharyngeal swab was performed and was positive. A transvaginal ultrasound was repeated, and an early intra-uterine pregnancy was confirmed. She resumed IV	This article describes the management of a patient with acute severe ulcerative colitis (UC) during her first trimester of pregnancy with concurrent COVID-19, who ultimately experiences pregnancy loss. The case presentation is followed by a review of the literature on	Rosen MH, Axelrad J, Hudesman D, Rubin DT, Chang S. Management of Acute Severe Ulcerative Colitis in a Pregnant Woman With COVID-19 Infection: A Case Report and Review of the Literature. Inflamm Bowel Dis.

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					methylprednisolone and improved, but when transitioned to oral prednisone, her abdominal pain recurred and her CRP rose. She was started on azithromycin, hydroxychloroquine, and IV cyclosporine with gradual improvement in UC symptoms and CRP. On day 9 she developed vaginal bleeding and experienced a spontaneous abortion. The patient was discharged home on day 11 on cyclosporine, prednisone, and a plan for outpatient infliximab. The optimal management of inflammatory bowel disease in pregnancy during the COVID-19 pandemic has yet to be defined and the authors follow this case report with a summary of current data.	COVID-19 in the setting of inflammatory bowel disease and pregnancy.	2020;26(7):971-973. doi:10.1093/ibd/izaa109
Universal screening, screening neonates, asymptomatic neonates	18-Jun-20	Outcome of Universal screening of asymptomatic neonates for COVID-19 from asymptomatic mothers.	Journal of Infection	Letter	Universal screening for COVID-19 of pregnant women has been described in the literature, however, to date universal screening of newborns has not. Between 27th April and 21st May, 481 infants were delivered and 418 were screened with maternal consent. Nine (2.2%) asymptomatic infants born to asymptomatic mothers screened positive for SARS-CoV-2 all within the first 24 hours, three within the first three hours. Of these nine, eight mothers tested negative. Four possible explanations include: contamination of samples (unlikely), false negative tests in the mothers, false positives in the neonates (specificity and positive predictive value make this unlikely), or previous infection in mothers no longer shedding viral RNA into the nasopharynx.	Universal screening of neonates revealed 2.2% of asymptomatic infants born to asymptomatic mothers screened positive for SARS-CoV-2. Universal swabbing of newborns could add substantially to our understanding.	McDevitt KEM, Ganjoo N, Mlangeni D, Pathak S. Outcome of Universal screening of asymptomatic neonates for COVID-19 from asymptomatic mothers. 2020 Jun 18. J Infect. doi:10.1016/j.jinf.2020.06.037
HELLP syndrome, clinical presentation, transaminitis, thrombocytopenia, disseminated intravascular coagulation	18-Jun-20	COVID-19 and HELLP: Overlapping Clinical Pictures in Two Gravid Patients.	American Journal of Perinatology Reports	Case report	The impact of SARS-CoV-2 on pregnancies is currently under investigation. There is a significant overlap between the clinical findings in COVID-19 and hemolysis, elevated liver enzymes, and low platelets syndrome (HELLP). The authors review two cases, of patients who presented at 22 and 29 weeks of gestation with suspected COVID-19 pneumonia. While the patient at 22 weeks of gestation subsequently had an intra-uterine fetal demise, the patient at 29 weeks of gestation delivered via an emergency cesarean delivery for non-reassuring fetal status. Both patients also developed transaminitis, thrombocytopenia, and disseminated intravascular coagulation with a proof of hemolysis on peripheral smear. Both patients tested positive for COVID-19 infection. While there are clinical criteria that can help differentiate between these conditions, clinicians are encouraged to consider both of these diagnoses when caring for pregnant women during the COVID-19 pandemic to assure that both maternal and fetal concerns are addressed and treated appropriately.	Due to the overlap in clinical presentation of COVID-19 infection and HELLP syndrome, clinicians should consider both of these diagnoses when treating pregnant women to assure correct diagnosis and appropriate subsequent treatment.	Futterman I, Toaff M, Navi L, Clare CA. COVID-19 and HELLP: Overlapping Clinical Pictures in Two Gravid Patients. AJP Rep. doi:10.1055/s-0040-1712978
Infants, clinical presentation, management, Illinois, USA	18-Jun-20	SARS-CoV-2 Infection in Infants Less than 90 Days Old.	The Journal of Pediatrics	Case series	This is a single-center US case series of 171 infants <90 days old were tested for SARS-CoV-2. 18 (10%), aged 10-88 days, tested positive. None had significant past medical history. These infants had a mild febrile illness without significant pulmonary disease. 14 had a fever, one had a cough as the only symptom, one had choking associated with feeding, and one was asymptomatic. 50% were hospitalized; none required intensive care, and none were hypoxemic or required respiratory support. Of the five tested for other respiratory viruses, none were found, and one had a bacterial urinary tract co-infection. Nasopharyngeal viral loads were notably high. Latino ethnicity was overrepresented. It is unclear whether young infants with fever and a positive rapid test for SARS-CoV-2 require admission.	The infants with COVID-19 infection in this case series had minimal or no respiratory involvement. Decision to admit to the hospital is based on age, need to assess for bacterial infection, clinical assessment, feeding tolerance, and adequacy of follow up.	Mithal LB, Machut KZ, Muller WJ, et al. SARS-CoV-2 Infection in Infants Less than 90 Days Old [published online 2020 Jun 18]. J Pediatr. doi:10.1016/j.jpeds.2020.06.047
SARS 2003, children,	18-Jun-20	A Comparison Between Chinese	The Journal of Pediatrics	Original article	The authors sought to compare the clinical and laboratory features of SARS and COVID-19 in two Chinese pediatric cohorts. This cross-sectional study	Children with COVID-19 were less symptomatic and	Xiong X, Chua GT, Chi S, et al. A Comparison

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hematological findings, China		Children Infected With COVID-19 and With SARS			reviewed pediatric patients with SARS (n = 43) and COVID-19 (n=244) who were admitted to the Princess Margaret Hospital in Hong Kong and Wuhan Children's Hospital in Wuhan, respectively. Overall, 97.7% of patients with SARS and 85.2% of patients with COVID-19 had epidemiological associations with known cases. Significantly more patients with SARS developed fever, chills, myalgia, malaise, coryza, sore throat, sputum production, nausea, headache, and dizziness than patients COVID-19. No SARS patients were asymptomatic at the time of admission. 29.1% and 20.9% COVID-19 patients were asymptomatic on admission and throughout their hospital stay, respectively. More SARS patients required oxygen supplementation than COVID-19 patients (18.6 vs. 4.7%, P = .004). Only 1.6% COVID-19 and 2.3% SARS patients required mechanical ventilation. Leukopenia (37.2% vs. 18.6%, p=0.008), lymphopenia (95.4% vs. 32.6%, p<0.01), and thrombocytopenia (41.9% vs. 3.8%, p<0.001) were significantly more common in SARS than COVID-19 patients. The duration between positive and negative nasopharyngeal aspirate and the length in hospital stay were similar in COVID-19 patients regardless of whether they were asymptomatic or symptomatic, suggesting a similar duration of viral shedding.	had more favorable hematological findings than children with SARS.	Between Chinese Children Infected with COVID-19 and with SARS [published online, 2020 Jun 18]. J Pediatr. doi:10.1016/j.jpeds.2020.06.041
Neonates, pregnancy	18-Jun-20	COVID-19 in Pregnant Women and Neonates: A Systematic Review of the Literature With Quality Assessment of the Studies	Pathogens	Review article	This review includes 37 studies from MEDLINE and EMBASE databases, involving 275 pregnant women with COVID-19 and 248 neonates. The majority of pregnant women presented with mild to moderate symptoms, only 10 were admitted in the ICU, and one died. Two stillbirths were reported and the incidence of prematurity was 28%. 16 neonates were tested positive for SARS-CoV-2 by RT-PCR, and 9 of them were born from mothers infected during pregnancy. Neonatal outcomes were generally favorable, although neonates at risk should be closely monitored. RT-PCR for SARS-CoV-2 yielded negative results on amniotic fluid, vaginal/cervical fluids, placenta tissue, and breast milk samples. SARS-CoV-2 infection in pregnant women appeared associated with mild or moderate disease in most cases, with a low morbidity and mortality rate.	Pregnant women with COVID-19 mostly presented with mild or moderate symptoms. The outcome of neonates born from infected mothers appeared mostly favorable.	Trippella G, Ciarcià M, Ferrari M, et al. COVID-19 in Pregnant Women and Neonates: A Systematic Review of the Literature with Quality Assessment of the Studies. Pathogens. Published 2020 Jun 18. doi:10.3390/pathogens9060485
Infant, cardiac involvement, myocardial enzymes, inflammation, Italy	18-Jun-20	COVID-19 Cardiac Involvement in a 38-day Old Infant	Pediatric Pulmonology	Case Report	A full-term, formula-fed 38-day-old male presenting with fever, rhinitis, and modest hypo-reactivity was admitted on March 27, 2020. Nasal and pharyngeal swabs tested positive for SARS-CoV-2. An increase in troponin T was observed, as well as a slightly elevated creatine kinase-MB. D-dimer was found to be increased in two consecutive measurements, with subsequent spontaneous resolution. The infant developed mild cardiovascular inflammation, a novelty for patients of very young age, with evidence of pericardial effusion on imaging. Hospital stay was unremarkable; no oxygen or antiviral therapy was administered. After 14 days, the infant was discharged and tested negative for SARS-CoV-2.	This case report contributes to literature on cardiac involvement in children with SARS-CoV-2 infection; comprehensive clinical, laboratory, and imaging characterization is provided.	Del Barba P, Canarutto D, Sala E, et al. COVID-19 cardiac involvement in a 38-day old infant [published online 2020 Jun 18]. Pediatr Pulmonol. doi:10.1002/ppul.24895
Children, chilblain-like lesions, asymptomatic infection, serology, France	18-Jun-20	Negative SARS-CoV-2 PCR in patients with chilblain-like lesions	The Lancet Infectious Diseases	Correspondence	In this prospective cohort study, patients with cutaneous manifestations were referred to Centre Hospitalier Universitaire de Nice, France between April 9 and 17, 2020, with suspected SARS-CoV-2 infection. 40 consecutive patients (21 [53%] female) with chilblain-like lesions were included. Consistent with previous reports, most patients were young, with a median age of 22 years (range 12–67 years; IQR 15–28 years). 25 (63%) patients were asymptomatic, and the remaining patients had only mild symptoms compatible with COVID-	Results from this study suggest that chilblain-like lesions are associated with mild or asymptomatic SARS-CoV-2 infection, although most patients will probably	Hubiche T, Le Duff F, Chiaverini C, et al. Negative SARS-CoV-2 PCR in patients with chilblain-like lesions [published online 2020 Jun 18]. Lancet Infect Dis.

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					19. 24 (60%) patients reported contact with a person suspected of having COVID-19. No patients were RT-PCR positive for SARS-CoV-2 RNA at the time of consultation. However, COVID-19 serology was positive in 12 (30%) patients: seven had only IgA antibodies, three had only IgG antibodies, one had IgM and IgG antibodies, and one had IgA and IgG antibodies. Although these results require further investigation, they suggest that in young patients SARS-CoV-2 is completely suppressed before a humoral immune response is induced.	have negative PCR results at the time of presentation.	doi:10.1016/S1473-3099(20)30518-1
Children, LMICs, Kenya	18-Jun-20	Is the Effect of COVID-19 on Children Underestimated in Low- And Middle-Income Countries?	Acta Paediatrica	Commentary	It has been documented that overall, children are less affected by COVID-19 infection. This commentary describes how in Kenya COVID-19 is likely to have far-reaching direct and indirect implications on children. Without adequate testing of children and weak surveillance systems, rates of diagnosis and outcomes of disease are uncertain. As societal effects of the pandemic are likely to be widely detrimental to children, there is need for immediate, country-led multi-sectoral efforts to sustain hard-earned improvements in child health. Continuation of services for interventions that have shown great impact in reducing child mortality should be a priority. Healthcare system strengthening due to the COVID-19 related response should be utilized to reduce the likely untold effects. Equitable education opportunities, and provision of food directly or through cash transfers, are to be explored to ensure mitigation towards the aforementioned effects. Without such efforts, the generational impact of COVID-19 will be far higher than currently estimated.	This commentary highlights concerns for significant indirect effects of the COVID-19 pandemic response on children, as well as proposes priority areas for investment to mitigate these effects.	Simba J, Sinha I, Mburugu P, et al. Is the effect of COVID-19 on children underestimated in low- and middle- income countries? [published online 2020 Jun 18]. Acta Paediatr. doi:10.1111/apa.15419
Pregnancy, LMICs, management, Nigeria	18-Jun-20	Good Clinical Practice Advice for the Management of Pregnant Women With Suspected or Confirmed COVID-19 in Nigeria	International Journal of Gynecology and Obstetrics	Special Article	The impact on healthcare services in settings with under-resourced health systems, such as Nigeria, is likely to be substantial in the coming months due to the COVID-19 pandemic, and maternity services still need to be prioritized as an essential core health service. The healthcare system should ensure the provision of safe and quality care to women during pregnancy, labor, and childbirth, and at the same time, maternity care providers including obstetricians and midwives must be protected and prioritized to continue providing care to childbearing women and their infantss during the pandemic. This article highlights the practical guidelines for the management of pregnant women with suspected or confirmed COVID-19 in secondary and tertiary hospitals with designated isolation facilities and resources for infection prevention and control in resource-constrained settings such as Nigeria.	This guideline contains recommendations for resource-constrained settings regarding prenatal care (including use of telehealth), inpatient and surgical care, intrapartum and postpartum care.	Okunade KS, Makwe CC, Akinajo OR, et al. Good clinical practice advice for the management of pregnant women with suspected or confirmed COVID-19 in Nigeria [published online 2020 Jun 18]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13278
Children, atypical presentation, GI symptoms	18-Jun-20	Atypical and novel presentations of Coronavirus Disease 2019: a case series of three children	British Journal of Biomedical Science.	Case Report	Typical presentations of COVID19 including respiratory symptoms (cough, respiratory distress and hypoxia), fever and dyspnea are considered main symptoms in adults, but atypical presentation children could be a diagnostic challenge. The authors report three children whose initial presentation was gastrointestinal, and in whom COVID-19 infection was found, concluding that cases of acute appendicitis, mesenteric adenitis and flank tenderness may mask an infection with this virus, which should therefore be investigated.	The authors report three pediatric cases of COVID-19 presenting atypically with gastro-intestinal symptoms. They recommend that COVID-19 must be considered in any patients with atypical presentations.	Ekbatani MS, Hassani SA, Tahernia L et al. Atypical and novel presentations of Coronavirus Disease 2019: a case series of three children [published online 2020 Jun 18]. British Journal of Biomedical Science. doi:10.1080/09674845.2020.1785102

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Infant, remdesivir, treatment	18-Jun-20	Infant With SARS-CoV-2 Infection Causing Severe Lung Disease Treated With Remdesivir	Pediatrics	Case Report	The authors describe an ex-premature infant presenting with SARS-CoV-2 infection in the 5th week of life. Current reports indicate that acute symptomatic SARS-CoV-2 infection is relatively rare and much less severe than in adults. This case highlights that infection can be associated with life threatening pulmonary disease in young infants and that infection can follow a similar disease course to that described in adults. This report provides the first data on the use of the novel antiviral remdesivir in a young child and an innovative approach to expedited approval from a multidisciplinary clinical team and bioethics committee for compassionate access to the drug.	The authors present the case of an acute and severe SARS-CoV-2 infection in an infant. They describe the first report of treatment of a young child with remdesivir for COVID-19.	Frauenfelder C, Brierley J, Whittaker E et al. Infant With SARS-CoV-2 Infection Causing Severe Lung Disease Treated With Remdesivir [published online on 2020 Jun 18]. Pediatrics. doi:10.1542/peds.2020-1701
Anti-coagulation, children, hyper-coagulability, guidelines	18-Jun-20	COVID-19 Anticoagulation Recommen-dations in Children	Pediatrics Blood and Cancer	Letter to the Editor	While many hematology organizations have published guidelines for anticoagulation of hospitalized symptomatic adult COVID-19 patients, this type of recommendation is lacking for hospitalized children with this infection. In a letter to the editor, the authors provide preliminary recommendations for the hemostatic evaluation, imaging, risk assessment for thrombosis, and anticoagulation for children hospitalized with COVID-19. These were developed through a local assembly of pediatric intensivists and hematologists following review of the existing relevant literature for adult COVID-19 patients. The authors state that a pediatric risk assessment and consideration for prophylactic anticoagulation should be performed at baseline and daily during hospitalization. They also provide recommendations for pharmacologic prophylaxis and indications for therapeutic anticoagulation in the treatment of pediatric COVID-19-related venous thrombotic events.	In pediatric patients with COVID-19, recommendations for the evaluation, prevention, and treatment of venous thrombotic events are lacking. The authors provide recommendations for the use of prophylactic and therapeutic anticoagulation in this population.	Loi M, Branchford B, Kim J, Self C et al. COVID-19 anticoagulation recommendations in children [published online on 2020 Jun 18]. Pediatr Blood Cancer. doi:10.1002/pbc.28485
Chest CT, imaging, ground-glass opacification, pediatric	18-Jun-20	Coronavirus Disease 2019 (COVID-19) in Children: A Systematic Review of Imaging Findings	Pediatric Radiology	Review Article	Because children with COVID-19 appear to be less severely affected than adults, their imaging appearances have not been extensively reported. For this systematic review of the available literature regarding imaging findings in paediatric cases of COVID-19, the authors searched four databases (Medline, Embase, Cochrane, Google Scholar). Twenty-two articles were included, reporting chest imaging findings in 431 children, of whom 421 (97.7%) underwent CT. At diagnosis, 143/421 (34.0%) had a normal CT. Abnormalities were more common in the lower lobes and were predominantly unilateral. The most common imaging pattern was ground-glass opacification (159/255, 62.4%). None of the studies described lymphadenopathy, while pleural effusions were rare (three cases). Improvement at follow-up CT imaging (3–15 days later) was seen in 29/100 (29%), remained normal in 25/100 (25%) and progressed in 9/100 (9%). The authors concluded that CT chest findings in children with COVID-19 are frequently normal or mild. Therefore, chest CT imaging adds little to the further management of the patient and should be reserved for severe cases or for identifying alternative diagnoses.	Chest CT findings in pediatric COVID-19 patients are usually normal or mild. The authors argue that chest CT imaging should be only reserved for severe cases.	Shelmerdine SC, Lovrenski J, Caro-Domínguez P et al. Coronavirus disease 2019 (COVID-19) in children: a systematic review of imaging findings [published online, 2020 Jun 18]. Pediatr Radiol. doi:10.1007/s00247-020-04726-w
Built environment, neighborhood socioeconomic status, pregnant women, transmission,	18-Jun-20	Associations Between Built Environment, Neighborhood Socioeconomic Status, and SARS-CoV-2 Infection Among Pregnant	JAMA	Research Letter	The built environment is associated with infectious disease dynamics, especially in diseases transmitted by contact, aerosols, or droplets, and a recent study of the SARS-CoV-2 epidemic in New York reported significant differences in hospitalization and death rates. This cross-sectional study identified 434 pregnant women in New York City to investigate associations between the built environment, markers of neighborhood socio-economic status, and SARS-CoV-2 prevalence. The results suggest that SARS-CoV-2 transmission among pregnant women in New York City was significantly	This study provides empirical support for the hypothesis that variation in the urban environment may be a significant social determinant of SARS-CoV-2 transmission.	Emeruwa UN, Ona S, Shaman JL, et al. Associations Between Built Environment, Neighborhood Socioeconomic Status, and SARS-CoV-2 Infection Among Pregnant Women

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the United States		Women in New York City			associated with neighborhood- and building-level markers of large household membership (interdecile OR, 3.16 [95% CI, 1.58-6.37]), household crowding (interdecile OR, 2.27 [95% CI, 1.12-4.61]), and low socio-economic status (interdecile OR, 2.13 [95 CI, 1.18-3.83]). These data may assist policymakers in the design of interventions to reduce the spread of SARS-CoV-2.		in New York City. JAMA. doi:10.1001/jama.2020.11370
Experiences, Prenatal care, Self-care, Fear, Anxiety, Perceived stress, Iran	18-Jun-20	Explaining the Experience of Prenatal Care and Investigating the Association Between Psychological Factors With Self-Care in Pregnant Women During COVID-19 Pandemic: A Mixed Method Study Protocol	Reproductive Health	Study Protocol	Prenatal care (PNC) providing institutes should identify the needs and demands of pregnant women by optimizing the means of PNC services during the COVID-19 pandemic in Iran. This mixed-methods study with a sequential explanatory design consists of three phases. The first phase is a qualitative study exploring the prenatal care experiences among pregnant women, and the conventional content analysis approach will be employed for data analysis. The second phase is quantitative and will be used as a cross-sectional approach for assessing the association between psychological factors of self-care. The third phase will be focusing on developing a prenatal care guideline and Strategies, using the qualitative and quantitative results of the previous phases, a review of the related literature, and the nominal group technique will be performed among experts.	The present research is the first study to investigate the prenatal care experiences and factors influencing self-care among pregnant women during COVID-19 pandemic, aiming to improve the care offered.	Masjoudi M, Aslani A, Khazaeian S, et al. Explaining the experience of prenatal care and investigating the association between psychological factors with self-care in pregnant women during COVID-19 pandemic: a mixed method study protocol. *Reprod Health*. 2020;17(1):98. Published 2020 Jun 18. doi:10.1186/s12978-020-00949-0
Antibodies, Maternal, Breastmilk	18-Jun-20	Antibodies in the Breast Milk of a Maternal Woman With COVID-19	Emerging Microbes & Infections	Letter	A 33-year-old primiparous woman (38 weeks 2 days of gestation with irregular lower abdominal pain with vaginal fluid for 6 hours) with cough and chest tightness was admitted to hospital for childbirth on February 26, 2020. Throat swabs tested positive for SARS-CoV-2 at admission, but there was neither antiviral nor antibiotic treatment for the patient due to the pregnancy. After delivery, the woman was positive for SARS-CoV-2 tested in throat swabs but tested negative in other body fluids, and she had IgG and IgA detected in breast milk. The neonate had a negative result for SARS-CoV-2 RNA at the birth and her IgG antibody to SARS-CoV-2 was observed only within one and half month after birth, indicating the placenta transmission of COVID antibody.	Breastmilk was found negative for SARS-CoV-2. The IgG and IgA antibodies were detected in breast milk, indicating that breastfeeding might have the potential benefit to the neonates.	Dong Y, Chi X, Huang H, et al. Antibodies in the breast milk of a maternal woman with COVID-19. Emerging Microbes & Infections [published online 2020 Jun 18]. doi: 10.1080/22221751.2020.1780952
Asthma, pediatrics, risk factors	18-Jun-20	Asthma and COVID-19 in Children - A Systematic Review and Call for Data	Pediatric Pulmonology	Review Article	This systematic literature search aimed to review whether asthma constitutes a risk factor for COVID-19 in pediatric populations. The authors reviewed PubMed, EMBASE and CINAHL for systematic reviews of SARS-CoV-2 and COVID-19 in pediatric populations, then searched PubMed for studies on COVID-19 or SARS-CoV-2 and asthma/wheeze and evaluated whether they included pediatric populations, and thirdly searched BioRxiv.org and MedRxiv.org for pre-prints on pediatric asthma. Eight systematic reviews were found, of which five were done in pediatric populations; none of the 67 primary studies included data on pediatric asthma as a comorbidity for COVID-19. Five of 34 results in PubMed reported asthma in adults, but none included data on children. 25 pre-prints in MedRxiv included data on asthma, but none on children. One report by the U.S. CDC stated that 40/345 (~11.5%) children with data on chronic conditions had "chronic lung diseases including asthma", and one from a tertiary hospital in New York reported asthma in 11/46 (~23.9%) children hospitalized for COVID-19. There is scarcely any data	This literature search highlights the paucity of data on childhood asthma as a risk factor for SARS-CoV-2 infection or COVID-19 severity.	Castro-Rodriguez JA, Forno E. Asthma and COVID-19 in children - a systematic review and call for data. 2020 Jun 18. Pediatr Pulmonol. doi:10.1002/ppul.24909

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					on whether childhood asthma (or other pediatric respiratory diseases) constitute risk factors for SARS-CoV-2 infection or COVID-19 severity.		
Pediatric surveillance, testing, children, acute respiratory illness, public health surveillance, USA	18-Jun-20	SARS-CoV-2 Infections in Children - Multi-Center Surveillance, United States, January-March 2020	Journal of the Pediatric Infectious Disease Society	Original Research	Previous reports of COVID-19 among US children have been based on health jurisdiction reporting. In this study, SARS-CoV-2 testing was performed on children enrolled in active, prospective, multi-center surveillance during January–March 2020. Among 3187 children across 7 sites, only 4 (0.1%) SARS-CoV-2–positive cases were identified from 20 to 31 March despite evidence of rising community circulation. These low numbers are consistent with previous US reports showing children constitute a small minority of reported COVID-19 cases. All 4 positive children had acute respiratory illness; no asymptomatic controls tested positive. The median age of SARSCoV-2–positive children was 6 months (range: 1–12 months); 2 were male. Most frequent symptoms included fever, cough, nasal congestion/runny nose, fussiness/irritability (n = 3 each).	This surveillance data from 7 cities in the United States using SARS-CoV-2 testing on pediatric populations with fever or acute respiratory symptoms adds further evidence that children make up a small minority of COVID-19 cases in the US despite rising community spread.	Rha B, Lively JY, Englund JA, et al. SARS-CoV-2 Infections in Children - Multi-Center Surveillance, United States, January-March 2020. 2020 Jun 18. J Pediatric Infect Dis Soc. doi:10.1093/jpids/piaa075
SARS-Co-V-2, breast milk, pasteurization, infant, Germany, France, Netherlands	17-Jun-20	Holder Pasteurization Inactivates SARS-CoV-2 in Human Breast Milk	bioRxiv	Pre-print (not peer reviewed)	The authors state that previous studies have detected SARS-CoV-2 in breast milk. Subsequent infant infection in some cases have raised concerns about whether SARS-CoV-2 is transmissible via this route. Authors spiked 5 different SARS-CoV-2 isolates from Germany, France, and the Netherlands into 5 breast milk samples from healthy donors [age range not specified]. Infectivity was assessed by serial dilution of virus and inoculation of simian epithelial (Vero E6) or human adeno-carcinoma (Caco-2) cells. Cells were monitored for 3-6 days for visible changes and the tissue culture infectious dose 50% endpoint was calculated. After incubation of milk for 30 minutes at room temperature, all 5 samples remained infectious. After incubation of milk for 30 minutes at 63 degrees Celsius, no residual infectivity was detected. Thus, independent of the viral strain or breast milk sample, viral infectivity was eliminated by pasteurization. Authors present this as a safe and feasible method for mothers with SARS-CoV-2 to continue breastfeeding their infants.	The authors state that SARS-CoV-2 RNA has been detected in the breast milk of infected mothers, raising concerns regarding the safety of breastfeeding upon infection. In this study, pasteurization of breast milk inactivated SARS-CoV-2, thus providing an alternative and safe option for infected mothers to continue feeding breast milk to their infants.	Conzelmann C, Groß R, Meister TL, et al. Holder Pasteurization Inactivates SARS-CoV-2 in Human Breast Milk. *biorxiv*. June 2020. doi:https://doi.org/10.1101/2020.06.17.155689.
school closures, lockdown, COVID-19, transmission, UK	17-Jun-20	Easing lockdown for school children: why so contentious?	Evidence-Based Nursing	Opinion	In this opinion piece, the author discusses the heated debate around the need to open or close schools, specifically in the UK. The author cites information on COVID-19-related morbidity and mortality and asserts that there is little evidence of severe COVID-19 disease outcomes in children, and children's capacity for transmission seems to be more contact-driven. As such, the author argues that there are greater advantages of attending school than having schools shut down for the foreseeable future and suggests that basic protective measures (handwashing, distancing, masking) and limited numbers permitted in schools would ideally allow children to reap these benefits. The author does, however, emphasize the need to assess emerging evidence in weighing the risks and benefits of easing school lockdowns on infection prevalence and transmission and children's mental and physical health.	The author discusses evidence surrounding children's capacity to transmit SARS-CoV-2, their COVID-19-related morbidity and mortality, and overall risk of adverse outcomes associated with SARS-CoV-2 infection. The author suggests that handwashing, distancing, masking and capacity limits in schools would allow children to gain the benefits of school attendance despite the small risks of SARS-CoV-2 infection and transmission.	Swift A. Easing lockdown for school children: why so contentious?. *Evid Based Nurs*. 2020;23(3):65-67. doi:10.1136/ebnurs-2020-103320

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pediatric; MIS-C; Kawasaki disease	17-Jun-20	A child with a severe multisystem inflammatory syndrome following an asymptomatic COVID-19 infection: A novel management for a new disease?	Journal of Medical Virology	Letter to the Editor	Symptoms of COVID-19 are partly due to the SARS-CoV-2 virus directly, and partly due to immune system response. This letter discusses the case of a 9-year-old male presenting with fever and abdominal pain, with a recent family history of COVID-19. Lab analyses showed leukocytosis, neutrophilia, abnormal liver function, myocardial injury, and elevated inflammatory markers. Chest CT demonstrated atelectasis, and all blood, urine, and stool cultures were negative. SARS-CoV-2 nucleic acid swabs were negative, but COVID-19 IgG antibodies were positive, and IgM antibodies were weakly positive. The patient recovered after administration of antibiotics, methylprednisolone, and heparin. The authors describe this case as a novel inflammatory condition, similar to Kawasaki disease, that may arise after resolution of a mild or asymptomatic COVID-19 infection. They, therefore, recommend close monitoring of children after recovery from COVID-19.	This letter describes the case of a pediatric patient who developed an inflammatory condition with multiorgan involvement after an asymptomatic COVID-19 infection.	Giannattasio A, Maglione M, Zenzeri L, et al. A child with a severe multisystem inflammatory syndrome following an asymptomatic COVID-19 infection: A novel management for a new disease? [published online ahead of print, 2020 Jun 17]. J Med Virol. 2020;10.1002/jmv.26189. doi:10.1002/jmv.26189
Pediatric, immunology, autoimmune disorders, treatment	17-Jun-20	Children's (and autoimmune patients) morbidity (and mortality) from Covid-19 is similar to the general population: immunologic rational	Arthritis & Rheumatology	Letter to the Editor	At the onset of the COVID-19 pandemic, it was hypothesized that children and those with auto-immune disorders such as rheumatoid arthritis (RA) or systemic lupus erythematosus (SLE) would be at risk for severe infection. The authors expanded on previous research by Henderson et al (2020) to describe immunologic differences in these patients. They suggested immunosenescence (i.e changes in the immune system associated with age) as evidence for the reduced burden of disease in children. Further, research has shown that COVID-19 positive children with existing auto-immune disorders rarely enter into the cytokine release syndrome (CRS) phase, reducing the need for ICU care. For auto-immune diseases, the immunologic signature of RA and SLE is interferon type 1, which is the response needed to clear SARS-CoV-2 infection before cytokine release and which may explain the reduction in severe infection. For this reason, auto-immune-related treatments are being explored to treat COVID-19. The authors conclude that children and those with auto-immune disorders are not at an increased risk of infection relative to the general population.	The authors suggest that children and those with autoimmune disorders are not at an increased risk of COVID-19 infection due to differences in immunologic signatures in these populations.	Ferraccioli ES, Gremese E, Ferraccioli G. Children's (and autoimmune patients) morbidity (and mortality) from Covid-19 is similar to the general population: immunologic rationale. 2020 Jun 17. Arthritis Rheumatol. 2020. doi:10.1002/art.41399
ACE2, coronavirus, COVID-19, endometrial transcriptomics, SARS-CoV-2	17-Jun-20	SARS-CoV-2 infection risk assessment in the endometrium: viral infection-related gene expression across the menstrual cycle	Fertility and Sterility	Research Article	SARS-CoV-2 enters cells using ACE2 and possibly Bagisin (BSG) as a receptorwith the aid of several proteases. The authors hypothesized that endometrial tissue could be a target for SARS-CoV-2. They reviewed data sets from five studies up to 10 May 2020, with a total of 109 patients with normal endometrium. The authors then evaluated endometrial ACE2, BSG, and protease gene expression at each stage of the menstrual cycle. The protease TMPRSS2 gene was moderately expressed throughout the cycle, all other studied proteases and BSG were highly expressed, and ACE2 expression was low. All genes except TMPRSS2 changed expression significantly across the cycle. Expression for ACE2 and several proteases increased toward the midsecretory phase, when embryo implantation could occur. There were also correlations showing activations between genes. Results show that endometrial tissue is likely safe from SARS-CoV-2 infection based on ACE2 and TMPRSS2 expression, but expression of other proteins may imply susceptibility via other pathways. Only one of the five included studies disclosed subjects' ages (age 23-50 years, n=27). This one study demonstrated increased endometrial expression of ACE2 and several proteases with age,	Endometrial infection with SARS-CoV-2 is unlikely to occur based on ACE2 and TMPRSS2 gene expression, but susceptibility increases with age. There may be alternate mechanisms for endometrial SARS-CoV-2 infection. Research is needed to determine possible infection effects on the endometrium and fertility.	Henarejos-Castillo I, Sebastian-Leon P, Devesa-Peiro A, Pellicer A, Diaz-Gimeno P. SARS-CoV-2 infection risk assessment in the endometrium: viral infection-related gene expression across the menstrual cycle. Fertil Steril. 2020;114(2):223-232. doi:10.1016/j.fertnstert.2020.06.026

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					particular in early cycle phases. More research is needed to determine effects of possible SARS-CoV-2 infection on the endometrium and fertility, but findings could have implications for fertility treatments, especially in older women.		
Breastmilk, neonatal care, neonates, donor breastmilk, Paris, France,	17-Jun-20	A Call to Ensure Access to Human Milk for Vulnerable Infants During the COVID-19 Epidemic	Journal of Human Lactation	Letter	Declining human milk supplies in neonatal care units have become a concern worldwide. Several arguments support the use of donor milk during the COVID-19 epidemic. WHO does not consider human milk to be a transmission vehicle for COVID-19, direct breastfeeding is still recommended, and Holder pasteurization (62.5°C for 30 min) is effective for preventing any SARS-CoV-2 contamination. In response to a 30-50% reduction in breastmilk donations as a result from France's COVID-19 outbreak, the authors enacted a successful campaign across Paris to train donation collectors, loosen restriction criteria for donors, and spread awareness of the safety of donated breastmilk. In the final week of the campaign, breastmilk donations were double those of the same week in 2019.	In light of evidence of the safety of donated breastmilk and dwindling donations, the authors enacted a successful public awareness campaign in Paris, France.	Rigourd V, Lapillonne A. A Call to Ensure Access to Human Milk for Vulnerable Infants During the COVID-19 Epidemic [published online, 2020 Jun 17]. J Hum Lact. 2020; 0890334420938036. doi:10.1177/0890334420938036
Congenital heart disease, newborn, neonate, perioperative care	17-Jun-20	Perioperative Care of the Newborns With CHDs in the Time of COVID-19	Cardiology in the Young	First View	Though rare, severe COVID-19 can develop at neonatal age. Newborns with congenital heart disease (CHD) are at a high risk for increased morbidity from viral lower respiratory tract infections due to their underlying anatomical cardiac lesions. There are limited data on the implications of COVID-19 for patients with CHD. The authors summarize peri-operative management issues related to COVID-19 for newborns with CHD by combining available data from the perspectives of neonatology and pediatric cardiovascular surgery. These challenges span from the birth of the patient to the early post-operative period. The authors also provide workflow recommendations for the healthcare team for each of these critical time periods during hospitalization. The authors conclude that both prioritization and appropriate timing of surgery for newborns with CHD are necessary during the COVID-19 pandemic.	Newborns with congenital heart disease are at increased risk for morbidity from COVID-19. During the COVID-19 pandemic, special considerations for managing their hospitalization after birth and their corrective surgery, including optimal timing, are required.	Dilli D, Taşoğlu I. Perioperative care of the newborns with CHDs in the time of COVID-19 [published online, 2020 Jun 17]. Cardiol Young. doi:10.1017/S1047951120001845
Infant, neonate, COVID-19 outcomes, meta-analysis, Vietnam, China	17-Jun-20	Novel Coronavirus Infection (COVID-19) in Children Younger Than One Year: A Systematic Review of Symptoms, Management and Outcomes	Acta Paediatrica	Review Article	The aim of this systematic review and meta-analysis was to evaluate the clinical characteristics of COVID-19 in neonates and children under one year of age. A systematic literature review of the MEDLINE, PubMed, CINAHL, Embase and EBSCO databases was carried out for studies from 1 January to 7 April 2020. The search identified 77 peer-reviewed papers, and 18 papers covering 160 infants were reviewed. One paper was from Vietnam and the other 17 were from China: eight were cross-sectional studies, eight were case reports, one was a case series and one was a prospective cohort study. The most common clinical symptoms were fever (54%) and cough (33%). Most infants were treated symptomatically, with frequent use of various empirical medications. Infants and neonates tended to have more severe COVID-19 disease than older children: 11 (7%) were admitted to intensive care and one infant died. The mortality rate was 0.006%, with favorable outcomes in most cases. Overall, the authors concluded that infants and neonates were more vulnerable to more severe COVID-19 disease than older children, but morbidity and mortality were low.	Across 160 infants with COVID-19, the most common clinical symptoms were fever and cough. This age group was more vulnerable to severe disease but had low morbidity and mortality associated with infection.	Raba AA, Abobaker A, Elgenaidi IS et al. Novel Coronavirus Infection (COVID-19) in Children Younger Than One Year: A Systematic Review of Symptoms, Management and Outcomes [published online on 2020 Jun 17]. Acta Paediatr. doi:10.1111/apa.15422
School closures, children, education, nutrition,	17-Jun-20	Advocating for Children During the COVID-19 School Closures	Pediatrics	Pediatrics Perspectives	Nationwide closures of elementary and secondary schools due to COVID19 have severed nearly 60 million students from critical educational and health resources. The authors argue to prioritize research to plan for safe and equitable school reopening and mobilize resources for capacity building to	Resources are needed to support remote and in-person outreach strategies to reach at-risk children.	Masonbrink AR, Hurley E. Advocating for Children During the COVID-19 School Closures

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physical and mental health, children with disabilities, psychological					support the continued need for universal remote public education. Strategies must be prioritized to safely resume in-person education for children with disabilities and advocate for resources to support the expansion of assistive technologies for home. Prompt funding is required to further expand meal access, Supplemental Nutrition Assistance Programs and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) benefits for children in poverty. To improve health care access for children, it is needed to advocate for resources to ensure universal telehealth technology access, expand outreach strategies, and expand Medicaid and the Children's Health Insurance Program. Finally, collective trauma events have short- and long-term implications, therefore work with school and community leaders is needed to create and disseminate innovative methods for remote engagement with at-risk students, guidelines for recognition of warning signs, and indications for intervention.	The authors argue to advocate for strategic immediate and long-term response efforts to offset the deleterious impacts on children due to reduced access to vital school-based resources.	[published online, 2020 Jun 17]. Pediatrics. 2020;e20201440. doi:10.1542/peds.2020-1440
Breastmilk, breast feeding, lactoferrin, infant, neonate, viral entry, immunomodulatory effects	17-Jun-20	Lactoferrin Is an Important Factor When Breastfeeding and COVID-19 Are Considered	Acta Paediatrica	Brief Report	Breast milk, particularly lactoferrin, demonstrates potential antiviral effects. Lactoferrin can prevent viral infections by interacting with heparin sulphate glycosaminoglycan (HSPG) cell receptors, which allow the first anchoring site on the cell surface in the first phase of coronavirus infections. Lactoferrin has previously been shown to interfere with how SARS-CoV enters human cultured cells by competitively localizing to the virus anchoring sites provided by HSPGs, preventing the preliminary contact between the SARS-CoV and entry receptors, namely ACE2. This receptor is also used by SARS-CoV-2. In addition, lactoferrin promotes the growth of gut microbiota and the proliferation of enterocytes with direct anti-inflammatory and immunomodulatory actions. Although not tested in SARS-CoV-2, these mechanisms have affected other coronaviruses. Further clinical evidence is needed to demonstrate how early breastfeeding and the specific role of lactoferrin provides vital prevention during viral epidemics.	This report highlights mechanisms for antiviral properties of lactoferrin in breast milk that have been demonstrated in SARS-CoV and speculates that similar mechanisms may be important in SARS-CoV-2. It calls for further clinical evidence.	Peroni DG, Fanos V. Lactoferrin is an important factor when breastfeeding and COVID-19 are considered. 2020 Jun 17. Acta Paediatr. doi:10.1111/apa.15417
Pediatric, Hong Kong, China	17-Jun-20	Pediatric COVID-19: What Disease Is This?	World Journal of Pediatrics	Personal Viewpoint	This viewpoint article summarizes some of the characteristics observed in pediatric COVID-19 in Hong Kong, China. As of May 22, there have been 111 confirmed pediatric cases of COVID-19 in Hong Kong, consisting of 62 males and 49 females, aged between 0 and 18 years old. All cases have been reported to be either mild or asymptomatic, with no pediatric intensive care unit (PICU) admissions and no deaths. Most of the pediatric cases were imported cases (90%), and the remaining were mostly epidemiologically linked with local/possible local cases (7.2%), followed by those epidemiologically linked with imported cases (1.8%) and local cases (1%). With over 1064 confirmed cases and four deaths, 10.4% of the infected patients were children (≤ 18 years old). The infection is generally very mild in children, and 39.6% were asymptomatic. The pediatric experience on Hong Kong concurs with global data of coronavirus among children and young people.	The viewpoint provides a brief summary of the epidemiology and clinical outcomes of COVID-19 in the pediatric population in Hong Kong, China.	Hon, K.L.E., Leung, K.K.Y. Pediatric COVID-19: what disease is this?. World J Pediatr (2020). doi:10.1007/s12519-020-00375-z
Pediatric symptoms, radiologic features, clinical course,	17-Jun-20	Coronavirus Disease 2019 (COVID-19) in Children and/or	Pediatric Research	Review Article	This literature search was conducted to assess the overall prevalence of clinical signs, symptoms, and radiological findings in children and/or adolescents with COVID-19. PubMed, Scopus and Web of Science databases were searched for observational studies describing COVID-19 in children and/or adolescents until April 11, 2020. Of 2855 children and/or adolescents	Compared to adults, children and/or adolescents tend to have a mild COVID-19 course with a good prognosis. This study	Mantovani A, et al. Coronavirus disease 2019 (COVID-19) in children and/or adolescents: a meta-analysis. 2020 Jun

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pediatrics, children		Adolescents: A Meta-Analysis			with COVID-19, approximately 47% of subjects had fever, 37% cough, 4% diarrhea, 2% nasal congestion, 1% dyspnea and 0% abdominal pain. Subjects presented mild symptoms in 79% of cases, whereas only 4% were critical. Among those with pneumonia on computed tomography, 26.4% presented a unilateral involvement, 16% had bilateral involvement and 9% had interstitial pneumonia. Children and/or adolescents tend to have a mild COVID-19 course with a good prognosis.	provides new and consistent information on the clinical and radiological characteristics of COVID-19 in pediatric population.	17. Pediatr Res. doi:10.1038/s41390-020-1015-2
Household transmission, secondary attack rate, close contacts, modelling study, China	17-Jun-20	Household secondary attack rate of COVID-19 and associated determinants in Guangzhou, China: a retrospective cohort study	The Lancet Infectious Diseases	Research Article	In this retrospective cohort study, the authors used a contact tracing dataset from the Guangzhou Center for Disease Control and Prevention (China) to estimate the secondary attack rate of COVID-19 among household and non-household contacts, using a statistical transmission model. Between January 7 and February 18, 2020, 195 unrelated close contact groups (215 primary cases, 134 secondary or tertiary cases, and 1964 uninfected close contacts) were traced. By identifying households from these groups, assuming a mean incubation period of 5 days, a maximum infectious period of 13 days, and no case isolation, the estimated secondary attack rate among household contacts was 12.4% (95% CI 9.8–15.4) when household contacts were defined on the basis of close relatives and 17.1% (13.3–21.8) when household contacts were defined on the basis of residential address. Compared with the oldest age group (≥60 years), the risk of household infection was lower in the youngest age group (<20 years; odds ratio [OR] 0.23 [95% CI 0.11–0.46]) and among adults aged 20–59 years (OR 0.64 [95% CI 0.43–0.97]). Results suggest greater infectivity during the incubation period than during the symptomatic period, although differences were not significant (OR 0.61 [95% CI 0.27–1.38]). The estimated local reproductive number (R) based on observed contact frequencies of primary cases was 0.5 (95% CI 0.41–0.62) in Guangzhou. The projected local R, had there been no isolation of cases or quarantine of their contacts, was 0.6 (95% CI 0.49–0.74) when household was defined on the basis of close relatives.	Findings from this statistical transmission model reveal that SARS-CoV-2 is more transmissible in households than SARS-CoV and MERS-CoV. Younger individuals (<20 years) are the least susceptible to household transmission of SARS-CoV-2.	Jing QL, Liu MJ, Zhang ZB, et al. Household secondary attack rate of COVID-19 and associated determinants in Guangzhou, China: a retrospective cohort study [published online 2020 Jun 17]. Lancet Infect Dis. doi:10.1016/S1473-3099(20)30471-0
Household transmission, secondary attack rate, close contacts, modelling study, China	17-Jun-20	Household studies provide key insights on the transmission of, and susceptibility to, SARS-CoV-2	The Lancet Infectious Diseases	Comment	The analysis by Jing et al. shows that compared with the oldest age group (≥60 years), the risk of household infection with SARS-CoV-2 was lower among younger age groups, and only 5% of contacts younger than 20 years were infected, which suggests that older age is associated with increased risk of infection conditional on exposure. Although household studies provide a unique opportunity to study transmission in a clearly identified cohort of close contacts, it is still possible that transmission events might have been missed. Unidentified asymptomatic infections could lead to underestimation of the secondary attack rate. The secondary attack rate for SARS-CoV-2 has been estimated to be approximately twice as high as that of SARS-CoV, and comparable to that of influenza. The key difference is that the probability of transmission is substantially higher during the presymptomatic incubation period for SARS-CoV-2, whereas little to no transmission occurred before symptom onset for SARS-CoV. The estimates by Jing et al. might underestimate the reproductive number (R) and overstate the effectiveness of control measures imposed in Guangzhou, since they assume that all contacts have been identified and reported.	In commenting on the article by Jing et al., the authors note that the findings confirm the relative importance of presymptomatic transmission and the association between older age and susceptibility, which should inform intervention strategies.	Pitzer VE, Cohen T. Household studies provide key insights on the transmission of, and susceptibility to, SARS-CoV-2 [published online 2020 Jun 17]. Lancet Infect Dis. doi:10.1016/S1473-3099(20)30514-4

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Maternal health, postpartum depression, quarantine	16-Jun-20	Psychological impact of COVID-19 quarantine measures in northeastern Italy on mothers in the immediate postpartum period	International Journal of Gynaecology and Obstetrics	Original Research	This case control study assessed whether COVID-19 quarantine measures and hospital containment policies in Italy enhanced psycho-emotional distress among women in the immediate postpartum period. The Edinburgh Postnatal Depression Scale (EDPS) was used to assess for symptoms of postpartum depression, and 91 woman who delivered between March 8-May 3, 2020 were compared to a control group of 101 women who gave birth during the same time period in 2019 [age ranges not provided]. There were no significant differences between the groups except neonatal birth weight, which was significantly lower during the COVID-19 pandemic (3354.51 ± 374.2 vs 3478.60 ± 409.8 g; p=0.031). Mean EDPS scores were significantly higher (more symptoms of depression) in the COVID-19 study group compared with the control group (8.5 ± 4.6 vs 6.34 ± 4.1; p<0.001). The percentage of high-risk women (those with EDPS score >12) was also significantly higher in the COVID-19 group than the control group (28.6% vs 11.9%; p=0.006). Analysis of EDPS subscales revealed significantly higher scores among the COVID-19 group for anhedonia (0.60 ± 0.61 vs 0.19 ± 0.36; p<0.001) and depression (0.58 ± 0.54 vs 0.35 ± 0.45; p=0.001). The authors conclude that the COVID-19 pandemic worsened depressive symptoms of new mothers.	This study assessed whether COVID-19 quarantine measures in Italy enhanced psycho-emotional distress among women in the immediate postpartum period. Mean Edinburgh Postnatal Depression Scale (EDPS) scores were compared between women delivering during the pandemic and a control group delivering the year prior. The COVID-19 group had significantly higher EDPS scores (more symptoms) and a higher percentage of high-risk women (score >12). The authors conclude that the COVID-19 pandemic worsened depressive symptoms of new mothers.	Zanardo V, Manghina V, Giliberti L, Vettore M, Severino L, Straface G. Psychological impact of COVID-19 quarantine measures in northeastern Italy on mothers in the immediate postpartum period. Int J Gynaecol Obstet. 2020;150(2):184-188. doi:10.1002/ijgo.13249
Antimicrobial peptides, treatment	16-Jun-20	The Potential of Antimicrobial Peptides as an Antiviral Therapy against COVID-19	ACS Pharmacology and Translational Science	Viewpoint	COVID-19 is currently considered as a life-threatening pandemic viral infection. Finding an antiviral drug or a vaccine is the only route for humans' survival against it. To date, no specific antiviral treatment has been confirmed. Antimicrobial peptides (AMPs) have been widely regarded as a promising solution to combat harmful microorganisms. They are biologically active molecules produced by different organisms as an essential component of their innate immune response against invading pathogens. Lactoferrin (LF), one of the AMPs, is an iron-binding glycoprotein that is present in several mucosal secretions. The antiviral activity of LF exists against a wide range of human and animal viruses (DNA and RNA). LF was proven to increase host immunity against viral infection. Since LF is one of the constituents of breast milk and significantly located at the mucosal layers of the human body, it is considered the first line of defense against microbial infection. LF was reported to have antiviral activity against SARS-CoV infection. The significant antiviral activity of LF makes it a potential option as an immunity enhancer, a drug or a drug conjugate with conventional antivirals. The affordability, environmental safety, and efficiency of LFs will make them superior to all other control strategies.	Given the severity of the COVID-19 pandemic, and the nature of viral infections, the authors suggest that finding an antiviral drug or vaccine is crucial. They specifically mention lactoferrin (present in breast milk), an antimicrobial peptide, as a candidate for such a drug.	Elnagdy S, AlKhazindar M. The Potential of Antimicrobial Peptides as an Antiviral Therapy against COVID-19. ACS Pharmacol Transl Sci. 2020;3(4):780-782. Published 2020 Jun 16. doi:10.1021/acsptsci.0c00059
Acute heart failure, children, MIS-C, reduced ejection	16-Jun-20	Children at risk: multisystem inflammatory syndrome and COVID-19	JACC: Case Reports	Comment	As the pandemic has spread worldwide, clinicians have developed an increased awareness of an unusual systemic inflammatory response linked to the virus, frequently with a delayed onset up to several weeks after acute infection. MIS-C involves injury to multiple organs, including but not limited to the heart. A high percentage (23% to 28%) of children with MIS-C in Europe and the US had comorbidities, including asthma, obesity, cardiovascular	Children with COVID-19 are at risk for MIS-C with cardiovascular manifestations. Testing and treatment algorithms have only been developed locally	Beroukhim RS, Friedman K. Children at risk: multisystem inflammatory syndrome and COVID-19 [published online, 2020 Jun 16].

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fraction, risk factor					disease, and immunosuppression. The cases presented by Joshi et al. highlight several of the key features that have been described in the case series of MIS-C published to date, including clinical presentation, laboratory findings, and cardiac findings. The clinical syndrome of MIS-C overlaps with many features of Kawasaki disease (KD). Generally, the evaluation of patients with evidence of MIS-C requires a multidisciplinary approach involving the ICU, infectious disease specialists, cardiology, and rheumatology. Current treatment protocols for MIS-C are largely directed at dampening the inflammatory response or cytokine storm with immunomodulators and, in cases of active viral infection, potentially antiviral agents.	at individual hospitals without peer-reviewed guidelines.	JACC Case Rep. 2020;10.1016/j.doi:10.1016/j.jaccas.2020.06.016
Pregnancy, C-section, Lagos, Nigeria	16-Jun-20	Caesarean delivery of first prediagnosed COVID-19 pregnancy in Nigeria	Pan African Medical Journal	Case report	This case report presents the first successful and uncomplicated C-section delivery of a pregnant woman with COVID-19 infection in Nigeria. The patient was a 37-year-old woman, gravida 5 para 2, referred at 38 weeks for a C-section. She was asymptomatic for COVID-19. Her care is described, including the team who managed her care and the precautions they took during it. Her clinical course is described. Her newborn tested negative for COVID-19 infection at birth and at 48 hours after birth. Both mother and newborn remained asymptomatic during the postpartum period, and they were discharged to home on day 15 following delivery. There was no evidence of disease transmission to anyone involved in her care.	This case report describes the uneventful clinical course of a C-section delivery for a woman with COVID-19.	Makwe CC, Okunade KS, Rotimi MK, et al. Caesarean delivery of first prediagnosed COVID-19 pregnancy in Nigeria [published online 2020 Jun 16]. Pan Afr Med J. 2020;36:100. doi:10.11604/pamj.2020.36.100.23892
Abortion, access, reproductive rights, USA	16-Jun-20	Access to Later Abortion in the United States During COVID-19: Challenges and Recommendations From Providers, Advocates, and Researchers	Sexual and Reproductive Health Matters	Commentary	Since the start of the COVID-19 pandemic, 13 states in the USA have attempted to halt abortion services by deeming abortions as non-essential or elective procedures. Injunctions, temporary restraining orders, and unclear legal definitions of “essential” and “elective” have created a confusing landscape for clinics. The authors describe the challenges faced by later abortion providers and clients due to the current pandemic. They also provide several recommendations for strategies to meet the potential increased demand for later abortions while combating the risk of COVID-19 infection. While they endorse these strategies, the authors also acknowledge that issues of abortion legality and its status as an essential service, clinic access, and other factors may still prevent clients from accessing this health service. They state that it is therefore imperative that any proposed strategies reach all people in order to ensure their ability to protect their reproductive health.	Individuals wanting to access abortion services and reproductive healthcare providers in the USA are facing logistical and political challenges brought on by the COVID-19 pandemic. The authors provide several recommendations for abortion providers to improve access to reproductive healthcare while limiting travel requirements for their clients.	Ruggiero S, Brandi K, Mark A, et al. Access to later abortion in the United States during COVID-19: challenges and recommendations from providers, advocates, and researchers. [published online, 2020 Jun 16]. Sex Reprod Health Matters. doi:10.1080/26410397.2020.1774185
Resuscitation, pediatric, cardiac arrest, anesthesiology	16-Jun-20	Resuscitating Children With COVID-19: What the Pediatric Anesthesiologist Needs to Know	Journal of Cardiothoracic and Vascular Anesthesia	Editorial	During the COVID-19 pandemic, there is an urgent need to ensure best practice cardiopulmonary resuscitation (CPR) while protecting rescuers from acquiring SARS-CoV-2 while resuscitating a COVID-19 pediatric patient. The authors examine different pathophysiologies of SARS-CoV-2 infection in children compared with adults and highlight the critical resuscitation recommendations in neonates and children with COVID-19 for the pediatric anesthesiologist. They note that resuscitation algorithms have not changed in the new guidelines recently put forth by professional societies. Instead, there is an emphasis on protection through use of PPE, limitation of personnel attending in-hospital resuscitations, and clear communication of the patient's COVID-19 status. There should also be an effort to achieve early airway control in these patients. The authors conclude that despite the lower	The American Heart Association has published interim guidelines for the resuscitation of pediatric patients with COVID-19. These recommendations emphasize the importance of appropriate PPE, of limiting the number of personnel involved, and of achieving early airway control.	Ing RJ, Chatterjee D, Twite MD. Resuscitating Children with COVID-19: What the Pediatric Anesthesiologist Needs to Know [published online, 2020 Jun 16]. J Cardiothorac Vasc Anesth. doi:10.1053/j.jvca.2020.06.037

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					incidence of severe COVID-19 infection in children, healthcare teams must be prepared to resuscitate these patients safely.		
Children, family cluster, viral transmission, chest CT, China	16-Jun-20	Clinical Features of 33 Cases in Children Infected With SARS-CoV-2 in Anhui Province, China-A Multi-Center Retrospective Cohort Study	Frontiers in Public Health	Original Research	This study analyzed the signs, symptoms, and familial clustering patterns of 33 young patients with laboratory-confirmed SARS-CoV-2 infection in Anhui Province of China as of February 16, 2020. Among the patients under study, seven were under 6 years, 13 were school-age children, and 13 were older than the school-age children. Familial clustering was seen in 30/33 (90.9%) patients; three families had seven confirmed members infected with the disease. 8/33 (24.2%) patients had no symptoms, 12/33 (36.4%) patients had only fever, 9/33 (27.3%) patients had fever and additional symptoms, and 12/33 (36.4%) patients had no fever. Dry cough was the most common additional symptom. In 25/33 (75.8%) patients, the percent of lymphocytes decreased; 26/33 (78.8%) patients were older than 7 years. More male than female patients and patients older than 8 years showed typical abnormalities in the chest CT scans (P=0.038). Only two 18-year-old patients had hepatic injury.	In this study, children experienced mild SARS-CoV-2 infection and family clustering was the predominant channel of viral transmission.	Zhang L, Huang S. Clinical Features of 33 Cases in Children Infected With SARS-CoV-2 in Anhui Province, China-A Multi-Center Retrospective Cohort Study. Front Public Health. 2020;8:255. Published 2020 Jun 16. doi:10.3389/fpubh.2020.00255
Cardiogenic shock, heart failure, infant, Spain	16-Jun-20	New Onset Severe Right Ventricular Failure Associated With COVID-19 in a Young Infant Without Previous Heart Disease	Cardiology in the young	Case report	The authors present their recent experience with a 6-month-old infant with a personal history of short bowel syndrome that presented with fever, cyanosis, and cardiogenic shock secondary to severe pulmonary hypertension and right ventricular failure without pulmonary thrombo-embolism. He did not present signs of toxin-mediated disease or Kawasaki disease. He was diagnosed with SARS-CoV-2 infection. The authors conclude that if this presentation is confirmed in future research, the severe cardiovascular impairment in children with COVID-19 could be also attributable to the primary pulmonary infection, not only to a MIS-C.	In this case report, a COVID-19 positive 6-month-old infant presented with cardiogenic shock secondary to severe pulmonary hypertension and right ventricular failure. This cardiovascular impairment was not attributable to MIS-C but rather to the primary pulmonary infection.	Rodriguez-Gonzalez M, Rodríguez-Campoy P, Sánchez-Códez M et al. New onset severe right ventricular failure associated with COVID-19 in a young infant without previous heart disease [published online, 2020 Jun 16]. Cardiol Young. doi:10.1017/S1047951120001857
Birth outcomes, BMI, cesarean birth, preterm birth, USA	16-Jun-20	Characteristics and Outcomes of 241 Births to Women With Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection at Five New York City Medical Centers	Obstetrics & Gynecology	Original Article	The authors sought to describe the characteristics and birth outcomes of women with SARS-CoV-2 infection. They performed a prospective cohort study of pregnant women with laboratory-confirmed SARS-CoV-2 infection who gave birth from March 13 to April 12, 2020, identified at five New York City medical centers. Among 241 women, 61.4% were asymptomatic for COVID-19 at the time of admission. Throughout the delivery hospitalization, 26.5% of women met WHO criteria for mild COVID-19, 26.1% for severe, and 5% for critical. Cesarean birth was the mode of delivery for 52.4% of women with severe and 91.7% with critical COVID-19. The singleton preterm birth rate was 14.6%. Admission to the ICU was reported for 17 women (7.1%), and nine (3.7%) were intubated during their delivery hospitalization. There were no maternal deaths. Body mass index (BMI) 30 or higher was associated with COVID-19 severity (P=.001). Nearly all newborns tested negative for SARS-CoV-2 infection immediately after birth (97.5%). Overall, the authors found that disease severity was associated with higher rates of cesarean and preterm birth.	In this prospective cohort study, the birth outcomes of 241 women with SARS-CoV-2 infection in New York City were described. The authors found that COVID-19 disease severity was associated with higher rates of cesarean and preterm birth.	Khoury R, Bernstein PS, Debolt C, et al. Characteristics and Outcomes of 241 Births to Women With Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection at Five New York City Medical Centers [published online on 2020 Jun 16]. Obstet Gynecol. doi:10.1097/AOG.0000000000004025
Pregnancy, maternal mortality, USA	16-Jun-20	Maternal Mortality From Coronavirus	Obstetrics & Gynecology	Commentary	Individual state maternal mortality review committees aim to comprehensively review all maternal deaths to evaluate cause of death, assess preventability, and make recommendations for action to prevent	Standardized review of maternal deaths during the COVID-19 pandemic by	Metz TD, Collier C, Hollier LM. Maternal Mortality From Coronavirus

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		Disease 2019 (COVID-19) in the United States			future deaths, a process that remains critical during the COVID-19 pandemic. Maternal deaths due to COVID-19 have been reported in the United States. Some state maternal mortality review committees may choose to expedite review of these deaths in an effort to quickly provide clinicians with information. Entry of review data into the Maternal Mortality Review Information Application system for submission to the Centers for Disease Control and Prevention will allow for aggregation nationally without duplication. It will be important to review deaths both directly attributed to COVID-19 and indirectly related to the COVID-19 pandemic, such as those influenced by changes in care practices or delays in seeking care during the pandemic. Maternal deaths that occur during the time of the COVID-19 pandemic must be evaluated within that framework to ensure that all factors contributing to the death are considered to better understand the context of each of these tragic events.	existing Maternal Mortality Review Committees will improve data quality, preventability assessment, and recommendations for action.	Disease 2019 (COVID-19) in the United States [published online 2020 Jun 16]. Obstet Gynecol. doi:10.1097/AOG.0000000000004024
Pulmonary hypertension, heart failure, cardiogenic shock, Pediatric multisystem inflammatory syndrome.	16-Jun-20	New onset severe right ventricular failure associated with COVID-19 in a young infant without previous heart disease	Cardiology in the Young	Case report	A 6-month-old male presented at the emergency department with severe respiratory distress and fever. He was diagnosed with short bowel syndrome secondary to multiple intestinal resections during the neonatal period. He was under antithrombotic prophylaxis with low molecular weight heparin due to previous episodes of local thrombotic obstructions of the central line. He also presented with a 2-week history of nasal congestion and cough. During this period, two nasopharyngeal swab specimens for SARS-CoV-2 RT-PCR testing were performed and were negative. The patient was immediately transferred to the pediatric ICU, and there were no other signs of toxin-mediated disease or Kawasaki disease. A new SARS-CoV-2 RT-PCR test from tracheobronchial secretions at ICU admission was negative. A Film-Array respiratory panel including other coronaviruses was also negative. The patient completed five days of azithromycin, hydroxychloroquine, and methylprednisolone. He was finally diagnosed with cardiogenic shock secondary to severe pulmonary hypertension and new onset right ventricular failure associated with COVID-19.	This case highlights the fact that SARS-CoV-2 can also present in children as severe heart failure, even without previous heart disease. Based on the findings, the screening of myocardial dysfunction and pulmonary hypertension through cardiac biomarkers or echocardiography could be beneficial in severe COVID-19 pediatric cases.	Rodriguez-Gonzalez M, Rodríguez-Campoy P, Sánchez-Códez M, et al. New onset severe right ventricular failure associated with COVID-19 in a young infant without previous heart disease. Cardiology in the Young. doi:10.1017/S1047951120001857
Child, malnutrition, megaloblastic anemia, vitamin B12 deficiency, India	16-Jun-20	Fatal Covid-19 in a Malnourished Child With Megaloblastic Anemia	The Indian Journal of Pediatrics	Scientific Letter	A 13-month-old girl presented with fever for two days, vomiting, refusal to feed and breathlessness for one day prior to admission with increasing paleness and lethargy for two weeks. There was no history of cough or runny nose, contact with a COVID positive case or premorbid significant illness. History of faulty complementary feeding was noted with calorie and protein deficient diet. The child had severe acute malnutrition with B12 deficiency; malnutrition affects both the innate and adaptive immune responses with longer viral persistence and increased trafficking of inflammatory cells to lungs. A swab for SARS-CoV-2 was positive by RT-PCR. The possibility of infection induced Hemophagocytic lymphohistiocytosis was considered in view of persistent fever, pancytopenia, hyperferritenemia, hypertriglyceridemia and hemophagocytosis on bone marrow. Due to worsening respiratory distress and chest X-ray showing acute respiratory distress syndrome, the child was mechanically ventilated. The child died due to COVID-19 on day 6 of admission.	This is the first case report of a severely malnourished child with severe megaloblastic anemia and hemophagocytic lymphohistiocytosis who died due to COVID-19.	Kulkarni RK, Kinikar AA, Jadhav T. Fatal Covid-19 in a Malnourished Child with Megaloblastic Anemia [published online 2020 Jun 17]. Indian J Pediatr. doi:10.1007/s12098-020-03408-7
Vaccination, call to action,	16-Jun-20	Routine Vaccination	The BMJ (British	Call to Action	The number of MMR (measles, mumps, and rubella) vaccines delivered in England dropped by 20% during the first three weeks of the lockdown, and	This is a call to action for primary care and	Saxena S, Skirrow H, Bedford H. Routine

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primary care, government messaging, healthcare disparities		During covid-19 Pandemic Response	Medical Journal)		smaller falls were reported in infant vaccines in Scotland. Although vaccination services are on the priority list for primary care, this message has been lost among the dominant message that everyone should stay at home and avoid burdening the NHS. Of 752 health visitors surveyed by the Institute of Health in May 2020, over 60% reported contact with families who had considered cancelling or postponing their child's vaccinations. Urgent action is required to maintain vaccination rates and limit preventable infections, including clearer government messaging and greater community support to inform people about the importance of attending primary care for vaccines during the pandemic.	governmental agencies to address vaccination rates and patient education during the pandemic.	vaccination during covid-19 pandemic response. BMJ. Published 2020 Jun 16. doi:10.1136/bmj.m2392
Breast milk, breastfeeding, validated assay, culture, viral RNA vs. replication-competent virus	16-Jun-20	Evaluation of SARS-CoV-2 in Breastmilk from 18 Infected Women	medRxiv	Preprint (not peer reviewed)	Between March 27 and May 6, 2020, 64 serial breastmilk samples from 18 SARS-CoV-2-infected women residing in the U.S. were collected before and after women had a positive RT-PCR test; all but one woman had symptomatic disease. One sample had detectable SARS-CoV-2 RNA by RT-PCR assay, which was validated by spiking breastmilk from uninfected women with known amounts of viral RNA. The positive sample was collected on the day of symptom onset but one sample 2 days prior to symptom onset and two subsequent samples, collected 12 and 41 days later, tested negative for viral RNA. In addition, a subset of 26 breastmilk samples from nine women were tested for the presence of replication-competent virus using the authors' established culture methods; all were negative including the one sample that tested positive for viral RNA by RT-PCR. This suggests that SARS-CoV-2 RNA does not represent replication-competent virus and that breastmilk itself is likely not a source of infection for the infant. Furthermore, when control breastmilk samples spiked with replication-competent SARS-CoV-2 virus were treated by Holder pasteurization, a process commonly performed by donor milk banks, no replication-competent virus nor viral RNA was detectable. Further research to confirm these findings is needed, as well as an examination of convalescent milk for the presence of antibodies against SARS-CoV-2.	Findings from this analysis of breast milk samples using validated assays suggest that SARS-CoV-2 RNA does not represent replication-competent virus, and breast milk is an unlikely source of infection.	Chambers CD, Krogstad P, Bertrand K, et al. Evaluation of SARS-CoV-2 in Breastmilk from 18 Infected Women [published online 2020 Jun 16]. medRxiv. doi:10.1101/2020.06.12.20127944
Age disparities, mathematical model, infection susceptibility, clinical symptoms, incidence, viral transmission	16-Jun-20	Age-dependent effects in the transmission and control of COVID-19 epidemics	Nature Medicine	Letter	The COVID-19 pandemic has shown a markedly low proportion of cases among children. Age disparities in observed cases could be explained by children having lower susceptibility to infection, lower propensity to show clinical symptoms or both. The authors evaluated these possibilities by fitting an age-structured mathematical model to epidemic data from China, Italy, Japan, Singapore, Canada and South Korea. They estimate that susceptibility to infection in individuals under 20 years of age is approximately half that of adults aged over 20 years, and that clinical symptoms manifest in 21% (95% credible interval: 12–31%) of infections in 10- to 19-year-olds, rising to 69% (57–82%) of infections in people aged over 70 years. Accordingly, interventions aimed at children were found to have a relatively small impact on reducing SARS-CoV-2 transmission, particularly if the transmissibility of subclinical infections is low. Age-specific clinical fraction and susceptibility estimates in this study have implications for the expected global burden of COVID-19, as a result of demographic differences across settings. In countries with younger population structures—such as many low-income countries—the expected per capita incidence of clinical cases would be lower than in	The age-structured mathematical model in this study estimate lower susceptibility to infection and manifestation of clinical symptoms in younger individuals.	Davies NG, Klepac P, Liu Y, et al. Age-dependent effects in the transmission and control of COVID-19 epidemics [published online 2020 Jun 16]. Nat Med doi:10.1038/s41591-020-0962-9

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					countries with older population structures, although it is likely that comorbidities in low-income countries will also influence disease severity.		
Pregnant vs. non-pregnant, mechanical ventilation, mortality, New Jersey, USA	16-Jun-20	Mechanical Ventilation in Pregnancy Due to COVID-19: A Cohort of Three Cases	American Journal of Perinatology	Short Communication	Recent data suggest a mortality of 88% in non-pregnant patients with COVID-19 who require intubation and mechanical ventilation. In this report, three women were intubated and mechanically ventilated during pregnancy due to respiratory failure and pneumonia resulting from COVID-19. After several days of ventilation, all three were weaned off mechanical ventilation and extubated and are continuing their pregnancies with no demonstrable adverse effects. This experience suggests that mortality in pregnant women with COVID-19 requiring mechanical ventilation is not necessarily as high as in non-pregnant patients with COVID-19.	We describe our experience with three pregnant women with novel coronavirus disease 2019 (COVID-19) who required mechanical ventilation.	Lucarelli E, Behn C, Lashley S, Smok D, Benito C, Oyelese Y. Mechanical Ventilation in Pregnancy Due to COVID-19: A Cohort of Three Cases [published online 2020 Jun 16]. Am J Perinatol. doi:10.1055/s-0040-1713664
Children, adults, olfactory and gustatory dysfunction, China, Germany, France	16-Jun-20	Olfactory and Gustatory Dysfunction as an Early Identifier of COVID-19 in Adults and Children: An International Multicenter Study	Oto-laryngology-Head and Neck Surgery	Original Article	Of 394 screened subjects with PCR-confirmed COVID-19, 161 (41%) reported olfactory and/or gustatory dysfunction and were included in a study. Incidence of olfactory and/or gustatory disorders in Chinese (n=239), German (n=39), and French (n=116) cohorts was 32%, 69%, and 49%, respectively. The median age of included subjects was 39 years, 92 of 161 (57%) were male, and 10 of 161 (6%) were children. Of included subjects, 10% had only olfactory or gustatory symptoms, and 19% had olfactory and/or gustatory complaints prior to any other COVID-19 symptom. Of subjects with objective olfactory testing, 10 of 90 demonstrated abnormal chemosensory function despite reporting normal subjective olfaction. 43% (44/102) of subjects with follow-up showed symptomatic improvement in olfaction or gustation.	Olfactory and/or gustatory disorders may represent early or isolated symptoms of SARS-CoV-2 in adults and children.	Qiu C, Cui C, Hautefort C, et al. Olfactory and Gustatory Dysfunction as an Early Identifier of COVID-19 in Adults and Children: An International Multicenter Study [published online 2020 Jun 16]. Otolaryngol Head Neck Surg. 2020;194599820934376.
Children, viral transmission, asymptomatic, childcare clusters, school outbreak	16-Jun-20	To What Extent Do Children Transmit SARS-CoV-2 Virus?	Journal of Paediatrics and Child Health	Brief Communication	Concern that children might be major spreaders of SARS-CoV-2, the virus which causes COVID-19, stems largely from past experience: children are certainly major spreaders of other respiratory viral infections, such as influenza and measles. Children infected with SARS-CoV-2 are often asymptomatic: 4–28% in published studies and 13% in the most detailed study from China. Evidence to date suggests that children spread SARS-CoV-2 virus relatively rarely and that children are usually infected by symptomatic or pre-symptomatic adults. Childcare clusters of COVID-19 have been notable for their extreme rarity in reports from around the world, although this could be for lack of testing. School outbreaks are also rare but can be serious.	Available evidence suggests children are unlikely to be major transmitters of SARS-CoV-2.	Isaacs D, Britton P, Howard-Jones A, et al. To what extent do children transmit SARS-CoV-2 virus? [published online 2020 Jun 16]. J Paediatr Child Health. doi:10.1111/jpc.14937
Children, pneumonia, immune profile, cytokines, immuno-globulins, China	16-Jun-20	Immune-related Factors Associated With Pneumonia in 127 Children With Coronavirus Disease 2019 in Wuhan	Pediatric Pulmonology	Original Article	In this study, 127 children with COVID-19 pneumonia at Wuhan Children's Hospital from January 28 to March 12, 2020 were enrolled. In non-intensive care unit patients, 48.8% and 22.4% of patients had increased levels of procalcitonin and hypersensitive C-reactive protein (hs-CRP) respectively. 12.6% and 18.1% of patients had decreased levels of immunoglobulin (Ig) A and interleukin (IL)-10 respectively. Approximately 65.8% of patients had pneumonia. These patients had decreased levels of globulin (odds ratio [OR] 3.13, 95% confidence interval [CI] 1.41-6.93, *P*=0.005), IgA (OR 4.00, 95% CI 1.13-14.18, *P*=0.032), and increased levels of hs-CRP (OR 3.14, 95% CI 1.34-7.36, *P*=0.008), procalcitonin (OR 3.83, 95% CI 2.03-7.24, *P*<0.001), IL-10 (OR 7.0, 95% CI 1.59-30.80, *P*=0.010), and CD4+CD25+ T lymphocyte < 5.0 % (OR 1.93, 95% CI 1.04-3.61, *P*=0.038). These findings suggest that the immune-related factors may participate in the pathogenesis of pneumonia in children with COVID-19.	Decreased IgA and CD4+CD25+ T lymphocyte percentage, and increased hs-CRP, procalcitonin and IL-10 were associated with pneumonia in children with COVID-19.	Li Y, Deng W, Xiong H, et al. Immune-related Factors Associated with Pneumonia in 127 Children with Coronavirus Disease 2019 in Wuhan [published online 2020 Jun 16]. Pediatr Pulmonol. doi:10.1002/ppul.24907

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Pregnancy, coronaviruses, MERS, SARS, maternal and neonatal outcomes, systematic review	16-Jun-20	Severe Coronavirus Infections in Pregnancy: A Systematic Review	Obstetrics & Gynecology	Systematic Review	In this systematic review of MERS-CoV, SARS-CoV-2, and SARS-CoV-2 in pregnancy, the authors identified 1,328 unique articles, and 1,253 articles were excluded by title and abstract review. Full-text review was completed on 75 articles, and 29 were excluded by full-text review. Among 46 publications reporting case-level data, eight described 12 cases of MERS-CoV infection, seven described 17 cases of SARS-CoV infection, and 31 described 98 cases of SARS-CoV-2 infection. Clinical presentation and course of illness ranged from asymptomatic to severe fatal disease, similar to the general population of patients. Severe morbidity and mortality among women with MERS-CoV, SARS-CoV, or SARS-CoV-2 infection in pregnancy and adverse pregnancy outcomes, including pregnancy loss, preterm delivery, and laboratory evidence of vertical transmission, were reported.	Data from case reports of SARS-CoV, MERS-CoV, and SAR-CoV-2 infections during pregnancy are limited but may guide public health actions and clinical decision-making for COVID-19 until more rigorous data are available.	Galang RR, Chang K, Strid P, et al. Severe Coronavirus Infections in Pregnancy: A Systematic Review [published online 2020 Jun 16]. Obstet Gynecol. doi:10.1097/AOG.0000000000004011
Children, Kawasaki disease, MIS-C, epidemiology, etiology, patho-physiology	16-Jun-20	Understanding SARS-CoV-2-related Multisystem Inflammatory Syndrome in Children	Nature Reviews Immunology	Comment	In this report, the similarities and differences between the new multisystem inflammatory syndrome apparently related to SARS-CoV-2 infection (MIS-C) and Kawasaki disease (KD) are discussed. Patients with MIS-C may have some of the clinical features of KD, including fever, dilation of conjunctival blood vessels, rash and redness of the oropharynx. However, these clinical signs can be observed in many infectious diseases in childhood and are not specific for any one diagnosis. With regard to epidemiology, 80% of KD cases occurring in children <5 years of age, in marked contrast to the epidemiology of MIS-C, which affects older children and adolescents. Due to overlapping clinical features and the lack of a diagnostic test for either KD or MIS-C, distinguishing the two conditions in an individual patient can be difficult. Many questions also remain regarding the association between MIS-C and KD. This article concludes by summarizing possible hypotheses for the pathophysiological mechanism of MIS-C, if indeed related to SARS-CoV-2 infection.	The author compares MIS-C and Kawasaki disease with a focus on their epidemiology, etiology and pathophysiological mechanisms.	Rowley AH. Understanding SARS-CoV-2-related multisystem inflammatory syndrome in children [published online 2020 Jun 16]. Nat Rev Immunol. doi:10.1038/s41577-020-0367-5
Children, clinical characteristics, epidemiology, chest CT, inflammatory markers, China	16-Jun-20	Clinical and Epidemiological Characteristics of Pediatric SARS-CoV-2 Infections in China: A Multicenter Case Series	PLoS Medicine	Research Article	This retrospective, observational study involves a case series performed at 4 hospitals in West China. Thirty-four pediatric patients (median age 33 months, ranges 1-144 months) with COVID-19 were included from January 27 to February 23, 2020. All patients presented with mild (18%) or moderate (82%) forms of COVID-19. A total of 48% of patients had no history of exposure to an identified source. Co-infections with other respiratory pathogens were reported in 16 patients (47%). Comorbidities were reported in 6 patients (18%). The most common initial symptoms were fever (76%) and cough (62%). Expectoration (21%), vomiting (12%), and diarrhea (12%) were also reported in a considerable portion of cases. A substantial increase was detected in serum amyloid A for 17/20 patients and in high-sensitivity C-reactive protein for 17/29 patients, whereas a decrease in prealbumin was noticed in 25/32 patients with available data. In addition, significant increases in the levels of lactate dehydrogenase and α-hydroxybutyrate dehydrogenase were detected in 28 patients and 25 patients, respectively. Patchy lesions in lobules were detected by chest CT scans in 28 patients (82%). Ground-glass opacities, which were a typical feature in adults, were rare in pediatric patients (3%). All patients were discharged, and the median duration of hospitalization was 10 (8-14.25) days.	In this retrospective study of clinical and epidemiological features of pediatric patients with COVID-19, all children experienced mild or moderate disease, few had ground-glass opacity on chest CT imaging, and elevated inflammatory markers were noted.	Zhang C, Gu J, Chen Q, et al. Clinical and epidemiological characteristics of pediatric SARS-CoV-2 infections in China: A multicenter case series. PLoS Med. 2020;17(6):e1003130. doi:10.1371/journal.pmed.1003130
Pediatric research,	16-Jun-20	COVID-19 Impact on Research,	Pediatric Research	Comment	The COVID-19 pandemic highlights the importance of pediatric focused research, challenges of research particularly during public health emergencies	This article offers perspectives on the impact	Weiner DL, Balasubramaniam V,

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lessons learned, infrastructure, workforce		Lessons Learned From COVID-19 Research, Implications for Pediatric Research			(PHE) and disasters, and the importance of workforce and infrastructure funding for PHE and disaster preparedness, response and resiliency. The pandemic has also highlighted opportunities and resources for making research more efficient and cost effective; new paradigms and models for research will hopefully emerge from this crisis.	of and lessons learned from the COVID-19 pandemic with regard to pediatric research.	Shah SI, Javier JR; Pediatric Policy Council. COVID-19 impact on research, lessons learned from COVID-19 research, implications for pediatric research [published online 2020 Jun 16]. Pediatr Res. doi:10.1038/s41390-020-1006-3
Neonates, vertical transmission, breastfeeding, skin-to-skin contact	16-Jun-20	Appropriate Care for Neonates Born to Mothers With COVID-19 Disease	Acta Paediatrica	Clinical Overview	There is currently insufficient evidence to suggest vertical transmission between mothers and their newborn infants. However, transmission can occur after birth from mothers or other caregivers. Based on the currently available data, prolonged skin-to-skin contact and early and exclusive breastfeeding remain the best strategies to reduce the risks of morbidity and mortality for both mothers with COVID-19 and their newborns.	Given limited evidence to suggest the possibility of SARS-CoV-2 vertical transmission, breastfeeding and skin-to-skin contact are recommended to preserve benefits for neonates born to mothers with COVID-19.	Thi Tran H, Thi Kim Nguyen P, Thi Li H, et al. Appropriate care for neonates born to mothers with COVID-19 disease [published online 2020 Jun 16]. Acta Paediatr. doi:10.1111/apa.15413
Children, viral transmission dynamics, school closures, reopening	16-Jun-20	Should Schools Reopen Early or Late? - Transmission Dynamics of COVID-19 in Children	The Indian Journal of Pediatrics	Scientific Letter	Prolonged closure of schools during the COVID-19 pandemic is likely to have negative psychosocial effect in children. In the authors' opinion, the unique disease characteristics and the transmission dynamics of COVID-19 in children favor calibrated early reopening. Notable features of COVID-19 pandemic are that children account for only less than 2% of total COVID-19 cases, most develop only mild illness, and transmission from children to others is rare. That said, caution is necessary considering the role of asymptomatic carriers in transmission dynamics.	Weighing the pros and cons, the authors conclude that high transmission of COVID-19 in school settings is unlikely to happen.	Kuttiatt VS, Menon RP, Abraham PR, Sharma S. Should Schools Reopen Early or Late? - Transmission Dynamics of COVID-19 in Children [published online 2020 Jun 16]. Indian J Pediatr. doi:10.1007/s12098-020-03401-0
COVID-19; myocarditis; Kawasaki disease; pediatric COVID-19	15-Jun-20	Kawasaki Disease Features and Myocarditis in a Patient with COVID-19	Pediatric Cardiology	Case Report	The authors report the case of a 10-year-old male presenting with prolonged fever (40.2°C), rash, cough, diarrhea, and conjunctivitis at an emergency department in Massachusetts, USA, with concerns for Kawasaki Disease. He also had tachycardia (168 bpm; corroborated by ECG findings of sinus tachycardia) and blood pressure of 96/61 mmHg. He had a mildly erythematous diffuse rash with blanching macules and patches involving the trunk, palms, and soles. His laboratory tests indicated an elevated white blood cell count (16.8 K/µL), hemoglobin of 12.4 g/dL, elevated neutrophils (14.45 K/µL), and reduced lymphocyte count (1.18 K/µL). His basic metabolic panel was also significant for sodium (125 mmol/L), potassium (3.4 mmol/L), chloride (87 mmol/L), and bicarbonate (20 mmol/L). He also had elevated erythrocyte sedimentation rate (57 mm/h), C-reactive protein (280 mg/L), procalcitonin (28 ng/mL), D-dimer (2727 ng/mL), ferritin (1089 µg/L), lactate dehydrogenase (360 U/L), fibrinogen (748 mg/dL), and high-sensitivity troponin (84ng/L), with low creatinine kinase (46 U/L). He eventually tested positive for SARS-CoV-2, and his worsening condition led to his transfer to an outside institution. The authors concluded by summarizing their pediatric	The authors report the case of a 10-year-old male presenting to the emergency department with concerns for Kawasaki disease, eventually showing signs of tachycardia, myocarditis, and a positive SARS-CoV-2 test. His metabolic profile was abnormal and laboratory findings were significant for inflammatory markers, leading the authors to establish a pediatric COVID-19 cardiac disease algorithm in their institution.	Chiu JS, Lahoud-Rahme M, Schaffer D, et al. Kawasaki Disease Features and Myocarditis in a Patient with COVID-19. Pediatr Cardiol. 2020 Oct;41(7):1526-1528. doi: 10.1007/s00246-020-02393-0. Epub 2020 Jun 15. PMID: 32542549; PMCID: PMC7295325.

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					COVID-19 cardiac disease algorithm, including initial cardiac biomarkers and ECG evaluation for those with suspected/confirmed SARS-CoV-2 infection, and requiring 2 SARS-CoV-2 tests for patients presenting with Kawasaki disease-like symptoms at admission.		
Neonate, respiratory failure, severe infection, Indonesia	15-Jun-20	A Case of 2019 Novel Coronavirus Infection in a Preterm Infant with Severe Respiratory Failure	Pulse	Case Report	The authors present a case of a male infant born prematurely in Indonesia on March 6, 2020 at 29 weeks gestation to a G2P1 mother via C-section who became infected with SARS-CoV-2 and experienced severe respiratory failure. After delivery, the newborn was diagnosed with hyaline membrane disease, very low birth weight (1,400 g), and was intubated in the neonatal ICU. After 3 weeks, the infant's condition improved and he was discharged from the hospital. Four days later the infant re-presented with fever, poor sucking, cyanosis, and moderate chest retractions. He was febrile, tachypneic, and tachycardic ultimately requiring intubation. Chest x-ray demonstrated neonatal pneumonia and he was treated with cefotaxime and gentamycin. After 10 days without improvement, the neonate was tested for SARS-CoV-2 using nasopharyngeal swab and sputum rRT-PCR which was positive. Antibiotics were broadened to vancomycin based on blood and endotracheal culture results. Repeat SARS-CoV-2 testing on days 27 and 28 were negative. The patient improved, was extubated, and discharged after 31 days of hospitalization. The authors conclude that infant SARS-Cov-2 infection, especially in premature and low birth weight infants, can become severe.	The authors present a case of a prematurely born infant at 29 weeks gestation in Indonesia who became infected with SARS-CoV-2 and experienced severe respiratory failure. The authors conclude that premature infants may be susceptible to severe COVID-19 infections.	Sumarni N, Dewiyanti L, Kusmanto MH, Pramana C. A case of 2019 novel coronavirus infection in a preterm infant with severe respiratory failure. Pulse. 2020;29:4-2020.
Pregnancy, pneumonia, risk stratification, Spain	15-Jun-20	Incidence and Clinical Profiles of COVID-19 Pneumonia in Pregnant Women: A Single-Centre Cohort Study From Spain	Eclinical Medicine	Research Paper	This study offered a thorough analysis of the clinical profile and outcomes of 52 pregnant women with COVID-19. Pneumonia was diagnosed in 61.5% (32/52) of symptomatic women. More than half of them required supplemental oxygen therapy, with 25% fulfilling the criteria for acute respiratory distress syndrome. Invasive mechanical ventilation was required in 2 cases (6.2%). The authors found that severe cases were more likely to exhibit bilateral alveolar or interstitial infiltrates on chest X-ray (55.6% vs. 0.0%; P= 0.003) and higher serum C-reactive protein (CRP) levels (33% vs. 0.0%; P=0.05) at admission.	The presence of bilateral lung infiltrates and elevated serum CRP at admission may identify pregnant women at risk of severe COVID-19 pneumonia.	San-Juan R, Barbero P, Fernández-Ruiz M, et al. Incidence and clinical profiles of COVID-19 pneumonia in pregnant women: A single-centre cohort study from Spain. EClinicalMedicine. 2020;23:100407. Published 2020 Jun 15. doi:10.1016/j.eclinm.2020.100407
Children, ventilation, management, clinical guidelines, Brazil	15-Jun-20	Beyond Ventilatory Support: Challenges in General Practice and in the Treatment of Critically Ill Children and Adolescents With SARS-CoV-2 Infection	Revista da Associação Médica Brasileira	Review	Pediatric patients critically ill with COVID-19 have been described in all ages. Pulmonary involvement is the major feature, and ventilatory support is common in critical cases. Other important therapeutic approaches must also be considered. The authors reviewed recent medical literature to identify the main clinical recommendations for managing these pediatric patients during ventilatory support. Radiologic findings, fluid therapy, hemodynamic support, use of inotropic/vasopressors, nutritional therapy, antiviral therapy, corticosteroids, antithrombotic therapy, and immunoglobulins are analyzed to guide professionals during hospitalization.	The analysis of radiologic findings, adequate fluid therapy, hemodynamic support, early nutritional therapy, and physiotherapy are essential during treatment of children with COVID-19. The authors emphasize the importance of a multi-professional approach for adequate recovery.	Ferranti JF, Rodriguez IS, Motta E, et al. Beyond ventilatory support: challenges in general practice and in the treatment of critically Ill children and adolescents with SARS-CoV-2 infection. Rev Assoc Med Bras (1992). 2020;66(4):521-527. doi:10.1590/1806-9282.66.4.521

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Cancer, oncology, pediatric, hematology, solid tumor, Egypt	15-Jun-20	Providing Care for Pediatric Cancer Patients in the COVID-19 Era: Rapid Response Recommendations From a Developing Country	Pediatric Blood & Cancer	Letter to the Editor	Pediatric oncologists face many challenges that affect patient care during the COVID-19 pandemic. Children with cancer are immunocompromised and at higher risk of developing serious complications because of infection exposure. The authors provide recommendations that were developed based on the principles of pediatric oncology. These suggestions include screening and surveillance, hand and respiratory hygiene, social distancing, and the importance of prioritizing pediatric cancer care. They include specific recommendations for patients with acute lymphoblastic leukemia, acute myeloid leukemia, non-Hodgkin lymphoma, Hodgkin lymphoma, and solid tumors. The authors conclude by emphasizing the importance of providing optimal care to patients while minimizing their exposure and risk for a SARS-CoV-2 infection.	While pediatric cancer patients face an increased risk from a COVID-19 infection, they also critically require timely oncology care and treatment. The authors provide recommendations for pediatric oncologists that encompass many different aspects of cancer care as well as many cancer diagnoses.	Elzembely MM, Abdelrahman YS, Fadel S et al. Providing care for pediatric cancer patients in the COVID-19 era: Rapid response recommendations from a developing country. [published online, 2020 Jun 15]. Pediatr Blood Cancer. doi:10.1002/pbc.28467
Mechanical ventilation, children, respiratory support, critical care	15-Jun-20	Ventilatory Support Recommendations in Children With Sars-CoV-2	Revista da Associacao Medica Brasileira	Review article	Respiratory support is a main way to reduce morbidity and mortality for COVID-19 patients. The authors therefore provide recommendations that could guide ventilatory therapy for pediatric patients with SARS-CoV-2. They recommend that nasal prongs/reservoir mask should be used in mild respiratory illness with no respiratory distress. They provide several precautions for airway management, a critical procedure for patients and workers due to the risk of viral shedding. Invasive respiratory support or mechanical ventilation is used for COVID-19 patients with hypoxemic respiratory failure. This should be optimized for the type of pulmonary injury the patient has (type L or type H). Support of mechanically ventilated patients requires proper administration of analgesia and sedation. The authors provide several strategies and guidelines regarding medication management. Lastly, they describe recommendations for cases of refractory hypoxemia and extubation.	The authors provide a flowchart and guidelines for the management of pediatric COVID-19 cases requiring respiratory support. They include strategies for non-invasive support, airway management, invasive support, medication management, and extubation.	Carvalho WB, Rodriguez IS, Motta EHGD, Delgado AF. Ventilatory support recommendations in children with Sars-CoV-2. [published online, 2020 Jun 15]. Rev Assoc Med Bras. doi:10.1590/1806-9282.66.4.528
Neonate, breastfeeding, breastmilk extraction	15-Jun-20	Guidance on Breastfeeding During the Covid-19 Pandemic	Revista da Associação Médica Brasileira	Review article	The authors performed a review of the recent medical literature on breastfeeding mothers with suspected or confirmed COVID-19, focusing on the neonatal period. 20 recent publications on breastfeeding, COVID-19, and assessment of possible transmission of SARS-CoV-2 through breastmilk were analyzed. The review summarizes possible options for breastfeeding and their consequences for the mother and the child, including initiation of breastfeeding, feeding by extraction of breastmilk, and not feeding the infant by breastmilk. With current knowledge, all maternal decisions in relation to breastfeeding are justifiable. However, puerperal women and their families must be very well informed to make a conscious choice based on the information available in the literature so far.	The authors conclude that with the currently available information, any decision regarding breastfeeding in the setting of maternal suspected or confirmed COVID-19 infection is justifiable, and advocate for patient education equipping mothers and their families to make an informed decision.	Calil VMLT, Krebs VLJ, Carvalho WB. Guidance on breastfeeding during the Covid-19 pandemic. Rev Assoc Med Bras (1992). 2020;66(4):541-546. doi:10.1590/1806-9282.66.4.541
Pregnancy, stress, preterm delivery, low birth weight, postpartum depression, long term effects, Brazil	15-Jun-20	Pregnant, Uninfected, Stressed, and Confined in the COVID-19 Period: What Can We Expect in the Near Future?	Revista da Associação Médica Brasileira	Editorial	In pregnancy, little is known about the stress of infectious outbreaks or quarantine. However, the effects of stress and anxiety during pregnancy and delivery are very well documented and should be expected in uninfected or asymptomatic pregnant women. The consequences of stress include increased risks of preterm delivery and low birth weight which may affect obstetrics and fetal medicine services and the neonatal ICUs intensive care units in a very short period. Additionally, anxiety extends risk to puerperal complications, such as poor parental bonding and postpartum depression.	The authors assert that the effects of stress and anxiety during pregnancy, such as preterm delivery and low birth weight, are likely consequences of the COVID-19 outbreak and quarantine.	Castro P, Narciso C, Matos AP, Werner H, Araujo Júnior E. Pregnant, uninfected, stressed, and confined in the COVID-19 period: what can we expect in the near future?. Rev

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					The long-term effects on a child are known as functional teratology or the Baker hypothesis and may include added risk of psychiatric illness from maternal stress during neurodevelopment.		Assoc Med Bras (1992). 2020; doi:10.1590/1806-9282.66.4.386
Pediatric patients, epidemiology, sentinel surveillance, community transmission, Mexico	15-Jun-20	Demographic and Health Indicators in Correlation to Interstate Variability of Incidence, Confirmation, Hospitalization, and Lethality in Mexico: Preliminary Analysis from Imported and Community Acquired Cases during COVID-19 Outbreak	International Journal of Environmental Research and Public Health	Original Article	Sentinel surveillance for COVID-19 cases in Mexico began after the confirmation of the first patient with community transmission. This epidemiologic, cross-sectional study includes all clinically suspected, and laboratory-confirmed cases nationwide from the beginning of the outbreak to April 21, 2020. The national incidence was 13.89/100,000 inhabitants with a 6.52% overall lethality and a confirmed-case mortality of 11.1%. The incidence variation significantly correlated with migration, but not urbanization. Pediatric patients were less likely to be tested (Odds Ratio: −3.92). Elderly had lower odds of being hospitalized but were likely to die. State lethality positively correlated with the proportion of the population assisted at public hospitals and correlated inversely to the number of hospitals and clinics in the state.	In this epidemiological study based on sentinel surveillance data from Mexico, patients aged <15 years were less likely to be laboratory-confirmed with SARS-CoV-2 infection.	Mendez-Dominguez N, Alvarez-Baeza A, Carrillo G. Demographic and Health Indicators in Correlation to Interstate Variability of Incidence, Confirmation, Hospitalization, and Lethality in Mexico: Preliminary Analysis from Imported and Community Acquired Cases during COVID-19 Outbreak. Int J Environ Res Public Health. 2020;17(12):E4281. doi:10.3390/ijerph17124281
Pregnancy, disease severity, Washington, USA	15-Jun-20	Estimating Frequency of Severe Disease in Pregnant Patients With COVID-19	American Journal of Obstetrics and Gynecology	Letter to the Editor	This letter seeks to provide context to a previously published case series by the same authors, "Clinical Characteristics of 46 Pregnant Women with a SARS-CoV-2 Infection in Washington State." They articulate that their aim was to report the clinical outcomes among these patients to inform clinical care, not to draw larger population-wide conclusions. They re-emphasize that their case series demonstrates that potential for severe disease in pregnancy cannot be discounted, and they also highlight factors that could increase the risk of severe COVID-19 in pregnancy such as obesity and asthma.	The previously published case series provided information on clinical outcomes to offer obstetric care providers with clinical insight from that set of patients, not to estimate population-level risks.	Lokken EM, Walker CL, Adams Waldorf KM. Estimating frequency of severe disease in pregnant patients with COVID-19 [published online 2020 Jun 15]. Am J Obstet Gynecol. doi:10.1016/j.ajog.2020.06.027
Pregnancy, delivery, personal protective equipment, Turkey	15-Jun-20	An Effective Protective Equipment to Use in the Vaginal Delivery of the Pregnant Women With suspected/diagnosed COVID-19: Delivery Table Shield TEMPORARY REMOVAL 22 June 2020	American Journal of Obstetrics and Gynecology	Research Letter	Given the importance of personal protective equipment in caring for patients with confirmed or suspected COVID-19, this article describes the design of a novel delivery table shield for use in the second stage of labor. The shield poses no barrier for respiration of the laboring woman and allows eye contact between the laboring woman and the provider. The authors designed the shield and worked with a manufacturer for production of the plastic component. The upper nylon component is single use. The article contains images of the shield. They recommend use of the delivery table shield in suspected or diagnosed cases, rather than as a universal precaution.	This article depicts a design of a delivery room shield that can be used as an aspect of protective equipment in the management of COVID-19-positive or suspected laboring women, without impeding the respirations of the laboring woman or eye contact between her and her care team.	Sahin D, Erol SA, Tanacan A, et al. An effective protective equipment to use in the vaginal delivery of the pregnant women with suspected/diagnosed COVID-19: Delivery Table Shield [published online 2020 Jun 15]. Am J Obstet Gynecol. doi:10.1016/j.ajog.2020.06.021
Ultrasound, diagnosis,	15-Jun-20	Diagnosis of COVID-19	American Journal of	Letter to the Editor	Sperandeo et al. 2020 write a response to a case report by Inchingolo et al. 2020, in which they suggest that lung ultrasound examination could be used	In this commentary on the article by Inchingolo et al.,	Sperandeo M, Irene Quarato CM, Rea G.

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pregnancy, pneumonia, lung findings		pneumonia in pregnant women: can we rely on lung ultrasound?	Obstetrics and Gynecology		as a diagnostic imaging tool in pregnant women with suspected COVID-19. In this letter, the authors clarify that the extent of pulmonary involvement is limited by incomplete accessibility of the lung by ultrasound. They also discuss that the presence of vertical artifacts (B-lines) indicates an underlying unspecific pleuro-pulmonary disease that is not pathognomonic for COVID-19. Moreover, they note that Inchingolo et al. did not compare their patient's ultrasound findings to those from a CT scan, which is the gold standard. Overall, the authors conclude that ultrasound use in the diagnosis of COVID-19 pneumonia must be firmly discouraged to avoid needless exposure of medical staff and may be misleading.	the authors disagree with the utility of lung ultrasound imaging in aiding the diagnosis of COVID-19 in pregnant patients. They further suggest that the use of ultrasound in the setting of COVID-19 can be confusing due to nonspecific findings.	Diagnosis of COVID-19 pneumonia in pregnant women: can we rely on lung ultrasound? [published online 2020 Jun 15]. Am J Obstet Gynecol. doi:10.1016/j.ajog.2020.06.028
Pregnancy, intensive care unit, maternal death, respiratory failure, invasive mechanical ventilation, New York, USA	15-Jun-20	Maternal Mortality Among Women With COVID-19 Admitted to the Intensive Care Unit	American Journal of Obstetrics and Gynecology	Original Article	There is limited data on critically ill pregnant women hospitalized with COVID-19. This case series evaluated all consecutively hospitalized pregnant and postpartum women with laboratory-confirmed COVID-19 who were admitted to the ICU at eleven hospitals in a large integrated health system in New York metropolitan area, aiming to determine the rate of maternal death. The results suggest that between March 1 and May 6, 2020, there were 462 pregnant women who tested positive for SARS-CoV-2, and 70 (15%) were classified as severe or critical COVID-19 per National Institutes of Health criteria. Out of these 70 patients, a total of 13 (19%) were admitted to the ICU for acute or impending hypoxemic respiratory failure. Among this group, 2 (15%) died and 11 (85%) were discharged from the hospital. Women admitted to the ICU had a mean maternal age of 33.8±5.2 years. Maternal death occurred in 15% of patients admitted to the ICU for COVID-19 and in 25% of those who required invasive mechanical ventilation. Delivery during COVID-19 infection occurred in half of the patients admitted to the ICU but essentially all patients who required invasive mechanical ventilation. Hispanic women constituted the largest racial/ethnic group in the study, which may reflect a disproportionate burden of disease among minority groups.	This study implicates that pregnant and postpartum women admitted to the ICU with COVID-19 are at risk for maternal death, which may occur even in the absence of significant baseline comorbidities.	Blitz MJ, Rochelson B, Minkoff H, et al. Maternal Mortality Among Women with COVID-19 Admitted to the Intensive Care Unit [published online, 2020 Jun 15]. Am J Obstet Gynecol. 2020;doi:10.1016/j.ajog.2020.06.020
Immunity, Pediatric, Pneumonia, Vitamin D	15-Jun-20	Possible Role of Vitamin D in Covid-19 Infection in Pediatric Population	Journal of Endocrinological Investigation	Review Article	Elderly males are more prone to develop interstitial pneumonia that can deteriorate evolving to acute respiratory distress syndrome (ARDS) that require hospitalization in Intensive Care Units (ICUs), while children and young patients seem to develop a milder form of the disease. Therefore, the authors reviewed the literature about the immunomodulatory role of Vitamin D collecting data from the databases Medline and Embase. Vitamin D proved to interact both with the innate immune system, by activating Toll-like receptors (TLRs) or increasing the levels of cathelicidins and β-defensins, and adaptive immune system, by reducing immunoglobulin secretion by plasma cells and pro-inflammatory cytokines production, thus modulating T cells function. Promising results have been extensively described as regards the supplementation of vitamin D in respiratory tract infections, autoimmune diseases and even pulmonary fibrosis.	This review suggests that vitamin D supplementation might play a role in the prevention and/or treatment to SARS-CoV-2 infection disease, by modulating the immune response to the virus both in the adult and pediatric populations.	Panfili FM, Roversi M, D'Argenio P, Rossi P, Cappa M, Fintini D. Possible role of vitamin D in Covid-19 infection in pediatric population [published online, 2020 Jun 15]. J Endocrinol Invest. 2020;1-9. doi:10.1007/s40618-020-01327-0
Pregnancy, management, clinical recommen-dations,	15-Jun-20	From the Trenches: Inpatient Management of	American Journal of Obstetrics & Gynecology MFM	Clinical Perspective	This manuscript brings together guidelines from governmental and professional organizations, as well as from the authors' clinical experiences of caring for pregnant and postpartum women with COVID-19 in New York. The recommendations provided are evidence-based where possible, however much of it is derived from the authors' clinical experience, as well as	This guide for COVID-19 in pregnancy brings together evidence and clinical experience in a comprehensive summary. It	Vega M, et al. From the Trenches: Inpatient Management of COVID-19 in Pregnancy, American Journal of

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New York		COVID-19 in Pregnancy			recommendations from infection control experts. This clinical guide covers a breadth of topics including: testing, admission, labs and imagining, medical management, timing and mode of delivery, vertical transmission and fetal effects, acute decompensation, postpartum management, and discharge and follow up. The speed of the emergence and spread of COVID-19 around the world has placed an incredible strain on healthcare staff and resources, particularly in the field of obstetrics. The key to responding to this crisis is thoughtful, standardized, and evidence-based care whenever possible.	makes management recommendations for obstetric providers in an effort to promote standardized and evidenced-based care.	Obstetrics & Gynecology MFM. doi:10.1016/j.ajogmf.2020.100154
Case surveillance, incidence, children, severe outcomes, CDC	15-Jun-20	Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020	Morbidity and Mortality Weekly Report	Report	State and territorial health departments in the U.S. report daily aggregate counts of COVID-19 cases and deaths to CDC; these were tabulated according to date of report to examine reporting trends during January 22–May 30. Of 1,320,488 cases analyzed, the median age was 48 years (interquartile range = 33–63 years). Incidence was 403.6 cases per 100,000 population. Incidence was higher among persons aged 40–49 years (541.6) and 50–59 years (550.5) than among those aged 60–69 years (478.4) and 70–79 years (464.2). Incidence was highest among persons aged ≥80 years (902.0) and lowest among children aged ≤9 years (51.1). The lower incidence in younger persons could be attributable to undiagnosed milder or asymptomatic illnesses among this age group that were not reported. Prevalence of reported severe outcomes increased with age; the percentages of hospitalizations, ICU admissions, and deaths were highest among persons aged ≥70 years, regardless of underlying conditions, and lowest among those aged ≤19 years.	Based on recent case surveillance data reported to the US CDC, incidence of COVID-19 was lowest among children 9 years or younger. Severe outcomes were lowest among younger people.	Stokes EK, Zambrano LD, Anderson KN, et al. Coronavirus Disease 2019 Case Surveillance — United States, January 22–May 30, 2020 [published online 2020 Jun 15]. MMWR Morb Mortal Wkly Rep doi:10.15585/mmwr.mm6924e2
Children, hospitalization, renal dysfunction, acute kidney injury, UK	15-Jun-20	Renal dysfunction in hospitalised children with COVID-19	The Lancet Child & Adolescent Health	Correspondence	This report presents 52 pediatric patients (age 0–16 years) admitted to a children's hospital in London, UK since March 25, 2020, with confirmed SARS-CoV-2 infection. Of these, 24 (46%) had a serum creatinine greater than the upper limit of reference interval, and 15 (29%) met the British Association of Paediatric Nephrology diagnostic criteria for acute kidney injury. Most cases of acute kidney injury occurred in those admitted to the paediatric ICU (14 [93%] patients), and in those with paediatric inflammatory multisystem syndrome temporarily associated with SARS-CoV-2 (PIMS-TS; 11 [73%] patients). Unsurprisingly, patients with acute kidney injury were more likely to have diarrhea and vomiting at presentation, thereby suggesting prerenal involvement. Of the acute kidney injury cohort, five (33%) had abnormal renal ultrasound findings. This report emphasizes that higher rates of acute kidney injury are seen among the hospitalized pediatric population in the UK than in China, where rates of hyperinflammatory syndrome also appear to be lower.	To the authors' knowledge, this is the first study to show, at least in the UK, that approximately half of hospitalized pediatric cases of COVID-19 reveal evidence of renal dysfunction, and more than a quarter meets acute kidney injury diagnostic criteria.	Stewart DJ, Hartley JC, Johnson M, et al. Renal dysfunction in hospitalised children with COVID-19 [published online 2020 Jun 15]. Lancet Child & Adol Health. doi:10.1016/S2352-4642(20)30178-4
Neonates, NICU, management protocol, international guidelines	15-Jun-20	International Comparison of Guidelines for Managing Neonates at the Early Phase of the SARS-CoV-2 Pandemic	Pediatric Research	Clinical Research Article	Care providers from neonatal intensive care units (NICUs) in 20 countries, across six continents, exchanged and compared protocols on the management of neonates born to SARS-CoV-2-positive mothers. Disease burden varied between countries at the time of analysis. In most countries, asymptomatic infants were allowed to stay with the mother and breastfeed with hygiene precautions. There were discrepancies between national guidance in particular regarding triaging, use of personal protection equipment, viral testing, and visitor policies. Local protocols deviated from national guidance. Compliance between collaborators to share and discuss protocols was excellent and may lead to more consensus on management,	This article presents a detailed review of ad hoc guidelines for neonates developed by various care providers in different countries at the start of the COVID-19 pandemic; similarities and differences are highlighted.	Lavizzari A, Klingenberg C, Profit J, et al. International comparison of guidelines for managing neonates at the early phase of the SARS-CoV-2 pandemic [published online 2020 Jun 15]. Pediatr Res. doi:10.1038/s41390-020-0976-5

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					but future guidance should be built on high-level evidence, rather than expert consensus.		
Pregnancy, pre-eclampsia, preterm birth, low birth weight, placenta, inflammation	15-Jun-20	COVID-19 and Maternal Pre-Eclampsia; A Synopsis	Scandinavian Journal of Immunology	Letter to the Editor	The hyper-inflammatory state in COVID-19 may be associated with hypoxic injury in the placenta and a developing pre-eclamptic state in pregnant women. ACE2 is expressed throughout the human placenta; possible COVID-19 intra-uterine infection may alter the expression of ACE2 and lead to increased angiotensin II levels in the placental villi, leading to vasoconstriction and restricted fetal blood flow. Further confirmatory studies of this mechanistic explanation for raised incidence of preterm delivery and low birth weight in neonates born to COVID-19 positive pregnant women are needed. In addition, COVID-19 positive patients and pre-eclamptic women share many immunological and laboratory-based similarities, characterized by an increase in pro-inflammatory cytokines. Thrombocytopenia is also an established risk factor for severity in pre-eclampsia and an emerging one for severity in COVID-19.	The authors speculate the relationship between COVID-19 and the development of pre-eclampsia in pregnant women.	Abbas AM, Ahmed OA, Shaltout AS. COVID-19 and maternal pre-eclampsia; a synopsis [published online 2020 Jun 15]. Scand J Immunol. doi:10.1111/sji.12918
Children, pediatric oncology, stem cell transplant, incidence, Italy	15-Jun-20	Screening for SARS-CoV-2 Infection in Pediatric Oncology Patients During the Epidemic Peak in Italy	Pediatric Blood & Cancer	Letter to the Editor	Children with tumors represent a special risk group for SARS-CoV-2 infection because treatment is frequently based on high-dose chemotherapy and, in leukemia and lymphoma, on steroids that result in severe impairment of innate and adaptive immunity. During the epidemic peak in Italy, to prevent the hospital admission of asymptomatic infected patients, 14 pediatric hematology-oncology centers adopted a policy to screen the patients for SARS-CoV-2 by nasopharyngeal swab before allowing them to start chemotherapy or enter hospital for supportive measures. A total of 334 swabs were performed on 247 patients (median age at diagnosis of 7 years, range 0-17.9 years). Results were positive in 10 (3%) patients, all in northern Italian centers where the epidemic was more prevalent. Among these patients, eight were completely asymptomatic and two presented with mild fever. All positive patients ceased chemotherapy until their swabs turned negative; one patient is still positive after 38 days. In addition, a total of 56 swabs were performed in stem cell transplant patients; all tested negative.	Incidence of positive SARS-CoV-2 testing in pediatric patients presenting for chemotherapy treatment was 3% for 14 centers across Italy, and 3.4% for specifically northern Italian centers.	Cesaro S, Compagno F, Zama D, et al. Screening for SARS-CoV-2 infection in pediatric oncology patients during the epidemic peak in Italy [published online 2020 Jun 15]. Pediatr Blood Cancer. doi:10.1002/pbc.28466
Pregnancy, obstetricians, healthcare systems, pandemic preparedness, Libya	15-Jun-20	Assessment of the Preparedness of Obstetrics and Gynecology Healthcare Systems During the COVID-19 Pandemic in Libya	International Journal of Gynecology & Obstetrics	Brief Communication	A cross-sectional survey was administered to 200 obstetricians working in Libya to assess their preparedness to manage the COVID-19 pandemic and to provide an overview of the impact of COVID-19 on the Libyan healthcare system. The survey response rate was 86.5% (173 participants), 3.5% (7) of which were male. Approximately 67.1% (116) worked in university-affiliated hospitals and the rest in rural or private hospitals. Notably, 74.6% (129) reported that COVID-19 has negatively impacted their ability to work. Only 29% of hospitals had a team of obstetricians qualified to manage COVID-19 cases, and testing capacity was limited in most Libyan hospitals. More than half of obstetricians reported increased levels of stress due to COVID-19, mainly related to unpreparedness. Shortage of personal protective equipment is also common in Libyan hospitals.	Findings from a cross-sectional survey reveal health system challenges and high levels of stress due to low pandemic preparedness among obstetricians in Libya.	Elhadi M, Msherghi A, Elgzairi M, et al. Assessment of the preparedness of obstetrics and gynecology healthcare systems during the COVID-19 pandemic in Libya [published online 2020 Jun 15]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13273
Adolescent, severe aplastic anemia, immuno-	15-Jun-20	COVID-19 in a Child With Severe Aplastic Anemia	Pediatric Blood & Cancer	Letter to the Editor	A 14-year-old boy with severe aplastic anemia and history of exposure with a suspected COVID-19 positive person presented with fever, sore throat, and epistaxis for 2 days. Febrile neutropenia treatment with cefepime was started and platelet suspension was transfused. The test for SARS-CoV-2 by qRT-PCR from combined nasal and oropharyngeal swab specimens was positive. Over	Mild clinical course of COVID-19 in an adolescent patient with severe aplastic anemia is described.	Akcabelen YM, Koca Yozgat A, Parlakay AN, Yarali N. COVID-19 in a child with severe aplastic anemia [published online

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suppression, Turkey					the course of hospitalization, his condition never worsened, and oxygen saturation never decreased. The authors speculate that the patient's immunocompromised state might be a favorable factor for better prognosis by limiting the inflammatory reaction, which is commonly associated with the severity of COVID-19 disease.		2020 Jun 15]. Pediatr Blood Cancer. doi:10.1002/pbc.28443
Children, epidemiology, incubation period, antiviral therapy, fecal viral shedding, China	15-Jun-20	Epidemiological Features and Viral Shedding in Children With SARS-CoV-2 Infection	Journal of Medical Virology	Research Article	By February 29, 2020, 1298 cases from 883 families in Zhejiang Province, China were confirmed with SARS-CoV-2 infection, and 314 were families with children. Incidence of infection in child close contacts was significantly lower than that in adult contacts (13.2% vs 21.2%). The mean age of 43 pediatric cases was 8.2 years and mean incubation period was 9.1 days. Forty (93.0%) were family clustering. Thirty-three children had COVID-19 (20 pneumonia) with mild symptoms and 10 were asymptomatic. Fecal SARS-CoV-2 RNA detection was positive in 91.4% (32/35) cases and some children had viral excretion time over 70 days. Viral clearance time was not different among the groups treated with different antiviral regiments. No subsequent infection was observed in family contacts of fecal-viral-excreting children.	Children have lower susceptibility of SARS-CoV-2 infection, longer incubation and fecal viral excretion time.	Hua CZ, Miao ZP, Zheng JS, et al. Epidemiological features and viral shedding in children with SARS-CoV-2 infection [published online 2020 Jun 15]. J Med Virol. doi:10.1002/jmv.26180
Children, pediatric heart transplant recipients, immuno-suppression, comorbidities, New York, USA	15-Jun-20	Varying Presentations of COVID-19 in Young Heart Transplant Recipients: A Case Series	Pediatric Transplantation	Case Report	Little is known about the spectrum of COVID-19 disease in pediatric heart transplant recipients, who have comorbidities and receive immunosuppressive therapies that are expected to increase the severity of their clinical picture based on adult experience with this novel disease. In this case report, four pediatric heart transplant patients (15 and 25 years old, 13 and 29 months old) with COVID-19 are described. The mild manifestations of COVID-19 in these patients may be due to their age as a protective factor that overcompensates for other risk factors. However, this remains a speculation given the limited number of patients. Longer term follow up will be necessary for this population.	Cases of COVID-19 in pediatric heart transplant patients demonstrate mild and self-limited disease despite immunosuppressive therapy and various comorbidities.	Lee H, Mantell BS, Richmond ME, et al. Varying Presentations of COVID-19 in Young Heart Transplant Recipients: A Case Series [published online 2020 Jun 15]. Pediatr Transplant. doi:10.1111/petr.13780
Children, clinical characteristics, Kawasaki disease, ICD-10 codes, global health database	15-Jun-20	Spectrum of COVID-19 in Children	Acta Paediatrica	Brief Report	The authors used TriNetX, a global health collaborative clinical research platform that collects real-time electronic medical record data from various healthcare organizations to search for children (0-18 years) with a laboratory diagnosis of COVID-19 from January 20 to June 10, 2020. International Classification of Diseases (ICD)-10 diagnosis codes were used to identify 1353 children that met the above criteria. The most common symptoms included fever and cough. Loss of smell/taste was reported only in a minority of mostly older children. the majority of children had upper respiratory involvement, and cardiac involvement was reported in 6.4% of children, with acute myocardial infarction and myocarditis in ≤10 children each. Kawasaki disease was reported in 16 of 1353 children.	Data from a global health database confirm multiple organ system involvement in children with COVID-19 and that only a minority of children require hospitalization and/or critical care.	Ranabothu S, Onteddu S, Nalleballe K, Dandu V, Veerapaneni K, Veerapandiyan A. Spectrum of COVID-19 in Children [published online 2020 Jun 15]. Acta Paediatr. doi:10.1111/apa.15412
Infants, children, febrile illness, diagnosis, management	15-Jun-20	Management of Fever in Infants and Young Children	American Family Physician	Review Article	Febrile illness in children younger than 36 months remains a concern with potentially serious consequences. Factors that suggest serious infection include age younger than 1-month, poor arousability, petechial rash, delayed capillary refill, increased respiratory effort, and overall physician assessment. Urinary tract infections are the most common serious bacterial infection in children younger than three years. Abnormal white blood cell counts have poor sensitivity for invasive bacterial infections; procalcitonin and C-reactive protein levels, when available, are more informative. Chest radiography is rarely recommended for children older than 28 days in the absence of localizing signs. Lumbar puncture is not recommended for children older than	A review of risk factors, clinical characteristics, laboratory markers, diagnosis, and treatment of febrile illness in infants is provided.	Hamilton JL, Evans SG, Bakshi M. Management of Fever in Infants and Young Children. Am Fam Physician. 2020;101(12):721-729.

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					three months without localizing signs; it may also be considered for those from one to three months of age with abnormal laboratory test results. Protocols such as Step-by-Step, Laboratory Score, or the Rochester algorithms may be helpful in identifying low-risk patients. Rapid influenza testing and tests for COVID-19 may be of value when those diseases are circulating. Suggested antibiotics, when empiric treatment is appropriate, are also described.		
Novel Coronavirus, pediatric, pediatric ICU, Iran	14-Jun-20	An 11-Year-Old Boy Infected with COVID-19 with Presentation of Acute Liver Failure	Hepatitis Monthly	Case Report	Although uncommon, COVID-19 can progress to severe disease in children. Additionally, hepatic injury has been reported in some cases of COVID-19. These authors present the case of a child with COVID-19 infection and liver failure. The previously healthy 11-year-old male presented with fever and abdominal pain, to a hospital in Iran. He subsequently developed jaundice, tachypnea, and decreased level of consciousness. Lab findings included elevated alanine amino-transferase (690 U/L), aspartate trans-aminase (2030 U/L), and total bilirubin (35.4 mg/dL). Acute liver failure was presumed, and the child was intubated and transferred to the pediatric ICU. Both parents had a history of fever and cough, with recent travel. The patient's chest CT showed a bilateral ground glass appearance. Both parents then tested positive for SARS-CoV-2 PCR. Although the boy's first SARS-CoV-2 test was negative, hydroxychloroquine and lopinavir/ritonavir were started, along with antibiotics. A second test was positive. The boy's condition deteriorated, and he suddenly experienced atrial fibrillation and asystole, and expired. The authors list several theories on the mechanisms that may cause COVID-19-related liver injury. They encourage health care providers to consider COVID-19 infection during any onset of acute hepatitis, including in children.	These authors present the case of a child with COVID-19 infection and liver failure. Although the underlying mechanism is not fully understood, the authors emphasize that liver injury can occur among COVID-19 patients, including children.	Saeed A, Shorafa E, Shahramian I, Afshari M, Salahifard M , et al. An 11-Year-Old Boy Infected with COVID-19 with Presentation of Acute Liver Failure, Hepat Mon. Online ahead of Print ; 20(6):e104415. doi: 10.5812/hepatmon.104415.
Endocrinology, gestational diabetes mellitus, pregnancy, screening	14-Jun-20	Endocrinology in the Time of COVID-19: Diagnosis and Management of Gestational Diabetes Mellitus	European Journal of Endocrinology	Clinical practice guidance	Women with gestational diabetes mellitus (GDM) are one of the largest high-risk groups accessing antenatal care. In reformulating the care offered to those with GDM during the COVID-19 pandemic, there is a need to balance lowering the risk of direct viral transmission against the potential adverse impact of service changes. The authors provide pragmatic options for screening of GDM in a pandemic setting based on blood tests and use of personalized risk calculators. They describe alternative models for antenatal care provision for women with GDM, including targeting high-risk groups, early lifestyle interventions, and remote monitoring. Testing options and their timing for postpartum screening in women who had GDM are also considered. The authors' suggestions are only applicable in the setting of a pandemic. As such, usual guidelines and care pathways should be re-implemented as soon as possible and appropriate.	The authors provide recommendations based on expert consensus for the screening and management of women with gestational diabetes mellitus in the context of the COVID-19 pandemic. They acknowledge that these strategies need to be adapted through analysis of real-time outcome data as the pandemic continues.	Thangaratinam S, Cooray SD, Sukumar N, et al. Endocrinology in the time of COVID-19: Diagnosis and management of gestational diabetes mellitus. [published online, 2020 Aug]. Eur J Endocrinol. doi:10.1530/EJE-20-0401
Neonatal complications, national active surveillance, population-level incidence, UK	14-Jun-20	National Active Surveillance to Understand and Inform Neonatal Care in COVID-19	ADC Fetal & Neonatal	Viewpoint	Measuring the incidence of neonatal complications of COVID-19 accurately and comprehensively is critical to providing optimal advice and care. Given the critical relevance of incidence data, it is important to note that much currently available information comes from limited case series or single-center studies rather than population-based surveillance, which is more robust, objective and less likely to be biased by local practices and protocols. This article discusses the British pediatric Surveillance Unit in the UK, as a methodological example of estimating regional and national incidence, clinical	The British Pediatric Surveillance Unit in the UK is described as an example for gathering population-level incidence data on neonatal complications of COVID-19 to inform clinical care and guidance.	Gale C, Knight M, Ladhani S, et al. National active surveillance to understand and inform neonatal care in COVID-19 [published online 2020 Jun 14]. Arch Dis Child Fetal Neonatal Ed.

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					and outcome data in rare diseases in children, including neonatal complications of COVID-19.		doi:10.1136/archdischild-2020-319372
Children, RT-PCR, serology, France	14-Jun-20	Assessment of spread of SARS-CoV-2 by RT-PCR and concomitant serology in children in a region heavily affected by COVID-19 pandemic	medRxiv	Preprint (not peer reviewed)	From April 14 to May 12, 2020, a cross-sectional, prospective, multicenter study was conducted in the most COVID-19 affected region in France. Among 605 children, 322 (53.2%) were asymptomatic and 283 (46.8%) symptomatic. RT-PCR testing and serology were positive for 11 (1.8%) and 65 (10.7%) of all children, respectively. Only 3 children were RT-PCR-positive without detectable antibody response. The frequency of RT-PCR positivity was significantly higher in children with positive serology than those with negative serology (12.3% vs 0.6%, p<0.001). Contact with a person with proven COVID-19 increased the odds of positivity on RT-PCR (OR 7.8, 95% confidence interval [1.5; 40.7]) and serology (15.1 [6.6; 34.6]).	In a heavily affected area of France, the rate of children with positive SARS-CoV-2 RT-PCR was very low (1.8%), but the rate of positive on serology was higher (10.7%).	Cohen R, Jung C, Ouldali N, et al. Assessment of spread of SARS-CoV-2 by RT-PCR and concomitant serology in children in a region heavily affected by COVID-19 pandemic [published online 2020 Jun 14]. medRxiv. doi:10.1101/2020.06.12.20129221
Children, Down syndrome, testing, management, Italy	13-Jun-20	COVID-19 and Down syndrome	Acta Paediatrica	Brief Report	COVID-19 presents as an acute severe respiratory syndrome, and Down syndrome (DS) is by far the most frequent chromosomal disease with the highest susceptibility to develop respiratory infections and complications. Children with DS are particularly vulnerable and susceptible to respiratory infections. They also have comorbidities such as immunodeficiency, cardiopathies, obesity and diabetes that have been proven to worsen COVID-19 outcomes. There are no official reports on the incidence and evolution of COVID-19 in DS, nor are there control and prevention measures tailored to individuals with DS. The absence of information about how the disease affects this group of subjects is a limiting factor to further discussing about the specific risk towards COVID-19. The authors share a protocol in which they advocate for children with DS of having earlier access to diagnostic tests and antiviral management. A flowchart of their protocol is included.	The authors summarize the unique risks that COVID-19 poses to people with Down syndrome, and propose a protocol by which children with Down syndrome could be tested and treated for COVID-19.	Callea M, Cammarata-Scalisi F, Galeotti A, et al. COVID-19 and Down syndrome [published online 2020 Jun 13]. Acta Paediatr. 2020;109(9):1901-1902. doi:10.1111/apa.15409
Vertical transmission, breastfeeding, viral carriage, pregnancy, neonates	13-Jun-20	Covid-19 in pregnant women and babies: What pediatricians need to know	Paediatric Respiratory Reviews	Review	The aim of this review is to describe the current information available at the time of writing regarding the potential and known effects of SARS-CoV-2 in pregnant women, their fetuses, and their newborns, to help inform neonatologists who might be called upon to counsel expectant mothers and to care for their infants. Findings showed that 1) while aspects of pregnancy could put pregnant women at higher risk, preliminary epidemiological information does not support this; 2) viral carriage prevalence based on universal screening showed that rates varied from 3% to 13%; 3) vertical transmission risks were unknown but 3.1% of 311 infants born to mothers with SARS-CoV-2 were positive within a week of birth; 4) the clinical description of 26 neonates <30 days showed no deaths and only one required intensive care. Risks for breastfeeding and for milk banks were also discussed.	The authors summarize the literature on the potential and known effects of SARS-CoV-2 in pregnant women, their fetuses, and their newborns.	Rozycki HJ, Kotecha S. Covid-19 in pregnant women and babies: What pediatricians need to know [published online, 2020 Jun 13]. Paediatr Respir Rev. 2020;S1526-0542(20)30091-9. doi:10.1016/j.prrv.2020.06.006
Online prenatal education, pregnancy, China	13-Jun-20	Online Antenatal Care During The COVID-19 Pandemic: Opportunities and Challenges	Journal of Medical Internet Research	Viewpoint	The authors performed a web-based survey among Chinese pregnant women to investigate their self-protection behaviors and attitudes towards antenatal care during this pandemic. A total of 983 Chinese pregnant women completed the questionnaire and it was found that more than 80% of them had taken self-protection actions, such as facemask-wearing, handwashing, and home quarantine to avoid being infected. For antenatal visits and consultation, about 20% of the women were afraid of any consultation in hospitals, while over 40% of them feared antenatal visits in hospitals. Moreover, more than half of the pregnant women considered or decided to cancel their antenatal	The authors suggest that the popularization of online antenatal care programs is likely to have an economic benefit to both the health system and to the pregnant women, as well as reduce unnecessary hospital visits	Wu H, Sun W, Huang X, et al. Online Antenatal Care During The COVID-19 Pandemic: Opportunities and Challenges [published online , 2020 Jul 13]. J Med Internet Res. doi:10.2196/19916

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					care appointments and postponed their appointments in hospitals. These behaviors and attitudes indicated that pregnant women were worried about potential infection especially when completing antenatal care in hospitals. Considering the dilemma above, online antenatal care might be a preferable choice for pregnant women during this pandemic. In addition, online antenatal care could help to provide relatively cheaper medical services and diminish health inequality due to its convenience and cost-effectiveness. However, some pregnant women will doubt the reliability of such online information. Therefore, it is important to determine how to ensure the quality of online services and establish a stable mutual trust between pregnant women and online programs. In summary, online antenatal care could be a useful alternative option for pregnant women to obtain some basic antenatal care and mental consultation.	and avoiding extra potential-infection risks.	
ICU, intensive care, pregnancy, post-partum, Sweden	13-Jun-20	Public Health Agency of Sweden's Brief Report: Pregnant and Postpartum Women With Severe Acute Respiratory Syndrome Coronavirus 2 Infection in Intensive Care in Sweden	Acta Obstetricia et Gynecologica Scandinavica	Brief Report	There remains a lack of data regarding the impact of pregnancy on susceptibility, severity of presentation, and adverse outcomes related to COVID-19. The Public Health Agency of Sweden investigated the number of intensive care unit (ICU) hospitalizations in pregnant or post-partum women compared to non-pregnant women of similar age (20-45 years old). Data were collected using the Swedish Intensive Care Registry from 19 March-20 April 2020. The authors identified 53 women with SARS-CoV-2 who were admitted to the ICU, of which 13 were pregnant or post-partum (< 1 week after birth). The incidence of requiring intensive care in Sweden in women with positive SARS-CoV-2 serology was 14.4 per 100,000 for pregnant/post-partum women and 2.5 per 100,000 for non-pregnant women in the same age group. The risk of requiring intensive care may therefore be higher in COVID-19 positive pregnant/post-partum women.	In Sweden, the risk of requiring intensive care may be higher in COVID-19 positive pregnant or post-partum women compared to non-pregnant women. This indicates that pregnant women should be cautious when considering the potential severe consequences of SARS-CoV-2 infection.	Collin J, Byström E, Carnahan A et al. Public Health Agency of Sweden's Brief Report: Pregnant and postpartum women with severe acute respiratory syndrome coronavirus 2 infection in intensive care in Sweden. [published online, 2020 Jun 13]. Acta Obstet Gynecol Scand. doi:10.1111/aogs.13901
Anxiety, depression, pregnancy, UK	13-Jun-20	Anxiety and Depression Levels Among Pregnant Women With COVID-19	Acta Obstetricia et Gynecologica Scandinavica	Letter to the Editor	Thapa et al. 2020 asserted that studies must also focus on the effects of the COVID-19 pandemic on maternal mental health. The authors agreed with this statement and provided relevant pilot data from their center. In a small case series from an inner-city London hospital, the authors tracked anxiety and depression levels of COVID-19 positive pregnant individuals over 11 weeks (3 March-11 May 2020) using GAD-7 and PHQ-9. Eleven mothers completed a cross-sectional survey within one week of diagnosis. The median GAD-7 score throughout the 11-week period was 3. They observed that the median score rose to a maximum at the height of the pandemic deaths in the UK when "lockdown" rules were instituted amid great uncertainty about NHS capacity and COVID outcomes. Scores than declined as more data from maternal cases was available, including the release of professional society management guidelines in April 2020. Overall, the data suggested that maternal levels of anxiety and depression at the tail end of the pandemic in the UK appeared low.	Maternal mental health outcomes are important to track during the COVID-19 pandemic. In one London hospital, COVID-19 pregnant individuals had the highest median scores for anxiety and depression when lockdown rules were placed and there was great uncertainty about COVID-19 maternal outcomes.	Kotabagi P, Fortune L, Essien S et al. Anxiety and depression levels among pregnant women with COVID-19. [published online, 2020 Jun 13]. Acta Obstet Gynecol Scand. doi:10.1111/aogs.13928
Children, immune system development, susceptibility	13-Jun-20	Development of Child Immunity in the Context of COVID-19 Pandemic	Clinical Immunology	Review Article	Children, due to an immature immune system, are usually more prone than adults to microbial infections and have more severe symptoms; this is especially true for newborns and very young children. However, a review of clinical data from the current COVID-19 pandemic indicates otherwise. The present article discusses the main features and components of children's immune systems, the role of maternal transmission of immunity, and possible	This review article discusses features of child immunity as well as maternal transmission of immunity that may confer protection against COVID-19.	Kloc M, Ghobrial RM, Kuchar E, et al. Development of child immunity in the context of COVID-19 pandemic [published online 2020

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					explanations for the seemingly lower infection rate and severity of COVID-19 in children.		Jun 13]. Clin Immunol. doi:10.1016/j.clim.2020.108510
Child, household contact, viral transmission, Morocco	13-Jun-20	Absence of Evidence of Transmission of Coronavirus Disease 2019 From a Young Child to Mother Despite Prolonged Contact	The Indian Journal of Pediatrics	Scientific Letter	An asymptomatic two-year-old girl presented for SARS-CoV-2 testing after her father tested positive the day before. The child did not contact anyone else other than her mother for the last two weeks. Nasal swab for SARS-CoV-2 RT-PCR was positive for the child and negative for the mother. Twenty-four hours later, the mother underwent a second RT-PCR combined with IgM/IgG antibody rapid test; both tests were negative for SARS-CoV-2. Over the course of a month, daily checkups and weekly SARS-CoV-2 RT-PCR and serology controls of both mother and child were carried out. The child's RT-PCR turned negative 10 days after diagnosis, while testing remained negative in the mother up to 28 days of follow-up.	A single case of COVID-19 is described in a child who did not appear to infect her mother despite long close contact, adding further evidence against children as primary vectors of SARS-CoV-2.	Nassih H, El Fakiri K, Sab IA. Absence of Evidence of Transmission of Coronavirus Disease 2019 from a Young Child to Mother Despite Prolonged Contact [published online 2020 Jun 13]. Indian J Pediatr. doi:10.1007/s12098-020-03382-0
Children, CT imaging, lung involvement, sensitivity, Iran	13-Jun-20	Clinical and Radiological Characteristics of Pediatric Patients With COVID-19: Focus on Imaging Findings	Japanese Journal of Radiology	Original Article	Of 27 pediatric patients (mean ± SD, 4.7 ± 4.16 years) with COVID-19 pneumonia, 17 were female, and 10 were male. The most common imaging finding was ground-glass opacities followed by consolidations. Seven patients had a single area of involvement, five patients had multiple areas of involvement, and four patients had diffuse involvement. The sensitivity of CT imaging in diagnosing infections was 66.67%. Also, some uncommon imaging findings were seen, such as a tree-in-bud and lung collapse.	In this study, CT imaging showed less involvement and had lower sensitivity in pediatric compared to adult patients with COVID-19 pneumonia.	Mohammadi A, Mohebbi I, Khademvatani K, et al. Clinical and radiological characteristics of pediatric patients with COVID-19: focus on imaging findings [published online 2020 Jun 13]. Jpn J Radiol. doi:10.1007/s11604-020-01003-6
Children, hyper-inflammatory shock syndrome, cytokine storm, histopathology	13-Jun-20	Introductory Histopathologic Findings May Shed Light on COVID19 Pediatric Hyperinflammatory Shock Syndrome	Journal of the European Academy of Dermatology and Venereology	Letter to the Editor	A 16-year-old male was admitted due to 3-day history of severe abdominal pain and fever. A migratory rash composed of mildly edematous and erythematous plaques was noted on the trunk and extremities. Echocardiography demonstrated impaired left ventricular function with dilation. Laboratory work-up revealed significant lymphopenia with mild neutrophilia and elevated inflammatory markers. The patient developed multi-organ dysfunction including cardiac failure requiring mechanical ventilation and inotropic support. Repeated RT-PCR tests for SARS-CoV-2 were negative, whereas two serologic tests were positive for SARS-CoV-2 IgG. After stabilization, skin biopsy of painful dusky erythematous plaques on the posterior scalp revealed leukocytoclastic vasculitis. RT-PCR from the affected tissue was negative for SARS-CoV-2, indicating an immune reaction rather than direct pathogen involvement. The presence of IgA and complement mediated vasculitis with extensive necrosis may represent similar pathological abnormalities in affected internal organs.	Histopathological findings are described in this case of COVID-19 associated Kawasaki-like shock syndrome and are consistent with cutaneous leukocytoclastic lesions.	Schnapp A, Abulhija H, Maly A, et al. Introductory histopathologic findings may shed light on COVID19 pediatric hyperinflammatory shock syndrome [published online 2020 Jun 13]. J Eur Acad Dermatol Venereol.doi:10.1111/jdv.16749
Neonates, postnatal infection, vertical transmission, breastfeeding	13-Jun-20	Challenges in Neonatal COVID-19 Infection	The Indian Journal of Pediatrics	Editorial Commentary	In children, COVID-19 seems to have less severe clinical symptoms, but the potential harm remains largely unknown in neonates. It is possible that the immune systems of children are less developed, and this may reduce the risk of cytokine storm. Routine immunization and reduced distribution of ACE2 in children may also give some protection against COVID-19. At present, studies illustrate the possibility of postnatal neonatal infection with no evidence of transplacental transmission. Breastfeeding is possible in suspected or	To date, most studies point to the possibility of postnatal SARS-CoV-2 infection of neonates rather than transplacental transmission.	Bhat BV, Ravikumar S. Challenges in Neonatal COVID-19 Infection [published online 2020 Jun 13]. Indian J Pediatr. doi:10.1007/s12098-020-03379-9

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					confirmed SARS-CoV-2 positive mothers, with proper hand and breast hygiene. Since most neonates are seemingly infected postnatally, health care workers must wear personal protective equipment at all times and avoid close contact.		
Children, chilblains, serology, Italy	13-Jun-20	Chilblains in Children in the Time of Covid-19: New Evidence With Serology Assay	Pediatric Dermatology	Commentary	From April 18 to May 10, 2020, 45 children presented to the authors' Pediatric Dermatology department with chilblain-like acral lesions. The clinical appearance ranged from red to violaceous macules and dusky, purpuric plaques on the extremities, often accompanied by painful edema, consistent with chilblains. A personal or familiar history of low-grade fever and systemic symptoms were frequently reported before the cutaneous eruption. All patients tested negative for SARS-CoV-2 with nasopharyngeal swab and aspirate. Eight pediatric patients, including four reported in a previous paper, underwent serologic testing for COVID-19. IgG antibodies were detected in one patient, who previously tested negative on nasopharyngeal swab.	Both SARS-CoV-2 PCR testing and serology are recommended for pediatric patients presenting with acral chilblain-like lesions.	Colonna C, Spinelli F, Monzani NA, Ceriotti F, Gelmetti C. Chilblains in children in the time of Covid-19: new evidence with serology assay [published online 2020 Jun 13]. Pediatr Dermatol. doi:10.1111/pde.14269
Children vs. adults, respiratory system, alveoli, physiology	13-Jun-20	Physiological Advantages of Children Against COVID-19	Acta Paediatrica	Letter	In reply to the editorial by Brodin, the authors emphasize key differences between the child and adult respiratory systems that potentially protect children from severe COVID-19 disease. The newborn lung has only 3 million alveoli, compared to 500 million alveoli in the adult lung. Less alveoli with fewer type 2 cells, containing ACE-2 and TMPRSS2 for viral entry, may spare children from excessive immune reaction. In addition, collateral pathways (for ventilation of alveoli via pathways that bypass normal airways) are absent in neonates. These collateral pathways may facilitate spread of virus in adults. Lastly, functional residual capacity is smaller and alveolar ventilation is larger in children, thus a lower alveolar clearance rate may play a role in viral attachment in adults.	Diverse properties of the respiratory system of children, compared to that of adults, may have an impact on the severity of SARS-CoV-2 infection.	Yavuz S, Kesici S, Bayrakci B. Physiological advantages of children against COVID-19 [published online 2020 Jun 13]. Acta Paediatr. doi:10.1111/apa.15410
Children, pediatric palliative care, infection control, management strategies, Italy	13-Jun-20	Management Strategies Adopted by a Pediatric Palliative Care Network in Northern Italy During the COVID-19 Pandemic	Acta Paediatrica	Brief Report	Due to the COVID-19 pandemic, the regional healthcare system in the Veneto region of northern Italy was forced to implement appropriate measures to protect patients and healthcare providers from SARS-CoV-2 infection, while ensuring continued care. This article describes the implementation of changes at a pediatric palliative care referral center in this region, in two consecutive phases. The first phase defined strategies to handle the emergency, during which the pediatric hospital was closed for 7 days, and the second phase defined criteria for hospitalization. To date, no patients have tested positive for SARS-CoV-2. One parent tested positive and was isolated. Overall, the families reported high satisfaction with measures implemented by the center.	Strategies to reorganize activities and define new care procedures at pediatric palliative care referral center, during the COVID-19 pandemic, in Italy are described.	Lazzarin P, Avagnina I, Divisic A, Agosto C, Giacomelli L, Benini F. Management strategies adopted by a pediatric palliative care network in northern Italy during the COVID-19 pandemic [published online 2020 Jun 13]. Acta Paediatr. doi:10.1111/apa.15411
Children, adolescents, primary chilblains, lockdown, Italy	13-Jun-20	Major Cluster of Pediatric "True" Primary Chilblains During the COVID-19 Pandemic: A Consequence of Lifestyle Changes Due to Lockdown	Journal of the European Academy of Dermatology and Venereology	Original Article	In this case series, 8 patients (aged between 11 and 15 years) who presented with acral lesions at a Pediatric center in Bologna, Italy were evaluated. Acute or previous SARS-CoV-2 infections were excluded with RT-PCR nasopharyngeal swab testing and chemiluminescent immunoassays measuring serum antibody levels. Other acute infections causing purpuric lesions at the extremities were negative in all patients. Skin lesion biopsy for histological and immunohistochemical evaluation was performed in two cases and was consistent with chilblain. PCR-assay on skin lesion biopsy for Parvovirus B19, *Mycoplasma pneumoniae* and SARS-CoV-2 was performed in a patient and resulted negative. Common precipitating and risk factors were	During the COVID-19 pandemic, a "cluster" of primary chilblains developed in predisposed subjects, mainly teenagers, due to cold exposure in the lockdown period.	Iria N, Annalucia V, Ilaria C, et al. Major cluster of pediatric " true " primary chilblains during the COVID-19 pandemic: a consequence of lifestyle changes due to lockdown [published online 2020 Jun 13]. J Eur Acad Dermatol Venereol. doi:10.1111/jdv.16751

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					identified: physical (cold and wet extremities, low BMI), cold and wet indoor and outdoor environment, behaviors, habits, lifestyle.		
Pregnancy, neonates, mother-newborn separation, labor and delivery, New Jersey, USA	13-Jun-20	The Impact of COVID-19 Infection on Labor and Delivery, Newborn Nursery, and Neonatal Intensive Care Unit: Prospective Observational Data From a Single Hospital System	American Journal of Perinatology	Original Article	Between April 21 and May 5, 2020, a total of 78 pregnant women (3.6% of deliveries) were identified by screening history or examination to be COVID-19 positive or possible positives. Of the mothers who were tested after admission, 28% tested positive for SARS-CoV-2. Isolation between mother and infant was recommended in 62 cases, either because the mother was positive for SARS-CoV-2 or because the test was still pending. Fifty-four families (87%) agreed to isolation and separation. The majority of infants, 51 (94%), were initially isolated on the newborn nursery. Six needed NICU admission. No infants had clinical evidence of symptomatic COVID-19 infection. Fourteen infants whose mothers were positive for SARS-CoV-2, and who had been separated from the mother at birth were tested for SARS-CoV-2 postnatally. All were negative.	This study suggests that SARS-CoV-2 transmission from mother to newborn seems to be uncommon if appropriate separation measures are performed at birth.	Griffin I, Benarba F, Peters C, et al. The Impact of COVID-19 Infection on Labor and Delivery, Newborn Nursery, and Neonatal Intensive Care Unit: Prospective Observational Data from a Single Hospital System [published online 2020 Jun 13]. Am J Perinatol. doi:10.1055/s-0040-1713416
MIS-C, Kawasaki Disease, inflammatory shock	12-Jun-20	Is it Kawasaki shock syndrome, Kawasaki-like disease or pediatric inflammatory multisystem disease? The importance of semantic in the era of COVID-19 pandemic	Rheumatic & Musculoskeletal Diseases	Review	In this review, the authors compare clinical features of MIS-C and Kawasaki Disease (KD). There has been considerable debate over whether MIS-C should be categorized as a new manifestation of KD, KD-like, or another condition entirely. KD is a medium-sized vasculitis unassociated with shock. Rates of KD in countries with the highest pre-pandemic incidence have not increased during the pandemic. Notably, these countries are also those that were first affected by the COVID-19 pandemic. Evidence of viral infections triggering KD exists, but there is currently no data supporting a possible role of SARS-CoV-2 in classic KD pathogenesis. MIS-C is associated with SARS-CoV-2 infection and hyper-inflammatory shock. In one patient cohort from Italy, MIS-C patients met criteria for typical and atypical KD; however, their clinical and biochemical features differed from KD patients seen in previous years. The authors conclude that, despite similarities between KD and MIS-C, they are separate and unrelated conditions. The authors provide specific treatment recommendations for clinicians based on patient symptoms.	This review compares clinical features of MIS-C and Kawasaki Disease. The authors ultimately determine that the two conditions are unrelated and provide specific treatment recommendations for clinicians.	Koné-Paut I, Cimaz R. Is it Kawasaki shock syndrome, Kawasaki-like disease or pediatric inflammatory multisystem disease? The importance of semantic in the era of COVID-19 pandemicRMD Open 2020;6:e001333. doi: 10.1136/rmdopen-2020-001333
COVID-19, adolescents, social deprivation, mental health	12-Jun-20	The effects of social deprivation on adolescent development and mental health	The Lancet	Viewpoint	Adolescence (the stage between 10 and 24 years) is a period of life characterized by heightened sensitivity to social stimuli and the increased need for peer interaction. The physical distancing measures mandated globally to contain the spread of COVID-19 are radically reducing adolescents' opportunities to engage in face-to-face social contact outside their household. In this interdisciplinary viewpoint, the authors describe literature from a variety of domains that highlight how social deprivation in adolescence might have far-reaching consequences. However, the decrease in adolescent face-to-face contact might be less detrimental due to widespread access to digital forms of social interaction through technologies such as social media. The findings highlight how physical distancing might have a disproportionate effect on an age group for whom peer interaction is a vital aspect of development.	There have been serious adverse effects of the COVID-19 pandemic, and the physiccal distancing measures that have been put in place because of it, on the mental health of adolescents.	Orben A, Tomova L, Blakemore S. The effects of social deprivation on adolescent development and mental health. Lancet Child Adolesc Health. 2020;4(8):634-640. doi:10.1016/s2352-4642(20)30186-3
anesthesia, spinal; cesarean section	12-Jun-20	Successful Anesthetic Management in	American Journal of Case Reports	Case Report	The authors review the case of a 29-year-old pregnant female with history of one previous cesarean delivery. She showed mild respiratory symptoms and tested positive for COVID-19 at 37.4 weeks of gestation. The patient opted for	This report documents the case of a COVID-19 positive woman with an	Bani Hani DA, Alsharaydeh I, Bataineh AM, et al. Successful

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		Cesarean Section for Pregnant Woman with COVID-19			a repeat cesarean birth, which was performed at 39.3 weeks of gestation. Spinal anesthesia was administered for the procedure, and the anesthesia team wore full PPE, including face shields, N95 respirators and surgical masks, and double gloves. The delivery was uncomplicated, and no staff experienced cross-infection. The authors recommend spinal rather than general anesthesia for cesarean deliveries in COVID-19 positive women, to minimize risk of respiratory depression in patients and risk of exposure for healthcare workers.	uncomplicated cesarean birth at term, under spinal anesthesia. The authors recommend spinal rather than general anesthesia for cesarean deliveries in COVID-19 positive women, for the protection of patients and staff.	Anesthetic Management in Cesarean Section for Pregnant Woman with COVID-19. Am J Case Rep. 2020;21:e925512. Published 2020 Jun 12. doi:10.12659/AJCR.925512
Anxiety, cystic fibrosis, pandemic	12-Jun-20	Effect of the COVID-19 pandemic on anxiety among children with cystic fibrosis and their mothers	Pediatric Pulmonology	Research Article	The authors of this study aimed to evaluate anxiety among children with cystic fibrosis (CF) and their mothers related to the COVID-19 pandemic. Forty-five patients with CF and their mothers were enrolled in the study, and the State and Trait Anxiety Inventory (STAI) was administered by teleconference with children aged 13 to 18 years old and their mothers. It was found that healthy children aged 13 to 18 years had significantly higher ($p<0.05$) state anxiety scores than age-matched children with CF. On the other hand, mothers of children with CF had significantly higher ($p<0.05$) trait anxiety scores than mothers of healthy children.	The COVID-19 pandemic may increase anxiety among mothers of children with CF as well as those with healthy children. However, COVID-19 had no effect on the anxiety of children with CF. Informing parents of children with CF about COVID-19 by teleconference may decrease anxiety .	Pınar Senkalfa B, Sismanlar Eyuboglu T, Aslan AT, et al. Effect of the COVID-19 pandemic on anxiety among children with cystic fibrosis and their mothers. Pediatr Pulmonol. 2020;55(8):2128-2134. doi:10.1002/ppul.24900
Immuno-therapy, pregnancy, reproductive failure	12-Jun-20	COVID-19 and Immunomodulation Treatment for Women With Reproductive Failures	Journal of Reproductive Immunology	Review	Many women with reproductive failures, which can occur during the peri-implantation period and pregnancy, are on immunotherapy due to underlying auto-immune diseases, cellular immune dysfunction, and rheumatic conditions. Pregnant women with a history of reproductive failures with immune etiologies (RFI) are vulnerable to COVID-19 infection. The authors aim to review the implications of data from previous coronavirus outbreaks and from the COVID-19 pandemic on this population. They also provide interim guidelines for immunotherapy in women with reproductive failures. They acknowledge that most current clinical data are based on observation and therefore, further validation is needed to support this evidence.	In pregnant women with reproductive failures with immune etiologies (RFI) and mild COVID-19, low-dose prednisone, heparin, tacrolimus, and IV Ig may have some beneficial effect on COVID-19. In those with a severe COVID-19 infection, immunotherapy for RFI should be curtailed unless indicated in the management of COVID-19.	Kwak-Kim J, Ota K, Sung N, et al. COVID-19 and immunomodulation treatment for women with reproductive failures [published online, 2020 Jun 12]. J Reprod Immunol. doi:10.1016/j.jri.2020.103168
Fetal hemoglobin, therapeutic targets, medical hypothesis, morbidity and mortality, pathogenesis	12-Jun-20	A hypothesis about the role of fetal hemoglobin in COVID-19	Medical Hypotheses	Original article: hypothesis	It has been shown that SARS-Co-V2 proteins can attack the heme on the 1-B chain of hemoglobin, causing separation of the iron from the porphyrin. Up to 80% of newborn hemoglobin is consistent with fetal hemoglobin, which is likely less susceptible to the virus than adult hemoglobin. This study observed a low prevalence and fatality of COVID-19 in countries with high rate of hemoglobinopathy carriers. Presence of this relation does not prove the hemoglobin structure as the deterministic factor for COVID-19 mortality and morbidity, and the role of hemoglobin structure in COVID-19 pathophysiology needs further evaluation. If hemoglobin structure can affect the pathogenesis of the COVID-19, it would be a suitable target for treatment.	This study poses a hypothesis that fetal hemoglobin may affect the pathogenesis of COVID-19, and suggests that treatments aimed at increasing fetal hemoglobin levels may be potential therapeutic targets.	Sotoudeh E, Sotoudeh H. A hypothesis about the role of fetal hemoglobin in COVID-19. 2020 Jun 12. Med Hypotheses. doi:10.1016/j.mehy.2020.109994
Children, Kawasaki disease, MIS-C,	12-Jun-20	Covid-19, Kawasaki Disease, and Multisystem Inflammatory	The Journal of Pediatrics	Letter to the Editor	There has been a rise in the number of critically ill children presenting with an unusual clinical picture; all have in common features of Kawasaki disease and a confirmed or suspected COVID-19 infection. Opportunities for prompt diagnosis and treatment have been missed or delayed due to lockdown	This brief letter describes concerns regarding the emerging clinical picture of Kawasaki-like disease and	Bassareo PP, Calcaterra G, Fanos V. Covid-19, Kawasaki disease, and Multisystem

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coronary artery aneurysms		Syndrome in Children			conditions and fear of infection in hospital settings. The authors echo a "call for action" to prevent Kawasaki-induced coronary artery aneurysms and related late complications in children.	its late complications in children, associated with COVID-19.	Inflammatory Syndrome in Children [published online 2020 Jun 12]. J Pediatr. doi:10.1016/j.jpeds.2020.06.033
Infant, clinical characteristics, breastfeeding, Iran	12-Jun-20	A 6 Months Old Infant With Fever, Dyspnea and Poor Feeding, Diagnosed With COVID-19	Travel Medicine and Infectious Disease	Case Report	On March 6, 2020, a 6-month-old male infant was admitted to a hospital in Tehran, Iran for dyspnea (without cough), poor feeding for 3 days, low grade fever, and increased heart rate and respiratory rate. Prior to becoming symptomatic, the child had been delivered premature and remained under observation in the NICU following birth by emergency cesarean section; he was normally breastfed. The most significant laboratory findings were lymphopenia and increased C-reactive protein. Chest X-ray showed ill-defined ground-glass opacities in both lungs. RT-PCR assay confirmed SARS-CoV-2 infection in both the infant and his asymptomatic mother. Following oxygen, fluids, electrolyte supplements and treatment with oseltamivir, the infant's condition progressively improved and began to tolerate breastfeeding. Formula feeding was added because breastfeeding was insufficient.	This is the first case of COVID-19 in an infant, diagnosed in Iran.	Jafari R, Cegolon L, Torkaman M, et al. A 6 months old infant with fever, dyspnea and poor feeding, diagnosed with COVID-19 [published online 2020 Jun 12]. Travel Med Infect Dis. doi:10.1016/j.tmaid.2020.101789
Pregnancy, clinical protocol, maternal-fetal management, childbirth	12-Jun-20	Coronavirus Disease 2019 in Pregnancy: A Clinical Management Protocol and Considerations for Practice	Fetal Diagnosis and Therapy	Review	In this review, the authors present an evidence-based protocol for the management of COVID-19 in pregnancy. They briefly contemplate all relevant aspects that a specialist in obstetrics and maternal medicine should know, ranging from basic concepts about the disease and protection measures in the obstetric setting to more specific aspects related to maternal-fetal management and childbirth. Both rooming-in and breastfeeding are acceptable under appropriate preventive measures.	A concise, evidence-based protocol for the clinical management of pregnant women with suspected or confirmed COVID-19 and their newborns is outlined.	López M, Gonce A, Meler E, et al. Coronavirus Disease 2019 in Pregnancy: A Clinical Management Protocol and Considerations for Practice [published online 2020 Jun 12]. Fetal Diagn Ther. doi:10.1159/000508487
Neonatal infection, breastfeeding, mother-newborn separation, vertical transmission, systematic review	12-Jun-20	Maternal Transmission of SARS-COV-2 to the Neonate, and Possible Routes for Such Transmission: A Systematic Review and Critical Analysis	BJOG: An International Journal of Obstetrics & Gynecology	Systematic Review	In this review, 49 studies included information on mode of delivery and neonatal infection status (n=666 neonates and 655 women). 28/666 (4%) neonates had confirmed COVID-19 infection postnatally. Of the 291 women who delivered vaginally, 8/292 (2.7%) neonates were positive. Of the 364 women who had a Caesarean birth, 20/374 (5.3%) neonates were positive. Of the 28 neonates with confirmed COVID-19 infection, 7 were breast fed, 3 formula fed, 1 was given expressed breast milk; in 17 neonates the method of infant feeding was not reported.	Neonatal COVID-19 infection is uncommon, rarely symptomatic, and the rate of infection is no greater when the baby is born vaginally, breastfed or allowed contact with the mother.	Walker KF, O'Donoghue K, Grace N, et al. Maternal transmission of SARS-COV-2 to the neonate, and possible routes for such transmission: A systematic review and critical analysis [published online 2020 Jun 12]. BJOG. doi:10.1111/1471-0528.16362
Pregnancy, neonatal infection, vertical transmission, diagnostic	12-Jun-20	Mechanisms and Evidence of Vertical Transmission of Infections in Pregnancy	Prenatal Diagnosis	Review Article	Despite reports of neonatal COVID-19, SARS-CoV-2 has not been consistently isolated in perinatal samples thus, definitive proof of transplacental infection is still lacking. Forty studies of COVID-19 pregnancies, reviewed here, suggest a lack of consensus on diagnostic strategy for congenital infection. While RT-PCR of neonatal swabs was universally performed, a wide range of clinical samples was screened including vaginal secretions (22.5%), amniotic fluid	The authors assessed investigative tools used to confirm maternal-fetal SARS-CoV-2 infection in various studies and discussed known protective	Mahyuddin AP, Kanneganti A, Wong J, et al. Mechanisms and evidence of vertical transmission of infections in pregnancy including

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strategy, placental barrier		Including SARS-CoV-2			(35%), breast milk (22.5%) and umbilical cord blood. Neonatal COVID-19 was reported in eight studies, two of which were based on the detection of SARS-CoV-2 IgM in neonatal blood. Histological examination demonstrated sparse viral particles, vascular malperfusion and inflammation in the placenta from pregnant women with COVID-19. The paucity of placental co-expression of ACE-2 and TMPRSS2, two receptors involved in cytoplasmic entry of SARS-CoV-2, may explain its relative insensitivity to transplacental infection. Viral interactions may utilize membrane receptors other than ACE-2 thus, tissue susceptibility may be broader than currently known.	mechanisms of the placental barrier that prevent transplacental pathogen migration.	SARS-CoV-2 [published online 2020 Jun 12]. Prenat Diagn. doi:10.1002/pd.5765
Children, MIS-C, PIMS-TS, Kawasaki disease, hyper-inflammatory syndrome, cardiac features, UK	12-Jun-20	Paediatric Inflammatory Multisystem Syndrome: Temporally Associated With SARS-CoV-2 (PIMS-TS): Cardiac Features, Management and Short-Term Outcomes at a UK Tertiary Paediatric Hospital	Pediatric Cardiology	Original Article	The authors describe cardiac findings and short-term outcomes in children with Pediatric Inflammatory Multisystem Syndrome-temporally associated with SARS-CoV-2 (PIMS-TS) at a tertiary children's hospital in the UK. Fifteen children (median age 8.8 years, IQR 6.4-11.2 years) were included; all were from African/Afro-Caribbean, South Asian, Mixed or other minority ethnic groups. All showed raised inflammatory/cardiac markers (CRP, ferritin, Troponin I, CK and pro-BNP). Transient valve regurgitation was present in 10 patients (67%). Left Ventricular ejection fraction was reduced in 12 (80%), fractional shortening in 8 (53%) with resolution in all but 2. Fourteen (93%) had coronary artery abnormalities, with normalization in 6. ECG abnormalities were present in 9 (60%) which normalized in 6 by discharge. Ten (67%) needed inotropes and/or vasopressors. None needed extracorporeal life support. All patients were discharged alive.	All children with PIMS-TS in this cohort had cardiac involvement to a degree that was significantly more than other published series.	Ramcharan T, Nolan O, Lai CY, et al. Paediatric Inflammatory Multisystem Syndrome: Temporally Associated with SARS-CoV-2 (PIMS-TS): Cardiac Features, Management and Short-Term Outcomes at a UK Tertiary Paediatric Hospital [published online 2020 Jun 12]. Pediatr Cardiol. doi:10.1007/s00246-020-02391-2
Children, febrile neutropenia, chemotherapy, cardiac arrest, Mexico	12-Jun-20	SARS-CoV-2 Infection in Children With Febrile Neutropenia	Annals of Hematology	Letter to the Editor	Acute lymphoblastic leukemia (ALL) is the most common type of cancer in children. Febrile neutropenia (FN) is the most common and potentially lethal complication in patients undergoing chemotherapy. This report describes three cases of patients with ALL who presented with FN and COVID-19. All tested positive for SARS-CoV-2 by PCR; no other site of infection was found. Patients developed respiratory symptoms after the initial fever. One child progressed to respiratory distress and required invasive mechanical ventilation; ultimately, she developed cardiac arrest that did not respond to cardiopulmonary resuscitation.	The authors recommend that COVID-19 should be suspected in children with febrile neutropenia, even in the absence of other symptoms.	Flores V, Miranda R, Merino L, et al. SARS-CoV-2 infection in children with febrile neutropenia [published online 2020 Jun 12]. Ann Hematol. doi:10.1007/s00277-020-04115-1
Infant, fulminant myocarditis, pathology, Turkey	12-Jun-20	Fulminant COVID-19-related Myocarditis in an Infant	European Heart Journal	Cardiovascular Flashlight	A 2-year-old boy with a history of COVID-19 positive patient contact was hospitalized with nausea, vomiting, and poor oral intake. Chest X-ray (CXR) demonstrated bilateral interstitial infiltration. RT–PCR was negative for SARS-CoV-2. He swiftly developed respiratory distress on the second day and was transferred to the paediatric intensive care unit, where he was promptly intubated. Laboratory and imaging findings provided evidence of severe cardiac failure. Biopsy specimen of the myocardium taken during extracorporeal membrane oxygenation (ECMO) cannulation was compatible with dilated cardiomyopathy secondary to viral myocarditis when evaluated, with COVID-19 RT–PCR positivity in the cardiac tissue. Negative inflammatory indicators suggest the existence of direct damage by the virus.	To the authors' knowledge, this is the first case describing COVID-19-related fatal fulminant myocarditis demonstrated with pathological work-up in an infant.	Kesici S, Aykan HH, Orhan D, Bayrakci B. Fulminant COVID-19-related myocarditis in an infant [published online 2020 Jun 12]. Eur Heart J. doi:10.1093/eurheartj/ehaa515
Pregnancy, spinal anesthesia,	12-Jun-20	Successful Anesthetic Management in	American Journal of Case Reports	Case Report	A 29-year-old pregnant woman, at 37+4 weeks of gestation, was referred to the authors' center on March 28, 2020, after she had tested positive for COVID-19. She was in stable condition, and the cesarean section (CS) was	Special precautions should be considered when pregnant women are	Bani Hani DA, Alsharaydeh I, Bataineh AM, et al. Successful

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cesarean section, Jordan		Cesarean Section for Pregnant Woman With COVID-19			planned after she reached term. Through spinal anesthesia, CS was performed successfully without complication. The anesthesia team used full personal protection equipment. A female neonate was delivered and tested negative for COVID-19. No medical staff cross-infection was reported.	undergoing CS. Spinal anesthesia is preferred over general anesthesia.	Anesthetic Management in Cesarean Section for Pregnant Woman with COVID-19. Am J Case Rep. 2020;21:e925512. doi:10.12659/AJCR.925512
Children, antibodies, IgM, IgG, vertical transmission, systematic review	12-Jun-20	A systematic review on the levels of antibodies in COVID-19 virus exposed but negative newborns: a possible vertical transmission of IgG/ IgM	medRxiv	Preprint (not peer reviewed)	In total, 486 abstracts were screened, and 63 full-text articles were assessed in this systematic review; 6 met the inclusion criteria for qualitative analysis. Two articles were included in quantitative analysis of anti-SARS-CoV-2 IgG/ IgM levels. The median antibody levels were 75.49AU/mL (range: 7.25AU/mL-140.32AU/mL) and 3.79AU/mL (range: 0.16AU/mL-45.83AU/mL) (*P*=0.0041) for anti-SARS-CoV-2 IgG and IgM, respectively. There were high levels of IgG but low IgM against SARS-CoV-2 (using <10 AU/mL as a reference range) among COVID-19 virus exposed but negative newborns.	Using data on IgG/IgM levels among infants born to mothers with COVID-19, this review suggest a possible natural passive immunity against COVID-19 virus.	Bwire GM, Njiro BJ. A systematic review on the levels of antibodies in COVID-19 virus exposed but negative newborns: a possible vertical transmission of IgG/ IgM [published online 2020 Jun 12]. medRxiv. doi:10.1101/2020.06.09.20127118
Pregnancy, fetal anomaly scan, labor, postpartum depression, domestic abuse, Netherlands	12-Jun-20	Collateral Damage of the covid-19 Pandemic: A Dutch Perinatal Perspective	The BMJ	Letter	Pregnant women may be more hesitant to visit the hospital if they perceive an increased risk of infection. Depending on gestational age and medical and social status, this may be detrimental. For example, many cancellations for fetal anomaly scans have been noted, disrupting the opportunity for women to make an informed choice of whether or not to terminate a pregnancy. In addition, partners are not allowed to be present during labor at many hospitals, which may lead to long-term neonatal bonding problems as well as parental psychosocial complications. Women, especially those who are vulnerable, need added monitoring for postpartum depression and domestic abuse.	Given the potential for detrimental indirect effects of the COVID-19 pandemic on pregnant women, the authors call for monitoring of these adverse sequelae and secondary prevention programs.	Verweij EJ, M'hamdi HI, Steegers EAP, Reiss IKM, Schoenmakers S. Collateral damage of the covid-19 pandemic: a Dutch perinatal perspective. BMJ. 2020;369:m2326. doi:10.1136/bmj.m2326
COVID-19; children; health management; vertical transmission	11-Jun-20	Managing COVID-19 disease in pediatric patients	Cleveland Clinic Journal of Medicine	Article	The authors discuss the management of COVID-19 in pediatric patients, as of June 2020. Children are less likely to be infected with SARS-CoV-2 than adults and often have a milder disease course and lower case fatality rate. However, there have been a small subset of older children and young adults with multisystem inflammatory syndrome; these cases require early detection, as they require intensive multi-disciplinary care. Given the large numbers of COVID-19-positive children who are asymptomatic or with a mild clinical presentation, the importance of social distancing, use of cloth face masks (except in children <2 years old or those who cannot remove the mask without assistance), and proper hand hygiene should be emphasized, as these patients may play an important role in disease transmission. For severely sick pediatric patients, guidelines from the Pediatric Infectious Disease Society suggest using remdesivir on a case-by-case basis, taking into consideration the respiratory support needs and individual risk factors of disease progression, including young age, immune status, and underlying cardiovascular and pulmonary diseases. A few studies have described possible vertical transmission of SARS-CoV-2 to newborns from infected mothers.	The authors discuss the management of COVID-19 in pediatric patients. Children are less likely to be infected with SARS-CoV-2 than adults and often have a milder disease course and lower case fatality rate. However, the importance of social distancing, use of cloth face masks (except in children <2 years or those who cannot remove the mask without assistance), and proper hand hygiene should be emphasized, as these patients may play an important role in disease transmission.	Mon EY, Mandelia Y. Managing COVID-19 disease in pediatric patients. Cleve Clin J Med. 2020. doi:10.3949/ccjm.87a.ccc022.

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Anxiety, depression, mental health, couples, pregnancy, Iran	11-Jun-20	Associations Between Fear of COVID-19, Mental Health, and Preventive Behaviours Across Pregnant Women and Husbands: An Actor-Partner Interdependence Modelling	International Journal of Mental Health and Addiction	Original Article	Mental health problems during pregnancy have been reported to have detrimental consequences on the woman and her fetus. This cross-sectional study examined the actor-partner interdependence effect of fear of COVID-19 among Iranian pregnant women and their husbands and its association with their mental health and COVID-19 preventive behaviors. A total of 290 pregnant women and their husbands (N = 580; response rate 73%) were randomly selected and assessed for fear of COVID-19, depression, anxiety, suicidal intention, mental quality of life, and COVID-19 preventive behaviors. The pregnant wives' actor effect of fear of COVID-19 was significantly associated with depression ($p < 0.001$), suicidal intention ($p < 0.001$), mental quality of life ($p < 0.001$), and COVID-19 preventive behaviors ($p < 0.01$) for both pregnant wives and their husbands. Significant effects were also found for husbands' and wives' fear of COVID-19 on their partner's depression, suicide ideation, anxiety, mental quality of life, and preventive behaviors. Based on these findings, couples may benefit from psychoeducation that focuses on the effect of mental health problems on pregnant women and the fetus.	This cross-sectional study examined the actor-partner interdependence effect of fear of COVID-19 among Iranian pregnant women and their husbands and its association with their mental health and COVID-19 preventive behaviors. Results show significant effects of the fear of COVID-19 on both the actor's and their partner's mental health and COVID-19 preventive behaviors.	Ahorsu DK, Imani V, Lin CY, et al. Associations Between Fear of COVID-19, Mental Health, and Preventive Behaviors Across Pregnant Women and Husbands: An Actor-Partner Interdependence Modelling [published online, 2020 Jun 11]. Int J Ment Health Addict. 2020;1-15. doi:10.1007/s11469-020-00340-x
Children, school closure, virtual learning, mental health, Australia	11-Jun-20	Consequences of physical distancing emanating from the COVID-19 pandemic: An Australian perspective	Paediatric Respiratory Reviews	Review Article	The COVID-19 pandemic brought people together at home, which has both benefits and challenges. It affected people differently based on their age, health status, resilience, family support structures, and socio-economic background. In this article, the authors assess the impact of the pandemic and previous pandemics on high-income countries, including Australia. The initial wave of infection placed the elderly at the greatest risk of death. Later on, protective measures such as physical distancing, self-isolation, increased awareness of hygiene practices, and school closures with distance learning had a considerable immediate impact on children and families and may also have ramifications for years to come.	In this review article, the authors describe the use of physical distancing in pandemic control. They also describe the psychosocial costs and societal benefits of this method.	Fitzgerald DA, Nunn K, Isaacs D. Consequences of physical distancing emanating from the COVID-19 pandemic: An Australian perspective [published online, 2020 Jun 11]. Paediatr Respir Rev. doi:10.1016/j.prrv.2020.06.005
Acute lung injury, thrombosis, pediatric, inflammation	11-Jun-20	Thromboinflammation in COVID-19 Acute Lung Injury	Pediatric Respiratory Reviews	Review Article	The most severe form of COVID-19 presents with fever and shortness of breath, which rapidly deteriorates to respiratory failure and acute lung injury (ALI). COVID-19 also presents with a severe coagulopathy with a high rate of venous thrombo-embolism. Autopsy studies have revealed co-localized thrombosis and inflammation within the pulmonary capillary vasculature. While the majority of published data are from adult patients, there are parallels in pediatric patients. In the author's experience at a COVID-19 epicenter in the Bronx, New York, USA, children and young adults do develop both coagulopathy and ALI from COVID-19. In this review article, the author discusses ALI in COVID-19 from a hematological perspective with a discussion about the distinct aspects of coagulation in COVID-19. Current and potential interventions targeting the multiple thrombo-inflammatory mechanisms in the infection are also discussed.	The author reviews the mechanisms of thrombo-inflammation involved in acute lung injury from COVID-19. The implicated pathways offer multiple targets for the mitigation of COVID-19 coagulopathy and potential amelioration of morbidity and mortality from acute lung injury in COVID-19.	Mitchell WB. Thromboinflammation in COVID-19 acute lung injury [published online, 2020 Jun 11]. Paediatr Respir Rev. doi:10.1016/j.prrv.2020.06.004
Pregnancy, neonates, clinical characteristics, treatment,	11-Jun-20	Lessons Learned So Far From the Pandemic: A Review on Pregnants and	The Eurasian Journal of Medicine	Review	The authors conducted a review of articles published from December 2019-April 2020 regarding SARS-Cov-2 infection during pregnancy and the neonatal period. The majority of pregnant women with COVID-19 infection were in their third trimester at the time of infection and presented with fever and cough. Ground-glass opacities and consolidation on computed tomography were reported to be common. COVID-19 is proposed to have a milder course	This article summarizes information known about COVID-19 infection in pregnancy from December 2019 to April 2020.	Marim F, Karadogan D, Eyuboglu TS, et al. Lessons Learned so Far from the Pandemic: A Review on Pregnants and Neonates with COVID-19.

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disease severity, Turkey		Neonates With COVID-19			than SARS and MERS in pregnant women. Hydroxychloroquine and anti-proteases (lopinavir/ritonavir) were reported to be safe; however, therapeutic efficacy and safety of remdesivir still lack evidence. As ribavirin and favipiravir have teratogenic effects, their use is debated. There is no clear evidence of vertical transmission of SARS-CoV-2 during delivery. Occupational safety issues of pregnant healthcare workers should be considered, as their risk to develop severe pneumonia is higher because of altered maternal immune response. Knowledge about neonatal outcomes of COVID-19 was based on studies of the last trimester of pregnancy.		Eurasian J Med. 2020;52(2):202-210. doi:10.5152/eurasianjmed.2020.20118
Children, hospital operations, Seattle, New York, New Orleans, USA	11-Jun-20	Responses of Three Urban U.S. Children's Hospitals to COVID-19: Seattle, New York and New Orleans	Pediatric Respiratory Reviews	Review	The authors reflect on the experiences of selected children's hospitals in Seattle, New York City, and New Orleans, three of the "hotspots" in the U.S. and share common aspects and lessons learned from these experiences. The authors discuss approaches taken at these hospitals to increasing testing capabilities, implementing cohorting of patients, personal protective equipment shortage concerns and utilization, limiting workplace exposure, and information sharing and communication within each hospital.	With emerging knowledge about SARS-CoV-2 and by accumulating experience managing it, three children's hospitals in three U.S. cities independently developed solutions which can help inform responses to future recurrences or new pandemics should they arise.	Jain PN, Finger L, Schieffelin JS, et al. Responses of three urban U.S. Children's Hospitals to COVID-19: Seattle, New York and New Orleans [published online 2020 Jun 11]. Pediatr Respir Rev. 2020;S1526-0542(20)30087-7. doi:10.1016/j.prrv.2020.06.002
Laboratory markers, diagnostics, pregnant women, elderly, neonates, children	11-Jun-20	Laboratory Findings of COVID-19 Infection Are Conflicting in Different Age Groups and Pregnant Women: A Literature Review	Archives of Medical Research	Review article	This review described the COVID-19 laboratory findings in neonates, children, adults, elderly and pregnant women. PubMed, Scopus and Web of Science were searched using the keywords "COVID-19" or "2019-nCoV" or "2019 novel coronavirus" or "SARS-CoV-2" without language or date restrictions. Laboratory markers were overall conflicting in neonates. In children, laboratory results showed normal or temporary elevated C-reactive protein (CRP), conflicting WBC count results, and procalcitonin elevation. The most reliable laboratory markers in adults were lymphopenia and elevated lactate dehydrogenase (LDH), in elderly patients was lymphopenia and elevated CRP and LDH, and in pregnant women was leukocytosis and elevated neutrophil ratio.	Laboratory markers in patients with COVID-19 differ between neonates, children, adults, elderly, and pregnant women.	Vakili S, Savardashtaki A, Jamalnia S, et al. Laboratory Findings of COVID-19 Infection are Conflicting in Different Age Groups and Pregnant Women: A Literature Review [published 2020 Jun 11]. Arch Med Res. doi:10.1016/j.arcmed.2020.06.007
Children, lockdown, chronic conditions, abuse and neglect, Bangladesh	11-Jun-20	Risks to Bangladeshi Children and Young People During covid-19 Outbreak	The BMJ	Letter	This letter summarizes key areas of concern pertaining to children and young people in Bangladesh during the COVID-19 pandemic lockdowns. A sedentary lifestyle during lockdown may increase the incidence of obesity and other chronic diseases. Child abuse may increase due to financial stress in families, and other adverse psychological effects are possible due to COVID-19 related stressors. Closure of schools may adversely affect education, and undernutrition could increase. Child labor is common, and many children are homeless, making them more vulnerable economically and to COVID-19 infection, respectively. Community based programs and strategies are needed to reduce the risk of adverse outcomes.	This letter outlines medical, nutritional, educational and other concerns for Bangladeshi children and young people, also emphasizing the need for action to mitigate adverse outcomes.	Rahman MS, Lassi ZS, Shariful Islam SM. Risks to Bangladeshi children and young people during covid-19 outbreak. BMJ. 2020;369:m2299. Published 2020 Jun 11. doi:10.1136/bmj.m2299
Pregnancy, vertical transmission, maternal outcomes,	11-Jun-20	Effects of COVID-19 Infection During Pregnancy and Neonatal	International Journal of Environmental Research and Public Health	Review Article	In this systematic review, 49 papers published on pregnancy and neonatal prognosis in COVID-19 were eligible. A total of 755 pregnant women and 598 infants were assessed; more than half of pregnant women had C-sections (379/65%). Only 493 (82%) infants were tested for SARS-CoV-2, nine (2%) of whom tested positive. There is, however, no evidence of vertical transmission	Based on this systematic review, potential worsening of the clinical conditions of pregnant women infected	Lopes de Sousa ÁF, Carvalho HEF, Oliveira LB, et al. Effects of COVID-19 Infection during Pregnancy and Neonatal

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neonatal prognosis, systematic review		Prognosis: What Is the Evidence?			based on what has been assessed so far, considering there are knowledge gaps concerning the care provided during and after delivery, as well as a lack of suitable biological samples for testing SARS-CoV-2.	with SARS-CoV-2 cannot be ruled out.	Prognosis: What Is the Evidence?. Int J Environ Res Public Health. 2020;17(11):E4176. doi:10.3390/ijerph17114176
Immigrants, sexual and reproductive health, pregnancy, USA	11-Jun-20	COVID-19 and Immigrants' Access to Sexual and Reproductive Health Services in the United States.	Perspectives on Sexual and Reproductive Health	Viewpoint	Immigrants represent 14% (44.4 million people) of the U.S. population and account for 17% of women of reproductive age and 23% of births. Although immigrants' sexual and reproductive health (SRH) is not currently well documented, many immigrant groups face intractable social, economic and political barriers to obtaining SRH care, and are now being largely overlooked in COVID-19 relief efforts, Public Health experts, policymakers and advocates need to anticipate and mitigate the SRH risks of COVID-19 for immigrant populations. Additional resources must be directed to the SRH workforce and critical preventive SRH services, including abortion care, contraceptive care, pregnancy-related care, and sexually transmitted infections screening and treatment, can help alleviate downstream health care demand.	Potential consequences of the COVID-19 pandemic on the sexual and reproductive health of immigrants in the United States are discussed, along with recommendations for action to mitigate these risks.	Desai S, Samari G. COVID-19 and Immigrants' Access to Sexual and Reproductive Health Services in the United States [published online 2020 Jun 12]. Perspect Sex Reprod Health. doi:10.1363/psrh.12150
Children, age-related susceptibility, clotting, endothelium	11-Jun-20	Why Children Avoid the Worst Coronavirus Complications Might Lie in Their Arteries	Nature	News	A growing number of researchers think that the difference between adults and children, in terms of susceptibility to COVID-19, might be the condition of their blood vessels. Many adults with serious COVID-19 experience clotting in their blood vessels, linked to malfunctioning endothelium, which leads to heart attacks or strokes. Endothelium is typically in much better condition in children than adults. Children's blood vessels may be able to withstand a viral attack better than those of adults. Researchers have launched experiments to better understand this mechanism.	An emerging theory of why children are less susceptible to COVID-19 than adults centers on the better functioning endothelium and lower risk for clotting among children.	Cyranoski D. Why children avoid the worst coronavirus complications might lie in their arteries. Nature. 2020;582(7812):324-325. doi:10.1038/d41586-020-01692-z
Family clusters, viral transmission, children, asymptomatic, pauci-symptomatic, China	11-Jun-20	Transmission Potential of Asymptomatic and Paucisymptomatic Severe Acute Respiratory Syndrome Coronavirus 2 Infections: A 3-Family Cluster Study in China	The Journal of Infectious Diseases	Original Article	Data concerning the transmission of SARS-CoV-2 in asymptomatic and paucisymptomatic patients are lacking. The authors report a 3-family cluster of infections involving asymptomatic and paucisymptomatic transmission. Eight of 15 (53%) members from 3 families were confirmed with SARS-CoV-2 infection. Of 8 patients, 3 were asymptomatic and 1 was paucisymptomatic. An asymptomatic mother transmitted the virus to her son, and a paucisymptomatic father transmitted the virus to his 3-month-old daughter. SARS-CoV-2 was detected in the environment of 1 household. The complete genomes of SARS-CoV-2 from the patients were >99.9% identical and were clustered with other SARS-CoV-2 sequences reported from China and other countries.	In this study of family clusters of SARS-CoV-2 infection in China, viral transmission from asymptomatic or paucisymptomatic parents to their children was noted.	Jiang XL, Zhang XL, Zhao XN, et al. Transmission Potential of Asymptomatic and Paucisymptomatic Severe Acute Respiratory Syndrome Coronavirus 2 Infections: A 3-Family Cluster Study in China. J Infect Dis. 2020;221(12):1948-1952. doi:10.1093/infdis/jiaa206
Children, epidemiology, incidence, disease severity, surveillance, Italy	11-Jun-20	Low Risk for SARS-CoV2 Symptomatic Infection and Early Complications in Pediatric Patients During the Ongoing CoVID19	Clinical Microbiology and Infection	Letter to the Editor	The Lombardy Region in Northern Italy has recently been involved in the largest COVID-19 outbreak outside China. Among a total of 3220 SARS-CoV-2 positive patients detected at the Regional Reference Laboratory, only 0.8% (27/3220) were pediatric (<18 years), while 99.2% were adults. The age of pediatric patients ranged from 4 months to 17 years (median, 11 years). 48% (13/27) were aged 12-17 years, 26% (7/27) were aged 6-11 years, and 26% (7/27) were <6 years. In addition, the majority of pediatric COVID-19 cases were clinically mild (70%, 19/27), and SARS-CoV-2 detection was possible due to proactive search of contacts.	Epidemiological data confirm low incidence of SARS-CoV-2 infection and relatively mild disease among children in the affected Lombardy region of northern Italy.	Rovida F, Cereda D, Novati S, et al. Low risk for SARS-CoV2 symptomatic infection and early complications in pediatric patients during the ongoing CoVID19 epidemics in Lombardy [published

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		Epidemics in Lombardy					online 2020 Jun 11]. Clin Microbiol Infect. doi:10.1016/j.cmi.2020.06.006
Children, pneumonia, Influenza A, clinical characteristics, laboratory findings, chest CT imaging, China	11-Jun-20	Comparison of Hospitalized Patients With Pneumonia Caused by COVID-19 and Influenza A in Children Under 5 Years	International Journal of Infectious Diseases	Original Article	In this retrospective study, two groups of COVID-19 patients (n=57) and influenza A patients (n=59) were enrolled. The proportions of cough (70.2%), fever (54.4%) and gastrointestinal symptoms (14.1%) in COVID-19 patients were lower than those of influenza A patients (98.3%, *P*<0.001; 84.7%, *P*<0.001; and 35.6%, *P*=0.007; respectively). In addition, COVID-19 patients showed significantly lower levels of leukocytes (7.87 vs. 9.89×10**9**/L, *P*=0.027), neutrophils (2.43 vs. 5.16×10**9**/L, *P*<0.001), C-reactive protein (CRP; 3.7 vs. 15.1mg/L, *P*=0.001) and procalcitonin (PCT; 0.09 vs. 0.68mm/h, *P*<0.001), while lymphocyte levels (4.58 vs. 3.56×10**9**/L; *P*=0.006) were significantly higher compared with influenza A patients. In terms of CT imaging, ground-glass opacification in chest CT was more common in COVID-19 patients than in influenza A patients (42.1% vs. 15%, *P*=0.032). In contrast, consolidation was more common in influenza A patients (25%) than that in COVID-19 patients (5.2%, *P*=0.025).	The clinical manifestations and laboratory tests of SARS-CoV-2 infected children are milder than those of influenza A infected children under 5 years.	Li Y, Wang H, Wang F, et al. Comparison of Hospitalized Patients with pneumonia caused by COVID-19 and influenza A in children under 5 years [published online 2020 Jun 11]. Int J Infect Dis. doi:10.1016/j.ijid.2020.06.026
Children, MIS-C, Kawasaki disease, myocarditis, IV immuno-globulins, France	11-Jun-20	Paediatric Multisystem Inflammatory Syndrome Temporally Associated With SARS-CoV-2 Mimicking Kawasaki Disease (Kawa-COVID-19): A Multicentre Cohort	Annals of the Rheumatic Diseases	Original Article	In this multi-center compilation of patients with a phenotype resembling Kawasaki disease (KD) in the Paris region since April 2020, 16 patients were included (sex ratio=1, median age 10 years IQR (4·7 to 12.5)). SARS-CoV-2 was detected in 11 cases (69%), while a further five cases had documented recent contact with a PCR-positive individual (31%). Cardiac involvement included myocarditis in 44% (n=7). Factors prognostic for the development of severe disease (i.e. requiring intensive care, n=7) were age over 5 years and ferritinemia >1400 µg/L. Only five patients (31%) were successfully treated with a single IV immunoglobulin infusion, while 10 patients (62%) required a second line of treatment. The Kawa-COVID-19 cohort differed from a comparator group of 'classical' KD by older age at onset 10 vs 2 years (*p*<0.0001), lower platelet count (188 vs 383 G/L (*p*<0.0001)), a higher rate of myocarditis 7/16 vs 3/220 (*p*=0.0001) and resistance to first IV immunoglobulin treatment 10/16 vs 45/220 (*p*=0.004).	Kawa-COVID-19 likely represents a new systemic inflammatory syndrome temporally associated with SARS-CoV-2 infection in children.	Pouletty M, Borocco C, Ouldali N, et al. Paediatric multisystem inflammatory syndrome temporally associated with SARS-CoV-2 mimicking Kawasaki disease (Kawa-COVID-19): a multicentre cohort [published online 2020 Jun 11]. Ann Rheum Dis. 2020;annrheumdis-2020-217960.
Infants, febrile, clinical course, urinary tract infections, New York, USA	11-Jun-20	Novel Coronavirus Infection in Febrile Infants Aged 60 Days and Younger	Pediatrics	Case Report	This case series describes the clinical course and outcomes of 7 febrile infants (aged ≤60 days) with confirmed SARS-CoV-2 infection. No infant had severe outcomes, including the need for mechanical ventilation or intensive care, during hospitalization of 7-day follow up. Two infants had concurrent urinary tract infections which were treated with antibiotics.	While a small sample, these data suggest that febrile infants with SARS-CoV-2 infection often have mild illness.	McLaren SH, Dayan PS, Fenster DB, et al. Novel Coronavirus Infection in Febrile Infants Aged 60 Days and Younger [published online 2020 Jun 11]. Pediatrics. doi:10.1542/peds.2020-1550
Children, MIS-C, epidemiology, coronary artery dilation	11-Jun-20	Multi-System Inflammatory Syndrome in Children in Association With COVID-19	Circulation	Original Article	Recent reports have emerged of multisystem inflammation in children (MIS-C), mimicking Kawasaki disease in some aspects of clinical presentation and course. Case definitions of this syndrome include association with COVID-19, however ascertainment of COVID-19 infection and exposure is hampered by the sensitivity and specificity of tests for SARS-CoV-2. In certain regions of Europe, the epidemiologic association between MIS-C and COVID-19 is well	This article reviews current knowledge of MIS-C in children, with attention to the syndrome's cardiovascular manifestations.	Simpson JM, Newburger JW. Multi-System Inflammatory Syndrome in Children in Association with COVID-19 [published online 2020 Jun 11].

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					established. Findings of coronary artery dilation and aneurysms among children with MIS-C have raised the spectre of long-term coronary artery sequelae akin to those seen in classical Kawasaki disease. The optimal treatment regimen for MIS-C is uncertain.		Circulation. doi:10.1161/CIRCULATIONAHA.120.048726
Children, comorbidities, immuno-suppression, shielding, school reopening, UK	11-Jun-20	Covid-19: Children With Conditions Managed in Primary Care May Not Need to Shield	The BMJ	News	Most children who are managed in a primary care setting for conditions such as asthma, diabetes, epilepsy, and kidney disease may not need to continue to shield and could return to school once they reopen, says new guidance from the Royal College of Pediatrics and Child Health. These include many children with conditions such as cerebral palsy and scoliosis for whom the benefits of school, in terms of access to therapies and developmental support, far outweigh the risk of covid-19 infection, the guidance states Children who should continue to shield include immunosuppressed children, who are at risk of severe infection, and both children who were born prematurely with have oxygen requirements and those with symptomatic heart failure.	Recent guidance from the Royal College of Paediatrics and Child Health from the UK describes groups of children who should continue to shield and those who may return to schools once they reopen.	Mahase E. Covid-19: Children with conditions managed in primary care may not need to shield. BMJ. 2020;369:m2374. doi:10.1136/bmj.m2374
Child, thoracic surgery, pulmonary disease, Spain	11-Jun-20	Thoracoscopic Bullectomy for Persistent Air Leak in a 14-Year-Old Child With COVID-19 Bilateral Pulmonary Disease	Journal of Laparo-endoscopic & Advanced Surgical Techniques	Original Article	This article presents the case of a 14-year-old girl with COVID-19 pulmonary disease and persistent air leak due to right apical bullae that required resection. Clinical, surgical, and safety implications are discussed. The role of thoracic minimally invasive surgery under COVID-19 conditions is also analyzed. The authors conclude that minimally invasive surgery for thoracic surgery remains safe if the current safety guidelines are followed closely.	COVID-19 impacts the standard indications, surgical strategies and postoperative care of some pulmonary conditions requiring intervention.	Giné C, Laín A, García L, López M. Thoracoscopic Bullectomy for Persistent Air Leak in a 14-Year-Old Child with COVID-19 Bilateral Pulmonary Disease [published online 2020 Jun 11]. J Laparoendosc Adv Surg Tech A. doi:10.1089/lap.2020.0289
Children, diagnostic delay, acute lymphoblastic leukemia, Italy	11-Jun-20	Collateral Effects of COVID-19 Pandemic in Pediatric Hematooncology: Fatalities Caused by Diagnostic Delay	Pediatric Blood & Cancer	Letter to the Editor	COVID-19 has deeply modified national health services with a profound impact on hospitals, and in particular emergency and intensive care unit (ICU) activities. As recently reported in Italy, pediatric emergency access has substantially decreased likely due to prevention of overcrowding in emergency rooms and fear of SARS-CoV-2 infection in the hospital setting. This report describes three children (2, 4, 5 years old) who arrived at the hospital with life-threatening conditions at the onset of acute lymphoblastic leukemia (ALL) between March 14 and April 10, 2020 at a hospital in Italy. Two cases were fatal; all children were negative for SARS-CoV-2.	Delayed diagnosis of pediatric ALL, likely due to collateral effects of the COVID-19 pandemic, resulted in two fatal cases described in this report.	Parasole R, Stellato P, Conter V, et al. Collateral effects of COVID-19 pandemic in pediatric hematooncology: Fatalities caused by diagnostic delay [published online 2020 Jun 11]. Pediatr Blood Cancer. doi:10.1002/pbc.28482
Child, skin rash, cutaneous manifestations, UK	11-Jun-20	Rash as a Presenting Complaint in a Child With COVID-19	Pediatric Dermatology	Brief Report	There is a growing body of literature regarding skin involvement in children with COVID-19, with reports of papulovesicular, petechial and widespread macular and papular lesions, as well as chilblains (pernio). In this case from the UK, a thirteen-year-old boy with confirmed COVID-19 presented with skin findings localized to the plantar aspects of the feet, axillae and lower limbs. The morphology was predominantly maculopapular but also included petechiae and annular lesions. He had intermittent mild flu-like symptoms for five days, and the skin changes fully resolved in 10-14 days.	This case contributes to growing literature on skin manifestations of COVID-19 in children.	Klimach A, Evans J, Stevens J, Creasey N. Rash as a presenting complaint in a child with COVID-19 [published online 2020 Jun 11]. Pediatr Dermatol. doi:10.1111/pde.14257
COVID-19; Kawasaki	1-Jul-20	Unleashing the mysterious link	Egyptian Pediatric	Review	In this review, received for publication in May 2020, the authors discuss the pediatric multi-inflammatory syndrome mimicking Kawasaki disease (KD)	In this review, the authors discuss the pediatric multi-	AbdelMassih AF, AbdelAzeam AS, Ayad A.

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disease; children		between COVID-19 and a famous childhood vasculitis: Kawasaki disease	Association Gazette		observed in some children that test positive for SARS-CoV-2. Typical characteristics of the syndrome include fever, rash, swelling of the hands and feet, peeling of skin, non-purulent conjunctival injection, lymphadenopathy, and coronary artery abnormalities. The Coronaviridea (CoV) family of viruses have been implicated in induction of several post-infectious vasculitides, namely, KD, acute hemorrhagic edema of infancy, and Henoch Schoenlein Purpura. Such vasculitis occurs in individuals genetically susceptible to vascular inflammation, and augmented inflammation leads to hypersecretion of cytokines, including IL-6. Shared genetic susceptibilities between KD and CoV include genes encoding for CD 40, HLA-B15:03, and ACE. The relationship between KD and CoV can help to predict the risk of inflammatory syndrome in COVID-19 patients, as individuals could be screened for increased levels of cytokines like IL-6. This relationship might also signify that classic treatment of KD with IV immunoglobulins (IVIG) might need to be replaced with anti-cytokine therapy in COVID-19 patients.	inflammatory syndrome mimicking Kawasaki disease (KD) observed in some children that test positive for SARS-CoV-2. There is strong evidence that Coronaviridea (CoV) can induce a state of post-infectious vasculitis in genetically predisposed individuals through augmented inflammation with hypersecretion of cytokines, including IL-6.	Unleashing the mysterious link between COVID-19 and a famous childhood vasculitis: Kawasaki disease. Egypt Pediatric Association Gaz. 2020;68,21. doi:10.1186/s43054-020-00029-9.
Argentina, intubation, pediatric	10-Jun-20	Critically-ill pediatric patients with COVID-19. An update	Archivos Argentino de Pediatrica	Review Article	This review summarizes current publications about the clinical course of COVID-19 and disease treatment in critically ill pediatric patients. Symptoms of the disease are usually mild in pediatric patients compared to adult populations, but approximately 6% of pediatric cases present with a severe course, typically patients younger than 1 year or with pre-existing comorbidities. Clinical conditions of critically-ill pediatric patients included severe pneumonia, acute respiratory distress syndrome, sepsis, septic shock, coagulation disorders, myocardial damage, gastro-intestinal dysfunction, high liver enzymes, and rhabdomyolysis. Among those patients who were critically ill and admitted to the ICU, the mortality rate was 5.5%. The authors discuss treatment options, including non-invasive ventilatory support, intubation and invasive mechanical ventilation, drug treatments, and other support therapies. The paucity of serious pediatric cases limits the conclusions that can be drawn regarding best practices and treatment.	This review discusses clinical presentation and possible treatment of COVID-19 in critically ill pediatric patients. The small number of pediatric cases to date hinders the possibility of making evidence-based recommendations for critically- ill patients.	Taffarel P, Baron FJ. Critically-ill pediatric patients with COVID-19. An update. Archivos Argentinos de Pediatria. 2020;118(5). doi:10.5546/aap.2020.eng.e454
Adolescent mental health, self-harm, suicide, psychotherapy, quarantine, UK	10-Jun-20	Lockdown and adolescent mental health: reflections from a child and adolescent psychotherapist	Wellcome Open Research	Article	The author, a child and adolescent psycho-analytic psychotherapist working in the UK National Health Service, explores the varied impacts of the COVID-19 pandemic and resulting 'lockdowns' on adolescents, their parents and the psychotherapists who work with them. The altered nature of mental health triage and treatment are discussed, including changes in time, space, boundaries, and outcomes due to the predominant use of teletherapy.	This article discusses the altered nature of psychotherapy as a result of the COVID-19 pandemic, and expresses concern for the current and future mental health of adolescents in the UK.	Catty J. Lockdown and adolescent mental health: reflections from a child and adolescent psychotherapist. [published online, 2020 Jun 10]. Wellcome Open Res. 2020;5:132. doi:10.12688/wellcomeopenres.15961.1
Children, surgery, Africa	10-Jun-20	Mitigating the Impact of COVID-19 on Children's Surgery in Africa	BMJ Global Health	Editorial	Pediatric surgical services in Africa may be significantly impacted during the COVID-19 pandemic. Rationing of surgical care and delaying of elective surgical cases may cause a significant backlog of needed surgical care. The mobility restrictions imposed on patients by shelter-in-place measures, as well as reduced income during the pandemic, may exacerbate delays in presentation that may adversely affect outcomes. Healthcare workers becoming infected with SARS-CoV-2 may exacerbate this, and therefore their protection should be prioritized; visitor policies are needed to reduce	The authors recommend that pediatric surgeons in Africa use context-specific strategies to minimize the pandemic's impact on patients and healthcare workers, with protection for	Mazingi D, Ihediwa G, Ford K, Ademuyiwa AO, Lakhoo K. Mitigating the impact of COVID-19 on children's surgery in Africa. BMJ Glob Health. 2020;5(6):e003016.

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					overcrowding and help with minimizing nosocomial transmission. Incidence of family violence and accidental household trauma may increase during the pandemic, increasing the need for pediatric surgery. Surgical training programs may also be disrupted.	healthcare workers as the top priority.	doi:10.1136/bmjgh-2020-003016
Skin disease, skin histopathology, dermatopathology, skin pathology	10-Jun-20	Histopathological Study of a Broad Spectrum of Skin Dermatoses in Patients Affected or Highly Suspected of Infection by COVID-19 in the Northern Part of Italy: Analysis of the Many Faces of the Viral-Induced Skin Diseases in Previous and New Reported Case	The American Journal of Dermatopathology	Original Research	The authors examined the clinical and histopathological features of several patients who were divided into 3 groups. The first group included 8 COVID-19–positive patients who were hospitalized and quarantined at home. The second group included children and young adults who presented with chilblain erythema, erythema multiforme, and urticaria-like lesions. This group of patients was negative for the COVID-19 gene sequences by PCR but had a high risk of COVID-19 infection. The third group included clinically heterogeneous and challenging lesions. The histopathological analysis of these cases showed a wide spectrum of histopathological patterns. What appears to be constant in all skin biopsies was the presence of prominent dilated blood vessels with a swollen endothelial layer, vessels engulfed with red blood cells, and perivascular infiltrates, consisting mainly of cytotoxic CD8+ lymphocytes and eosinophils.	The presence of urticarial lesions, chilblains, targetoid lesions, exanthema, maculohemorrhagic rash, or chickenpox-like lesions associated with the histopathological features should cause clinical dermatologists to suspect the possibility of COVID-19 infection.	Gianotti R, Recalcati S, Fantini F, et al. Histopathological Study of a Broad Spectrum of Skin Dermatoses in Patients Affected or Highly Suspected of Infection by COVID-19 in the Northern Part of Italy: Analysis of the Many Faces of the Viral-Induced Skin Diseases in Previous and New Reported Cases [published online, 2020 Jun 10]. Am J Dermatopathol. doi:10.1097/DAD.0000000000001707
Pneumonia, pregnancy, maternal and neonatal outcomes, maternal morbidity, preterm birth, respiratory failure, intubation, France	10-Jun-20	COVID-19 in Pregnancy Was Associated With Maternal Morbidity and Preterm Birth	American Journal of Obstetrics and Gynecology	Original Article	Some recent reports of severe maternal morbidity requiring intubation and of maternal deaths show the need for additional data about the impact of COVID-19 on pregnancy outcomes. This retrospective single-center study includes 54 pregnant women with laboratory-confirmed (n=38) or suspected (n=16) COVID-19 infection admitted to the Strasbourg University Hospital (France) from March 1 to April 3, 2020. Among women who gave birth, preterm deliveries were medically indicated for their COVID-19-related condition for 23.8% (5/21). Oxygen support was required for 24.1% (13/54). Of these, three, aged 35 years or older with positive COVID-19 RT-PCR, had respiratory failure requiring indicated delivery before 29 weeks' gestation. All three women were overweight or obese, and two had additional comorbidity. The conclusion is that COVID-19 in pregnancy was associated with maternal morbidity and preterm birth.	This case series confirms that COVID-19 infection during pregnancy may be responsible for severe maternal morbidity that may require very or extremely preterm elective delivery.	Sentilhes L, De Marcillac F, Jouffrieau C, Kuhn P, Thuet V, Hansmann Y, Ruch Y, Fafi-Kremer S, Deruelle P, COVID-19 in pregnancy was associated with maternal morbidity and preterm birth, American Journal of Obstetrics and Gynecology (2020), doi: https://doi.org/10.1016/j.ajog.2020.06.022.
Kawasaki disease, adolescents, coronary aneurysm, inflammation	10-Jun-20	Characteristics, Cardiac Involvement, and Outcomes of Multisystem Inflammatory Disease of Childhood (MIS-C) Associated With SARS-CoV-2 Infection	Journal of Pediatrics	Original Research	This publication reports on the presentation and course of 33 children with multisystem inflammatory syndrome in children (MIS-C) and confirmed SARS-CoV-2 infection focusing on clinical manifestations, disease severity, therapeutic interventions, and early outcomes. Hemodynamic instability and cardiac dysfunction were prominent findings, with most patients exhibiting rapid resolution following anti-inflammatory therapy.	In this report 33 cases are described that exhibit some clinical and laboratory features of KD and appear to be related to antecedent COVID-19. The association with COVID-19 is explained.	Capone CA, Subramony A, Sweberg T, et al., Characteristics, Cardiac involvement, and Outcomes of Multisystem Inflammatory Disease of Childhood (MIS-C) Associated with SARS-CoV-2 Infection, The Journal of Pediatrics (2020),

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							doi:10.1016/j.jpeds.2020.06.044.
Pediatrics, MIS-C	10-Jun-20	Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with SARSCoV-2 Infection: A Multi-institutional Study from New York City	Journal of Pediatrics	Original Research	A retrospective observational study is described with the aim to assess clinical characteristics and outcomes of SARS-CoV-2 associated with multisystem inflammatory syndrome in children (MIS-C). Children (aged one month to 21 years) with MIS-C admitted to pediatric intensive care units (PICU) in New York City between April 23 and May 23, 2020 were included. Of 33 children with MIS-C, the median age was 10 years; 61% were male; 45% were Hispanic/Latino; 39% were black. Comorbidities were present in 45%. Fever (93%) and vomiting (69%) were the most common presenting symptoms. Depressed left ventricular ejection fraction (LVEF) was found in 63% of patients with median EF of 46.6% (IQR 39.5, 52.8). C-reactive protein, procalcitonin, D-dimer, and pro-B-type natriuretic peptide levels were elevated in all patients. For treatment, intravenous immunoglobulin was used in 18 (54%), corticosteroids in 17 (51%), tocilizumab in 12 (36%), remdesivir in 7 (21%), vasopressors in 17 (51%), mechanical ventilation in 5 (15%), extracorporeal membrane oxygenation (ECMO) in 1 (3%), and intra-aortic balloon pump in 1 (3%). The LVEF normalized in 95% of those with depressed EF. All patients were discharged home with median duration of PICU stay of 4.7 days and hospital stay of 7.8 days. One (3%) patient died after withdrawal of care secondary to stroke while on ECMO. Critically ill children with COVID-19 associated MIS-C have a spectrum of severity broader than described previously but still require careful supportive intensive care. Rapid, complete clinical and myocardial recovery was almost universal.	The clinical profile of COVID-19 MIS-C in a cohort of 33 children was heterogeneous in severity of illness, ranging from clinically stable patients with normal or mildly depressed myocardial function to decompensated circulatory shock requiring invasive mechanical ventilation and circulatory support. The authors argue that long-term follow-up will be required to determine any sequelae of MIS-C on myocardial function.	Kaushik S, Aydin SI, Derespina KR, et al., Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with SARSCoV-2 Infection: A Multi-institutional Study from New York City, The Journal of Pediatrics (2020), doi: https://doi.org/10.1016/j.jpeds.2020.06.045.
Anesthesia, airway, otolaryngology, simulation, pediatric	10-Jun-20	The oto-laryngologist's and anes-thesiologist's collaborative role in a pandemic: A large quaternary pediatric center's experience with COVID-19 preparation and simulation	International Journal of Pediatric Otorhinolaryngology	Original article	A serious threat of nosocomial spread for SARS-CoV-2 exists and as such, there is a critical necessity for well-planned and rehearsed processes during the care of the COVID-19 positive and suspected patient to minimize transmission and risk to healthcare providers and other patients. Because of the aerosolization inherent in airway management, the pediatric otolaryngologist and anesthesiologist should be intimately familiar with strategies to mitigate the high-risk periods of viral contamination that are posed to the environment and healthcare personnel during tracheal intubation and extubation procedures. Since both the pediatric otolaryngologist and anesthesiologist are directly involved in emergency airway interventions, both specialties impact the safety of caring for COVID-19 patients and are part of overall hospital pandemic preparedness. The authors describe the institutional approach to COVID-19 peri-operative pandemic planning and processes at a large highly specialized pediatric hospital.	The care of COVID-19 patients require the interdisciplinary collaboration of the pediatric otolaryngologist and anesthesiologist. The authors described in situ simulations as a vital aspect in their hospital preparedness plan.	Willer BL, Thung AK, Corridore M, et al. The otolaryngologist's and anesthesiologist's collaborative role in a pandemic: A large quaternary pediatric center's experience with COVID-19 preparation and simulation [published online, 2020 Jun 10]. Int J Pediatr Otorhinolaryngol. doi:10.1016/j.ijporl.2020.110174
Children, chilblains, acral lesions, Italy	10-Jun-20	Outbreak of Chilblain-Like Acral Lesions in Children in the Metropolitan Area of Milan, Italy, During the COVID-19 Pandemic	Journal of the American Academy of Dermatology	Research Letter	Between March 26 and April 26, 2020, 30 patients (median age 11 years, range 2-17 years) with chilblain-like acral lesions were referred to the Pediatric Dermatology Unit of the University of Milan (Italy). Thirteen patients (43.3%) experienced systemic symptoms for a median of 6 days (range 1 to 35 days) before skin lesion onset. In all cases, the lesions were erythematous-violaceous patches or slightly infiltrated plaques, associated with edema in three cases. Moderate itching was recorded in 14 patients (46.7%) and pain in five (16.7%). The median duration of lesions, in the nine patients whose lesions had healed, was 7 days (range 1-23 days). Two patients underwent a	An outbreak of 30 cases of chilblain-like lesions among children at a Pediatric Dermatology Unit in Milan, Italy is described.	Colonna C, Genovese G, Monzani NA, et al. Outbreak of chilblain-like acral lesions in children in the metropolitan area of Milan, Italy, during the COVID-19 pandemic [published online 2020 Jun 10]. J Am Acad

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					skin biopsy, and histology showed perivascular and periadnexal dermal lymphocytic infiltrates suggesting chilblains. PCR-based testing of nasopharyngeal swabs for SARS-CoV-2 was negative in all 6 patients tested.		Dermatol. doi:10.1016/j.jaad.2020.06.019
Children, allergy, asthma, atopic dermatitis, clinical characteristics, immunological profiles, China	10-Jun-20	Clinical Characteristics of 182 Pediatric COVID-19 Patients With Different Severities and Allergic Status	Allergy	Original Article	Among 182 patients (median age 6 years, range 3 days to 15 years), most of the children were infected with SARS-CoV-2 by family members. The majority (97.8%) of infected children were not severe, and 24 (13.2%) had asymptomatic infections. Compared to children without pneumonia, children with pneumonia were associated with higher percentages of comorbidities, symptoms of fever and cough, and increased levels of serum procalcitonin, alkaline phosphatase and serum interleukins (IL)-2, IL-4, IL-6, IL-10 and TNF-α. All hospitalized COVID-19 positive children recovered except one death due to intussusception and sepsis. In 43 allergic children with COVID-19, allergic rhinitis (83.7%) was the major disease, followed by drug allergy, atopic dermatitis, food allergy and asthma. Demographics and clinical features were not significantly different between allergic and non-allergic groups. Allergic patients showed less increase in acute phase reactants, procalcitonin, D-dimer and aspartate aminotransferase levels compared to all patients. Immunological profiles including circulating T, B and NK lymphocyte subsets, total immunoglobulin and complement levels and serum cytokines did not show any difference in allergic and pneumonia groups. Neither eosinophil counts nor serum total immunoglobulin E (IgE) levels showed a significant correlation with other immunological measures, such as other immunoglobulins, complements, lymphocyte subsets numbers and serum cytokine levels.	There was no difference between allergic and non-allergic COVID-19 children in disease incidence, clinical features, laboratory and immunological findings; allergy was not a risk factor for SARS-CoV-2 infection or disease severity.	Du H, Dong X, Zhang JJ, et al. Clinical characteristics of 182 pediatric COVID-19 patients with different severities and allergic status [published online 2020 Jun 10]. Allergy. doi:10.1111/all.14452
Ectopic pregnancy, abdomen, Italy	10-Jun-20	Abdominal Pregnancy During the COVID-19 Pandemic	International Journal of Gynecology & Obstetrics	Brief Communication	Abdominal pregnancy is a rare type of ectopic pregnancy with an incidence of 1:10,000 to 1:30,000 women. In this case report, a 33-year-old primigravida presented at 14 weeks of pregnancy with persistent abdominal pain lasting 15 days. The patient had not attended the hospital sooner, due to fear of COVID-19 infection. Ultrasonography revealed an empty uterus, and massive blood clots were present in the pouch of Douglas. Given the risk of COVID-19, the patient underwent chest X-ray and nasopharyngeal swab before surgery; both tests were negative, so the patient received methotrexate within 24 hours after surgery.	In this case report, a woman delayed presentation for an abdominal ectopic pregnancy due to fear of SARS-CoV-2 infection in the hospital setting.	Damiani GR, Biffi A, Del Boca G, Arezzo F. Abdominal pregnancy during the COVID-19 pandemic [published online 2020 Jun 10]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13271
Pregnancy, children, perinatal, reproductive health, indirect effects, pandemic	10-Jun-20	"Women and Children Last"- Effects of the covid-19 Pandemic on Reproductive, Perinatal, and Paediatric Health	The BMJ	Letter	As it has become clear that young women and children usually experience mild symptoms of COVID-19, changes in service delivery may have gone too far and jeopardized non-COVID-19 related health in these populations. The authors estimate that inadvertent consequences may arise, such as higher rates of preterm and cesarean birth, decline in pediatric vaccination rates, and increased risk of hypertension in pregnant women given fewer face-to-face antenatal visits. In the acute phase of the pandemic, the risk of system transformations to reproductive, perinatal, and child health must be acknowledged and measured.	Indirect effects of the COVID-19 pandemic, in the form of changes in health service delivery, may jeopardize the reproductive and pediatric health of women and children.	von Dadelszen P, Khalil A, Wolfe I, Kametas NA, O'Brien P, Magee LA. "Women and children last"-effects of the covid-19 pandemic on reproductive, perinatal, and paediatric health. BMJ. 2020;369:m2287. doi:10.1136/bmj.m2287
Children, mortality data, epidemiology, international	10-Jun-20	Risks to Children During the covid-19 Pandemic:	The BMJ	Letter	Mortality data of 0-19-year-old children revealed 44 pediatric deaths from COVID-19, across France, Germany, Italy, Korea, Spain, the UK, and the USA, up to May 19, 2020. Over a normal three-month period in these countries, it is estimated that over 13,000 deaths would be expected from all causes,	Mortality data across various countries point toward a small direct	Bhopal SS, Bagaria J, Bhopal R. Risks to children during the covid-19 pandemic: some

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		Some Essential Epidemiology			including influenza, in this age group. By these estimates, COVID-19 was responsible for about 0.333% of deaths in 0-19-year-old children. The authors conclude that the direct impact of COVID-19 on children is currently small in comparison with other risks, and the main reason to keep children at home is to protect adults.	impact of COVID-19 on children.	essential epidemiology. BMJ. 2020;369:m2290. doi:10.1136/bmj.m2290
Neonates, vertical transmission, clinical management, breastfeeding, China	10-Jun-20	What Can We Learn From Neonates With COVID-19?	World Journal of Pediatrics	Viewpoint	Based on six reported cases of neonatal SARS-CoV-2 infection, this article summarizes potential routes of vertical transmission, clinical characteristics and management of neonates with COVID-19, as well as management of neonates born to mothers with COVID-19. In China, it is recommended that all neonates born to COVID-19 positive mothers are fed with formula milk initially until the mother has two consecutive negative tests for SARS-CoV-2 and is isolated for 14 days. Meanwhile, the isolated mother is encouraged to keep pumping to maintain breastmilk. Delayed cord clamping and mother-newborn contact in the delivery room as also not recommended in China.	The authors provide recommendations for the management of neonates with COVID-19 or born to mothers with COVID-19, based on experience from China.	Xiao TT, Yan K, Wang LS, Zhou WH. What can we learn from neonates with COVID-19? [published online 2020 Jun 10]. World J Pediatr. doi:10.1007/s12519-020-00376-y
Children, management, recommendations, China	10-Jun-20	Management of Children With COVID-19: Experiences From China	World Journal of Pediatrics	Editorial	As a special population, children have special respiratory tract structure characteristics, immature immune systems, and susceptibility to respiratory virus infections. Therefore, it is highly important for clinicians to treat the infected children cautiously despite most pediatric patients have milder symptoms and better prognosis compared with the adult patients. Articles including recommendations for management of pediatric COVID-19, case sharing, and viewpoints are discussed in this issue of "World Journal of Pediatrics."	An overview of articles related to COVID-19 in children included in this issue of "World Journal of Pediatrics" is provided.	Xu SY, Yang LL, Qi Q, et al. Management of children with COVID-19: experiences from China [published online 2020 Jun 10]. World J Pediatr. doi:10.1007/s12519-020-00373-1
Children, clinical characteristics, imaging, child mortality, meta-analysis	10-Jun-20	What We Know So Far About Coronavirus Disease 2019 in Children: A Meta-Analysis of 551 Laboratory-Confirmed Cases	Pediatric Pulmonology	Original Article	Forty-six articles reporting 551 cases of children (aged 1 day-17.5 years) with laboratory-confirmed COVID-19 were included in this meta-analysis. Eighty-seven percent (95% CI: 77%-95%) of patients had household exposure to COVID-19. The most common symptoms and signs were fever (53%, 95% CI: 45%-61%), cough (39%, 95% CI: 30%-47%), and sore throat/pharyngeal erythema (14%, 95% CI: 4%-28%); however, 18% (95% CI: 11%-27%) of cases were asymptomatic. The most common radiographic and computed tomography (CT) findings were patchy consolidations (33%, 95% CI: 23%-43%) and ground glass opacities (28%, 95% CI: 18%-39%), but 36% (95% CI: 28%-45%) of patients had normal CT images. Antiviral agents were given to 74% of patients (95% CI: 52%-92%). Six patients, all with major underlying medical conditions, needed invasive mechanical ventilation, and one died.	Children with COVID-19 and major underlying condition are more likely to have severe/critical disease and poor prognosis; one child death was reported in this meta-analysis.	Zhang L, Peres TG, Silva MVF, Camargos P. What we know so far about Coronavirus Disease 2019 in children: A meta-analysis of 551 laboratory-confirmed cases [published online 2020 Jun 10]. Pediatr Pulmonol. doi:10.1002/ppul.24869
Children, testing strategy, hospital screening, ILI, SARI, India	10-Jun-20	India's COVID-19 Testing Strategy: Why Pediatric Hospitals Need to Focus More on ILI Than SARI?	The Indian Journal of Pediatrics	Scientific Letter	India reports total and state wise tallies of COVID-19 cases daily, but epidemiology and clinical characteristics in children remain unclear. Revised testing strategies have emphasized screening children with influenza-like illness (ILI) in addition to severe acute respiratory illness (SARI). Hospital-based SARI testing in children is associated with poor pre-test probability due to lower infection rate and higher prevalence of mild symptoms. As upper respiratory infection constitutes about 50% of symptoms, screening children with ILI would be a more prudent approach. Testing children in family clusters would also remain most appropriate.	The authors recommend that pediatric hospitals in India focus on screening children with influenza-like illness, in addition to severe acute respiratory illness, for COVID-19.	Dash N, Awasthi PR, Nallasamy K. India's COVID-19 Testing Strategy: Why Pediatric Hospitals Need to Focus More on ILI than SARI? [published online 2020 Jun 10]. Indian J Pediatr. doi:10.1007/s12098-020-03373-1
Children, cross immunity, seasonal	10-Jun-20	COVID-19 Is Milder in Children	Acta Paediatrica	Letter	Cross immunity, from previous exposure to seasonal coronavirus, may provide a plausible explanation for why children appear to be protected from SARS-CoV-2 infection. Seasonal coronaviruses in children lead to the	Previous exposure to seasonal coronaviruses may confer cross immunity to	Devulapalli CS. COVID-19 is milder in children possibly due to cross

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human coronaviruses		Possibly Due to Cross Immunity			formation of antibodies that last for 1-3 years. One of the four seasonal coronaviruses, HCoV-NL63, also uses ACE2 as a receptor. Recently, convalescent serum from patients who survived SARS was found to neutralize binding of SARS-CoV-2 to ACE2, thus blocking SARS-CoV-2 uptake into cells. Other studies, for example on the cross-reaction of antibody titers in SARS patients against seasonal coronaviruses, further suggest the distinct possibility of cross immunity.	children, who appear relatively less affected by COVID-19.	immunity [published online 2020 Jun 10]. Acta Paediatr. doi:10.1111/apa.15407
Pregnancy, fetus, photoperiod, maternal circadian rhythms, lockdown	10-Jun-20	Effects of Altered Photoperiod Due to COVID-19 Lockdown on Pregnant Women and Their Fetuses	Chronobiology International	Review	Maternal circadian rhythms provide highly important input into the entrainment and programming of fetal and newborn circadian rhythms. The light-dark cycle is an important regulator of the internal biological clock. Even though pregnant women spend a greater part of the day at home during the latter stages of pregnancy, natural light exposure is crucial for the fetus. The current recommended COVID-19 lockdown might dramatically alter normal environmental lighting conditions of pregnant women, resulting in exposure to extremely low levels of natural daylight and high-intensity artificial light sources during both day and night. This article summarizes the potential effects on pregnant woman and their fetuses due to prolonged exposure to altered photoperiod and as consequence altered circadian system, known as chrono-disruption, that may result from the COVID-19 lockdown.	Altered photoperiod and maternal circadian rhythms due to COVID-19 lockdowns are discussed with regard to their implications for fetal development.	Bagci S, Sabir H, Müller A, Reiter RJ. Effects of altered photoperiod due to COVID-19 lockdown on pregnant women and their fetuses [published online 2020 Jun 10]. Chronobiol Int. doi:10.1080/07420528.2020.1772809
Children, premature infants, respiratory filters, anesthesia, infection control	10-Jun-20	Considerations for the Use of Respiratory Filters in Children During the COVID-19 Pandemic	Surgical Infections	Letter to the Editor	The addition of filters in respiratory circuits has been recommended by the American Association of Anesthesiology and by the Anesthesia Patient Safety Foundation to mitigate risk of SARS-CoV-2 infection safety of health workers and patients. In smaller patients, however, the air dispersion distance is smaller thus the use of filters is less efficient. Since there are few reported cases of COVID-19 in neonates to date, it is reasonable not to use filters for positive pressure ventilation under mask due to risks of hypercapnia and intraventricular hemorrhage in premature infants.	The decision to use filters in anesthetic respiratory circuits in pediatric patients should consider risks and benefits, especially in smaller patients.	Trujillo A, Jaramillo Rincón SX. Considerations for the Use of Respiratory Filters in Children During the COVID-19 Pandemic [published online 2020 Jun 10]. Surg Infect (Larchmt). doi:10.1089/sur.2020.200
COVID-19, pregnancy, complications	9-Jun-20	Potential challenges in managing obstetrical patients with coronavirus disease 2019	American Journal of Obstetrics and Gynecology	Commentary	In this letter, the authors respond to a previously conducted study, Yen et al. 2020, reporting no maternity deaths and low rates of spontaneous preterm birth. Citing concerns about the interpretation of the results, the authors highlighted that only half the patients in the cohort had been diagnosed with COVID-19, among which there was a higher rate of preterm delivery. They identified physiological maternal adaptations as being a risk factor for severe outcomes for fetal and maternal health due to immunosuppression. They reported on increased rates of complications in pregnant patients with swine flu (H1N1) and SARS-CoV infection, suggesting the possibility of SARS-COV-2 following a similar clinical pattern. Citing previous research and research caveats from the paper they responded to, they highlighted the susceptibility of peripartum women to disease progression of acute respiratory disease syndrome. The authors praise the paper for comprehensive study and robust analysis, while setting the foundations for questions to be addressed in future research.	In this letter, the authors comment on the results presented by a previously published article, Yen et al. 2020, with optimistic outcomes for maternal deaths and preterm birth for pregnant patients with COVID-19. The authors highlight the caveats presented in the paper as factors to consider before making interpretations, including increased complications in pregnant patients with swine flu and SARS-CoV infection.	Ng Yin K, Lee KS, Zhang JJY. Potential challenges in managing obstetrical patients with coronavirus disease 2019. Am J Obstet Gynecol. 2020 Nov;223(5):783-784. doi: 10.1016/j.ajog.2020.06.014. Epub 2020 Jun 9. PMID: 32531219; PMCID: PMC7282779.

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Canada, maternal, depression, anxiety, physical activity	9-Jun-20	Moms Are Not OK: COVID-19 and Maternal Mental Health	Frontiers in Global Women's Health	Original Research	In this article, the authors aimed to rapidly assess the influence of the COVID-19 pandemic and subsequent physical distancing/isolation measures on the mental health and physical activity of pregnant and postpartum women. Pregnant women or women within the first year of delivery were recruited online using social media platforms from April 14 - May 8, 2020 to participate in the study. Participants completed validated standard questionnaires of self-reported levels of depression/depressive symptoms (Edinburgh Postnatal Depression Survey; EPDS) and anxiety (State-Trait Anxiety Inventory; STAI-State). Self-reported physical activity was also collected.The Majority of particpants were from North America (n = 779). Of 900 eligible women recruited, 64% reported reduced physical activity with the onset of isolation. Additionally, 40.7% identified depressive feelings (mean ± SD; 7.5 ± 4.9 vs. 11.2 ± 6.3, respectively; $p < 0.01$, moderate effect), and 72% identified feelings of anxiety (mean STAI= 48.1 ± 13.6; $p < 0.01$, large effect). The authors also noted that women who were adhering to the recommended amount of physical activity had significantly lower scores for both anxiety and depression than those who did not ($p < 0.01$, large and small effect, respectively). They highlight that these results identify a substantial increase in the likelihood of maternal depression and anxiety during the COVID-19 pandemic.	This article assesses the prevalence of depression and anxiety in pregnant women and women who recently gave birth. They found a decreased amount of physical activity and an increased prevalence of both anxiety and depression in this population.	Davenport MH, Meyer S, Meah VL, Strynadka MC and Khurana R (2020) Moms Are Not OK: COVID-19 and Maternal Mental Health. Front. Glob. Womens Health 1:1. doi: 10.3389/fgwh.2020.00001
Pediatric Multisystem Inflammatory Syndrome	9-Jun-20	Pediatric Multisystemic Inflammatory Syndrome Associated With SARS-CoV-2 Infection	Deutsches Arzteblatt International	Case Report	The authors report a case of a 9-year-old boy presenting with abdominal pain, diarrhea, fever, and skin rash. PCR was negative for SARS-CoV-2, but Immunoglobulin A and G titers against SARS-CoV-2 were elevated. On admission, the patient had exanthema with facial swelling and conjunctivitis. Laboratory tests revealed leukocytosis (16 800/µL) with left shift (rod neutrophils 26%), lymphocytopenia (2%), eosinophilia (11%); elevated C-Reactive protein (170 mg/L); elevated D-dimer (1839 ng/mL); and hypo-albuminemia (25 g/L). Elevations of Creatine kinase-MB (30 U/L), troponin (212 ng/L), and N-terminal pro b-type natriuretic peptide (8565 pg/mL) led to the echocardiographic diagnosis of myocarditis with pericardial effusion. After treatment with prednisolone, the body temperature returned to normal with resolution of the vasculitis and myocarditis.	The authors describe a case report and argue that children infected with SARS-CoV-2 may experience temporally related severe hyperinflammatory syndrome with vasculitic skin lesions.	Schneider DT, Pütz-Dolderer J, Berrang J. Pediatric Multisystemic Inflammatory Syndrome Associated With SARS-CoV-2 Infection. Dtsch Arztebl Int. 2020;117(25):431. doi:10.3238/arztebl.2020.0431
Breastfeeding, essential newborn care, newborn health outcomes, skin-to-skin contact	9-Jun-20	Appropriate care for neonates born to mothers with COVID-19 disease	Acta Paediatrica	Clinical Review	In this article, the authors describe the rationale for the maintenance of routine newborn care for babies born to mothers with COVID-19 based on currently available data. There is a lack of evidence on mother-to-infant vertical transmission of SARS-CoV-2, which can complicate decisions to modify early essential newborn care practices. Case study findings suggest relatively few infants born to mothers with COVID-19 get infected during birth, which is evidenced by the lack of viral presence in umbilical cord blood or amniotic fluid. Additionally, there is no evidence of SARS-CoV-2 in breastmilk. The authors suggest that modified practices of early separation may expose infants to more contacts with health care workers, increasing the risk of infection. Further, benefits from breastfeeding during the early neonate period are vital and should be continued. The authors conclude that maintenance of early essential newborn care practices including skin-to-skin contact and breastfeeding should be sustained during the COVID-19	The authors conducted a clinical review exploring care practices for neonates born to mothers with COVID-19. They concluded that early essential newborn care practices including skin-to-skin contact and breastfeeding should be maintained.	Tran HT, Nguyen PTK, Huynh LT, et al. Appropriate care for neonates born to mothers with COVID-19 disease. Acta Paediatr. 2020;109(9):1713-1716. doi:10.1111/apa.15413

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					pandemic, but should be supplemented by proper infection control practices such as hand hygiene and PPE.		
Pediatric, attendance, emergency care, qualitative methods, protocol, Ireland	9-Jun-20	CUPID COVID-19: emergency department attendance by paediatric patients during COVID-19 - project protocol	HRB Open Research	Study Protocol	This study protocol describes a project aiming to assess the impact of COVID-19 on pediatric emergency healthcare utilization, to understand how the health seeking behavior of parents may have altered due to the pandemic, and to identify how any barriers to accessing care can be removed. Administrative data records of children <15 years from five emergency departments (ED) across Ireland and one Urgent Care Centre will be analyzed, then semi-structured interviews will be utilized to capture the health practice experience of frontline staff during COVID-19, including their feedback on identified trends. Finally, a cross-sectional survey of parents would be conducted to gather their experiences, concerns, and decision-making in accessing healthcare for their children during the pandemic. The findings of the project will help decision-makers respond rapidly to improve the pediatric health care service in EDs during COVID-19.	In this protocol, the authors planned to start a one-year project to evaluate the impact of COVID-19 on pediatric emergency healthcare utilization through three work packages, including identifying temporal trends in patient attendance, semi-structured interviews with staff, and a cross-section survey of parents.	McDonnell T, McAuliffe E, Barrett M, et al. CUPID COVID-19: emergency department attendance by paediatric patients during COVID-19 - project protocol. HRB Open Res. 2020;3:37. Published 2020 Jun 9. doi:10.12688/hrbopenres.13066.1
Pediatrics, psychosocial impacts, vulnerable populations, children, India	9-Jun-20	Impact of COVID -19 on Children: Special Focus on the Psychosocial Aspect	Minerva Pediatrica	Review	The authors discuss the psychosocial impact of the pandemic on children in India. Home confinement imposes ill-effects on children due to drastic changes in their lifestyle, physical activity, and mental excursions. School shutdowns disrupt the sense of normalcy, increase food insecurity, and widen the learning gap between children from lower and higher-income families. Reports of child abuse, neglect, exploitation, and domestic violence are also on the rise. Vulnerable populations including refugee, migrant, and internally displaced children, children with intellectual disability, and those with parents working on the front-line are likely disproportionately affected. In addition, disruption of sexual and reproductive health services could lead to unmet needs for family planning, inappropriate contraception, unsafe abortion, unplanned pregnancy, and increased rates of sexually transmitted infections. The authors call for interventions to mitigate the psychosocial ill-effects of COVID-19 on children and adolescents.	The authors describe the psychosocial implications of the pandemic on children and adolescents in India, and call for interventions to mitigate the ill-effects.	Ghosh R, Dubey MJ, Chatterjee S, Dubey S. Impact of COVID -19 on children: special focus on the psychosocial aspect. Minerva Pediatr. 2020; doi:10.23736/S0026-4946.20.05887-9
RT-PCR, China, retrospective study	9-Jun-20	Viral loads in throat and anal swabs in children infected with SARS-CoV-2	Emerging Microbes & infections	Article	The authors retrospectively reviewed data of RT-PCR assay on throat and anal swabs of 212 pediatric patients with suspected SARS-CoV-2 infection at Wuhan Children's Hospital from 1-Jan-20 to 18-Mar-20. The diagnostic potential of these two types of specimens showed significant difference (positive rate: 78.2% on throat swabs vs. 52.6% on anal swabs, McNemar Test $P = 0.0091$) and exhibited a weak positive consistency (Kappa value was 0.311, $P < 0.0001$) in pediatric patients. Besides, viral loads in the throat and anal swabs were correlated with different types of immune states, immune-reactive phase, and the resolution phase/immunologic tolerance, respectively. The authors argue that the transmission potential of anal swabs-testing positive patients, especially children, which are more like to be asymptomatic carriers, need be urgently evaluated for the control of outbreak SARS-CoV-2 infection.	The authors compared two ways of RT-PCR-testing (throat and anal swabs) which showed significant difference for monitoring SARS-CoV-2 infection and correlated with different immune states in pediatric patients, and found significant difference between these two on monitoring SARS-CoV-2 infection and correlated with different immune states in pediatric patients.	Chunhui Yuan, Hongmin Zhu, Yuan Yang, et al. (2020) Viral loads in throat and anal swabs in children infected with SARS-CoV-2, Emerging Microbes & Infections, 9:1, 1233-1237, DOI: 10.1080/22221751.2020.1771219
Pregnancy, lactation, research ethics,	9-Jun-20	Protect Pregnant and Lactating Women With	Breastfeeding Medicine	President's Corner (Letter)	As the COVID-19 pandemic continue, more women are giving birth with a SARS-CoV-2 infection. While remdesivir is emerging as a promising therapy for severe disease, there is no data regarding presence of the drug in breast milk.	Due to exclusion of breastfeeding individuals in remedesivir's clinical trials,	Stuebe A. Protect Pregnant and Lactating Women with COVID-19

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remdesivir, compassionate use		COVID-19 Through Research, Not From Research			Before the FDA's emergency use authorization, remdesivir was available for compassionate use for pregnant women; however, they were forbidden from breastfeeding. Additionally, breastfeeding individuals were excluded from clinical COVID-19 trials of remdesivir. This information deficit leads to a dilemma for both clinicians and mothers when considering treatment with the drug. The association between artificial feeding and an increased risk of infant hospitalization for severe pneumonia must be weighed against the theoretical risk of remdesivir exposure. The author points out that this type of challenge is the result of the longstanding policy of excluding pregnant and lactating individuals from clinical trials. Pregnant and lactating women deserve evidence-based treatment for medical conditions.	the drug's presence in breastmilk is unknown. This presents ethical dilemma for both pregnant women with COVID-19 and clinicians when considering breastfeeding and treatment.	Through Research, Not from Research. [published online, 2020 Jun 9]. Breastfeed Med. doi:10.1089/bfm.2020.29155.ams
Pregnancy, clinical characteristics, internet survey, France	9-Jun-20	Covid-19 in Pregnant Women: General Data From a French National Survey	European Journal of Obstetrics & Gynecology and Reproductive Biology	Correspondence	A national French, internet-based survey collected "real life" data of pregnant women with confirmed COVID-19, who were either treated by their family doctor or required hospitalization. Out of 194 pregnant women who had COVID-19 compatible symptoms, 88 tested positive for SARS-CoV-2, either by RT-PCR (n=84), serologies (n=10) and/or lung CT-scanner (n=6). Their median age was 31 years old (interquartile range [IQR] 28–34 years), and their median BMI was 22.7 kg/m**2** (IQR 21–28 kg/m**2**). The median gestational age at the time of COVID-19 was 27 weeks (range 4–34 weeks). The most frequent symptoms were fatigue (80%), ageusia and/or anosmia (76%), cough (63%), muscle aches (57%) and fever (50%). Among these women, 18 were admitted to the hospital (20%), and 6 (7%) required oxygen therapy and were considered severe cases. Women with severe disease were older, with higher BMI and were more likely to have a history of diabetes. They also had more gastrointestinal symptoms. Overall, women reported no adverse maternal and/or fetal obstetrical incidents. The major limitation of this study is recruitment bias.	Data on clinical characteristics of pregnant women with COVID-19 who responded to a French internet survey are described.	Cohen J, Vignaux O, Jacquemard F. Covid-19 in pregnant women: General data from a French National Survey [published online 2020 Jun 9]. Eur J Obstet Gynecol Reprod Biol. doi:10.1016/j.ejogrb.2020.06.002
Pregnancy, anal swabs, anorectum, contamination, vertical transmission, vaginal delivery	9-Jun-20	Delivery Method Choice for COVID-19 Pregnant Women: Stick to Obstetric Indications and Avert Anorectum Contamination	American Journal of Obstetrics and Gynecology	Letter to the Editor	The anorectal transmission route has been underestimated, probably due to the high incidence of cesarean sections in COVID-19 positive pregnant women. Cases of positive infants after vaginal birth have come to light without a clear explanation of the transmission route, and no anal swabs were taken. SARS-CoV-2 has been detected in the stools of one out of three non-pregnant COVID-19 patients, but its prevalence in the anal swab of pregnant patients remains unknown.	Further studies of anal swab samples to establish the incidence of this transmission route in pregnant women are needed.	Chen Z, Ma X, Wang S. Delivery method choice for COVID-19 pregnant women: stick to obstetric indications and avert anorectum contamination [published online 2020 Jun 9]. Am J Obstet Gynecol. doi:10.1016/j.ajog.2020.06.013
Pregnancy, vaginal delivery, routes of viral transmission, anorectum, China	9-Jun-20	Vaginal Delivery in COVID-19 Pregnant Women: Anorectum as a Potential Alternative Route of SARS-CoV-2 Transmission	American Journal of Obstetrics and Gynecology	Letter to the Editor	Based on the lack of SARS-CoV-2 detection in samples from the vagina, SARS-CoV-2 infection should not be considered as a direct indication for cesarean section at present. Obstetricians should choose delivery methods based on obstetric indications for COVID-19 positive pregnant women. Preventive measures during vaginal delivery should be taken, given concerns about the anorectum as a potential route of viral transmission during delivery.	There is little evidence to suggest the possibility of mother-fetus SARS-CoV-2 transmission through vaginal delivery.	Carosso A, Cosma S, Benedetto C. Vaginal delivery in COVID-19 pregnant women: anorectum as a potential alternative route of SARS-CoV-2 transmission [published online 2020 Jun 9]. Am J Obstet

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							Gynecol. doi:10.1016/j.ajog.2020.06.012
Children, viral shedding, tears, ocular manifestations, italy	9-Jun-20	Ocular Manifestations and Viral Shedding in Tears of Pediatric Patients With Coronavirus Disease 2019: A Preliminary Report	Journal of American Association for Pediatric Ophthalmology and Strabismus	Major Article	A total of 27 pediatric patients with confirmed COVID-19 infection hospitalized from March 16 to April 15, 2020, at the Bambino Gesù Children's Hospital (Italy) were enrolled in the study. Of the 27 patients, 4 (15%) were asymptomatic, 15 (56%) showed respiratory symptoms, and 8 (30%) had gastrointestinal symptoms. At admission, nasopharyngeal swabs were positive for COVID-19 in all patients; on the second swabs, 7 children (26%) tested negative, and 20 remained positive for COVID-19. Ocular manifestations consistent with mild viral conjunctivitis were observed in 4 patients (15%). At first conjunctival swab, 3 patients (11%), 1 symptomatic and 2 asymptomatic for ocular infection, had positive findings for COVID-19; 2 became negative on the second test and 1 on the third. Despite the low prevalence and rapid regression of viral presence in the conjunctiva, SARS-CoV-2 transmission through tears may be possible, even in patients without apparent ocular involvement.	In this cohort, ocular manifestations of COVID-19 seem to have had a milder clinical course in pediatric patients than in adults; SARS-CoV-2 transmission via tears may be possible even in absence of ocular involvement.	Valente P, Iarossi G, Federici M, et al. Ocular manifestations and viral shedding in tears of pediatric patients with coronavirus disease 2019: a preliminary report [published online 2020 Jun 9]. J AAPOS. doi:10.1016/j.jaapos.2020.05.002
Infants, breastfeeding, milk banks, lactation management center, India	9-Jun-20	Ensuring Exclusive Human Milk Diet for All Babies in COVID-19 Times	Indian Pediatrics	Special Article	The World Health Organization recommends continuation of breastfeeding during the COVID-19 pandemic, and if direct breastfeeding is not possible, milk expression should be explored. Pasteurized donor human milk from milk banks may be used if the mother's own milk is not available. To universalize access to human milk, the Indian government has proposed the establishment of comprehensive lactation management centers/milk banks, lactation management units, and lactation support units at all levels of the public health system. Due to COVID-19, these centers are encountering additional challenges cutting across interventions of rooming in, breastfeeding, milk expression, and provision of donor milk and kangaroo mother care. These issues and alleviation measures taken by these centers are described in this article.	This article discusses challenges in ensuring an exlcusive human milk diet for infants during the COVID-19 pandemic in India, as well as solutions developed by lactation management centers to meet this challenges.	Sachdeva RC, Jain S, Mukherjee S, Singh J. Ensuring Exclusive Human Milk Diet for All Babies in COVID-19 Times [published online 2020 Jun 9]. Indian Pediatr. 2020;S097475591600191.
Pregnancy, maternal and neonatal outcomes, perinatal mortality, vertical transmission, systematic review	9-Jun-20	Rates of Maternal and Perinatal Mortality and Vertical Transmission in Pregnancies Complicated by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Co-V-2) Infection	Obstetrics & Gynecology	Systematic Review	Of the 99 articles identified in this systematic review (limited to reports with at least 10 pregnant patients with COVID-19), 13 included 538 pregnancies complicated by SARS-CoV-2 infection, with reported outcomes on 435 (80.9%) deliveries. Maternal ICU admission occurred in 3.0% of cases (8/263, 95% CI 1.6-5.9) and maternal critical disease in 1.4% (3/209, 95% CI 0.5-4.1). No maternal deaths were reported (0/348, 95% CI 0.0-1.1). The preterm birth rate was 20.1% (57/284, 95% CI 15.8-25.1), the cesarean delivery rate was 84.7% (332/392, 95% CI 80.8-87.9), the vertical transmission rate was 0.0% (0/310, 95% CI 0.0-1.2), and the neonatal death rate was 0.3% (1/313, 95% CI 0.1-1.8).	Early data during the pandemic reveals low rates of maternal and neonatal mortality and vertical transmission of SARS-CoV-2; the authors suggest that observed preterm birth and cesarean delivery rates are related to geographic practice patterns.	Huntley BJF, Huntley ES, Di Mascio D, Chen T, Berghella V, Chauhan SP. Rates of Maternal and Perinatal Mortality and Vertical Transmission in Pregnancies Complicated by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Co-V-2) Infection: A Systematic Review [published online 2020 Jun 9]. Obstet Gynecol. doi:10.1097/AOG.0000000000004010
Pregnancy, prone	9-Jun-20	Prone Positioning for Pregnant	Obstetrics & Gynecology	Current Commentary	The COVID-19 pandemic has prompted expanded use of prone positioning for refractory hypoxemia. Clinical trials have demonstrated beneficial effects of	A protocol for prone positioning of pregnant	Tolcher MC, McKinney JR, Eppes CS, et al. Prone

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positioning, hypoxemia, severe respiratory distress		Women With Hypoxemia Due to Coronavirus Disease 2019 (COVID-19)			early prone positioning for acute respiratory distress syndrome (ARDS), including decreased mortality. However, pregnant women were excluded from these trials. To address the need for low-cost, low-harm interventions in the face of a widespread viral syndrome wherein hypoxemia predominates, the authors developed an algorithm for prone positioning of both intubated and non-intubated pregnant women that may be appropriate for a wide spectrum of hypoxemia severity.	women with acute respiratory distress syndrome is described to improve oxygenation in moderate to severe hypoxemia.	Positioning for Pregnant Women With Hypoxemia Due to Coronavirus Disease 2019 (COVID-19) [published online 2020 Jun 9]. Obstet Gynecol. doi:10.1097/AOG.0000000000004012
Pregnancy, immunological shift, Th-cells, severe complications	9-Jun-20	Immunological Environment Shifts During Pregnancy May Affect the Risk of Developing Severe Complications in COVID-19 Patients	American Journal of Reproductive Immunology	Letter to the Editor	According to existing literature, clinical characteristics of pregnant women with COVID-19 are similar to those of non-pregnant adults. In addition, no significant differences in gestational age, postpartum hemorrhage, and perineal resection rates between pregnant women with and without COVID-19 were found. COVID-19 has been reported to progress slowly in pregnant women and does not often result in fatal complications. The predominant Th2-type immunity and the action of T-regs can play an important role in preventing the excess systemic inflammatory reaction and the development of life-threatening complications as ARDS and multi-organ dysfunction in COVID-19 patients. This suggests a search for new drugs aimed at the suppression of effector functions and induction of tolerance, which will reduce the frequency of life-threatening complications, including ARDS.	The authors argue that the idea that pregnant women are more susceptible to respiratory pathogens and thus may be more susceptible to SARS-CoV-2 than the general population has not been confirmed yet.	Sarapultsev A, Sarapultsev P. Immunological environment shifts during pregnancy may affect the risk of developing severe complications in COVID-19 patients [published online 2020 Jun 9]. Am J Reprod Immunol. doi:10.1111/aji.13285
Pregnancy, immune thrombo-cytopenia, platelet count, immune dysregulation, UK	9-Jun-20	ITP Flare With Mild COVID-19 Infection in Pregnancy: A Case Report	British Journal of Haematology	Letter	Immune thrombocytopenia (ITP) is an autoimmune disorder characterized by an isolated low platelet count (<100x10^9/L) due to increased destruction and decreased production of platelets; a dysregulated immune response is pivotal in the pathophysiology of ITP and thought to contribute to thrombocytopenia seen with COVID-19 as well. In this case report, a 34-year-old woman in her second trimester of pregnancy, who was known to have ITP since 2012, presented with 1-day history of dry cough, fever, petechiae, and gum bleeding. Initial full blood count was remarkable for a platelet count of 13x10^9/L, and a nasopharyngeal swab for SARS-CoV-2 PCR was found to be positive. She was started on IV immunoglobulins and oral prednisolone. On day 2, following clinical improvement and recovering platelet count, the patient was discharged.	A pregnant patient with history of immune thrombocytopenia developed a flare in her disease, in the context of mild SARS-CoV-2 infection.	Nesr G, Garnett C, Bailey C, Arami S. ITP flare with mild COVID-19 infection in pregnancy: A case report [published online 2020 Jun 9]. Br J Haematol. doi:10.1111/bjh.16928
Obstetrical management, labor and delivery, online survey, universal screening, fetal surveillance, NYC	9-Jun-20	A Survey of Labor and Delivery Practices in New York City During the COVID-19 Pandemic	American Journal of Perinatology	SMFM Fellows Research Series	Guidance on obstetrical management of COVID-19 has come from expert opinion, professional societies and public health agencies, but to date, there is no report on how obstetrical practices have adapted these recommendations to their local situations. Therefore, the authors developed an internet-based survey to elucidate the practices put into place to guide the care of obstetrical patients during the COVID-19 pandemic. Obstetrical leaders in four academic medical centers in NYC, who were implementing and testing protocols at the height of the pandemic, were surveyed. All sites made changes to their practices, and there appeared to be agreement with screening and testing for COVID-19, as well as labor and delivery protocols, for SARS-CoV-2-positive patients. There was less consensus with respect to inpatient antepartum fetal surveillance.	Based on a survey of obstetrical leaders in four academic medical centers in NYC, there was agreement around screening for COVID-19 on admission and less consensus with respect to fetal surveillance.	Peña JA, Bianco AT, Simpson LL, et al. A Survey of Labor and Delivery Practices in New York City during the COVID-19 Pandemic [published online 2020 Jun 9]. Am J Perinatol. doi:10.1055/s-0040-1713120
Prenatal care, telehealth, provider	9-Jun-20	Telehealth Uptake Into Prenatal Care and Provider	American Journal of Perinatology	Original Article	Between March 9 and April 12, 2020 at prenatal practices in New York City, there were 4,248 visits, of which approximately one-third were performed via telehealth (n=1,352, 31.8%). By the fifth week, 56.1% of generalist visits,	This survey-based study found that telehealth was rapidly integrated into	Madden N, Emeruwa UN, Friedman AM, et al. Telehealth Uptake into

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attitudes, online survey, Medicaid, New York City, USA		Attitudes During the COVID-19 Pandemic in New York City: A Quantitative and Qualitative Analysis			61.5% of maternal-fetal medicine (MFM) visits, and 41.5% of clinic visits were performed via telehealth. A total of 36 providers completed the survey and 11 were interviewed. Accessing technology and performing visits, documentation, and follow-up using the telehealth electronic medical record were all viewed favorably by providers. In transitioning to telehealth, operational challenges were more significant for health clinics than for MFM and generalist faculty practices, with patients receiving public insurance experiencing greater difficulties and barriers to care. Additional resources on the patient and operational level were required to optimize attendance at in-person and video visits for clinic patients.	prenatal practice in the setting of the COVID-19 pandemic and was viewed favorably by providers; additional support is required to optimize access for patients with Medicaid.	Prenatal Care and Provider Attitudes during the COVID-19 Pandemic in New York City: A Quantitative and Qualitative Analysis [published online 2020 Jun 9]. Am J Perinatol. doi:10.1055/s-0040-1712939
Children, viral shedding, neutralizing antibody, dynamic surveillance, China	9-Jun-20	Dynamic Surveillance of SARS-CoV-2 Shedding and Neutralizing Antibody in Children With COVID-19	Emerging Microbes & Infection	Letter	This study investigates the characteristics of viral shedding from different sites and the neutralizing antibody (NAb) response during the acute and convalescent phases of nine children with COVID-19. SARS-CoV-2 was detected in their nasopharyngeal swabs (9/9, 100%), stool samples (8/9, 89%), and oropharyngeal swabs (3/9, 33%) but was not detected in their serum and urine samples. The median duration of viral shedding detected in nasopharyngeal swabs, oropharyngeal swabs, and stools was 13, 4, and 43 days respectively, and the maximum duration of viral shedding detected from stools was 46 days after discharge. In children, nasopharyngeal swabs appear to be a more sensitive specimen type for the diagnosis of COVID-19 compared with oropharyngeal swabs. Three of eight patients produced NAbs in the acute phase and NAbs were detected in all eight patients with convalescent sera.	Results of this study provide information on viral shedding and neutralizing antibody detection in children with COVID-19, with implications for the diagnosis, surveillance, and development of vaccines in this population.	Liu P, Cai J, Jia R, et al. Dynamic Surveillance of SARS-CoV-2 Shedding and Neutralizing Antibody in Children With COVID-19 [published online 2020 Jun 9]. Emerg Microbes Infect. doi.org/10.1080/22221751.2020.1772677
Postnatal infection, neonates, humoral immunity, maternity hospital outbreak, horizontal transmission, Germany	9-Jun-20	Postnatal SARS-CoV-2 Infection and Immunological Reaction: A Prospective Family Cohort Study	Pediatric Allergy and Immunology	Letter to the Editor	In early March 2020, a COVID-19 outbreak at a large maternity center in Germany occurred affecting 36 midwives, nurses, and doctors. Data are presented on all deliveries with varying degrees of unprotected parental contact with SARS-CoV-2 infected personnel during the first, precontainment, week of the outbreak. Out of 66 families concerned, 61 consented to a prospective study. One or both parents from 16 families reported symptoms suggestive of SARS-CoV-2 infection within 2 weeks postpartum. Three of their infants (all spontaneous births) displayed non-specific signs of infection similar to late-onset sepsis. Five of the 16 families reporting COVID-19 compatible symptoms actually contracted COVID-19 based on RT-PCR and antibody evidence. Two of the three symptomatic neonates were RT-PCR positive and one asymptomatic neonate was identified; no neonates had detectable antibodies. Only one mother produced SARS-CoV-2 IgG-positive breast milk. Although the risk of vertical transmission via breastmilk cannot be excluded, postnatal infection of neonates through horizontal transmission is much more likely.	This cohort study describes transmission of SARS-CoV-2 infection from an outbreak of COVID-19 among obstetric staff at a maternity hospital among postpartum women, their family members, and neonates.	Preßler J, Fill Malfertheiner S, Kabesch M, et al. Postnatal SARS-CoV-2 Infection and Immunological Reaction: A Prospective Family Cohort Study [published online 2020 Jun 9]. Pediatr Allergy Immunol. doi:10.1111/pai.13302
Adolescent, beta-thalassemia, anosmia, ageusia, hemoglobin, Indonesia	9-Jun-20	Thalassemic Child Presenting With Anosmia Due to COVID-19	The Indian Journal of Pediatrics	Scientific Letter	A 17-year-old girl with transfusion-dependent beta-thalassemia, presented with acute loss of sense of smell (anosmia) and diminished sense of taste (ageusia) for 8 days prior to admission, accompanied by a 2-day history of sneezing. She had contact with her father, who was positive for COVID-19. Laboratory studies showed low hemoglobin level, normal white blood cell count, with 54.9% neutrophils and 34.2% lymphocytes, prothrombin time prolongation, hyperuricemia, and a slight increase in C-reactive protein level. An oropharyngeal swab tested positive for SARS-CoV-2, and both supportive	Anosmia and ageusia were presenting symptoms of an adolescent with COVID-19. The authors argue that patients with beta-thalassemia do not have the same risk of COVID-19 as	Marhaeni W, Wijaya AB, Kusumaningtyas P, Mapianto RS. Thalassemic Child Presenting with Anosmia due to COVID-19 [published online 2020 Jun 9]. Indian J Pediatr.

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					and therapeutic care was initiated. It is hypothesized that SARS-CoV-2 attacks the beta chain of hemoglobin molecules, leading to hemolytic anemia, but the beta globin chain defect in beta-thalassemia might potentially interrupt this pathomechanism.	other patients, considering its reduced severity.	doi:10.1007/s12098-020-03370-4
Children, pediatric care, health services, India	9-Jun-20	Child Health and Delivery of Care During the COVID-19 Pandemic and Beyond	The Indian Journal of Pediatrics	Editorial Commentary	Although pediatric cases of COVID-19 are fewer and milder than in adults, pediatric health care services in India have been severely affected by the COVID-19 pandemic. This report discusses various issues related to pediatric COVID-19; innovations and improvisations in healthcare delivery; child health issues beyond COVID-19 including paucity of health services, nutrition related concerns, mental health, and vaccination; resumption of clinical services; education; and impact on parents/caregivers.	Issues related to COVID-19 in children as well as pediatric care during and beyond the current pandemic in India are presented.	Mathew JL. Child Health and Delivery of Care During the COVID-19 Pandemic and Beyond [published online 2020 Jun 9]. Indian J Pediatr. doi:10.1007/s12098-020-03380-2
Children, asthma, allergic disorders, susceptibility, disease severity	9-Jun-20	Asthma and the Coronavirus Disease 2019 Pandemic: A Literature Review	International Archives of Allergy and Immunology	Review Article	Even though respiratory viruses are one of the most common triggers for asthma exacerbations, not all of these viruses affect patients equally. There is no strong evidence supporting that patients with asthma have a higher risk of becoming seriously ill from COVID-19, although recent reports from the USA and the UK suggest that asthma is much more common in children and adults with mild to severe COVID-19 than has previously been reported in Asia and in Europe. As in previous severe acute respiratory syndrome (SARS) outbreaks, patients with asthma, especially children, appear to be less susceptible to the coronavirus with a low rate of asthma exacerbations. A different expression of viral receptors and T2 inflammation can be responsible for different outcomes. Future studies are needed to provide a greater understanding of the impact of underlying asthma and allergic inflammation on COVID-19 susceptibility and severity. However, for the moment, it is crucial that asthmatic patients maintain their controller medication, without making any dose adjustments on their own or stopping the medication.	To date, there is no evidence to suggest that patients with asthma, especially children, are at higher risk of COVID-19 susceptibility or disease severity.	Morais-Almeida M, Pité H, Aguiar R, Ansotegui I, Bousquet J. Asthma and the Coronavirus Disease 2019 Pandemic: A Literature Review [published online 2020 Jun 9]. Int Arch Allergy Immunol. doi:10.1159/000509057
Children, school closure, lockdown, health policy	9-Jun-20	COVID-19 and the Re-Opening of Schools: A Policy Maker's Dilemma	Italian Journal of Pediatrics	Letter to the Editor	Clinical evidence has shown that children mainly have asymptomatic or mild SARS-CoV-2 infection; it has also been suggested that they are less likely to spread the virus. Restrictive measures, like lockdown and school closure, could have negative consequences on children, affecting their social life, education and mental health. As many countries are gradually lifting social distancing measures, the re-opening of schools in the early stage of recovery efforts should consider how to put in place measures to do so safely, such as the maintenance of social distance, the reorganization of classes into smaller groups, the provision of adequate sanitization of spaces, furniture and toys, the prompt identification of cases in the school environment and their tracing. Another issue to be considered is represented by socio-economic disparities and inequalities which could be amplified by school's closure.	Policymakers must balance pros and cons of school re-opening; this article outlines suggestions for how to plan for this scenario in a safe manner.	Fantini MP, Reno C, Biserni GB, Savoia E, Lanari M. COVID-19 and the re-opening of schools: a policy maker's dilemma. Ital J Pediatr. 2020;46(1):79. doi:10.1186/s13052-020-00844-1
Children, hospitalization, clinical course, comorbidities, UK	9-Jun-20	COVID-19: A UK Children's Hospital Experience	Hospital Pediatrics	Brief Report	In this retrospective case series of pediatric inpatients, 45 children tested positive for SARS-CoV-2 between March 14 and April 24, 2020. Median (IQR) age was 3.5 (0.7-12) years and 31 (69%) were male. Children with comorbidities constituted 64% (29/45) of the study population, including 44% (20/45) who were considered 'extremely vulnerable.' Fever (67%) and cough (55%) were the most common symptoms. High C-reactive protein (>10mg/L) was observed in 68% (19/28). Lymphopenia (<1.2x10^9/L) was observed in 23% (9/40) of children, but it was related to co-existing medical conditions in 6	COVID-19 had a relatively mild course of illness in the majority of hospitalized children that included a sub-group of vulnerable children with significant comorbidities.	Kanthimathinathan HK, Dhesi A, Hartshorn S, et al. COVID-19: A UK Children's Hospital Experience [published online 2020 Jun 9]. Hosp Pediatr.

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					children. Nine children required supplemental oxygen; two of whom received high-flow nasal cannula oxygen; one needed non-invasive ventilation and one child required invasive mechanical ventilation. Median length of stay of children with an admission outcome (n=42, 93%) was 3 (2-7) days. There were no COVID-19 related deaths.		doi:10.1542/hpeds.2020-000208
Isoagglutinin titer hypothesis, anti-A iso-agglutinins, neutralization, convalescent plasma therapy, infants	9-Jun-20	Anti-A Isohemagglutinin Titers and SARS-CoV2 Neutralization: Implications for Children and Convalescent Plasma Selection	British Journal of Haematology	Letter	After demonstration that group O healthcare workers were less likely to become infected with SARS-CoV, a research group proved that anti-A blood group natural iso-agglutinins inhibit SARS-CoV entry into competent cells and could opsonize viral particles leading to complement-mediated neutralization. Since SARS-CoV-2 uses the same receptor as SARS-CoV, anti-A iso-agglutinins are expected to have similar effects against SARS-CoV-2. The iso-agglutinin titer hypothesis does not explain why infants are generally spared by COVID-19 since anti-A iso-agglutinins do not fully develop in the first months or years of life. However, if confirmed, this hypothesis could have implications for convalescent plasma therapy, since anti-A1 IgG could confer additional benefit over SARS-CoV-2 neutralizing antibodies. Moreover, while preserving ABO match compatibility, it could be wiser to prefer blood group O donors for convalescent plasma for COVID-19.	The iso-agglutinin titer hypothesis, its relation to infants, and its implications for convalescent plasma therapy are explained.	Daniele F. Anti-A Isohemagglutinin titers and SARS-CoV2 neutralization: implications for children and convalescent plasma selection [published online 2020 Jun 9]. Br J Haematol. doi:10.1111/bjh.16932
Children, MIS-C, post-infectious myocarditis, cardiac MRI imaging, France	9-Jun-20	Cardiac MRI of Children With Multisystem Inflammatory Syndrome (MIS-C) Associated With COVID-19: Case Series	Radiology	Pediatric Imaging	This case series examines cardiac MRI findings in four children and adolescents admitted to intensive care in April 2020 for multisystem inflammatory syndrome and Kawasaki disease-like features related to COVID-19. Acute myocarditis occurred less than 1 week after onset of fever and gastrointestinal symptoms. Physical examination showed rash and cheilitis/conjunctivitis. All patients recovered after IV immunoglobulin therapy. SARS-CoV-2 RT-PCR was negative on all nasopharyngeal, stool, and respiratory samples and was positive on serology (IgG 4/4 and IgM 1/4). Cardiac MRI showed diffuse myocardial edema on T2-STIR sequences and native-T1 mapping, with no evidence of late gadolinium enhancement suggestive of replacement fibrosis or focal necrosis.	Findings from this case series favor the occurrence of post-infectious myocarditis in children and adolescents with COVID-19.	Blondiaux E, Parisot P, Redheuil A, et al. Cardiac MRI of Children with Multisystem Inflammatory Syndrome (MIS-C) Associated with COVID-19: Case Series [published online 2020 Jun 9]. Radiology. doi:10.1148/radiol.2020202288
Children vs adults, RT-PCR positive rates, epidemic stages, France	9-Jun-20	Changes in RT-PCR-positive SARS-CoV-2 rates in adults and children according to the epidemic stages	medRxiv	Preprint (not peer reviewed)	In this prospective multicenter study involving 45 pediatric units, the results of nasopharyngeal swabs in France were collected from March 2 to April 26, 2020. In total, 52,588 RT-PCR tests for SARS-CoV-2 were performed, 6,490 in children and 46,098 in adults. The risk ratio of RT-PCR positive SARS-CoV-2 tests for adults compared to children was 3.5 (95%CI [3.2;3.9]) for the whole study period. These rates varied according to the time of the epidemic and were higher at the peak. The lower rates of positive test in children persisted during the surveillance period but varied according to the time in the epidemic.	The rate of positive RT-PCR positive SARS-CoV-2 tests for children was always less than that for adults but vary according to the epidemic stage in France.	Levy C, Basmaci R, Bensaid P, et al. Changes in RT-PCR-positive SARS-CoV-2 rates in adults and children according to the epidemic stages [published online 2020 Jun 9]. medRxiv. doi:10.1101/2020.05.18.20098863
Pregnancy, first trimester, nuchal translucency thickness, pregnancy loss, serology, Denmark	9-Jun-20	SARS-CoV-2 in first trimester pregnancy - does it affect the fetus?	medRxiv	Preprint (not peer reviewed)	Cohort 1 included pregnant women with a double SARS-CoV-2 test, as part of a first trimester risk assessment, performed between February 17 and April 23, 2020, during the SARS-CoV-2 epidemic peak in Denmark. Cohort 2 included women with a first trimester pregnancy loss before the double test. Serum from the double test or from a blood sample, in case of pregnancy loss, was analyzed for SARS-CoV-2 antibodies. The results were correlated to the nuchal translucency thickness and the number of pregnancy losses. In total, 1,019 pregnant women with a double test and 36 women with pregnancy loss	Contributing to limited evidence on SARS-CoV-2 infection in the first trimester, this study found little evidence of harm from maternal infection in early pregnancy.	la Cour Freiesleben N, Egerup P, Hviid KVR, et al. SARS-CoV-2 in first trimester pregnancy - does it affect the fetus? [published online 2020 Jun 9]. medRxiv.

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					participated in the study. Thirty (2.9%) women had SARS-CoV-2 antibodies in the serum from the double test. All women with pregnancy loss prior to the double test were negative for SARS-CoV-2 antibodies. There were no significant differences in nuchal translucency thickness for women testing positive (n=14) versus negative (p=0.20) or grey zone (n=16) versus negative (p=0.28). Overall, 54 women experienced a pregnancy loss of whom two had grey zone or positive SARS-CoV-2 antibodies.		doi:10.1101/2020.06.08.201225195
Pregnancy, placental infection, adverse fetal/neonatal outcome, PIMS-TS, Netherlands	9-Jun-20	SARS-CoV-2 placental infection and inflammation leading to fetal distress and neonatal multi-organ failure in an asymptomatic woman	medRxiv	Preprint (not peer reviewed)	An asymptomatic pregnant woman with preterm fetal distress during the COVID-19 pandemic is described. Multiple maternal, placental and neonatal swabs were obtained and showed a median viral load in maternal blood, urine, oropharynx, fornix posterior over a period of 6 days was 5.0 log copies /mL. The maternal side of the placenta had a viral load of 4.42 log copies /mL, while the fetal side had 7.15 log copies /mL. Maternal breast milk, feces and all neonatal samples tested negative. Serology of immunoglobulins against SARS-CoV-2 was positive in maternal blood, but negative in umbilical cord and neonatal blood. Pathological examination of the placenta included immunohistochemical investigation against SARS-CoV-2 antigen expression in combination with SARS-CoV-2 RNA in situ hybridization and transmission electron microscopy. It showed the presence of SARS-CoV-2 particles with generalized inflammation characterized by histiocytic intervillositis with diffuse perivillous fibrin depositions with damage to the syncytiotrophoblasts. In this case, placental infection by SARS-CoV-2 lead to fibrin depositions hampering fetal-maternal gas exchange most likely resulted in fetal distress necessitating a premature emergency caesarean section. Postpartum, the neonate showed a clinical presentation resembling a pediatric inflammatory multisystem syndrome including coronary artery ectasia, most likely associated with SARS-CoV-2 (PIMS-TS) for which admission and care on the Neonatal Intensive Care unit (NICU) was required, despite being negative for SARS-CoV-2.	In this case report, SARS-CoV-2 RNA was detected on both maternal and fetal sides of the placenta, and SARS-CoV-2 particles were detected on pathological examination of the placenta.	Schoenmakers S, Snijder P, Verdijk R, et al. SARS-CoV-2 placental infection and inflammation leading to fetal distress and neonatal multi-organ failure in an asymptomatic woman [published online 2020 Jun 9]. medRxiv. doi:10.1101.2020.06.08.20110437
Children, age groups, viral load, PCR systems, Germany	9-Jun-20	An analysis of SARS-CoV-2 viral load by patient age	medRxiv	Preprint (not peer reviewed)	Viral load, as measured by RT-PCR, can inform considerations regarding transmission, especially if existing knowledge of viral load in other respiratory diseases is taken into account. RT-PCR threshold cycle data from 3303 patients who tested positive for SARS-CoV-2 (drawn from across Germany) were analyzed to examine the relationship between patient age and estimated viral load, using 2 PCR systems. In data from the PCR system predominantly used for screening during the early phase of the pandemic, viral loads do not differ significantly in three comparisons between young and old age groups. Data from a second type of PCR system showed a credible but small difference in the three comparisons between young and old age groups, which may be due to differential patterns of PCR instrument utilization rather than to an actual difference in viral load. Considering household transmission data on influenza, which has a similar viral load kinetic to SARS-CoV-2, the viral load differences between age groups observed in this study are likely to be of limited relevance.	There is little evidence from the present study to support evidence that children may not be as infectious as adults; the authors concluded that a considerable percentage of infected people in all age groups carry viral loads likely to represent infectivity.	Jones TC, Mülemann B, Veith T, et al. An analysis of SARS-CoV-2 viral load by patient age [published online 2020 Jun 9]. medRxiv. doi:10.1101/2020.06.08.20125484
Age-dependent susceptibility, mortality rate,	9-Jun-20	Does susceptibility to novel coronavirus	medRxiv	Preprint (not peer reviewed)	Among Italy, Spain, and Japan, the age distributions of COVID-19 mortality show only small variation, even though the number of deaths per country shows large variation. To understand the determinant for this situation, the	Findings from this modeling study show that, rather than susceptibility, age-	Omori R, Matsuyama R, Nakata Y. Does susceptibility to novel

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symptomatic infections, age distribution, modeling study, Italy, Spain, Japan		(COVID-19) infection differ by age?: Insights from mathematical modelling			authors constructed a mathematical model describing the transmission dynamics and natural history of COVID-19 and analyzed the dataset of fatal cases of COVID-19 in Italy, Spain, and Japan. They estimated the parameter which describes the age-dependency of susceptibility by fitting the model to reported data, taking into account the effect of change in contact patterns during the outbreak of COVID-19, and the fraction of symptomatic COVID-19 infections. Findings revealed that if the mortality rate or the fraction of symptomatic infections among all COVID-19 cases does not depend on age, then unrealistically different age-dependencies of susceptibilities against COVID-19 infections between Italy, Japan, and Spain are required to explain the similar age distribution of mortality but different basic reproduction numbers (R0). Variation of susceptibility by age itself cannot explain the robust age distribution in mortality by COVID-19 in those three countries, however it does suggest that the age-dependencies of i) the mortality rate and ii) the fraction of symptomatic infections among all COVID-19 cases determine the age distribution of mortality by COVID-19.	dependent mortality rate and fraction of symptomatic infections explain the robust age distribution of mortality among COVID-19 cases in Italy, Spain, and Japan.	coronavirus (COVID-19) infection differ by age?: Insights from mathematical modelling [published online 2020 Jun 9]. medRxiv. doi:10.1101/2020.06.08.20126003
Obstetric delivery, birth settings, vertical transmission, natural delivery, Peru	8-Jun-20	Management of eutocic delivery in a patient with COVID-19 in Lima, Peru	Revista Peruana de Ginecologia y Obstetricia	Case Report	This article presented the case of a eutocic or vaginal, uncomplicated delivery in a COVID-19 patient. The patient, a 33-year-old woman, 39 weeks pregnant, who had received prenatal care in a private clinic, presented in labor, coughing, without any other symptoms. She was diagnosed with COVID-19 by rapid test, IgM (+) and IgG (-). The authors isolated the patient and provided PPE following their clinic's protocol. Delivery was managed according to obstetric conditions, applying epidural anesthesia in the active phase; the infant was born without complications. Neither skin-to-skin contact nor delayed umbilical cord clamping was performed. Mother and child were discharged without complications after the newborn completed the required isolation period, testing negative for COVID-19. Telephone follow-up was performed. The healthcare team followed the recommended protocol to manage delivery during the COVID-19 pandemic.	This case report described a 33-year-old, woman, 39 weeks pregnant, who was tested positive for SARS-CoV-2 and naturally delivered an infant without complication and tested negative for SARS-CoV-2.	Campodónico Olcese L, Paredes Salas JR, Campodónico Olcese D, et al. Management of eutocic delivery in a patient with COVID-19 in Lima, Peru. Rev Peru Ginecol Obstet: 2020;66(2) DOI: https://doi.org/10.31403/rpgo.v66i2251
Pregnancy, mode of delivery, neonatal, outcomes, Spain	8-Jun-20	Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain	The Journal of the American Medical Association	Research Letter	The authors conducted a study to assess whether the delivery mode is associated with maternal complications, NICU admission, or neonatal transmission. Study participants included 82 women with singleton pregnancies, a positive RT-PCR result for SARS-CoV-2 between March 12 and April 6, 2020 and delivered within the subsequent 14 days at 96 level 2 or level 3 maternity hospitals throughout Spain. The authors observed that women with cesarean deliveries were more likely to be multiparous, be obese, require oxygen on admission, and have abnormal chest x-ray findings than those delivering vaginally. Furthermore, none of the patients who delivered vaginally developed severe adverse outcomes, whereas five (13.5%) with cesarean delivery required ICU admission. Eight newborns (19.5%) delivered vaginally, and 11 (29.7%) born by cesarean delivery were admitted to the NICU. However, after adjusting for confounding factors, cesarean birth was not significantly associated with an increased risk of NICU admission (P = .76). Also, three (4.2%) of 72 newborns tested within 6 hours after birth had a positive SARS-CoV-2 RT-PCR result, but repeat testing was negative at 48 hours.	In this cohort of pregnant women in Spain, women undergoing cesarean delivery were at higher risk of adverse outcomes. However, there was a lack of association between cesarean delivery and risk of NICU admission, and insufficient information on newborns to determine vertical transmission.	Martínez-Perez O, Vouga M, Cruz Melguizo S, et al. Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain. JAMA. 2020;324(3):296–299. doi:10.1001/jama.2020.10125

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Eating habits, lifestyle, Mediterranean diet, Italy	8-Jun-20	Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey	Journal of Translational Medicine	Original Article	This study aimed to investigate the immediate impact of the COVID-19 pandemic on eating habits and lifestyle changes among the Italian population aged ≥ 12 years. The survey, comprising of a structured questionnaire packet, was conducted from the 5th to the 24th of April 2020. A total of 3533 respondents were included in the study, aged between 12 and 86 years (76.1% females). Results showed that the perception of weight gain was observed in 48.6% of the population; 3.3% of smokers decided to quit smoking; a slight increased physical activity was reported, especially for bodyweight training in 38.3% of respondents; the population group aged 18-30 years resulted in having a higher adherence to the Mediterranean diet (MD) when compared to the younger and the elderly population ($p < 0.001$; $p < 0.001$, respectively); 15% of respondents turned to farmers or organic, purchasing fruits and vegetables, especially in the North and Center of Italy, where BMI values were lower. There has not been a deterioration in terms of the Italian population's adherence to the MD pattern during the COVID-19 lockdown.	This study investigated the immediate impact of the COVID-19 lockdown on eating habits and lifestyle changes among Italian residents, finding that the population group aged 18–30 years resulted to have a higher adherence to the MD when compared to the younger and the elderly population.	Di Renzo L, Gualtieri P, Pivari F, et al. Eating habits and lifestyle changes during COVID-19 lockdown: an Italian survey. J Transl Med. 2020;18(1):229. Published 2020 Jun 8. doi:10.1186/s12967-020-02399-5
Diagnostic-therapeutic protocols, medical management, pediatric rheumatology, Kazakhstan, Central Asia	8-Jun-20	Management of Pediatric Rheumatic Patients in Kazakhstan During the Coronavirus Disease 2019 (COVID-19) Pandemic	Nature Public Health Emergency Collection	Review	In general, the COVID-19 pandemic affected the medical management of rheumatic patients, especially in those geographical areas characterized by the highest incidence of COVID-19. As for the therapy, rheumatic patients were recommended to maintain their current medications, unless they develop COVID-19: in the case of Kazakhstan, any decision should be made according to the specific and individual patient's situation. Rheumatic patients with exacerbations and those needing scheduled infusions with biological drugs had to be admitted to the local hospitals near their place of residence, even though no specialized centers were present. Accordingly, the pediatric rheumatology specialists of the National Research Center for Mother and Child Health have implemented a system of distance consultation by phone and/or video-calls to grant the appropriate therapy adjustments and provide the needed guidance for the most complex cases.	The availability of official national protocols accessible to all the physicians all over the country of Kazakhstan may be a fundamental tool for all those emergency situations in which the access to the referral and specialized medical centers is not possible.	Mukusheva Z, Assylbekova M, Poddighe D. Management of pediatric rheumatic patients in Kazakhstan during the coronavirus disease 2019 (COVID-19) pandemic. Rheumatol Int. 2020;40(8):1351-1352. doi:10.1007/s00296-020-04613-5
Pregnancy, lockdown, mental health, domestic violence, Ireland	8-Jun-20	Effects of isolation on mood and relationships in pregnant women during the covid-19 pandemic	European Journal of Obstetrics and Gynecology and Reproductive Biology	Letter to the Editor	The authors present a prospective study of pregnant women in their 2nd and 3rd trimesters who were receiving antenatal care at a tertiary level maternity center in Dublin, Ireland, to assess the effects of lockdown on relationships and maternal mood. 70 women completed a questionnaire from April 6-28, 2020, the latter period of the strictest lockdown measures in Ireland. Most women (67/70; 95.7%) reported the relationship with their partner had not deteriorated during lockdown, with 34% of these women reporting having grown closer to their partners. Of the three who reported deterioration, one thought of seeking help in the form of police action. None reported physical violence. 44% (31/70) reported low mood due to loneliness, and 34% (24/70) reported enjoying the lockdown and isolation due to the break from life's fast pace. This study found both positive and negative effects of the lockdown on pregnant women's mental health.	This study provides insight into the effects of social isolation on the relationships of an obstetric cohort and its effect on their mental health. This study did not demonstrate the increased incidence of domestic violence that has been reported from many countries during lockdown, instead finding that many women reported an improved relationship with their partner.	Milne S, Corbett G, Hehir M, et al. Effects of isolation on mood and relationships in pregnant women during the covid-19 pandemic [published online 2020 Jun 8]. Eur J Obstet Gynecol Reprod Biol. 2020. doi:10.1016/j.ejogrb.2020.06.009
Exclusion criteria, pregnancy,	8-Jun-20	Excluding Pregnancy From COVID-19 Trials:	Canadian Medical	Letter	In this letter, the authors agree with Cheng et al. 2020 regarding the need to generate robust evidence through randomized trials. Yet, the authors found that pregnant individuals only have access to 0.3% of all COVID-19-related	Pregnant individuals should be included in clinical trials, including COVID-19-related	Malinowski AK, Snelgrove J, Okun N. Excluding pregnancy from COVID-

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research ethics, access		Protection From Harm or the Harm of Protection?	Association Journal		trials. They contend that omitting pregnant individuals from the controlled research environment magnifies vulnerability by shifting experimentation onto the clinical stage. In conclusion, the authors state that until inclusion in trials is mandated, pregnant individuals and their offspring will continue to be subjected to erosion of individual autonomy and direct harms brought about by use of pharmacologic that have not been subjected to the gold-standard investigation available to the rest of the population.	research. Exclusion of this population from research is a violation of equity and human rights that should be challenged.	19 trials: Protection from harm or the harm of protection?. [2020 Jun 08]. CMAJ. doi:10.1503/cmaj.75807
Children, adults, congenital heart disease, cardio-vascular complications, Italy	8-Jun-20	COVID-19 and Congenital Heart Disease: Results From a Nationwide Survey	Journal of Clinical Medicine	Feature Paper	This is a multi-center, observational, nationwide survey, involving high-volume Italian congenital heart disease (CHD) centers. Overall, 76 SARS-CoV-2-infected CHD cases were registered from February 21 to April 4, 2020, including four children (mean age 0.9 years, range 2 months to 2 years) and 72 adults (mean age 36.6 years, range 21 to 76 years). Cardiovascular comorbidities were observed among adult patients, including atrial fibrillation (7; 9%), hypertension (5; 7%), obesity (7; 9%) and diabetes (1; 1%), but were absent among children. Cardiovascular complications were mainly observed in the laboratory "confirmed" COVID-19+ group, whereas CHD patients from the clinically suspected COVID-19 group presented no severe symptoms or complications.	Cardiovascular comorbidites were uncommon among children in this study; despite previous reports pointing to a higher case-fatality rate among patients with cardiovascular comorbidities, adults in this study showed a mild COVID-19 clinical course.	Sabatino J, Ferrero P, Chessa M, et al. COVID-19 and Congenital Heart Disease: Results from a Nationwide Survey. J Clin Med. 2020;9(6):E1774. doi:10.3390/jcm9061774
Breastfeeding, human milk expression, breast pump, milk banking	8-Jun-20	Breastfeeding, Human Milk Collection and Containers, and Human Milk Banking: Hot Topics During the COVID-19 Pandemic	Journal of Human Lactation	Research Article	With regard to the care of newborns delivered by women with suspected or confirmed COVID-19, the main issues of concern include: (1) breastfeeding during the pandemic; (2) human milk collection and the handling of containers when the dyad is separated, with mothers expressing their milk; and (3) making donations of human milk to human milk banks. This report responds to these issues with the following key messages: promoting breastfeeding whenever possible, without disregarding the option of mother's milk expression; utilizing protocols for correct handling of human milk containers; strictly controlling human milk donors for COVID-19 positivity at human milk banks; and allocating available donor milk to the most at-risk preterm infants given decreasing donations.	An overview of different strategies. with their practical implications, to address issues related to breastfeeding and COVID-19 is presented in this report.	Moro GE, Bertino E. Breastfeeding, Human Milk Collection and Containers, and Human Milk Banking: Hot Topics During the COVID-19 Pandemic [published online 2020 Jun 8]. J Hum Lact. doi:10.1177/0890334420934391
Children, adolescents, anosmia, ageusia, clinical presentation, Hong Kong	8-Jun-20	Anosmia and Ageusia: Not an Uncommon Presentation of COVID-19 Infection in Children and Adolescents	The Pediatric Infectious Diseases Journal	Brief Report	Loss of taste (ageusia) or sensation of smell (anosmia) have been seldom reported in children with COVID-19. In this paper, three cases of pediatric patients (17, 15, and 14 years old) with confirmed SARS-CoV-2 infection who presented with anosmia and/or ageusia are described. In COVID-19, sensorineural inflammation of the olfactory neuroepithelium may play a larger role than conductive olfactory loss, due to edema and nasal congestion, in causing anosmia. The sense of taste is strongly related to the sense of smell; hence, inflammation of chemoreceptors can produce both anosmia and ageusia. In children, anosmia and ageusia may occur alone in an otherwise asymptomatic COVID-19 patient or in conjunction with other symptoms.	Clinicians should remain alert to children and adolescents presenting with anosmia and ageusia, which should be included into diagnostic and testing criteria for COVID-19.	Mak PQ, Chung KS, Wong JS, Shek CC, Kwan MY. Anosmia and Ageusia: Not an Uncommon Presentation of COVID-19 Infection in Children and Adolescents [published online 2020 Jun 8]. Pediatr Infect Dis J. doi:10.1097/INF.0000000000002718
Pregnancy, obstetricians, pediatricians, online survey, Jordan	8-Jun-20	Perceptions of Obstetricians and Pediatricians About the Risk of COVID-19 for Pregnant Women and Newborns	International Journal of Gynecology & Obstetrics	Clinical Article	A structured 27-item online survey was sent via social media messaging to obstetricians and pediatricians from public, academic, and private sectors in Jordan between March 23-30, 2020. A total of 147 physicians participated (107 obstetricians, 40 pediatricians). Participants were well informed about the symptoms, diagnosis, modes of transmission, and methods of prevention. Participants had variable perceptions about COVID-19 risk during pregnancy, including potential vertical transmission, preferred route of delivery, and	While evidence-based strategies to reduce the risks of COVID-19 in pregnant women and newborns are evolving, healthcare providers in Jordan showed excellent	Obeidat N, Saadeh R, Obeidat M, Khasawneh W, Khader Y, Alfaqih M. Perceptions of obstetricians and pediatricians about the risk of COVID-19 for

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					safety of breastfeeding. Most participants felt that pregnant women should be prioritized for testing and medical care provision.	knowledge of the infection and were vigilant regarding its complications in these populations.	pregnant women and newborns [published online 2020 Jun 8]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13264
Pregnant vs. non-pregnant, clinical characteristics, laboratory findings, China	8-Jun-20	Clinical Characteristics and Laboratory Results of Pregnant Women With COVID-19 in Wuhan, China	International Journal of Gynecology & Obstetrics	Clinical Article	A total of 72 women (30 pregnant and 42 nonpregnant) with COVID-19 were included in this retrospective study from Wuhan, China. No patients developed severe pneumonia during the study. Compared with the nonpregnant group, pregnant patients were admitted to the hospital earlier (0.25 vs 11.0 days; *P*<0.001), presented milder symptoms, had a higher rate of asymptomatic infection (26.7% vs 0%), and shorter length of hospital stay (14.5 vs 17.0 days; *P*<0.01). Laboratory test results showed that levels of inflammation markers such as white blood cell count, neutrophil count and percentage, C-reactive protein, procalcitonin, and D-dimer were significantly higher in pregnant women, whereas mean lymphocyte percentage was significantly lower compared with nonpregnant women.	In some respects, the clinical characteristics and laboratory findings of COVID-19 in pregnant patients appear distinctive from their nonpregnant counterparts.	Wang Z, Wang Z, Xiong G. Clinical characteristics and laboratory results of pregnant women with COVID-19 in Wuhan, China [published online 2020 Jun 8]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13265
Children, parents, dental environment, knowledge and attitudes, viral transmission, China	8-Jun-20	Knowledge of and Attitudes Toward COVID-19 Among Parents of Child Dental Patients During the Outbreak	Brazilian Oral Research	Original Research	The aim of this study was to evaluate the knowledge of and attitudes toward COVID-19 among 148 parents of child dental patients in Shenzhen, China during the outbreak. Through a structured questionnaire, 66.2% thought the dental department environment was more dangerous than other public places; 91.9% believed the dental department had a higher risk of viral infection; and 83.8% said they would take their child to a dental department if the child had a severe toothache. Approximately 81.1% of the parents expressed confidence after receiving information about preventive measures taken in the dental department to ensure safe treatment for their children.	A high percentage of surveyed parents of child dental patients expressed concern over potential viral transmission in the dental environment.	Sun J, Xu Y, Qu Q, Luo W. Knowledge of and attitudes toward COVID-19 among parents of child dental patients during the outbreak. Braz Oral Res. 2020;34:e066. doi:10.1590/1807-3107BOR-2020.vol34.0066
Children, MIS-C, Kawasaki disease, South Korea	8-Jun-20	Defining Association Between COVID-19 and the Multisystem Inflammatory Syndrome in Children Through the Pandemic	Journal of Korean Medical Science	Opinion	The incidence of Kawasaki disease (KD) in Korea is estimated to be 217.2 per 100,000 children less than 5 years old, 10-30 fold higher than that of KD in North America and Europe. As of May 18, 2020, the number of pediatric cases (≤19 years) confirmed with SARS-CoV-2 infection was 768 out of 11,065 (6.9%) in the nation. Among these, no case of Kawasaki-like clinical manifestations has been documented. The proportions of children diagnosed with KD between February and April, comparing years 2015 to 2020, have remained similar (range: 1.0%-1.4%) with no significant increases.	No cases of Kawasaki-like disease associated with SARS-CoV-2 infection have been reported among children with COVID-19 in South Korea, to date.	Kim YJ, Park H, Choi YY, et al. Defining Association between COVID-19 and the Multisystem Inflammatory Syndrome in Children through the Pandemic. J Korean Med Sci. 2020;35(22):e204. doi:10.3346/jkms.2020.35.e204
Children, clinical trials, azithromycin, early infection course	8-Jun-20	Azithromycin and COVID-19 Prompt Early Use at First Signs of This Infection in Adults and Children An Approach Worthy of Consideration	Dermatologic Therapy	Short Paper	Initial enthusiasm for the combination of hydroxychloroquine and azithromycin as therapeutic agents for COVID-19 has abated. However, the authors of this report recommend formal clinical trials using azithromycin early in the course of a COVID-19 infection, in adults and children. One individually randomized, telemedicine-based clinical trial in adults has been initiated, based at the University of California San Francisco. This placebo-controlled trial is designed to determine the efficacy of a single 1.2 g dose of oral azithromycin to prevent COVID-19 patient progression to hospitalization. The authors encourage formal clinical trials with prepackaged preparation of azithromycin at the first sign of COVID-19 over a five-day period with 500 mg	The authors recommend formal clinical trials of azithromycin in the early course of COVID-19 in both children and adults.	Schwartz RA, Suskind RM. Azithromycin and COVID-19Prompt Early Use at First Signs of this Infection in Adults and Children An Approach Worthy of Consideration [published online 2020 Jun 8]. Dermatol Ther. doi:10.1111/dth.13785

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					followed by 250 mg per day for four days in adults, and 10 mg/kg on the first day followed by 5 mg/kg for four days for children 5 to 18 years of age.		
Pregnancy, national cohort, ethnic minorities, obesity, maternal mortality, neonatal infection, UK	8-Jun-20	Characteristics and Outcomes of Pregnant Women Admitted to Hospital With Confirmed SARS-CoV-2 Infection in UK: National Population Based Cohort Study	The BMJ	Research	A national cohort of 427 pregnant women, admitted to 194 obstetric units in the UK, with confirmed SARS-CoV-2 infection between March 1 and April 14, 2020 is described. The estimated incidence of admission to hospital with SARS-CoV-2 infection in pregnancy was 4.9 (95%CI 4.5 to 5.4) per 1000 maternities. 233 (56%) pregnant women admitted to hospital with SARS-CoV-2 infection in pregnancy were from Black or other ethnic minority groups, 281 (69%) were overweight or obese, 175 (41%) were aged 35 or over, and 145 (34%) had pre-existing comorbidities. 266 (62%) women gave birth or had a pregnancy loss; 196 (73%) gave birth at term. Forty-one (10%) women admitted to hospital needed respiratory support, and five (1%) women died. Twelve (5%) of 265 infants tested positive for SARS-CoV-2 RNA, six of them within the first 12 hours after birth.	Based on the described national cohort of pregnant women admitted with SARS-CoV-2 infection in the UK, most were in the late second or third trimester and there was a high proportion of women from Black of minority ethnic groups.	Knight M, Bunch K, Vousden N, et al. Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study. BMJ. 2020;369:m2107. Published 2020 Jun 8. doi:10.1136/bmj.m2107
Pregnancy, ethnic minorities, UK	8-Jun-20	Covid-19: Half of Pregnant Women in UK Hospitals Are From Ethnic Minorities	The BMJ	News	A recent BMJ study has found that more than half of pregnant women recently admitted to a UK hospital with COVID-19 infection were from Black or other ethnic minority groups. This high proportion remained after excluding major urban centers from the analysis, which warrants further investigation. Overall, data suggest that most women do not have severe illness and transmission of SARS-CoV-2 to neonates is uncommon.	This news report draws attention to the high proportion of Black and ethnic minorities among pregnant patients with COVID-19 in the UK.	Kmietowicz Z. Covid-19: Half of pregnant women in UK hospitals are from ethnic minorities. BMJ. 2020;369:m2266. Published 2020 Jun 8. doi:10.1136/bmj.m2266
Children, chest imaging, CT, X-ray, lung ultrasound, comparative studies	8-Jun-20	Pediatric Coronavirus disease-2019: How to Assess Chest Disease?	Pediatric Pulmonology	Letter to the Editor	At present, there are no evidence-based studies on chest imaging in pediatric COVID-19. This report compares various abnormal chest imaging, based on conventional chest X-rays, chest CT, and lung ultrasound, found in recent studies as well as chest imaging recommendations by international sources. Special consideration should be given to the risk of radiation exposure, which is significantly increased among children. In view of this, pediatric comparative studies among different chest imaging techniques, either less or more invasive, are urgently needed in pediatric COVID-19.	This report calls for further comparative investigation of chest imaging techniques in children with COVID-19.	Corcione A, Annunziata F, Borrelli M, Santamaria F. Pediatric coronavirus disease-2019: How to assess chest disease? [published online 2020 Jun 8]. Pediatr Pulmonol. doi:10.1002/ppul.24874
Children, asthma, aerosol treatments, nebulizer, Metered Dose Inhaler, Valved-Holding Chambers	8-Jun-20	Aerosol Treatments for Childhood Asthma in the Era of COVID-19	Pediatric Pulmonology	Letter to the Editor	About 10% of children in the United States have asthma, and aerosols are the cornerstone of treatment of asthma. Nebulizers are one of the commonly used aerosol-generating medical devices and generate small particles that can spread to a larger distance than a normal breath. Treating children with asthma using nebulizers during the COVID-19 pandemic may expose patients and caregivers to cross-infection. In the era of COVID-19, the pediatric community should strongly advocate the use of a pressurized Metered Dose Inhaler administered through Valved-Holding Chambers for asthma treatment to mitigate infection risk.	In order to mitigate risk of SARS-CoV-2 spread, Metered Dose Inhalers with Valved-Holding Chambers should be used in place of aerosolized medications via nebulizers, to treat pediatric patients with asthma.	Mei-Zahav M, Amirav I. Aerosol treatments for childhood asthma in the era of COVID-19 [published online 2020 Jun 8]. Pediatr Pulmonol. doi:10.1002/ppul.24849
Children, pediatric rheumatology, incidence, Kazakhstan	8-Jun-20	Management of Pediatric Rheumatic Patients in Kazakhstan During the Coronavirus Disease 2019 (COVID-19) Pandemic	Rheumatology International	Correspondence	Even if children are not the population most at risk of developing severe forms of COVID-19, rheumatic diseases and the related immunosuppressive therapies are known to predispose to several infections. In Kazakhstan, 2.3% and 4.6% of total COVID-19 cases were, respectively, in the age groups 1–10 years and 11–20 years). No fatal cases among children were reported until the first week of May, and no SARS-CoV-2 infections have been self-reported among the pediatric rheumatic patients followed at the National Research Center for Mother and Child Health (NRCMCH), a pediatric tertiary hospital in Nur-Sultan (the capital of Kazakhstan). The less severe COVID-19	Low incidence of COVID-19 cases and implementation of management protocols in Kazakhstan have reduced the negative impact of COVID-19 on pediatric rheumatic patients.	Mukusheva Z, Assylbekova M, Poddighe D. Management of pediatric rheumatic patients in Kazakhstan during the coronavirus disease 2019 (COVID-19) pandemic [published online 2020 Jun 8].

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					epidemiological situation in Kazakhstan so far, along with the implementation of distance consulting and the availability of national diagnostic–therapeutic disease-specific protocols even before the pandemic, have lessened the burden of negative consequences on Kazakhstani children affected with rheumatic diseases.		Rheumatol Int. doi:10.1007/s00296-020-04613-5
Pregnancy, ovarian vein thrombosis, imaging, Iran	8-Jun-20	Ovarian Vein Thrombosis After Coronavirus Disease (COVID-19) Infection in a Pregnant Woman: Case Report	Journal of Thrombosis and Thrombolysis	Case Report	The case presented here is a rare ovarian venous thrombosis (OVT) in a 26-year-old pregnant woman (8 weeks' gestation) after infection with SARS-CoV-2. She had no evidence of venous thrombosis history in her previous deliveries or medical history. Because the clinical signs of OVT are often vague, imaging techniques such as CT scan and MRI would help in the early detection of some of the rare symptoms of COVID-19 and prevent catastrophic complications. Assessment of risk factors for deep vein thrombosis are critical in pregnant patients with COVID-19, who experience prolonged bed rest.	A case report from Iran describes a pregnant woman who developed ovarian vein thrombosis following diagnosis with SARS-CoV-2 infection.	Mohammadi S, Abouzaripour M, Hesam Shariati N, Hesam Shariati MB. Ovarian vein thrombosis after coronavirus disease (COVID-19) infection in a pregnant woman: case report [published online 2020 Jun 8]. J Thromb Thrombolysis. doi:10.1007/s11239-020-02177-6
Children, PIMS-TS, Kawasaki Disease, KD shock syndrome, inflammatory markers, UK	8-Jun-20	Clinical Characteristics of 58 Children With a Pediatric Inflammatory Multisystem Syndrome Temporally Associated With SARS-CoV-2	JAMA	Original Investigation	This case series included 58 hospitalized children (median age 9 years, interquartile range [IQR] 5.7-14 years), from 8 hospitals in England, who met definitional criteria for pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS). In total, 45 of 58 patients (78%) had evidence of current or prior SARS-CoV-2 infection. All children presented with fever and nonspecific symptoms, including vomiting (26/58 [45%]), abdominal pain (31/58 [53%]), and diarrhea (30/58 [52%]). Rash was present in 30 of 58 (52%), and conjunctival injection in 26 of 58 (45%) cases. Laboratory evaluation was consistent with marked inflammation, for example, C-reactive protein and ferritin. Of the 58 children, 29 developed shock and required inotropic support and fluid resuscitation (including 23/29 [79%] who received mechanical ventilation); 13 met the American Heart Association definition of Kawasaki Disease (KD), and 23 had fever and inflammation without features of shock or KD. Eight patients (14%) developed coronary artery dilatation or aneurysm. Comparison of PIMS-TS with KD and with KD shock syndrome, from other cohorts, showed differences in clinical and laboratory features, including older age (median age, 9 years [IQR, 5.7-14] vs 2.7 years [IQR, 1.4-4.7] and 3.8 years [IQR, 0.2-18], respectively), and greater elevation of inflammatory markers such as C-reactive protein (median, 229 mg/L [IQR 156-338] vs 67 mg/L [IQR, 40-150 mg/L] and 193 mg/L [IQR, 83-237], respectively).	Comparison of patients with PIMS-TS vs. KD vs. KD shock syndrome provides insight into this syndrome and suggests that PIMS-TS differs from other pediatric inflammatory entities.	Whittaker E, Bamford A, Kenny J, et al. Clinical Characteristics of 58 Children With a Pediatric Inflammatory Multisystem Syndrome Temporally Associated With SARS-CoV-2 [published online 2020 Jun 8]. JAMA. doi:10.1001/jama.2020.10369
Children, PIMS-TS, Kawasaki Disease, etiology, pathophysiologic framework	8-Jun-20	SARS-CoV-2–Related Inflammatory Multisystem Syndrome in Children	JAMA	Editorial	Recent reports have prompted discussion that the pediatric multisystem syndrome described in association with SARS-CoV-2 infection (PIMS-TS) and Kawasaki Disease could have different or shared etiologic and pathophysiologic pathways. A comprehensive framework for the distribution of KD has been suggested that ties together 3 major components: a genetic predisposition to KD, immunomodulation through both habitual exposures and environmental factors, and contact with the disease trigger or triggers. The article by Whittaker et al., comparing the clinical and laboratory features	This article discusses various questions related to the overlap between PIMS-TS and KD that may help inform the etiologic and pathophysiologic framework for both conditions.	McCrindle BW, Manlhiot C. SARS-CoV-2–Related Inflammatory Multisystem Syndrome in Children [published online 2020 Jun 8]. JAMA. doi:10.1001/jama.2020.10370

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					of children with PIMS-TS with historical cohorts of patients with KD and with KD shock syndrome, leads to some speculation of the extent to which KD and PIMS-TS overlap. PIMS-TS appears to have a different racial/ethnic predilection, which may imply different susceptibility genes or social factors, and appears to affect an older age group than KD. SARS-CoV-2 may act as either the trigger or an immune-modulating factor, and both quarantine and social isolation during the pandemic may have affected children's level of exposure to environmental factors providing further immune modulation.		
Children, MIS-C, Kawasaki Disease, toxic shock syndrome, inflammatory markers, cytokine expression, New York, USA	8-Jun-20	Multisystem Inflammatory Syndrome Related to COVID-19 in Previously Healthy Children and Adolescents in New York City	JAMA	Research Letter	Among 17 patients (median age, 8 years [range, 1.8-16 years]) who were hospitalized at a medical center in New York City between April 18 and May 5, 2020, most were white (n=12) and previously healthy (mild asthma in 3). All patients had fever (median duration, 5 days), and 14 had gastrointestinal symptoms. Mucocutaneous findings were common, including rash, conjunctivitis, and lip redness/swelling. Three patients were hypoxic at presentation, and 13 had shock. Fourteen had abnormal chest radiograph findings, most commonly bilateral, interstitial opacities. Eight met criteria for Kawasaki Disease (KD) and 5 for incomplete KD. Eight patients tested positive for SARS-CoV-2 by RT-PCR and the other 9 by serology. Levels of inflammatory markers were elevated in all patients. Fifteen patients required pediatric intensive care unit admission. The observed pattern of cytokine expression suggests an interferon signaling component, along with IL-6 and IL-10 production, seen in KD and acute pulmonary COVID-19 infection. The lack of elevated TNF-α or IL-13 levels may differ from acute pulmonary COVID infections. The occurrence of abnormal cardiac findings suggests the need for long-term surveillance.	In 17 children who developed an inflammatory phenotype related to COVID-19, features overlapped with, but were distinct from, those of KD and toxic shock syndrome.	Cheung EW, Zachariah P, Gorelik M, et al. Multisystem Inflammatory Syndrome Related to COVID-19 in Previously Healthy Children and Adolescents in New York City [published online 2020 Jun 8]. JAMA. doi:10.1001/jama.2020.10374
Pregnancy, neonates, cesarean section vs. vaginal delivery, clinical deterioration, NICU admission, Spain	8-Jun-20	Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain	JAMA	Research Letter	Of 82 pregnant SARS-CoV-2 positive women at maternity hospitals in Spain, 4 presented with severe COVID-19 symptoms, including 1 with concomitant preeclampsia; all 4 underwent cesarean delivery and required ICU admission. Seventy-eight patients presented with no or mild COVID-19 symptoms, including 11 patients requiring oxygen supplementation. Forty-one (53%) delivered vaginally and 37 (47%) by cesarean delivery, 29 for obstetrical indications and 8 for COVID-19 symptoms without other obstetrical indications. Women with cesarean deliveries were more likely to be multiparous, be obese, require oxygen at admission, and have abnormal chest x-ray findings than those delivering vaginally. Cesarean birth was significantly associated with clinical deterioration (adjusted odds ratio [aOR], 13.4; 95% CI, 1.5-121.9; *P*=.02). Eight newborns (19.5%) delivered vaginally and 11 (29.7%) born by cesarean delivery were admitted to the NICU. Cesarean birth was significantly associated with an increased risk of NICU admission (aOR, 6.9; 95% CI, 1.3-37.1; *P*=.02). Three (4.2%) of 72 newborns tested within 6 hours after birth had a positive SARS-CoV-2 RT-PCR result, but repeat testing at 48 hours was negative. Two other newborns, both cesarean deliveries at term, developed COVID-19 symptoms within 10 days. Though initial testing at birth was negative, repeat testing was positive. Both newborns were in contact with their parents immediately after birth.	In this study of pregnant women with COVID-19 in Spain, cesarean birth was independently associated with an increased risk of clinical deterioration and NICU admission.	Martínez-Perez O, Vouga M, Melguizo SC. Association Between Mode of Delivery Among Pregnant Women With COVID-19 and Maternal and Neonatal Outcomes in Spain [published online 2020 Jun 8]. JAMA. doi:10.1001/jama.2020.10125

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Children, transmissibility, lockdown	7-Jun-20	SARS-CoV-2 children transmission: The evidence is that today we do not have enough evidence	Acta Paediatrica	Letter to the Editor	This letter presents a critical response to the literature review by Ludvigsson on the role of children as transmitters of SARS-CoV-2. Of particular concern is the possibility of bias introduced resulting from lockdown conditions in each of the studies. The main conclusion drawn is that under confined conditions, children are not the main drivers of the COVID-19 pandemic. However, the author cautions that these findings are not generalizable to all conditions.	The author cautions against generalizing findings on transmissibility in children under lockdown conditions as these results may not be valid in settings where children are not as confined.	García-Salido A. SARS-CoV-2 children transmission: The evidence is that today we do not have enough evidence. [published online, 2020 Jun 7]. Acta Paediatr. 2020;109(9):1912. doi:10.1111/apa.15396
Maternal care, postnatal, discharge planning, patient education, United Kingdom	7-Jun-20	Maternal Postnatal Health During the COVID-19 Pandemic: Vigilance Is Needed	Midwifery	Brief Report	There is limited data on maternal morbidity following birth in a maternity system restructured to the COVID-19 pandemic. The incidence of perinatal anxiety and depression has increased with impacts of social isolation during the postnatal period, and calls to a UK national domestic abuse helpline have increased by 25% since lockdown. All women should have a postnatal discharge plan inclusive of core contacts to reach face to face or remotely. Women should be reassured that household isolation in response to COVID-19 does not apply if they need to leave their homes as a result of domestic violence. They should be informed of signs and symptoms of COVID-19, signs of serious maternal and infant morbidity, and be made aware that services continue to be available during the current pandemic.	The authors call to attention the potential impact of COVID-19 on postnatal care, and call for robust discharge planning, maternal education, and evidence for effective postnatal interventions.	Bick D, Cheyne H, Chang YS, Fisher J. Maternal postnatal health during the COVID-19 pandemic: Vigilance is needed [published 2020 Jun 7]. Midwifery. doi:10.1016/j.midw.2020.102781
Kawasaki disease, pediatric, toxic shock syndrome.	7-Jun-20	Kawasaki Disease Shock Syndrome or Toxic Shock Syndrome in Children and the Relationship With COVID-19	Journal of Medical Hypotheses	Letter to the Editor	Most pediatric patients with COVID-19 are asymptomatic or show only mild symptoms. However, in the last two months, first in Europe and recently in the United States, a small number of children have developed a more severe inflammatory syndrome associated with COVID-19, which often leads to hospitalization and sometimes requires intensive care. The authors describe various recent reports of pediatric cases with typical symptoms of Kawasaki disease (KD), Kawasaki shock syndrome, and atypical KD. Due to the much higher number of infections and the ease of transmission, COVID-19 may pose a higher risk and hazard to pediatric patients for KD or Kawasaki-like symptoms. A potential relationship was observed, especially between the occurrence of the KD and viral upper respiratory tract infections. The authors state that as a result of the COVID-19 pandemic, some KD like cases, including those not related to SARS-CoV-2 in children, may be underdiagnosed or undergo delayed treatment.	The authors describe the relationship between KD shock syndrome or toxic shock syndrome in children and COVID-19.	Pruc M, Smereka J, Dzieciatkowski T, et al. Kawasaki disease shock syndrome or toxic shock syndrome in children and the relationship with COVID-19. Med Hypotheses. doi:10.1016/j.mehy.2020.109986
Children, fecal specimens, viral RNA shedding, China	7-Jun-20	Persistence of SARS-CoV-2 Virus RNA in Feces: A Case Series of Children	Journal of Infection and Public Health	Case Series	Retrospectively, ten children with confirmed COVID-19 in the Jinan Infectious Disease Hospital (China) were enrolled between January 23 and March 9, 2020. Among ten patients, five (50%) were asymptomatic and five (50%) showed mild symptoms of respiratory illness. The average age of asymptomatic children was younger than that of symptomatic children (p=0.03). The decreases in white blood cell (p=0.03) and lymphocyte (p=0.03) counts were more severe in symptomatic patients than those in asymptomatic patients. At follow-up after discharge, seven patients had SARS-CoV-2 viral RNA in their fecal specimens, despite all patients showing negative results in respiratory tract specimens. One out of those seven	Among ten children with COVID-19, SARS-CoV-2 viral RNA persisted longer in the gastrointestinal tract than in the respiratory tract.	Du W, Yu J, Liu X, Chen H, Lin L, Li Q. Persistence of SARS-CoV-2 virus RNA in feces: A case series of children [published online 2020 Jun 7]. J Infect Public Health. doi:10.1016/j.jiph.2020.05.025

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					patients relapsed. The median time from onset to negative results in respiratory tract and fecal specimens was 9 days and 34.4 days, respectively.		
Pregnancy, treatments, drug safety & efficacy,	7-Jun-20	Effectiveness and Safety of Available Treatments for COVID-19 During Pregnancy: A Critical Review	The Journal of Maternal-Fetal & Neonatal Medicine	Original Article	Clinical trials are not often conducted among pregnant patients for safety reasons, which means that drugs that may be effective in general population cannot be used for pregnant women due to the lack of knowledge of side effects in this category of people. Given uncertainty and poor knowledge about the management of COVID-19 during pregnancy, this present overview may provide useful information for physicians with practical implications. This report reviews available literature concerning the drugs that have been used in the treatment of COVID-19 during pregnancy and whose safe assumption during pregnancy had been demonstrated by clinical studies (i.e. including studies on other infectious diseases). Treatment options reviewed include antivirals, antimalarials, anticoagulants, steroids, antibiotics, host directed therapy, convalescent plasma, immunomodulatory agents, and interferons.	A literature review on the putative effectiveness and safety of available treatments for COVID-19 in pregnant women is provided.	Favilli A, Mattei Gentili M, Raspa F, et al. Effectiveness and safety of available treatments for COVID-19 during pregnancy: a critical review [published online 2020 Jun 7]. J Matern Fetal Neonatal Med. doi:10.1080/14767058.2020.1774875
Pregnancy, hypertension, pre-eclampsia, telemedicine	7-Jun-20	Pregnancy Hypertension Diagnosis and Care in COVID-19 Era and Beyond	Ultrasound in Obstetrics & Gynecology	Opinion	The COVID-19 pandemic has led to an abrupt transition to virtual healthcare in pregnancy, including approximately 10% of pregnancies that receive specialist hypertension care. Specific guidance for hypertensive pregnant women has been provided in some jurisdictions and focuses on self-monitoring at home and virtual consultation whenever possible. While women with pre-eclampsia may be cared for as outpatients, they are still advised to attend face-to-face visits regularly. Key aspects of pregnancy hypertension care given the COVID-19 era are provided in this report.	Guidance on managing pregnant patients with hypertension during the COVID-era of virtual consultations is provided in this report.	Magee LA, Khalil A, von Dadelszen P. Pregnancy hypertension diagnosis and care in COVID-19 era and beyond [published online 2020 Jun 7]. Ultrasound Obstet Gynecol. doi:10.1002/uog.22115
Children, diagnostic samples, saliva, incidence	7-Jun-20	Diagnosis of COVID-19 Infection in Children: Less Nasopharyngeal Swabs, More Saliva	Acta Paediatrica	Letter	Replying to the article by Ludvigsson on SARS-CoV-2 infection in children, who were shown to have milder disease course and better prognosis than adults. Upper respiratory tract nasopharyngeal swabs are widely used as nucleic acid detection samples to diagnose SARS-CoV-2 infection, but the low positive rate and difficulty in properly performing this procedure in children could contribute to low incidence of COVID-19 in this age group. Saliva, which is generated from saliva glands in the oral cavity and also contains secretions produced by mucosa of the nasopharynx, may represent a reliable, quick and non-invasive tool for more accurate SARS-CoV-2 detection in children.	Saliva samples may represent a more accurate and less invasive diagnostic tool to improve measures of COVID-19 incidence in children.	Ruggiero A, Sanguinetti M, Gatto A, Attinà G, Chiaretti A. Diagnosis of COVID-19 infection in children: less nasopharyngeal swabs, more saliva [published online 2020 Jun 7]. Acta Paediatr. doi:10.1111/apa.15397
Children, viral transmission, lockdown measures, school reopening, bias	7-Jun-20	SARS-COV-2 Children Transmission: The Evidence Is That Today We Do Not Have Enough Evidence	Acta Paediatrica	Letter	In response to the review by Ludvigsson on the role of children in SARS-CoV-2 transmission, the author of this letter notes that all papers included were under conditions of lockdown and confinement that do not reflect normal situations. Multiple social and structural conditions in different countries and cultures also likely affect the generalizability of conclusions drawn from partial knowledge in specific countries. School reopening must take place in compliance with public health measures, and data on SARS-CoV-2 transmission among children or from children to adults remain scarce.	A bias of previous reporting on the limited role of children in SARS-CoV-2 transmission is that most studies were conducted in countries under lockdown, which does not reflect normal conditions.	García-Salido A. SARS-COV-2 children transmission: the evidence is that today we do not have enough evidence [published online 2020 Jun 7]. Acta Paediatr. doi:10.1111/apa.15396
Children, experimental drugs, remdesivir, favipiravir,	7-Jun-20	Drugs Being Investigated for Children With COVID-19	Acta Paediatrica	Short Commentary	Although the course of COVID-19 is milder in children, the use of experimental drugs for severely ill patients is still being debated. The American Food and Drug Administration has approved the emergency use of remdesivir for treating hospitalized children with severe COVID-19, and phase three trials evaluating the effectiveness of remdesivir in children (>12 years)	The efficacy and safety of remdesivir and favipiravir as therapeutic agents in pediatric patients with	Deniz M, Tapısız A, Tezer H. Drugs being investigated for children with COVID-19 [published online 2020 Jun 7]. Acta

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pediatric dosing, drug safety, efficacy					and adults with COVID-19 are currently underway. Pediatric use of favipiravir is also under investigation, since it is well tolerated by adults and can be ground up and taken up with food or liquids.	COVID-19 are currently debated.	Paediatr. doi:10.1111/apa.15399
Children, pediatric inflammatory multi-system syndrome, serology, IgG vs. IgM detection, UK	7-Jun-20	Serology confirms SARS-CoV-2 infection in PCR-negative children presenting with Paediatric Inflammatory Multi-System Syndrome	medRxiv	Preprint (not peer reviewed)	Children hospitalized for symptoms consistent with Pediatric Inflammatory Multisystem Syndrome-temporally associated with SARS-CoV-2 pandemic (PIMS-TS) between April 28 and May 8 2020, and who were PCR-negative for SARS-CoV-2, were tested for antibodies to viral spike glycoprotein using an ELISA test. Eight patients (age range 7-14 years, 63% male) fulfilled the case-definition for PIMS-TS during the study period. Six of the eight patients required admission to intensive care. All patients exhibited significant IgG and IgA responses to viral spike glycoprotein. Further assessment showed that the IgG isotypes detected in children with PIMS-TS were of the IgG1 and IgG3 subclasses, a distribution similar to that observed in samples from hospitalized adult COVID-19 patients. In contrast, IgG2 and IgG4 were not detected in children or adults. IgM was not detected in children, which contrasts with adult hospitalized adult COVID-19 patients of whom all had positive IgM responses.	In SARS-CoV-2 PCR negative children with PIMS-TS, strong IgG antibody responses were detected whereas IgM detection was low, consistent with infection having occurred weeks previously; this implies that the disease is largely immune-mediated.	Perez-Toledo, Faustini SE, Jossi SE. Serology confirms SARS-CoV-2 infection in PCR-negative children presenting with Paediatric Inflammatory Multi-System Syndrome [published online 2020 Jun 7]. medRxiv. doi:10.1101/2020.06.05.20123117
COVID-19, Pediatric population, Congenital heart disease	6-Jun-20	COVID -19 pandemic and paediatric population with special reference to congenital heart disease	Indian Heart Journal	Editorial	Children do not make up a significant portion of COVID-19 patients, and tend to have more mild symptoms and shorter clinical course than adults. However, children with COVID-19 often have one or more underlying medical conditions. Congenital heart disease (CHD) is one condition that puts children at high risk of COVID-19 complications. Management in this population is difficult because there is no defined clinical presentation; instead, a myriad of cardio-vascular symptoms including arrhythmias, myocarditis, cardiogenic shock, and heart failure have all been seen. Unfortunately, many current therapies for treating COVID-19 have cardio-vascular side effects, putting CHD patients at risk for arrhythmia. Guidelines are needed for risk stratification and management of pediatric CHD patients during the COVID-19 pandemic.	The author summarizes the challenges of treating pediatric congenital heart disease patients for COVID-19. These patients are at high risk for complications, and conventional management medications have cardiovascular side effects. Thus, more research is needed on the care and management of COVID-19 in this population.	Malviya A, Yadav R. COVID -19 pandemic and paediatric population with special reference to congenital heart disease. Indian Heart J. 2020;72(3):141-144. doi:10.1016/j.ihj.2020.06.001
Abortion, cervical cancer screening, contraception, health equity, intimate partner violence, reproductive healthcare access, telemedicine	6-Jun-20	Special ambulatory gynecologic considerations in the era of coronavirus disease 2019 (COVID-19) and implications for future practice	American Journal of Obstetrics and Gynecology	Clinical Opinion	In this article, the authors reviewed important ambulatory gynecologic topics such as safety and mental health, reproductive life planning, sexually transmitted infections, and routine screening for breast and cervical cancer. For each topic, they reviewed how care may be modified during the pandemic, provided recommendations when possible on how to ensure continued access to comprehensive healthcare at the COVID-19 pandemic, and discussed ways that future practice may change. They advocated for increasing screening for intimate partner violence and depression utilizing the patient portal; providing ways to ensure continued and expanded access to contraception and abortion services; reviewing recommendations for pre-pregnancy and interconception care; drawing attention to the importance of screening, prevention, and treatment of STIs; and continuing indicated screening for breast and cervical cancer.	In this article, the authors reviewed important ambulatory gynecologic topics such as safety and mental health, reproductive life planning, sexually transmitted infections, and routine screening for breast and cervical cancer.	Cohen MA, Powell AM, Coleman JS, et al. Special ambulatory gynecologic considerations in the era of coronavirus disease 2019 (COVID-19) and implications for future practice. Am J Obstet Gynecol. 2020;223(3):372-378. doi:10.1016/j.ajog.2020.06.006
Abortion, medical abortion, self-determination,	6-Jun-20	COVID-19 and abortion: The importance of	Sexual & Reproductive Healthcare	Original Article	Many restrictions have been imposed during the COVID-19 pandemic, including limitations on medical services such as abortion. In Italy, many providers and hospitals do not perform abortions outside of the pandemic context. Now during this crises, even resources and staff typically assigned to	The authors discuss the barriers to obtaining an abortion in Italy during the COVID-19 pandemic. They	Cioffi A, Cioffi F, Rinaldi R. COVID-19 and abortion: The

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telehealth, women, Italy		guaranteeing a fundamental right			abortion care have been shifted to COVID-19 related tasks. As a result, women must travel long distances to obtain terminations. Additionally, hospitalization is mandatory for medical abortion in Italy, and is limited to the first 49 days (7 weeks) of pregnancy. Even if it is performed on an outpatient basis, women are required to have four separate clinic visits for a medical termination. Professional organizations have suggested changing the time frame for medical termination to 9 weeks of pregnancy, removing mandatory hospitalization, and decreasing the number of outpatient visits. Using telehealth for some of these visits would reduce pressure on hospitals and protect abortion rights. Women's reproductive rights need to be prioritized, even during a pandemic.	make suggestions for how medical termination could be made more feasible for women during this challenging time.	importance of guaranteeing a fundamental right. *Sex Reprod Healthc.* 2020;25:100538. doi:10.1016/j.srhc.2020.100538
Dietary behaviors, household dietary diversity score, online order, China	6-Jun-20	Dietary Diversity among Chinese Residents during the COVID-19 Outbreak and Its Associated Factors	Nutrients	Original article	This study aimed to explore the dietary diversity during the lockdown time in China and examine associated factors. An online cross-sectional questionnaire-based survey was conducted in March 2020 through multi-stage sampling. Dietary diversity was assessed using the Household Dietary Diversity Score (HDDS) and clustering analysis was used to categorize people with different propensities of methods for purchasing or obtaining foods. 1938 participants were included in the analysis. The overall mean HDDS was 9.7 ± 2.1, and the median (25th, 75th) was 10 (8, 12). Results showed relatively low consumptions of fish, legumes, and miscellaneous foods. After adjusting for age, family income, and geographic regions, people living in places where the number of laboratory-confirmed COVID-19 cases >500 (OR adjusted = 0.79, 95%CI 0.65, 0.96), or living in Hubei Province (OR adjusted = 0.60, 95%CI 0.39, 0.93) had a lower HDDS. During isolation time, the most common sources for food and food purchases were in-house storage and in-person grocery shopping. More than half of the participants (55.9%) purchased food at least once via online and delivery services. A total of 37.7% participants consumed certain foods or nutritional supplements to cope with COVID-19, which included vitamin C, probiotics, other dietary supplements, alcohol, and vinegar. People who reported these specific dietary behaviors had a significantly higher HDDS (OR adjusted = 1.23, 95%CI 1.02, 1.45) than those who did not do so. This study revealed an overall good dietary diversity among the studied Chinese residents during the COVID-19 pandemic. However, lower dietary diversity was observed among people living in areas with a high number of confirmed COVID-19 cases.	This study reported on dietary diversity in China during the COVID-19 pandemic and revealed a generally good dietary diversity among the Chinese residents studied. Online ordering and delivery services were popular and could serve as a feasible method to obtain and purchase food during the time of lockdown.	Zhao A, Li Z, Ke Y, et al. Dietary Diversity among Chinese Residents during the COVID-19 Outbreak and Its Associated Factors. Nutrients. 2020;12(6):E1699. Published 2020 Jun 6. doi:10.3390/nu12061699
Children, pediatrics, symptoms, clinical manifestations	6-Jun-20	Covid-19 in Children: A Brief Overview After Three Months Experience	Pediatric Respiratory Reviews	Review	COVID-19 shows a milder clinical course in children than in adults. A significantly lower percentage of children develop a severe or critical illness and death is exceptional. Children may present non-specific viral infection symptoms suggesting the paramount importance of accurate differential diagnosis with typical pediatric clinical conditions such as upper respiratory tract infections, fever of unknown origin, viral or bacterial pneumonia, bronchiolitis, gastroenteritis, and asthma flares. As in adults, the underlying cardiovascular disease seems to be the most frequent comorbidity in severe pediatric COVID-19 confirmed cases.	This review summarizes the most relevant evidence of COVID-19 in children highlighting similarities and differences with adults. Children show unique features of SARS-CoV-2 involvement that may account for the low rate of infection and death in this age group.	De Luca CD, Esposito E, Cristiani L, et al. Covid-19 in children: A brief overview after three months experience [published online, 2020 Jun 6]. Paediatr Respir Rev. doi:10.1016/j.prrv.2020.05.006

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Children, clinical presentation, gastrointestinal symptoms, pancreatitis	6-Jun-20	Suspected Case of COVID-19-associated Pancreatitis in a Child	Radiology Case Reports	Case report	Common symptoms of COVID-19 in pediatric patients include both respiratory and gastrointestinal symptoms. There is a lack of literature implicating COVID-19 in pancreatitis, yet viruses are generally understood to be a cause of pancreatitis in children. The authors present a case of a previously well 7-year-old girl, who presented to the emergency department with a chief complaint of abdominal pain and anorexia. She was diagnosed with acute pancreatitis with an abnormal lipase, ultrasound, and computed tomography, and was found to be COVID-19 positive by PCR. The effects of the virus on the pancreas have not been described. This case suggests that consideration for SARS CoV-2 testing in children with gastrointestinal symptoms and pancreatitis may be considered. Additionally, this case highlights the need for appropriate personal protective equipment for providers, even when COVID is not initially on the differential.	Since the effects of SARS-CoV-2 on the pancreas have not been characterized but viruses can cause pancreatitis in children, SARS-CoV-2 testing may be considered in children who present with gastrointestinal symptoms and pancreatitis.	Alloway BC, Yaeger SK, Mazzaccaro RJ, Villalobos T, Hardy SG. Suspected case of COVID-19-associated pancreatitis in a child. Radiol Case Rep. 2020;15(8):1309-1312. doi:10.1016/j.radcr.2020.06.009
Child, serial CT findings, fecal-oral transmission, China	6-Jun-20	Serial Computed Tomographic Findings and Specific Clinical Features of Pediatric COVID-19 Pneumonia: A Case Report	World Journal of Clinical Cases	Case Report	A 7-year-old girl was diagnosed with COVID-19 and presented with irregular fever, sore throat and diarrhea. Chest CT revealed patchy consolidation and ground-glass opacities in multiple areas. The lesions were mainly distributed in the bronchial bundles or subpleural areas of both lungs, particularly in the right lower lobe. The patient also presented with diarrhea, mild kidney injury, and live coronavirus was found in her feces. She was given antiviral agents (lopinavir and ritonavir), and follow-up detection showed that these abnormalities were markedly decreased within 3 days.	Based on detection of live virus in the feces of a child with COVID-19 in this case report, the fecal-oral transmission of SARS-CoV-2 should be considered.	Chen X, Zou XJ, Xu Z. Serial computed tomographic findings and specific clinical features of pediatric COVID-19 pneumonia: A case report. World J Clin Cases. 2020;8(11):2345-2349. doi:10.12998/wjcc.v8.i11.2345
Children, clinical characteristics, comorbidities, chest CT imaging, systematic review	6-Jun-20	Pediatric COVID-19: Systematic Review of the Literature	American Journal of Oto-laryngology	Review Article	Ten studies, including two case series and 8 retrospective chart reviews (n=2914 pediatric patients with COVID-19), were included in this systematic review. Of the patients whose data was available, 56% were male, the age range was 1 day to 17 years, 79% were reported to have no comorbidities, and of the 21% with comorbidities, the most common were asthma, immunosuppression, and cardiovascular disease. Of pediatric patients that were tested and positive for SARS-CoV-2, patients were asymptomatic 14.9% of the time. Patients presented with cough (48%), fever (47%) and sore throat/pharyngitis (28.6%), more commonly than with upper respiratory symptoms (13.7%), vomiting/nausea (7.8%) and diarrhea (10.1%). Median lab values including those for WBC, lymphocyte count and CRP, were within the reference ranges with the exception of procalcitonin levels, which were slightly elevated in children with COVID-19. CT results suggest that unilateral CT imaging findings are present 36% of cases while 64% of pediatric patients with COVID-19 had bilateral findings. Of the studies with age specific hospitalization data available, 27.0% of patients hospitalized were infants under 1 year of age. Various treatment regimens have been trialed in the pediatric population, but there are currently no studies showing efficacy of one regimen over the other. The mortality rate of children that were hospitalized with COVID-19 was 0.0018%.	In contrast to adults, most infected children appear to have a milder course and have better outcomes overall. Additional care may be needed for children with comorbidities and younger children.	Patel NA. Pediatric COVID-19: Systematic review of the literature [published online 2020 Jun 6]. Am J Otolaryngol. 2020;41(5). doi:10.1016/j.amjoto.2020.102573
Child, MIS-C, toxic shock, New York, USA	6-Jun-20	Toxic Shock-Like Syndrome and COVID-19: A Case	The American Journal of	Case Report	Recently, many cases of severe COVID-19 associated illness among children feature a toxic shock-like syndrome or Kawasaki-like syndrome in the setting of SARS-CoV-2 positive diagnostic testing; the CDC has termed this	The authors present a case of MIS-C and suggest that Emergency Department	Greene AG, Saleh M, Roseman E, Sinert R. Toxic shock-like

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		Report of Multisystem Inflammatory Syndrome in Children (MIS-C)	Emergency Medicine		presentation Multisystem Inflammatory Syndrome (MIS-C). The authors describe a case of MIS-C in an 11-year-old child who presented to the Emergency Department twice and on the second visit was found to have signs of distributive shock, multi-organ injury and systemic inflammation associated with COVID-19. The patient improved dramatically after treatment and was afebrile without tachycardia within 24 hours.	physicians should consider close follow-up for pediatric patients with persistent fever during the COVID-19 pandemic.	syndrome and COVID-19: A case report of multisystem inflammatory syndrome in children (MIS-C) [published online 2020 Jun 6]. Am J Emerg Med. doi:10.1016/j.ajem.2020.05.117
Children, ambulatory setting, underlying medical condition, asthma, hospital admission, Texas (USA)	6-Jun-20	Coronavirus Disease 2019 in Children Cared for at Texas Children's Hospital: Initial Clinical Characteristics and Outcomes	Journal of the Pediatric Infectious Diseases Society	Brief Report	This report describes the clinical course of 57 children (median age 10.7 years, range 0.1-20.2 years) with COVID-19 cared for through a single hospital system in the greater Houston area of Texas (USA), between March 10 and April 18, 2020. Most children were mildly symptomatic. Asthma (7/57, 12%) was the most common underlying condition, followed by sickle cell disease (4/57, 7%). Over half of the cases (54%) reported a confirmed COVID-19 household contact, and the majority (71%) of these cases presented in the ambulatory setting (p=0.008). All admitted patients had additional diagnoses, including diabetic ketoacidosis, vaso-occlusive crisis, acute chest syndrome, asthma exacerbation, hypernatremia, reactive arthritis, and appendicitis. No patients required mechanical ventilation, and none died. System-wide patient evaluation processes allowed for prompt identification and management of COVID-19 patients.	Most children with COVID-19 were mildly symptomatic in this cohort, and over a third had underlying conditions that contributed to their need for admission.	Foster CE, Moulton EA, Munoz FM, et al. Coronavirus Disease 2019 in Children Cared for at Texas Children's Hospital: Initial Clinical Characteristics and Outcomes [published online 2020 Jun 6]. J Pediatric Infect Dis Soc. doi:10.1093/jpids/piaa072
Children, public health ethics, ethics	5-Jun-20	Children of COVID-19: pawns, pathfinders or partners?	Journal of Medical Ethics	Editorial	The authors apply the United Nations Convention on the Rights of the Child (UNRC) to the discourse surrounding societal reopening, examining children's roles in the present and post-pandemic world. The authors argue that adults historically treat children as pawns in large-scale societal changes; however, according to the UNRC, children are future citizens with the right to an open future. All children should receive adequate protection and consideration if returning to school. Older children, who have increased capacity to give valid consent for the use of technology and invasive testing, could return to school first as pathfinders. If predetermined endpoints could document the safety and efficacy of this approach, it could be useful in extending the return to school and give participants a valuable sense of inclusivity and partnership. Children should also receive explanations of the risks and benefits of school reopenings in terms that they can understand. The authors conclude that ultimately, adults should consider children partners while establishing the "new normal," as they will inhabit the post-pandemic world and experience its consequences.	The authors argue that children should be actively involved in the process of societal reopening rather than treated as passive participants. The authors recommend explaining the risks and benefits of school reopenings to children and having older children return to school first.	Larcher V, Brierley J. Children of COVID-19: pawns, pathfinders or partners?. J Med Ethics. 2020;46(8):508-509. doi:10.1136/medethics-2020-106465
Pregnancy, maternal-fetal transmission, vertical transmission, transplacental transmission, Spain	5-Jun-20	Does the maternal-fetal transmission of SARS-CoV-2 occur during pregnancy? [Article available in Spanish only]	Revista Clinica Española	Original Research	The possibility of vertical transmission of SARS-CoV-2 during pregnancy remains uncertain. Therefore, the authors sought to investigate the presence of the virus in the vaginal discharge and amniotic fluid of four pregnant Caucasian patients at a single center in Spain with mild acute symptoms of COVID-19 during the 2nd trimester of pregnancy. They did not identify laboratory evidence to suggest a possible transmission of SARS-CoV-2 from the infected mother to amniotic fluid. The authors conclude that it is necessary to increase research of COVID-19 cases diagnosed during pregnancy	In a case series from Spain, the authors did not find evidence of SARS-CoV-2 by RT-PCR in amniotic fluid of four COVID-19 pregnant patients.	Hijona Elósegui JJ, Carballo García AL, Fernández Risquez AC et al. Does the maternal-fetal transmission of SARS-CoV-2 occur during pregnancy? [published online, 2020 Jun 5].

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					to improve understanding of the impact of SARS-CoV-2 on pregnant women and their offspring as well as the factors that modulate the disease.		doi:10.1016/j.rce.2020.06.001
Neonatal outcomes, vertical transmission, hypoxic ischemic encephalopathy, India	5-Jun-20	Manifestations in Neonates Born to COVID-19 Positive Mothers	The Indian Journal of Pediatrics	Letter to the Editor	In this article, the authors present two cases of neonates born to COVID-19 positive mothers in India. Both neonates required emergency C-sections for evidence of fetal distress. The first neonate was tested for SARS-CoV-2 at 18 hours of life, and the result was negative. The mother-neonate dyad remained asymptomatic. The second neonate required resuscitation at birth followed by mechanical ventilation. He was diagnosed with hypoxic ischemic encephalopathy. He was negative for SARS-CoV-2 on days 3, 5 and 8 of life. There was no evidence of transplacental transmission of SARS-CoV-2 for the two neonates. The authors acknowledge that it is unclear if the events of these cases should be attributed to the COVID-19 positive status of the mother or to neonatal disease.	The authors did not identify evidence of vertical transmission in two neonates born to COVID-19 positive mothers in India. Both neonates had signs of fetal distress in utero, and one required mechanical ventilation at birth.	Jain P, Thakur A, Kler N, Garg P. Manifestations in Neonates Born to COVID-19 Positive Mothers. Indian J Pediatr. doi:10.1007/s12098-020-03369-x
Nutritional status, women, children, Nepal	5-Jun-20	An urgent call to address the nutritional status of women and children in Nepal during COVID-19 crises	International Journal for Equity in Health	Original article	In Nepal, communities and vulnerable groups like women and children dealing with malnutrition are doubly susceptible to compromised health due to the COVID-19 pandemic. In addition, the lockdown has resulted in a decrease in household incomes leading to less availability and reduced access to food, and restriction in receiving essential health care services. Nutrition services through the outpatient therapeutic center and nutrition rehabilitation homes have also been affected as a result of the priority shift of the health sector towards COVID-19. Insufficient breastfeeding practices, due to fear and anxiety of transmission of COVID 19 from breastfeeding mothers, result in decreased feeding and caring practices for children. The possible ways to ensure better nutrition among women and children in resource-constrained settings like Nepal could be a combination of different measures. The authors argue for developing and implementing mitigation strategies to reach out to those most affected by the crisis and activation and functionality of nutrition clusters to ensure a predictable, timely, and effective nutrition response. Program and service to promote breastfeeding and feeding practices should remain a critical component. Counseling and psychological support to mothers and caregivers of under 5-year children are required as well as ensuring nutrition commodities are available and accessible.	This article summarizes nutritional concerns in Nepal during this pandemic, and argue that nutrition should thus be a core component of the COVID-19 response plan, integrated into each aspect of prevention, treatment, and recovery.	Panthi B, Khanal P, Dahal M, Maharjan S, Nepal S. An urgent call to address the nutritional status of women and children in Nepal during COVID-19 crises. Int J Equity Health. 2020;19(1):87. Published 2020 Jun 5. doi:10.1186/s12939-020-01210-7
Health disparities, food insecurity, federal assistance, USA	5-Jun-20	COVID-19 and Food Insecurity: An Uneven Patchwork of Responses	Journal of Urban Health	Brief report	In response to the rapid increase in food insecurity during the COVID-19 pandemic, the U.S. Congress' Families First Coronavirus Act (FFCA) made provisions to expand federal nutrition assistance programs. States can increase Supplemental Nutrition Assistance Program allotments up to the maximum benefit amount as an emergency measure. However, 2.5 million households with children already receive the maximum benefit. In addition, families face increased exposure risk during public transit, decreased opportunities for meal sharing, and decreased access to soup kitchens. Food hoarding leaves low-income families who cannot afford to buy in bulk at an extreme disadvantage. Despite innovative strategies to alleviate the impact of this crisis on the food security of children and families, COVID-19 will exacerbate health disparities and have profound effects on food and financial security.	Despite federal assistance programs, the authors state that families in the U.S. face exacerbated food insecurity as a result of the pandemic.	Kinsey EW, Kinsey D, Rundle AG. COVID-19 and Food Insecurity: an Uneven Patchwork of Responses. J Urban Health. 2020;97(3):332-335. doi:10.1007/s11524-020-00455-5
Children, influenza,	5-Jun-20	Are They Just Two Children COVID-19	Frontiers in Pediatrics	Case Report	This report presents two pediatric COVID-19 cases, both of whom exhibited negative SARS-CoV-2 nucleic acid tests upon nasopharyngeal swab and were	The authors suggest that highly suspected pediatric	Zou B, Ma D, Li Y, et al. Are They Just Two

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nucleic acid, serum antibody of SARS-CoV-2		Cases Confused With Flu?			initially diagnosed with influenza A infection. COVID-19 was later confirmed in both patients by serum antibodies of SARS-CoV-2 and a nucleic acid test on stool samples. Because children are susceptible to many respiratory pathogens, especially influenza, the authors concluded that children can be co-infected with multiple pathogens, and more attention should be paid to the exploration of SARS-CoV-2 during the pandemic of COVID-19. This report shows the possibility of misdiagnosis or missed diagnosis of children with COVID-19.	COVID-19 cases with negative nucleic acid tests on nasopharyngeal swabs should be further checked by performing a nucleic acid test on stool samples and testing serum for antibodies against SARS-CoV-2.	Children COVID-19 Cases Confused With Flu?. Front Pediatr. Published 2020 Jun 5. doi:10.3389/fped.2020.00341
Children, immunity, measles, rubella, vaccination, virus	5-Jun-20	Does Early Childhood Vaccination Protect Against COVID-19?	Frontiers in Molecular Biosciences	Hypothesis and theory article	The published data show that children, unlike adults, are less susceptible to contracting the disease. Here, the authors hypothesize that the measles, mumps, and rubella (MMR) vaccine could provide a broad neutralizing antibody against numbers of diseases, including COVID-19. Their hypothesis is based on the 30 amino acid sequence homology between the SARS-CoV-2 Spike (S) glycoprotein (PDB: 6VSB) of both the measles virus fusion (F1) glycoprotein (PDB: 5YXW_B) and the rubella virus envelope (E1) glycoprotein (PDB: 4ADG_A). Computational analysis of the homologous region detected the sequence as antigenic epitopes in both measles and rubella.	The authors believe that humoral immunity, created through the MMR vaccination, provides children with advantageous protection against COVID-19 as well, however, an experimental analysis is required.	Sidiq KR, Sabir DK, Ali SM, Kodzius R. Does Early Childhood Vaccination Protect Against COVID-19? Front Mol Biosci. Published 2020 Jun 5. doi:10.3389/fmolb.2020.00120
Pneumonia, thorax CT	5-Jun-20	COVID-19 Pneumonia in a Turkish Child Presenting With Abdominal Complaints and Reversed Halo Sign on Thorax CT	Journal of Diagnostic and Interventional Radiology	Letter to the Editor	The authors comment on the recent letters in Diagnostic and Interventional Radiology describing COVID-19 pneumonia in a child as a result of familial spread and the “reversed halo sign” observed on thorax computed tomography (CT). The authors share their experience on both topics recognized in a 15-year-old girl presenting with abdominal complaints. Different clinical and radiological manifestations of a child with COVID-19 pneumonia without any respiratory symptoms are presented. The authors argue that in addition to the ground-glass opacities and patchy alveolar infiltrations, the reversed halo sign can also be noted in children with COVID-19 pneumonia on thorax CT. Pediatric radiologists should be aware of this finding while reporting.	The CT findings of the described pediatric case differed from the COVID-19 positive children in the literature with the evidence of the reversed halo sign.	Görkem SB, Çetin BŞ. COVID-19 pneumonia in a Turkish child presenting with abdominal complaints and reversed halo sign on thorax CT [published online 2020 Jun 5]. Diagn Interv Radiol. doi:10.5152/dir.2020.20361
Children, MIS-C Kawasaki Disease	5-Jun-20	Multisystem Inflammatory Syndrome in Children (MIS-C) with COVID-19: Insights from simultaneous familial Kawasaki Disease cases	International Journal of Infectious Diseases	Original Research: case study	Recently, an increasing number of COVID-19 patients with a syndrome that overlaps with Kawasaki Disease (KD) has been reported, supporting the idea that infection is one of triggers of KD. We summarized the reports of simultaneous familial KD cases for understanding etiopathogenesis of both KD and Multisystem Inflammatory Syndrome in Children (MIS-C) related to COVID-19. The authors discuss the etiology of these syndromes from the point of view of infection and genetic susceptibility. Dr. Kawasaki first described Kawasaki disease (KD) as an acute febrile, mucocutaneous lymph node syndrome with self-limited vasculitis that primarily affects infants and children, usually under 5 years of age. The etiopathogenesis of KD still remains unclear but is discussed from the view of interplay of two aspects, genetic susceptibility and infection. It has been reported that children with COVID-19 are generally less severely ill and even asymptomatic compared to adults. On the other hand, some children develop MIS-C with SARS-CoV-2 infection. According to the feature of original KD, the follow up for coronary artery dilation and aneurysm formation, the most important complications of this disease, should be applied for the children with MIS-C with SARS-CoV-2 infection. Further investigation needs to be conducted to elucidate the factors	MIS-C and KD are discussed as interplay of infection and genetic factors of hosts. The authors suggest that COVID-19, KD, BCG or measles might have some crosstalk in immune responses.	Ebina-Shibuya R, Namkoong H, Shibuya Y, et al. Multisystem Inflammatory Syndrome in Children (MIS-C) with COVID-19: Insights from simultaneous familial Kawasaki Disease cases. International Journal of Infectious Diseases. doi:10.1016/j.ijid.2020.06.014

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					that impact the severity of COVID-19 among children, which leads to appropriate treatment strategy for them.		
Pregnancy, neonatal outcomes, vertical infection, TORCH	5-Jun-20	Impact of COVID-19 as a Vertical Infection in Late Pregnancy	Hong Kong Medical Journal	Letter to the Editor	The author suggests adding COVID-19 to the TORCH (toxoplasmosis, others [including syphilis], rubella, cytomegalovirus, and herpes simplex virus) list of vertical infections. This suggestion is based on a few representative reports on adverse outcomes among neonates born to mothers with COVID-19, as well as pathological changes observed in placentas that tested positive for SARS-CoV-2. More studies, especially regarding SARS-CoV-2 in the first trimester of pregnancy, are needed to confirm the candidacy of COVID-19 to join the TORCH list.	The author of this letter suggests adding COVID-19 to the list of TORCH vertical infections, while noting that vertical transmission has not been confirmed in SARS-CoV-2.	Leung JSM. Impact of COVID-19 as a vertical infection in late pregnancy [published online 2020 Jun 5]. Hong Kong Med J. doi:10.12809/hkmj208655
Pregnant and non-pregnant populations, ACE2, mechanism, targeted pathways, drug development	5-Jun-20	Combating sars-cov-2 Through Lipoxins, Proteasome, Caveolin and Nuclear factor-κb Pathways in Non-Pregnant and Pregnant Populations	Cellular and Molecular Biology	Review Article	It can be misleading to think that the new SARS-CoV-2, which has a very strong mutation and adaptation capabilities, uses only the angiotensin-converting enzyme II (ACE2) pathway to reach target cells. The main reason why the ACE2 pathway comes to the fore in all scientific studies is that this receptor is located at the entry point of basic mechanisms that provide alveolo-capillary homeostasis. SARS-CoV-2 has to use nuclear factor-κB (NF-kB), caveloae, clathrin, lipoxin, serine protease and proteasome pathways, in addition to ACE2, to enter the target cell and initiate damage. For this reason, while new drug development studies are continuing, in order to be beneficial to patients in their acute period, drugs that are currently in clinical use and target these pathways must be considered. The authors also note that it is critical that new pathways are adopted for the treatment of pregnant women affected by SARS-CoV-2, based on scientific data used to treat the general population.	This article considers pathways other than ACE2 viral entry that SARS-CoV-2 uses to cause damage and related implications for drug development, in non-pregnant and pregnant populations alike.	Celik O, Celik N, Aydin S, et al. Combating sars-cov-2 through lipoxins, proteasome, caveolin and nuclear factor-κb pathways in non-pregnant and pregnant populations. Cell Mol Biol. 2020;66(3):221-229.
Pregnancy, neonates, vertical transmission, standardized definitions	5-Jun-20	Vertical Transmission of SARS-CoV-2: What Is the Optimal Definition?	American Journal of Perinatology	Editorial	To date, intrauterine transmission of SARS-CoV-2 has not been convincingly reported, and information on intrauterine infection earlier in pregnancy remains limited in the absence of a phenotype or pattern of miscarriages. When maternal infection occurs within 14 days before delivery, there is a theoretical risk of intrauterine transmission, since infection may result in viremia potentially leading to infection of the fetus through a disruption in the placental interface or viral particles in the amniotic fluid. Intrapartum or early postnatal infection could occur through exposure of the delivering neonate to infected maternal blood or secretions. Both may be considered as examples of "vertical" transmission. It is important to differentiate mechanisms of potential maternal-fetal transmission, if possible, as timing and route of infection may affect clinical outcomes. Given these considerations, the authors outline definitions of vertical SARS-CoV-2 transmission.	The authors propose standardized definitions for intrauterine vs. intrapartum vs. postnatal transmission of SARS-CoV-2.	Blumberg DA, Underwood MA, Hedriana HL, Lakshminrusimha S. Vertical Transmission of SARS-CoV-2: What is the Optimal Definition? [published online 2020 Jun 5]. Am J Perinatol. doi:10.1055/s-0040-1712457
Pregnancy, neuro-psychiatric disorders, maternal inflammation, fetal brain development, mouse model	5-Jun-20	SARS-CoV-2 Infection in Pregnant Women: Are There Long-Term Effects in Offspring's Brain Development?	Edizioni Minerva Medica	Letter to the Editor	Immunological abnormalities during prenatal life are thought to affect brain development and the pathophysiology of neuropsychiatric disorders, like autism and schizophrenia spectrum disorders. Epidemiological studies strongly support a link between maternal viral infection and the development of mental disorder, suggesting that maternal inflammatory mediators and immune effectors synthesized during infection are responsible for overproduction of cytokines by fetal brain microglia and cerebral changes in offspring. To evaluate if SARS-CoV-2 infection in pregnant women may lead to the development of mental disorders in children, the authors propose use of a	Possible long-term neuropsychiatric effects of SARS-CoV-2 infection during prenatal life should be examined in children; the authors propose a humanized ACE2 transgenic mouse model for this purpose.	Murina F, Sannino D. SARS-CoV-2 infection in pregnant women: are there long-term effects in offspring's brain development? [published online 2020 Jun 5]. Minerva Ginecol. doi:10.23736/S0026-4784.20.04598-0

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					humanized ACE2 transgenic mouse model and provide details for potential experimental strategies.		
Neonates, vertical transmission, fetal distress, hypoxic-ischemic encephalo-pathy, India	5-Jun-20	Manifestations in Neonates Born to COVID-19 Positive Mothers	The Indian Journal of Pediatrics	Scientific Letter	The authors report two neonates born to COVID-19 positive women. The first neonate was born at term via emergency cesarean section due to fetal distress. A neonatal RT-PCR was sent at 18 hours of life and was negative. The mother wore a mask and breastfed the neonate; both remained well on follow up. The second neonate was also delivered via cesarean section due to fetal distress and meconium stained liquor, requiring resuscitation at birth followed by mechanical ventilation. The neonate developed shock and later seizures, while brain MRI revealed subdural hemorrhage. Neonatal nasopharyngeal swabs for SARS-CoV-2 RT-PCR were negative on days 3, 5, and 8 of life, and the neonate was discharged on day 12 after recovering from hypoxic-ischemic encephalopathy.	Lack of evidence for transplacental transmission of SARS-CoV-2 infection in this case report of two neonates is consistent with recent publications.	Jain P, Thakur A, Kler N, Garg P. Manifestations in Neonates Born to COVID-19 Positive Mothers [published online 2020 Jun 5]. Indian J Pediatr. doi:10.1007/s12098-020-03369-x
Infants, immune profile, lymphocyte subsets, cytokine assays, co-infection, China	5-Jun-20	SARS-CoV-2 Infection in Infants Under 1 Year of Age in Wuhan City, China	World Journal of Pediatrics	Original Article	Data on 36 infants with SARS-CoV-2 infection (mean age 6.43 months, range 2-12 months) at Wuhan Children's Hospital between January 26 to March 22, 2020 are retrospectively reviewed. 86.1% of the infants were infected due to family clustering. Cough (77.8%) and fever (47.2%) were the most common clinical manifestations. Chest CT scan revealed 61.1% bilateral pneumonia and 36.1% unilateral pneumonia. 47.2% of the infants developed complications. Increased leucocytes, neutrophils, lymphocytes, and thrombocytes were observed in 11.1%, 8.3%, 36.1% and 44.4% of infants, respectively. Decreased leukocytes, neutrophils, thrombocyte and hemoglobin were observed in 8.3%, 19.4%, 2.8% and 36.1% of infants, respectively. Increased C-reactive protein, procalcitonin, lactate dehydrogenase, alanine aminotransferase, creatine kinase and D-dimer were observed in 19.4%, 67.7%, 47.2%, 19.4%, 22.2% and 20.7% of infants, respectively. Co-infections with other respiratory pathogens were observed in 62.9% of infants. CD3 (20.7%), CD4 (68.9%), CD19 (31.0%) and Th/Ts (44.8%) lymphocyte subsets were elevated; CD8 (6.9%) and CD16+CD56 (48.3%) were reduced. Of cytokines, IL-4 (7.7%), IL-6 (19.2%), IL-10 (50%), TNF-α (11%) and IFN-γ (19.2%) were elevated. One critically infant died; the remaining infants recovered.	Among a cohort of infants with SARS-CoV-2 infection, elevated CD4 and IL-10 levels as well as co-infections were commonly found, which were different from adults with COVID-19 in existing literature. One critically ill infant died in this study.	Sun D, Chen X, Li H, et al. SARS-CoV-2 infection in infants under 1 year of age in Wuhan City, China [published online 2020 Jun 5]. World J Pediatr. doi:10.1007/s12519-020-00368-y
Neonate, point-of-care lung ultrasound, pneumonia	5-Jun-20	Point-of-care Lung Ultrasound in Three Neonates With COVID-19	European Journal of Pediatrics	Original Article	Information on ultrasonographic lung patterns of COVID-19 pneumonia in neonates is lacking. Newborns who tested positive for SARS-CoV-2 PCR in respiratory samples and were evaluated with point-of-care lung ultrasound (LU) from March to April 2020 were included. LU was performed bedside by a single investigator at the time of diagnosis and every 48 hours during the first week following diagnosis. Six areas were studied. Three neonates were included. Infants' comorbidities included meconium aspiration syndrome, bronchopulmonary dysplasia, and Hirschsprung's disease. One required mechanical ventilation. No deaths occurred. LU showed B-lines, consolidation, and spared areas. No pneumothorax or pleural effusion was observed.	This study contributes evidence on lung ultrasound findings in neonates with SARS-CoV-2 infection.	Gregorio-Hernández R, Escobar-Izquierdo AB, Cobas-Pazos J, Martínez-Gimeno A. Point-of-care lung ultrasound in three neonates with COVID-19 [published online 2020 Jun 5]. Eur J Pediatr. doi:10.1007/s00431-020-03706-4
Women, children, malnutrition, food insecurity, essential health services,	5-Jun-20	An Urgent Call to Address the Nutritional Status of Women and Children in Nepal	International Journal of Equity in Health	Commentary	Due to the ongoing nationwide lockdown in Nepal, women and children face a greater risk of malnutrition, eventually leading to greater mortality and morbidity. Malnutrition can weaken the immune system and make women and children more vulnerable to acquiring COVID-19. In addition, the lockdown has resulted in a decrease in household incomes leading to decreased access to food and restriction in receiving essential health care	In Nepal, the COVID-19 pandemic has placed women and children at greater risk for malnutrition and poor health outcomes, thus nutrition must be	Panthi B, Khanal P, Dahal M, Maharjan S, Nepal S. An urgent call to address the nutritional status of women and children in Nepal during COVID-19

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breastfeeding, Nepal		During COVID-19 Crises			services, like Vitamin A and deworming campaigns. Insufficient breastfeeding practices, due to fear and anxiety of SARS-CoV-2 transmission from breastfeeding mothers, may result in decreased feeding and caring practices for infants as well. To sustain the progress made so far in improving the nutritional status of women and children, a focus on nutrition should be a part of the COVID-19 response plan.	integrated into mitigation strategies.	crises. Int J Equity Health. 2020;19(1):87. doi:10.1186/s12939-020-01210-7
Pediatric dosing, pharmaco-kinetics, hydroxy-chloroquine, remdesivir, simulation study	5-Jun-20	Simulated Assessment of Pharmacokinetically Guided Dosing for Investigational Treatments of Pediatric Patients With Coronavirus Disease 2019	JAMA Pediatrics	Original Investigation	To define pediatric-specific dosing regimens for hydroxychloroquine and remdesivir for COVID-19 treatment, pharmacokinetic modeling and simulation were used to extrapolate investigated adult dosages toward children (March-April 2020). For hydroxychloroquine, the physiologically based pharmacokinetic model analysis included 500 and 600 simulated white adult and pediatric participants, respectively, and supported weight-normalized dosing for children weighing less than 50 kg. Geometric mean-simulated average unbound plasma concentration values among children within different developmental age groups (32-35 ng/mL) were congruent to adults (32 ng/mL). Simulated unbound hydroxychloroquine concentrations in lung interstitial fluid mirrored those in unbound plasma and were notably lower than in vitro concentrations needed to mediate antiviral activity. For remdesivir, the analysis included 1000 and 6000 simulated adult and pediatric participants, respectively. The proposed pediatric dosing strategy supported weight-normalized dosing for participants weighing less than 60 kg. Geometric mean-simulated plasma area under the time curve 0 to infinity values among children within different developmental age-groups (4315-5027 ng × h/mL) were similar to adults (4398 ng × h/mL).	This analysis provides pediatric-specific dosing suggestions for hydroxychloroquine and remdesivir and raises concerns regarding hydroxychloroquine use for COVID-19 treatment because concentrations were less than those needed to mediate an antiviral effect.	Maharaj AR, Wu H, Hornik CP, et al. Simulated Assessment of Pharmacokinetically Guided Dosing for Investigational Treatments of Pediatric Patients With Coronavirus Disease 2019 [published online 2020 Jun 5]. JAMA Ped. doi:10.1001/jamapediatrics.2020.2422
First-in-children dosing, therapeutics, modeling and simulation, opportunistic trials	5-Jun-20	How to Rapidly Determine First-in-Children Dosing for COVID-19 Therapeutics	JAMA Pediatrics	Editorial	Currently, most studies evaluating various therapeutics to treat COVID-19 enroll exclusively adults, providing limited data on children. However, if efficacy is established in adults, these drugs will also be widely prescribed to children for whom appropriate dosing has not been established. Inappropriate drug dosing places children at risk for treatment failure, toxicities, and even death. To determine optimal dosing in children, dedicated and more efficient pediatric pharmacokinetic trials are needed. In the absence of these trials, modeling and simulation can leverage existing data to determine first-in-pediatric dosing in the face of urgent need. However, once model-based recommendations are made, they will need to be evaluated, for example through opportunistic studies that enroll participants who are already prescribed the drug of interest per standard of care.	The combined approach of modeling and simulation with confirmatory opportunistic pharmacokinetic trials provides an efficient way to determine optimal dosing of therapeutics in children during emergency situations such as the current COVID-19 pandemic.	Watt KM. How to Rapidly Determine First-in-Children Dosing for COVID-19 Therapeutics [published online 2020 Jun 5]. JAMA Ped. doi:10.1001/jamapediatrics.2020.2435
Pregnancy, postpartum, temporary separation, breastfeeding, CDC	5-Jun-20	Caring for Women Who Are Planning a Pregnancy, Pregnant, or Postpartum During the COVID-19 Pandemic	JAMA	Insights	Given limited data on COVID-19 in pregnancy and the effects on neonates, recommendations for caring for women who are planning a pregnancy, pregnant, or have given birth during the COVID-19 pandemic are based on expert opinion. There does not seem to be a compelling reason to recommend delaying pregnancy. For women who are pregnant, the primary recommendation is to avoid becoming infected through hygiene and social distancing measures. Guidelines for the care of pregnant women known or suspected to have COVID-19 and admitted for delivery have been developed by the Centers for Disease Control and Prevention and professional organizations and are summarized here. Issues related to hospital placement of the newborn born to a mother with COVID-19 are challenging; shared	Existing guidelines on the care of pregnant women with suspected or confirmed COVID-19, who are admitted for delivery, are summarized.	Rasmussen SA, Jamieson DJ. Caring for Women Who Are Planning a Pregnancy, Pregnant, or Postpartum During the COVID-19 Pandemic [published online 2020 Jun 5]. JAMA Insights. doi:10.1001/jama.2020.8883

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					decision-making between the mother and the care is recommended. For those who select temporary separation, expression of breast milk with hygiene precautions should be encouraged. A mother who chooses to room with her newborn should use a face mask and careful hand and breast hygiene before breastfeeding.		
Infant, clinical characteristics, exposure history, China	5-Jun-20	A 3-month-old Child With COVID-19: A Case Report	Medicine	Clinical Case Report	A 3-month-old male infant presented with cough and rhinorrhea. Family members from Wuhan, the epicenter of the epidemic, came to stay in the patient's home 16 days before the onset of his disease, and his mother had been diagnosed with COVID-19. He was diagnosed with COVID-19 based on a history of exposure and SARS-CoV-2 detected using RT-PCR testing. The patient was admitted to hospital and treated symptomatically with oral medication. He recovered completely and was discharged after one month of hospitalization. He tested negative for SARS-CoV-2 and a chest CT performed 4 weeks after admission showed marked improvement prior to discharge.	This case represents the youngest patient treated for SARS-CoV-2 infection in Chengdu, China thus far.	Li C, Luo F, Wu B. A 3-month-old child with COVID-19: A case report. Medicine. 2020;99(23):e20661. doi:10.1097/MD.0000000000020661
Children, pediatric emergency care, epidemiology, clinical characteristics, management, MIS-C	5-Jun-20	COVID-19: The Impact on Pediatric Emergency Care	Pediatric Emergency Medicine Practice	Special Report	Although there is still much that is not understood, experience with previous coronavirus outbreaks and available data on COVID-19 indicate a reduced propensity to affect children. Nonetheless, serious complications—although rare—are being seen in pediatric patients. This review, written with the emergency medicine clinician in mind, describes the epidemiology, clinical features, and management implications for COVID-19 in pediatric patients. It includes a discussion of multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19, as well as other aspects of the COVID-19 pandemic that are affecting children and families, such as poisonings, childhood immunizations, mental health, nonaccidental trauma, and neglect.	A comprehensive review of the epidemiology, clinical features, and management of pediatric COVID-19 as well as considerations for rare and serious complications that have emerged are presented.	Walker DM, Tolentino VR. COVID-19: The impact on pediatric emergency care. Pediatr Emerg Med Pract. 2020;17(Suppl 6-1):1-27.
Pregnancy, neonates, management, viral transmission, breastfeeding, Germany	5-Jun-20	Management of Care for Neonates Born to SARS-CoV-2 Positive Women With or Without Clinical Symptoms (COVID-19)	Klinische Pädiatrie	Diagnostic and Treatment Recommen-dation	The German Society for Pediatric Infectious Diseases in accordance with the German Society for Gynecology and Obstetrics and the German Society for Perinatal Medicine releases this statement on recommendations for the management of neonates born to SARS-CoV-2 positive women. Both background information on SARS-CoV-2 transmission as well as potential scenarios are presented. Since possible transmission through respiratory droplets or close mother-child contact constitutes the greatest risk of infection, the authors outline important hygiene measures to prevent infection while breastfeeding.	Several professional societies from Germany outline recommendations for the management of neonates born to mothers with COVID-19.	Simon A, Hübner J, Knuf M, Hufnagel M, Berner R. Management of Care for Neonates Born to SARS-CoV-2 Positive Women with or without Clinical Symptoms (COVID-19) [published online 2020 Jun 5]. Klin Padiatr. doi:10.1055/a-1168-2845
Preterm birth, very low birth weight infants, lockdown, Ireland	5-Jun-20	Reduction in preterm births during the COVID-19 lockdown in Ireland: a natural experiment allowing analysis of data from the prior two decades.	medRxiv	Preprint (not peer reviewed)	Regional pre-term birth trends of very low birth weight (VLBW) infants in one designated health area of Ireland over two decades were analyzed. Observed regional data from January to April 2020 were compared to historical regional and national data and forecasted national figures for 2020. The regional historical VLBW rate per 1000 live births for January to April 2001 to 2019 was 8.18 (95%CI 7.21, 9.29). During January to April 2020, an unusually low VLBW rate of just 2.17 per 1000 live births was observed. The rate ratio of 3.77 (95%CI 1.21, 11.75, p=0.022) estimates that for the last two decades there was, on average, 3.77 times the rate of VLBW, compared to the period of January to April 2020 during which there is a 73% reduction. National Irish VLBW rate for 2020 is forecasted to be reduced to 400 per 60,000 births compared to a historical range of 500 to 600 per 60,000 births. Potential	An unprecedented reduction in preterm birth of very low birth weight infants was observed in one health region of Ireland during the COVID-19 lockdown, compared to historical data.	Philip RK, Purtill H, Reidy E, et al. Reduction in preterm births during the COVID-19 lockdown in Ireland: a natural experiment allowing analysis of data from the prior two decades. [published online 2020 Jun 5]. medRxiv. doi:10.1101/2020.06.03.20121442

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					determinants of this unique temporal trend reside in the summative socio-environmental impact of the COVID-19 dictated lockdown.		
Children, MMR vaccine, innate immunity, cross-protection, prophylaxis	5-Jun-20	Vaccine Repurposing Approach for Preventing COVID 19: Can MMR Vaccines Reduce Morbidity and Mortality?	Human Vaccines & Immuno-therapeutics	Commentary	An interesting observation during the present COVID-19 pandemic is the negligible symptoms observed in the young, particularly children below 10 years of age. The authors assume that extensive pediatric vaccination with MMR vaccines globally could have resulted in innate immune responses (e.g. induction of interferons and activated natural killer cells) and cross-protection, thereby offering natural immunity against SARS-CoV-2 in the young population.	The authors suggest repurposing MMR vaccination for immuno-prophylaxis against COVID-19, based on its production of innate immune responses in children and potential cross-protection against SARS-CoV-2.	Anbarasu A, Ramaiah S, Livingstone P. Vaccine repurposing approach for preventing COVID 19: can MMR vaccines reduce morbidity and mortality? [published online 2020 Jun 5]. Hum Vaccin Immunother. doi:10.1080/21645515.2020.1773141
Neonatal team, delivery, PPE, infection control	5-Jun-20	Preparation for Attending Delivery of a Positive/Suspected COVID-19 Mother - Practical Tips for Neonatal Teams	The Journal of Maternal-Fetal & Neonatal Medicine	Letter to the Editor	Various guidelines have been published to date, for the care of newborns whose mothers have suspected or confirmed COVID-19. The authors present concise practical tips for neonatal team attending deliveries, related to communication between team members, personal protective equipment, neonatal transport, and other considerations for infection control and prevention of viral transmission.	Practical tips for neonatal teams attending deliveries are outlined, with emphasis on multidisciplinary coordination among teams, adequate availability of PPE, and enhanced infection control protocols.	Buchiboyina A, Trawber R, Mehta S. Preparation for attending delivery of a positive/suspected COVID-19 mother - practical tips for neonatal teams [published online 2020 Jun 5]. J Matern Fetal Neonatal Med. doi:10.1080/14767058.2020.1775810
Pregnancy, cesarean section, anesthesia, infection prevention	5-Jun-20	Infection Control of Operating Room and Anesthesia for Cesarean Section During Pandemic Coronavirus disease-19 (COVID-19) Outbreak in Daegu, the Republic of Korea	Korean Journal of Anesthe-siology	Case Report	In this report, eight mothers with COVID-19 (seven suspected, one confirmed) delivered via cesarean section at a hospital in Daegu, South Korea. Three had preeclampsia, two had premature rupture of membranes (PROM) with dystocia, one had PROM with fetal distress, one had dystocia due to cephalopelvic disproportion, and one had preterm labor with fetal distress. This report describes guidelines for surgery and anesthesia infection control during these emergent cesarean section procedures.	This report presents guidelines for institutional peri-operative COVID-19 infection prevention during emergency cesarean sections to prevent transmission.	Oh J, Kim E, Kim H, et al. Infection control of operating room and anesthesia for cesarean section during pandemic Coronavirus disease-19 (COVID-19) outbreak in Daegu, the republic of Korea - 8 cases report [published online 2020 Jun 5]. Korean J Anesthesiol. doi:10.4097/kja.20204
COVID-19, pandemic, psychological effects, children, death	4-Jun-20	Talking to children about illness and death of a loved one during the COVID-19 pandemic	The Lancet	Comment	In the midst of the devastating death toll and hospitalizations from COVID-19, the psychological effect of this unfolding pandemic on children has been unconscionably overlooked. Age-appropriate explanations are paramount to ensure children have a coherent narrative and emotional support for their experiences. Adults instinctively want to protect children from distress, especially when they themselves are worried and upset. Uncertainty about how and what to share with children can be compounded by the unpredictable disease trajectory of patients with COVID-19. If explanations are absent, children will draw their own conclusions about what is happening and face these challenging situations unsupported. The authors subsequently	COVID-19 presents a bewildering array of challenges for health care, public services, and communities across the world. Empowering adults to communicate with children about illness and death has the potential to mitigate the short-term and	Rapa E, Dalton L, Stein A. Talking to children about illness and death of a loved one during the COVID-19 pandemic. Lancet Child Adolesc Health. 2020;4(8):560-562. doi:10.1016/s2352-4642(20)30174-7

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					discuss a platform of free resources that has been developed in order to support professionals and families in communicating with relatives and children when a patient is seriously ill or has died.	long-term psychological effect.	
Children, Kawasaki disease, inflammation, post-infectious disease, myocarditis, France	4-Jun-20	SARS-CoV-2-related Paediatric Inflammatory Multisystem Syndrome, an Epidemiological Study, France, 1 March to 17 May 2020	Euro Surveillance	Rapid Communication	By the end of April 2020, French clinicians observed an increase in cases presenting with pediatric inflammatory multisystem syndrome (PIMS). Nationwide surveillance was set up and demonstrated temporospatial association with the COVID-19 epidemic for 156 reported cases. As of May 17, 108 cases were classified as confirmed (n=79), probable (n=16) or possible (n=13) post-COVID-19 PIMS. A continuum of clinical features from Kawasaki-like disease to myocarditis was observed, requiring intensive care in 67% of cases.	Based on surveillance in France, identified cases of PIMS were found in temporospatial association with the COVID-19 epidemic.	Belot A, Antona D, Renolleau S, et al. SARS-CoV-2-related paediatric inflammatory multisystem syndrome, an epidemiological study, France, 1 March to 17 May 2020. Euro Surveill. 2020;25(22). doi:10.2807/1560-7917.ES.2020.25.22.2001010
Children, school closure, risk groups, infection prevention and control, Norway	4-Jun-20	Infection Prevention Guidelines and Considerations for Paediatric Risk Groups When Reopening Primary Schools During COVID-19 Pandemic, Norway, April 2020	Euro Surveillance	Rapid Communication	In Norway, in response to the COVID-19 pandemic, schools closed on March 13, 2020. The evidence of effect on disease transmission was limited, while negative consequences were evident. Before reopening, risk-assessment for pediatric risk groups was performed, concluding that most children can attend school with few conditions requiring preventative homeschooling. This report describes infection prevention and control guidelines for primary schools and recommendations for pediatric risk groups.	Guidelines for infection prevention and control during school reopening in Norway are described.	Johansen TB, Astrup E, Jore S, et al. Infection prevention guidelines and considerations for paediatric risk groups when reopening primary schools during COVID-19 pandemic, Norway, April 2020. Euro Surveill. 2020;25(22) doi:10.2807/1560-7917.ES.2020.25.22.2000921
Children, severe disease, child mortality, comorbidities, France	4-Jun-20	Severe and Fatal Forms of COVID-19 in Children	Archives de Pédiatrie	Research Paper	This was a retrospective, single-center, observational study conducted in a pediatric intensive and high-dependency care unit (PICU, HDU) in an urban hospital in Paris. Among 27 children (range 1 month to 18 years), comorbidities (n=19, 70%) were mainly neurological (n=7), respiratory, (n=4), or sickle cell disease (n=4). SARS-CoV-2 PCR results were positive in 24 children (nasopharyngeal swabs). The three remaining children had a chest CT scan consistent with COVID-19. Respiratory involvement was observed in 24 patients (89%). Supportive treatments were invasive mechanical ventilation (n=9), catecholamine (n=4), erythropheresis (n=4), renal replacement therapy (n=1), and extracorporeal membrane oxygenation (n=1). Five children died, of whom three were without past medical history.	This study highlights the non-negligible occurrence of pediatric life-threatening and fatal cases of COVID-19, mostly in patients with comorbidities, at a center in Paris (France).	Oualha M, Bendavid M, Berteloot L, et al. Severe and fatal forms of COVID-19 in children [published online 2020 Jun 4]. Arch Pediatr. doi:10.1016/j.arcped.2020.05.010
Pregnancy, breast milk sample, breastfeeding, China	4-Jun-20	Breastfeeding Risk From Detectable Severe Acute Respiratory Syndrome Coronavirus 2 in Breastmilk	Journal of Infection	Letter to the Editor	Five hospitalized pregnant women with COVID-19 in their third trimester presented with clinical symptoms and imaging consistent with SARS-CoV-2 infection. Four patients had cesarean delivery, while one patient delivered her newborn vaginally. All patients experienced favorable clinical outcomes. All available vaginal secretion samples were negative for SARS-CoV-2, whereas SARS-CoV-2 RNA was detected in breastmilk samples collected from one patient on days 2 and 3 post-delivery (RT-PCR Ct values of 38.2 and 38.5	SARS-CoV-2 RNA was detected in consecutive breastmilk samples of one puerperal woman in this case series from Wuhan, China.	Zhu C, Liu W, Su H, et al. Breastfeeding Risk from Detectable Severe Acute Respiratory Syndrome Coronavirus 2 in Breastmilk [published online 2020 Jun 4]. J Infect.

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					respectively). The clinical characteristics of this patient were similar to those of other COVID-19 positive women with negative breastmilk results.		doi:10.1016/j.jinf.2020.06.001
Children, MIS-C, gastro-intestinal symptoms, clinical presentation, New York, USA	4-Jun-20	Gastrointestinal Symptoms as a Major Presentation Component of a Novel Multisystem Inflammatory Syndrome in Children (MIS-C) That Is Related to COVID-19: A Single Center Experience of 44 Cases	Gastro-enterology	Original Article	A retrospective review of 44 hospitalized patients (median age 7.3 years, range 7 months-20 years) with a diagnosis of multi-system inflammatory syndrome in children (MIS-C) at a Children's Hospital in New York, USA was performed. All had either documented SARS-CoV-2 exposure with clinically compatible symptoms, a positive SARS-CoV-2 nasopharyngeal swab by RT-PCR assay, or positive SARS-CoV-2 antibodies. Gastro-intestinal symptoms were a presenting symptom in 84.1% of cases and were most often accompanied by fever (100%) and rash (70.5%). Interestingly, 29.5% had presented within 7 days prior to admission at an emergency room or urgent care center for less severe symptoms mimicking viral gastroenteritis, but without other systemic symptoms. Viral RNA was not detected in any stool samples collected.	Based on findings from this study, MIS-C should be considered in patients with prominent gastro-intestinal symptoms and a history of recent SARS-CoV-2 exposure or infection.	Miller J, Cantor A, Zachariah P, Ahn D, Martinez M, Margolis K. Gastrointestinal symptoms as a major presentation component of a novel multisystem inflammatory syndrome in children (MIS-C) that is related to COVID-19: a single center experience of 44 cases [published online 2020 Jun 4]. Gastroenterology. doi:10.1053/j.gastro.2020.05.079
Pregnancy, neonates, active cases, disease severity, preterm birth, France	4-Jun-20	A Snapshot of the Covid-19 Pandemic Among Pregnant Women in France	Journal of Gynecology Obstetrics and Human Reproduction	Original Article	A case series of pregnant women with RT-PCR confirmed COVID-19 in a research network of 33 French maternity units was collected between March 1 and April 14, 2020. Overall, active cases of COVID-19 increased exponentially during March 1-31; the numbers fell during April 1-14, after lockdown was imposed on March 17. The shape of the curve of active critical COVID-19 mirrored that of all active cases. By April 14, among the 617 pregnant women with COVID-19, 93 women (15.1%; 95%CI 12.3-18.1) had required oxygen therapy and 35 (5.7%; 95%CI 4.0-7.8) had a critical form of COVID-19. The severity of disease was associated with age >35 years and obesity, as well as preexisting diabetes, previous pre-eclampsia, and gestational hypertension or pre-eclampsia. One woman with critical COVID-19 died (0.2%; 95%CI 0-0.9). Among the women who gave birth, rates of preterm birth in women with non-severe, oxygen-requiring, and critical COVID-19 were 13/123 (10.6%), 14/29 (48.3%), and 23/29 (79.3%) before 37 weeks and 3/123 (2.4%), 4/29 (13.8%), and 14/29 (48.3%) before 32 weeks, respectively. One neonate in the critical group died from prematurity.	In this case series of pregnant women with COVID-19 in France, lockdown measures were effective in reducing active case numbers, and over the course of the pandemic, severe disease has been documented. One critically ill pregnant woman and one preterm neonate died.	Kayem G, Alessandrini V, Azria E, et al. A snapshot of the Covid-19 pandemic among pregnant women in France [published online 2020 Jun 4]. J Gynecol Obstet Hum Reprod. doi:10.1016/j.jogoh.2020.101826
Children, viral transmission, school reopening, UK	4-Jun-20	Children Returning to Schools Following COVID-19: A Balance of Probabilities - Letter to the Editor	International Journal of Surgery	Correspondence	In reply to the review by Nicola et al. discussing a wide variety of socioeconomic consequences as a result of the COVID-19 pandemic, the authors of this letter analyze key arguments surrounding the reinstatement of schools in the UK, while highlighting possible flaws. Once infected, children are more likely to be asymptomatic or show milder symptoms, thus the role they play in viral transmission remains uncertain. Some studies have also shown that children aged 5–18 years old have the highest number of social contacts in a population, raising further concern over early return to school. The Scientific Advisory Group for Emergencies (SAGE) recently published statistical modelling of school reopening and found that reopening schools offers a much milder impact on the R value than relaxing population-wide social distancing and lockdown measures. However, this report does not take into account transport to/from schools or household transmission. Given the	This report highlights flaws in recent calls to reopen schools based on meta-analysis and modeling studies, as information on the role of children in SARS-CoV-2 transmission remains limited.	Khattab N, Abbas A, Abbas AR, Memon SF. Children returning to schools following COVID-19: a balance of probabilities - Letter to the Editor [published online 2020 Jun 4]. Int J Surg. doi:10.1016/j.ijsu.2020.05.084

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					considerable risks highlighted here, the limited learning or social benefits of children returning to schools for short periods of time must be questioned, and extreme caution is needed.		
Pregnancy, critical illness, acute respiratory decompen-sation, intubation, New York, USA	4-Jun-20	Acute Respiratory Decompensation Requiring Intubation in Pregnant Women With SARS-CoV-2 (COVID-19)	American Journal of Perinatology Reports	Case Report	The authors report two cases of pregnant women diagnosed with COVID-19 in the late preterm period admitted to tertiary care hospitals in New York City (USA) for respiratory indications. Both patients were under the age of 35 years with no significant comorbid conditions. After presenting with mild symptoms, both quickly developed worsening respiratory distress requiring intubation, and both delivered preterm via cesarean delivery. After prolonged mechanical ventilation, both women have been discharged.	The present cases highlight the potential for rapid respiratory decompensation in pregnant COVID-19 patients and the maternal-fetal considerations in managing these cases.	Silverstein JS, Limaye MA, Brubaker SG, et al. Acute Respiratory Decompensation Requiring Intubation in Pregnant Women with SARS-CoV-2 (COVID-19). AJP Rep. 2020;10(2):e169-e175. doi:10.1055/s-0040-1712925
Postpartum, heart failure, pre-eclampsia, hypertensive emergency, Alabama (USA)	4-Jun-20	Heart Failure With Preserved Ejection Fraction in a Postpartum Patient With Superimposed Preeclampsia and COVID-19	American Journal of Perinatology Reports	Case Report	A 25-year-old postpartum woman, whose pregnancy had been complicated by pre-eclampsia, presented to the emergency department 9 days after cesarean delivery with chest tightness and dyspnea on exertion. On presentation, she had severe hypertension, pulmonary edema, elevated brain natriuretic peptide, and high-sensitivity troponin-I, suggesting a diagnosis of hypertensive emergency leading to heart failure with a preserved ejection fraction resulting in pulmonary edema and abnormal cardiac screening tests. However, bilateral opacities were seen on a chest CT, and SARS-CoV-2 testing was positive. Endothelial dysfunction from this patient's chronic hypertension, exacerbated by superimposed pre-eclampsia with severe features, could have been a contributing factor to her more complicated course.	A high index of suspicion for both COVID-19 and cardiovascular complications are critical for optimal patient outcomes in postpartum women.	Sinkey RG, Rajapreyar I, Robbins LS, et al. Heart Failure with Preserved Ejection Fraction in a Postpartum Patient with Superimposed Preeclampsia and COVID-19. AJP Rep. 2020;10(2):e165-e168. doi:10.1055/s-0040-1712926
Pregnancy, neonates, vertical transmission, breastfeeding, coronaviruses, SARS, MERS	4-Jun-20	Relationship Between Pregnancy and Coronavirus: What We Know	The Journal of Maternal-Fetal & Neonatal Medicine	Review Article	Pregnancy is characterized by changes involving both the immune system and the pulmonary physiology, exposing the pregnant woman to a greater susceptibility to viral infections and more serious complications. The objective of this review is to analyze the relationship between pregnancy and known coronaviruses, with particular reference to SARS-CoV-2. The molecular bases of immunology and pregnancy are discussed, as well as documented clinical findings in literature. On the basis of available data, COVID-19 appears neither more frequent nor more serious in pregnancy than in non-pregnant women. Perinatal adverse events have been observed but are milder than in SARS and MERS, with preterm delivery representing the main complication of COVID-19 in pregnancy. In addition, breastfeeding is recommended in COVID-19 since viral transmission via breast milk has not been demonstrated. Looking ahead, further research on maternal immune activation in COVID-19 is needed, to understand the effects of exposing the fetus to inflammatory response.	A current review of literature of COVID-19 in pregnancy and comparison to other coronaviruses are offered.	Forestieri S, Marcialis MA, Migliore L, Panisi C, Fanos V. Relationship between pregnancy and coronavirus: what we know [published online 2020 Jun 4]. J Matern Fetal Neonatal Med. doi:10.1080/14767058.2020.1771692
Child, pediatric MIS-C, skin rash, Turkey	4-Jun-20	Dermatological Manifestation of Pediatrics Multisystem Inflammatory Syndrome Associated With	Dermatologic Therapy	Special Issue Article	A 3-year-old girl presented to the Emergency Department (ED) with fever and rash, which began on the trunk and spread over the extremities. The patient's face was mildly engorged with edema, oropharynx hyperemic, and lips were red, swollen, and cracked. The eyes were swollen with non-purulent discharge. Initial blood chemistry results showed leukopenia, lymphopenia, thrombocytopenia, low hemoglobin, and high levels of C-reactive protein, D-dimer level, lactate dehydrogenase, and liver enzymes. SARS-CoV-2 PCR testing was negative. In combination, persistent fever, mucosal findings,	A case of pediatric multi-inflammatory syndrome associated with COVID-19 that presented with fever and rash is presented.	Yozgat CY, Uzuner S, Duramaz BB, et al. Dermatological Manifestation of Pediatrics Multisystem Inflammatory Syndrome Associated with COVID-19 in a 3-Year-Old Girl

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		COVID-19 in a 3-Year-Old Girl			echogenicity of coroner vessels on echocardiography, and hypotension led clinicians to suspect that the clinical presentation was reflective of Kawasaki-like illness as a subtype of the pediatric multisystem inflammatory syndrome associated with COVID-19.		[published online 2020 Jun 4]. Dermatol Ther. doi:10.1111/dth.13770
Pregnancy, maternal outcomes, neonates, vertical transmission, systematic review	4-Jun-20	Maternal and Neonatal Outcomes Associated With COVID-19 Infection: A Systematic Review	PLoS ONE	Research Article	Of 73 identified articles on maternal and neonatal outcomes associated with COVID-19, nine were eligible for inclusion. 67.4% (62/92) of women were symptomatic at presentation. RT-PCR was inferior to CT imaging-based diagnosis in 31.7% (26/79) of cases. Maternal mortality rate was 0%, and only one patient required intensive care and ventilation. 63.8% (30/47) had preterm births, 61.1% (11/18) fetal distress and 80% (40/50) a Caesarean section. 76.92% (11/13) of neonates required NICU admission and 42.8% (40/50) had a low birth weight. There was one indeterminate case of potential vertical transmission. Mean time-to-delivery was 4.3±3.08 days (n=12) with no difference in outcomes (p>0.05).	Based on this systematic review, COVID-19-positive pregnant women present with fewer symptoms than the general population. The incidence of preterm births, low birth weight, C-section, NICU admission appear higher than the general population.	Smith V, Seo D, Warty R, et al. Maternal and neonatal outcomes associated with COVID-19 infection: A systematic review. PLoS One. 2020;15(6):e0234187. doi:10.1371/journal.pone.0234187
Neonates, community-acquired infection, NICU, neutropenia, Colorado, USA	4-Jun-20	Neonates Hospitalized With Community-Acquired SARS-CoV-2 in a Colorado Neonatal Intensive Care Unit	Neonatology	Brief Report	In this early retrospective study, 3 neonates with SARS-CoV-2 infection, who required admission to the NICU, between the ages of 17 and 33 days old were identified. All 3 had ill contacts in the home or had been to the pediatrician and presented with mild to moderate symptoms including fever, rhinorrhea, and hypoxia, requiring supplemental oxygen during their hospital stay. One patient was admitted with neutropenia, and the other 2 patients became neutropenic during hospitalization. None of the patients had meningitis or multi-organ failure. Caregivers of neonates should exercise recommended guidelines before contact with neonates to limit community spread of SARS-CoV-2 to this potentially vulnerable population.	If found to have fever and/or hypoxia, infants with community-acquired SARS-CoV-2 infection may require hospitalization due to rule-out sepsis guidelines.	White A, Mukherjee P, Stremming J, et al. Neonates Hospitalized with Community-Acquired SARS-CoV-2 in a Colorado Neonatal Intensive Care Unit [published online 2020 Jun 4]. Neonatology. doi:10.1159/000508962
Children, pre-operative universal screening, incidence, Philadelphia, Houston, Seattle, USA	4-Jun-20	Incidence of COVID-19 in Pediatric Surgical Patients Among 3 US Children's Hospitals	JAMA Surgery	Research Letter	After universal preoperative screening for COVID-19 was instituted at the Children's Hospital of Philadelphia, Texas Children's Hospital, and Seattle Children's Hospital, all children younger than 19 years without known COVID-19 were tested between March 26 and April 22, 2020. Overall, 1295 pediatric surgical patients were included in this study, with a mean age of 7.35 (SD 5.99) years. Overall incidence of COVID-19 was 0.93% (12 of 1295) but ranged across hospitals, from 0.22% (1 of 456) to 2.65% (9 of 339). Notably, at Children's Hospital of Philadelphia, 5 of 9 patients with positive COVID-19 results were from a single township with a positive risk rate of 55.56% vs 1.51% (5 of 330) in all other patients (risk ratio 36.67; P=.001). Of 12 patients with COVID-19, 6 (50%) had pre-operative symptoms vs 157 of 1283 patients (12.24%) who tested negative for COVID-19. Fever, rhinorrhea, and known COVID-19 exposure were more common in patients with COVID-19. On multivariate regression, age (OR 1.10; 95% CI, 1.00-1.23; P=.048) and American Society of Anesthesiologists emergent classification (OR 5.66; 95% CI, 1.70-17.80; P=.001) were associated with COVID-19.	In this study of 3 USA hospitals, the overall incidence of COVID-19 in children undergoing preoperative universal screening was <1% but varied greatly between regions and townships represented by the different hospitals.	Lin EE, Blumberg TJ, Adler AC, et al. Incidence of COVID-19 in Pediatric Surgical Patients Among 3 US Children's Hospitals [published online 2020 Jun 4]. JAMA Surg. doi:10.1001/jamasurg.2020.2588
Pregnancy, obstetric universal screening, neonates, Japan	4-Jun-20	Universal Screening for SARS-CoV-2 in Asymptomatic Obstetric Patients in Tokyo, Japan	International Journal of Gynecology & Obstetrics	Brief Communication	The present study reports a retrospective review of 52 obstetric patients universally tested for SARS-CoV-2 and admitted at Keio University Hospital in Tokyo (Japan), between April 6 and April 27, 2020. None of the women presented with symptoms of COVID-19, yet two (3.8%) tested positive for SARS-CoV-2 and one (1.9%) was treated as a positive patient due to close contact with her COVID-19-confirmed husband. Elective cesarean deliveries were performed for these patients, followed by postpartum care in isolation	The prevalence of COVID-19 in Tokyo among asymptomatic obstetric patients (4%) was low compared to that of previously reported cities.	Ochiai D, Kasuga Y, Iida M, Ikenoue S, Tanaka M. Universal screening for SARS-CoV-2 in asymptomatic obstetric patients in Tokyo, Japan [published online 2020

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					rooms. The newborns were admitted to the NICU isolation area; none tested positive for SARS-CoV-2 following birth.		Jun 4]. Int J Gynaecol Obstet. doi:10.1002/ijgo.13252
Children, viral RNA load, feces, saliva, South Korea	4-Jun-20	Viral RNA Load in Mildly Symptomatic and Asymptomatic Children With COVID-19, Seoul	Emerging Infectious Diseases	Research Letter	All children (<18 years) with confirmed COVID-19 and who were hospitalized at a medical center in Seoul (South Korea) were included in this study. Of 12 children (median age 6.5 years, range 27 days-16 years), 9 were mildly symptomatic and 3 were asymptomatic. All children were positive for SARS-CoV-2 RNA in nasopharyngeal swabs. Viral RNA was detectable at high concentration for >3 weeks in fecal samples from 11 children. Saliva also tested positive during the early phase of infection in 8 of 11 children from whom saliva was collected. If proven infectious, feces and saliva could serve as transmission sources.	Viral RNA load in feces of children in this study remained steadily high, whereas that in nasopharyngeal swab and saliva specimens declined with time in both symptomatic and asymptomatic children.	Han MS, Seong MW, Kim N, et al. Viral RNA Load in Mildly Symptomatic and Asymptomatic Children with COVID-19, Seoul [published online 2020 Jun 4]. Emerg Infect Dis. doi:10.3201/eid2610.202449
Pregnancy, symptoms, disease severity, vertical transmission, management, therapeutics, mental health	4-Jun-20	Clinical Update on COVID-19 in Pregnancy: A Review Article	Journal of Obstetrics and Gynaecology Research	Review Article	At present, it does not appear that pregnant women are at increased risk for severe SARS-CoV-2 infection than the general population, although clinicians should be cognizant of high-risk groups and manage them accordingly. Approximately 85% of women will experience mild disease, 10% more severe disease and 5% critical disease. The most common reported symptoms are fever, cough, shortness of breath and diarrhea. Neither vaginal delivery nor cesarean section confers additional risks, and there is minimal risk of vertical transmission to the neonate from either mode of delivery. The authors also discuss the impact of social isolation on the mental health and well-being of both patients and clinicians. The recommended management of pregnant women with suspected or confirmed COVID-19 is also reviewed, as well as various pharmacological agents that are currently being investigated.	This review article presents a comprehensive analysis of current data on COVID-19 and its effect on pregnant women, including symptoms, disease severity and the risk of vertical transmission.	Ryean GA, Purandare NC, McAuliffe FM, Hod M, Purandare CN. Clinical update on COVID-19 in pregnancy: A review article [published online 2020 Jun 4]. J Obstet Gynaecol Res. doi:10.1111/jog.14321
Children, clinical characteristics, treatment protocol, China	4-Jun-20	Clinical Features and Treatment Protocol in Eleven Chinese Children With Mild COVID-19	The Indian Journal of Pediatrics	Scientific Letter	A retrospective observational study was conducted in 11 pediatric, hospitalized patients (aged 10.3 ± 3.6 years) in Bozhou City, China between January 31 and March 2, 2020. Eight children had a close contact with suspected persons, and two children were infected because of infected family members. Two patients had fever, cough, and fatigue while one patient had cough; the remaining children were free of any symptoms. Viral pneumonia was confirmed by CT scan in two of the three children with clinical symptoms and three of the eight children without any symptoms. Inhaled alpha-interferon were implemented in seven children, and four children received arbidol tablets due to intolerance. A cocktail of Chinese herbs was given to five children with CT-confirmed viral pneumonia. The medium time to negative nucleic acid test result was 9 days (4 to 12 days). All children were discharged after a median time of 14 days (6 to 23 days).	In a small cohort from China, children with COVID-19 showed favorable clinical course; however, the necessity of antiviral treatments requires further investigation.	Gao Y, Zhang D, Sui S, Xu R. Clinical Features and Treatment Protocol in Eleven Chinese Children with Mild COVID-19 [published online 2020 Jun 4]. Indian J Pediatr. doi:10.1007/s12098-020-03352-6
Pregnancy, home birth, HIV, counseling	4-Jun-20	Home Birth in the Era of COVID-19: Counseling and Preparation for Pregnant Persons Living With HIV	American Journal of Perinatology	Clinical Opinion	Given the concern for COVID-19 acquisition in health care settings, pregnant persons with high-risk pregnancies, such as persons living with HIV (PLHIV), are increasingly investigating the option of a home birth. Although hospital birth is strongly recommended for PLHIV, the authors discuss their experience and recommendations for counseling and preparation of pregnant PLHIV who may be considering home birth or at risk for unintentional home birth due to the pandemic. Issues associated with implementing a risk mitigation strategy involving high-risk births occurring at home during a pandemic are also discussed.	Given increased interest in home birth during the COVID-19 pandemic, this article discusses counseling and safe planning for women living with HIV who are considering home birth, although currently recommended against.	Premkumar A, Cassimatis I, Berhie SH, et al. Home Birth in the Era of COVID-19: Counseling and Preparation for Pregnant Persons Living with HIV [published online 2020 Jun 4]. Am J Perinatol. doi:10.1055/s-0040-1712513

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Nutrition, dietary habits, alcohol use, smoking, Poland	3-Jun-20	Dietary Choices and Habits during COVID-19 Lockdown: Experience from Poland	Nutrients	Original Research	The authors conducted a cross-sectional online survey of adults in Poland (n=1097) during a nationwide quarantine, which aimed to assess whether nutritional and consumer habits had been affected by the COVID-19 pandemic. Over 43% and nearly 52% of respondents reported eating and snacking more, respectively. These tendencies were more frequent in overweight and obese individuals. Almost 30% experienced weight gain (mean ± SD: 3.0 ± 1.6 kg), and over 18% experience weight loss (mean ± SD: −2.9 ± 1.5 kg). Overweight, obese, and older subjects (aged 36–45 and >45 years) tended to gain weight more frequently whereas those who were underweight tended to lose it further. An increase in alcohol consumption was seen in 14.6% of respondents with a higher tendency to drink more found among those with alcohol addiction. Over 45% of smokers experienced a rise in smoking frequency. The authors conclude that lockdown measures may affect eating behaviors and dietary habits, and they advocate for organized nutritional support during future quarantines.	Conducted in Poland, this study indicated that during a pandemic-associated nationwide quarantine, a significant percentage of individuals can experience modification of their dietary habits, manifested by eating and snacking more as well as weight change.	Sidor A, Rzymski P. Dietary Choices and Habits during COVID-19 Lockdown: Experience from Poland. [published online, 2020 Jun 3]. Nutrients. doi:10.3390/nu12061657
Children, adolescents, immuno-compromised patients, inflammatory markers	3-Jun-20	Epidemiology, Clinical Features, and Disease Severity in Patients With Coronavirus Disease 2019 (COVID-19) in a Children's Hospital in New York City, New York	JAMA	Original Investigation	This is a retrospective review of medical records from a children's hospital in New York City, USA, including hospitalized children and adolescents (≤21 years) who tested positive for SARS-CoV-2 between March 1 to April 15, 2020. Among 50 patients, 27 (54%) were boys and 25 (50%) were Hispanic. The median days from onset of symptoms to admission was 2 (IQR: 1-5 days). Most patients (40 [80%]) had a fever or respiratory symptoms (32 [64%]), but 3 patients (6%) with only gastrointestinal tract presentations were identified. Obesity (11 [22%]) was the most prevalent comorbidity. Respiratory support was required for 16 patients (32%). One patient (2%) died. None of 14 infants and 1 of 8 immuno-compromised patients had severe disease. Obesity was significantly associated with mechanical ventilation in children aged 2 years or older (P = 0.03). Those with severe disease had significantly higher CRP (median, 8.978 mg/dL vs 0.64 mg/dL) and procalcitonin levels (median, 0.31 ng/mL vs 0.17 ng/mL) at admission (P < 0.001), as well as elevated peak IL-6, ferritin, and D-dimer levels during hospitalization. Hydroxychloroquine was administered to 15 patients (30%). In this case series study of children and adolescents hospitalized with COVID-19, the disease had diverse manifestations.	Children hospitalized with COVID-19 commonly had comorbidities, infants had less severe disease, obesity was significantly associated with disease severity, and elevated markers of inflammation were associated with severe disease.	Zachariah P, Johnson CL, Halabi KC, et al. Epidemiology, Clinical Features, and Disease Severity in Patients With Coronavirus Disease 2019 (COVID-19) in a Children's Hospital in New York City, New York. JAMA Pediatr. Published online June 03, 2020. doi:10.1001/jamapediatrics.2020.2430
CT scan, pneumonia, pregnancy, China	3-Jun-20	Radiological Findings and Clinical Characteristics of Pregnant Women With COVID-19 Pneumonia	Gynecology Obstetrics	Clinical article	Between December 31, 2019, and March 7, 2020, 23 hospitalized pregnant patients with confirmed COVID -19 were enrolled in the study. 15 (65.2%) patients were asymptomatic with patchy ground-glass opacity in a single lung lobe. 8 (34.8%) patients were symptomatic with multiple patchy ground-glass shadows, consolidation, and fibrous stripes. Differences in lymphocyte percentage and neutrophil granulocyte rate between first admission and CT absorption were significant (P <0.001). Median absorption time was shorter in the asymptomatic group compared with the symptomatic group (5 vs 10 days; P <0.001). Median hospitalization time between asymptomatic and symptomatic patients was 14 vs 25.5 days; P >0.001. Median absorption time and length of hospitalization for all patients was 6 days (IQR 5–8) and 17 days (IQR 13–25), respectively.	Radiological findings and clinical characteristics in pregnant women with COVID -19 were similar to those of non-pregnant women. Median absorption time and length of hospitalization in asymptomatic patients were shorter than in symptomatic patients.	Wu X, Sun R, Chen J, Xie Y, Zhang S, Wang X. Radiological findings and clinical characteristics of pregnant women with COVID-19 pneumonia. Int J Gynaecol Obstet. doi:10.1002/ijgo.13165
Neonatal infection,	3-Jun-20	Neonatal SARS-CoV-2 Infection	Clinics (Sao Paolo)	Letter	A male neonate was born vaginally at full term; the mother's amniotic membranes had ruptured 11 hours before delivery. He presented with early	Favorable clinical course of COVID-19 is described in a	Carvalho WB, Gibelli MAC, Krebs VLJ, Calil

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ruptured amniotic membranes, breastfeeding, horizontal transmission, Brazil					respiratory distress, which improved after receiving inhaled oxygen in the first 12 hours of life. Blood examinations were normal, and chest radiography showed a left clavicle fracture. The patient was discharged home on the third day of life, on exclusive breastfeeding. At home, family members complied with isolation requirements, and the newborn had no contact with other patients with flu-like symptoms. On day 11 of life, the newborn had two episodes of hyperthermia and mild respiratory distress. Nasal and oropharyngeal samples for SARS-CoV-2 were positive by RT-PCR. The neonate had favorable clinical course while hospitalized and remained mostly breastfed (he was given formula only when breast milk was unavailable).	male neonate, who remained breastfed from birth and throughout the recovery process.	VMLT, Nicolau CM, Johnston C. Neonatal SARS-CoV-2 infection. Clinics (Sao Paulo). 2020;75:e1996. doi:10.6061/clinics/2020/e1996
Children, liver transplant, immuno-suppression, incidence, Latin America	3-Jun-20	Low Incidence of COVID-19 in Children and Adolescent Post-Liver Transplant at a Latin American Reference Center	Clinics (Sao Paolo)	Letter	At a reference center for the treatment of pediatric liver disease and pediatric transplantation in Latin America, patients have between routinely monitored for clinical signs or symptoms of COVID-19. Between March and April 2020, 6 transplant patients presented with mild upper respiratory infection and fever; all but one had a negative RT-PCR test. Also during this period, 169 non-transplant children with suspected COVID-19 were tested, and 13 (7.7%) had a positive test. All presented with mild clinical manifestations, and one of them died secondary to a genetic syndrome.	In a theoretically high-risk group of immunosuppressed pediatric patients, none developed severe disease or complications from COVID-19.	Tannuri U, Tannuri ACA, Cordon MNA, Miyatani HT. Low incidence of COVID-19 in children and adolescent post-liver transplant at a Latin American reference center. Clinics (Sao Paulo). 2020;75:e1986. doi:10.6061/clinics/2020/e1986
Maternal and neonatal health, essential services, safety net, LMICs	3-Jun-20	Protecting Hard-Won Gains for Mothers and Newborns in Low-Income and Middle-Income Countries in the Face of COVID-19: Call for a Service Safety Net	BMJ Global Health	Commentary	The adverse impact of COVID-19 on maternal and newborn services in low-income and middle-income countries (LMICs) risks undermining improvements in health outcomes and care achieved over the last three decades. Alarming declines in the use of services and in the quality of care in health facilities are being reported. Local solutions to the direct and indirect challenges brought to maternal and newborn health services by COVID-19 must be captured effectively and shared efficiently to support health workers and managers. Providing adequate funding to maintain essential services alongside urgent action plans for COVID-19 is essential to enable rapid adaptation and modifications to service delivery in response to different transmission scenarios and stages of the pandemic.	Both funding to maintain essential services and urgent action plans for COVID-19 are needed to mitigate the adverse impact of COVID-19 on maternal and newborn health outcomes in LMICs.	Graham WJ, Afolabi B, Benova L, et al. Protecting hard-won gains for mothers and newborns in low-income and middle-income countries in the face of COVID-19: call for a service safety net. BMJ Glob Health. 2020;5(6):e002754. doi:10.1136/bmjgh-2020-002754
Children, adolescents, clinical presentation, comorbidities, hospitalization, Italy	3-Jun-20	Characteristic of COVID-19 Infection in Pediatric Patients: Early Findings From Two Italian Pediatric Research Networks	European Journal of Pediatrics	Short Communication	This descriptive study reports on 130 children with confirmed COVID-19 diagnosed by 28 centers in 10 regions of Italy, during the first months of the pandemic. Among these, 67 (51.5%) had a relative with COVID-19 while 34 children (26.2%) had comorbidities, with the most frequent being respiratory, cardiac, or neuromuscular chronic diseases. Overall, 98 (75.4%) had an asymptomatic or mild disease, 11 (8.5%) had moderate disease, 11 (8.5%) had a severe disease, and 9 (6.9%) had a critical presentation with infants below 6 months having significantly increased risk of critical disease severity (OR 5.6, 95% CI 1.3 to 29.1). Seventy-five (57.7%) children were hospitalized, 15 (11.5%) needed some respiratory support, and nine (6.9%) were treated in an intensive care unit. All recovered.	In a cohort of children with COVID-19 in Italy, there was a relatively high rate of comorbidities and hospitalization.	Parri N, Magistà AM, Marchetti F, et al. Characteristic of COVID-19 infection in pediatric patients: early findings from two Italian Pediatric Research Networks [published online 2020 Jun 3]. Eur J Pediatr. doi:10.1007/s00431-020-03683-8

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Children, scientific evidence, systematic review, registry	3-Jun-20	COVID-19 in Children: Patiently and Critically Evaluate the Scientific Evidence	European Journal of Pediatrics	Editorial	Clinicians, researchers and policymakers must integrate their responses to COVID-19 in children with emerging evidence while maintaining principles of scientific rigor and peer-review. Systematic reviews will be required, and the challenge will be to strike at the right time to summarize current data. As of May 26, 2020, 200 of 1000 systematic reviews on COVID-19 published in an international database included children. Lastly, it will be essential to collect data on children through larger national and international registries, to gain further insight into this disease across different settings.	Systematic reviews and larger registries will be critical to ensuring that responses to the COVID-19 pandemic in children maintain a high level of scientific rigor.	Ritz N, de Winter JP. COVID-19 in children: patiently and critically evaluate the scientific evidence [published online 2020 Jun 3]. Eur J Pediatr. doi:10.1007/s00431-020-03708-2
Children, Kawasaki Disease-like syndrome, MIS-C	3-Jun-20	New Spectrum of COVID-19 Manifestations in Children: Kawasaki-like Syndrome and Hyperinflammatory Response	Cleveland Clinic Journal of Medicine	COVID-19 Curbside Consults	Since late April 2020, data regarding Kawasaki-like syndrome and hyperinflammatory response in children associated with COVID-19 has rapidly emerged. Much remains unknown about the risk factors, pathogenesis, prognosis, and specific therapy for this emerging manifestation of COVID-19 known as Multisystem Inflammatory Syndrome in Children (MIS-C). MIS-C is rare and early recognition is crucial though no standardized treatment guideline have been established.	A summary of what is currently known about COVID-19 associated Kawasaki Disease-like syndrome and other manifestations is presented.	Panupattanapong S, Brooks EB. New spectrum of COVID-19 manifestations in children: Kawasaki-like syndrome and hyperinflammatory response [published online 2020 Jun 3]. Cleve Clin J Med. doi:10.3949/ccjm.87a.ccc039
Adolescent, acute myocarditis, cardio-vascular complications, New York, USA	3-Jun-20	COVID-19-Associated Myocarditis in an Adolescent	The Pediatric Infectious Disease Journal	Brief Reports	A 17-year-old obese male was admitted to the pediatric intensive care unit after presenting with fluid-responsive septic shock following 7 days of fever, gastrointestinal symptoms and neck pain. Initial workup was positive for SARS-CoV-2 and elevated troponin I and brain natriuretic peptide. Echocardiography and cardiac MRI confirmed acute myocarditis. One week after discharge, repeat echocardiogram demonstrated improved heart function with only residual myocardial dysfunction.	This case report adds to growing literature on the cardiovascular complications of COVID-19 in the pediatric population.	Trogen B, Gonzalez FJ, Shust GF. COVID-19-Associated Myocarditis in an Adolescent [published online 2020 Jun 3]. Pediatr Infect Dis J. doi:10.1097/INF.0000000000002788
Children, adolescents, clinical characteristics, obesity, inflammatory markers, New York City, USA	3-Jun-20	Epidemiology, Clinical Features, and Disease Severity in Patients With Coronavirus Disease 2019 (COVID-19) in a Children's Hospital in New York City, New York	JAMA Pediatrics	Original Investigation	In this retrospective study of 50 children and adolescents (≤21 years) at a children's hospital in New York City (USA), 27 (54%) were boys and 25 (50%) were Hispanic. The median days from onset of symptoms to admission was 2 days (interquartile range, 1-5 days). Most patients (40 [80%]) had fever or respiratory symptoms (32 [64%]), but 3 patients (6%) with only gastrointestinal tract presentations were identified. Obesity (11 [22%]) was the most prevalent comorbidity. Respiratory support was required for 16 patients (32%), including 9 patients (18%) who required mechanical ventilation. One patient (2%) died. None of 14 infants and 1 of 8 immunocompromised patients had severe disease. Obesity was significantly associated with mechanical ventilation in children 2 years or older (6 of 9 [67%] vs 5 of 25 [20%]; *P*=.03). Lymphopenia was commonly observed at admission (36 [72%]) but did not differ significantly between those with and without severe disease. Those with severe disease had significantly higher C-reactive protein (median, 8.978 mg/dL vs 0.64 mg/dL) and procalcitonin levels (median, 0.31 ng/mL vs 0.17 ng/mL) at admission (*P*<.001), as well as elevated peak interleukin 6, ferritin, and D-dimer levels during hospitalization. Hydroxychloroquine was administered to 15 patients (30%) but could not be	In this case series study of children and adolescents hospitalized with COVID-19, infants and immunocompromised patients were not at increased risk of severe disease; obesity and elevated inflammatory markers were significantly associated with disease severity.	Zachariah P, Johnson CL, Halabi KC, et al. Epidemiology, Clinical Features, and Disease Severity in Patients With Coronavirus Disease 2019 (COVID-19) in a Children's Hospital in New York City, New York [published online 2020 Jun 3]. JAMA Pediatrics. doi:10.1001/jamapediatrics.2020.2430

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					completed for 3. Prolonged test positivity (maximum of 27 days) was observed in 4 patients.		
Children, transmission dynamics, multisystem inflammatory syndrome, racial groups, risk factors	3-Jun-20	Children in the Eye of the Pandemic Storm—Lessons From New York City	JAMA Pediatrics	Editorial	This editorial summarizes key findings from the study by Zachariah et al. on 50 children and adolescents at a New York City hospital and highlights remaining gaps of knowledge related to COVID-19 in children. For example, transmission dynamics between children and adults are still not well understood. Recent reports on multisystem inflammatory syndrome in children, although rare, must also be factored into the discussion on the burden of SARS-CoV-2 infection in children. Lastly, while various studies have begun to emphasize that children of color may be disproportionately affected by COVID-19, the authors caution against inferring inherent biological susceptibility in certain groups, without acknowledging underlying factors that have placed individuals at risk.	This report places the Zachariah et al. article in the context of available literature on COVID-19 in children.	Newland JG, Bryant KA. Children in the Eye of the Pandemic Storm—Lessons From New York City [published online 2020 Jun 3]. JAMA Pediatrics. doi:10.1001/jamapediatrics.2020.2438
Children, Kawasaki Disease, African ancestry, gastrointestinal symptoms, France	3-Jun-20	Kawasaki-like multisystem inflammatory syndrome in children during the covid-19 pandemic in Paris, France: prospective observational study	BMJ	Research Article	This prospective observational study describes children and adolescents (≤18 years) with features of Kawasaki disease (KD) admitted between April 27 and May 11, 2020, at a university hospital in Paris, France. In total, 21 patients (median 7.9 years, range 3.7-16.6 years) were admitted with features of KD over a 15-day period, with 12 (57%) of African ancestry. 12 (57%) presented with KD shock syndrome and 16 (76%) with myocarditis. 17 (81%) required intensive care support. All 21 patients had noticeable gastrointestinal symptoms during the early stage of illness and high levels of inflammatory markers. 19 (90%) had evidence of recent SARS-CoV-2 infection (positive RT-PCR result in 8/21, positive IgG antibody detection in 19/21). All 21 patients received IV immunoglobulins and 10 (48%) also received corticosteroids. Moderate coronary artery dilations were detected in 5 (24%) of the patients during hospital stay. By May 15, after 8 (range 5-17) days of hospital stay, all patients were discharged home.	An unusually high proportion of children with recent evidence of SARS-CoV-2 infection, gastrointestinal involvement, KDSS and African ancestry were identified in this study from Paris, France.	Toubiana J, Poirault C, Corsia A, et al. Kawasaki-like multisystem inflammatory syndrome in children during the covid-19 pandemic in Paris, France: prospective observational study [published online 2020 May 14]. BMJ. doi:10.1136/bmj.m2094
Children, clinical characteristics, systematic review	3-Jun-20	Clinical Manifestations of Children With COVID-19: A Systematic Review	Pediatric Pulmonology	Review	A total of 38 studies (1,124 cases) were included in this systematic review. Of all cases, 1,117 had their severity classified as the following: 14.2% were asymptomatic, 36.3% were mild, 46.0% were moderate, 2.1% were severe and 1.2% were critical. The most prevalent symptom was fever (47.5%), followed by cough (41.5%), nasal symptoms (11.2%), diarrhea (8.1%) and nausea/vomiting (7.1%). One hundred forty-five (36.9%) children were diagnosed with pneumonia and 43 (10.9%) upper airway infections were reported. Reduced lymphocyte count was reported in 12.9% of cases. Abnormalities on CT were reported in 63% of cases. The most prevalent abnormalities reported were ground glass opacities, patchy shadows and consolidations. Only one death was reported.	The vast majority of children with COVID-19 have a favorable clinical course, and their clinical manifestations differ widely from those of adults.	de Souza TH, Nadal JA, Nogueira RJN, Pereira RM, Brandão MB. Clinical Manifestations of Children with COVID-19: a Systematic Review [published online 2020 Jun 3]. Pediatr Pulmonol. doi:10.1002/ppul.24885
Children, pediatric inflammatory syndrome, MIS-C, Kawasaki disease	3-Jun-20	Pediatric inflammatory syndrome temporally related to covid-19	BMJ	Editorial	In many countries struggling with the burden of the COVID-19 pandemic, a serious, delayed inflammatory syndrome has emerged among children and adolescents, a population previously thought to have been mostly spared by COVID-19. This condition is referred to variously as the pediatric multisystem inflammatory syndrome temporally associated with COVID-19 (PIMS), the multisystem inflammatory syndrome in children and adolescents temporally related to COVID-19, and the multisystem inflammatory syndrome in children (MIS-C) associated with COVID-19. This article goes on to summarize key findings from the Toubiana et al. article on Kawasaki disease and related	A summary of available information on pediatric inflammatory syndrome temporally related to COVID-19 is provided.	Son MBF. Pediatric inflammatory syndrome temporally related to covid-19 [published online 2020 Jun 3]. BMJ. doi:10.1136/bmj.m2123

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					shock syndrome in children. Currently characterized as a post-infectious, immune-mediated phenomenon of COVID-19, the immuno-pathology underpinning the spectrum of MIS-C remains to be elucidated.		
Children, Kawasaki disease, multi-system inflammatory syndrome, neutrophil extracellular traps, innate immunity	3-Jun-20	Does the Newly Observed Inflammatory Syndrome in Children Demonstrate a Link Between Uncontrolled Neutrophil Extracellular Traps Formation and COVID-19?	Pediatrics Research	Correspondence	Rare cases of multi-system inflammatory syndrome associated with COVID-19 in children show symptoms similar to those found in Kawasaki disease (KD), which causes inflammation in blood vessel walls. KD pathogenesis appears to be associated with upregulation of multiple immune pathways as well as certain genetic and environmental factors. The authors speculate that the COVID-19 associated dysregulation of neutrophil extracellular traps (NETs) formation, essential for innate immunity, plays a key role in KD. Such dysregulation may have serious adverse effects including multi-organ damage and systemic vasculopathy, in particular.	This letter highlights the possible link between the Kawasaki disease-like syndrome found in a small number of COVID-19 positive children and the exacerbation of neutrophil extracellular trap formation in the immune response.	Thierry AR. Does the newly observed inflammatory syndrome in children demonstrate a link between uncontrolled neutrophil extracellular traps formation and COVID-19? [published online 2020 Jun 3]. Pediatr Res. doi:10.1038/s41390-020-0996-1
Pediatric visits, school closure, national lockdown, infectious diseases, France	3-Jun-20	COVID-19 Pandemic: Impact Caused by School Closure and National Lockdown on Pediatric Visits and Admissions for Viral and Non-Viral Infections, a Time Series Analysis	Clinical Infectious Diseases	Brief Report	A time series analysis, based on multicenter prospective French surveillance data, of 871,543 pediatric emergency department (PED) visits revealed that the COVID-19 national lockdown and school closures were associated with a 68% and 45% decrease in PED visits and hospital admissions, respectively. There was a significant decrease in infectious diseases disseminated through airborne or fecal-oral transmissions: common cold, gastro-enteritis, bronchiolitis, and acute otitis. No change was found for urinary tract infections.	Data from France show significant decreases in ED visits and hospital admissions for common pediatric infectious diseases during the national lockdown.	Angoulvant F, Ouldali N, Yang DD, et al. COVID-19 pandemic: Impact caused by school closure and national lockdown on pediatric visits and admissions for viral and non-viral infections, a time series analysis [published online 2020 Jun 3]. Clin Infect Dis. doi:10.1093/cid/ciaa710
Pediatrics, vaccine development, immunization, community protection	3-Jun-20	The Importance of Advancing SARS-CoV-2 Vaccines in Children	Clinical Infectious Diseases	Viewpoints	While the role of children in the chain of transmission of SARS-CoV-2 remains to be fully defined, they likely play an important role based on existing knowledge of other respiratory viruses. Children are more likely to be asymptomatic or have milder symptoms and less likely to present for healthcare and be tested for SARS-CoV-2; thus, current estimates are likely under-representative of the true burden of SARS-CoV-2 in children. Given the potential direct benefit of a SARS-CoV-2 vaccine in children and the substantial indirect benefit through community protection or 'herd immunity', the authors argue that planning and implementation of SARS-CoV-2 vaccines should include children. Considerations for vaccine clinical trials, potential barriers to the implementation of widespread vaccination and arguments for why children would be an ideal target population for vaccination are detailed.	An argument for including children in the development and implementation of SARS-CoV-2 vaccination, based on their potential role in community protection, is presented here.	Kao CM, Orenstein WA, Anderson EJ. The Importance of Advancing SARS-CoV-2 Vaccines in Children [published online 2020 Jun 3]. Clin Infect doi:10.1093/cid/ciaa712
Children, age-based susceptibility, ACE2, TMPRSS2, immune response	3-Jun-20	Understanding the Age Divide in COVID-19: Why Are Children Overwhelmingly Spared?	American Journal of Physiology	Perspectives	Understanding age-based differences in pathophysiological pathways and processes relevant to the onset and progression of COVID-19 may hold the key to the identification of therapeutic targets. The differences in clinical course are highlighted by the lack of progression of SARS-CoV-2 infection beyond mild symptoms in a majority of children, while in adults, the disease progresses to acute lung injury and an acute respiratory distress syndrome phenotype with high mortality. The pathophysiological mechanisms leading to decreased lung injury in children may involve the decreased expression of the	Understanding the protective phenotype of the developing lung in children can guide the trial of appropriate therapies for COVID-19 in adults.	Lingappan K, Karmouty-Quintana H, Davies J, Akkanti B, Harting MT. Understanding the age divide in COVID-19: Why are children overwhelmingly spared? [published online 2020

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					mediators necessary for viral entry into the respiratory epithelium and differences in the immune system responses in children. Specifically, decreased expression of proteins, including angiotensin converting enzyme-2 (ACE2) and Transmembrane Serine Protease 2 (TMPRSS2) in the airway epithelium in children may prevent viral entry. The immune system differences may include a relative preponderance of CD4+T-cells, decreased neutrophil infiltration, decreased production of pro-inflammatory cytokines, and increased production of immunomodulatory cytokines in children compared to adults. Notably, the developing lung in children may have a greater capacity to recover and repair after viral infection.		Jun 3]. Am J Physiol Lung Cell Mol Physiol. doi:10.1152/ajplung.00183.2020
COVID-19; SARS-COV-2; Senegal; coronavirus; pregnancy	2-Jun-20	Clinical characteristics and outcomes of COVID-19 infection in nine pregnant women: A report from a sub-Saharan African country, Senegal	The Pan African Medical Journal	Original Research	This was a cross-sectional and descriptive study of 9 pregnant women with COVID-19, who were admitted in COVID-19 treatment centers in Senegal from March 2 - May 15, 2020. SARS-CoV-2 infection was confirmed by PCR. As of May 15, 2020, 2105 people were COVID-19-positive in Senegal, including the 9 pregnant women, meaning that pregnant women comprised <0.5% of all COVID-19 patients. The age range of the women was 18-42 years (average 28 years), and the range of gestational weeks at admission was 7 - 32 weeks. None of the patients had underlying diseases. All the patients presented with a headache; 4 had a fever, 2 had a cough, 2 had rhinorrhea, and 2 reported poor appetite. 3/9 patients were administered hydroxychloroquine and azithromycin. The median time to recovery was 13.6 days, corresponding to the number of days in hospital. The youngest, 18-year-old, patient experienced bleeding from the start of her hospitalization and she had a miscarriage. None of the women developed severe COVID-19 pneumonia or died. The authors concluded that in this population, pregnant women have the same clinical features of SARS-CoV-2 infection as the general population, and there was no evidence that pregnant women are more susceptible to infection with SARS-CoV-2.	This cross-sectional and descriptive study of 9 pregnant women with COVID-19 in Senegal from March 2 - May 15, 2020. None developed severe COVID-19 pneumonia or died, but 1 experienced miscarriage. The authors concluded that in this population, pregnant women have the same clinical features of SARS-CoV-2 infection as the general population and there was no evidence that they are more susceptible to infection with SARS-CoV-2.	Diouf AA, Mbaye KD, Gueye M, et al. Clinical characteristics and outcomes of COVID-19 infection in nine pregnant women: a report from a sub-Saharan African country, Senegal. Pan Afr Med J. 2020;35(Suppl 2):58. Published 2020 Jun 2. doi:10.11604/pamj.supp.2020.35.2.23736
Ischemic stroke, pediatric, focal cerebral arteriopathy, COVID-19	2-Jun-20	Focal Cerebral Arteriopathy in a Pediatric Patient with COVID-19	Radiology	Case report	The authors present a case report of a 12-year-old boy in Iran who developed an ischemic stroke associated with COVID-19 during the COVID-19 pandemic in 2020. This previously healthy boy presented with new onset seizures, right-sided hemiparesis and dysarthria. Despite the absence of symptoms or COVID-19 positive contacts, he was found to have SARS-CoV-2 via both nasopharyngeal and cerebral spinal fluid PCR testing. The brain MRI was notable for focal cerebral arteriopathy (FCA), specifically focal irregular narrowing and banding of the proximal M1 segment of the left middle cerebral artery with a slightly reduced distal flow. Laboratory evaluation was negative for other infectious agents and did not show a pro-inflammatory state. The child was discharged home with persistent hemiparesis and is undergoing rehabilitation. The authors note that other viruses such as varicella-zoster and influenza A have been causation agents for FCA and suggest that SARS-CoV-2, known to be neuro-invasive, may be the cause of this pediatric patient's stroke.	The authors present a case report of a pediatric patient with an ischemic stroke due focal cerebral arteriopathy (FCA) associated with COVID-19. The presence of SARS-CoV-2 found in the cerebral spinal fluid of this patient supports central nervous system involvement.	Mirzaee SMM, Gonçalves FG, Mohammadifard M, Tavakoli SM, Vossough A. Focal Cerebral Arteriopathy in a Pediatric Patient with COVID-19. Radiology. 2020 Nov;297(2):E274-E275. doi: 10.1148/radiol.2020202197. Epub 2020 Jun 2. PMID: 32484418; PMCID: PMC7587294.
Disease containment, loneliness,	2-Jun-20	Rapid Systematic Review: The Impact of Social	Journal of the American Academy of	Review Article	Disease containment of COVID-19 has necessitated widespread social isolation. The authors of this review aimed to establish what is known about how loneliness and disease containment measures impact the mental health	The authors conducted a rapid review of literature relating to how loneliness	Loades ME, Chatburn E, Higson-Sweeney N, Reynolds S, Shafran R,

Key Terms	Date Published	Title	Journal / Source	Type of Publication	Summary & Key Points	Specific Observations	Full Citation
mental health, pandemic, children, adolescents		Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19	Child and Adolescent Psychiatry		of children and adolescents. They searched MEDLINE, PSYCHINFO, and Web of Science for articles published between January 1, 1946 and March 29, 2020. 83 articles (80 studies) met inclusion criteria. Of these, 63 studies reported on the impact of social isolation and loneliness on the mental health of previously healthy children and adolescents (n= 51,576, mean age 15.3 years). 61 studies were observational, 18 were longitudinal, and 43 were cross-sectional studies assessing self-reported loneliness in healthy children and adolescents. Social isolation and loneliness increased the risk of depression and possibly anxiety. This risk occurred at the time loneliness was measured and between 0.25 to 9 years later. Duration of loneliness was more strongly correlated with mental health symptoms than intensity of loneliness. Children and adolescents are likely to experience high rates of depression and possibly anxiety during and after enforced isolation ends. This may increase as enforced isolation continues. The authors explain that clinical services should offer preventive support and early intervention where possible and be prepared for an increase in mental health problems.	and disease containment measures impact mental health in children and adolescents. They concluded that children and adolescents will likely experience high rates of depression and anxiety during and after the isolation in response to the COVID-19 pandemic.	Brigden A, Linney C, McManus MN, Borwick C, Crawley E. Rapid Systematic Review: The Impact of Social Isolation and Loneliness on the Mental Health of Children and Adolescents in the Context of COVID-19. J Am Acad Child Adolesc Psychiatry. 2020 Jun 3:S0890-8567(20)30337-3. doi: 10.1016/j.jaac.2020.05.009. Epub ahead of print. PMID: 32504808; PMCID: PMC7267797.
South Africa, elective surgery, pediatric ENT, otolaryngology, public health ethics, utilitarian	2-Jun-20	Reintroduction of elective pediatric otolaryngology procedures in South Africa during the COVID-19 pandemic	South African Medical Journal	Review Article	While COVID-19 crisis management required a shift from patient-centered to public health ethics by canceling elective clinical services, the authors advocate for gradually reintroducing elective surgeries in South Africa based on the low prevalence of confirmed COVID-19 cases among children. The authors conducted a systematic review of elective surgery in pediatric otolaryngology during the COVID-19 pandemic. The review aims to provide a framework to reintroduce elective surgical procedures. The authors summarize the screening and diagnostic testing recommendations and the steps for reintroducing elective surgical procedures. They recommend a multidisciplinary governance committee to risk-stratify patients and oversee the reintroduction of elective services at each facility. The authors suggest adopting an objective scoring system such as the Medically Necessary Time-Sensitive system to prioritize surgery and make decisions based on the institution's capacity. The authors discuss pre-operative, intra-operative, and postoperative considerations particularly focused on social distancing and procurement and appropriate use of PPE.	Although canceling elective clinical services was necessary to manage the COVID-19 crisis in healthcare settings, the authors argue for gradually reintroducing elective surgeries in pediatric otolaryngology. Their systematic review summarizes the recommendations and protocols to provide a framework for the reintroduction of elective surgeries while minimizing risks to patients and healthcare providers.	McGuire JK, Fagan JJ, Peer S. Reintroduction of elective paediatric otolaryngology procedures in South Africa during the COVID-19 pandemic. S Afr Med J. 2020;110(7):601-604. Published 2020 Jun 2. doi:10.7196/SAMJ.2020.v110i7.14859
Maternal health, non-communicable diseases, economics	2-Jun-20	Maternal health and non-communicable disease prevention: An investment case for the post COVID-19 world and need for better health economic data	International Journal of Gynecology & Obstetrics	Special article	The authors provide a commentary on the health economics literature as it relates to maternal health and non-communicable diseases (NCDs). It was noted that lifestyle interventions can tackle a wide host of NCDs, such as obesity, hypertension, and cardiovascular diseases, and that economic evaluations should expand beyond their current focus on short-term benefits in pregnancy care to explore the compounded, long-term benefits on population health. With gestational diabetes mellitus (GDM), a limited number of studies evaluate the cost-effectiveness of integrated GDM screening and care that also included postpartum prevention. A similar observation is noted with the sparsity of economic data related to overweight and obesity among mothers, whereas economic evaluations on hypertension and pre-eclampsia showed that treating all pregnant women with low-dose	The author argues that the intergenerational impact of poor maternal nutrition and health conditions during pregnancy, particularly NCD-related pregnancy complications, can be considered as a multiplier of the ongoing pandemic of NCDs. Although the cost of inadequate maternal health would be likely high, further	Kapur A, Hod M. Maternal health and non-communicable disease prevention: An investment case for the post COVID-19 world and need for better health economic data. Int J Gynaecol Obstet. 2020;150(2):151-158. doi:10.1002/ijgo.13198

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		[Free Access to Abstract only]			aspirin without prior testing would be the most cost-effective prevention strategy.	research is needed to capture the full value of NCD interventions which would also benefit from the identification of "at-risk" mothers and their children.	
Gynecological surgery, obstetric surgery, guidelines, prioritization	2-Jun-20	Impact of the Coronavirus (COVID-19) Outbreak on Obstetric and Gynaecological Surgery - A Letter to the Editor on "Impact of the Coronavirus (COVID-19) Pandemic on Surgical Practice - Part 2 (Surgical Prioritisation)"	International Journal of Surgery	Letter to the Editor	The authors write in response to an article by Al-Jabir et al. that described the impact of the COVID-19 pandemic on surgical practice but omitted obstetric and gynecological surgery. The authors summarize recommendations and adaptations made in these fields due to COVID-19, including specific guidelines for gynecological laparoscopic and hysteroscopic surgery. They also describe prioritization systems as well as unique considerations for obstetric surgery.	The authors summarize the impact of COVID-19 on obstetric and gynecological surgery, including adaptations in certain types of surgeries as well as prioritization approaches.	Ashraf M, Amin P, Mehr S. Impact of the coronavirus (COVID-19) outbreak on obstetric and gynaecological surgery - A letter to the editor on "Impact of the coronavirus (COVID-19) pandemic on surgical practice - Part 2 (surgical prioritisation)". Int J Surg. 2020;79:319-320. doi:10.1016/j.ijsu.2020.05.077
Obstetrics, gynecology, maternal health, health disparities, United Kingdom	2-Jun-20	Provisions for Obstetrics and Gynaecology - Letter to the Editor on "Impact of the Coronavirus (COVID-19) Pandemic on Surgical Practice - Part 2 (Surgical Prioritisation)": A Correspondence	International Journal of Surgery	Letter to the Editor	The authors write in response to an article by Al-Jabir et al. that described the impact of the COVID-19 pandemic on surgical practice. In this letter, the authors summarize proposed changes to guidelines for antenatal care and gynecological surgery. They also present the disproportionately negative experiences of black and ethnic minority women in obstetrics and gynecology services during COVID-19, highlighting the vulnerabilities among these patients who already faced barriers to accessing care and experiencing positive outcomes.	The authors emphasize the disproportionate impact of the COVID-19 outbreak on vulnerable populations and the obstetric and gynecological care they are receiving during the pandemic.	Sookramanien SP, Sookramanien SR, Shubber N. Provisions for obstetrics and gynaecology - Letter to the editor on "impact of the coronavirus (COVID-19) pandemic on surgical practice - Part 2 (surgical prioritisation)": A correspondence. Int J Surg. 2020;79:280-281. doi:10.1016/j.ijsu.2020.05.082
Children, CT scan, Turkey	2-Jun-20	Different Manifestations of COVID-19 Pneumonia in a Child: Focal Crazy Paving Sign on Chest and Three-Dimensional Computed Tomography	British Journal of Hospital Medicine	Images in medicine	The authors present a case of a 5-year-old girl who presented to the emergency room with complaints of a dry cough, whose nasopharyngeal swab returned positive for COVID-19. A CT scan showed peripheral patchy ground-glass opacities and the focal crazy paving sign was observed. Low-dose CT imaging is indicated for medical triage of patients with suspected COVID-19 who present with moderate to severe clinical features. Bilateral peripherally distributed ground-glass opacities and patchy consolidations with lower lobe predominance are common findings in children.	The authors highlight CT findings of the focal crazy paving sign in a pediatric case of COVID-19, which has rarely been reported in children, so radiologists can be aware of this when reading CT scans for children with possible COVID-19.	Aslan S, Cakir İM, Bekci T. Different manifestations of COVID-19 pneumonia in a child: focal crazy paving sign on chest and three-dimensional computed tomography. Br J Hosp Med (Lond). 2020;81(6):1. doi:10.12968/hmed.2020.0268

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Abortion, unintended pregnancy, telemedicine counseling, human rights obligations, United States	2-Jun-20	Abortion in the Context of COVID-19: A Human Rights Imperative	Sexual and Reproductive Health Matters	Commentary	Preliminary reports indicate that states' COVID-19 responses in the U.S. may lead to increased unintended and unwanted pregnancies due to quickly diminishing contraceptive supplies, increased incidence of domestic violence, and rising income insecurity. Abortion is a time-sensitive service, with delays and denials leading to unsafe abortions. Some countries are recognizing this risk and have started allowing remote consultation with patients seeking abortions during the COVID-19 pandemic. Conversely, some US law and policymakers are working to effectively ban abortion, under the cover of the pandemic, by misleadingly categorizing abortion as "non-essential" and not "medically necessary" care. This report outlines states' human rights obligations to ensure abortion access and avoid preventable abortion complications amidst the COVID-19 crisis.	This article discusses the human rights obligations of U.S. states to allow women to undertake safe self-managed abortion with telemedicine counseling during the COVID-19 pandemic.	Todd-Gher J, Shah PK. Abortion in the context of COVID-19: a human rights imperative. Sex Reprod Health Matters. 2020;28(1):1758394. doi:10.1080/26410397.2020.1758394
Pregnancy, neonates, human milk samples, breastfeeding, Italy	2-Jun-20	Excretion of Sars-Cov-2 in Human Breastmilk Samples	Clinical Microbiology and Infection	Letter to the Editor	In this report, two pregnant women were admitted to a hospital in Rome, Italy and tested positive for SARS-CoV-2. Both patients were in their third trimester and underwent cesarean section following fetal distress. Both neonates did not receive breastmilk, as a precaution. In one mother, viral RNA was detected in multiple breastmilk samples, collected on subsequent days after delivery, as well as placental tissue and cord blood samples. Cycle threshold value of less than 40 (interpreted as positive for SARS-CoV-2 RNA) in three of six breastmilk samples indicate excretion of virus into breastmilk. Thus, the authors recommend against the practice of breastfeeding until the mother has achieved viral clearance. Assessment for live virus isolation was not performed in clinical samples in this study.	Testing from various body sites or fluids of pregnant women with COVID-19 is needed to assess potential mother-to-child transmission of SARS-CoV-2 by extra-respiratory routes.	Costa S, Posteraro B, Marchetti S, et al. Excretion of Sars-Cov-2 in human breastmilk samples [published online 2020 Jun 2]. Clin Microbiol Infect. doi:10.1016/j.cmi.2020.05.027
Pregnancy, postpartum, Hispanic ethnicity, health inequities, Boston, USA	2-Jun-20	Prevalence and Severity of Coronavirus Disease 2019 (COVID-19) Illness in Symptomatic Pregnant and Postpartum Women Stratified by Hispanic Ethnicity	Obstetrics & Gynecology	Research Letter	U.S. reports have demonstrated racial and ethnic inequities in COVID-19-related hospitalizations and deaths. Such inequities are commonplace in maternal mortality and severe maternal morbidity. At a single academic medical center (between March 6 and May 4, 2020), 65 Hispanic and 127 non-Hispanic women presented with symptoms of COVID-19 while pregnant or within 2 weeks postpartum. 136 (71%) were tested; 39 of 54 Hispanic women (72%) and 22 of 82 non-Hispanic women (27%) had positive test results (p<.001). Of those testing positive, 13 of 39 Hispanic women were admitted to the hospital, including five to the intensive care unit (ICU); 8 of the 22 non-Hispanic women were admitted, including one to the ICU. There were no deaths.	Although Hispanic women represent 18% of the population in the catchment area of an obstetric service in Boston, MA (USA), they accounted for >60% of all pregnant women hospitalized for COVID-19.	Goldfarb IT, Clapp MA, Soffer MD, et al. Prevalence and Severity of Coronavirus Disease 2019 (COVID-19) Illness in Symptomatic Pregnant and Postpartum Women Stratified by Hispanic Ethnicity [published online 2020 Jun 2]. Obstet Gynecol. doi:10.1097/AOG.0000000000004005
Children, cancers, blood disorders, routine care, health systems, LMICs, Africa	2-Jun-20	Caring for Children With Cancer in Africa During the COVID-19 Crisis: Implications and Opportunities	Pediatric Hematology and Oncology	Commentary	The COVID-19 pandemic has created an environment where children with cancer and blood disorders in low- and middle-income countries (LMICs) across the globe, such as in Africa, may now have even less access to care than before. Children's access to health care as well as food is predicted to be impacted by the pandemic in LMICs. The authors highlight areas of potential opportunities to build upon the COVID-19 response to improve systems for diagnosing and managing children with cancer and blood disorders: infection control measures, de-centralization of care, health care worker capacity, health care funding, availability of personal protective equipment for chemotherapy, and supply chain management.	This article raises concern over challenges posed by the COVID-19 for the delivery of care to pediatric patients with cancer and blood disorders in LMICs.	Slone JS, Ozuah N, Wasswa P. Caring for Children with Cancer in Africa during the COVID-19 Crisis: Implications and Opportunities [published online 2020 Jun 2]. Pediatr Hematol Oncol. doi:10.1080/08880018.2020.1772913

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Infant, ileocolic intussusception, abdominal ultrasound, Spain	2-Jun-20	COVID-19 Infection Is a Diagnostic Challenge in Infants With Ileocecal Intussusception	Pediatric Emergency Care	Letter to the Editors	Early recognition of idiopathic intussusception, the most common cause of bowel obstruction in toddlers and infants, is paramount to prevent further bowel ischemia and perforation. In this case, a 6-month-old white Spanish boy presented with a two-day history of vomiting, abdominal cramps, and currant jelly stools. An abdominal ultrasound scan showed a swirled pattern consisting of signs typical of those present in ileocolic intussusceptions. A hydrostatic reduction under general anesthesia was performed, and the clinical course was satisfactory. A PCR test was positive for SARS-CoV-2 infection, chest X-ray was unremarkable, and stool samples were negative for conventional pathogens.	This case report presents an infant with ileocecal intussusception in the setting of SARS-CoV-2 infection.	Martínez-Castaño I, Calabuig-Barbero E, Gonzálvez-Piñera J, López-Ayala JM. COVID-19 Infection Is a Diagnostic Challenge in Infants With Ileocecal Intussusception. Pediatr Emerg Care. 2020;36(6):e368. doi:10.1097/PEC.0000000000002155
Child, focal cerebral arteriopathy, acute ischemic stroke, CSF, Iran	2-Jun-20	Focal Cerebral Arteriopathy in a COVID-19 Pediatric Patient	Radiology	Research Letter	In this case report, a previously healthy 12-year-old boy presented with new onset of generalized seizures, followed by right-sided hemiparesis and dysarthria. There was no previous history of fever or respiratory symptoms. SARS-CoV-2 diagnosis was determined by presence of viral nucleic acid by RT-PCR in both a nasopharyngeal swab sample and cerebrospinal fluid (CSF). The lumbar puncture CSF was not inflammatory. MRI imaging demonstrated findings that were consistent with acute infarction and point to unilateral focal vasculopathy. There are many potential differential considerations in a child with acute stroke, including systemic Kawasaki disease, but the patient did not show any classical clinical findings.	A case of focal cerebral arteriopathy and ischemic stroke in a pediatric COVID-19 patient is presented.	Mirzaee SMM, Gonçalves FG, Mohammadifard M, Tavakoli SM, Vossough A. Focal Cerebral Arteriopathy in a COVID-19 Pediatric Patient [published online 2020 Jun 2]. Radiology. doi:10.1148/radiol.2020202197
Pregnancy, maternal immune activation, children, neuro-psychiatric disorders, nutritional intervention	2-Jun-20	Risk of Neuropsychiatric Disorders in Offspring of COVID-19-infected Pregnant Women and Nutritional Intervention	European Archives of Psychiatry and Clinical Neuroscience	Letter to the Editor	Epidemiological studies suggest that maternal immune activation (MIA), inflammation, and response to infectious pathogens play a role in the etiology of neuropsychiatric disorders, such as autism spectrum disorder and schizophrenia. C-reactive protein (CRP) is a well-established blood biomarker of inflammation, from both infectious and noninfectious exposures, that has been observed in pregnant patients with COVID-19. There are increasing interests in the potential benefit of early intervention through safe anti-inflammatory nutritional supplementation, such as dietary intake of sulforaphane and its precursor glucoraphanin, in pregnant women to reduce the risk of neuropsychiatric disorders. Future randomized, double-blind, placebo-control studies are needed.	As maternal inflammation is associated with neuropsychiatric disorders in children, this article explores the potential role of anti-inflammatory nutrition in pregnant patients with COVID-19 to reduce this risk.	Hashimoto K. Risk of neuropsychiatric disorders in offspring of COVID-19-infected pregnant women and nutritional intervention [published online 2020 Jun 2]. Eur Arch Psychiatry Clin Neurosci. doi:10.1007/s00406-020-01148-5
Pregnancy, neonates, morbidity, mortality, vertical transmission, medical community	2-Jun-20	COVID-19 and essential pregnant worker policies	The Lancet Infectious Diseases	Correspondence	Low risk of severe COVID-19 associated morbidity and mortality in pregnant women and their offspring should not be assumed in the absence of multicenter databases to study pregnancy-related outcomes. The authors draw attention to the possibility of vertical transmission, which has not been ruled out in studies, and the hypercoagulable state induced by both pregnancy and SARS-CoV-2 infection that increases risk for disseminated intravascular coagulation and related complications. Vulnerable pregnant workers in the medical community should be protected until safety can be established for both mother and child.	Despite favorable pregnancy-related outcomes of COVID-19 reported in recent studies, low risk for this vulnerable population should not be assumed.	McDonald ES. COVID-19 and essential pregnant worker policies [published online 2020 Jun 2]. Lancet Infect Dis. doi:10.1016/S1473-3099(20)30446-1
Pediatric visits, emergency department, overcrowding, Italy	2-Jun-20	A COVID-19 Outbreak's Lesson: Best Use of the Pediatric	Acta Paediatrica	Brief Report	Prior to the COVID-19 outbreak, overcrowding in emergency departments (ED) was a major problem in several countries and was associated with increased mortality and delayed care. This brief report from Italy observes that during the first two weeks of March 2020, compared to the previous year, there was a 72.9% reduction in the number of pediatric visits to the ED,	Pediatric emergency physicians from Italy credit the reduction in pediatric ED visits to a decrease in the number of patients	Pata D, Gatto A, Buonsenso D, Chiaretti A. A COVID-19 outbreak's lesson: best use of the pediatric emergency

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		Emergency Department			from 711 to 193 admissions. The authors connect fears of SARS-CoV-2 infection in the hospital setting with a decrease in the number of children who present at the ED with non-serious pathologies.	presenting with non-serious conditions.	department [published online 2020 Jun 2]. Acta Paediatr. doi:10.1111/apa.15386
Children, medical evacuation, emergency surgery, French Caribbean Islands, France	2-Jun-20	French West Indies Castaway Children as a Result of the covid-19 Outbreak	Acta Paediatrica	Letter	This report draws attention to the quality of care of critically ill children in the French Caribbean Islands, which depends in part on the ability to efficiently evacuate patients needing specialized services to hospitals in France. Three cases of children in critical medical condition, who could not be medically evacuated due to the pandemic, are described. In all cases, surgeries were performed at non-expert centers, leading to uncertain prognosis and the probable need for repeat surgical procedures.	The COVID-19 pandemic has prevented the medical evacuation of critically ill children in need of specialized care, from the French Caribbean Islands to France.	Rambaud J, Flechelle O. French West Indies castaway children as a result of the covid-19 outbreak [published online 2020 Jun 2]. Acta Paediatr. doi:10.1111/apa.15387
COVID-19, children, coronavirus	1-Jun-20	The epidemiological and clinical profile of COVID-19 in children: Moroccan experience of the Cheikh Khalifa University Center	Pan African Medical Journal	Original Research	The incidence and severity of COVID-19 are likely to be different in children compared with adults. Few publications of COVID-19 in children have been published. The purpose of this study is to detail the epidemiological and clinical profile of children with COVID-19 in a University Moroccan Hospital. This study spanned from March 25-April 26, 2020. The authors collected information, including demographic data, symptoms, imaging data, laboratory results, treatments and clinical progress from pediatric patients <19 years with SARS-CoV-2. A total of 145 COVID-19 confirmed cases have been reported in the Cheikh Khalifa's Hospital. Among these cases, 15 children were registered. The median age of patients was 13 years (IQR 5-19 years [range not reported]). 5 children were asymptomatic, 8 had mild symptoms and 2 had moderate respiratory difficulty. The RT-PCR test results were positive in all patients. Radiologically, in 2 cases, multiple nodules were seen with ground-glass opacities on the chest scan. The treatment prescribed was hydroxychloroquine and azithromycin. Prognosis with treatment was good for all patients. The authors conclude that the severity of illness in children with COVID-19 is less than adults.	The incidence and severity of COVID-19 are likely to be different in children compared with adults. The purpose of this study is to detail the epidemiological and clinical profile of children with COVID-19 in a University Moroccan Hospital. The authors conclude that the severity of illness in children with COVID-19 is less than adults.	Chekhlabi N, El Kettani C, Haoudar A, et al. The epidemiological and clinical profile of COVID-19 in children: Moroccan experience of the Cheikh Khalifa University Center. *Pan Afr Med J*. 2020;35(Suppl 2):57. Published 2020 Jun 1. doi:10.11604/pamj.supp.2020.35.2.23571
Epidemiology, children, COVID-19, age distribution	1-Jun-20	COVID-19 in Children: An Epidemiology Study from China	Journal of Allergy and Clinical Immunology: In Practice	Article	The authors retrospectively analyzed data from January 16 - February 8, 2020 of children <18 years old in China who were either living in a community where COVID-19 cases were being reported, had exposure to a COVID-19 case in the preceding 2 weeks, or lived in a nonepidemic area but displayed symptoms, laboratory findings, or abnormal chest x-ray findings compatible with COVID-19. 2143 pediatric cases were identified from the Chinese Center for Disease Control and Prevention (CDC) database; 66% were suspected cases and 34% were confirmed. 94 (4.4%) were asymptomatic, 1091 (50.9%) were mild, 831 (38.8%) were moderate, 112 (5.2%) were severe, and 13 (0.6%) were critical. Cases were broken down by age group and severity; out of all 2143 cases, 379 were <1 year old, 493 were 1-5 years old, 521 were 6-10 years old, and 335 were >15 years old. Of the 125 severe and critical cases, 40 (32%) were <12 months old and 36 (28.8%) were <5 years old. Thus, 60% of severe and critical cases were in children <5 years old. The authors note that SARS-CoV-2 infection is typically milder in children, with less occurrence of fever than in adults; in other studies 88.7% of hospitalized adults with COVID-19 had fever, compared with 41-56% of pediatric patients. Some children in this study had no clinical symptoms but positive chest CT findings	This study analyzed data of pediatric (<18 years old) confirmed and suspected cases of SARS-CoV-2 infection in China, broken down by age group and severity. 60% of severe and critical pediatric cases occurred in children <5 years. Positive chest CT findings in asymptomatic children suggest radiographs may play an important role in diagnosis of pediatric COVID-19.	Wang E, Brar K. COVID-19 in Children: An Epidemiology Study from China. J Allergy Clin Immunol Pract. 2020;8(6):2118-2120. doi:10.1016/j.jaip.2020.04.024

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					(unspecified); findings in other studies include ground glass opacities, local and bilateral patchy shadowing, interstitial abnormalities, and consolidation. Thus, radiographs may play an important role in the diagnosis of COVID-19 in children. Chinese CDC guidelines at the time of this article suggest SARS-CoV-2 testing only if the child has a risk factor and symptoms COVID-19: cough, lower respiratory symptoms, and fever. However, consideration for wider pediatric testing may allow better detection of asymptomatic carriers.		
Immunity, maternal-fetal interface, placenta, pregnancy	1-Jun-20	Why are pregnant women susceptible to COVID-19? An immunological viewpoint [Free access to abstract only]	Journal of Reproductive Immunology	Review Article	In this article written in March 2020, the authors state that pregnant women are generally vulnerable to respiratory infection, so they may be more susceptible to COVID-19. They focus on immunological reasons for susceptibility and complications related to COVID-19 in pregnancy. From the available literature, the authors report an increased prevalence of preterm deliveries for COVID-19 positive mothers, but no evidence of vertical transmission nor SARS-CoV-2 in breast milk. During pregnancy, innate immune cells respond more strongly to viral challenges, while some adaptive immune responses are down-regulated. Pregnancy hormones cause swelling of the upper respiratory tract, and restricted lung expansion makes pregnant women susceptible to respiratory pathogens. Since pregnant women in their first and third trimesters are in a pro-inflammatory state, a cytokine storm due to SARS-CoV-2 may induce more severe inflammation in these women. Moreover, the authors state that maternal inflammation, fever, and increased immune activation in pregnancy can affect fetal brain development and post-natal functioning. Animal studies have shown that elevated maternal cytokines can be toxic to early embryo development. Early detection and intervention for COVID-19 may reduce potential obstetrical complications. Pregnant women who have had COVID-19 should be carefully monitored throughout pregnancy and the postpartum period.	In this article written in March 2020, the authors discuss immunological reasons for susceptibility and complications related to COVID-19 in pregnancy. From the available literature, they also found no evidence of vertical transmission nor SARS-CoV-2 in breast milk.	Liu H, Wang LL, Zhao SJ, Kwak-Kim J, Mor G, Liao AH. Why are pregnant women susceptible to COVID-19? An immunological viewpoint. J Reprod Immunol. 2020 Jun;139:103122. doi: 10.1016/j.jri.2020.103122. Epub 2020 Mar 19. PMID: 32244166; PMCID: PMC7156163.
Pregnancy, computed tomography, China	1-Jun-20	Chest CT Findings in a Pregnant Patient with 2019 Novel Coronavirus Disease	Balkan Medical Journal	Case Report	The authors present the case of a 25-year-old woman admitted to a hospital in China on 9 February 2020, at 35 weeks of pregnancy, with fatigue and cough. She developed a fever on the day of admission. Lab analysis showed elevated neutrophil ratio and reduced lymphocyte count, and a throat swab was positive for SARS-CoV-2. A chest CT revealed bilateral ground-glass opacity with indistinct borders. A C-section was performed on 11 February due to fetal distress. Amniotic fluid, cord blood, placenta, neonatal serum, and neonatal throat and anal swabs were all negative for SARS-CoV-2 nucleic acid. The patient received antibiotics, antiviral treatment with interferon, and immune enhancement. Her COVID-19 symptoms resolved on post-operative day 1. On 16 February, a chest CT demonstrated increased ground-glass patches, partial consolidation, and bilateral pleural effusion. Moxifloxacin and glucocorticoid were added to her treatment. A third CT on 20 February showed reduced lesion areas. Nucleic acid throat swabs were negative for SARS-CoV-2, and the patient was transferred to the rehabilitation ward on 21 February. This case suggests that clinical symptoms of COVID-19 can be inconsistent with CT results. Therefore, comprehensive evaluation is needed in cases of COVID-19.	This article presents the case of a pregnant woman with COVID-19. Despite improving symptoms, chest CT findings worsened before eventually improving. This case suggests that clinical symptoms of COVID-19 can be inconsistent with CT results.	Liao X, Yang H, Kong J, Yang H. Chest CT Findings in a Pregnant Patient with 2019 Novel Coronavirus Disease. Balkan Med J. 2020 Jun 1;37(4):226-228. doi: 10.4274/balkanmedj.galenos.2020.2020.3.89. Epub 2020 Mar 26. PMID: 32212578; PMCID: PMC7285659.

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Human milk, donor milk, donor milk banking, wet nursing, infant morbidity, infant mortality, exclusive breastfeeding, breastfeeding, healthcare disparities, supplementation, altruism	1-Jun-20	Wet Nurses to Donor Milk Banks and Back Again: The Continuum of Sharing Our Milk to Save Lives	Journal of Human Lactation	Editorial	This article summarizes the importance of breastfeeding and wet nursing. The author goes into detail on donor milk banking as the logical next step in the evolution of mothers sharing milk directly to others to sustain life within a society. The author argues it is efficacious to collect and store the milk in a central place which is also responsible for donor and milk testing, from where it can be distributed to those in need, even at great distances. There are increasing numbers of emergencies in which large numbers of families are displaced, accompanied by a myriad of associated life-threatening problems. A current example of this type of emergency is the COVID-19 pandemic. New research is emerging, and guidance for mothers and their newborns on proximity, skin-to-skin contact, and feeding appears from a variety of sources with conflicting messages. WHO recommends that if the mother is too unwell to breastfeed or express breastmilk, explore the viability of relactation, wet nursing, donor human milk, or appropriate breastmilk substitutes.	This article argues that donor milk banking has become an important portion of how we supplement infants who do not or cannot receive a diet of exclusive mother's own milk, and it plays a significant role in this pandemic.	Marinelli KA. Wet Nurses to Donor Milk Banks and Back Again: The Continuum of Sharing Our Milk to Save Lives. J Hum Lact. 2020;36(2):213-216. doi:10.1177/0890334420927329
Postpartum, pneumonia, pregnancy, China	1-Jun-20	Postpartum Exacerbation of Antenatal COVID-19 Pneumonia in 3 Women	Canadian Medical Association Journal	Case Report	COVID-19 has been reported in pregnancy but is not well described in the immediate postpartum period. This multi-center retrospective case cohort study assessed all women who delivered in 12 hospitals in China from Feb. 1 to Apr. 15, 2020. In total, 166 pregnant women tested positive for SARS-CoV-2 infection prepartum, of whom 153 (92.2%) showed mild features or were asymptomatic. Postpartum dyspnea developed in 13 (7.8%) of the women, and the authors present 3 cases of pregnant women with SARS-CoV-2 infection who developed severe postpartum pneumonia with acute decompensation. In all cases, postpartum chest CT showed radiographic features consistent with COVID-19 that were not present or very mild in prepartum chest CT scans. This case series shows that an acute exacerbation of maternal COVID-19 may occur in the postpartum period.	This case review highlights the postpartum course of maternal COVID-19, providing evidence that this may be a time of acute exacerbation of the disease.	An P, Wood BJ, Li W, Zhang M, Ye Y. Postpartum exacerbation of antenatal COVID-19 pneumonia in 3 women. CMAJ. 2020;192(22):E603-E606. doi:10.1503/cmaj.200553
Children, MIS-C	1-Jun-20	A Case of Pediatric Multisystem Inflammatory Syndrome Temporally Associated With COVID-19 in South Dakota	South Dakota Medicine	Case Report	In May 2020, a syndrome resembling severe Kawasaki disease with shock in children was reported from European groups. The authors report a case that presented to and was managed in the Sioux Falls pediatric intensive care unit in South Dakota in April 2020 that fits the description, course, and successful treatment described by their European colleagues. The case fulfills the case definition of pediatric MIS temporally associated with COVID-19 described by the Royal College of Pediatrics and Child Health on April 27, 2020.	This report discusses the European and US case definitions of this syndrome and similarities, and differences of Kawasaki disease and treatment options.	Dasgupta K, Finch SE. A Case of Pediatric Multisystem Inflammatory Syndrome Temporally Associated with COVID-19 in South Dakota. S D Med.
Adherence, asthma, child	1-Jun-20	Impact of COVID-19 on Pediatric Asthma: Practice Adjustments and Disease Burden	The Journal of Allergy and Clinical Immunology: In Practice	Original Research	It is unclear whether asthma may affect susceptibility or severity of COVID-19 in children and how pediatric asthma services worldwide have responded to the pandemic. This article describes the impact of the pandemic on pediatric asthma services and on disease burden in their patients. An online survey was sent to members of the Pediatric Asthma in Real Life (PeARL) think-tank and the World Allergy Organization Pediatric Asthma Committee. Questions comprised service provision, disease burden and the clinical course of confirmed cases of COVID-19 infection among children with asthma. Results show that COVID-19 significantly impacted pediatric asthma services: 39% ceased physical appointments, 47% stopped accepting new patients, 75% limited patients' visits. Consultations were almost halved to a median of 20 (IQR: 10-25) patients per week. Virtual clinics and helplines were launched in	Children with asthma do not appear to be disproportionately affected by COVID-19. Outcomes may even have improved, possibly through increased adherence and/or reduced exposures. Clinical services have rapidly responded to the pandemic by limiting and replacing physical	Papadopoulos NG, Custovic A, Deschildre A, et al. Impact of COVID-19 on pediatric asthma: practice adjustments and disease burden. J Allergy Clin Immunol Pract. doi:10.1016/j.jaip.2020.06.001

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					most centers. Better than expected disease control was reported in 20% (10-40%) of patients, while control was negatively affected in only 10% (7.5-12.5%).	appointments with virtual encounters.	
Pregnancy, clinical characteristics, neonatal complications, vertical transmission	1-Jun-20	COVID-19 and Pregnancy: A Review of Current Knowledge (link was not working on June 18, 2020)	Le Infezioni in Medicina	Review Article	In this review of COVID-19 in pregnant women, early symptoms included fever, cough, dyspnea, myalgia, and fatigue; while production of sputum, headache, hemoptysis, and diarrhea were less common. There is no conclusive evidence of vertical maternal-fetal transmission in pregnant women with COVID-19. Nevertheless, maternal infection can cause serious problems such as preterm labor and fetal distress. Overall, the clinical findings in pregnant women with COVID-19 are not significantly different from other patients, and pregnant women with COVID-19 are not at a higher risk of developing critical pneumonia compared to non-pregnant women.	This review provides a summary of studies on symptoms and possible risks of COVID-19 among pregnant women, as well as related neonatal complications.	Maleki Dana P, Kolahdooz F, Sadoughi F, Moazzami B, Chaichian S, Asemi Z. COVID-19 and pregnancy: a review of current knowledge. Infez Med. 2020;28(suppl 1):46-51.
Infant, Kawasaki disease, febrile illness, USA	1-Jun-20	COVID-19 and Kawasaki Disease: Novel Virus and Novel Case	Hospital Pediatrics	Case Report	A 6-month-old infant who was admitted and diagnosed with classic Kawasaki disease also screened positive for COVID-19 in the setting of fever and minimal respiratory symptoms. The patient was treated per treatment guidelines, with IV immunoglobulin and high-dose aspirin, and subsequently defervesced with resolution of her clinical symptoms. The patient's initial echocardiogram was normal, and she was discharged within 48 hours of completion of her IV immunoglobulin infusion, with instruction to quarantine at home for 14 days from the date of her positive test results.	This case report contributes to growing evidence of the association between pediatric COVID-19 and Kawasaki disease.	Jones VG, Mills M, Suarez D, et al. COVID-19 and Kawasaki Disease: Novel Virus and Novel Case. Hosp Pediatr. 2020;10(6):537-540. doi:10.1542/hpeds.2020-0123
Children, MIS-C, cutaneous manifestations	1-Jun-20	What Are the Newest Effects of COVID-19 in Children?	Pediatric Annals	Editorial	Recently, more clinical information has emerged on the pediatric immune multisystem syndrome that resembles Kawasaki disease or toxic shock syndrome, in association with COVID-19. In addition, a variety of cutaneous manifestations have been reported, most commonly in adults but also in pediatric patients. Further studies have also contributed to evidence on the clinical course of hospitalized pediatric patients with COVID-19.	This brief editorial summarizes the latest findings in pediatric COVID-19 research, namely MIS-C and cutaneous manifestations.	Hageman JR. What Are the Newest Effects of COVID-19 in Children?. Pediatr Ann. 2020;49(6):e242-e243. doi:10.3928/19382359-20200520-02
Children, family cluster, household transmission, Israel	1-Jun-20	The Role of Children in the Dynamics of Intra Family Coronavirus 2019 Spread in Densely Populated Area	The Pediatric Infectious Disease Journal	Brief Reports	This examination of the dynamics of COVID-19 transmission within 13 family clusters in Bnei Brak, Israel (one of the most crowded cities in the world and the city with the highest rates of children per family in Israel) demonstrated significantly lower rates of COVID-19 positivity in children compared with adults residing in the same household. Children of 5-17 years of age were 61% and children of 0-4 years of age were 47% less likely to have positive PCR results compared with adults residing in the same household. In 12 families, the first diagnosed member of the household was one of the parents.	Results from this study of family clusters in Israel found significantly lower rates of COVID-19 positivity among children compared to adults in the same household.	Somekh E, Gleyzer A, Heller E, et al. The Role of Children in the Dynamics of Intra Family Coronavirus 2019 Spread in Densely Populated Area [published online 2020 Jun 1]. Pediatr Infect Dis J. doi:10.1097/INF.0000000000002783
Child, gastro-intestinal symptoms, appendicitis, peritonitis, Italy	1-Jun-20	Uncommon Presentation of Coronavirus Disease 2019 Infection in a Child	The Pediatric Infectious Disease Journal	Letters to the Editor	A 7-year-old with no underlying comorbidities was hospitalized for persistent diarrhea and severe abdominal pain, but no history of cough or fever. A nasopharyngeal swab disclosed positivity for COVID-19, and chest X-ray showed typical viral pneumonia patterns. She was ultimately referred to surgery and underwent exploratory laparoscopy, revealing phlegmonous appendicitis with peritonitis. No pathogens grew from any cultures. The child was treated empirically and fully recovered in one week; she became negative for SARS-CoV-2 after 17 days.	The authors recommend COVID-19 testing for all children hospitalized for severe gastrointestinal symptoms.	Manzoni P, Loperfido B, Eshraghy MR, Lingua A, Polastri R. Uncommon Presentation of Coronavirus Disease 2019 Infection in a Child [published online 2020 Jun 1]. Pediatr Infect Dis J.

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							doi:10.1097/INF.0000000000002756
Children, routine pediatric practice, hospital, ambulatory setting	1-Jun-20	Changes in Routine Pediatric Practice in Light of COVID-19	The Journal of Pediatrics	Editorial	This report describes the effects of COVID-19 on routine pediatric practice, in both hospital and ambulatory services, and implications for children's health. A sharp decline in hospitalizations and emergency room visits for urgent and non-urgent care has been observed in various countries. Furthermore, most outpatient services have been closed to reduce person-to-person contact. These circumstances have brought about a reorganization of pediatrics services in many hospitals, which have utilized pediatric beds for COVID-19 patients of all ages. Ambulatory pediatric care has rapidly turned to virtual practice, which is limited by a lack of technical equipment. Considerations for the future of pediatric practice after COVID-19 are also presented here.	Various changes in pediatric practice driven by the COVID-19 pandemic are presented in this report, along with their implications for the health of children.	Somekh I, Somech R, Pettoello-Mantovani M, Somekh E. Changes in Routine Pediatric Practice in Light of COVID-19 [published online 2020 Jun 1]. J Pediatr. doi:10.1016/j.jpeds.2020.05.053
Children, asthma, management, chronic condition	1-Jun-20	The Unexpected Risks of COVID-19 on Asthma Control in Children	The Journal of Allergy and Clinical Immunology: In Practice	Rostrum	Asthma is a common chronic medical condition in children that is uniquely susceptible to changes brought upon by COVID-19. Sudden dramatic changes in the environment, medical practice, and medication use have altered the asthma management landscape with potential impacts on asthma outcomes. This paper reviews how changes in transportation and travel patterns, school attendance, physical activity, and time spent indoors, along with changes in healthcare delivery since the start of the pandemic all play a contributing role in asthma control in children. The authors also present potentially important influences of asthma control in children during the COVID-19 pandemic that are worthy of further study.	The effect of the COVID-19 pandemic on management of chronic asthma in children is examined in this paper.	Oreskovic NM, Kinane TB, Aryee E, Kuhlthau KA, Perrin JM. The Unexpected Risks of COVID-19 on Asthma Control in Children [published online 2020 Jun 1]. J Allergy Clin Immunol Pract. doi:10.1016/j.jaip.2020.05.027
Children, school closures, reopening, school meals, health services, academic growth, policy	1-Jun-20	The Urgency and Challenge of Opening K-12 Schools in the Fall of 2020	JAMA	Viewpoints	By the time the US school year ends in June, more than 55 million children will have missed months of in-class instruction due to K-12 school closures during the COVID-19 pandemic. Surveys now indicate that 1 in 5 mothers with children younger than 12 years old report that their children are going hungry without school meals. In addition, millions of children have lost access to health services through school-based health centers. When prolonged school closures are combined with summer break, some children may fall behind normal academic growth, especially students who are already at educational and social risk. Reopening schools this fall is an urgent national priority. To achieve this goal safely, policymakers should consider creating the conditions for a successful reopening by driving down the spread of COVID-19 over the summer; establishing distancing at schools; prioritizing children most at risk from missing school; preparing a strong public health and environmental response; respecting the concerns of families and teachers; and linking teaching strategies with remote learning technologies.	Given the harmful impact of school closures on children's health and education, this article outlines a framework for policymakers to urgently and safely reopen schools in the fall.	Sharfstein JM, Morphew CC. The Urgency and Challenge of Opening K-12 Schools in the Fall of 2020 [published online 2020 Jun 1]. JAMA. doi:10.1001/jama.2020.10175
Hospitalized children, mild vs. moderate cases, immune features, systemic inflammation, Wuhan, China	1-Jun-20	Clinical and Immune Features of Hospitalized Pediatric Patients With Coronavirus Disease 2019 (COVID-19) in Wuhan, China	JAMA Network Open	Original Investigation	This single-center case series included 157 pediatric patients admitted to Wuhan Children's Hospital with laboratory-confirmed SARS-CoV-2 infection between January 25 to April 18, 2020. Overall, 60 (38.2%) cases had mild disease, 88 (56.1%) had moderate disease, 6 (3.8%) had severe disease, and 3 (1.9%) were critically ill. The 148 children with mild or moderate disease had a median (interquartile range [IQR]) age of 84 (18-123) months, and 88 (59.5%) were girls. The most common laboratory abnormalities were increased levels of alanine aminotransferase, aspartate aminotransferase, creatine kinase MB activity, and lactate dehydrogenase, which are associated with liver and	In this case series, systemic inflammation rarely occurred in pediatric patients with COVID-19, in contrast with the lymphopenia and aggravated inflammatory responses frequently	Wu H, Zhu H, Yuan C, et al. Clinical and Immune Features of Hospitalized Pediatric Patients With Coronavirus Disease 2019 (COVID-19) in Wuhan, China. JAMA Netw Open. 2020;3(6):e2010895.

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					myocardial injury. Compared with mild cases, levels of inflammatory cytokines including interleukin 6, tumor necrosis factor α, and interferon γ were unchanged, whereas the level of immune suppressive interleukin 10 was markedly increased in moderate cases compared with mild cases. There was no statistically significant difference in absolute number of lymphocytes (including T cells and B cells) between mild and moderate cases, but moderate cases were associated with a decrease in neutrophil levels compared with mild cases. IgG and the neutrophil to lymphocyte ratio were negatively associated with biochemical indices related to liver and myocardial injury, while counts of lymphocytes, CD4+ T cells, and interleukin 10 showed positive associations.	observed in adults with COVID-19.	doi:10.1001/jamanetworkopen.2020.10895
Children, acute myocarditis, multi-system inflammatory syndrome, shock, France	1-Jun-20	Acute Myocarditis and Multisystem Inflammatory Emerging Disease Following SARS-CoV-2 Infection in Critically Ill Children	Annals of Intensive Care	Research Article	This case series describes children admitted to the pediatric intensive care unit (PICU) with shock, fever, and suspected SARS-CoV-2 infection between April 15 and April 27, 2020 at four academic tertiary care centers in Paris, France. 20 critically ill children admitted for shock had an acute myocarditis, based on left ventricular ejection fraction and troponin levels, and arterial hypotension with mainly vasoplegic clinical presentation. The first symptoms before PICU admission were intense abdominal pain and fever for 6 days (range 1-10). All children had highly elevated C-reactive protein (>94 mg/L) and procalcitonin (>1.6 ng/mL) without microbial cause. At least one feature of Kawasaki disease was found in all children (fever, n=20, skin rash, n=10; conjunctivitis, n=6; cheilitis, n=5; adenitis, n=2), but none had the typical form. SARS-CoV-2 PCR and serology were positive for 10 and 15 children, respectively. One child had both negative SARS-CoV-2 PCR and serology but had a typical SARS-CoV-2 chest CT scan. All children but one needed inotropic/vasoactive drug support (epinephrine, n=12; milrinone, n=10; dobutamine, n=6, norepinephrine, n=4) and 8 were intubated. All children received IV immunoglobulin (2g per kilogram) with adjuvant corticosteroids (n=2), IL 1 receptor antagonist (n=1) or a monoclonal antibody against IL-6 receptor (n=1). All children survived and were afebrile with a full left ventricular function recovery at PICU discharge.	Acute myocarditis with intense systemic inflammation and atypical Kawasaki disease is an emerging severe pediatric disease following SARS-CoV-2 infection.	Grimaud M, Starck J, Levy M, et al. Acute myocarditis and multisystem inflammatory emerging disease following SARS-CoV-2 infection in critically ill children. Ann Intensive Care. 2020;10(1):69. doi:10.1186/s13613-020-00690-8
Children, viral sequencing, genomic epidemiology, disease severity, Los Angeles, USA	1-Jun-20	Pediatric COVID-19 in Southern California: clinical features and viral genetic diversity	medRxiv	Preprint (not peer reviewed)	During an 8-week period, 35 pediatric patients (median age 12.5 years, range 18 days - 18.5 years) with confirmed COVID-19 were identified at Children's Hospital Los Angeles (USA). Among 20 patients with available medical history, 14 (66.7%) were symptomatic. Five patients (14%) required oxygen supplementation, of which 3 (60%) had a chronic condition. No deaths were reported. The median SARS-CoV-2 viral load was higher in symptomatic patients than asymptomatic patients. All patients <5 years old had higher viral loads and were symptomatic, corroborating the findings of prior studies demonstrating correlation between disease severity, viral load and younger age in children. No difference in viral load was observed between those with chronic underlying conditions and those without. Whole genome sequencing of SARS-CoV-2 isolates from these 35 patients revealed 97 unique single-nucleotide variants and 7 insertions/deletions compared to the Wuhan isolate, with an average of 8.9 unique variations per isolate (range 0-14). The predominance of non-synonymous variations highlights the evolution of the SARS-CoV-2 virus over the course of the pandemic. The mutation rate of	This study contributes to a gap in available data on clinical and viral genomics pertaining to COVID-19 in children.	Pandey U, Yee R, Precit M, et al. Pediatric COVID-19 in Southern California: clinical features and viral genetic diversity [published online 2020 Jun 1]. medRxiv. doi:10.1101/2020.05.28.20104539

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					SARS-CoV-2 is comparable to other RNA viruses. In this cohort, there was no correlation between disease severity and viral genetic variations. Epidemiological investigation revealed multiple introductions of virus into Southern California.		
Pediatric perspective, severe acute respiratory syndrome, SARS-CoV, MERS-CoV	1-Jun-20	Overview: The History and Pediatric Perspectives of Severe Acute Respiratory Syndromes: Novel or Just Like SARS	Pediatric Pulmonology	Review	This overview aims to compare and contrast the similarities and differences of these three major episodes of coronavirus (SARS, MERS, COVID-19) epidemics, and conclude that they are essentially the same viral respiratory syndromes caused by similar strains of coronavirus with different names. Coronaviruses have caused major epidemics and outbreaks worldwide in the last two decades. From an epidemiological perspective, these epidemics are remarkably similar in the mode of transmission by droplets. Special focus is placed on aspects related to the pediatric population, which carries less morbidity and mortality in all three of these cases.	In this comparative review of SARS, MERS, and COVID-19, the authors find that children are relatively less affected in all three examples of pandemics.	Hon KL, Leung KKY, Leung AKC, et al. Overview: The history and pediatric perspectives of severe acute respiratory syndromes: Novel or just like SARS [published online 2020 Jun 1]. Pediatr Pulmonol. doi:10.1002/ppul.24810
Children, acute myocardial injury, cardiac dysfunction, MIS-C, Italy	1-Jun-20	Acute myocardial injury: a novel clinical pattern in children with COVID-19	The Lancet Child & Adolescent Health	Correspondence	During March 15 to April 25, 2020, nine patients were admitted to the pediatric intensive care unit (PICU) with nasopharyngeal PCR confirmed COVID-19. Five of these patients (mean age 84.4 months, range 2-168 months), who had cardiac injury and mild to moderate cardiac dysfunction, are described in this case series. All five children were previously healthy and had fever and gastrointestinal symptoms as initial signs at home. On PICU admission, the main clinical signs were tachycardia and hypotension. Blood examinations revealed elevated cardiac enzymes and inflammation markers. Four children had a mid-basal hypokinesis of the infero-septal wall and inferior wall, with non-specific, abnormal electrocardiogram findings, while one patient developed atrial fibrillation and had reversible acute kidney injury. All were discharged with normal cardiac function; mean length of hospital stay was 7.2 days (range 5-10 days). While the COVID-19 cytokine storm mainly compromises the lung in adults, it appears to have a different target in children, with prevalent cardiac involvement.	Children with cardiac injury in this case study fit the clinical picture of COVID-19 related pediatric multisystem inflammatory syndrome, described in the UK.	Wolfler A, Mannarino S, Giacomet, et al. Acute myocardial injury: a novel clinical pattern in children with COVID-19 [published online 2020 June 1]. Lancet Child & Adol Health. doi:10.1016/S2352-4642(20)30168-1
Pregnancy, preeclampsia-like syndrome, angiogenic factors, uterine artery pulsatility index, Spain	1-Jun-20	Preeclampsia-like Syndrome Induced by Severe COVID-19: A Prospective Observational Study	BJOG: An International Journal of Obstetrics & Gynaecology	Main Research Article	In this prospective, observational study from a tertiary referral hospital in Spain, 42 consecutive pregnancies were recruited and classified into two groups according to the occurrence of severe pneumonia: 34 cases were classified as non-severe COVID-19 and 8 as severe COVID-19. Six (14.3%) women presented signs and symptoms of preeclampsia; all belonged to the severe COVID-19 group (75.0%). However, abnormal angiogenic factors (soluble fms-like tyrosine-kinase-1/placental growth factor) and uterine artery pulsatility index (UtAPI) could only be demonstrated in one case. Two cases remained pregnant after recovery from severe pneumonia and experienced spontaneous resolution of the preeclampsia-like syndrome.	Pregnant women with severe COVID-19 can develop a preeclampsia-like syndrome that might be distinguished from actual preeclampsia by assessment of uterine artery pulsatility index and angiogenic factors.	Mendoza M, Garcia-Ruiz I, Maiz N, et al. Preeclampsia-like syndrome induced by severe COVID-19: a prospective observational study [published online 2020 Jun 1]. BJOG. doi:10.1111/1471-0528.16339
Children, hospitalization, epidemiology, comorbidities, co-infections, Chicago, USA	1-Jun-20	Characteristics of Hospitalized Pediatric COVID-19 Cases - Chicago, Illinois, March - April 2020	Journal of the Pediatric Infectious Diseases Society	Original Article	The present case series describes COVID-19 patients (aged 0-17 years) reported to the Chicago Department of Public Health (CDPH). During March 5 to April 8, 2020, 6369 lab-confirmed cases of COVID-19 were reported to CDPH; 64 (1.0%) were among children 0-17 years. Ten patients (16%) were hospitalized, seven (70%) required intensive care (ICU); median length of hospitalization 4 days (range: 1-14). Reported fever and dyspnea were significantly higher in hospitalized patients compared to non-hospitalized patients (9/10 vs. 28/54, p=0.04 and 7/10 vs. 10/54, p=0.002, respectively).	Enhanced case investigation of hospitalized patients revealed that underlying comorbidities and co-infection might have contributed to severe disease.	Mannheim J, Gretsch S, Layden JE, Fricchione MJ. Characteristics of Hospitalized Pediatric COVID-19 Cases - Chicago, Illinois, March - April 2020 [published online 2020 Jun 1]. J

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					Hospitalized patients were significantly younger than non-hospitalized patients (median, 3.5 years vs. 12 years; *p*=0.03) and all either had an underlying comorbidity or co-infection. Among the 34 unique households with multiple laboratory-confirmed infections, median number of laboratory-confirmed infections was 2 (range: 2-5), and 31 (91%) households had at least one COVID-19 infected adult. For 15 households with available data to assess transmission, 11 (73%) were adult-to-child, 2 (13%) child-to-child, and 2 (13%) child-to-adult. Given frequency of household transmission, healthcare providers should consider alternative dispositional planning for affected families of children living with comorbidities.		Pediatric Infect Dis Soc. doi:10.1093/jpids/piaa070
Pregnancy, neonates, breastfeeding, breast milk samples, IgM and IgG antibodies, China	1-Jun-20	Safety of Breastfeeding in Mothers with SARS-CoV-2 Infection	medRxiv	Preprint (not peer reviewed)	To evaluate the effect of breastfeeding on SARS-CoV-2 transmission, the presence of SARS-CoV-2, IgG and IgM in breast milk, maternal blood and infant blood were assessed in this study. Among 23 pregnant women with suspected (n=9) or confirmed (n=14) SARS-CoV-2 infection in the third trimester or puerperium, all breast milk samples were negative for the detection of SARS-CoV-2. Testing for IgM and IgG antibodies in breast milk and maternal blood was performed in seven patients; IgM antibodies were present in four confirmed patients and one suspected patient, correlating with IgM detection in maternal blood. IgG antibodies were not detected in any breast milk sample. SARS-CoV-2 testing by throat swab was performed in 15 neonates at birth and in six neonates in the NICU after birth; all results were negative. Following birth, all neonates were in healthy condition, and six were fed with whole or partial breast milk. Eight neonates received SARS-CoV-2 antibody testing one month after birth, and all results were negative.	Findings from this small number of cases suggest that there is currently no evidence for mother-to-child viral transmission via breastfeeding in women with COVID-19 in the third trimester and puerperium.	Luo Q, Chen L, Yao D, et al. Safety of Breastfeeding in Mothers with SARS-CoV-2 Infection [published online 2020 Jun 1]. medRxiv. doi:10.1101/2020.05.30.20033407
Children, Kawasaki-like disease, cytokines, inflammation, immunity	1-Jun-20	SARS-CoV-2, Which Induces COVID-19, Causes Kawasaki-Like Disease in Children: Role of Pro-Inflammatory and Anti-Inflammatory Cytokines	Journal of Biological Regulators and Homeostatic Agents	Editorial	In humans, SARS-CoV-2 infection leads to acute respiratory distress syndrome which presents edema, hemorrhage, intra-alveolar fibrin deposition, and vascular changes characterized by thrombus formation, micro-angiopathy and thrombosis. These clinical signs are mediated by pro-inflammatory cytokines. Kawasaki disease is an autoimmune acute febrile inflammatory condition, which primarily affects young children. The disease can present immunodeficiency with the inability of the immune system to fight inflammatory pathogens and leads to fever, rash, alterations of the mucous membranes, conjunctiva infection, pharyngeal erythema, adenopathy, and inflammation. In the COVID-19 period, it has been noted that children affected by SARS-CoV-2 infection may develop a condition similar to Kawasaki disease. As in COVID-19, Kawasaki disease and its similar forms are mediated by pro-inflammatory cytokines produced by innate immunity cells such as macrophages and mast cells. Therefore, it is pertinent to think that by blocking pro-inflammatory cytokines with new anti-inflammatory cytokines, such as IL-37 and IL-38, it is possible to alleviate the symptoms of disease and have a new available therapeutic tool. However, since Kawasaki-like diseases present immunodeficiency, treatment with anti-inflammatory/immunosuppressant molecules must be administered carefully.	This article describes the pathogenesis of both COVID-19 and similar forms of Kawasaki disease recently observed in children, suggesting a role for anti-inflammatory cytokines as therapeutic tools.	Ronconi G, Teté G, Kritas SK, et al. SARS-CoV-2, which induces COVID-19, causes kawasaki-like disease in children: role of pro-inflammatory and anti-inflammatory cytokines [published online 2020 Jun 1]. J Biol Regul Homeost Agents. doi:10.23812/EDITORIAL-RONCONI-E-59
Pregnancy, pneumonia, lung ultrasound	1-Jun-20	Lung Ultrasound Can Influence the Clinical Treatment of Pregnant	Journal of Ultrasound in Medicine	Case Series	The use of Lung ultrasound (LUS) on pregnant women is an emerging trend, considering its effectiveness during the COVID-19 outbreak. Eight pregnant women with a diagnosis of COVID-19 confirmed by nasal/throat RT-PCR testing who underwent point-of-care LUS examinations after routine obstetric	Lung ultrasound is an effective tool to detect and monitor pregnant patients with COVID-19.	Yassa M, Birol P, Mutlu AM, Tekin AB, Sandal K, Tug N. Lung Ultrasound Can Influence the Clinical

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		Women With COVID-19			ultrasound are described. A routinely performed LUS examination revealed serious lung involvement in 7 cases: 2 were initially asymptomatic; 3 had chest CT; 1 had initially negative RT-PCR results; and 1 had initially negative CT findings. Treatment for COVID-19 was either commenced or changed in 87.5% of the patients (n = 7 of 8) based on LUS findings. Among patients with abnormal LUS findings, treatment was commenced in 5 patients (71.5%) and changed in 2 patients (28.5%). One normal and 7 abnormal LUS cases indicate the impact of routine LUS on the clinical outcome and treatment of pregnant women.		Treatment of Pregnant Women With COVID-19 [published online 2020 Jun 1]. J Ultrasound Med. doi:10.1002/jum.15367
Food insecurity, undernutrition, wasting, global nutrition targets, sub-Saharan Africa	1-Jun-20	Food insecurity will be the sting in the tail of COVID-19	The Lancet Global Health	Editorial	On April 29, UNICEF published a discussion paper comparing the probable downstream effects of COVID-19 in developed and developing countries; the paper notes that for populations least affected by the disease itself, but for whom food insecurity, hunger, and malnutrition are already prevalent and critical problems, the worst might be yet to come. In 2018, almost a quarter of the world's children younger than 5 years, 149.0 million children, were stunted and 7.3% (49.5 million children) were wasted. Progress toward the 2025 global nutrition targets—to reduce childhood stunting to fewer than 100 million children and childhood wasting to 5% or less—is expected to be challenged by current global events driving food insecurity in regions like sub-Saharan Africa. Key factors include blocked supply chains, movement and lockdown restrictions, and wage losses from shelter-in-place orders contributing to poverty. Recent World Food Programme projections estimate that the number of people who were food insecure in 2019 could double to 265 million in 2020. Women and children could bear the brunt of the effects of food insecurity, as well as COVID-19-associated health system disruptions.	This article calls on world leaders to be alert to the potential for an infectious disease pandemic to be compounded by a pandemic of undernutrition.	The Lancet Global Health. Food insecurity will be the sting in the tail of COVID-19 [published June 2020]. Lancet Glob Health. doi:10.1016/S2214-109X(20)30228-X