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<th>Key Terms</th>
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<th>Summary &amp; Key Points</th>
<th>Specific Observations</th>
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<tr>
<td>MIS-C; COVID-19; antibodies; inflammation; immunomodulators; Italy</td>
<td>30-Nov-20</td>
<td>Hyperinflammation in Two Severe Acute Respiratory Syndrome Coronavirus 2-Infected Adolescents Successfully Treated With the Interleukin-1 Inhibitor Anakinra and Glucocorticoids</td>
<td>Frontiers in Pediatrics</td>
<td>Case Report</td>
<td>In this article, the authors reported 2 adolescent cases of COVID-19 presenting with delayed-onset multi-system inflammation in Italy. The first case was a 14-year-old male who presented with 12 days of dry cough and mild fever, testing positive for SARS-CoV-2 via RT-PCR (and testing negative the following day). He developed fever (39.5°C), diarrhea, and abdominal pain, with abdominal CT revealing widespread thickening of distal loops of the small intestine and some ascitic fluid. SARS-CoV-2 was detected on ileum biopsy, in addition to elevated levels of serum antibodies, inflammatory markers, D-dimer, and troponin. Case 2 was a 13-year-old male presenting with fever (39.3°C), who tested positive for SARS-CoV-2. He was discharged but re-admitted 16 days later with fever (39.5°C), vomiting, and diarrhea. CT scans revealed thickening of bowel walls with SARS-CoV-2 detected in the ileum. He too displayed a marked increase in serum antibodies and inflammatory markers, D-dimer, and troponin. For both patients, intervention with glucocorticoids and the interleukin-1 receptor antagonist anakinra provided a good clinical response. Both displayed high monocyte counts (patient 1: 22%; patient 2: 32%), in addition to elevated levels of serum inflammatory markers. They also displayed signs of myocardial injury, and inflammatory features typical of PIMS-TS and other forms of hyper-inflammation. Macroscopic and histological examinations suggested a direct pathogenic role of the virus, consistent with the detection of SARS-CoV-2 in ileum biopsies, corroborated by a delayed onset of hyperinflammation compared to SARS-CoV-2 symptom onset.</td>
<td>The authors reported 2 adolescent cases of delayed-onset hyperinflammation associated with COVID-19. Both cases presented with febrile conditions and thickening of the bowel revealed on CT, in addition to increased serum antibodies and inflammatory markers. For both cases, SARS-CoV-2 was detected in the ileum, with an improvement in clinical outcomes upon treatment with immunomodulatory agents.</td>
<td>Calò Carducci F, De Ioris MA, et al. Hyperinflammation in Two Severe Acute Respiratory Syndrome Coronavirus 2-Infected Adolescents Successfully Treated With the Interleukin-1 Inhibitor Anakinra and Glucocorticoids. Front Pediatr. 2020 Nov 30;8:576912. doi: 10.3389/fped.2020.576912. PMID: 33330276; PMCID: PMC7734022.</td>
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<td>Canada, SARS-CoV-2, pandemic, parent, perspectives, research, priorities, guide</td>
<td>30-Nov-20</td>
<td>Family perspectives of COVID-19 research</td>
<td>Research Involvement and Engagement</td>
<td>Commentary</td>
<td>Understanding the physical, mental, and emotional impacts of the COVID-19 pandemic for children and families will help to guide approaches to support families and children during the pandemic and after. This study in Toronto, Canada assembled a group of 9 parents for voluntary meetings on April 7 and 23, 2020 to identify concerns, raise questions, and voice perspectives to inform COVID-19 research for children and families. Parents were eager to share their experience of shifting roles, priorities, and routines during the pandemic, and were instrumental in guiding research priorities and methods to understand the effects of COVID-19 on families. First-hand experience that parents have in navigating the COVID-19 pandemic with their families contributed to collaborative relationships between researchers and research participants, helped orient research about COVID-19 in children around family priorities, and offered valuable perspectives for the development of guidelines for safe return to school and childcare. Partnerships between researchers and clinicians and parents and families were critical to the success of the research. This study in Toronto, Canada, assembled a group of parents and clinic researchers during the COVID-19 pandemic to inform COVID-19 research for children and families. Partnerships between researchers and families in designing and delivering COVID-19 research may lead to a better understanding of how health research can best support children and their families.</td>
<td>This study in Toronto, Canada, assembled a group of parents and clinic researchers during the COVID-19 pandemic to inform COVID-19 research for children and families. Partnerships between researchers and families in designing and delivering COVID-19 research may lead to a better understanding of how health research can best support children and their families.</td>
<td>Vanderhout SM, Birken CS, Wong P, et al. Family perspectives of COVID-19 research. Res Involv Engag. 2020;6(1):69. Published 2020 Nov 30. doi:10.1186/s40900-020-00242-1</td>
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<td>SARS-CoV-2, Pregnant Women, neonatal, outcomes, ICU, postpartum hemorrhage, French Guiana</td>
<td>30-Nov-20</td>
<td>Maternal, Fetal and Neonatal Outcomes of Large Series of SARS-CoV-2 Positive Pregnancies in Peripartum Period: A Single-Center Prospective Comparative Study</td>
<td>European Journal of Obstetrics &amp; Gynecology and Reproductive Biology</td>
<td>Original Article</td>
<td>The authors performed a prospective cohort study to compare the maternal, fetal, and neonatal outcomes of SARS-CoV-2 infected pregnant women with non-infected pregnant women. The study was performed between June 16 and August 16, 2020, in the West French Guiana Hospital Center and included 507 pregnant women of whom 137 (27%) were diagnosed with SARS-CoV-2 infection by RT-PCR. The results showed that the SARS-CoV-2 infected pregnant women were more likely to have postpartum hemorrhage &gt;500mL (14.2% vs. 7.2%), to be transfused (5.5% vs. 1.1%), and to be hospitalized in the ICU (3.6% vs. 0.8%) compared to non-infected pregnant women. Furthermore, intra-uterine fetal demises were more common in SARS-CoV-2 infected mothers than in non-infected mothers (5.1% vs. 1.1%). Among 108 neonates born to infected mothers, none tested positive for SARS-CoV-2 at birth. However, 4/29 (13.7%) neonates tested between 25 and 42 hours after delivery returned positive for SARS-CoV-2 and remained asymptomatic. In conclusion, pregnant women with SARS-CoV-2 infections were at higher risk of postpartum hemorrhage, blood transfusion, ICU admission, and intrauterine fetal demise than non-infected pregnant women. There were no other differences in maternal, obstetrical, or neonatal outcomes between the two groups.</td>
<td>This study’s findings showed that pregnant women infected with SARS-CoV-2 infections were at higher risk of postpartum hemorrhage, blood transfusion, ICU admission, and intrauterine fetal demise than non-infected pregnant women. There were no other differences in maternal, obstetrical, or neonatal outcomes between the two groups.</td>
<td>Hcinì N, Maamri F, Picone O O. Maternal, fetal and neonatal outcomes of large series of SARS-CoV-2 positive pregnancies in peripartum period: A single-center prospective comparative study. European Journal of Obstetrics &amp; Gynecology and Reproductive Biology. 2020;257:11-18. doi:<a href="https://doi.org/10.1016/j.ejogrb.2020.11.068">https://doi.org/10.1016/j.ejogrb.2020.11.068</a></td>
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<td>Pediatrics; COVID-19; Brazil; flu; mortality; comorbidities; influenza</td>
<td>30-Nov-20</td>
<td>Differences among Severe Cases of SARS-CoV-2, Influenza, and Other Respiratory Viral Infections in Pediatric Patients: Symptoms, Outcomes and Preexisting Comorbidities</td>
<td>Clinics</td>
<td>Original research</td>
<td>This cross-sectional study evaluated pediatric patients in Brazil with severe COVID-19, focusing on pre-existing comorbidities and outcomes, and comparing the features of pediatric COVID-19 with those of influenza and illnesses caused by other common respiratory viruses (ORV). Data was collected from a national epidemiological surveillance information system; the authors included severe acute respiratory infection cases 1 January - 14 July 2020, in patients &lt; 20 years old. Out of 4784 included cases, 2670 were COVID-19, 659 were influenza, and 1555 were ORV. SARS-CoV-2 infection was confirmed by RT-PCR, while influenza was confirmed by either positive PCR or positive immuno-fluorescence assay. The patient ages ranged from &lt;30 days to &lt;20 years [no exact range or median given]; most were non-white and male (50-61% and 52-57% in the 3 illness groups, respectively). The rate of pediatric ICU admission was the greatest in the ORV group (35.7% of the members), whereas the rate was identical in the COVID-19 and influenza groups (31%). The risk of death was comparable between the influenza and ORV group, the SARS-CoV-2 group had more than 3 times the risk for death.</td>
<td>This cross-sectional study compared pediatric cases (ages &lt;30 days to &lt;20 years) of COVID-19 to cases of influenza and other respiratory viruses, and found that the odds of mortality were over 3 times greater in the COVID-19 patients than in the other 2 groups, but the COVID-19 patients had a lower frequency of fever, cough, and dyspnea. A greater number of comorbidities increased risk of death in all 3 illness groups.</td>
<td>Sousa, B., Sampaio-Carneiro, M., de Carvalho, W. B., Silva, C. A., &amp; Ferraro, A. A. (2020). Differences among Severe Cases of Sars-CoV-2, Influenza, and Other Respiratory Viral Infections in Pediatric Patients: Symptoms, Outcomes and Preexisting Comorbidities. Clinics (Sao Paulo, Brazil), 75, e2273. <a href="https://doi.org/10.6061/clinics/2020/e2273">https://doi.org/10.6061/clinics/2020/e2273</a></td>
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<td>Covid-19; SARS-CoV2; fetus; lockdown; neurodevelopment</td>
<td>30-Nov-20</td>
<td>Generation Covid-19 – should the fetus be worried?</td>
<td>Acta Paediatrica</td>
<td>Review Article</td>
<td>This narrative review evaluates the direct and indirect impact of the COVID-19 pandemic on the fetus. Direct risks to the fetus from the SARS-CoV-2 virus are thought to be low; however, maternal infections may significantly affect the fetus by compromising maternal health or the placenta. Expectant mothers may also be reluctant to visit health care institutions during the pandemic, which may result in treatment delays. Indirectly, the COVID-19 pandemic may cause psychological stress, unemployment, financial difficulties, food insecurities, sleep disturbances, and health care delivery changes. Poverty, stress, housing conditions, and poor nutrition can affect pregnancy outcomes and the child's development. Increased maternal stress, mediated by antenatal exposure to glucocorticoids, can alter the fetal brain’s structure and function. Children 6-9 years old whose mothers suffered pregnancy anxiety early in gestation [precise gestational age not specified], had decreased regional grey matter density in various areas including the pre-frontal cortex, medial temporal lobe, and fusiform gyrus. These children are at risk of mental health, cognitive, and behavioral disorders in later life. Health care workers and policymakers need to be aware of the pandemic’s indirect and potentially lifelong impacts on developing fetal brains. Long-term surveillance of infants conceived and born during the pandemic is advisable.</td>
<td>This narrative review evaluates the COVID-19 pandemic’s direct and indirect impacts on the fetus. Health care workers and policymakers should be aware of the pandemic’s potential long-term impact on fetal development.</td>
<td>Iqbal A, Burrin C, Aydin E, et al. Generation Covid-19 – should the fetus be worried? [published online, 2020 Nov 30]. Acta Paediatr. doi:10.1111/apa.15693</td>
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<td>Adolescents; COVID-19; Children; Opening; School; Social Distancing; Korea</td>
<td>30-Nov-20</td>
<td>Stepwise School Opening and an Impact on the Epidemiology of COVID-19 in the Children</td>
<td>Journal of Korean Medical Science</td>
<td>Original Research</td>
<td>These authors reviewed epidemiological data of pediatric COVID-19 cases in Korea to analyze whether school re-opening led to an increase of pediatric COVID-19 cases. They used publicly available data from 18 February – 11 July 2020. Online classes started on 9 April, and in-person classes started from 20 May to 8 June, depending on student age. No sudden increase in pediatric cases following the school re-opening was observed, and the proportion of pediatric cases remained around 7.0 - 7.1%. As of 11 July, 45 children from 40 schools and kindergartens in Korea were diagnosed with COVID-19 after in-person classes started. More than 11,000 students and staff were tested, and there was only one case of 2 infected students in the same classroom. Among those 45 children, 25 (55.6%) were infected by their family. The authors reviewed epidemiological data of pediatric COVID-19 cases in Korea to investigate the effect of school re-opening. Based on the limited COVID-19 transmission in school, Korea had a successful transition from school closure to re-opening.</td>
<td>The authors reviewed epidemiological data of pediatric COVID-19 cases in Korea to investigate the effect of school re-opening. Based on the limited COVID-19 transmission in school, Korea had a successful transition from school closure to re-opening.</td>
<td>Yoon Y, Kim KR, Park H, et al. Stepwise School Opening and an Impact on the Epidemiology of COVID-19 in the Children. J Korean Med Sci. 2020;35(46). Published 2020 Nov 30. doi:10.3346/jkms.2020.35.e414</td>
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### Key Terms

- Pregnancy; breastfeeding; workplace rights; United States of America
- HIV, COVID-19, school closures, gender-based violence, mental health, girls, adolescents, sexual and reproductive health, gender inequity

### Summary & Key Points

- Members. The proportions of pediatric patients without information on infection sources were higher in the older age group (middle and high school students) than in the younger age group (kindergarten and early school students) (47.6% vs. 12.5%, p=0.010) [exact ages were not specified]. In the younger age group, 79.1% of children were infected by family members, while only 28.6% of adolescents in the older age group were infected by family members (p<0.001). Based on the limited COVID-19 transmission in schools, Korea had a successful transition from school closure to re-opening with online and in-person classes.

### Specific Observations

- This handout provides essential information on the legal rights of pregnant or breastfeeding women during the COVID-19 pandemic, according to US law. First, the authors detail how employers can protect women from COVID-19 during pregnancy, such as by providing PPE and allowing remote work. Employers must provide reasonable accommodations to keep employees safe, as long as these are not too difficult or expensive for the employer. Most employees have a legal right to receive accommodations while pregnant under the US Pregnancy Discrimination Act; more information can be found on the “Pregnant at Work” website. Employers must also provide reasonable accommodations for breastfeeding/chestfeeding or pumping while at work. This may include additional accommodations to keep one safe during the COVID-19 pandemic. It is illegal for an employer with >15 employees to tell an employee they cannot work because of pregnancy or breastfeeding. It may be possible to take leave during pregnancy, but laws apply differently in different states and workplaces. The Pandemic Unemployment Assistance program may be available if an individual’s wages have decreased due to the COVID-19 pandemic. No employee should be mistreated because they are pregnant, breastfeeding, or standing up for their rights. This handout informs pregnant and breastfeeding women of their rights under US law, during the COVID-19 pandemic. Women may ask for reasonable accommodations to protect them from COVID-19 during pregnancy. Laws vary by state, and the authors suggest that women consult the “Pregnant at Work” website to ensure they can stand up for their rights.

### Full Citation


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<tr>
<td>Pregnancy and Breastfeeding During the COVID-19 Pandemic: Your Workplace Rights</td>
<td>Journal of Midwifery and Women's Health</td>
<td>Handout</td>
<td>This handout informs pregnant and breastfeeding women of their rights under US law, during the COVID-19 pandemic. Women may ask for reasonable accommodations to protect them from COVID-19 during pregnancy. Laws vary by state, and the authors suggest that women consult the “Pregnant at Work” website to ensure they can stand up for their rights.</td>
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<td>Centring adolescent girls and young women in the HIV and COVID-19 responses</td>
<td>The Lancet</td>
<td>Commentary</td>
<td>This commentary warns that COVID-19 mitigation measures may exacerbate inequities faced by adolescent girls and young women, reversing gains in female education, HIV prevention, and sexual and reproductive health (SRH). 7.6 million girls are at risk of not returning to school as a result of COVID-19, which may worsen educational inequities and risk of early marriage, pregnancy, child labor, and violence. Lessons learned from the 2014-2016 Ebola outbreak in West Africa suggest that COVID-19 may have a similar negative impact on access to SRH services. Data show a reduction in HIV testing at first antenatal visits between January-June, 2020 in at least 17 countries and a reduction in HIV treatment access among girls. The authors warn that the COVID-19 pandemic may exacerbate inequities faced by adolescent girls and young women, reversing gains in female education, HIV prevention, and sexual and reproductive health. They present 10 recommendations that center the needs of young women and girls in the HIV and COVID-19 responses [published online, 2020 Nov 27]. Lancet. 2020;50140-6736(20)32552-6. doi:10.1016/S0140-6736(20)32552-6</td>
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pregnant women in at least 15 countries. The authors present 10 actions that center the needs of adolescent girls and young women in responses to HIV, COVID-19, and similar pandemics: 1) keep schools open with appropriate IPC measures; 2) continue access to SRH education; 3) provide community-based safe environments for girls and young women; 4) strengthen community-based mental health services; 5) provide accessible SRH services (access to contraception, HIV testing, antiretroviral treatment, and pre-exposure prophylaxis); 6) provide access to women-controlled interventions to prevent HIV; 7) ensure adolescent girls and young women guide policies and interventions that directly affect them; 8) prioritize their rights to make decisions about their SRH; 9) ensure that the health needs of adolescent girls and young women are a central consideration in future pandemic responses; and 10) invest in raising male children to be gender-aware and encourage responsive caregiving by parents.

The present review summarizes the diagnosis and treatment of COVID-19 in children at the time of article receipt in August 2020. The prevalence of COVID-19 and the risk of severe disease are lower in children than in adults. Most patients show sero-conversion 2-4 weeks after symptom onset. The standard for detection of SARS-CoV-2 RNA is RT-PCR of a nasopharyngeal swab, the sensitivity of which is approximately 62% on the day of symptom onset and 80.3% after 3 days of symptoms. Immunological tests to determine binding antibodies can be rapid, which detect IgM, IgG, or total antibodies in plasma, whole blood, or saliva, while specialized laboratory tests can determine IgM, IgG, and IgA separately or in combination. Chest radiography can be used 10-12 days after symptom onset. Early chest CT is useful in symptomatic patients, as the presence of typical lesions can be used for diagnosis as well as treatment management. Electrical impedance tomography can also be used. The diagnosis of MIS-C requires age < 21 years, fever, serious illness, multi-system involvement of >2 organs, laboratory evidence of inflammation, and indication of recent SARS-CoV-2 infection (with no other plausible diagnosis). High-flow nasal oxygen therapy should be used in COVID-19 patients with mild acute respiratory failure, and non-invasive ventilation should be used in patients with moderate respiratory failure, with infection prevention precautions. Critically ill patients may require mechanical ventilation. Prone positioning, inhaled nitric oxide, or extracorporeal membrane oxygenation (ECMO) can be used for patients with refractory hypoxemia. Dexamethasone can be used in patients who require supplemental oxygen, and venous thromboembolism prophylaxis, mechanical ventilation, pharmacological treatment, Brazil

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<td>Treatment, diagnosis, PCR, serologic test, immunological test, Early chest computed tomography, Electrical impedance tomography, chest radiography, high-flow nasal oxygen therapy, noninvasive ventilation, Prone position, inhaled nitric oxide, extracorporeal membrane oxygenation, venous thromboembolism prophylaxis, mechanical ventilation, pharmacological treatment, Brazil</td>
<td>30-Nov-20</td>
<td>Update on the diagnosis and management of COVID-19 in pediatric patients</td>
<td>Clinics</td>
<td>Review</td>
<td>This review summarizes the diagnosis and treatment of COVID-19 in children at the time of article receipt in August 2020. The prevalence of COVID-19 and the risk of severe disease are lower in children than in adults. Most patients show sero-conversion 2-4 weeks after symptom onset. The standard for detection of SARS-CoV-2 RNA is RT-PCR of a nasopharyngeal swab, the sensitivity of which is approximately 62% on the day of symptom onset and 80.3% after 3 days of symptoms. Immunological tests to determine binding antibodies can be rapid, which detect IgM, IgG, or total antibodies in plasma, whole blood, or saliva, while specialized laboratory tests can determine IgM, IgG, and IgA separately or in combination. Chest radiography can be used 10-12 days after symptom onset. Early chest CT is useful in symptomatic patients, as the presence of typical lesions can be used for diagnosis as well as treatment management. Electrical impedance tomography can also be used. The diagnosis of MIS-C requires age &lt; 21 years, fever, serious illness, multi-system involvement of &gt;2 organs, laboratory evidence of inflammation, and indication of recent SARS-CoV-2 infection (with no other plausible diagnosis). High-flow nasal oxygen therapy should be used in COVID-19 patients with mild acute respiratory failure, and non-invasive ventilation should be used in patients with moderate respiratory failure, with infection prevention precautions. Critically ill patients may require mechanical ventilation. Prone positioning, inhaled nitric oxide, or extracorporeal membrane oxygenation (ECMO) can be used for patients with refractory hypoxemia. Dexamethasone can be used in patients who require supplemental oxygen, and venous thromboembolism prophylaxis, mechanical ventilation, pharmacological treatment, Brazil</td>
<td>Carlotti APCP, de Carvalho WB, Johnston C, et al. Update on the diagnosis and management of COVID-19 in pediatric patients. Clinics (Sao Paulo). 2020;75:e2353. Published 2020 Nov 30. doi:10.6061/clinics/2020/e2353</td>
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COVID-19, Maternal and Child Health, Nutrition – Literature Repository
November 2020

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<td>COVID-19, surveillance, pregnancy, maternal, infant, outcomes, networks, Canada</td>
<td>30-Nov-20</td>
<td>Canadian surveillance of COVID-19 in pregnancy: Epidemiology and maternal and infant outcomes</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Original Research (IDSOG Oral Presentation)</td>
<td>The authors describe their approach to rapid epidemic surveillance through the so-called CANCOVID-Preg network to assess the burden of COVID-19 in pregnancy and associated maternal and infant outcomes in Canada. They mobilized an established network of care providers in response to the global pandemic and engaged leads in each province/territory to develop an approach for identifying all cases of SARS-CoV-2 in pregnancy and for the collection of outcome data. Women with documented SARS-CoV-2 infection in pregnancy were identified by public health or clinical identification, and data were collected from medical records. Between March 1 to June 24, 2020, 307 cases were identified in Canada, with regional distribution proportional to the population. As of May 30, 2020, data had been collected for 22 pregnancies in British Columbia (BC) and 27 in Ontario (ON). In BC, the mean gestational age at COVID-19 diagnosis was 20.3 weeks (±9.9, range: 5.3 - 38.3). Also, 31.6% (6/19) had a known positive contact in the community, while 2 reported travel before COVID-19 diagnosis. Among 46 pregnancies (BC and ON), the most frequently documented symptoms were cough (37.0%) and fever (32.6%). Two (9%) BC cases were hospitalized due to COVID-19, with no ICU admissions or mechanical ventilation. Of note, 2 (9%) BC and 21 (78%) ON cases delivered, with 1 neonate (of 12 with results) in ON testing positive for SARS-CoV-2.</td>
<td>The authors present the Canadian approach to surveillance of COVID-19 in pregnancy, primarily enabled by national care provider networks, provincially dedicated database software, and routine perinatal data collection. They also present data on the maternal and neonatal outcomes of pregnant women with COVID-19 in two provinces, British Columbia and Ontario.</td>
<td>Lee EJ, Kim DH, Chang SH, et al. Canadian surveillance of COVID-19 in pregnancy: Epidemiology and maternal and infant outcomes. American Journal Of Obstetrics and Gynecology. 2020;223(6):969-970. <a href="https://doi.org/10.1016/j.ajog.2020.08.137">https://doi.org/10.1016/j.ajog.2020.08.137</a>.</td>
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<td>South Korea, transmission, PPE</td>
<td>30-Nov-20</td>
<td>Absence of SARS-CoV-2 Transmission from Children in Isolation to Guardians, South Korea</td>
<td>Emerging Infectious Diseases</td>
<td>Research Letter</td>
<td>This study explored whether SARS-CoV-2 was transmitted from infected children to their uninfected guardians in a hospital setting in South Korea. Researchers examined 94 children &lt;19 years old infected with SARS-CoV-2 and isolated at 7 hospitals in South Korea between February 18 - June 7 of 2020, of which 12 were isolated with a single uninfected guardian. The median age was 6 years (ranging from 2 months to 11 years), and the median time of isolation was 17 days (ranging from 7 to 37 days). 7 of the 12 children were asymptomatic, 4 had fever or respiratory symptoms, and 1 had pneumonia. While only 4 of the children consistently cooperated with wearing face masks, 10 of the 12 guardians wore gloves and face masks on a consistent basis. Researchers observed no cases of transmission between infected children and uninfected guardians. Most (10/12) guardians had frequent close contact and most (10/12) guardians wore gloves and masks, either KF94 masks or N95 masks; 7 also wore gowns or coveralls. The authors conclude that appropriate use of PPE can mitigate transmission between children and their caretakers.</td>
<td>This study explored whether SARS-CoV-2 was transmitted from infected children to their uninfected guardians in a hospital setting in South Korea. Researchers observed no cases of transmission between infected children and uninfected guardians. The authors conclude that appropriate use of PPE can mitigate transmission between children and their caretakers.</td>
<td>Lee EJ, Kim DH, Chang SH, et al. Absence of SARS-CoV-2 Transmission from Children in Isolation to Guardians, South Korea [published online ahead of print, 2020 Nov 30]. Emerg Infect Dis. 2020;27(1):10.3201/eid2701.203450. doi:10.3201/eid2701.203450</td>
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<td>maternal mortality, letter response, systematic review, exclusion, COVID-19, fetal mortality, neonatal mortality</td>
<td>29-Nov-20</td>
<td>Response to &quot;Letter to the editor regarding the article: COVID-19 and maternal, fetal and neonatal mortality: a systematic review&quot;</td>
<td>The Journal of Maternal-Fetal &amp; Neonatal Medicine</td>
<td>Letter to the Editor</td>
<td>This article is a response to Nakamura-Pereira et al.’s letter to the editor regarding the authors’ systematic review of COVID-19’s effect on maternal, fetal, and neonatal mortality. The authors provide rationales for excluding some studies from their systematic review: 1) unreported perinatal outcomes; 2) unreported maternal outcomes; and 3) no reports on demographic, clinical characteristics, and leading causes of death for mortality cases. The authors employed a broad search strategy to minimize missing relevant studies. However, like all reviews being conducted during the pandemic, a rapidly growing number of published and unpublished studies during pandemic times may result in missing relevant data.</td>
<td>The authors respond to Nakamura-Pereira et al.’s letter to the editor regarding their systematic review of COVID-19’s effect on maternal, fetal, and neonatal mortality. They provide their rationale for study exclusion criteria.</td>
<td>Hessani K. Response to &quot;Letter to the editor regarding the article: COVID-19 and maternal, fetal and neonatal mortality: a systematic review&quot; [published online, 2020 Nov 29]. J Matern Fetal Neonatal Med. 2020;1. doi:10.1080/14767058.2020.1852214</td>
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<td>Sri Lanka, hypertension, PCR, pregnancy, IUDF, placental abruption</td>
<td>29-Nov-20</td>
<td>Hypertensive Crisis in Pregnancy with COVID19: Confirmed with rt-PCR for Nasopharyngeal Swab</td>
<td>Case Reports in Obstetrics and Gynecology</td>
<td>Case Report</td>
<td>This article details the case of a previously normotensive, 19-year-old SARS-CoV-2-positive primigravida at 33 weeks gestation, presenting with diarrhea and hypertensive crisis. She subsequently underwent an emergency cesarean due to placental abruption and intrauterine fetal demise. The authors describe how SARS-CoV-2 enters and downregulates host cell-bounded enzyme ACE2, activating the renin-angiotensin-aldosterone mechanism. They state that there is a theoretical possibility of hypertensive crisis associated with ACE2 and COVID-19. Therefore, the authors suggest that close monitoring of blood pressure and early intervention is imperative for preventing hypertensive crises in SARS-CoV-2-positive pregnant women and assert that emergency hospital admission is granted to pregnant mothers with high blood pressure.</td>
<td>The authors present the case of a primigravida with confirmed COVID-19 presenting with hypertensive crises with subsequent intrauterine fetal demise and placental abruption. They hypothesize that hypertensive crisis in pregnant women could be due to associations between ACE2, the renin-angiotensin-aldosterone system, and SARS-CoV-2 infection.</td>
<td>Bandara S, Ruwanpathirana A, Nagodawithana D, et al. Hypertensive Crisis in Pregnancy with COVID19: Confirmed with rt-PCR for Nasopharyngeal Swab. Case Rep Obstet Gynecol. 2020 Nov 27;2020. doi: 10.1155/2020/8868952.</td>
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<td>correspondence, thymus, immunology, COVID-19</td>
<td>29-Nov-20</td>
<td>What is the Determinant of 2019 Novel Coronavirus Prognosis in Children?</td>
<td>Indian Pediatrics</td>
<td>Pre-print (not peer-reviewed)</td>
<td>The authors respond to a study by Li, et al., summarizing chest CT findings in children with COVID-19. The study showed that children had milder symptoms and less severe lung inflammation than adults. The authors state that thymus regression and lung immuno-senescence in adults explain the differential severity of COVID-19 symptoms between children and adults. Given the central role of T-cells in the adaptive immune system, the thymus plays a critical role in preventing invasive damage from a virus. The thymus generally decreases in function and anatomically shrinks with age. Thymic involution and the gradual decrease in the T-cell count with age are termed immuno-senescence. Immuno-senescence could explain frequently severe clinical presentations in patients ≥ 50 years old. Males are more likely than females to suffer from critical cases of COVID-19, possibly due to greater tobacco use and increased ACE-2 receptor expression. The literature also shows that thymic involution is more apparent in males than females, suggesting a greater</td>
<td>This correspondence explains the possible role of the thymus in COVID-19 infection and severity. The authors suggest that characteristics of the thymus may explain differences in COVID-19 severity between ages and sexes.</td>
<td>Yurtutan S. What is the Determinant of 2019 Novel Coronavirus Prognosis in Children? [published online, 2020 Nov 29]. Indian Pediatr. 2020;5097475591600257.</td>
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### Key Terms

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<td>29-Nov-20</td>
<td>No increase in psychosocial stress of Dutch children with cancer and their caregivers during the first months of the COVID-19 pandemic</td>
<td>Pediatric Blood &amp; Cancer</td>
<td>Brief Report</td>
<td>In this cohort study, the authors examine the impact of COVID-19 on psychosocial stress in a sample of children &lt;18 years old with cancer in outpatient care (n=799) and their caregivers, from a Dutch hospital January-June 2020, using medical records and survey data. Data were separated into either the &quot;pre-COVID-19 period,&quot; which included measurements taken prior to March 13, 2020 (which was considered the start of the COVID-19 outbreak in the US) or the &quot;during COVID-19 period,&quot; which included measurements taken after March 13, 2020. A detailed analysis of health-related quality of life and fatigue found no significant difference in either characteristic between the pre- and during COVID-19 periods. Fewer caregivers experienced psychosocial stress during the COVID-19 period relative to the pre-COVID-19 period, likely due to alleviated daily life changes, resilience, experience coping with medical trauma/stress, and appropriate care and support. The authors found that pediatric cancer patients' and their families' lifestyles, though not broadly comparable to the general population, have generally benefited from precautions and attentive care in the Netherlands during the COVID-19 pandemic.</td>
<td>This cohort study of 799 pediatric cancer patients and their caregivers in the Netherlands January-June 2020 used medical records and survey results to understand the impact of COVID-19 on psychosocial stress. The authors found that fewer caregivers experienced psychosocial stress during the COVID-19 period relative to the pre-COVID-19 period.</td>
<td>van Gorp M, Maurice-Stam H, Teunissen LC, et al. No increase in psychosocial stress of Dutch children with cancer and their caregivers during the first months of the COVID-19 pandemic. Pediatr Blood Cancer. 2020 Nov 29:e28827. doi:10.1002/pbc.28827</td>
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<td>29-Nov-20</td>
<td>The Kids Are Not Alright: A Preliminary Report of Post-COVID Syndrome in University Students</td>
<td>medRxiv</td>
<td>Pre-print (not peer-reviewed)</td>
<td>The authors seek to characterize post-COVID syndrome in young adults. Data was taken from 148 undergraduate students aged 17-23 years at a private midwestern university (USA) who completed an online study between October 7 - November 11, 2020. Data from participants with COVID-19 (confirmed by PCR testing) with symptoms ≥28 days (n=22) were compared to those who fully recovered (n=21) and those not diagnosed with COVID-19 (n=58). Mean ages were 18.91 years for those without COVID-19, 18.95 years for those fully recovered, and 19.86 years for those with post-COVID syndrome. 51% (n=43) experienced symptoms for ≥28 days and were classified as having post-COVID syndrome. Compared with those who fully recovered, the post-COVID syndrome group experienced significantly more chest pain (64% vs 14%; P=0.002), fatigue (86% vs 48%; P=0.009), fever (82% vs 48%; P=0.02), olfactory impairment (82% vs 52%; P=0.04), headaches (32% vs 5%; P&lt;0.05), and diarrhea (32% vs 5%; P&lt;0.05). Compared to those not diagnosed with COVID-19, the post-COVID group experienced significantly more exercise intolerance (43% vs. 0%; P&lt;0.001), dyspnea (43% vs. 0%; P&lt;0.001), chest pain (31% vs 7%; P=0.002), olfactory impairment</td>
<td>The authors suggest that post-COVID syndrome is common in young adults, and is marked by exercise intolerance, dyspnea, chest pain, chemo-sensory impairment, lymphadenopathy, rhinitis and appetite loss. They suggest that these symptoms may be used to characterize post-COVID syndrome in young adults, but that large-scale studies are needed to fully characterize this syndrome.</td>
<td>Walsh-Messinger J, Manis H, Vrabec A, et al. The Kids Are Not Alright: A Preliminary Report of Post-COVID Syndrome in University Students. medRxiv. November 2020. doi:<a href="https://doi.org/10.1101/2020.11.24.20238261">https://doi.org/10.1101/2020.11.24.20238261</a>.</td>
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### COVID-19; tetanus vaccination; artificial intelligence; correlation

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<td>COVID-19; tetanus vaccination; artificial intelligence; correlation</td>
<td>28-Nov-20</td>
<td>Does tetanus vaccination contribute to reduced severity of the COVID-19 infection?</td>
<td>Medical Hypotheses</td>
<td>Article</td>
<td>Through artificial intelligence (AI), the authors discovered a similarity between proteins in the tetanus toxin and SARS-CoV-2 in pregnancy and childhood, due to higher tetanus vaccination rates among these populations. The authors began by computing the similarity of all known protein sequences of viruses, bacteria, and fungi to the protein sub-structures of SARS-CoV-2. This resulted in identifying the tetanus toxin protein as one of the highest non-coronavirus matches based on similarity scores. They then searched existing published literature on proteins, compounds, chemical interactions, clinical trials, and protein structure information for proteins known to interact with the disease-causing SARS-CoV-2 protein. Some medications currently used for COVID-19 patients were recommended by this AI system, including baricitinib, ribavirin, ritonavir, dexamethasone, azithromycin, and lopinavir. The authors propose that the correlation with tetanus vaccination rates may explain asymptomatic cases of SARS-CoV-2 worldwide, particularly among pregnant women and children. The WHO reports that 85% of infants worldwide receive the 3 doses of diphtheria-tetanus-pertussis vaccine, and children are more likely to have asymptomatic cases of SARS-CoV-2 than adults. Pregnant women are advised to receive the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis (Tdap) vaccine, and the authors report that 87.9% of pregnant women with SARS-CoV-2 are asymptomatic. Similarly, in specific US states where it is policy to vaccinate prison inmates with Tdap, the asymptomatic rates for SARS-CoV-2 are 96%. The authors stress that correlation is not causation and that further clinical trials must prove or disprove this unexpected hypothesis. Artificial intelligence was used to find drugs to treat COVID-19 and led to an unexpected discovery of the similarity between a protein in the tetanus toxin and SARS-CoV-2. This discovery led to the consideration of tetanus vaccination rates correlating with higher rates of asymptomatic cases among pregnant women and young children. Correlation with childhood and pregnancy tetanus immunization rates and higher rates of asymptomatic SARS-CoV-2 in these populations needs to be studied further.</td>
<td></td>
<td>Rickett CD, Maschhoff KJ, Sukumar SR. Does tetanus vaccination contribute to reduced severity of the COVID-19 infection? Med Hypotheses. 2020:110395. doi: <a href="https://doi.org/10.1016/j.mehy.2020.110395">https://doi.org/10.1016/j.mehy.2020.110395</a>.</td>
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### Delayed cord clamping (DCC); early cord clamping (ECC); vertical transmission; COVID-19

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<tr>
<td>delayed cord clamping (DCC); early cord clamping (ECC); vertical transmission; COVID-19</td>
<td>28-Nov-20</td>
<td>Applying the principle 'First Do No Harm' during the pandemic</td>
<td>BJOG: An International Journal of Obstetrics and Gynecology (BJOG)</td>
<td>Commentary</td>
<td>In this short commentary, the authors discuss previous recommendations against using delayed cord clamping (DCC) in efforts to reduce potential vertical transmission of SARS-CoV-2. The authors cite many limitations in the papers that discourage DCC, such as unrepresentative samples, overall low numbers of positive cases in neonates, and higher likelihood of C-sections in mothers with more severe COVID-19. Given these limitations, in this commentary, the authors discuss previous recommendations that discouraged the use of delayed cord clamping (DCC) and instead suggested early cord.</td>
<td></td>
<td>Katheria A, Koo J. Applying the principle 'First Do No Harm' during the pandemic. BJOG. 2020:10.1111/1471-0528.16607. doi:10.1111/1471-0528.16607</td>
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<td>Multisystem Inflammatory Syndrome; children; COVID-19, Kawasaki disease</td>
<td>27-Nov-20</td>
<td>Multisystem Inflammatory Syndrome in Children: An International Survey</td>
<td>Pediatrics</td>
<td>Original research</td>
<td>This study aimed to describe the presentation and hospital course of MIS-C in an international cohort and identify clinical and biological markers that predicted severe disease. Data were collected retrospectively from case series of children meeting the published definition for MIS-C who were discharged or died from March 1-June 15, 2020, from 33 participating European, Asian, and American hospitals. The authors conducted a web-based survey, including clinical, laboratory, electrocardiographic, and echocardiographic findings and treatment management. A total of 183 patients (109 males [59.6%]; mean age 7.0±4.7 years; black race, 56[30.6%]; obesity, 48[26.2%]) with MIS-C were included in the analysis. All 183 patients presented with fever, while 117/183 (63.9%) presented with gastrointestinal (GI) symptoms and 79/183 (43.2%) with shock. Of note, shock symptoms were associated with older age, Black race, higher inflammation and imaging abnormalities, and higher GI, cardiorespiratory and neurological symptoms. The same associations were found with the incomplete-Kawasaki disease (KD)-like presentation, although with a lower percentage. Also, 14.7% (N=27) fulfilled the criteria for KD-like illness. However, these patients were younger, without shock, less inflammation, and fewer GI cardiorespiratory and neurological symptoms. A shorter duration of symptoms before admission was associated with poorer patient outcomes and or ECMO/death. The authors report that MIS-C emerged with a wide clinical spectrum at presentation, including Kawasaki disease-like, life-threatening shock and milder forms with mainly fever and inflammation.</td>
<td>The authors used data from 33 international hospitals to describe the presentation of MIS-C and identify markers associated with severe disease. The authors report that MIS-C emerged with a wide clinical spectrum at presentation, including Kawasaki disease-like, life-threatening shock and milder forms with mainly fever and inflammation.</td>
<td>Bautista-Rodriguez, C., Sanchez-de-Toledo, J., Clark, B. C., et al. Multisystem inflammatory syndrome in children: an international survey. Pediatrics. 2020. doi: 10.1542/peds.2020-024554</td>
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<td>Pediatric cardiac surgery, COVID-19, China, Italy</td>
<td>27-Nov-20</td>
<td>Commentary: Lights and shadows of pediatric cardiac surgery in China during the coronavirus disease 2019 pandemic</td>
<td>The Journal of Thoracic and Cardiovascular Surgery</td>
<td>Commentary</td>
<td>A recent report by Shi et. al. summarized a consortium of the 13 largest pediatric cardiac units in China. They report that during the pandemic, a 75% decrease in procedures was observed, and a relative increase in emergency procedures in symptomatic patients occurred. However, they do not report increased hospital stays and showed that telemedicine techniques for follow-up in up to 1/4 of patients did not result in increased mortality or hospital re-admission. Comparing this with a similar report from a consortium in Italy, this country has seen not identical, but similar changes in admission, procedures, etc. However, Italy reports that although no patient presented with COVID-19 before surgery, 3 patients developed asymptomatic infection post-operatively. Further, 41 nurses and physicians were infected with 2 requiring noninvasive ventilator support. All survived to discharge. The study from China does not report data on infections and does not cite any laboratory evidence. Given this, their proposal to subject surgical candidates and families to 2-week quarantine is not endorsed by the authors. They argue that this will cause asymptomatic spread. Instead, the standard of care is that all children and families should be tested for SARS-CoV-2 prior to surgery.</td>
<td>Pediatric cardiac units in China and Italy had similar changes in admissions and procedures during the COVID-19 pandemic. However, reports from Italy show evidence of asymptomatic spread of SARS-CoV-2 within hospitals while the report from China omits this data. The authors argue that the standard of care should be to test surgical candidates and families for SARS-CoV-2 prior to surgery.</td>
<td>Luciani GB. Commentary: Lights and shadows of pediatric cardiac surgery in China during the coronavirus disease 2019 pandemic. J Thorac Cardiovasc Surg. 2020 Nov 28:S0022-5223(20)33172-X. doi: 10.1016/j.jtcvs.2020.11.089. Epub ahead of print. PMID: 3353749.</td>
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<p>| Infant, COVID-19, SARS-CoV-2, USA | 27-Nov-20 | A newborn with coronavirus (COVID-19) disease: A brief report | Journal of Neonatal-Perinatal Medicine | Case Report | A 35-year old woman at 39 weeks’ gestation was admitted for elective repeat C-section in the US. On admission, all prenatal laboratory tests and vitals were normal. A full-term female infant was delivered without complication, and was roomed with the mother in a single-patient room and exclusively breast-fed. After 4 days, infant was noted to have circumoral cyanosis during feeding. On the same day, mother’s temperature was elevated but she did not have any respiratory symptoms. Father reported symptoms of sore throat and cough. Mother, father, and infant were confirmed SARS-CoV-2 positive and influenza negative via nasopharyngeal swab. Both mother and infant were transferred to individual negative pressure rooms. The infant was transferred to the neonatal ICU due to episodes of desaturations with feedings and while sucking on a pacifier. The infant consistently had circumoral cyanosis with desaturation episodes - worse with feedings. On day 7, the infant had significant nasal congestion and secretion. Her desaturation events gradually decreased and the last desaturation event was noted on day of life 8. Nasopharyngeal swabs for SARS-CoV-2 were repeated on day 12 and remained positive. The infant was discharged home to parents on hospital day 14 of life. The authors assert that neonatal COVID-19 occurred due to postpartum caregiver contact. | This case report describes a 4-day old infant born to an asymptomatic mother with SARS-CoV-2 infection in the US. The infant subsequently developed infection with SARS-CoV-2, likely from contact with parents during the postnatal period. | Rong G, Abubakar K. A newborn with coronavirus (COVID-19) disease: A brief report. Journal of Neonatal-Perinatal Medicine. 2020;13(4):593-595. doi:10.3233/npm-200489 |</p>
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<td>Pregnancy, home birth, hospital exposure, fear, postpartum care, Iran</td>
<td>27-Nov-20</td>
<td>A Case Report of Vaginal Delivery at Home due to Fear of Covid-19</td>
<td>Iranian Journal of Psychiatry</td>
<td>Case Report</td>
<td>This is a case of a 31-year-old pregnant woman living in Dezful, Iran at 39 weeks and 4 days gestational age who refused labor and delivery in a hospital out of fear of exposure to COVID-19. The woman called her midwife after delivering the infant vaginally at home. Both the mother and infant were in stable condition. Because of the mother’s blood group (A-), the midwife asked the mother to transfer the fetal placenta to the midwifery clinic (the mother declined to be transferred to the hospital). Her husband brought the placenta and cord blood sampling was performed. The placenta was also checked for completeness and the midwife ensured that the placenta was completely delivered. The fetal blood sample was A + necessitating administration of RhoGAM (Rh immunoglobin) for the mother. The mother was contacted, and she and her husband were informed about the risks of not using RhoGAM, risks of postpartum hemorrhage, and the importance of post-partum and infant care. Counseling on protection against COVID-19 transmission was provided by midwives over the phone, and the patient’s fear of illness was reduced. The infant and mother were examined, RhoGAM injection was provided, and neonatal vaccinations were administered. After follow-up, the mother was discharged from the clinic with normal labs, bleeding, and vitals, and was able to initiate breastfeeding. This case highlights the role of counseling in alleviating concerns related to COVID-19 exposure in healthcare settings among pregnant women.</td>
<td>This is a case of a pregnant woman who delivered her infant at home out of fear of the hospital due to COVID-19 exposure. She required administration of RhoGAM (Rh immunoglobin) after delivery, and telephone counseling by midwives helped alleviate fear and facilitate postpartum care.</td>
<td>Nosratabadi M, Sarabi N, Masoudiyekta L. A Case Report of Vaginal Delivery at Home due to Fear of Covid-19. Iran. J Psychiatry. 2020 Oct;15(4):366-369. doi: 10.18502/ijps.v15i4.4306.</td>
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<td>COVID-19, child, pneumonia, Brazil</td>
<td>27-Nov-20</td>
<td>Clinical manifestations of children and adolescents with COVID-19: Report of the first 115 cases from Sabara Hospital Infantil</td>
<td>Revista Pualista de Pediatria</td>
<td>Original Research</td>
<td>This cross-sectional study at one hospital in São Paulo, Brazil seeks to characterize the clinical manifestation of COVID-19 in children and adolescents. 115 children and adolescents (0 to 18 years; median age=2 years; IQR=11 months-8 years) were diagnosed with COVID-19 between March 1- June 30, 2020 via positive RT-PCR test for SARS-CoV-2. 30 (26.1%) had co-morbidities with a predominance of asthma (13% of all patients). Fever, cough, and nasal discharge were the most frequent symptoms. Respiratory symptoms were reported by 58% of children and gastro-intestinal symptoms, by 34%. Three children were asymptomatic, 81 (70%) had upper airway symptoms, 15 (13%) had mild pneumonia, and 16 (14%) had severe pneumonia. The median age of hospitalized children was younger than non-hospitalized children (7 months vs. 36 months; p= 0.001). In hospitalized patients, a higher frequency of irritability (p=0.02), dyspnea (p=0.001), drowsiness (p=0.02), respiratory distress (p=0.001), low oxygen saturation (p=0.004), and hepatomegaly (0.006) was observed. Chest radiography was performed in 69 children with 45% having abnormal exams. No difference was verified in clinical manifestations, nor in the frequency of morbidities with a predominance of asthma (13% of all patients). Fever, cough, and nasal discharge were the most frequent symptoms. Respiratory symptoms were reported by 58% of children and gastro-intestinal symptoms, by 34%. Three children were asymptomatic, 81 (70%) had upper airway symptoms, 15 (13%) had mild pneumonia, and 16 (14%) had severe pneumonia. The median age of hospitalized children was younger than non-hospitalized children (7 months vs. 36 months; p= 0.001). 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<td>In São Paulo, Brazil, researchers investigated the clinical manifestations of COVID-19 in children and adolescents. Their results support the prevailing theory that this age group presents with milder clinical symptoms and decreased mortality compared to adults.</td>
<td>Rabha AC, Junior FIDO, Oliveira TAD, et al. Clinical Manifestations Of Children And Adolescents With Covid-19: Report Of The First 115 Cases From Sabarâ Hospital Infantil. Revista Pualista de Pediatria. November 2020. doi:10.1590/1984-0462/2021/39/2020305.</td>
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<td>Pregnancy, Italy</td>
<td>27-Nov-20</td>
<td>Neonatal Manifestations in COVID-19 Patients at a Brazilian Tertiary Center</td>
<td>Clinics</td>
<td>Case Series</td>
<td>The authors discuss 49 neonates born to mothers with proven SARS-CoV-2 infection between April and June 2020 in Brazil during the COVID-19 pandemic. All neonates received SARS-CoV-2 PCR testing after birth, and 2 were positive at 48 hours. The authors then proceed to describe 3 neonatal cases in detail: the 2 mentioned above (of which one was born preterm at 33 4/7 weeks’ gestation) and one term infant with community-acquired COVID-19 admitted at day of life 8 with fever and UTI. The 2 hospital newborns were immediately isolated after birth from their mother, making vertical transmission or nosocomial infection possible as the route of transmission. Combined presenting symptoms included: bradycardia, oxygen desaturations and respiratory distress, and fever. Laboratory tests on the infants were remarkable for elevation of D-dimer compared to those without, with individualized patient evaluation. The authors report on 49 neonates born to SARS-CoV-2 positive mothers in Brazil, and they provide a detailed review of 3 neonates with PCR-confirmed SARS-CoV-2 infections.</td>
<td>Dos Santos Beozzo GPN, de Carvalho WB, Krebs VLJ, Gibelli MABC, Zacharias RSB, Rossetto LES, Francisco RPV. Neonatal manifestations in COVID-19 patients at a Brazilian tertiary center. Clinics (Sao Paulo). 2020 Nov 27;75:e2407. doi: 10.6061/clinics/2020/e2407. PMID: 33263625; PMCID: PMC7654941.</td>
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<td>Hemostasis, COVID-19, pregnancy, Italy</td>
<td>27-Nov-20</td>
<td>Hemostasis in pregnant women with COVID-19</td>
<td>International Journal of Obstetrics and Gynecology</td>
<td>Brief Communication</td>
<td>In this correspondence, the authors discuss the hemostatic status of pregnant women with COVID-19. They reported on pregnant patients admitted in April 2020 at the Maternity Hub in Milan, Italy, without known coagulation abnormalities, recent venous thromboembolism, obstetrical complications, and with or without COVID-19. Swab samples were collected to test for COVID-19, with blood samples collected at admission. 21 women with COVID-19 and 48 without were included in the analysis, of which 63 women were in their third trimester of pregnancy and the remaining 6 in their second trimester (26-28 weeks gestation). 48% of the women with COVID-19 were asymptomatic, with the others showing mild symptoms. Women with COVID-19 displayed decreased mean plasma levels of fibrinogen and D-dimer compared to those without, with differences observed in distributions of platelet count, aPTT, and AT levels and no differences in CRP and FVII levels. The authors, reporting on previously published literature cite the existence of impairment of coagulation parameters in COVID-19 patients. The authors determined that in their pilot study, the coagulation parameters were similar between patients with COVID-19 and those without, indicating that an individualized patient evaluation is required. In this article, the authors determined the hemostatic status of 63 women with and without COVID-19. They identified that the mean plasma levels of fibrinogen and D-dimer were lower in women with COVID-19 than those without, and the coagulation parameters between COVID-19 patients and healthy women is similar. Thus, they recommended individualized patient evaluation to prevent peripartum thromboembolic complications.</td>
<td>Ciavarella A, Erra R, Abbattista M, et al. Hemostasis in pregnant women with COVID-19. Int J Gynaecol Obstet. 2020 Nov 27. doi: 10.1002/ijgo.13499. Epub ahead of print. PMID: 33245783.</td>
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<td>ICA, SARS-CoV-2, rapid test, pregnancy, Spain</td>
<td>27-Nov-20</td>
<td>EXPRESS: SARS-CoV-2 immunochromatographic IgM/IgG rapid test in pregnancy: a false friend?</td>
<td>Annals of Clinical Biochemistry: International Journal of Laboratory Medicine</td>
<td>Short Report</td>
<td>These authors from the Instituto de Investigacion, Sanitaria Aragon, in Zaragoza, Spain assessed the efficacy of a serological test for SARS-CoV-2 in pregnant women. Specifically, the test uses lateral flow immuno-chromatographic assay (ICA) for qualitative detection of SARS-CoV-2 IgG and IgM antibodies. ICA was performed in 169 pregnant women between April 27 - May 29, 2020 [age range not specified]. Women were either tested as part of universal screening at 36 weeks of gestation, or because they had COVID-19 symptoms in their 3rd trimester. Meta-analysis showed 82% sensitivity (95% CI= 75-88%) for IgM and 85% sensitivity (95% CI=73-93%) for IgG. While non-pregnant patients have been shown to have very high specificity (98.6%) using the ICA test, these cases in pregnant women showed a 50% false positive rate when evaluated via secondary RT-PCR testing. Authors suggest this could be due to various cross-reactive factors that may be present such as rheumatoid factors, anti-nuclear and heterophile antibodies, and other coronaviruses. Authors conclude that although ICA testing may be a fast screening tool, it has high false positive rates in pregnant women, so test results should be verified by other methods in this patient population.</td>
<td>Immuno-chromatographic assays are a fast screening tool for qualitative analysis of SARS-CoV-2 infection. However, the authors of this study note that these tests have a high false positivity rate in pregnant women and should therefore be verified by secondary testing methods.</td>
<td>Fabre Estremera M, Ruiz-Martinez S, Monserrat ME, et al. EXPRESS: SARS-CoV-2 immunochromatographic IgM/IgG rapid test in pregnancy: a false friend? Annals of Clinical Biochemistry. November 2020. doi:10.1177/0004563220980495</td>
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<td>SARS-CoV-2; COVID-19; coronavirus; horizontal transmission; neonate; India</td>
<td>27-Nov-20</td>
<td>COVID-19 Infection in Newborn Infants</td>
<td>The Indian Journal of Pediatrics</td>
<td>Scientific Letter</td>
<td>Clinicians at Seth GS Medical College and King Edward Memorial Hospital in Mumbai, India describe 3 cases of the clinical course of COVID-19 in neonates whose mothers exhibited COVID symptoms. Neonate positivity was determined via RT-PCR on nasopharyngeal swab. The 1st case discussed is a term male who tested positive for SARS-CoV-2 on day 7 of life. He had dry cough and episodes of vomiting and exhibited elevated lactate dehydrogenase (1496 U/L) and creatine kinase (336.8 U/L). He also developed IgM antibodies on day 12 but remained negative for IgG. He improved clinically but repeat swabs on days 12, 16, and 22 were all positive. The 2nd case was also a term male who tested positive on day 9 of life. He remained asymptomatic but repeat swabs on days 12, 16, and 23 were all positive. The 3rd case was a term female who tested positive at 35 hours of life. She had dry cough and elevated lactate dehydrogenase (1569 U/L) and creatine kinase (551 U/L). She improved clinically but repeat swabs on day 6 and 19 were positive. Authors speculate that because neonates roomed in with their mothers and were exclusively breastfed that horizontal transmission is likely, and that delayed symptom onset and varied presentation highlight the need for close monitoring.</td>
<td>Authors affiliated with a hospital in Mumbai, India describe the clinical course for 3 cases of neonatal COVID-19. Because all 3 neonates roomed in with their mothers and were exclusively breastfed, the authors suspect horizontal transmission. They also conclude that because presentation is highly varied, close monitoring of infants is critical.</td>
<td>Mascarenhas D, Goyal M, Mundhra N, Haribalakrishna A, Nanavati R, Nataraj G. COVID-19 infection in newborn infants. The Indian Journal of Pediatrics. 2020. doi:10.1007/s12098-020-05378-4</td>
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<td>27-Nov-20</td>
<td>Implementation of Hospital Practices Supportive of Breastfeeding in the Context of COVID-19 - United States, July 15-August 20, 2020</td>
<td>Morbidity and Mortality Weekly Report</td>
<td>Report</td>
<td>The authors sought to assess breastfeeding implementation across hospitals in the United States and its territories during the COVID-19 pandemic. The CDC conducted a COVID-19 survey (from July 15–August 20, 2020) among 1,344 hospitals that completed the 2018 Maternity Practices in Infant Nutrition and Care (mPINC) survey to assess current practices and breastfeeding support while in the hospital. Hospitals were asked about their actual or planned approach to managing maternity patients with suspected or confirmed COVID-19. Overall, the results showed that 178 (13.3%) hospitals encouraged skin-to-skin contact between mothers with suspected or confirmed COVID-19 and their newborns immediately after birth, and 883 (66.1%) decided this on a case-by-case basis. Among mothers with suspected or confirmed COVID-19, 14.0% of hospitals discouraged and 6.5% prohibited skin-to-skin care; 37.8% discouraged and 5.3% prohibited rooming-in; 20.1% discouraged direct breastfeeding but allowed it if the mother chose, and 12.7% did not support direct breastfeeding but encouraged feeding of expressed breast milk. In response to the COVID-19 pandemic, 17.9% of hospitals reported reduced in-person lactation support, and 72.9% reported discharging mothers and their newborns &lt;48 hours after birth. After discharge, 802 (59.7%) and 655 (48.7%) hospitals offered in-person and virtual breastfeeding consultations, respectively. The authors suggest that additional post-discharge breastfeeding support and newborn follow-up might be needed during the COVID-19 pandemic.</td>
<td>This report’s findings showed that because of the COVID-19 pandemic, 17.9% of hospitals reported that in-person lactation support had decreased, and 72.9% reported discharging mothers and their infants &lt;48 hours after birth. The authors suggest that additional post-discharge breastfeeding support and newborn follow-up might be needed during the COVID-19 pandemic.</td>
<td>Perrine CG, Chiang KV, Anstey EH, et al. Implementation of Hospital Practices Supportive of Breastfeeding in the Context of COVID-19 - United States, July 15-August 20, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(47):1767-1770. Published 2020 Nov 27. doi:10.15585/mmwr.mm6947a3</td>
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<td>27-Nov-20</td>
<td>Complementary Feeding Practices During COVID-19 Outbreak in Daerah Istimewa Yogyakarta, Indonesia, and Its Related Factor [Free Access to Abstract Only]</td>
<td>Asia Pacific Journal of Public Health</td>
<td>Original Research</td>
<td>This study explored the complementary feeding (CF) practices of women and their infants aged 6-24 months during the COVID-19 pandemic (April-May 2020) in the Daerah Istimewa Yogyakarta (DIY) province of Indonesia. Authors utilized a cross-sectional, observational study by engaging 192 mothers, ages 21 to 40 years, in an online survey for 4 weeks to determine factors that were associated with appropriate or inappropriate CF practices. Most of the participants (95%) continued to breastfeed their infants. Researchers found that a child’s young age (P = 0.019), secure household food security (P = 0.006), and mother’s adequate CF knowledge (P = 0.002) are significantly related to appropriate CF practices. Socio-economic status was not statistically related to CF practices, but was related to measures of food security. Previous outbreaks, such as the Ebola crisis, adversely impacted CF practices, and the economic disruptions of the COVID-19 pandemic could affect appropriate CF practices. Governments should intervene to ensure food security for vulnerable households.</td>
<td>This study explored the complementary feeding (CF) practices of women and their infants aged 6-24 months during the COVID-19 pandemic (April-May 2020) in the Daerah Istimewa Yogyakarta province of Indonesia. Researchers found that 95% of mothers continued breastfeeding their infants, and a child’s young age, secure household food security, and mother’s adequate CF knowledge were significantly related.</td>
<td>Widyaningrum R, Safitri RA, Ramadhanii K, Suryani D, Syarief F. Complementary Feeding Practices During COVID-19 Outbreak in Daerah Istimewa Yogyakarta, Indonesia, and Its Related Factor [published online ahead of print, 2020 Nov 27]. Asia Pac J Public Health. 2020;1010539520976518. doi:10.1177/1010539520976518</td>
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<td>Reproduction, fertility, pregnancy, IVF, Canada</td>
<td>27-Nov-20</td>
<td>A comprehensive review of the impact of COVID-19 on human reproductive biology, assisted reproduction care and pregnancy: a Canadian perspective</td>
<td>Journal of Ovarian Research</td>
<td>Original Article</td>
<td>The aim of this article was to summarize current knowledge regarding SARS-CoV-2, review what is known about the potential impact of COVID-19 on reproduction, fertility care, pregnancy and neonatal outcomes, and to evaluate the effects of the pandemic on reproductive care in Canada. Women of reproductive age (20-49 years) have accounted for 24.6% of all COVID-19 infections in Canada, and of these 2.5% were hospitalized, 0.5% admitted to ICU, and the mortality rate has been 0.06% (23/36,871). Low expression of ACE2 has been demonstrated in the fallopian tube, ovary, vagina, cervix, and endometrium. ACE2 receptors are much more abundant in the male reproductive system, and evidence so far suggests potential effects from COVID-19 infection. However, the influence of COVID-19 on the female and male reproductive system needs further investigation. At the beginning of the pandemic, the closure of IVF centers significantly contributed to the dramatically decreased IVF procedures performed. The authors conclude that since COVID-19 risk for women of reproductive age appears to be low, assisted reproductive technology procedures and fertility treatments should not be delayed due to the pandemic.</td>
<td>The authors review the epidemiology and pathophysiology of SARS-CoV-2 and the impact of COVID-19 on reproduction, fertility care, pregnancy, and neonatal outcomes in Canada.</td>
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<p>| SARS-CoV-2; HCoV-NL63; diagnostic uncertainty; pediatric; COVID-19 | 27-Nov-20 | Atypical HCoV-NL63 Infection in an Infant During the SARS-CoV-2 Pandemic | The Indian Journal of Pediatrics | Scientific Letter | In this letter, the authors present the case of a 7-month old male on antibiotics for pharyngitis, infected with the atypical human coronavirus, HCoV-NL63 infection during the COVID-19 pandemic. He presented with persistent high fever (40°C), mild erythematous pharyngitis and normal chest radiographs and blood tests, except for low hemoglobin, elevated C-reactive protein (81mg/dL) and erythrocyte sedimentation rate (27mm/h). Intravenous ceftriaxone with per os azithromycin was started. A differential multiplex PCR test was positive for HCoV-NL63 while a rhino-pharyngeal swab PCR tested negative for SARS-CoV-2. His fever subsided on day 7 of admission, with amelioration of laboratory findings by day 10. Through this case, the authors demonstrated difficulties in diagnostic certainties of SARS-CoV-2 in the presence of other coronaviruses. Thus, despite the presence of concurrent bacterial infections, healthcare providers should be open to infection by other coronaviruses in children, especially since they tend to be asymptomatic/present with milder symptoms. | The authors highlight the diagnostic uncertainty of SARS-CoV-2 with other coronaviruses using this case study of a 7-month old male, who had the atypical human coronavirus HCoV-NL63 infection in conjunction with pharyngitis. Utilizing this case study, they highlighted the importance of clinicians being open to the prospect of infections from other coronaviruses and bacterial sources other than SARS-CoV-2. | Domouzoglou EM, Tsabouri S, Vlahos AP, Kittas C, Gartzonika K, Siomou E, Makis A. Atypical HCoV-NL63 Infection in an Infant During the SARS-CoV-2 Pandemic. Indian J Pediatr. 2020 Nov 27:1–2. doi: 10.1007/s12098-020-03580-w. |</p>
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<td>Transmission pattern, social determinants of health, household sick contact, USA</td>
<td>27-Nov-20</td>
<td>SARS-CoV-2 Transmission in an Urban Community: The Role of Children and Household Contacts</td>
<td>Brief Report</td>
<td>Journal of the Pediatric Infectious Diseases Society</td>
<td>In this retrospective study, the authors aimed to describe transmission patterns of SARS-CoV-2 infection among households in a pediatric population in Detroit, USA. Using hospital electronic medical records, they identified all pediatric patients who tested positive for SARS-CoV-2 via nasopharyngeal swab using a PCR assay or serum antibody testing at The Children’s Hospital of Michigan between March 12 - June 15, 2020. Among 1264 children who performed SARS-CoV-2 testing, 71 (5.1%; median age 6 years, age range 0-17 years, 58% female) tested positive. 39 (55%) of the SARS-CoV-2-positive children were either asymptomatic or had mild disease, 83% (n=59) were hospitalized and nearly one quarter (severe 6% [n=4] and critical 17% [n=12]) had significant illness. Among the 71 children, only 30 (42%) identified a household sick contact (HHSC) prior to the onset of the study patient’s symptoms; a HHSC was defined as someone living with the child that either tested positive for SARS-CoV-2 or had symptoms suggestive of COVID-19. Of the 30 households with sick contacts present, 25 (83%) households had a contact that tested positive for SARS-CoV-2; the remaining 5 households had HHSCs with COVID-19 symptoms. In follow-up phone calls 61% of families were reached, and there was no reported illness in any household contact up to 6 weeks after the child became ill. Parent (23/30; 76%) was the most common index HHSC. The authors concluded that among children with identified HHSCs, there was no evidence of child-to-adult transmission and that less than 50% of children who tested positive for SARS-CoV-2 had a sick contact within the household.</td>
<td>This US study retrospectively analyzed household transmission patterns of 71 pediatric patients who tested positive for SARS-CoV-2. Among children with identified household sick contacts, there was no evidence of child-to-adult transmission and that less than 50% of children who tested positive for SARS-CoV-2 had a sick contact within the household.</td>
<td>Pitman-Hunt C, Leja J, Jiwani ZM, et al. SARS-CoV-2 Transmission in an Urban Community: The Role of Children and Household Contacts. J Pediatric Infect Dis Soc. 2020 Nov 27:piaa158. doi: 10.1093/jpids/piaa158.</td>
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<td>MUMs Study, China, mental health, maternal mental health, post-partum depression, anxiety, post-traumatic stress disorder; Hong Kong, Shanghai, China</td>
<td>27-Nov-20</td>
<td>Mental health of urban mothers (MUMs): A multicentre randomized controlled trial, study protocol</td>
<td>British Medical Journal (BMJ) Open</td>
<td>Original Research</td>
<td>This paper describes the study protocol for the Mental Health of Urban Mothers (MUMs) Study, an internet-based psychosocial peer-to-peer support intervention to reduce perinatal mental health disorders during the COVID-19 pandemic among pregnant women in Hong Kong and Shanghai. The authors intend to conduct a multisector, randomized controlled trial, wherein they will recruit pregnant women living in these 2 metropolitan areas who are then randomized to receive usual care or a web-based peer-to-peer support intervention. Effects of the intervention will be analyzed by the Edinburgh Postnatal Depression Score and Generalised Anxiety Disorder 7 scores, as well as pregnancy outcomes, and the impact of COVID-19 pandemic on maternal stress will be assessed using Impact Event Scale-R. Pregnant women are at an increased risk of mental health disorders, such as anxiety, depression, and post-traumatic stress disorder, which have been compounded by the COVID-19 pandemic. Authors predict that mental health interventions during pregnancy will improve maternal and infant outcomes.</td>
<td>This paper describes the study protocol for the Mental Health of Urban Mothers (MUMs) Study, an internet-based psychosocial peer-to-peer support intervention to reduce perinatal mental health disorders during the COVID-19 pandemic among pregnant women in Hong Kong and Shanghai. The authors predict that mental health interventions during pregnancy will improve maternal and infant outcomes.</td>
<td>Schwank SE, Chung HF, Hsu M, et al. Mental health of Urban Mothers (MUM) study: a multicentre randomised controlled trial, study protocol. BMJ Open. 2020;10(11):e041133. Published 2020 Nov 27. doi:10.1136/bmjopen-2020-041133</td>
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<td>COVID-19; general pediatric otolaryngology; novel techniques in pediatric otolaryngology; pandemic; pediatric otolaryngology; survey; telehealth; telemedicine; teleotoscopy; United States</td>
<td>26-Nov-20</td>
<td>Pediatric Otolaryngology Telehealth in Response to COVID-19 Pandemic: Lessons Learned and Impact on the Future Management of Pediatric Patients</td>
<td>Annals of Otology, Rhinology &amp; Laryngology</td>
<td>Original Research</td>
<td>This study examined utilization of telehealth visits for pediatric otolaryngology patients seen at a practice based in an academic medical center in the United States. Providers’ experiences with telehealth during the COVID-19 pandemic were also assessed. Utilization data from April 2020 was reviewed from clinic records, and a survey was distributed to 16 pediatric otolaryngology providers in April 2020. The authors found a decrease in overall visit volume in April 2020, with 877 visits compared to 2260 visits in April 2019. Of the visits in April 2020, 88% were telehealth visits, with 68% via video and 32% via telephone only, while no telehealth visits were conducted in April 2019. Only 12.6% (n = 2) of the providers had experience conducting visits via telehealth prior to April 2020. Initially providers anticipated a worse experience using telehealth, compared to their actual experience after one month of telehealth use, with an increase in the mean experience score of 3.56 on the scale of 0 to 10 (p &lt; 0.0002). The mean score providers gave for their likelihood of using telehealth after the COVID-19 pandemic was 7.56 on a scale of 0 to 10 (range 2-10, SD +/- 1.9). The authors noted limited capacity to conduct physical exams, otoscopy, nasal endoscopy, and nasolaryngoscopy exams as challenges to ongoing telehealth use.</td>
<td>The authors examined the utilization of telehealth visits at a pediatric otolaryngology practice in April 2020, along with providers’ experiences with telehealth during the COVID-19 pandemic. Overall visit volume decreased for April 2020 compared to April 2019; the majority of visits were performed via telehealth, and providers rated their experience with telehealth during the COVID-19 pandemic as better than they had anticipated.</td>
<td>Belcher RH, Phillips J, Virgin F, et al. Pediatric Otolaryngology Telehealth in Response to COVID-19 Pandemic: Lessons Learned and Impact on the Future Management of Pediatric Patients [published online ahead of print, 2020 Nov 26]. Ann Otol Rhinol Laryngol. 2020;3489420976163. doi:10.1177/0003489420976163</td>
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<td>postnatal care, primary care, COVID-19, England</td>
<td>26-Nov-20</td>
<td>Falling through the cracks: The impact of COVID-19 on postnatal care in primary care</td>
<td>British Journal of General Practice</td>
<td>Editorial</td>
<td>This editorial details the role of the COVID-19 pandemic on the provision of postnatal services for mothers in England, especially in minority populations who are also disproportionately affected by COVID-19 and risk of maternal death. The onset of the pandemic increased inequities in maternal postnatal care, with many women receiving only 0-2 home visits, many of which were made virtual. Fewer in-person postnatal check-ups threaten maternal mental health and survival, especially during the COVID-19 pandemic, which has seen a doubling in the proportion of women with perinatal mental health issues. As such, the authors assert that general practitioners must advocate for patients, and broader healthcare systems must prioritize postnatal care, to ensure that women and their children receive key health check-ups and do not &quot;fall through the cracks&quot; of the system.</td>
<td>This editorial discusses the currently inadequate state of postnatal care for new mothers in England due to COVID-19 pandemic restrictions. The role of postnatal care is key to maintaining positive maternal mental health outcomes and promoting maternal and child survival and must be prioritized by healthcare systems, especially for minority populations disproportionately affected by COVID-19.</td>
<td>MacGregor R, Hillman S, Bick D. Falling through the cracks: the impact of COVID-19 on postnatal care in primary care. Br J Gen Pract. 2020 Nov 26;70(701):578-579. doi: 10.3399/bjgp20X713573. PMID: 33199295; PMCID: PMC7679148.</td>
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<td>COVID 19; Maternal and child health; Pandemic; Pregnant women; Preparedness</td>
<td>26-Nov-20</td>
<td>The Changing Aspects of Motherhood in Face of the COVID-19 Pandemic in Low and Middle Income Countries.</td>
<td>Maternal and Child Health</td>
<td>Commentary</td>
<td>In this commentary, the authors advocated for the strengthening of existing healthcare systems and the prioritization of maternal health services during and beyond the COVID-19 pandemic in low- and middle-income countries (LMICs). They also argued that pregnant women are both directly affected (through illness and risk of adverse pregnancy outcomes) and indirectly affected (through disruption of and barriers to health services, redirection of care, and increased fear). The authors call for a multi-sectoral approach to addressing the needs of pregnant women and their families, and for increased support for maternal mental health and survival, especially during the COVID-19 pandemic.</td>
<td>This commentary thoroughly outlines the direct and indirect effects of COVID-19 on pregnant women and the additional challenges to those who live in low- and middle-</td>
<td>Kingesley, J. P., Vijay, P. K., Kumaresan, J., &amp; Sathiakumar, N. (2020). The Changing Aspects of Motherhood in Face of the COVID-19 Pandemic in Low- and Middle-Income Countries. Maternal and child</td>
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<td>Mental health, pregnancy, depression, stress, Mexico</td>
<td>26-Nov-20</td>
<td>The impact of the COVID-19 pandemic on depression and stress levels in pregnant women: a national survey during the COVID-19 pandemic in Mexico</td>
<td>Journal of Maternal-Fetal and Neonatal Medicine</td>
<td>Original Research</td>
<td>This study aimed to assess the impact of the COVID-19 pandemic on the levels of stress and depression of pregnant women in Mexico. A web-based cross-sectional self-reported questionnaire was carried out in 10 states of Mexico from May 5-June 12, 2020. The perception of stress was assessed using the Perceived Stress Scale (PSS), while depressive symptoms were evaluated using the Edinburgh Postnatal Depression Scale (EPDS). The main outcomes were depression, defined as a depression score equal to or greater than 14 on the EPDS, and high stress levels, defined by a score equal to or greater than 27 on the PSS. 549 women were surveyed with 503 included in the analysis. The mean maternal age at survey was 28.1 (IQR: 6.25) years old and the mean gestational age was 27.9 weeks [range not provided]. The mean PSS score was 24. 33.2% (n=167) of participants had a score equal to 27 points or greater and were considered highly stressed. The mean EPDS score was 9. A total of 17.5% (n &gt; 88) participants had 14 points or greater and were considered depressed. Stress levels were higher at later gestational ages (p=0.008). The authors conclude that this data demonstrates the impact of the COVID-19 pandemic on mental health in pregnant women reflected by high perceived stress and depression levels.</td>
<td>In this study of the mental health of pregnant women in Mexico during the COVID-19 pandemic using a self-reported web-based survey, 33.2% met criteria for high stress and 17.5% for depression.</td>
<td>Medina-Jimenez V, Bermudez-Rojas ML, Murillo-Bargas H, et al. The impact of the COVID-19 pandemic on depression and stress levels in pregnant women: a national survey during the COVID-19 pandemic in Mexico. J Matern Fetal Neonatal Med. 2020 Nov 26:1-3. doi: 10.1080/14767058.2020.1851675.</td>
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<td>Breastfeeding, initiation, complementary feeding, formula, depression scores, EPDS, COVID-19, lockdown, Italy</td>
<td>26-Nov-20</td>
<td>Infant feeding initiation practices in the context of COVID-19 lockdown</td>
<td>Early Human Development</td>
<td>Original Article</td>
<td>The authors investigated psycho-emotional distress, tested by the Edinburg Postnatal Depression Scale (EPDS) in early postpartum and breastfeeding initiation practices among quarantined women who gave birth in a COVID-19 'hotspot' in Northeastern Italy. Pregnant women &gt; 18 years old (n = 163) who delivered a singleton, healthy neonate at term at Policlinico Abano Terme, Italy, between February 22 and May 18, 2020, were compared to a control-matched group (n=154) who delivered at the hospital during the same period in 2019. Both groups completed the EPDS questionnaire before discharge on postpartum day 2, and the association between EPDS scores and breastfeeding practices. Findings from this study showed that women giving birth during the COVID-19 lockdown in the 'hotspot' area of Northeastern Italy, between February 22 and May 18, 2020, had significantly lower exclusive breastfeeding rates and significantly higher EPDS scores &gt; 12.</td>
<td>Vincenzo Z, Tortora D, Guerrini P, et al. Infant feeding initiation practices in the context of COVID-19 lockdown. Early Human Development. 2020 Nov 26. <a href="https://doi.org/10.1016/j.earldev.2020.105286">https://doi.org/10.1016/j.earldev.2020.105286</a></td>
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<td>Pregnancy, collaborative, regional registry, maternal outcomes, neonatal outcomes, Michigan, USA</td>
<td>26-Nov-20</td>
<td>Starting a regional collaborative research group for COVID-19 in pregnancy: the Southern Michigan experience</td>
<td>Journal of Perinatal Medicine</td>
<td>Original Article</td>
<td>In this article, the authors review current literature on COVID-19 in pregnancy and describe the process of initiating a regional, collaborative, observational study with a coordinating center in Michigan, USA, complete with standardized data collection and a shared database. In a US CDC report comparing COVID-19 in pregnant and non-pregnant women, pregnant women were hospitalized at a higher rate (31.5 vs. 5.8%) compared to non-pregnant cases. Several reports have shown higher rates of ICU admission and mechanical ventilation for pregnant women. The impact, if any, of pregnancy on SARS-CoV-2 PCR testing accuracy is unclear. Given the high rate of co-morbidities in pregnant women in the US, the role of co-morbidities vs. pregnancy in explaining poor outcomes in this group needs to be further clarified. Neonatal death rates at ~0.3–0.5% appear consistent with non-COVID rates. High rates of COVID-19 in Michigan [dates not reported] prompted 14 obstetric services with a total of approximately 50,000 deliveries per year to join a collaborative establishing a regional registry of pregnant patients with COVID-19. It is estimated that data for at least 400 cases of COVID-19 in pregnancy will be collected over a two year study period, suggesting the possibility of a large enough sample size to assess low frequency outcomes, such as stillbirth and neonatal death.</td>
<td>The authors review data on COVID-19 in pregnancy and describe the development of a regional, collaborative, observational study in Michigan, USA. The authors hope the joint registry will allow for assessment of low frequency outcomes, such as stillbirth and neonatal death.</td>
<td>Bahado-Singh R, Hassan SS, Szymanska M, Sokol RJ. Starting a regional collaborative research group for COVID-19 in pregnancy: the Southern Michigan experience. J Perinat Med. 2020 Nov 26;48(9):883-891. doi: 10.1515/jpm-2020-0399.</td>
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<td>COVID-19; children; emotional and behavioral changes; Italy</td>
<td>25-Nov-20</td>
<td>Riders on the Storm: Did COVID-19 Change Children’s Emotional and Behavioral Profile? A Brief Exploratory Survey</td>
<td>The Indian Journal of Pediatrics</td>
<td>Letter to the Editor</td>
<td>The authors describe a cross-sectional study to investigate emotional/behavioral changes in children in Italy during the COVID-19 pandemic. A self-reported questionnaire was completed between April 5 - June 5, 2020, by parents of 70 children (age range=6-15 years, mean age=9.07 ± 2.481 years; n=56 male, n=14 female) who underwent a psycho-diagnostic assessment at a Child Neuropsychiatric Clinic in Rome during 2019. The questionnaire included socio-demographic data and clinical information about the first evaluation and asked parents whether there had been changes of habits within the family and their children’s daily routines because of COVID-19-related restrictions. The most frequent diagnoses included emotional disorders in 28.6% of cases, attention deficit hyperactivity disorder in 24.3%, and behavioral disorders in 10%. Using the Child Behavior Checklist school-age version (CBCL), the results were compared to those from the previous evaluation. A statistically significant decrease in the average score of internalizing problems in the post-lockdown period (t(44) = 2.262; p &lt; 0.05) was observed, while there were no statistically significant differences in the externalizing CBCL score (t(44) = -0.478; p 0.635). Therefore, clinical improvements in children diagnosed with internalizing problems were observed in the post-lockdown period, likely due to the strengthened family bond. On the other hand, externalizing problems showed no changes during the lockdown, likely due to social limitations.</td>
<td>The authors describe a survey-based, cross-sectional study to investigate emotional/behavioral changes in children in Italy during the COVID-19 pandemic. Clinical improvements in children diagnosed with internalizing problems were observed in the post-lockdown period, likely due to the strengthened family bond. On the other hand, externalizing problems showed no changes during the lockdown, likely due to social limitations.</td>
<td>Zaccaria V, Aricó M, Vigliante M. Riders on the Storm: Did COVID-19 Change Children’s Emotional and Behavioral Profile? A Brief Exploratory Survey. Indian J Pediatr. 2020.1. doi:10.1007/s12098-020-03574-8.</td>
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<td>anxiety; COVID-19; depression; insomnia; pregnant women</td>
<td>25-Nov-20</td>
<td>Mental Health of Pregnant and Postpartum Women During the Coronavirus Disease 2019 Pandemic: A Systematic Analysis</td>
<td>Frontiers in Psychology</td>
<td>Systematic review</td>
<td>This systematic review and meta-analysis aimed to quantify the influence of the COVID-19 pandemic on the mental health of pregnant and postpartum women, and to identify specific vulnerable groups among this population of women. Studies published from January 2019-September 19, 2020, were identified by search of PubMed, EMBASE, and World of Science databases. Letters, case reports and other reviews were excluded. A total of 23 studies involving 20,469 women (pregnant and postpartum) during the pandemic and 3,677 pregnant. This systematic review and meta-analysis summarized the prevalence of depression, anxiety, psychological distress, and insomnia in pregnant and postpartum women during the COVID-19 pandemic, and identified</td>
<td>Yan H, Ding Y, Guo W. Mental Health of Pregnant and Postpartum Women During the Coronavirus Disease 2019 Pandemic: A Systematic Review and Meta-Analysis. Front Psychol. 2020 Nov 25;11:617001. doi: 10.3389/fpsyg.2020.617001.</td>
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<td>women prior to the pandemic were included. The median percentage of study participants ≥ 35 years old was 15.01%. [Other age information not described]. The authors report prevalence rates of anxiety, depression, psychological distress, and insomnia among pregnant women during the COVID-19 pandemic of 37% (95% CI 25–49%), 31% (95% CI 20–42%), 70% (95% CI 60–79%), and 49% (95% CI 46–52%), respectively. The prevalence of postpartum depression during the COVID-19 pandemic was 22% (95% CI 15–29%). The pooled relative risks of anxiety and depression in pregnant women during the pandemic were 1.65 (95% CI: 1.25–2.19) and 1.08 (95% CI: 0.80–1.46), respectively, relative to those in pregnant women in the same locations before the COVID-19 pandemic. Multigravid women and women in the first and third trimesters of pregnancy were found to be more vulnerable to mental health conditions during the pandemic. The authors suggest tailored interventions, particularly for higher-risk women, to lessen the effects of the pandemic on pregnant and postpartum women’s health.</td>
<td>characteristics of women at higher risk. They found that compared to 2019, the risk of anxiety was significantly higher and that multigravid women and women in the first and third trimesters of pregnancy were more vulnerable to mental health impacts of the pandemic.</td>
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<td>Antepartum, COVID-19, New York City, ICU, intensive care unit, SVD, spontaneous vaginal delivery, USA</td>
<td>25-Nov-20</td>
<td>Expectant Management of a Critically Ill Pregnant Patient with COVID-19 with Good Maternal and Neonatal Outcomes [free access to abstract only]</td>
<td>Case Reports in Obstetrics and Gynecology</td>
<td>Case Report</td>
<td>A 30-year-old female in New York City (USA) presented at 26 weeks’ gestation with acute severe respiratory distress that required intubation and ICU admission (dates not specified), with eventual positive SARS-CoV-2 IgG antibody testing 2 weeks after discharge (approximately 7 weeks after admission), despite repeated negative SARS-CoV-2 PCR testing. Through an integration of obstetrical knowledge, critical care, and comparing outcomes from similar cases in the literature, the authors decided to expectantly manage her pregnancy and did not administer antenatal steroids. She was extubated after 23 days of mechanical ventilation and recovered from her respiratory illness. She had a spontaneous vaginal delivery of a male infant at 39 weeks’ gestation with excellent maternal and fetal outcomes at delivery. The authors emphasize that collaboration of care teams is essential to making decisions regarding timing of delivery, treatment options, and administration of steroids in cases of SARS-CoV-2 infection. The authors report that this is the first published case report of a critically ill pregnant patient with COVID-19 in which delivery was deferred, and a full recovery was observed, with a vaginal delivery at term.</td>
<td>In this case report, a 30-year-old pregnant woman in New York City (USA) was expectantly managed during acute severe respiratory distress from COVID-19. The woman had a normal spontaneous vaginal delivery with no poor outcomes.</td>
<td>Alsayyed F, Hastings V, Lederman S. Expectant Management of a Critically Ill Pregnant Patient with COVID-19 with Good Maternal and Neonatal Outcomes. Case Rep Obstet Gynecol. 2020;2020:8891787. Published 2020 Nov 25. doi:10.1155/2020/8891787</td>
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<td>Severe COVID-19, pregnancy, dexamethasone, prone positioning, remdesivir, ARDS, ventilation</td>
<td>25-Nov-20</td>
<td>Use of dexamethasone, remdesivir, convalescent plasma and prone positioning in</td>
<td>Case Reports in Women’s Health</td>
<td>Case Report</td>
<td>The authors report the case of a 42-year-old woman at 26 weeks of gestation with ARDS secondary to COVID-19 treated with dexamethasone, remdesivir, convalescent plasma, and mechanical ventilation. This patient with no underlying medical history presented to the hospital with one week of increasing dyspnea and a productive cough, fever, and a positive SARS-CoV-2 PCR test the day prior. She subsequently received mechanical ventilation.</td>
<td>The authors present the case of a pregnant woman with severe COVID-19 who was subsequently delivered and recovered after prone positioning, mechanical ventilation, and women in the first and third trimesters of pregnancy were more vulnerable to mental health impacts of the pandemic.</td>
<td>Jacobson J, Antony K, Beninati M, Alward W, Hoppe KK. Use of dexamethasone, remdesivir, convalescent plasma and prone positioning in the treatment of severe COVID-19 infection in pregnancy: A case report. Case Reports in Women’s Health. 2020;2020:8891787.</td>
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<td>COVID-19 maternal health, funding, politics</td>
<td>25-Nov-20</td>
<td>Why COVID-19 strengthens the case for a dedicated financing mechanism to scale up innovation in women’s, children’s, and adolescents’ health</td>
<td>The Lancet</td>
<td>Commentary</td>
<td>The COVID-19 pandemic has exacerbated the inequities in the delivery of services related to maternal and child health. Authors argue that a dedicated financing mechanism for scaling up innovations in women’s, children’s, and adolescent’s health is critical. They assert that the rapid COVID-19 response was possible only through dedicated financing, and that without such a commitment for child and maternal health, inequities in care will only rise.</td>
<td>Authors make the case that a dedicated financing mechanism for child and maternal health is needed globally. Further, they argue that it can be done if supported by political will, as evidenced by the rapid funding of COVID-19 pandemic-related projects.</td>
<td>Reports in Womens Health. 2020. doi:10.1016/j.rew.2020.e00273</td>
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<td>COVID-19; Coronavirus; Resilience; Risk; Caregiver well-being; Mental health; United States of America</td>
<td>25-Nov-20</td>
<td>Risk and resilience of well-being in caregivers of young children in response to the COVID-19 pandemic</td>
<td>Translational Behavioral Medicine (TBM)</td>
<td>Article</td>
<td>This study used a risk and resilience model to evaluate the effects of the COVID-19 pandemic on the mental health of 286 US caregivers with children aged 0-5. Families were recruited from email lists of online children’s program participants from a university medical center in a Southeastern US city, and through a local community partnership. Participants answered surveys on stress, mental health, self-efficacy, coping strategies, and family/child needs in April-May 2020. The authors found that child psycho-social concerns directly impact caregiver mental</td>
<td>This study of 286 caregivers in the Southeastern US with children aged 0-5 used a series of surveys to assess caregivers’ well-being related to their children’s needs in the COVID-19 pandemic in April-May.</td>
<td>Davidson B, Schmidt E, Mallar C, et al. Risk and resilience of well-being in caregivers of young children in response to the COVID-19 pandemic. Transl Behav Med. 2020;ibaa124. doi:10.1093/tbm/ibaa124</td>
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<td>SARS-CoV-2; USA; Pennsylvania; COVID-19; pediatric; diabetes; ketoacidosis</td>
<td>25-Nov-20</td>
<td>A trend towards early increases in ketoacidosis at presentation of pediatric type 1 diabetes during the coronavirus-2019 pandemic</td>
<td>Diabetic Medicine</td>
<td>Letter</td>
<td>To document the delayed presentation of keto-acidosis during the COVID-19 pandemic in a large diabetes care center in the USA, the authors conducted a retrospective chart review of children (&lt;18 years) presenting to The Children’s Hospital of Philadelphia between March 16-July 21, 2020 with a new diagnosis of auto-antibody-positive diabetes. They compared this to the same period in 2017, 2019, and 2019. There were 73 new cases of type-1 diabetes (T1D) between March 16-July 21, 2020, lower than the average of 92.7 cases in the previous three years. A larger proportion of patients presented with keto-acidosis compared to previous years (45.2% vs 37.9%; 15% vs 11.6% for severe keto-acidosis), but the difference was not statistically significant (p=0.3 and 0.4, respectively). More children with government insurance (low socio-economic classes) presented with severe keto-acidosis compared to those on private insurance in 2020, however, the difference was not statistically significant (27.3% vs 7%, p=0.08). Of those diagnosed with T1D in 2020, 68 were tested for SARS-CoV-2 and 2 were positive, neither of whom had any known exposures. One of the two patients, a 3-year old female, presented with mild keto-acidosis (pH 7.1, bicarbonate 10mEq/L). The second patient, a 9-year old male, reported polydipsia, polyuria, and low-grade fever, but no other symptoms. The authors attributed the increased incidence of severe keto-acidosis in children from a low socio-economic status as due to the initial hesitancy in seeking care. Thus, the authors recommended parents, doctors, and patients remain cognizant of the symptoms reflective of early T1D.</td>
<td>2020. The results of the survey analysis showed that child psycho-social concerns directly impact caregiver mental health symptoms, while other pandemic stressors indirectly impact caregiver mental health and self-efficacy. The use of multiple coping strategies in caregivers was associated with higher levels of self-efficacy to manage COVID-19-related stress.</td>
<td>Hawkes CP, Willi SM. A trend towards early increases in ketoacidosis at presentation of pediatric type 1 diabetes during the coronavirus-2019 pandemic. Diabet Med. 2020 Nov 25:e14461. doi: 10.1111/dme.14461. Epub ahead of print. PMID: 33236448.</td>
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In this article, the authors present an overview of pediatric immune responses, virologic and genetic factors, and inflammatory syndromes that may explain the pathophysiology of COVID-19 in children. It has been speculated that younger children suffer less severe acute COVID-19 than adults due to reduced ACE2 expression. In addition, children have adaptive immune responses that are more Th2 polarized. Th2 responses downmodulate Th1 responses, which may ameliorate the cytokine “storm” seen in adults with COVID-19. Previous infection or co-infection with other respiratory pathogens may further modify the pediatric immune response to SARS-CoV-2. In a very small subset of children, a diffuse set of inflammatory syndromes are seen several weeks after infection with COVID-19. These entities may develop in a genetically vulnerable population with susceptibilities that are similar to those already illuminated for other inflammatory syndromes (e.g. Kawasaki Disease), from which the authors draw parallels. Another possibility is that these inflammatory syndromes occur because of IgA complexes or as a result of a Th1-like response to COVID-19 antigens that were slow to develop after infection. Overall, children have had markedly different clinical presentations and outcomes compared to adults with SARS-CoV-2, and the authors illuminate how host and genetic factors may contribute to the pediatric clinical syndromes.

In this article, the authors explore the immune responses, virologic and genetic factors, and inflammatory syndromes that may explain the pathophysiology of COVID-19 in children. They highlight the predominance of Th2 adaptive immune responses in children, the frequency of co-infection with other viral pathogens, and the genetic susceptibilities identified in inflammatory syndromes similar to MIS-C.
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<td>MIS-C, COVID-19, children, IV immunoglobulin, treatment</td>
<td>24-Nov-20</td>
<td>Multisystem Inflammatory Syndrome of Children Related to SARS-CoV-2: A Novel Experience in Children with a Novel Virus</td>
<td>Indian Journal of Critical Care Medicine</td>
<td>Editorial</td>
<td>The author summarizes current understanding of MIS-C related to SARS-CoV-2 infection. Although MIS-C is similar to Kawasaki disease, there are notable differences. MIS-C tends to affect older children and adolescents, whereas Kawasaki disease typically affects children &lt;5 years. SARS-CoV-2 is not usually detected in the respiratory tract of patients with MIS-C, and often appears in children with asymptomatic infection. Treatment of MIS-C is largely supportive with IV immunoglobulin, steroid, and biologics with or without mechanical ventilation. The role of IV immunoglobulins in managing MIS-C is still being investigated as it is popular in the West, but in a resource-limited setting steroids may reduce death in up to a third of patients on ventilators. There is no consensus on which of these agents or treatment strategy is optimal, and the choice of drug depends on clinician preference, cytokine panel results, and availability. MIS-C has been reported in low- and middle-income countries, and western literature highlights its prevalence among the disadvantaged socio-economic class. The authors argue a need for randomized clinical trials to determine which course of treatment is most effective.</td>
<td>This article summarizes current literature on MIS-C and outlines treatment strategies. However, there is no consensus on effective treatment, and more effective strategies are cost-prohibitive in lower-income nations where MIS-C is more prevalent. Randomized clinical trials are necessary to determine best practice for treating MIS-C.</td>
<td>Bhattacharyya P. Multisystem Inflammatory Syndrome of Children Related to SARS-CoV-2: A Novel Experience in Children with a Novel Virus. Indian J Crit Care Med. 2020;24(11):1010-1011. doi:10.5005/jp-journals-10071-23652</td>
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<td>pregnant women; coronavirus; infectious disease transmission; vertical transmission; obstetric management; SARS-CoV-2; systematic review</td>
<td>24-Nov-20</td>
<td>Maternal Coronavirus Infections and Neonates Born to Mothers with SARS-CoV-2: A systematic review</td>
<td>Healthcare Review</td>
<td>These authors conducted a systematic review of available literature on 31 October 2020 to understand the impact of COVID-19 on perinatal maternal and fetal outcomes. 70 studies were included, comprising 1457 pregnant women diagnosed with COVID-19 and 1042 newborns of diagnosed mothers. Of the infected women, 7.9% (n=116) were asymptomatic. Fever (n=695, 47.7% of symptomatic women), cough (n=647, 44.4%), and nausea (n=148, 10.2%) were the most common symptoms. Most of the women were in the third trimester (n=1339, 91.9%). 3.4% (n=36) of infants were delivered by emergency C-sections, 34.9% (n=364) were born vaginally, and 57.3% (n=597) were born by non-emergent C-sections [the remainder of deliveries are not accounted for in this article]. The most common comorbidities were obesity, hypertensive disorders, diabetes, asthma, and pre-eclampsia; other pregnancy complications included gestational diabetes and gestational hypertension. Of the women diagnosed with COVID-19, 4.6% (n=68) were admitted to ICU departments. Cases of premature births, maternal deaths, premature rupture of membranes, intra-uterine fetal death, neonatal death, miscarriage, decreased fetal movements, and severe neonatal asphyxia were found in cases of SARS-CoV-2 infected mothers. 3.7 % (n=39) of the newborns were positive for SARS-CoV-2, although testing times varied [there is a discrepancy between this number and the number of neonates who tested positive for SARS-CoV-2 stated in the authors’ conclusion]. SARS-CoV-2 RNA A systematic review of 70 studies, including 1457 SARS-CoV-2 positive pregnant women and 1042 newborns, was undertaken to investigate the signs and symptoms, type of delivery, comorbidities, clinical outcomes for mother and neonate, and the possibility of vertical transmission associated with COVID-19. Only 39 cases of newborns infected with SARS-CoV-2 were found [there is a discrepancy between data in the results section and in the authors’ conclusion]. SARS-CoV-2 RNA was found in 13 placenta samples and 6 breast milk samples.</td>
<td>Amaral WND, Moraes CL, Rodrigues APDS, Noll M, Arruda JT, Mendonça CR. Maternal Coronavirus Infections and Neonates Born to Mothers with SARS-CoV-2: A Systematic Review. Healthcare (Basel). 2020;8(4):E511. Published 2020 Nov 24. doi:10.3390/healthcare8040511</td>
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<td>COVID-19; SARS-CoV-2; children; gastrointestinal symptoms.</td>
<td>24-Nov-20</td>
<td>Gastrointestinal involvement in children with SARS-CoV-2 infection: An overview for the pediatrician</td>
<td>Pediatric Allergy and Immunology</td>
<td>Article</td>
<td>This brief paper reviews and discusses the available literature regarding gastro-intestinal involvement in children with COVID-19. The authors describe gastro-intestinal symptoms in children, pathogenesis of gastro-intestinal symptoms, and the possibility of fecal-oral transmission. Gastro-intestinal symptoms are common findings in children with SARS-CoV-2 infection. Diarrhea and vomiting were generally reported in 8%-9% of 1271 cases across 18 studies, reaching more than 20% in some studies. A study from China demonstrated that children with gastro-intestinal involvement were younger (median 14 vs 86 months; p&lt;0.05) than those without, but the severity of the disease was similar between the 2 groups of subjects. Fecal shedding has been reported in 20%-30% of children and has been observed in both those with and those without overt gastro-intestinal symptoms. Moreover, prolonged fecal shedding, lasting several days after a negative RT-PCR result on respiratory swabs, has been reported with variable frequency in children with SARS-CoV-2 infection. These observations raise questions regarding the possibility of oral-fecal SARS-CoV-2 transmission and the possible role of children in spreading the infection, particularly when they are asymptomatic or have gastro-intestinal complaints in children.</td>
<td>This paper reviews and discusses the available literature regarding gastro-intestinal involvement in children with COVID-19. The authors emphasize possible oral-fecal transmission, since COVID-19 can present with gastro-intestinal complaints in children.</td>
<td>Chiappini E, Licari A, Motisi MA, et al. Gastrointestinal involvement in children with SARS-CoV-2 infection: An overview for the pediatrician. Pediatr Allergy Immunol. 2020;31 Suppl 26:92-95. doi:10.1111/pai.13373</td>
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<td>COVID-19; adolescents; substance use; risk factors; United States</td>
<td>24-Nov-20</td>
<td>Adolescent substance use: Challenges and opportunities related to COVID-19</td>
<td>Journal of Substance Abuse Treatment</td>
<td>Review Article</td>
<td>This review article describes challenges, opportunities, and treatment considerations related to substance use in adolescents during the COVID-19 pandemic. Risk factors for adolescent substance use that are heightened during the pandemic are outlined, including isolation, life stress, disconnection from school, boredom, disruption of expected milestones, limited engagement in socially meaningful activities, and increased exposure to substance use in the family. Challenges for delivery of substance use services to adolescents include less ability to remotely monitor substance use, privacy issues, and non-adherence with digital treatment. Despite these exacerbated risk factors and challenges, there are some opportunities for decreasing adolescent substance use amidst the COVID-19 pandemic, including disruption of social networks associated with substance use, limited access to substances while at home, increased usage of virtual care, and the potential for increased treatment adherence. The authors of this study describe how risk factors for adolescent substance use are exacerbated during the COVID-19 pandemic. Additionally, they note challenges and opportunities related to treatment for adolescent substance use. Considerations for providing such treatment to adolescents during the COVID-19 pandemic are provided.</td>
<td>The authors of this study describe how risk factors for adolescent substance use are exacerbated during the COVID-19 pandemic. Additionally, they note challenges and opportunities related to treatment for adolescent substance use. Considerations for providing such treatment to adolescents during the COVID-19 pandemic are provided.</td>
<td>Sarvey D, Welsh JW. Adolescent substance use: Challenges and opportunities related to COVID-19 [published online 2020 Nov 24]. J Subst Abuse Treat. 2020;108212. doi:10.1016/j.jsat.2020.108212</td>
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### Key Terms
- Pregnancy
- Zinc
- Magnesium
- Copper
- Infection
- COVID

### Key Terms
- Isolation
- China
- Infection control
- Obstetrics
- Anesthesia

### Date Published
- 24-Nov-20

### Journal / Source
- Minerva Anestesiologic a

### Type of Publication
- Original Article

### Summary & Key Points
In this article, the authors make suggestions regarding the management of obstetric anesthesia for pregnant women with COVID-19 in China based on current evidence from COVID-19 case care and previous experiences from other infectious diseases. They include reviews of the following topics: pre-anesthesia evaluation, infection control measures, anesthetic techniques, physiologic considerations, and newborn and postnatal management. They propose that the key principles of obstetric anesthesia should include careful pre-anesthesia screening and evaluation, multi-disciplinary based teamwork, detailed plans, strict peripartum infection control, and psychological support for both the patient and the anesthesiologist. In addition, the authors of this article recommend that neonates of COVID-19 mothers should be separated and avoid breastfeeding.

### Specific Observations
The authors review considerations regarding obstetric anesthesia for pregnant women with COVID-19 in China. They recommend pre-anesthesia screening and evaluation, multi-disciplinary based teamwork, detailed plans, strict peripartum infection control, separation of mother/child and avoidance of breastfeeding, and psychological support for both the patient and the anesthesiologist.

### Full Citation

### Key Terms
- COVID-19
- Copper
- Infection
- Magnesium
- Pregnancy
- Zinc

### Date Published
- 24-Nov-20

### Journal / Source
- Biological Trace Element Research

### Type of Publication
- Original Research

### Summary & Key Points
The authors evaluate zinc, copper, and magnesium status in pregnant women diagnosed with SARS-CoV-2 infection in comparison to the trimester clinical outcomes of healthy pregnant women. They included pregnant women admitted to the Department of Obstetrics and Gynecology, Turkish Ministry of Health Ankara City Hospital from May 11 to August 30, 2020, in their analysis. The authors compared the clinical and laboratory characteristics of 100 pregnant women with COVID-19 to 100 healthy pregnant women (control group), divided by trimesters. Their results showed that serum zinc levels and the zinc/copper (Zn/Cu) ratio were significantly lower, while serum copper and magnesium levels were significantly higher in the COVID-19 group than in the control group in the first and third trimesters. However, in the second trimester, COVID-19 pregnant women had lower serum zinc and copper levels than controls, whereas serum magnesium levels did not differ significantly between both groups. Of note, disease severity correlated with Zn/Cu ratio in COVID-19 patients (p=0.018, r=-0.243). Furthermore, serum zinc and Zn/Cu ratio levels were negatively correlated with acute phase markers such as IL-6, Erythrocyte Sedimentation Rate, procalcitonin, and C-reactive protein.

### Specific Observations
This study showed that in pregnant women diagnosed with COVID-19 in the first and third trimesters, serum zinc levels decreased, and serum copper and magnesium levels increased compared to healthy pregnant women. The authors also observed a correlation between zinc/copper ratio and COVID-19 severity in pregnant women.

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<td>SARS-CoV-2; COVID-19; pediatric; upper respiratory tract; anosmia; ageusia</td>
<td>24-Nov-20</td>
<td>Upper airway involvement in pediatric COVID-19</td>
<td>Pediatric Allergy and Immunology</td>
<td>Supplement Article</td>
<td>Through this article, the authors shed light on the upper respiratory involvements in pediatric COVID-19. The symptomology of COVID-19 falls on a spectrum for the pediatric cohort, ranging from asymptomatic cases to severe cases with bilateral lung involvement and respiratory distress which may require patient intubation and ICU transfer. The typical clinical presentation involves persistent fever, cough, dyspnea, myalgias, and arthralgias. However, some cases in Europe were accompanied by atypical symptoms indicating upper respiratory involvement via olfactory and gustatory dysfunctions, which may be the symptoms of SARS-CoV-2 infection. Much like other coronaviruses, SARS-CoV-2 has a neuro-invasive potential, invading the midbrain, cortex, basal ganglia and olfactory bulb, the latter utilizing ACE-2 receptors. This may also cause the symptoms of anosmia and ageusia observed in COVID-19 patients through olfactory bulb damage. The authors also recommend diagnostic approaches to assess ageusia (Questionnaire of Olfactory Disorders- Negative Statements) and anosmia (Smell Identification tests, Sniffin’ Sticks Test), particularly the usage of the Pediatric Smell Wheel for the pediatric cohort who tested positive for SARS-CoV-2. The authors caution against the usage of nasal corticosteroids for COVID-19 anosmia except in the case of allergic rhinitis since sneezing can further promote viral spread. Thus, the authors recommend the development of specific tests to determine anosmia and ageusia in the pediatric population, in addition to vigilance towards upper respiratory symptoms in children with COVID-19.</td>
<td>In this article, the authors highlight the upper respiratory involvement in SARS-CoV-2 infections, which have neuro-invasive potential that can result in ageusia and anosmia through olfactory bulb damage. The authors also recommend diagnostic tests for the detection of anosmia and ageusia, since the pediatric cohort displays milder symptomology and these may be the only symptoms present in SARS-CoV-2 infections in children.</td>
<td>Parisi GF, Brindisi G, Indolfi C, et al. Upper airway involvement in pediatric COVID-19. Pediatr Allergy Immunol. 2020 Nov;31 Suppl 26:85-88. doi: 10.1111/pai.13356. PMID: 33236430.</td>
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<td>Pregnancy; childbirth; COVID-19; stress; partner; Sweden</td>
<td>24-Nov-20</td>
<td>Pregnant under the pressure of a pandemic: a large-scale longitudinal survey before and during the COVID-19 outbreak</td>
<td>European Journal of Public Health</td>
<td>Original research</td>
<td>A longitudinal survey at a Swedish hospital starting six months before (16 September 2019) and continuing during the COVID-19 outbreak (until 25 August 2020) was conducted to determine the effect of the COVID-19 pandemic on pregnant women regarding stress about their own health, that of their partner and infant. 3,113 pregnant women and partners consented at 12-19 weeks gestational age, where they filled out a background questionnaire. Two follow-up questionnaires were completed during pregnancy, followed by three postpartum questionnaires. Questions on health-related worries and frequency of thinking about COVID-19 and its consequences were answered on a seven-point Likert scale. Open-ended questions were also included. Pregnant women experienced dramatically increased worries for their own health, as well as for their partner’s and their child’s health at the beginning of the pandemic. The worries remained at higher than usual levels throughout the pandemic. Similar, but less dramatic changes, were seen among partners. The only group of pregnant women with no increase in worry for</td>
<td>The study at a hospital in Sweden measured pregnant women and their partner’s worries about their own health, that of their partner and their unborn child at six time points during pregnancy and postpartum. The authors report that both pregnant women and partners have experienced increased worries since the pandemic began, though pregnant women experience worries at higher rates than their partners.</td>
<td>Naurin E, Markstedt E, Stolle D, Enström D, Wallin A, Andreasson I, Attebo B, Eriksson O, Martinsson K, Elen D, Linden K, Sengpiel V. Pregnant under the pressure of a pandemic: a large-scale longitudinal survey before and during the COVID-19 outbreak. Eur J Public Health. 2020 Nov 24:ckaa223. doi: 10.1093/eurpub/ckaa223. Epub ahead of print. PMID: 33231625.</td>
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<td>COVID-19; SARS-CoV-2; children; carriage; daycare; Belgium</td>
<td>24-Nov-20</td>
<td>No SARS-CoV-2 carriage observed in children attending daycare centers during the first weeks of the epidemic in Belgium</td>
<td>Journal of Medical Virology</td>
<td>Short Communication</td>
<td>This study investigated the possible role of daycare-attending children in the transmission of SARS-CoV-2 during the first weeks of the COVID-19 epidemic in Belgium. A random sample of children (n=84, age range= 6-30 months) attending 8 daycare centers spread over 6 Belgian provinces from 2-12 March 2020, were subjected to in-house SARS-CoV-2 RT-PCR testing. 52.4% were girls and 47.6% boys. The majority of the children (87.8%) stayed at least twice a week in daycare. All samples were negative for SARS-CoV-2 indicating no asymptomatic carriage of SARS-CoV-2, although 51.2% displayed common cold symptoms at the time of sampling. The findings show that there was no sign of early introduction into daycare centers at a time when children were not yet isolated at home although the virus was circulating.</td>
<td>This study investigated the possible role of daycare-attending children in the transmission of SARS-CoV-2 during the first weeks of the COVID-19 epidemic in Belgium. No asymptomatic carriage of SARS-CoV-2 was detected by RT-PCR testing.</td>
<td>Desmet S, Ekinci E, Wouters I. No SARS-CoV-2 carriage observed in children attending daycare centers during the first weeks of the epidemic in Belgium. J Med Virol. 2020. doi: 10.1002/jmv.26689.</td>
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<td>COVID-19, infections, vertical transmission, pandemics</td>
<td>23-Nov-20</td>
<td>Conflicting evidence on vertical transmission and maternal SARS-CoV-2 infection</td>
<td>Canadian Medical Association Journal (CMAJ)</td>
<td>Letter</td>
<td>This author responds to previous articles citing evidence of the vertical transmission of SARS-CoV-2. Studies differ, however, on placental pathology findings in cases of maternal SARS-CoV-2 infection. Some studies have reported placental inflammation and mal-perfusion in the presence of the virus. Regardless of whether vertical transmission of SARS-CoV-2 occurs, the newborn of an infected mother is at risk of acquiring infection in the early neonatal period, from the mother, health care staff, and other contacts. Although more data are required to fully understand how SARS-CoV-2 is spread from mother to child, prevention and control of infection among pregnant mothers and their offspring is imperative in the interim. This is especially important because both mothers and newborns may be relatively asymptomatic.</td>
<td>This author responds to previous articles citing evidence of the vertical transmission of SARS-CoV-2, by stating that more research is needed on this topic. Regardless of whether vertical transmission occurs, the author reminds readers that infection among pregnant mothers and their offspring should be prevented and controlled.</td>
<td>Cimolai N. Conflicting evidence on vertical transmission and maternal SARS-CoV-2 infection. CMAJ. 2020;192(47):E1547. doi:10.1503/cmaj.76892</td>
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<td>Ethics, COVID-19, vaccine, coronavirus, vaccine priorities</td>
<td>23-Nov-20</td>
<td>Navigating the ethical Scylla and Charybdis of the COVID vaccine</td>
<td>Journal of Pediatric Rehabilitation Medicine</td>
<td>Editorial</td>
<td>In this paper, the author discusses COVID-19 vaccine prioritization and its ethical issues, including vaccine development, testing, and distribution. The author raises some ethical questions, such as the definition of &quot;safe and effective&quot; and the complex relationship between systemic racism and medical systems distrust. The National Academy of Sciences, Engineering, and Medicine recommends a 4-phased approach to vaccine prioritization. COVAX, the multi-national platform for sharing in the development and distribution of a COVID-19 vaccine, was developed to distribute COVID-19 vaccines among member countries according to specific criteria to optimize global impact. Ezekiel Emanuel and colleagues’ 3-phased approach for fair vaccine distribution hopes to prioritize more socio-</td>
<td>The author discusses ethical issues with COVID-19 vaccine development and allocation. Reflecting on ethical questions regarding fair vaccine distribution and mandatory vaccination policy is critical to make informed decisions on COVID-19 vaccine policies.</td>
<td>Vercier C. Navigating the ethical Scylla and Charybdis of the COVID vaccine. J Pediatr Rehabil Med. 2020;13(3):229-231. doi:10.3233/PRM-200025</td>
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<td>COVID-19; pediatrics; emergency department; United States; retrospective</td>
<td>23-Nov-20</td>
<td>Characterizing pediatric emergency department visits during the COVID-19 pandemic</td>
<td>The American Journal of Emergency Medicine</td>
<td>Original research</td>
<td>The authors aimed to determine how pediatric emergency department (ED) visits changed during the COVID-19 pandemic in a large sample of EDs in the U.S., focusing on variations based on child age, diagnosis, discharge status and facility type.</td>
<td>In this descriptive study the authors report that, compared to a similar period in 2019, emergency department visits in the U.S. fell sharply for pediatric patients from January-June 2020. Furthermore, there were declines across all diagnoses, particularly for non-COVID-19 communicable diseases.</td>
<td>Pines, J. M., Zocchi, M. S., Black, B. S., et al. Characterizing pediatric emergency department visits during the COVID-19 pandemic. The American Journal of Emergency Medicine, 50735-6757(20)31061-5. doi:10.1016/j.ajem.2020.11.037</td>
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<td>COVID-19; pediatric; intensive care unit; admissions; United States</td>
<td>23-Nov-20</td>
<td>Pediatric Intensive Care Unit Admissions for COVID-19: Insights Using State-Level Data</td>
<td>International Journal of Pediatrics</td>
<td>Original Research</td>
<td>The authors examined US state-level data to determine the characteristics of SARS-CoV-2 positive pediatric ICU admissions for children [age range not specified] from March 14 to April 14, 2020. 205 SARS-CoV-2 positive admissions were reported in the period in 48 states, yielding a frequency of 2.8 SARS-CoV-2 positive admissions per million children in the population, per month. Of these SARS-CoV-2 admissions, 69.7% were among children over 11 years old, and 35.1% had moderate or severe co-morbidities. The median admission duration was 4.9 days, and 52.5% of admission days included mechanical ventilation. SARS-CoV-2 admissions were associated with greater state population density (p &lt; 0.01), and pediatric type 1 diabetes mellitus co-morbidity was associated with longer admission duration requiring advanced respiratory support (p &lt; 0.01). This study evaluated the characteristics of SARS-CoV-2 positive admissions in pediatric ICUs in the United States from March to April 2020. SARS-CoV-2 positive admissions were associated with greater state population density, and longer-duration admissions requiring advanced respiratory support were associated.</td>
<td>Loomba RS, Villarreal EG, Farias JS, Bronicki RA, Flores S. Pediatric Intensive Care Unit Admissions for COVID-19: Insights Using State-Level Data. Int J Pediatr. 2020;2020:9680905. Published 2020 Nov 18. doi:10.1155/2020/9680905</td>
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<td>COVID-19; PRM; Telehealth; pediatric physiatry; pediatric rehabilitation; telemedicine; United States</td>
<td>23-Nov-20</td>
<td>Telehealth in pediatric rehabilitation medicine: A survey of clinician reported utilization and experience</td>
<td>Journal of Pediatric Rehabilitation Medicine</td>
<td>Original Research</td>
<td>This study evaluated pediatric psychiatrists’ use of telehealth before and during the COVID-19 pandemic, satisfaction with telehealth, perceived impact of telehealth on quality of care, and perceived role of telehealth in the future of pediatric psychiatry. A survey was administered to pediatric psychiatrists, pediatric psychiatry fellows, and pediatric psychiatry residents in the United States (n = 78) [dates of survey administration were not reported]. Prior to the COVID-19 pandemic, 14.5% of respondents reported seeing patients via telehealth, versus 97.4% during the COVID-19 pandemic. 82.1% of those surveyed agreed or strongly agreed that they felt comfortable seeing patients via telehealth. Most agreed that telehealth improves daily workflow and efficiency (71.9%), were satisfied with care quality delivered via telehealth (76.9%), and saw telehealth as playing a role in the future of pediatric psychiatry (98.7%). With regard to perception of patients’ and families’ satisfaction with telehealth, 91.0% agreed that patients and families are happy with pediatric psychiatry services delivered via telehealth. Overall, the results suggest that the COVID-19 pandemic has accelerated the adoption of telehealth, while maintaining care quality and satisfaction.</td>
<td>This article examined the use of telehealth by a sample of pediatric psychiatrists in the United States prior to and during the COVID-19 pandemic. Comfort with using telehealth was assessed, along with perceptions of quality and patient satisfaction. Most of those surveyed agreed that they see a role for telehealth in the provision of pediatric psychiatry services in the future.</td>
<td>Dietzcn A, Ide W, Pavone L. Telehealth in pediatric rehabilitation medicine: A survey of clinician reported utilization and experience. J Pediatr Rehabil Med. 2020;13(3):281-288. doi:10.3233/PRM-200762</td>
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<td>COVID-19; mental health; reproductive rights; abortion; women; support; United States</td>
<td>23-Nov-20</td>
<td>Caring for Patients’ Reproductive Healthcare During the COVID-19 Pandemic</td>
<td>Journal of Pastoral Care and Counseling</td>
<td>Commentary</td>
<td>The author describes issues experienced by patients seeking abortion care, with particular emphasis on specific issues associated with the COVID-19 pandemic. The target audience is clergy and mental health providers, and the author describes the role of such providers when interacting with patients seeking abortion care. Some of the issues described include how individuals decide to end a pregnancy, determine where to seek care, conceptualize the process of having an abortion, and engage in self-care. The effects of state-level abortion polices are highlighted, along with how patients’ decisions have become more complicated as clinics adapt to policy changes during the COVID-19 pandemic. Those seeking abortion care also experience anxiety associated with the COVID-19 pandemic, including concerns of financial insecurity, decreased access to health care, SARS-CoV-2 exposure risk during pregnancy care and delivery, and limitations on support people in the health care facility during the pregnancy and labor process. The author highlights how abortion was temporarily banned in 9 states in March - April 2020, despite medical groups deeming it an essential service.</td>
<td>This commentary highlights the issues experienced by those seeking abortion care and the role of supportive providers, including clergy and mental health professionals, in such circumstances. Issues associated specifically with the COVID-19 pandemic are noted, including decreased access to abortion care services, shifting policy environments, and anxiety related to pregnancy during the COVID-19 pandemic.</td>
<td>Bass M. Caring for Patients’ Reproductive Healthcare During the COVID-19 Pandemic. J Pastoral Care Counsel. 2020;74(4):265-268. doi:10.1177/1542305020962012</td>
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<td>COVID-19; Pediatric Rehabilitation</td>
<td>23-Nov-20</td>
<td>COVID-19 pandemic: Early effects on</td>
<td>Journal of Pediatric</td>
<td>Article</td>
<td>The authors describe a study to explore pediatric rehabilitation medicine (PRM) trainee perceptions of e-learning and effects of the COVID-19 pandemic on education in the United States. Using</td>
<td>The authors describe a questionnaire-based study to explore pediatric</td>
<td>Kivlehan E, Chaviano K, Fetsko L. COVID-19 pandemic: Early effects on pediatric rehabilitation</td>
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<td>Medicine; asynchronous learning; e-learning; graduate medical education; online learning; virtual learning; United States</td>
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<td>E-mentoring program organized by the Turkish Association for Child and Adolescent Psychiatry during the COVID-19 pandemic</td>
<td>European Child &amp; Adolescent Psychiatry</td>
<td>Communication</td>
<td>The authors discuss the e-mentoring program organized by the Turkish Association for Child and Adolescent Psychiatry during the COVID-19 pandemic. The program aims to bring together residents and junior specialists from different Child and Adolescent Psychiatry departments in Turkey to develop collegial networks, assess strengths and weaknesses of junior health care professionals, support those requiring extra development, help mentees obtain their anticipated job outcomes and professional goals, consult on difficult cases, and provide moral support. The program started on 6 June 2020 [program duration not specified], and 31 mentors, including 14 full professors from Child and Adolescent Psychiatry departments in Turkey, USA, and Brazil, voluntarily participated. 100 small group e-meetings and 16 keynote e-presentations covering both clinical and research domains were conducted for a total of 346 mentees. During the small group e-meetings, one mentor held a panel with mentees for at least 1 hr, provided quidance and answered questions following the panel. The percentage of mentee participation in the mentor sessions was 65% until July 11. Feedback from mentors and mentees was positive and reflected the importance of preserving peer networks during the pandemic. However, privacy and confidentiality concerns, as well as difficulty measuring the program’s effects, may be limitations of the program. Other considerations for e-mentoring programs include loss of non-verbal communication cues, effect on inter-</td>
<td>The authors discuss the e-mentoring program organized by the Turkish Association for Child and Adolescent Psychiatry during the COVID-19 pandemic. The program received positive feedback on preserving peer networks during challenging times. However, there are limitations such as privacy issues and dependence on quality of internet connection.</td>
<td>Ercan ES, Tufan AE, Kütük OM. E-mentoring program organized by the Turkish Association for Child and Adolescent Psychiatry during the COVID-19 pandemic. Eur Child Adolesc Psychiatry. 2020;1–3. doi:10.1007/s00787-020-01671-9.</td>
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<td>USA; pediatric patients; testing; SARS-CoV-2</td>
<td>23-Nov-20</td>
<td>Assessment of 135,794 Pediatric Patients Testing for Severe Acute Respiratory Syndrome Coronavirus 2 Across the United States</td>
<td>Journal of the American Medical Association (JAMA) Pediatrics</td>
<td>Original Investigation</td>
<td>Due to the limited information on pediatric patients and SARS-CoV-2, a large retrospective cohort study of pediatric patients (under 25 years) was conducted in the US from multiple hospitals, all using the PEDSnet network from January 1-September 8, 2020. A total of 135,794 pediatric patients were tested for SARS-CoV-2 via RT-PCR, with 5374 (4%) having positive test results. Of the patients positive for SARS-CoV-2, 359 (7%) were hospitalized, 99 required ICU care, and 33 required mechanical ventilation. The case fatality rate was 0.2% (8 of 5374). Testing rates for Black, Hispanic, and Asian patients were lower than for White patients, with odds ratios and 95% CIs listed for all categories. However, the rates of positivity were significantly higher in the non-white ethnic groups. Older ages (5-11 years: OR, 1.25 [95%CI, 1.13-1.38]; 12-17 years: OR, 1.92 [95%CI, 1.73-2.12]; 18-24 years: OR 3.51 [95%CI, 3.11-3.97]), those with public insurance (OR, 1.43 [95%CI, 1.31-1.57]), and those tested in outpatient settings (OR, 2.13 [95%CI 1.86-2.44]) and EDs (OR, 3.16 [95%CI, 2.72-3.67]) were also associated with increased risk of infection. Several diagnostic categories of pre-existing conditions were found to have higher risk of positive test results, including malignancy (SR, 1.54 [95%CI, 1.19-1.93]), cardiac disorders (SR, 1.18 [95%CI, 1.05-1.32]), and endocrine disorders (SR, 1.52 [95%CI, 1.31-1.75]). The authors conclude that an effective response to SARS-CoV-2 will require rapid and robust development of new clinical and public health practices based on a better understanding of both the viral and host biology. A large retrospective cohort study of SARS-CoV-2 testing and infection rates for pediatric patients (under 25 years) was conducted to add data to the limited information on SARS-CoV-2 and this population. Patients of Black, Hispanic, and Asian race/ethnicity all had lower testing rates but higher rates of positive results than White patients. Adolescents, young adults, and those with public insurance also had higher rates of positive results. Rates of SARS-CoV-2 were higher for some chronic conditions. Bailey LC, Razzaghi H, Burrows EK, et al. Assessment of 135 794 Pediatric Patients Tested for Severe Acute Respiratory Syndrome Coronavirus 2 Across the United States. JAMA Pediatr. Published online November 23, 2020. doi:10.1001/jamapediatrics.2020.5052</td>
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<td>Covid-19; physiotherapy; infants; children; mechanical ventilation; oxygen inhalation therapy.</td>
<td>23-Nov-20</td>
<td>Respiratory Therapeutic Strategies in Children and Adolescents with COVID-19: a Critical Review [Free Access to Abstract Only]</td>
<td>Current Pediatric Reviews</td>
<td>Review</td>
<td>The authors review non-pharmacological respiratory strategies for children and adolescents with critical conditions due to COVID-19. They searched six databases and observed that the most frequently addressed interventions were oxygen therapy, invasive (IMV), and non-invasive (NIV) ventilation. The recommendations in the studies analyzed were provided mainly based on experiences with other acute respiratory syndromes in childhood. In the context of oxygen therapy, the nasal catheter was the most recommended strategy for hypoxemia, followed by the high-flow nasal cannula (HFNC). However, the risks of contamination due to the dispersion of aerosols in the case of the HFNC were pointed out by the authors. Lung protective IMV with bacteriological or viral filters was recommended in most studies, but there was significant variation about PEEP titration. Alveolar recruitment maneuvers were also recommended in a few studies. NIV was not consensual between studies, and when selected, the This review of non-pharmacological respiratory therapeutic strategies for children and adolescents with critical COVID-19 showed that the most frequently recommended interventions were oxygen therapy and invasive/non-invasive ventilation, and the nasal catheter was the most recommended strategy for hypoxemia. Rodovanski GP, Aguilar SDC, Marchi BS, et al. Respiratory Therapeutic Strategies in Children and Adolescents with COVID-19: a Critical Review [published online, 2020 Nov 23]. Curr Pediatr Rev. 2020;10.2174/157339631699920112300936. doi:10.2174/157339631699920112300936</td>
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<td>COVID-19; mental health; children; adolescents; United States of America</td>
<td>23-Nov-20</td>
<td>Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families</td>
<td>Journal of the American Medical Association Pediatrics</td>
<td>Comment &amp; Response</td>
<td>In this letter to the editor, the authors respond to the article “Coronavirus Disease 2019 (COVID-19) and Mental Health for Children and Adolescents” by Golberstein et al. Golberstein et al. proposed technology-enabled modalities as a potential solution for mental health care during the COVID-19 pandemic. However, in this response, the authors note that in rural areas, where youth mental health needs are most profound, limited broadband accessibility may preclude these modalities. Rural youth, age 10-19 years, had suicide rates 1.5 times higher than urban youth between 2010-2018. Furthermore, rural youth have less access to technologies, including tablets, and despite internet providers reducing fees, the costs may remain a barrier in a time of economic crisis. Additionally, the broadband speed necessary for tele-health is not available in many areas of rural U.S., and therefore investments in this infrastructure are needed. Creative approaches to provide mental health care in rural communities in light of COVID-19 restrictions must be used, such as non-traditional groups providing psychological first aid. In a letter to the editor, the authors respond to an article by Golberstein et al., by noting that tele-health solutions for mental health care during the COVID-19 pandemic may be unavailable in rural U.S. communities. Rural youth have higher rates of suicide, and the limitations to technological modalities must be addressed to prevent worsening inequalities.</td>
<td>Graves JM, Mackelprang JL, Abshire DA. Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families. Journal of American Medical Association Pediatrics. 2020. Published online 23 Nov 2020. doi:10.1001/jamapediatrics.2020.3589</td>
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<td>Telehealth, mental health, infrastructure, policy, US</td>
<td>23-Nov-20</td>
<td>Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families—Reply</td>
<td>Journal of the American Medical Association Pediatrics</td>
<td>Reply and Opinion</td>
<td>In this opinion article, the authors discuss their original article from April 2020, “Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families,” that highlights the critical importance of addressing the impact of school closures on children’s and adolescent’s mental health. In response, Graves et al. suggested expanding broadband infrastructure and accessibility of telehealth mental health services for rural youth. In the current letter, the original authors highlight 3 policy areas to help achieve mental health care equity in children and adolescents. First, policymakers need to make the changes to telehealth services from the Emergency Order permanent while expanding other commercial health plans. Telehealth services should be covered and paid at the same level as face-to-face visits, with quality and outcomes tracking measures in place. Second, policy makers need to support Medicaid clinicians, who provide many mental health services in the U.S., as many clinics and community-based services are at risk of closing without financial help. Lastly, policy makers and community leaders need to engage with youth while crafting COVID-19 response and</td>
<td>In this opinion article, the authors advocate for the expansion of telehealth mental health services for rural youths and highlight 3 policy areas to achieve mental health care equity among children and adolescents in the U.S.</td>
<td>Golberstein E, Wen H, Miller BF. Coronavirus Disease 2019 and Effects of School Closure for Children and Their Families—Reply. JAMA Pediatr. Published online November 23, 2020. doi:10.1001/jamapediatrics.2020.3598</td>
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<td>COVID-19; pediatric; lung ultrasound; Italy</td>
<td>23-Nov-20</td>
<td>Lung ultrasound in outpatient approach to children with suspected COVID-19</td>
<td>Italian Journal of Pediatrics</td>
<td>Research Article</td>
<td>In this study, the authors describe the lung lesions typical of cough and suspected COVID-19 in the pediatric cohort. The usage of lung ultrasound (LUS) is common in the detection of lung infections, pneumothorax, and pleural effusions. The authors analyzed the anamnestic, clinical, epidemiologic data and images detected on the LUS of 32 children (23 male, 9 female; age range 6-months-14 years old) presenting with at least 3 days of cough and suspected COVID-19 at the authors’ medical office in Piacenza district, Italy between March 1-April 30, 2020. 12 cases presented with fever (&gt;37.5°C), 9 with headache, 4 with asthenia, 2 with chest pain, and 1 with erythema pernio-like, diarrhea, and conjunctivitis. 8 children presented with oximetry &lt;95%. 10/32 patients had a nasal swab performed after their outpatient visit, while the remaining had a diagnostic swab test after a quarantine period. 1 month after the end of the retrospective analysis, 19/32 children underwent serological testing for COVID-19 antibodies. The authors highlighted the common features of lung ultrasound conducted in children with at least 3 days of cough and suspected COVID-19 in Italy. Only 10/32 patients had the diagnostic swab test for COVID-19 due to lack of resources during the period, but an antibody test conducted after the retrospective analysis revealed that 9/19 children who underwent serological testing had significant levels of anti-COVID-19 antibodies, and 6 of them belonged to the group with a pathological LUS. LUS pattern was normal in 12 cases, showed multiple subpleural foci in 16 cases, and depicted white lung for one case, and bilateral (2 cases) and monoliteral (1 case) consolidations in the remaining 3 cases. Among the 20 children with positive LUS, 9 presented with fever (&gt;37.5°C). COVID-19 was detected in 2/10 swabs. The authors concluded by citing the advantageous nature of LUS in monitoring dynamic changes and the favorability of the cost-benefit ratio, recommending its use in the first-line of assessment for respiratory infections in non-hospitalized children.</td>
<td>In this article, the authors highlight the common features of lung ultrasound conducted in children with at least 3 days of cough and suspected COVID-19 in Italy. Only 10/32 patients had the diagnostic swab test for COVID-19 due to lack of resources during the period, but an antibody test conducted after the retrospective analysis revealed that 9/19 children who underwent serological testing had significant levels of anti-COVID-19 antibodies. The authors supported the usage of lung ultrasound as a first-line assessment for respiratory infections in non-infected children.</td>
<td>Gregori G, Sacchetti R. Lung ultrasound in outpatient approach to children with suspected COVID-19. Ital J Pediatr. 2020 Nov 23;46(1):171. doi: 10.1186/s13052-020-00938-w. PMID: 33225959; PMCID: PMC7680988.</td>
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<td>Coronavirus; COVID-19; Critically ill patient; Pediatrics; Children; Treatment</td>
<td>23-Nov-20</td>
<td>Predictive Value of Cytokine/Chemokine Responses for the Disease Severity and Management in Children and Adult Cases with COVID-19</td>
<td>Journal of Medical Virology</td>
<td>Research Article</td>
<td>The authors aimed to determine whether biomarkers could be used for the prediction of the prognosis of COVID-19 and to improve understanding of the variations between pediatric and adult cases with COVID-19. The authors compared the differences in cytokine/chemokine profiles between pediatric and adult cases with COVID-19. 30 pediatric cases with a median age of 10.5 years (range: 0-17 years) and 30 adult cases with a median age of 62.5 years (range: 48-77 years) with COVID-19 were enrolled. Interferon gamma-induced protein 10 (IP-10) and macrophage inflammatory protein (MIP)-3β levels were significantly higher in pediatric and adult cases with COVID-19 when compared with all healthy volunteers (p ≤ 0.001 in each). Whereas IP-10 levels were significantly higher in both pediatric and adult cases with severe disease course, MIP-3β were significantly lower in healthy</td>
<td>The authors compared the differences in cytokine/chemokine profiles between pediatric and adult cases with COVID-19. The authors argued that IP-10 and MIP-3β seem to be good research candidates to understand severity of COVID-19 in both pediatric and adult population and to investigate possible</td>
<td>Ozsurekci Y, Aykac K, Er AG, et al. Predictive value of cytokine/chemokine responses for the disease severity and management in children and adult cases with COVID-19 [published online 2020 Nov 23]. J Med Virol. 2020. doi:10.1002/jmv.26683</td>
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<td>Key Terms</td>
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<td>SARS-CoV-2; neonate; vertical transmission, RT-PCR; India</td>
<td>22-Nov-20</td>
<td>Possible Early Vertical Transmission of COVID-19 from an Infected Pregnant Female to her Neonate: A Case Report</td>
<td>Journal of Tropical Pediatrics</td>
<td>Case Report</td>
<td>The authors present a case report of potential vertical transmission from a 24-year-old mother from New Delhi, India to her neonate born on 8 July 2020 at 37+2 weeks. The family lived in a COVID-19 hotspot area of New Delhi, and on 6 June, the husband developed fever, cough, and breathlessness and later tested positive for SARS-CoV-2. The mother developed a low-grade fever on 9 June, and her RT-PCR was also positive for SARS-CoV-2. A negative RT-PCR from the mother was obtained 2 days before delivery. The infant was born via vaginal delivery with the mother wearing a surgical mask throughout delivery. Skin-to-skin contact was not allowed, the infant was transferred to the neonatal ICU 10 min after delivery and fed infant formula, and tested positive for SARS-CoV-2 via pharyngeal swab 16-hours.</td>
<td>This case report describes a 37+2-week vaginal delivery by a 24-year-old mother who had been positive for SARS-CoV-2 in the weeks before delivery. At 16-hours post-delivery, the neonate tested positive for SARS-CoV-2 via RT-PCR, and serum testing was positive for the IgG antibody and negative for the IgM antibody.</td>
<td>Bandyopadhyay T, Sharma A, Kumari P, et al. Possible Early Vertical Transmission of COVID-19 from an Infected Pregnant Female to Her Neonate: A Case Report [published online, 2020 Nov 22]. J Trop Pediatr. 2020;fmaa094. doi:10.1093/jtroped/fmaa094</td>
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<td>COVID-19; pregnancy; maternal-fetal transmission; vertical transmission</td>
<td>21-Nov-20</td>
<td>Pregnancy and Childbirth in the COVID-19 Era: The Course of Disease and Maternal-Fetal Transmission</td>
<td>Journal of Clinical Medicine</td>
<td>Review</td>
<td>In this review, the authors synthesize available evidence on the course of COVID-19 in pregnant women and the risk of maternal-fetal transmission. The most important factors determining the course of COVID-19 in pregnant women are maternal age and the presence of comorbidities, such as gestational hypertension, gestational diabetes, and cholestasis. The course of COVID-19 was worse in pregnant women, who are more often admitted to the ICU or require mechanical ventilation than nonpregnant women with COVID-19. Some symptoms, such as dyspnea and cough, were similar to those observed in nonpregnant women, but fever, headache, muscle aches, chills, and diarrhea were less frequent. A study revealed that premature delivery and cesarean section were more common in pregnant women diagnosed with COVID-19. In addition, recent studies confirm the possibility of intrauterine maternal-fetal transmission evidenced by positive SARS-CoV-2 genetic tests and IgM in newborns just after delivery. The probability of transmission through mother's milk is inconclusive at this time. Currently considered optimal diagnostic tools (X-ray and CT) and treatment (antibiotic therapy and immunotherapy) cannot be applied to pregnant women due to risks to the fetus and breastfeeding. This may delay diagnostic and therapeutic procedures for pregnant women, especially those with more severe symptoms. Considering these findings, SARS-CoV-2 poses a considerable threat to the health and life of both mother and fetus.</td>
<td>In this review, the authors synthesize available evidence on the course of COVID-19 in pregnant women and the risk of maternal-fetal transmission. Maternal age and the presence of comorbidities may exacerbate the impact of SARS-CoV-2 infection in pregnant women. Recent studies confirm the possibility of intrauterine maternal-fetal transmission by SARS-CoV-2 positive genetic tests and IgM in newborns just after delivery.</td>
<td>Mazur-Bialy AI, Kolomańska-Bogucka D, Tim S. Pregnancy and Childbirth in the COVID-19 Era: The Course of Disease and Maternal-Fetal Transmission. J Clin Med. 2020;9(11):3749. doi:10.3390/jcm9113749.</td>
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<td>United Kingdom, Cancer, SARS-CoV-2, experiences</td>
<td>21-Nov-20</td>
<td>COVID-19 and children with cancer: Parents’ experiences, anxieties and support needs</td>
<td>Pediatric Blood and Cancer</td>
<td>Research Article</td>
<td>This study surveyed parents of children with cancer in the UK between 6 April – 4 May 2020 on their experiences, information and support needs, and decision-making in response to the SARS-CoV-2 pandemic. 171 parents/caregivers of children with cancer completed the survey; children’s median age was 7 years (range 1-24 years). 85% were worried about the virus and most reported being vigilant about virus symptoms (92%) and cancer symptoms (93.4%). 69.6% no longer considered the hospital a safe place.</td>
<td>This study from the UK surveyed parents of children with cancer between 6 April – 4 May 2020, regarding the SARS-CoV-2 pandemic. The majority of parents were worried about transmitting</td>
<td>Darlington AE, Morgan JE, Wagland R, et al. COVID-19 and children with cancer: Parents’ experiences, anxieties and support needs [published online ahead of print, 2020 Nov 21]. Pediatr Blood Cancer.</td>
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</table>
## Summary & Key Points

Overarching themes were identified related to parental concerns about the virus: (a) the risk of infection; (b) information, guidance, and advice; (c) health care provision; (d) fears and anxieties; or concerns about lockdown/isolation; (e) psychological and social impact; (f) keeping safe under lockdown; (g) provisions and dependence; and (h) employment and income. The majority of parents were worried about transmitting SARS-CoV-2 to their child. Parents were also worried about suboptimal health care. Parents described fear and anxiety and the psychological, social, and economic impact of isolation.

## Specific Observations

SARS-CoV-2 to their child. The hospital was no longer perceived to be a safe place, and parents were worried about sub-optimal cancer care.

## Full Citation

2020;e28790. doi:10.1002/pbc.28790

## Key Terms

- facility delivery
- antenatal care
- Sub-Saharan Africa
- health
- Perinatal mental health
- COVID-19
- Coronavirus
- London

## Abstract

The study in Ghana found over a third of pregnant women reported skipping antenatal care visit and decreased intent to deliver in a facility due to COVID-19 related fears. High rates of anxiety among pregnant women were also reported.

## Specific Observations

The authors provide 2 cases of dyspnoea and hypoxia in pregnancy during the COVID-19 pandemic in London. The first case is a 40-year-old South American primiparous pregnant woman at 27+6 weeks of gestation with a history of Hodgkin’s lymphoma (10 years in remission) who was admitted with a 10-day history of a dry cough. On admission oxygen saturations (SaO2) were 88% on room air, and throat and nasal swab were positive for SARS-CoV-2 RNA. Her oxygen requirements and work of breathing increased, so the decision was made to deliver for maternal reasons with the multi-disciplinary team. She underwent an emergency C-section under general anesthesia. The authors demonstrate with this case the importance of multi-disciplinary decision making regarding early delivery. Case 2 is a 27-year-old multiparous woman who had suffered from asthma since childhood and stopped smoking in the 1st trimester. At 29+4 weeks gestation she presented with increasing dyspnoea and SaO2 of 94% on room air. Repeat throat and nasal swab on two occasions excluded a COVID-19 infection. The clinical picture remained consistent with moderate asthma and her condition improved with a leukotriene receptor antagonist, montelukast. She had no further hospital admissions and had a vaginal delivery at 38+2 weeks of gestation. The authors conclude that an approach to hypoxia is challenging during the current COVID-19 pandemic but that a high index of suspicion for non-COVID related causes should be kept in the initial evaluation.

## Full Citation


## Key Terms

- dyspnea
- hypoxia
- multidisciplinary
- London

## Abstract

This article describes 2 cases of dyspnea and hypoxia in pregnancy during the COVID-19 pandemic in London. The first case is a 40-year-old South American primiparous pregnant woman at 27+6 weeks of gestation with a history of Hodgkin’s lymphoma (10 years in remission) who was admitted with a 10-day history of a dry cough. On admission oxygen saturations (SaO2) were 88% on room air, and throat and nasal swab were positive for SARS-CoV-2 RNA. Her oxygen requirements and work of breathing increased, so the decision was made to deliver for maternal reasons with the multi-disciplinary team. She underwent an emergency C-section under general anesthesia. The authors demonstrate with this case the importance of multi-disciplinary decision making regarding early delivery. Case 2 is a 27-year-old multiparous woman who had suffered from asthma since childhood and stopped smoking in the 1st trimester. At 29+4 weeks gestation she presented with increasing dyspnoea and SaO2 of 94% on room air. Repeat throat and nasal swab on two occasions excluded a COVID-19 infection. The clinical picture remained consistent with moderate asthma and her condition improved with a leukotriene receptor antagonist, montelukast. She had no further hospital admissions and had a vaginal delivery at 38+2 weeks of gestation. The authors conclude that an approach to hypoxia is challenging during the current COVID-19 pandemic but that a high index of suspicion for non-COVID related causes should be kept in the initial evaluation.

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<tr>
<td>COVID-19, pathogenesis, antibody dependent enhancement, inflammatory markers, SARS-CoV-2, pediatric</td>
<td>21-Nov-20</td>
<td>Coronavirus Disease 2019: Understanding Immunopathogenesis Is the &quot;Holy Grail&quot; to Explain Why Children Have Less Severe Acute Disease</td>
<td>Pediatr Critical Care Medicine</td>
<td>Comment</td>
<td>In this letter, the authors provide commentary on Ong et al. 2020 in Pediatric Critical Care Medicine. They discuss two potential shortcomings in the authors’ conclusions— the lower level of inflammatory markers and ACE2 expression in children. Animal studies showed a reduction in ACE2 expression with increasing age, contradicting the hypothesis of increased ACE2 expression being implicated in the severity of SARS-CoV-2 infection. Cytokine storm and lymphopenia are associated with worse outcomes in adults, attributing antibody-dependent enhancement (ADE) during infection to the severity of symptoms. They also suggest the possibility of individuals with high antibody titer or cross-reactive memory B-cell forming enhancing immune complexes with SARS-CoV-2. Therefore, ADE could account for the increased inflammatory markers and lymphopenia in more severe cases. The authors also report cases of critically ill infants with COVID-19, suggesting the dependence of young children on maternal antibodies as being a possible cause for the severity of illness. Other possible mechanisms include the presence of other respiratory viruses, that outcompete SARS-CoV-2. The authors underscore the development of an effective vaccine with low ADE as important in understanding the mechanism of pathogenesis of the infection. Comparison of disease in children versus adults can also help accomplish this.</td>
<td>The authors, in response to Ong et al. 2020, suggest possible mechanisms of lowered severity of SARS-CoV-2 infection in children. They suggest the possibility of antibody dependent enhancement ADE in the increase in inflammatory markers and pathogenesis of severe illness in children compared to adults.</td>
<td>10.1002/ijgo.13487. Advance online publication. <a href="https://doi.org/10.1002/ijgo.13487">https://doi.org/10.1002/ijgo.13487</a></td>
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<td>Vertical transmission, bias, pooled prevalence</td>
<td>20-Nov-20</td>
<td>Vertical transmission of coronavirus disease 2019</td>
<td>American Journal of Obstetrics and Gynecology (AJOG)</td>
<td>Letter to the Editor</td>
<td>In this letter, the author comments on the article “Vertical transmission of coronavirus disease 2019: a systematic review and meta-analysis” published in the American Journal of Obstetrics and Gynecology by Kotlyar et al. The author notes that the pooled estimate of 3.2% possible vertical transmission reported in the article was obtained from both case series and cohort studies, and poses that case series are not adequate for pooling prevalence estimates and can be misleading. The author also comments on the article's assessment of the risk of bias, stating that the preferred scale for case reports and case series is the Joanna Briggs Institute Critical Appraisal Checklist rather than pooling prevalence estimates and can be misleading.</td>
<td>In this letter, the author comments on the article “Vertical transmission of coronavirus disease 2019: a systematic review and meta-analysis” by Kotlyar et al. and challenges the calculation of the pooled estimate of 3.2% vertical transmission. The author also comments on the</td>
<td>Martinez-Portilla RJ. Vertical transmission of coronavirus disease 2019. Am J Obstet Gynecol. 2020 Nov 20. doi: 10.1016/j.ajog.2020.11.013</td>
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<td>Pregnancy, isolation, obstetrics, prenatal care, disease severity</td>
<td>20-Nov-20</td>
<td>Specialized prenatal care delivery for COVID-19-exposed or -infected pregnant women</td>
<td>American Journal of Obstetrics and Gynecology (AJOG)</td>
<td>Research Letter</td>
<td>In this research letter, the authors describe their retrospective study in which they assessed a “cohorted” prenatal care model in North Carolina, USA. Their goal was to provide obstetrical care while minimizing exposure risk by isolating pregnant women with or exposed to COVID-19 in a separate clinic from other pregnant patients. Clinic services offered at the OB COVID-19 clinic had a separate entrance and bathrooms. The clinic was staffed by a consistent team with training in donning and doffing PPE and in an algorithm for COVID-19 care. Between March 18-July 30, 2020, 85 women were seen in this separate clinic, of whom 63 had COVID-19. 6 (9.5%) were asymptomatic, 49 (77.8%) had mild disease, 6 (9.5%) had moderate disease, and 2 (3.2%) had severe disease. Latina women were more likely to have COVID-19 than other racial and ethnic groups (p&lt;0.01). Only 7 patients required hospitalization. The length of stay ranged from 1 to 6 days; 3 patients received remdesivir, and none received corticosteroids. 3 healthcare workers developed COVID-19. The authors conclude that their approach optimizes resource allocation, develops expertise in donning and doffing PPE, and ensures that patients with COVID-19 in pregnancy receive consistent assessment and care recommendations.</td>
<td>This letter describes a retrospective study in which the authors assessed their “cohorted” prenatal care model. The model was designed to isolate women with or exposed to COVID-19 from other patients while still providing them prenatal care. The authors conclude that their approach allowed them to optimize resources and provide consistent care to pregnant women.</td>
<td>Dotters-Katz SK, Harris H, Wheeler SM, Swamy GK, Hughes BL. Specialized prenatal care delivery for coronavirus disease 2019-exposed or -infected pregnant women. Am J Obstet Gynecol. 2020 Nov 20;230(5):9378(20)31315-6. doi: 10.1016/j.ajog.2020.11.025.</td>
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<td>COVID-19; female academics; career; childcare</td>
<td>20-Nov-20</td>
<td>Preventing a Secondary Epidemic of Lost Early Career Scientists. Effects of COVID-19 on Women with Children</td>
<td>Annals of the American Thoracic Society</td>
<td>Article</td>
<td>The authors identify strategies and resources for promoting inclusive excellence after the damaging consequences of the COVID-19 pandemic on the potential success of early-career female academics. Women are disproportionately bearing the load of additional full-time caregiving and homeschooling responsibilities and those with very young children (ages 0–5 years) report significant decreases in hours worked and academic productivity. Lack of support and resources for female scientists will lead to a secondary epidemic of lost early-career physicians and scientists, particularly among those already vulnerable to leaks in the academic pipeline, such as women of color. Academic institutions and funding agencies need to implement feasible policies and strategies to create a safety net for all caregivers after the COVID-19 pandemic, particularly focusing on the needs of female early-career scientific investigators. Institutions should create an infrastructure for identifying family-care resources</td>
<td>The authors identify strategies and resources for promoting inclusive excellence after the damaging consequences of the COVID-19 pandemic on the potential success of early-career female academics. Recommended actions on childcare responsibilities, funding, and promotion/tenure management are discussed.</td>
<td>Cardel MI, Dean N, Montoya-Williams D. Preventing a Secondary Epidemic of Lost Early Career Scientists. Effects of COVID-19 Pandemic on Women with Children. Ann Am Thorac Soc. 2020;17(11):1366-1370. doi:10.1513/AnnalsATS.202006-S89P.</td>
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<td>COVID-19; pregnancy; fetal health; neonatal health; vertical transmission</td>
<td>20-Nov-20</td>
<td>Does Lack of Vertical Transmission of COVID-19 Guarantee the Health of the Fetus or Neonate in Infected Mothers?</td>
<td>Journal of Reproduction and Infertility</td>
<td>Editorial</td>
<td>The author discusses the importance of regarding pregnant women as a high-risk population for SARS-CoV-2 infection. Although SARS-CoV-2-infected pregnant women appear to have fewer maternal and neonatal complications than those infected with other respiratory viruses, such as H1N1 influenza, SARS-CoV, and MERS-CoV, they still need attention due to physiological changes and their susceptibility to diseases. Changes in the immune system, increased metabolism and oxygen consumption, cardio-vascular changes, and increased ACE2 expression make pregnant women susceptible to viral diseases. SARS-CoV-2 infection also causes inflammatory and vascular changes in the placenta. While the author states that SARS-CoV-2 is unlikely to be transmitted across the placenta, vertical transmission of some pathogens can lead to serious complications. The severity of fetal injuries due to viral infection is very high in the first trimester, while infections in the second and third trimesters may manifest with immunological symptoms or preterm labor. Excessive cytokines secreted in the mother can cross the placenta and stimulate inflammatory responses in the fetus, which may lead to fetal multi-organ system damage. SARS-CoV-2 may lead to long-term effects on fetal neuro-development by affecting maternal immune activation. Special attention should thus be paid to early stages of pregnancy, during which the virus affects placental functions. In addition, further research on inflammatory disorders in pregnant women with SARS-CoV-2 and longitudinal studies on newborns, exposed to the virus directly or indirectly, are required to ensure their proper care.</td>
<td>The author discusses the importance of regarding pregnant women as a high-risk population for SARS-CoV-2 infection. Special attention should be paid to early stages of pregnancy, during which the virus affects placental functions. In addition, further research on inflammatory disorders in pregnant women with SARS-CoV-2 and longitudinal studies on newborns, exposed to the virus directly or indirectly, are required to ensure their proper care.</td>
<td>Sadeghi MR. Does Lack of Vertical Transmission of COVID-19 Guarantee the Health of the Fetus or Neonate in Infected Mothers? J Reprod Infertil. 2020;21(4):229-230. doi:10.18502/jri.v21i4.4323.</td>
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<td>Testing, asymptomatic, university, risk reduction, Duke, USA</td>
<td>20-Nov-20</td>
<td>Implementation of a Pooled Surveillance Testing Program for Asymptomatic SARS-CoV-2 Infections on a College Campus</td>
<td>Morbidity and Mortality Weekly Report (MMWR)</td>
<td>Original research</td>
<td>For the fall 2020 semester at Duke University, USA, COVID-19 mitigation strategies included mandatory mask wearing, social distancing, emphasis of hand hygiene, daily symptom self-monitoring/reporting, and a multi-pronged testing strategy that comprised entry testing of all students, frequent testing of pooled student specimens, contact tracing with quarantine, and testing for symptomatic and exposed students. The university implemented a 5-to-1 pooled testing program for SARS-CoV-2 using a quantitative, in-house, laboratory-developed, RT-PCR. The authors present the results of a risk mitigation strategy at Duke University in the United States to prevent the spread of COVID-19 during the fall semester, 2020. The university implemented asymptomatic testing and</td>
<td>The authors present the results of a risk mitigation strategy at Duke University in the United States to prevent the spread of COVID-19 during the fall semester, 2020. The university implemented asymptomatic testing and</td>
<td>Denny TN, Andrews L, Bonsignori M, et al. Implementation of a Pooled Surveillance Testing Program for Asymptomatic SARS-CoV-2 Infections on a College Campus — Duke University, Durham, North Carolina, August 2–October 11, 2020. MMWR Morb Mortal Wkly Rep</td>
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<td>human milk; breast milk; breastfeeding; coronavirus; COVID-19; SARS-CoV-2; transmission; evidence</td>
<td>20-Nov-20</td>
<td>Breastfeeding, Human Milk and COVID-19: What does the evidence say?</td>
<td>Frontiers in Pediatrics</td>
<td>Opinion</td>
<td>Evidence currently suggests there is limited risk that SARS-CoV-2 can be transmitted via human milk. Consequently, the WHO, UNICEF, CDC, and Royal College of Obstetricians and Gynaecologists recommended that mothers continue to breastfeed. Concern for spreading the virus via horizontal transmission routes via direct, indirect, or close contact with infected people through saliva, respiratory droplets, talking, coughing, or sneezing remains for the breastfeeding infant. The authors recommend strict contact precautions while breastfeeding. There have been no confirmed cases of postnatal transmission of SARS-CoV-2 from human milk, despite some cases of transient identification of viral RNA in human milk. Due to the transient nature of the RNA in breastmilk, researchers have not ruled out horizontal transmission of the virus into human milk. If mothers or clinicians are concerned about breastfeeding safety, it has been shown that Holder Pasteurization, which is used by milk banks, does inactivate replication-competent SARS-CoV-2 virus added in laboratory settings. Benefits of breastfeeding also include strong SARS-CoV-2 neutralizing capabilities to provide an active form of protection for the infant. Finally, maternal mental health concerns have increased during the COVID-19 lockdowns for pregnant and postpartum women, so it is critical to provide needed support to ensure their infants receive breastfeeding advantages.</td>
<td>contact tracing in association with other measures, which likely contributed to a prolonged period of low transmission.</td>
<td>2020;69:1743–1747. DOI: <a href="http://dx.doi.org/10.15585/mmwr.mm6946e1external">http://dx.doi.org/10.15585/mmwr.mm6946e1external</a> icon.</td>
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<td>Vertical transmission, case series, bias, neonate, meta-analysis</td>
<td>20-Nov-20</td>
<td>Vertical transmission of COVID-19: a response</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Letter to the Editors</td>
<td>In this letter, the authors of &quot;Vertical transmission of coronavirus disease2019: a systematic review and meta-analysis&quot; respond to critique of their paper by Martinez-Portilla. They argue that excluding case series in determining prevalence estimates would discard potential vital information in the setting of a novel emerging disease. As to the methodological quality assessment of study bias risk, the authors report they used the modified</td>
<td>The authors respond to critique of their paper &quot;Vertical transmission of coronavirus disease2019: a systematic review and meta-analysis&quot; and address the use of case in epidemiologic studies.</td>
<td>Kotlyar AM, Tal O, Tal R. Vertical transmission of coronavirus disease 2019, a response. American Journal of Obstetrics &amp; Gynecology. 2020 Nov 20.</td>
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### Key Terms
- pediatrics, India
- curriculum, correspondence
- lockdown, COVID-19
- Antenatal Care, Pregnant Women
- Key Terms
- Published Date
- Title
- Journal / Source
- Type of Publication
- Summary & Key Points
- Specific Observations
- Full Citation

| Pregnant Women, Antenatal Care, concerns, access, lockdown, COVID-19, Denmark | 20-Nov-20 | Pregnant Women’s Concerns and Antenatal Care during COVID-19 Lock-down of the Danish Society | Danish Medical Journal | Original Article | The authors reviewed results from a cross-sectional descriptive survey sent to 332 pregnant women previously sampled by general practitioners (GPs) in two Danish regions (Copenhagen and Zealand). The questionnaire comprised 36 questions regarding pregnant women’s concerns during the COVID-19 lockdown and was completed by 257 (77%) pregnant women between April 8 and May 6, 2020. The results showed that more than half of the study participants believed they were at a high risk of infection with SARS-CoV-2, and one-third of the women were concerned about the risk of severe disease, especially for the fetus. Furthermore, when asked about preventive measures, 88% replied that they were mostly or entirely isolated at home, and more than 95% avoided public transportation. When asked about antenatal care, 66% of pregnant women had been to a preventive pregnancy consultation in the first month of the lockdown period, and very few women canceled consultations with their GP (2%) or midwife (3%). The authors concluded that the COVID-19 lockdown had a significant impact on Danish pregnant women. Even so, pregnant women’s concerns were more focused on antenatal care access than on the risk of actual SARS-CoV-2 infection. Of note, contact with the antenatal healthcare system has only been moderately affected. | This study’s findings showed that although most Danish pregnant women believed they were at high risk of SARS-CoV-2 infection, their concerns were more focused on access to antenatal care, which was only moderately affected by the COVID-19 lockdown. | Overbeck G, Graungaard AH, Rasmussen IS, et al. Pregnant women’s concerns and antenatal care during COVID-19 lock-down of the Danish society. Dan Med J. 2020;67(12):A06200449. Published 2020 Nov 20. |

<p>| Correspondence, curriculum, pediatrics, India | 20-Nov-20 | Online MD Pediatrics Exit Examination: A Novel Method of End Curriculum Summative Assessment | Indian Pediatrics | Correspondence | This article shares the Medical Council of India (MCI)’s experience of conducting the hybrid post-graduate pediatrics examinations; this practice was implemented on 22 May 2020 in response to the COVID-19 pandemic. All theory papers, practical/clinical examinations, objective structured clinical examinations (OSCEs), and oral examinations were conducted in early May. Conducting the practical examination in compliance with the infection control protocols was challenging, yet it was considered successful. | This article shares the successful experience of conducting the hybrid pediatrics medical examination in India amidst the COVID-19 pandemic. Online | Panda PK, Bhat NK, Ravikant -. Online MD Pediatrics Exit Examination: A Novel Method of End Curriculum Summative Assessment Amidst the Ongoing COVID-19 Pandemic. Indian Pediatrics |</p>
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<th>Key Terms</th>
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<th>Specific Observations</th>
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<tr>
<td>COVID-19, Mortality, Children, Adolescents, Deaths, Brazil</td>
<td>20-Nov-20</td>
<td>Coronavirus Disease-19 Deaths among Children and Adolescents in an Area of Northeast, Brazil: Why So Many?</td>
<td>Tropical Medicine and International Health</td>
<td>Original Article</td>
<td>In this ecological study, the authors described COVID-19 deaths among children and adolescents &lt; 19 years of age in the state of Sergipe, Brazil. All cases were diagnosed based on clinical presentation, radiology, serology, or RT-PCR assays for SARS-CoV-2. The authors found that 6038 COVID-19 cases in children &lt; 19 years of age were reported until September 30, 2020. 37 children died, resulting in a case fatality rate of 0.61% and a mortality rate of 4.87 deaths per 100,000 population &lt;19 years old. Most deaths occurred among infants (44.1/100,000), and this age group had the highest case fatality rate of 15.3%. Of note, most children who died (n=25; 68%) had underlying co-morbidities such as chronic neurological diseases (n=7; 19%) or prematurity (n=4; 11%), and only 14 (38%) of the children who died were admitted to ICU. Therefore, although most of the children had underlying health conditions, the proportion of children admitted to ICU was small, reflecting insufficient pediatric ICU capacity in Sergipe State. The authors also reported that COVID-19 mortality in children and adolescents in Sergipe was higher than in other Brazilian states and high-income countries.</td>
<td>The authors of this ecological study found an unusually high COVID-19 death rate and case fatality rate among children and adolescents &lt; 19 years old in the Brazilian State of Sergipe, reflecting the limited availability of pediatric ICU beds in the State.</td>
<td>de Siqueira Alves Lopes A, Fontes Vieira SC, Lima Santos Porto R, et al. Coronavirus disease-19 deaths among children and adolescents in an area of Northeast, Brazil: why so many? [2020 Nov 20]. Tropical Medicine International Health. 2020;10.1111/tmi.13529. doi:10.1111/tmi.13529</td>
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<td>COVID-19, preterm birth, pandemic, maternal health, India</td>
<td>20-Nov-20</td>
<td>COVID-19 and Preterm Birth</td>
<td>The Lancet Global Health</td>
<td>Correspondence</td>
<td>The authors review the analysis provided in September 2020 by Kumari et al., regarding the impact of the COVID-19 pandemic in 4 tertiary teaching hospitals in western India. Kumari et al. reported that, compared to before the pandemic, the demographics of pregnant women delivering in these facilities have changed (i.e., there are more educated and nulliparous pregnant women).</td>
<td>The authors of the correspondence review Kumari et al.’s analysis from September 2020, regarding the impact of the COVID-19 pandemic on Magee LA, Dadelszen PV, Khalil A. COVID-19 and preterm birth. The Lancet Global Health. 2020. doi:10.1016/s2214-109x(20)30457-5</td>
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control measures was challenging. The MCI conducted the practical examination over 2 days under real-time video monitoring and supervision and face-to-face evaluation. 3 examiners were present during the examination, with 2 external examiners supervising the examination online, and an internal examiner conducting the face-to-face evaluation. Examiners shared and signed the assessment sheets and final marks sheet via e-mail. Both of the external examiners provided positive feedback on the overall examination process and logistics. The overall expenses were less than one-third of the conventional physical examination method. As medical education is offered virtually due to COVID-19-related restrictions, computer-based online testing is a viable way to test clinical skills of postgraduate medical students. Acceptance by examinees and examiners, appreciation of clinical findings by external examiners, need for extra software/hardware, technical problems, communication errors and other institutional barriers are challenges to be considered. Mock examinations, pre-examination meetings, and support from the information technology department would help overcome these challenges. Examinations could provide a useful, cost-efficient solution to COVID-19-related restrictions in medical education.
The previous article also noted an increased number of in-hospital maternal deaths and an increased number of late pregnancy fetal losses. Kumari et al. reported a 43.2% reduction in hospital admissions during the lockdown period compared with the control period (10 weeks before lockdown), and a 66.4% reduction in referred obstetric emergencies than the same calendar period in the previous year. The authors of this letter therefore conclude that fewer women are seeking care during the COVID-19 pandemic, and that the local maternity health system is also failing to seek care for these women. This observation continues to illustrate the indirect effects of COVID-19 on maternal and perinatal health, about which Kumari et al. had cautioned. Furthermore, there is an urgent need to report all obstetric and neonatal outcomes comprehensively, highlighting both predictable outcomes and unexpected patterns of outcomes. The authors conclude their correspondence by asking Kumari et al. if they have found any data regarding changes in the number of preterm births during the lockdown in western India. They ask Kumari et al. for information about changes in the number of perinatal births during the lockdown to help present a complete picture.

### Key Terms

- COVID-19
- Maternal
- Neonatal

### Date Published

- 20-Nov-20

### Title

- Effect of COVID-19 on maternal and neonatal services

### Journal / Source

- The Lancet

### Type of Publication

- Correspondence

### Summary & Key Points

The authors of this correspondence respond to a study of 9 referral hospitals in Nepal by Ashish et al. regarding institutional birth rates during the COVID-19 pandemic. The study reported a decline in institutional birth rates of 50% and an increase in neonatal mortality of more than 200%. This is in comparison to a drop in Nepalese birth rates of only 31.8% reported by the authors of this correspondence from January-May 2020. However, this correspondence considers other explanations for the reported decline in maternal and neonatal services. The 9 referral hospitals were in urban settings where fewer women would be expected to seek healthcare during a pandemic. Those who deliver in referral hospitals would be those with more significant risks unable to deliver safely closer to home, leading to increased mortality. Additionally, the original article only included referral hospitals, while Nepal's Ministry of Health includes deliveries in all health facilities as institutional. Since May 2020, the number of deliveries in peripheral health facilities has increased. The authors use this data to encourage the strengthening of the entire primary healthcare system in Nepal. The hope is that both articles will guide Nepalese policy makers to work towards reform in the Nepal health system.

### Specific Observations

- This correspondence comments on a study by Ashish et al. reporting declines in institutional birth rates in Nepal during the COVID-19 pandemic. The authors present alternative explanations to the conclusions reached by Ashish et al. and hope that both articles will encourage policy makers to work towards reform in the Nepal health system.

### Full Citation

Jha D, Adhikari M, Gautam JS, Tinkari BS, Mishra SR, Khatri RB. Lancet. 2020. [https://doi.org/10.1016/S2214-109X(20)30482-4](https://doi.org/10.1016/S2214-109X(20)30482-4)
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<tr>
<td>pediatric; program director; promotion; residency; social media</td>
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<td>Access to Abstract Only</td>
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<td>education, professional networking, and academic collaboration. Pediatric residency program directors have recognized additional benefits of social media engagement via program promotion and resident recruitment. The COVID-19 pandemic and subsequent move to virtual interviews for the 2020-2021 residency interview season have created a new urgency for pediatric program directors to establish an active social media presence, primarily as a means to engage applicants and provide them with information in lieu of cancelled clinical rotations and in-person interviews. COVID-19 pandemic. This will allow them to engage applicants and provide them with information in lieu of cancelled clinical rotations and in-person interviews.</td>
<td>Drivers from 8 countries present an ecological framework of the effect of the COVID-19 pandemic on child maltreatment. Some risks and protective factors for child maltreatment vary by country. Children's rights to safety and security must be advanced to ensure safety during future pandemics.</td>
<td>10.1097/MAT.0000000000001357.</td>
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<td>Children, pediatrics, comorbidities, obesity, disease severity</td>
<td>20-Nov-20</td>
<td>Severe COVID-19 Infection and Pediatric Comorbidities: A Systematic Review and Meta-Analysis</td>
<td>International Journal of Infectious Diseases</td>
<td>Review Article</td>
<td>In this systematic review, the authors investigated the effects of pediatric comorbidities on COVID-19 severity. PubMed, Embase, and Medline databases were searched for publications on pediatric COVID-19 infections from January 1st -October 5th, 2020. 42 studies containing 275,661 children without comorbidities and 9,353 children with comorbidities were included. 138 (38%) were under 1 year of age, 82 (21%) 1 to 5 years of age, 31 (8%) 6 to 10, 22 (6%) 10 – 14, and 89 (23%) were older than 14 years of age. Severe COVID-19 was present in 5.1% of children with comorbidities, and in 0.2% without comorbidities. Random-effects analysis revealed a higher risk of severe COVID-19 among children with comorbidities than for healthy children; relative risk ratio 1.79 (95% CI 1.27 – 2.51);I² = 94%). Children with underlying conditions also had a higher risk of COVID-19-associated mortality; relative risk ratio 2.81 (95% CI 1.31 – 6.02; I² = 82%). Examining the risk of obesity on COVID-19 severity found that children with pre-existing conditions are at a greater risk of severe COVID-19 and associated mortality. In particular, childhood obesity is likely positively correlated with COVID-19 severity.</td>
<td>This systematic review and meta-analysis of pediatric COVID-19 severity found that children with pre-existing conditions are at a greater risk of severe COVID-19 and associated mortality. In particular, childhood obesity is likely positively correlated with COVID-19 severity. Tsankov BK, Allaire JM, Irvine MA, Lopez AA, Sauvé LJ, Vallance BA, Jacobson K. Severe COVID-19 Infection and Pediatric Comorbidities: A Systematic Review and Meta-Analysis. International Journal of Infectious Diseases. 2020 Nov 20.</td>
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<td>COVID-19, critical disease, disease course, ICU admission, intubation, maternal morbidity, pregnancy, severe disease</td>
<td>20-Nov-20</td>
<td>Pregnant women with severe or critical COVID-19 have increased composite morbidity compared to non-pregnant matched controls</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Original Research</td>
<td>The authors compared the outcomes of severe and critical COVID-19 in pregnant versus nonpregnant reproductive-aged women. They identified 38 pregnant women with laboratory-confirmed SARS-CoV-2 infection hospitalized with severe or critical COVID-19 in four academic medical centers in New York City and one in Philadelphia, USA, between March 12 and May 5, 2020. The control group consisted of 94 reproductive-aged (18-50 years), nonpregnant women admitted for severe or critical COVID-19. The results showed that of the 38 pregnant women with COVID-19 analyzed, 29 (76.3%) had severe disease, and 9 (23.7%) had critical disease. The nonpregnant cohort had an increased composite morbidity compared to non-pregnant matched controls.</td>
<td>Findings from this study comparing the outcomes of pregnant versus reproductive age non-pregnant women admitted with severe or critical COVID-19 suggest that pregnant women were more likely to experience the composite morbidity and ICU admission. Debolt CA, Bianco A, Limaye MA, et al. Pregnant women with severe or critical COVID-19 have increased composite morbidity compared to non-pregnant matched controls. American Journal of Obstetrics and Gynecology. 2020. doi:10.1016/j.ajog.2020.11.022</td>
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<td>COVID-19, Novel Coronavirus Infection, Pregnancy, Diarrhea, Gastrointestinal Tract</td>
<td>20-Nov-20</td>
<td>Manifestations of COVID-19 in pregnant women with focus on gastrointestinal symptoms: a systematic review</td>
<td>Gastroenterology and Hepatology From Bed to Bench</td>
<td>Systematic review</td>
<td>This systematic review was conducted to evaluate the symptoms of COVID-19 in pregnant women, and specifically gastrointestinal (GI) symptoms. Scientific databases were searched for articles published up to May 8, 2020. Any study investigating the manifestations of COVID-19 in pregnant women was included. The search resulted in 852 titles and abstracts, narrowed down to 43 studies involving 374 women. The included studies took place in China, the USA, Italy, Iran, Peru, Portugal, Turkey, Sweden, Central America, and Korea. Pregnant women reported GI symptoms in 12 studies, the most common of which was diarrhea (4.5%, n=17), followed by abdominal pain (1.6%, n=6). The authors reported that 2-33% of women suffered from diarrhea, most common GI symptoms in pregnant women with COVID-19. The authors explain the possibility of vertical transmission of SARS-CoV-2 and suggest measuring newborns' IgM and maternal serum viral RNA load to predict transmission risk. This systemic review evaluates the gastrointestinal (GI) symptoms in pregnant women with COVID-19. The authors report that diarrhea and abdominal pain are the most common GI symptoms in this population.</td>
<td>Makvandi, S., Ashtari, S., &amp; Vahedian-Azimi, A. (2020). Manifestations of COVID-19 in pregnant women with focus on gastrointestinal symptoms: a systematic review. Gastroenterology and Hepatology from bed to bench, 13(4), 305–312.</td>
<td>doi:10.1016/j.gastro.2020.07.021</td>
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<td>Letter, vertical transmission, U.S., antibodies</td>
<td>20-Nov-20</td>
<td>Intrauterine vertical transmissibility of severe acute respiratory syndrome coronavirus 2: did we just miss the proof?</td>
<td>American Journal of Obstetrics &amp; Gynecology MFM</td>
<td>Letter to the Editor</td>
<td>In this letter to the editor, the authors provide their perspective on the possibility of vertical transmission of SARS-CoV-2, which is not supported by current evidence, in the absence of positive RT-PCR results for SARS-CoV-2 in amniotic fluid, placenta, cord blood, or breast milk. The authors discuss a recent study, which reported positive SARS-CoV-2 RT-PCR results in 3 of 11 placental and membrane swabs collected from pregnant women with COVID-19 in the U.S. Previously, another article reported positive RT-PCR results for SARS-CoV-2 in intra-operatively-collected amniotic fluid from a critically ill pregnant woman with COVID-19, suggesting intrapartum viral exposure. Some studies have also highlighted the presence of specific anti-SARS-CoV-2 immunoglobulin (Ig) M and IgG in the sera of neonates born to infected mothers. In the absence of placental RT-PCR tests, the authors state that the detection of IgM in the newborn strengthens the possibility of in utero transmission, as IgM does not cross the intact placenta and cannot be acquired from the mother. The authors speculate whether measuring viral RNA load in the maternal serum could predict vertical transmission risk. The detection of fetal IgM antibodies could further supplement the evidence in favor of, or against, vertical transmission.</td>
<td>The authors explain the possibility of vertical transmission of SARS-CoV-2 and suggest measuring newborns' IgM and maternal serum viral RNA load to predict transmission risk.</td>
<td>Jain V, Kanchan T. Intrauterine vertical transmissibility of severe acute respiratory syndrome coronavirus 2: did we just miss the proof? American Journal of Obstetrics &amp; Gynecology MFM. 2020;2(4, Supplement). doi:10.1016/j.ajogmf.2020.100228</td>
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Letter to the Editor

Increased frequency of pre-existing medical comorbidities, including diabetes, hypertension, and coronary artery disease, than pregnant women with severe or critical COVID-19. However, pregnant women were more likely to experience the composite morbidity including need for intubation, ECMO, non-invasive positive pressure ventilation, and need for high flow nasal cannula supplementation when compared to the nonpregnant control group (34.2% vs. 14.9%, p=0.03, adjusted OR 4.6 [95% CI 1.2-18.2]). Furthermore, pregnant patients experienced higher ICU admission rates (39.5% vs. 17.0%, p=0.01) than the control group. There were no deaths among the pregnant women, while death occurred in 3 of the 94 nonpregnant women. However, there was no evidence of increased mortality risk.
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<tr>
<td>Coronavirus; COVID-19; Diagnosis; Pediatrics; Saliva</td>
<td>20-Nov-20</td>
<td>Saliva: an important alternative for screening and monitoring of COVID-19 in children</td>
<td>Brazilian Oral Research</td>
<td>Article</td>
<td>Less invasive collection methods of samples are indispensable in a pandemic as large-scale testing is necessary to understand the contagion’s evolution in different populations. Saliva is an alternative for diagnosing viral infections with less discomfort making it particularly useful in children. The authors present a study for the use of saliva as a prognostic marker of SARS-CoV-2 in children, including sampling techniques for different age groups. The sampling methods depend upon the age of the child (presented in this article as a table), but for any age group 3ml of saliva should be collected. This amount may be difficult for infants &lt; 3 months when little saliva is produced. However, after 6 months of age, saliva is produced and collected via aspiration with a syringe and test tube. Open suction methods, closed suction, and swab collection techniques may be useable for early childhood (up to 3 years) and pre-school aged children (3-6 years) school-aged children (&gt;6 years) may also be able to expectorate as a collection technique. Another benefit of saliva is that it does not take a trained professional, and parents can assist in the collection, preventing healthcare workers from potential exposure and decreasing collection costs. Saliva testing methods may be an alternative to allow pediatric testing for SARS-CoV-2 and the re-opening of schools and recreational activities.</td>
<td>Saliva testing for SARS-CoV-2 may be a method to allow increased testing of pediatric patients and cause less trauma than oral-pharyngeal or nasopharyngeal testing. School re-openings hinge on ensuring students and staff are free from SARS-CoV-2, and a more straightforward test may make this a possibility. Saliva testing for SARS-CoV-2 can decrease exposure to healthcare workers and decrease costs as trained people are not required for saliva collection. Collection methods are provided by age group.</td>
<td>Santos CN, Rezende KM, Oliveira Neto NF, Okay TS, Braz-Silva PH, Bönecker M. Saliva: an important alternative for screening and monitoring of COVID-19 in children. <em>Braz Oral Res.</em> 2020;34:e0125. Published 2020 Nov 20. doi:10.1590/1807-3107bor-2020.vol34.0125</td>
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<td>Pregnancy, immune response, placenta, preterm birth, vertical transmission, offspring</td>
<td>19-Nov-20</td>
<td>Maternal immune responses and obstetrical outcomes of pregnant women with COVID-19 and possible health risks of offspring</td>
<td>CTMB Journal of Reproductive Immunology</td>
<td>Review</td>
<td>In this review article, the authors provided a comprehensive review of immune responses and obstetrical outcomes in pregnant women with COVID-19, and discuss the potential impact on the health of offspring. They first described the systemic immune response to SARS-CoV-2, the immune inflammatory responses of pregnant women, and the placental pathology related to maternal infection. Of note, the placental abnormalities observed in pregnant women with COVID-19 have been associated with intra-uterine growth restriction (IUGR) and reduction in fetal growth rate. The authors then reviewed data on obstetrical outcomes, including preterm birth, low birth weight, and pregnancy loss. The initial reports suggest an increase in the risk of preterm birth and low birth weight following maternal infection, with the evidence for pregnancy loss less clear and requiring further evaluation. Finally, the authors reviewed neonatal impacts of maternal infection, including vertical transmission and long-term risks. A recent</td>
<td>In this report, the authors reviewed maternal immune responses and obstetrical outcomes for pregnant women with COVID-19 and discussed the potential impact on offspring. Early reports suggest that maternal COVID-19 is associated with increased risk of preterm birth and low birth weight for infants. In addition, other viral infections have been associated with psychological disorders.</td>
<td>Cavalcante MB, Cavalcante CTMB, Sarno M, Barini R, Kwak-Kim J. Maternal immune responses and obstetrical outcomes of pregnant women with COVID-19 and possible health risks of offspring. <em>J Reprod Immunol.</em> 2020 Nov 19;143:103250. doi: 10.1016/j.jri.2020.103250.</td>
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<td>Masking, prevention, children, perceptions</td>
<td>19-Nov-20</td>
<td>Maternal perception of masking in children as a preventive strategy for COVID-19 in Nigeria: A multicentre study</td>
<td>PLoS One</td>
<td>Original Research</td>
<td>This prospective cross-sectional study assessed mothers’ perceptions on masking their children as a strategy for preventing COVID-19 in Nigeria. A semi-structured questionnaire was conducted in 2 health institutions among 387 mothers who presented with their children to the hospital during the COVID-19 pandemic [dates not provided]. Of note, children’s ages ranged from &lt;8 days to &gt;12 years [exact ages not noted], with 57% of participants’ children being &lt;8 days old. Mothers reported that 173/398 (43.5%) of children wore face masks, all of which were home-made. The major reasons reported for children not wearing face masks (n=225) included perceived difficulty in breathing (n=86, 38.2%) and that the child pulls the mask off (n=66, 29.3%). 64.2% of children who wore &gt; 35 years old wore face masks, compared with only 31.7% of those whose mothers were &lt; 30 years of age (χ² = 28.632, p&lt;0.001). Similarly, a significantly higher proportion (51.0%) of the children who were &gt; 1 year of age wore a face mask, compared with 20.5% of those &lt; 1 year (χ² = 19.441, p&lt;0.001). Mothers’ knowledge about COVID-19 had no significant influence on children’s use of face masks (χ² = 2.337, p = 0.127). The authors recommend that maternal perceptions of pediatric masking should be targeted as a strategy to limit spread of COVID-19 in Nigeria.</td>
<td>The authors assessed maternal perceptions regarding masking of children in Nigeria as a prevention strategy against the spread of COVID-19. They found a significant difference in child masking based on maternal age and age of the child. However, maternal knowledge about COVID-19 did not appear to significantly influence whether the child wore a mask.</td>
<td>Aronu AE, Chinawa JM, Nduagubam OC, Ossai EN, Chinawa AT, Igwe WC. Maternal perception of masking in children as a preventive strategy for COVID-19 in Nigeria: A multicentre study. PLoS One. 2020 Nov 19;15(11):e0242650. doi: 10.1371/journal.pone.0242650.</td>
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<td>Pregnancy, symptoms, maternal outcomes, perinatal outcomes, vertical transmission</td>
<td>19-Nov-20</td>
<td>Maternal clinical characteristics and perinatal outcomes among pregnant women with Coronavirus Disease 2019. A systematic review</td>
<td>Travel Medicine and Infectious Disease</td>
<td>Review</td>
<td>This review aimed to assess clinical characteristics, maternal outcomes, perinatal outcomes, and possibility of vertical transmission in SARS-CoV-2-infected pregnant women. MEDLINE, EMBASE, Cochrane Library, LILACS, and several Chinese medical databases were searched from December 01, 2019-April 27, 2020 for studies reporting RT-PCR-confirmed SARS-CoV-2 in pregnant women. 33 articles were included in descriptive analyses, and 4 case-controls for meta-analysis. In 322 infected pregnant women ages 20-45 years, maternal co-morbidities were reported in 128 women, with the most frequent being obesity (n=31, 24.2%). Among 169 pregnant women, 42 (28.4%) were asymptomatic at admission, while in symptomatic women, cough (n = 148/248, 59.7%) and fever (n = 147/248, 59.3%) were the most prevalent. 195 of the total 322 pregnant women (60.6%) delivered: C-section was reported in 99 (50.8%) and vaginal delivery in 64 (32.8%). The main adverse obstetric outcome was premature</td>
<td>COVID-19 may result in long-lasting congenital anomalies of infants due to infection or anti-viral drugs’ side effects. The use of antiviral drugs should be regulated in COVID-19 pregnant patients until its safety and efficacy for neonates are established.</td>
<td>Novoa RH, Quintana W, Llancari P, Urbina-Quispe K, Guevara-Rios E, Ventura W. Maternal clinical characteristics and perinatal outcomes among pregnant women with coronavirus disease 2019. A systematic review. Travel Med Infect Dis. 2020 Nov 19;39:101919. doi: 10.1016/j.tmaid.2020.101919.</td>
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<td>Students, children, attitudes, mental health, depression</td>
<td>19-Nov-20</td>
<td>Knowledge, attitudes, and practices towards COVID-19 among primary school students in Hubei Province, China</td>
<td>Children and Youth Services Review</td>
<td>Original Research</td>
<td>In this study, the authors investigated the knowledge, attitudes, and practices (KAP) towards COVID-19 among students in 2 primary schools in Wuhan and Huangshi city, China during the COVID-19 outbreak. 1650 students in grades 2–6 [ages not provided] completed an online questionnaire from February-March 2020. The questionnaire assessed demographic characteristics, knowledge about COVID-19, attitudes towards COVID-19, and practices during the outbreak, along with depression and anxiety symptoms using the Children’s Depression Inventory-Short Form (CDI-S) and Screen for Child Anxiety Related Emotional Disorders (SCARED). Total KAP scores of students towards COVID-19 were significantly associated with gender, grade, and whether they had depressive or anxiety symptoms. Higher scores indicated more knowledge and greater positivity. Girls had significantly higher KAP scores than boys (p = 0.032). Compared with students in grade 2, students in grade 6 had higher KAP scores (p = 0.044). Students with depressive symptoms had lower scores than those without depressive symptoms (p &lt;0.001), and students with anxiety symptoms had lower overall KAP scores than students without anxiety symptoms (p = 0.001). The authors conclude that KAP scores may be greatly increased if health education programs tailor to students with mental health challenges.</td>
<td>In this assessment of the knowledge, attitudes, and practices (KAP) of primary school age children in China towards COVID-19, the authors found that lower scores (less knowledge and less positivity) were associated with report of anxiety and depressive symptoms. They suggest that health education programs tailor to students with mental health challenges to improve KAP scores.</td>
<td>Xue Q, Xie X, Liu Q, Zhou Y, et al. Knowledge, attitudes, and practices towards COVID-19 among primary school students in Hubei Province, China. Child Youth Serv Rev. 2020 Nov 19:105735. doi: 10.1016/j.childyouth.2020.105735.</td>
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<tr>
<td>Iran; asthma; pregnancy; COVID-19</td>
<td>19-Nov-20</td>
<td>An asthmatic pregnant woman with COVID-19: A case report study</td>
<td>Respiratory Medicine Case Reports</td>
<td>Case Report</td>
<td>This is the case of a 32-year-old asthmatic pregnant woman with COVID-19 who presented to a hospital in Iran on 19 March 2020, at 35 5/7 weeks’ gestation. The patient had suffered from asthma since childhood, and her symptoms worsened during pregnancy. She had a history of otalgia, sore throat, and tooth abscess and was treated with antibiotics 10 days before presenting to the medical center. 4 days later, the patient’s condition worsened with new symptoms of cough, dyspnea, inability to speak, numbness, and fatigue. The authors present the patient’s vital signs and laboratory results in tables. She was admitted to the hospital and the baby was delivered by emergency section at 36 weeks’ gestation and 8 days of hospitalization, the patient’s condition improved, and she was discharged 4 days after delivery.</td>
<td>This is the case of a 32-year-old pregnant woman with asthma and COVID-19 in March 2020, in Iran. After an emergency C-section at 36 weeks’ gestation and 8 days of hospitalization, the patient’s condition improved, and she was discharged.</td>
<td>Motlagh AJ, Esmaeizadeh Saieieh S, Parhigar O, et al. An asthmatic pregnant woman with COVID-19: A case report study. Respiratory Medicine Case Reports. doi:10.1016/j.rmcr.2020.101296</td>
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<td>US, Massachusetts, COVID-19, emergency department, hospital admissions, care deferment</td>
<td>19-Nov-20</td>
<td>Decreased hospital admissions through emergency departments during the COVID-19 pandemic</td>
<td>American Journal of Emergency Medicine (AJEM)</td>
<td>Original Research</td>
<td>This US study sought to describe and characterize the impact of COVID-19 on hospital pediatric and adult admissions through emergency departments (EDs), with a specific focus on diagnosis group, age, gender, and insurance coverage. 501,369 total patient visits, including 1546 pediatric admissions (age 0-14 years old), from 12 EDs in Massachusetts from 01 Jan 2019-09 Sep 2019, and 01 Jan 2020-08 Sep 2020 were included. [Median age and range were not specified]. Across all age groups, the authors estimated the relative contribution of each characteristic to the decrease in admissions after the statewide lockdown, corresponding to weeks 11 through 36 (11 Mar 2020-08 Sep 2020). Admissions decreased across all age groups, but most significantly among pediatric patients. Infants aged 0–2 years old had 62% fewer admissions (95% CI: −75% to −50%) and patients aged 3-14 years old had 44% fewer admissions (95% CI: −54% to −35%), demonstrating significant delayed care for pediatrics. This study displays 6 tables and figures representing the data and analysis of trends. Although telemedicine may replace lower acuity visits, it cannot replace the vigilant monitoring and swift action characteristic of a hospital admission. The foregone admissions must be addressed via patient outreach and support.</td>
<td>This US study sought to describe and characterize the impact of COVID-19 on hospital pediatric and adult admissions through emergency departments (EDs), with a specific focus on diagnosis group, age, gender, and insurance coverage. Results indicate that pediatric patients aged 0-14 years, and especially infants aged 0-2 years, demonstrated a large decrease in ED visits, representing a delay in care related to the pandemic.</td>
<td>Nourazari S, Davis SR, Granovsky R, et al. Decreased hospital admissions through emergency departments during the COVID-19 pandemic [published online, 2020 Nov 19]. Am J Emerg Med. 2020;S0735-6757(20)31038-X. doi:10.1016/j.ajem.2020.11.029</td>
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<td>COVID-19; SARS-CoV-2; education; immune system; psychology; younger individuals</td>
<td>19-Nov-20</td>
<td>A mini-review on the effects of COVID-19 on younger individuals</td>
<td>Experimental Biology and Medicine (Maywood)</td>
<td>Review</td>
<td>This is a review of the impact of COVID-19 on younger individuals, in which the authors discuss the association between patient age and COVID-19, SARS-CoV-2 epidemiology, psychological effects associated with lockdowns and school closures, and possible mechanisms underlying lower transmission rate in children. Older individuals, particularly &gt;50 years of age are at a higher risk of contracting the disease, with poor prognosis compared to younger age groups. The lower rate of transmission in children could be attributed to elevated expression of ACE2 in the upper respiratory tract or the absence of excessive immune response (e.g. cytokine storm) commonly observed in elderly patients. This is a review of the impact of COVID-19 on younger individuals. The authors discuss the association between patient age and COVID-19, SARS-CoV-2 epidemiology, psychological effects associated with lockdowns and school closures, and possible mechanisms</td>
<td>Manivannan M, Jogalekar MP, Kavitha MS. A mini-review on the effects of COVID-19 on younger individuals. Exp Biol Med (Maywood). 2020;1535370220975118. doi:10.1177/1535370220975118.</td>
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However, recent reports suggest higher number of infections (>20% of all positive cases) among younger adults (aged 20-39 years) during June-August 2020 than that observed at the beginning of the pandemic, indicating their possible role in community transmission. Although the pathophysiology is unclear, one prominent condition associated with SARS-CoV-2 in children is MIS-C. Symptoms associated with MIS-C include fever, rash, gastro-intestinal issues, and myocarditis, a cardiac muscle inflammation characterized by high circulatory concentrations of ferritin, troponin, and D-dimer. Lockdowns and school closures also have psychological impacts on children, as evidenced by the rise in accidental injuries and suicides reported during the COVID-19 pandemic. Evidence remains inconclusive as to whether such drastic measures as school closures are helpful in reducing the risk of transmission.

Iran, COVID-19, pregnancy, proning, prone position ventilation, SARS-CoV-2

In this case report, a 25-year-old pregnant woman (gestational age: 24 weeks) presented with severe COVID-19 in Iran. Deterioration of her respiratory status resulted in her admission to the ICU and mechanical ventilator support. With a lack of improvement in oxygen saturation, tele-consultation was performed with specialists from other centers, and prone-position ventilation (PPV) was suggested. Significant improvements were observed in oxygen saturation. The patient was extubated after 5 days of intermittent PPV and supine-position ventilation and was discharged 20 days after admission. The authors present figures and tables displaying the patient’s CT scans, laboratory results, and medication usage. The fetus appeared unharmed by the intervention. The authors suggest considering PPV for pregnant women with acute respiratory distress syndrome in the context of COVID-19, however, further research is needed to establish the advantages and disadvantages of PPV for both mother and fetus.


COVID-19, Newborns, Neonatal Outcomes, SARS-CoV-2, Turkey

The authors reviewed the available evidence describing clinical characteristics and outcomes in neonates with confirmed COVID-19 infections, to guide the prevention of COVID-19 in neonates. They searched 8 different databases for studies published in Turkish and English, and identified 1051 articles examining clinical outcomes in neonates with confirmed or suspected COVID-19 within 28 days of birth. The neonatal clinical outcomes measured included symptoms, neonatal ICU (NICU) admissions, need for mechanical ventilation, and mortality rates. Of the 1051 studies reviewed between August 20 and September 23, 2020, only 35 studies met the inclusion criteria, comprising a total of 68 newborns from 0-28 days of age with confirmed or suspected COVID-19. The results showed that 63% of neonates had a fever, underlying lower transmission rate in children. While children are at lower risk of getting infected and have less severe outcomes, MIS-C is a concern, as well as serious psychological impacts due to prolonged lockdowns and school closures.

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<tr>
<td>COVID-19; health insurance; insurance gaps; children; enrollment; access; United States</td>
<td>19-Nov-20</td>
<td>Addressing Gaps in Children’s Health Insurance Coverage During the COVID-19 Pandemic</td>
<td>Population Health and Management</td>
<td>Commentary</td>
<td>This article describes the issue of loss of health insurance coverage for children in the United States during the COVID-19 pandemic, due to caregiver unemployment and loss of employer-sponsored health insurance. Potential harms from the loss of coverage include unmet health care needs, disease exacerbation, and missed routine and preventative care. The authors suggest that immediate action is needed to prevent long-term consequences of gaps in coverage for children; action may include assisting families with enrolling children in public coverage, informing families of subsidized marketplace plans, improving remote screening of families for gaps in insurance coverage, connecting families to community resources, and addressing barriers to health plan enrollment. In addition to these short-term solutions, the authors also suggest long-term policy changes to improve stability in insurance coverage for children, including provisions that enable children to continue coverage during a national crisis, funding support for health insurance marketplace navigators, Medicaid expansion, and expansion of subsidized insurance plans.</td>
<td>The COVID-19 pandemic has led to gaps in health insurance coverage for children, resulting from caregiver unemployment and loss of employer-sponsored health insurance. Harms from the gaps in coverage are identified, along with long-term and short-term policy measures to address current and future gaps in health insurance coverage among children.</td>
<td>Gautam A, Tumin D. Addressing Gaps in Children’s Health Insurance Coverage During the COVID-19 Pandemic [published online ahead of print, 2020 Nov 19]. Popul Health Manag. 2020;10.1089/pop.2020.0294. doi:10.1089/pop.2020.0294</td>
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<td>Children, seroprevalence, antibody response, United Kingdom</td>
<td>19-Nov-20</td>
<td>Kinetics and seroprevalence of SARS-CoV-2 antibodies in children</td>
<td>The Lancet Infectious Diseases</td>
<td>Correspondence</td>
<td>To assess the kinetics of SARS-CoV-2 antibody responses in children, the authors report the results of antibody testing from a prospective multicenter cohort study in the United Kingdom. Recruitment took place from April 16- July 3, 2020, at five UK sites (Belfast, Cardiff, Glasgow, London, and Manchester) and included healthy children aged 2–15 years. Follow-up visits at all five UK sites took place between June 26-Aug 15, 2020. The median time between initial and follow-up visits was 62 days (IQR 52–70; range 43–81). 65 of 849 tests (7.6%; 95% CI 6.05–9.64) were reactive at follow up, which did not differ significantly from seroprevalence during recruitment (6.9%; 95% CI 5.4 to 8.6; 68 of 992). 45 participants with reactive antibody tests in the first round demonstrated an increase in antibody titers at follow up. These results indicate that antibody titers in children exposed to SARS-CoV-2 remain at a detectable level for at least 62 days, and that in this cohort mean antibody titers increased over time. This</td>
<td>The authors assessed the antibody response in children to SARS-CoV-2 in the United Kingdom, and found detectable titer levels after 62 days, with mean antibody titers increasing over time.</td>
<td>Roarty C, Tonry C, McFetridge L, Mitchell H, Watson C, Waterfield T, Waxman E, Fairley D, Roew-Setz G, McKenna J, Mallet P. Kinetics and seroprevalence of SARS-CoV-2 antibodies in children. The Lancet Infectious Diseases. 2020 Nov 19.</td>
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<td>COVID-19; school closure; social distancing; acute infection; pediatric; Japan</td>
<td>18-Nov-20</td>
<td>Early impact of school closure and social distancing for COVID-19 on the number of inpatients with childhood non-COVID-19 acute infections in Japan</td>
<td>medRxiv</td>
<td>Preprint (not peer-reviewed)</td>
<td>The authors describe a study to assess the early impact of nationwide school closure (March-May 2020) and social distancing for COVID-19 on the number of inpatients with major childhood infectious diseases in Japan. Using data from the Diagnosis Procedure Combination system, patients &lt; 15 years old with admissions for a diagnosis of upper respiratory tract infection (URTI), lower respiratory tract infection (LRTI), influenza, gastro-intestinal infection (GII), appendicitis, urinary tract infection (UTI), or skin and soft tissue infection (SSTI) between July 2018-June 2020 were identified. Two periods were considered in the analysis: a pre- and a post-school-closure period. Changes in the trend of the weekly number of inpatients between the two periods were assessed using interrupted time-series analysis. A total of 75,053 patients in 210 hospitals were included. A marked reduction was found in the number of inpatients in the post-school-closure period, with an estimated reduction of 581±42.9 inpatients per week (p=0.001). The weekly number of inpatients in the last week of March 2020 was 41.3% and 41.1% lower than in the last week of February 2020 for preschool and school-age children, respectively. Remarkable decreases in the number of inpatients with URI, LRTI, and GII were observed (p&lt;0.001), while there were relatively mild changes in the influenza, appendicitis, UTI, and SSTI groups.</td>
<td>The authors describe a study to assess the early impact of nationwide school closure (March-May 2020) and social distancing for COVID-19 on the number of inpatients with major childhood infectious diseases in Japan. The findings confirm a marked reduction in the number of school-age and pre-school inpatients for non-COVID-19 acute infections in the post-school-closure period. Upper respiratory tract infection, lower respiratory tract infection and gastro-intestinal infection showed the most reduction in cases.</td>
<td>Kishimoto K, Bun S, Shun J. Early impact of school closure and social distancing for COVID-19 on the number of inpatients with childhood non-COVID-19 acute infections in Japan. medRxiv. 2020. doi:10.1101/2020.11.18.20233957.</td>
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<td>Depression, post-traumatic stress, pregnancy, childbirth, restrictions</td>
<td>18-Nov-20</td>
<td>Psychosocial factors associated with postpartum psychological distress during the Covid-19 pandemic: A cross-sectional study</td>
<td>BioMed Central (BMC) Pregnancy and Childbirth</td>
<td>Original Research</td>
<td>This cross-sectional study assessed the prevalence of postpartum depression and post-traumatic stress symptoms (PTSS) in women who gave birth during the COVID-19 pandemic in Italy. 163 women who gave birth from March 8-June 15, 2020 in Torino, Italy completed an online questionnaire (60.8% response rate), which included the Edinburgh Postnatal Depression Scale (EPDS), the Impact of Event Scale-Revised (IES-R) for PTSS, and The Relationship Questionnaire (RQ). Symptoms of postpartum depression were present in 72 (44.2%) respondents (EPDS of ≥11) and symptoms of postpartum PTSS were present in 70 (42.9%) respondents (IES-R of ≥24). Postpartum depressive symptoms were found to be associated with a high level of pain experienced during childbirth (p=0.002) while the perceived level of support from the healthcare staff during childbirth was found to be a protective factor (p=0.01). The RQ, which assesses relational attachment styles, revealed that dismissive- and fearful-avoidant attachment styles were significantly associated with the risk of depression and PTSS, respectively (p=0.024 and p=0.024). The authors conclude that there was a high prevalence of postpartum depression and PTSS in women who gave birth during the COVID-19 pandemic.</td>
<td>The authors assessed postpartum depression and post-traumatic stress symptoms in women who gave birth during the COVID-19 pandemic in Italy. There was a high rate of both depressive and post-traumatic symptoms present; however, these seemed to be related to individual factors such as pain during birth, rather than pandemic-related restrictions.</td>
<td>Ostacoli L, Cosma S, Bevilacqua F, Berchialla P, Bovetti M, Carosso AR, Malandrone F, Carletto S, Benedetto C. Psychosocial factors associated with postpartum psychological distress during the Covid-19 pandemic: a cross-sectional study. BMC Pregnancy Childbirth. 2020 Nov 18;20(1):703. doi: 10.1186/s12884-020-03399-5.</td>
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<td>COVID-19; Complicated sinusitis; Coronavirus; Pediatric COVID-19; Pediatric rhinosinusitis; SARS-CoV-2; United States of America</td>
<td>18-Nov-20</td>
<td>Management of complicated pediatric rhinosinusitis in the COVID-19 era</td>
<td>American Journal of Otolaryngology</td>
<td>Case Report</td>
<td>This article uses 2 case reports from the USA to illustrate the challenges of managing complicated pediatric rhinosinusitis in patients with COVID-19. Case I is a 15-year-old African American male who presented with headaches, fever, nasal congestion, diarrhea, nausea, emesis, right peri-orbital swelling, pain, and blurred vision. Head CT revealed right rhino-sinusitis and an epidural collection posterior to the right frontal sinus. SARS-CoV-2 RNA testing was positive, and C-reactive protein was significantly elevated (169 mg/dL). He was treated with antibiotics, nasal saline irrigation, and intranasal oxymetazoline and fluticasone. MRI revealed persistent rhinosinusitis, epidural collection, and superior ophthalmic vein thrombosis. With worsening ophthalmic symptoms on Hospital Day 3, the patient underwent endoscopic right maxillary antrostomy, total ethmoidectomy, and frontal sinusotomy to decrease neurologic risk and other complications. Postoperatively he developed hypoxia, and lung X-ray revealed bilateral, patchy opacities. He was started on hydroxychloroquine and enoxaparin and began bilevel positive airway pressure (BiPAP) therapy. His respiratory status improved, and he was discharged but was lost to follow-up. Case II is a 12-year-old Egyptian male presenting with nasal congestion and progressive right eye swelling. Head CT revealed right-sided rhino-sinusitis and subperiosteal abscess, and SARS-CoV-2 RNA testing was positive. Antibiotics were administered, and he expediently underwent right orbitotomy and drainage of the abscess. He further received intranasal oxymetazoline and fluticasone and nasal saline irrigations and was eventually discharged. Symptoms had resolved upon follow-up, but he later underwent right-sided endoscopic sinus surgery for persistent sinus disease. In conclusion, the authors urge further research and a multi-disciplinary approach in caring for such patients.</td>
<td>This article uses 2 case reports from the USA to illustrate the challenges of managing acute, complicated rhino-sinusitis in pediatric patients with concurrent COVID-19. The authors urge further research and a multi-disciplinary approach in caring for such patients.</td>
<td>Blanco CH, Stein JB, Barinsky GL, et al. Management of complicated pediatric rhinosinusitis in the COVID-19 era. Am J Otolaryngol. 2020;41(6):102746. doi:10.1016/j.amjoto.2020.102746</td>
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<td>COVID-19; SARS-CoV-2; Placenta; Maternal-fetal interface, angiotensin-converting enzyme 2, ACE2</td>
<td>18-Nov-20</td>
<td>Letter to the editor: The placenta and COVID-19</td>
<td>Placenta</td>
<td>Letter to the Editor</td>
<td>Examination of SARS-CoV-2-infected delivering mothers’ placental tissues is highly recommended to better understand COVID-19 pathology, its vertical transmission, and treatment modalities. SARS-CoV-2 mainly uses angiotensin-converting enzyme type-2 (ACE2) receptors, expressed on tissues of the maternal-fetal interface, to enter the cell. Once uterine ACE2 receptors are compromised, uterine contraction and fetal demise are possible, which may explain why some COVID-19 pregnant women have preterm deliveries and miscarriages. The ACE2 receptors’ potential roles in SARS-CoV-2 vertical transmission or maternal morbidity need further investigation. Understanding</td>
<td>The potential role of angiotensin-converting enzyme type-2 (ACE2) receptors in COVID-19 maternal morbidity, the authors suggest that investigation of SARS-CoV-2 infected placental tissues is critical to understand COVID-19 pathology and therapeutic strategies.</td>
<td>Al-Lami RA, Algburi AMA. Letter to the editor: The placenta and COVID-19. Placenta. Published online November 18, 2020. doi:10.1016/j.placenta.2020.11.007</td>
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<td>Antenatal care;</td>
<td>18-Nov-20</td>
<td>SARS-CoV-2 updates in a West African population and precautionary</td>
<td>Journal of Global Health</td>
<td>Commentary</td>
<td>The authors review the COVID-19 situation in Ghana, focusing specifically on preventative measures during antenatal care (ANC). As of May 9, 2020, there were 4,012 positive cases of COVID-19 recorded in Ghana, 2 of which were publicly confirmed as pregnant women. The authors studied the precautionary methods implemented at a teaching hospital in the country. The hospital moved the ANC clinic to a larger, more open space to ensure social distancing, and limited the number of people accompanying pregnant women. All staff receives training on infection prevention and control, and temperatures are taken before entry to the ANC clinic. Masks are mandatory throughout the hospital. However, the authors anticipate issues maintaining the measures because of resources and cost. Additionally, restricting the number of people present at ANC may impede the drive to promote family-centered care. However, the authors are optimistic that the precautionary measures will be effective in preventing disease and providing quality ANC during and beyond the pandemic. The feasibility of telemedicine is being explored as a future option as well. The authors conclude that the current measures have had a positive impact on ANC delivery and SARS-CoV-2 infection prevention in Ghana, but these measures must be sustained, and investment in resources must continue.</td>
<td>The authors review the COVID-19 situation in Ghana as of May 2020 and specifically report the precautionary measures taken during antenatal care in a teaching hospital.</td>
<td>Morhe, E., Anto, E. O., Coall, D. A., Adua, E., Debrah, A. Y., Addai-Mensah, O., Owusu, M., Owiredu, W. K., Obirikorang, C., Asiamah, E. A., Acheampong, E., Asamoah, E. A., Abru, L., Anto, A. O., Wang, Y., Hou, H., &amp; Wang, W. (2020). SARS-CoV-2 updates in a West African population and precautionary measures for sustaining quality antenatal care delivery. Journal of global health, 10(2), 020365. <a href="https://doi.org/10.7189/jogh.10.020365">https://doi.org/10.7189/jogh.10.020365</a></td>
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<td>COVID-19, schools,</td>
<td>18-Nov-20</td>
<td>Secondary transmission of COVID-19 in preschool and school settings</td>
<td>medRxiv</td>
<td>Preprint, not peer-reviewed</td>
<td>The authors present their data on the secondary transmission of SARS-CoV-2 among students and teachers/personnel after the reopening of preschools and schools in Italy. They identified all SARS-CoV-2 consecutive cases leading to an investigation in 41 classes of 36 educational institutions (8 infant-todler centers and preschools, ten primary and 18 secondary schools) between September 1 to October 15, 2020, in Reggio Emilia province, Italy. The authors analyzed the schools' characteristics, the index case, including the possible source of infection, the number of contacts (students and teachers/personnel) identified and tested, and the characteristics of secondary cases. Their results showed that 39 secondary cases (3.9%) were identified among 994 children tested for SARS-CoV-2, in a total of 13 classes: one primary</td>
<td>Findings from this study in Italy showed that the SARS-CoV-2 attack rate was higher in secondary schools than in primary schools. However, secondary transmission was absent in early childhood educational settings and among teachers/personnel.</td>
<td>Larosa E, Djuric O, Cassinadri, M, et al. Secondary transmission of COVID-19 in preschool and school settings after their reopening in northern Italy: a population-based study. [published online, 2020 Nov 18]. medRxiv. 2020. doi: <a href="https://doi.org/10.1101/2020.11.17.20229583">https://doi.org/10.1101/2020.11.17.20229583</a></td>
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<td>COVID-19; pediatric; dizziness; Turkey; SARS-CoV-2</td>
<td>18-Nov-20</td>
<td>New-onset dizziness associated with pediatric COVID-19</td>
<td>Pediatric Neurology</td>
<td>Correspondence</td>
<td>In this letter, the authors report two confirmed cases of pediatric COVID-19 with dizziness in Istanbul, Turkey. The first case was of a 12-year-old female who presented with fever, cough, dizziness and developed bloody vomiting, nausea, and tachypnea. Her blood tests, physical, and neurological examination were within normal limits, except crackles at the lung base. The second case was a 13-year-old boy who, too, presented with headache, dizziness, and fever, with pharyngeal erythema being the only abnormality in an otherwise unremarkable physical, laboratory, and neurological examination. Chest X-ray revealed unilateral patchy infiltrates and he was subsequently treated with ceftriaxone, hydroxychloroquine, and oseltamivir for 5 days. In both patients, headache and dizziness resolved within 5 days. The authors report on previous neurologic findings in children with COVID-19, including dysarthria, encephalopathy and cerebral ataxia. They recommend the usage of comprehensive neurological examination in patients presenting with dizziness, thus allowing early intervention.</td>
<td>The authors reported the cases of COVID-19 positive children whose symptomology was also accompanied by new-onset of dizziness in addition to fever and cough, which resolved within 5 days of admission. They recommend the usage of comprehensive neurological examination in pediatric patients presenting with dizziness to give a window for early intervention in those infected with SARS-CoV-2.</td>
<td>Sari E, Külcü NU, Errede O, et al. New-onset dizziness associated with pediatric COVID-19 [published online ahead of print, 2020 Nov 18]. Pediatr Neurol. 2020;doi:10.1016/j.pediatrneurol.2020.11.007</td>
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<tr>
<td>COVID-19; children; cutaneous; dermatology; SARS-CoV-2</td>
<td>18-Nov-20</td>
<td>Cutaneous and histopathological features of Coronavirus disease 2019 in pediatrics: A review article</td>
<td>Dermatologic Therapy</td>
<td>Review</td>
<td>In this review, the authors describe the histopathological and cutaneous manifestations of COVID-19 in the pediatric cohort. The presence of ACE2 receptors in the liver and keratinocytes in the basal layer of skin, in addition to lung epithelial cells set the expectation for cutaneous manifestations of COVID-19. The authors conducted a systematic review, selecting 38 articles from December 2019-September 2020 including the terms “children”/“pediatric” and “cutaneous” or “dermatology”/“skin” and “COVID-19”/“SARS-CoV-2”. The review included 353 patients (58.35% males and 41.64% females), the majority of whom were 11-17 years old with little/no symptoms. In symptomatic cases, the latency period ranged from 1 day to a few weeks. In 3 cases, symptoms appeared after cutaneous manifestations while in 2 cases they appeared simultaneously. The authors detailed the characteristics of reported cutaneous manifestations in the pediatric cohort, such as chilblain-like lesions and Kawasaki-like disease. They also reported histopathology and dermoscopic features of each of these dermatological manifestations. The authors also noted that these cases were also resistant to first-line treatment.</td>
<td>In this systematic review, the authors discussed the histopathological and cutaneous manifestations of COVID-19 in the pediatric cohort, including common signs and diagnostic criteria. The dermatological conditions included: chilblain-like lesions and Kawasaki-like disease. A large number of cases were also resistant to first-line treatment.</td>
<td>Khalili M, Iranmanesh B, Mohammadi S, Afkooonian M. Cutaneous and histopathological features of Coronavirus disease 2019 in pediatrics: A review article. Dermatol Ther. 2020 Nov 18. doi: 10.1111/dth.14554. Epub ahead of print. PMID: 33210417. Copy</td>
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<td>Key Terms</td>
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<td>Dermatology, lesions, atopic dermatitis, autoimmune bullous diseases, dupilumab, dermoscopy, children, COVID-19</td>
<td>18-Nov-20</td>
<td><strong>Skin manifestations of COVID-19 in children: Part 3</strong></td>
<td>Clinical and Experimental Dermatology</td>
<td>Review</td>
<td>This review summarizes what is known about cutaneous manifestations of COVID-19 in children [ages not specified]. The 3rd article of a 3-part review, this paper discusses the histological findings of COVID-19 as well as its testing and management. The 1st paper [not included here] discussed chilblain-like lesions, the most common manifestation of COVID-19, while part 2 [not included here] expanded to additional manifestations such as erythema multiform, urticaria, and Kawasaki disease-like inflammatory multisystemic syndrome. The COVID-19 pandemic has interrupted treatment of persistent skin infections, and the authors recommend remote medicine for continuing care. They also recommend that physicians avoid specific body sites for dermoscopy (mucosa, hands, nails, face, and eyes), wear masks, practice social distancing measures, and sanitize the skin and instruments before and after dermoscopy. While COVID-19 may interfere with the use of immunosuppressive drugs for treatment of skin disease, their use should be balanced with the risk of re-emergence of disease. Treatment for atopic dermatitis (AD) and autoimmune bullous diseases should continue as usual for patients with COVID-19. Dupilumab is preferred for AD as it does not increase the risk of viral infections. Dermatologists should evaluate all patients for COVID-19, and while the prevalence is low among children, appropriate care should be taken.</td>
<td>This review summarizes what is known about cutaneous manifestations of COVID-19 in children. The 3rd of a 3-part review, this paper discusses the histological findings of COVID-19 as well as its testing and management. Dermatologists should evaluate all patients for COVID-19, and while the prevalence is low among children, appropriate care should be taken.</td>
<td>Andina D, Belloni-Fortina A, Bodemer C, et al. Skin manifestations of COVID-19 in children: Part 3 [published online ahead of print, 2020 Nov 18]. Clin Exp Dermatol. 2020;10.1111/ced.14483. doi:10.1111/ced.14483</td>
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<td>physical activity, Australia, screen time, COVID-19, socioeconomic status, SES</td>
<td>17-Nov-20</td>
<td><strong>Understanding the impact of COVID-19 on children’s physical activity levels in NSW, Australia</strong></td>
<td>Health Promotion Journal of Australia</td>
<td>Letter to the Editor</td>
<td>The authors examined the impact of COVID-19 on children’s physical activity levels from June to August 2020 in New South Wales (NSW), Australia. They invited 450,634 parents with children aged 4.5-18 years to complete an online survey. The survey included questions on their children’s physical activity and screen time during the COVID-19 pandemic. 16,177 parents responded (response rate 3.6%) on behalf of children and adolescents (2% 4-8 years old, 26% 9-11 years old, 23% 12-14 years old; 20% 15-18 years old), 2% were from the most disadvantaged, and 38% were from the least disadvantaged areas. The results showed that since the implementation of COVID-19 restrictions, most children’s physical activity levels had decreased, and children from higher socioeconomic areas had more significant increases in screen time than those from lower socioeconomic areas. These findings suggest that COVID-19 and socioeconomic status influenced children’s physical activity and screen time, which may lead to further deterioration in global</td>
<td>The authors examined the impact of COVID-19 on children’s physical activity levels from June to August 2020 in New South Wales (NSW), Australia. This study’s findings showed decreased physical activity levels due to the COVID-19 restrictions and increased screen time, especially in children from higher socioeconomic areas.</td>
<td>Reece LJ, Owen K, Foley B, et al. Understanding the impact of COVID-19 on children’s physical activity levels in NSW, Australia [published online, 2020 Nov 17]. Health Promot J Austr. 2020. doi:10.1002/hpja.436</td>
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<td>COVID-19; lockdown; mental health; motherhood; postpartum depression</td>
<td>17-Nov-20</td>
<td>Effects of COVID-19 Epidemic Lockdown on Postpartum Depressive Symptoms in a Sample of Italian Mothers</td>
<td>Frontiers in Psychology</td>
<td>Original research</td>
<td>This cross-sectional study aimed to explore the impact of COVID-19 lockdown on postpartum depressive symptoms in mothers with children &lt;1 year old in Italy. An online survey was administered from May 11-June 6, 2020. A total of 243 women completed the questionnaire. Mean age was 34 years (range 21-47 years), 81% had at least an under-graduate degree, 54% were from Northern Italy, and 93.4% were married. Furthermore, 28.4% reported previous emotional problems, 12.3% reported previous chronic diseases, and 32% of the women had a previous abortion [not noted whether this included spontaneous or induced abortions]. The Edinburgh Postnatal Depression Scale (EPDS), the perceived stress scale (PSS) and the Maternity Social Support Scale (MSSS) were used. The prevalence of postpartum depression symptomatology among mothers was 44%, as measured through the EPDS, which is higher than the general population according to the authors [statistics and p-value not included]. Increased EPDS scores, indicating increased depressive symptoms, were associated with fear of child or “close ones” being infected (p&lt;0.01), contact with infected individuals (p&lt;0.01), being infected themselves (p&lt;0.01) and suspension from work (self or partner). Additionally, women with a previous abortion, previous emotional problems, and higher PSS scores were associated with higher EPDS scores. The authors conclude that these findings should be used when designing future protocols, and call for future longitudinal studies on the impact of the pandemic on mother-child interactions.</td>
<td>This cross-sectional study examined the impact of the COVID-19 pandemic on postpartum depressive symptoms in mothers with children &lt;1 year old in Italy. The authors report increased levels of depressive symptoms compared to the general population, with symptoms associated with the fear of self, child, or loved ones being infected with SARS-CoV-2; previous abortion [not noted whether this included spontaneous or induced abortions] or emotional problems; and higher perceived stress scores.</td>
<td>Spinola O, Liotti M et al. Effects of COVID-19 Epidemic Lockdown on Postpartum Depressive Symptoms in a Sample of Italian Mothers. Frontiers in psychiatry. 2020. doi:10.3389/fpsyt.2020.589916</td>
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<td>COVID-19; pediatric; neoplasm</td>
<td>17-Nov-20</td>
<td>Impact of the First Wave of COVID-19 on Pediatric Oncology and Hematology: A Report from the French Society of Pediatric Oncology</td>
<td>Cancers (Basel)</td>
<td>Article</td>
<td>The authors discuss a study initiated by the French Society of Pediatric Oncology to describe COVID-19 in patients in pediatric oncology and hematology wards in France. All patients diagnosed with COVID-19 in such wards through May 2020 were enrolled, comprising a total of 37 patients. 31 of the patients were &lt;18 years of age (total mean age=11.2 years, range 1-25 years). 19 were female. 17 patients had a solid tumor, 16 had a hematological malignancy and 4 recently underwent hematopoietic stem cell transplantation (HSCT) for non-oncological conditions. 28 patients had COVID-19 symptoms, most often fever, cough, rhinorrhea, and asthenia. Ground-glass opacities were the most frequent radiological finding (9 cases), with abnormalities mostly bilateral and peripherally distributed. 24 patients received chemotherapy within a month prior to</td>
<td>The authors describe a study initiated by the French Society of Pediatric Oncology to describe COVID-19 in patients in pediatric oncology and hematology wards in France by analyzing medical records. The authors suggest that children and young adults treated for a cancer and/or with a HSCT may be at risk for severe COVID-19.</td>
<td>Rouger-Gaudichon J, Thébault E, Félix A. Impact of the First Wave of COVID-19 on Pediatric Oncology and Hematology: A Report from the French Society of Pediatric Oncology. Cancers (Basel). 2020;12(11):3398. doi:10.3390/cancers12113398.</td>
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<td>Pregnancy, infants, maternal outcomes, preterm birth, neonates</td>
<td><strong>17-Nov-20</strong></td>
<td>Coronavirus disease 2019 and pregnancy</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Letter to the Editor</td>
<td>In this letter, the authors reply to issues raised by Volpato et al. regarding the online publication of the paper &quot;Coronavirus Disease 2019 (COVID-19) and pregnancy: What obstetricians need to know&quot; (by Rasmussen et al.) on February 24, 2020. Volpato et. al argued that the susceptibility of pregnant women to SARS-CoV-2 infection has been a very controversial topic that remains unresolved. The authors respond by stating that since the initial publication, data from many additional studies have been published addressing the effects of COVID-19 on pregnant women and neonates. For example, updates on surveillance data from the United States on COVID-19 and pregnancy revealed that among over 400,000 women of childbearing age with symptomatic COVID-19, pregnant women were more likely to be admitted to an ICU, require invasive ventilation, receive extracorporeal membrane oxygenation (ECMO), and die than non-pregnant women. Additionally, among nearly 4000 infants born to women with COVID-19 during pregnancy in 16 jurisdictions in the United States, infants born to SARS-CoV-2-infected women were more likely to be born preterm. The author concludes that these additional findings emphasize the importance of implementation of COVID-19 prevention measures in pregnant women, and the importance of collecting data on SARS-CoV-2-infected pregnant women and their infants.</td>
<td>The authors respond to concerns regarding their previous publication &quot;Coronavirus Disease 2019 (COVID-19) and pregnancy: What obstetricians need to know&quot; from February 24, 2020, by providing updated evidence. CDC surveillance data demonstrated an increased risk of ICU admission, ventilation, ECMO, and death for pregnant women with COVID-19 compared to non-pregnant women, and new data has also demonstrated that infants born to mothers with SARS-CoV-2 are more likely to be born preterm. This emphasizes the importance of prevention measures.</td>
<td>Rasmussen SA, Jamieson DJ. Coronavirus disease 2019 and pregnancy. Am J Obstet Gynecol. 2020 Nov 17:S0002-9378(20)31305-3. doi: 10.1016/j.ajog.2020.11.021.</td>
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<td>SARS-CoV-2; pediatric COVID-19; long-term</td>
<td><strong>17-Nov-20</strong></td>
<td>Case report and systematic review suggest that children may experience similar long-term effects to adults after clinical COVID-19</td>
<td>Acta Paediatrica</td>
<td>Original Research</td>
<td>In this article, the author discussed the long-term effects of COVID-19 in children using case reports (from Sweden) and systematic literature reviews. Of the 5 cases reported (4 females; median age: 12 years, range 9-15 years), none of the children had positive SARS-CoV-2 tests 1.5 months after infection. 2 months after infection, 5/5 children displayed continued dyspnea, fatigue, and heart palpitations, with 4/5 reporting headache, difficulty concentrating, muscle weakness, dizziness, and sore throat. 3/5 children's parents reported skin rashes, memory loss, depression, and muscle pain 2 months after infection, with intermittent fever, joint pain, diarrhea, vomiting, and hyper-anesthesia appearing less frequently, at 6-8 months after infection. At 6-8 months post-infection, 1 child reported and should be closely monitored.</td>
<td>The author discussed cases of pediatric COVID-19 in Sweden, in conjunction with systematic literature reviews, to depict the similarities of long-term effects of COVID-19 on adults and children, namely, fatigue and dyspnea. Despite the relatively milder symptomology, 4/5 pediatric cases reported</td>
<td>Ludvigsson JF. Case report and systematic review suggest that children may experience similar long-term effects to adults after clinical COVID-19. Acta Paediatr. 2020 Nov 17:10.1111/apa.15673. doi: 10.1111/apa.15673. Epub ahead of print. PMID: 33205450; PMCID: PMC7753397.</td>
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<td>COVID-19 quarantine; Lifestyle changes; Mental health; Mothers; Psychological symptoms</td>
<td>17-Nov-20</td>
<td>COVID-19 Quarantine-Related Mental Health Symptoms and their Correlates among Mothers: A Cross Sectional Study</td>
<td>Maternal and Child Health Journal</td>
<td>Article</td>
<td>This cross-sectional study conducted in Jordan April 2-16, 2020, investigated levels of depression, anxiety, and stress along with lifestyle changes among mothers (with at least 1 child aged 4-18 years) during the COVID-19 pandemic quarantine. Reported scores of depression, anxiety, and stress, were calculated and compared across different levels of demographics, including income, education level, employment status, and city of residence. 2103 mothers participated (mean age 36 years; range 20-60 years). Children’s ages were not collected; however, 52.6% of mothers had children in daycare, 77.1% had children in elementary school, and 20.7% had children in high school. Depression, anxiety, and stress symptoms were higher among mothers with lower income (p&lt;0.001), lower education (p&lt;0.01), and not employed (p&lt;0.01 for depression and stress only; not statistically significant for anxiety). Mothers living outside the capital city also reported more anxiety than mothers in the capital (p&lt;0.05). Changes in lifestyle practices included weight gain (reported by 37%), increased time teaching children at home (63%), increased familial violence and stress at home (27%), and increased time allocated for caring for their family members (average increase of 5 hours daily). The authors recommend efforts at the governmental level to increase supports for mothers and support campaigns to establish mental health services and reduce the stigma associated with utilizing these services.</td>
<td>Results of this cross-sectional study of mothers in Jordan suggest that the COVID-19 lockdowns had a more significant effect on the mental health of mothers with lower income, lower education, and unemployed status. Mothers also reported an average increase of 5 hours per day caring for family members.</td>
<td>Malikawi SH, Almhadawi K, Iaber AF, Alqatanneh NS. COVID-19 Quarantine-Related Mental Health Symptoms and their Correlates among Mothers: A Cross Sectional Study. J Matern Child Health. 2020;11. doi:10.1007/s10995-020-03034-x</td>
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<td>COVID-19; health policy; public health; telemedicine; pregnancy; China</td>
<td>17-Nov-20</td>
<td>Characteristics of online medical care consultation for pregnant women during the COVID-19 outbreak: cross-sectional study</td>
<td>British Medical Journal (BMJ) Open</td>
<td>Original research</td>
<td>This study examined the content of online obstetric consultation for pregnant women, women’s satisfaction with telemedicine, and their needs for future e-health services during the COVID-19 pandemic in China. Data collection occurred between February 10th and 23rd, 2020 among all pregnant women who used the platform (Yue Yi Tong or YYT) in areas of varying epidemic severity. The authors collected information on the content of consultations, patients’ satisfaction, needs, and maternal characteristics such as gestational age. 2599 pregnant women participated, of whom 17.24%, 51.25% and 31.51% were from the mild, moderate, and severe epidemic areas, respectively. The reasons for seeking online consultation varied significantly by epidemic severity and trimester. “Obstetric care-seeking behavior” (defined as cancelling or postponing scheduled antenatal visits, and changing the method or time of delivery) was significantly higher in severe areas than in mild areas (32.48% vs. 20.31%, p&lt;0.01). Satisfaction was high among users (87.92% in severe areas and 90% in mild and moderate areas). Participants suggested improvements in the form of online videos, a defined time period for physician replies, automatic referrals, and better management of medical conditions. The authors conclude that there is a substantial need for online consultations, and in order to prevent irreversible obstetric adverse events, they recommend an appropriate antenatal care contingency plan with e-health services during the COVID-19 pandemic.</td>
<td>The authors examine the contents of an online health platform for pregnant women, their satisfaction with the platform and needs for e-health services in areas of varying epidemic severity in China in Feb 2020. They found satisfaction to be high and that reasons for care seeking using the platform differ significantly by area severity and trimester.</td>
<td>Chen, M., Liu, X., Zhang, J., Sun, G., Gao, Y., Shi, Y., Baker, P., Zeng, J., Zheng, Y., Luo, X., &amp; Qi, H. (2020). Characteristics of online medical care consultation for pregnant women during the COVID-19 outbreak: cross-sectional study. BMJ open, 10(11), e043461. <a href="https://doi.org/10.1136/bmjopen-2020-043461">https://doi.org/10.1136/bmjopen-2020-043461</a></td>
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<td>Addiction program, substance use treatment, pregnancy, telehealth, USA</td>
<td>17-Nov-20</td>
<td>Caring for women with substance use disorders through pregnancy and postpartum</td>
<td>Journal of Substance Abuse Treatment</td>
<td>Brief Report</td>
<td>This article presents a brief overview of the challenges and adaptations to the provision of substance use disorder (SUD) treatment for pregnant and parenting women during the COVID-19 pandemic. The women &amp;addictions program at Virginia Commonwealth University Health System, USA, provides integrated women’s health services and SUD treatment. In 2019, the program expanded its team to embed psychology trainees</td>
<td>This article describes the adaptations implemented by an integrated OB/GYN/substance use disorder treatment program in response to the COVID-19 pandemic, Sadicario JS, Parlier-Ahmad AB, Brechbiel JK, etal. Caring for women with substance use disorders through pregnancy and postpartum during the COVID-19 pandemic: Lessons learned from psychology trainees in an</td>
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<td>COVID-19, Type 1 diabetes, Diabetes, Children, Outcome, Prognosis, China, Italy, Spain, United States of America</td>
<td>17-Nov-20</td>
<td>Children and youth with diabetes are not at increased risk for hospitalization due to COVID-19</td>
<td>Pediatric Diabetes</td>
<td>Brief Report</td>
<td>This article discusses observations from China (Wuhan), Italy, Spain (Catalonia), and the US (San Francisco Bay Area) to provide a perspective on differences in COVID-19 risk between diabetic children and adults. Diabetes has been recognized as a major risk factor for negative outcomes in adults with COVID-19. Among the authors' pediatric practices in the above countries, however, only one severe case of COVID-19 has been observed in patients with diabetes; this case was a 20-year-old female with type 1 diabetes (T1D) in Spain. The patient was hospitalized for bilateral pneumonia and discharged without complications. Of a total of 15,500 children with diabetes tested for SARS-CoV-2 in Italy, 11 patients with T1D (age 8-17 years) tested positive; 6/11 were asymptomatic and the rest presented with mild symptoms. Previous studies have described diabetic keto-acidosis (DKA) as the most prevalent adverse outcome for patients with T1D and COVID-19, probably due to factors such as fear of approaching health care centers or reduction in medical services. Data from Italy, China, Spain, and the US consistently report (as of August 31, 2020) that patients with diabetes &lt;25 years of age are not at an increased risk for hospitalization due to COVID-19, compared to their non-diabetic peers. Diabetic adults' COVID-19 data should not be generalized to diabetic children and adolescents, as the outcomes and prognosis in youth seem to be consistently milder.</td>
<td>This observational article from China, Italy, Spain, and the US provides a perspective on COVID-19 risk between diabetic children and adults. The authors state that diabetic adults' COVID-19 data should not be generalized to diabetic children and adolescents, as the outcomes and prognosis in youth seem to be consistently milder.</td>
<td>Cardona-Hernandez R, Cherubini V, Iafusco D, et al. Children and youth with diabetes are not at increased risk for hospitalization due to COVID-19 [published online, 2020 Nov 17]. Pediatr Diabetes. 2020. doi:10.1111/pedi.13158</td>
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<td>COVID-19, mental health, pregnant women, psychoeducation,</td>
<td>17-Nov-20</td>
<td>Identifying Pregnant Women at risk of Developing</td>
<td>Journal of Psychosomatic Obstetrics &amp; Gynecology</td>
<td>Original Article</td>
<td>The authors emphasize the importance of treating depression and psychological distress in pregnant and postpartum women during the COVID-19 pandemic. Although pregnant and postpartum women are not at increased risk of SARS-CoV-2</td>
<td>The authors discuss studies suggesting that pregnant women with COVID-19 are at risk for</td>
<td>Lambregtse-van den Berg M, Quinlivan J. Identifying pregnant women at risk of developing COVID-19 related mental health</td>
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<td>stressors</td>
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<td>COVID-19 related Mental Health Problems - A Call for Enhanced Psychoeducation and Social Support</td>
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<td>The odds of preterm birth are approximately three times higher in pregnant women with COVID-19, and neonates with COVID-19 have a two times higher risk of admission than those without the disease. Some studies show that pregnant women with COVID-19 have increased anxiety and depression levels than non-pregnant patients with COVID-19. Additionally, some studies show that pregnant women with mental illness are less likely to receive mental health treatment than their non-pregnant counterparts. The authors also emphasize the importance of identifying, preventing, and treating intimate partner violence (IPV) during the COVID-19 pandemic. One study showed that the use of Trauma and Violence Informed Cognitive Behavioral Therapy during pregnancy positively impacts IPV-related mood and anxiety disorders. These studies suggest that pregnant women with life stressors, including the COVID-19 pandemic, poor social support, and IPV, are at risk for mental health problems. The authors highlight the importance of questionnaires and psychoeducation to detect and reduce psychological distress in pregnant women.</td>
<td>mental health problems and emphasize the importance of psychoeducation and social support for vulnerable pregnant women during the COVID-19 pandemic.</td>
<td>doi:10.1080/0167482X.2020.1839170</td>
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<td>COVID-19, mental health, pregnant women, psychoeducation, social support, stressors</td>
<td>17-Nov-20</td>
<td>Identifying Pregnant Women at risk of Developing COVID-19 related Mental Health Problems - A Call for Enhanced Psychoeducation and Social Support</td>
<td>Journal of Psychosomatic Obstetrics &amp; Gynecology Editorial</td>
<td>The authors emphasize the importance of treating depression and psychological distress in pregnant and postpartum women during the COVID-19 pandemic. Although pregnant and postpartum women are not at increased risk of SARS-CoV-2 infections, they are at increased risk of requiring intensive care treatment and invasive ventilation if diagnosed with COVID-19. The odds of preterm birth are approximately 3 times higher in pregnant women with COVID-19, and neonates with COVID-19 have a 2 times higher risk of hospital admission than those without the disease. Some studies show that pregnant women with COVID-19 have increased anxiety and depression levels than non-pregnant patients with COVID-19. Additionally, some studies show that pregnant women with mental illness are less likely to receive mental health treatment than their non-pregnant counterparts. The authors also emphasize the importance of identifying, preventing, and treating intimate partner violence (IPV) during the COVID-19 pandemic. One study showed that the use of Trauma- and Violence-Informed Cognitive Behavioral Therapy during pregnancy positively impacts IPV-related mood and anxiety disorders. These studies suggest that pregnant women with life stressors, including the COVID-19 pandemic, poor social support, and IPV, are at risk for mental health problems. The authors highlight the importance of</td>
<td>The authors discuss studies suggesting that pregnant women with COVID-19 are at risk for mental health problems and emphasize the importance of psychoeducation and social support for vulnerable pregnant women during the COVID-19 pandemic.</td>
<td>doi:10.1080/0167482X.2020.1839170</td>
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<td>Domestic violence, IPV, lockdown, children, isolation, Netherlands</td>
<td>17-Nov-20</td>
<td>Domestic violence in families in the Netherlands during the coronavirus crisis: A mixed method study</td>
<td>Child Abuse &amp; Neglect</td>
<td>Original Research</td>
<td>To assess domestic violence in vulnerable families living in isolation in the Netherlands during the COVID-19 lockdown, a quantitative study was performed among 159 families recruited before the COVID-19 pandemic, and 87 families recruited during the lockdown through child protection services. Family members (parents, children) completed questionnaires about interparental violence, (historical) child abuse and neglect, and emotional security. 39 respondents and 13 professionals were also interviewed. No difference was found in violence between families who participated before and after the lockdown (moderate violence 17.6 % vs. 18.2 % and frequent or serious violence [&gt;22 incidents] 50.3 % vs. 53.3 %). The percentage of parents who reported feeling safe was similar before and after the start of lockdown (80.3 % vs. 88.4 %, reported to be non significant [p value not provided]). Children did not report feeling more insecure during the lockdown, and there was no significant difference in the percentage of clinically traumatized parents and children. In the interviews, most families stated that the COVID-19 crisis caused stress in the family, and tensions and conflicts were usually caused by the children’s school work, the division of tasks in the household, or the care of the children. However, the absence of assistance promoted self-reliance for children and parents. The authors conclude that social support is important to vulnerable families and isolation remains a risk factor for recurrent domestic violence.</td>
<td>This mixed-method study assessed domestic violence occurring in vulnerable families in the Netherlands before and during the COVID-19 lockdown. While interviews with families revealed that the pandemic caused increased stress, there was no difference in violence occurring before and after the lockdown.</td>
<td>Tierolf B, Geurts E, Steketee M. Domestic violence in families in the Netherlands during the coronavirus crisis: A mixed method study. Child Abuse Negl. 2020 Nov 17:104800. doi: 10.1016/j.chiabu.2020.104800.</td>
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<td>COVID-19; pregnancy; healthcare management</td>
<td>17-Nov-20</td>
<td>Coronavirus and its controversial results during pregnancy</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Letter to the Editor</td>
<td>The authors write their response to a previously published article in the American Journal of Obstetrics and Gynecology, Sonja et al., 2020, which discussed how to improve outcomes for seriously ill pregnant women with COVID-19 using guidelines for patients with SARS/MERS. The authors showed how the evidence of poor results of mothers and infants affected with COVID-19 were corroborated by other studies. However, they also cited articles that seemingly had a contradictory conclusion with no serious complications observed in pregnant women. They identified the lack of conclusive information hindering a single determination for the management of infected people, pregnant or not. Additionally, since the basis of care for any pregnant woman is standard interventions for the disease spread, they recommend basic health measures to prevent minor respiratory complications from turning fatal. The authors also urge surveillance programs for COVID-19 to collect detailed information from pregnant women, as well as maternal and fetal data.</td>
<td>Through this correspondence, the authors highlighted the contradictory conclusions made by different studies about the severity of COVID-19 in pregnant patients. They highlight the importance of obtaining detailed data from pregnant patients, and mothers and neonates with COVID-19 through a surveillance system to guide healthcare management practices for this cohort.</td>
<td>Volpato F, Dos Santos LG, Dos Santos EM. Coronavirus and its controversial results during pregnancy. Am J Obstet Gynecol. 2020 Nov 17:S0002-9378(20)31311-9. doi: 10.1016/j.ajog.2020.11.020. Epub ahead of print. PMID: 33217388; PMCID: PMC7670229.</td>
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<td>COVID-19; pregnancy; antenatal care; Jordan</td>
<td>16-Nov-20</td>
<td>Pregnancy During COVID-19 Outbreak: The Impact of Lockdown in a Middle-Income Country on Antenatal Healthcare and Wellbeing</td>
<td>International Journal of Women's Health</td>
<td>Article</td>
<td>The authors describe a cross-sectional study to evaluate the impact of the lockdown circumstances in Jordan on antenatal care services and health circumstances of pregnant women during the COVID-19 pandemic. 944 pregnant women completed an electronic survey in April 2020. The majority of participants (41.31%) were 25-29 years of age, followed by 28.81% in the 30-34 years age group. Over 75% of participants had above secondary education, while no participants were illiterate. 38.56% reported that they used to be in some form of employment before the lockdown, compared to only 16% during the lockdown. The results revealed a significant increase in the percentage of pregnant women not receiving antenatal care from 4% to 59.53% (p&lt;0.001) during the lockdown period, even though some of these women were suffering from significant underlying medical conditions or serious pregnancy complications that require close antenatal surveillance. The COVID-19 lockdown circumstances negatively impacted the physical, social, and mental wellbeing of the participants. Although the lockdown measures in Jordan have succeeded in relative containment of COVID-19, this research suggests significant disruption to antenatal services and pregnant women’s wellbeing in many aspects. This disruption can potentially cause antenatal health issues that are not directly related to the spread of COVID-19 and are a side effect of the management of the pandemic.</td>
<td>The authors describe a survey-based, cross-sectional study to evaluate the impact of Jordan’s lockdown circumstances on antenatal care services and pregnant women’s wellbeing during the COVID-19 pandemic. Although the lockdown measures in Jordan have succeeded in relative containment of COVID-19, this research suggests significant disruption to antenatal care and pregnant women’s wellbeing, which can potentially cause antenatal health issues that are not directly related to the spread of COVID-19.</td>
<td>Muhaïdat N, Fram K, Thekrallah F. Pregnancy During COVID-19 Outbreak: The Impact of Lockdown in a Middle-Income Country on Antenatal Healthcare and Wellbeing. Int J Womens Health. 2020;12:1065-1073. doi:10.2147/IJWH.S280342.</td>
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<td>COVID-19; children; management; surveillance; Italy</td>
<td>16-Nov-20</td>
<td>Health-care organization for the management and surveillance of SARS-CoV-2 infection in children during pandemic in Campania region, Italy</td>
<td>Italian Journal of Pediatrics</td>
<td>Article</td>
<td>The authors describe a COVID-19-specific pediatric reference center established to manage pediatric cases in the Campania region in Italy. This hub-and-spoke system was designed to provide healthcare services using telemedicine and stringent admission criteria, coordinate local stakeholders, and disseminate information during the pandemic. Between 24 March-24 September 2020, the Hub Centre managed a total of 208 children (52% male; median age=5.2, IQR=2-9.6 years) with suspected or confirmed SARS-CoV-2 infection. 174 were managed in cooperation with family pediatricians and 34 with hospital-based physicians. 50% (n=104) received a final diagnosis of SARS-CoV-2 infection. Stringent criteria for hospital admission based on clinical conditions, risk factors, and bio-containment measures, promoted management of 71.1% of cases through telemedicine. 30 patients were hospitalized (median length=10 days, IQR=5-19 days), mainly for persistent fever, mild respiratory distress, or co-infection occurring in infants or children with underlying conditions. Overall, the hub-and-spoke system was effective in coordinating territorial health-care structures for management of pediatric COVID-19 cases, through telemedicine and stringent hospital admission criteria. The management of children with COVID-19 and severe disease was effective in the hospitalization of children with severe infections.</td>
<td>The authors describe a COVID-19-specific pediatric reference center established to manage pediatric cases in the Campania region in Italy. Between 24 March-24 September 2020, the Hub Centre managed a total of 208 pediatric COVID-19 cases, 71.1% of which were managed through telemedicine. The hub-and-spoke system was effective in coordinating territorial health-care structures for management of pediatric COVID-19 cases, through telemedicine and stringent hospital admission criteria.</td>
<td>Nunziata F, Bruzzese E, Poeta M. Health-care organization for the management and surveillance of SARS-CoV-2 infection in children during pandemic in Campania region, Italy. Ital J Pediatr. 2020;46(1):170. doi:10.1186/s13052-020-00928-y.</td>
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<td>COVID-19; adolescents; anxiety; children; depression; mental health; pandemic; psychological impact; youth</td>
<td>16-Nov-20</td>
<td>Exploring the Impact of COVID-19 on Mental Health Outcomes in Children and Adolescents: A Systematic Review</td>
<td>International Journal of Environmental Research and Public Health</td>
<td>Systematic Review</td>
<td>This systematic review summarizes evidence on the COVID-19 pandemic’s impact on the mental health of youth ≤18 years old. Literature searches were conducted on June 21, 2020, and 12 out of 74 studies were eligible for data extraction (n=12,262). Of the 12 studies, 7 focused on children and adolescents (3–18 years), 4 studies were conducted in the general population, and 1 in university students (all included sub-groups aged ≤18 years old). 6 studies measured depression in young people (prevalence: 22.6-43.7%), 7 measured anxiety (prevalence: 18.9-37.4%), 7 specifically assessed emotional reactions to COVID-19, 2 measured psychological distress, and 3 explored positive mental health domains. Findings suggest the COVID-19 pandemic has had a particular impact on depression and anxiety in adolescent cohorts. Children 3-6 years old were more likely to show clinginess, while children 6-18 years old were more likely to show inattention. 2 studies suggested that older cohorts of young people are likely to report higher levels of mental distress. In an adolescent sample (12–18 years), older adolescents (senior high school) were more likely to report higher depression and anxiety symptoms than their younger counterparts (junior high school). Most studies showed that COVID-19-related emotional reactions such as worry, fear of contracting SARS-CoV-2, and stress predicted depression, anxiety, obsessive-compulsive disorder symptoms, somatic symptoms, and intensified behavior problems in young people. Quality appraisal indicated that all studies were of low or moderate methodological quality, and comparisons with pre-COVID-19 studies can be challenging. The authors caution that the methodological quality of future research needs to be improved to draw firmer conclusions. This systematic review of mental health outcomes in young people ≤18 years old found that in most studies, COVID-19-related worry, fear of contracting SARS-CoV-2, and stress predicted depression, anxiety, obsessive-compulsive disorder symptoms, somatic symptoms, and intensified behavior problems in young people. More symptoms of anxiety, depression, and mental distress tended to be seen in older cohorts.</td>
<td>Nearcho F, Flinn C, Niland R, Subramaniam SS, Hennessy E. Exploring the Impact of COVID-19 on Mental Health Outcomes in Children and Adolescents: A Systematic Review. Int J Environ Res Public Health. 2020;17(22):8479. Published 2020 Nov 16. doi:10.3390/ijerph17228479</td>
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<td>SARS-CoV-2; COVID-19; asymptomatic; children; adolescents; Kawasaki disease; gastrointestinal symptoms; fecal shedding; peripartum transmission;</td>
<td>16-Nov-20</td>
<td>Clinical and laboratory characteristics of SARS-CoV-2 infection in children and adolescents</td>
<td>Revista Paulista de Pediatria</td>
<td>Review Article</td>
<td>This review presents clinical and laboratory characteristics of SARS-CoV-2 infection during childhood and adolescence, and describes the hypotheses for asymptomatic or mild presentations of COVID-19 in children. Unlike adults, most children infected by SARS-CoV-2 have mild or asymptomatic clinical presentations. In the 33 studies analyzed, most common symptoms in children are fever (22.2-100%) and cough (11.1-75%), though some have gastro-intestinal (GI) symptoms (8.8-57.1%) including nausea, vomiting, diarrhea, and abdominal pain. The prevalence of GI symptoms in some children, associated with the persistence of the virus in fecal samples, even after negative nasopharyngeal swabs, suggests that the GI tract might be a site of viral infection. This review presents clinical and laboratory characteristics of SARS-CoV-2 infection during childhood and adolescence, and describes the hypotheses for asymptomatic or mild presentations of COVID-19 in children.</td>
<td>Martins MM, Prata-Barbosa A, Magalhães-Barbosa MC, Cunha AJLAD. CLINICAL AND LABORATORY CHARACTERISTICS OF SARS-COV-2 INFECTION IN CHILDREN AND ADOLESCENTS. Rev Paul Pediatr. 2020;39:e200231. Published 2020 Nov 16. doi:10.1590/1984-0462/2021/39/200231</td>
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<td>intrauterine transmission</td>
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<td>replication in this age group, in addition to representing an important form of inter-personal transmission. Many children present abnormalities in lung imaging tests (40-100%), even sometimes with mild clinical cases. Increases in serum creatine kinase MB iso-enzyme (CK-MB), C-reactive protein (CRP), and procalcitonin are found in a large number of infected children, which might represent an inflammatory response to SARS-CoV-2. The current SARS-CoV-2 pandemic is associated with severe cases of Kawasaki-like disease in children from different regions of the world. The pathophysiology of these presentations is still unknown at the time of the article, but may be related to the cytokine storm detected in severe manifestations of COVID-19 in adults. Evidence at the time of the article shows low rates of peripartum transmission of SARS-CoV-2, and is inconclusive concerning intra-uterine transmission.</td>
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<td>COVID-19, treatment, pregnancy, safe drugs, pharmacology</td>
<td>16-Nov-20</td>
<td>Drug therapy strategies for COVID-19 infection during pregnancy</td>
<td>International Journal of Clinical Pharmacology and Therapeutics</td>
<td>Original Research</td>
<td>SARS-CoV-2 has spread rapidly in numerous countries and caused a massive number of deaths. Interferon-α (IFN-α), lopinavir/ritonavir, chloroquine phosphate, arbidol, ribavirin, remdesivir, and dexamethasone are the therapeutic drugs recommended for treating COVID-19. Due to the particularity of immune function, pregnant women seem to be more susceptible to the virus. The authors searched the literature to find effective and safe drugs for patients with COVID-19 during pregnancy and to provide drug therapy strategies for medical staff. According to the current literature reviewed, the authors recommend that IFN-α and arbidol can be retained in the treatment regimen for pregnant women and that to reduce maternal mortality, appropriate doses of dexamethasone can be given to those who are predicted to have low premature survival and to receive mechanical ventilation or oxygen. However, the use of dexamethasone in the 1st trimester and after 37 weeks of gestation should be avoided.</td>
<td>The authors searched the literature to find effective and safe drugs for patients with COVID-19 during pregnancy and to provide drug therapy strategies for medical staff. According to the current literature reviewed, the authors recommend that IFN-α and arbidol can be retained in the treatment regimen for pregnant women.</td>
<td>Wang H, Gao Y, Wu B. Drug therapy strategies for COVID-19 infection during pregnancy [published online ahead of print, 2020 Nov 16]. Int J Clin Pharmacol Ther. 2020;10.5414/CP203817. doi:10.5414/CP203817</td>
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<td>Rheumatology, PIMS-TS, MIS-C, children, pediatrics, diagnosis, immunomodulation, England</td>
<td>16-Nov-20</td>
<td>Management of severe hyperinflammation in the COVID-19 era: the role of the rheumatologist</td>
<td>Rheumatology</td>
<td>Original Research</td>
<td>This retrospective report summarized the clinical presentation, treatment, and outcome of 19 cases of PIMS-TS (MIS-C) discussed by a pediatric hyperinflammation multi-disciplinary team (MDT) in London, England, and highlighted the role of the pediatric rheumatologist. Data were collected from April 4-May 18, 2020 on 19 children with a median age of 9.1 years (range 1-17.2 years). All 19 patients presented with high-grade fever and had significant abdominal pain. Other clinical symptoms included diarrhea in 14, rash in 10, red eyes/conjunctivitis in 13, cervical lymphadenopathy in 2, and cracked lips in 4. 17 (89%) developed vasoplegic shock refractory to volume resuscitation and requiring noradrenaline and milrinone for hemodynamic support. 10 (52%) required mechanical ventilation. 5 children had evidence of colitis. The authors provide a summary of the clinical presentation, treatment, and outcome of 19 cases of PIMS-TS (MIS-C) discussed by a pediatric hyperinflammation multi-disciplinary team (MDT) in London, England. They highlight the role of the pediatric rheumatologist in overseeing diagnosis and</td>
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<td>Papadopoulos C, Al Obaidi M, Moraitis E, Compeyrot-Lacassagne S, Eleftheriou D, Brogan P. Management of severe hyperinflammation in the COVID-19 era: the role of the rheumatologist. Rheumatology (Oxford). 2020 Nov 16:keaa652. doi:10.1093/rheumatology/keaa652.</td>
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<td>Pregnancy, obstetrics, emergency department, admissions, delays in care, Israel</td>
<td>16-Nov-20</td>
<td>Changes in the obstetrical emergency department profile during the COVID-19 pandemic</td>
<td>Journal of Maternal-Fetal and Neonatal Medicine</td>
<td>Original Research</td>
<td>In this retrospective single-center cohort study, the authors evaluated the effect of the COVID-19 pandemic on obstetric emergency department (ED) visits in Israel, and on admission rates from the ED to the delivery room or feto-maternal unit. 398 women &gt;20 weeks pregnant who presented during the peak of the pandemic (March 15-April 12, 2020) in Israel were included, along with a matched comparison group of 544 women during the same period in 2019. There were fewer obstetric ED visits in the COVID-19 period, however women presented at a greater mean gestational age than in 2019 (37.6 ± 3.7 weeks vs. 36.7 ± 4.6 weeks, p = 0.001). Higher proportions of women in the COVID-19 cohort presented in active labor (37 (9.3%) vs 28 (5.1%), p = 0.013) and with premature rupture of membranes [82 (20.6%) vs 60 (11.0%), p &lt; 0.001], and consequently with more admissions to the delivery room [198 (49.7%) vs 189 (34.7%), p &lt; 0.001]. In addition, a significant increase in urgent obstetric events in the ED occurred during the COVID-19 pandemic [23 (5.8%) vs 12 (2.2%), p = 0.004]. However, the rates of neonatal and maternal morbidity did not change. The authors conclude that the COVID-19 pandemic likely caused pregnant women to delay arrival to the obstetric ED and delivery room.</td>
<td>The authors assessed the impact of the COVID-19 pandemic on obstetric presentations to the emergency department in Israel. They found fewer overall presentations in 2020 (pandemic) compared to 2019 but with higher rates of admission, active labor, premature rupture of membranes, and urgent obstetric events.</td>
<td>Kugelman N, Lavie O, Assaf W, et al. Changes in the obstetrical emergency department profile during the COVID-19 pandemic. J Matern Fetal Neonatal Med. 2020 Nov 16:1-7. doi: 10.1080/14767058.2020.1847072.</td>
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<td>Children, vasculitis, pediatrics, Henoch–Schonlein Purpura, Israel</td>
<td>16-Nov-20</td>
<td>Purpura: A Novel Report Of Covid-19-Related Henoch–Schonlein Purpura In A Child</td>
<td>Journal of Pediatric Infectious Diseases</td>
<td>Case Report</td>
<td>The authors present a case of a 3-year-old male who developed Henoch–Schonlein Purpura (HSP) in the setting of COVID-19 infection in Israel. He presented with acute onset purpuric rash involving his lower limbs, generalized abdominal pain and nonbilious emesis. The patient’s father and brother were diagnosed with COVID-19 2 days before presentation. On presentation to the emergency department, he was afebrile and normotensive with oxygen saturations 100% on room air. A palpable purpuric rash extended from the dorsum of his feet to the buttocks and elbows. Complete blood count showed normal white cell count, microcytic anemia (hemoglobin 11.8 g/dL) and mild thrombocytosis. He had normal liver and renal function. He was diagnosed with HSP and admitted. During his admission, he and 14 patients (73%) had evidence of cardiac involvement. 1 patient required extracorporeal membrane oxygenation. A multi-disciplinary team discussed each case to determine diagnosis and therapeutic approach with a variety of anti-inflammatory and immunomodulatory therapies. The authors suggest that the role of the pediatric rheumatologist is to consider important differential diagnoses of non-infectious hyperinflammation; to advise on immunomodulatory therapy; to oversee timely step-down of immunomodulation; and to contribute to the follow-up of any late inflammatory sequelae. Using this approach, all children in this report survived and were discharged.</td>
<td>Immunomodulatory therapy.</td>
<td>Jacob M, Lancrei HM, Brosh-Nissimov T, Yeshayahu Y. PURPURONA: A NOVEL REPORT OF COVID-19-RELATED HENOCH-SCHONLEIN PURPURA IN A CHILD. Pediatr Infect Dis J. 2020 Nov 16. doi: 10.1097/INF.0000000000003001.</td>
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<td>Abortion; COVID-19; Reproductive health; Telemedicine; United Kingdom; United States</td>
<td>16-Nov-20</td>
<td>2020 developments in the provision of early medical abortion by telemedicine in the UK [Free Access to Abstract Only]</td>
<td>Health Reform Monitor</td>
<td>Review Article</td>
<td>This article describes the implementation of telemedical early medical abortion (TEMA) in the United Kingdom (England, Scotland, and Wales) during the COVID-19 pandemic. Changes to TEMA policy have occurred in both the UK and United States during the pandemic; however, the authors state that TEMA practices have become more restrictive. Descriptions of the politicization of the practice are noted, including the introduction of restrictions, bans, and classification of the practice as non-essential medical care and therefore subject to COVID-19 pandemic-associated closures. Preliminary data indicates that the percentage of abortions carried out medically in England and Wales from January to June 2020 in the UK increased 10% from the same period in 2019, and a majority of the 43% of medical abortions involving medications were self-administered at home through TEMA. Implications for future abortion care access are noted, including the benefits of providing TEMA beyond the COVID-19 pandemic, despite the temporary nature of the practice due to the sunset clause present in the TEMA policies for England and Wales.</td>
<td>The authors describe the implementation of telemedical early medical abortion in the UK during the COVID-19 pandemic. Policy differences within the UK and United States are noted, along with implications for future abortion care access.</td>
<td>Parsons JA, Romanis EC. 2020 developments in the provision of early medical abortion by telemedicine in the UK [published online ahead of print, 2020 Nov 16]. Health Policy. 2020;S0168-8510(20)30278-5. doi:10.1016/j.healthpol.2020.11.006</td>
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<td>China, anxiety, depression, sleep quality</td>
<td>16-Nov-20</td>
<td>Sleep Conditions Associate [sic] with Anxiety and Depression Symptoms among Pregnant Women during the Epidemic of COVID-19 in Shenzhen</td>
<td>Journal of Affective Disorders</td>
<td>Original Research</td>
<td>This article aimed to analyze the associations between anxiety and depressive symptoms, and poor sleep conditions among pregnant women during the COVID-19 pandemic using multi-variable logistic regression. An online cross-sectional survey of pregnant women was conducted February 17 - March 16, 2020, at a period of rapidly-increasing cases of COVID-19 in Shenzhen, China using the Self-Rating Anxiety Scale and the Patient Health Questionnaire. 751 pregnant women enrolled with a mean age of 30.51 years [range not provided]. The prevalence of anxiety and depression symptoms was 13.4% and 35.4%, respectively, but most women reported mild symptoms. Variables associated with poor sleep conditions, such as difficulty falling asleep, short sleep duration, and poor sleep quality, were strongly associated with anxious and depressive symptoms. The authors concluded that a notable proportion of pregnant women during the pandemic in</td>
<td>This study investigated the connection between poor sleep conditions and anxious and depressive symptoms in pregnant women in China during the COVID-19 pandemic. The authors concluded that</td>
<td>Lin W, Wu B, Chen B, et al. Sleep conditions associate with anxiety and depression symptoms among pregnant women during the epidemic of COVID-19 in shenzhen. J Affect Disord. 2020. doi: <a href="https://doi.org/10.1016/j.jad">https://doi.org/10.1016/j.jad</a> .2020.11.314.</td>
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<td>commentary, stillbirths, COVID-19, data visibility</td>
<td>16-Nov-20</td>
<td>Counting stillbirths and COVID-19—there has never been a more urgent time</td>
<td>The Lancet Global Health</td>
<td>Comment</td>
<td>This article comments on the urgency of stillbirths' data visibility during the COVID-19 pandemic and prioritizing stillbirth prevention. UNICEF and WHO reported in October 2020 that more than 1.9 million stillbirths occur globally each year, and that 26 million women and families are expected to experience a stillbirth by 2030. COVID-19 will have a considerable impact on maternal and child health (MCH) globally. The new stillbirth report showed existing global inequalities, exacerbated by the global pandemic, potentially increasing the risk of stillbirth. Pregnant women with COVID-19 have generally had good pregnancy outcomes. However, the indirect impacts of COVID-19 will be substantial due to lockdown- and pandemic-related disruptions to MCH care. Stillbirth data differ by country due to varying levels of accuracy with stillbirth records, thus indicating data gaps and lack of visibility. The authors recommend including stillbirth in COVID-19 data monitoring and analysis of the global impact of COVID-19. Data visibility will increase local and national awareness, thereby encouraging preventive measures. The authors emphasize the importance of integrating MCH care into COVID-19 control and ensuring all women and babies receive the right care, at the right time, from the right people.</td>
<td>This article comments on the urgency of stillbirths' data visibility during the COVID-19 pandemic and prioritizing stillbirth prevention.</td>
<td>Homer CSE, Leisher SH, Aggarwal N, et al. Counting stillbirths and COVID-19—there has never been a more urgent time. The Lancet Global Health. 2020;0(0). doi:10.1016/S2214-109X(20)30456-3</td>
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<td>COVID-19, SARS-CoV-2, SEIR model, SIR model, Pandemic, Schools, China, USA</td>
<td>16-Nov-20</td>
<td>Modeling the Impact of School Reopening on SARS-CoV-2 Transmission Using Contact Structure Data from Shanghai</td>
<td>BMC Public Health</td>
<td>Research Article</td>
<td>The authors adapted previously published mathematical models using contact information from Shanghai, China to model school re-opening under various conditions. Using baseline contact patterns and a fixed set of epidemiological parameters, they calculated the baseline basic reproduction number (R0) of the epidemic. They then assessed various conditions for school re-opening to estimate impacts on post-intervention R0, including implementing measures to reduce contacts among children. The authors found that re-opening schools for children &lt; 10 years, even without a reduction in daily contacts, is predicted to maintain post-intervention R0 &lt; 1 (and suppress virus transmission) up to a baseline R0 of ~ 4.5. Furthermore, school re-opening with a reduction in daily contacts among children aged 10–19 years to 33% of the baseline is predicted to keep post-intervention R0 &lt; 1 up to a baseline R0 of ~ 3.3. However, full school re-opening without any degree of contact reduction in the school setting returned R0 virtually back to baseline, highlighting the importance of mitigation measures. These results suggest that interventions to reduce the number of contacts at school, with an emphasis on children aged 10–19 years, is a potentially viable approach to school re-opening even during the pandemic.</td>
<td>Findings from this study suggest that full school re-opening after a lockdown without mitigation measures in the school setting can return SARS-CoV-2 transmission to its baseline value, and that mitigation strategies in the school setting should focus on children 10–19 years of age.</td>
<td>Lee B, Hanley JP, Nowak S, Bates JHT, et. al. Modeling the impact of school reopening on SARS-CoV-2 transmission using contact structure data from Shanghai. BMC Public Health. 2020;20(1):1713. Published 2020 Nov 16. doi:10.1186/s12889-020-09799-8</td>
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<td>COVID-19, First trimester, Hepatic cytolysis, Liver, Case report, Hydroxychloroquine, France</td>
<td>16-Nov-20</td>
<td>COVID-19 Infection in First Trimester of Pregnancy Marked by a Liver Cytolysis in a Woman Previously Treated by Hydroxychloroquine for Repeated Implantation Failure: A Case Report</td>
<td>BMC Infectious Diseases</td>
<td>Case Report</td>
<td>The authors present the case of a 35-year-old female previously treated with hydroxychloroquine who developed COVID-19 during the 7th week of pregnancy in France. Her pregnancy was achieved via a frozen-thawed embryo transfer performed on February 20, 2020, in a gametes donation program after autologous repeated implantation failure (RIF). Because of the RIF history, an immunological treatment with prednisone, hydroxychloroquine, aspirin, enoxaparin, and filgrastim was started 10 months before the embryo transfer. However, she presented with nausea, gastro-esophageal reflux, and asthenia without any respiratory symptoms at 7 weeks gestation. On admission, the patient was initially diagnosed with hyperemesis gravidarum. However, through laboratory testing, she was found to have elevated transaminase levels, which is not a common feature of the condition. Common viral etiologies and drug-related toxicity were ruled out, and hydroxychloroquine was discontinued. However, the patient's symptoms worsened, and she developed mild and diffuse abdominal pain and shortness of breath on exertion. She was subsequently tested for SARS-CoV-2 by nasopharyngeal PCR testing, which returned positive. In the absence of severe symptoms, the patient was monitored at home. After a few days, her symptoms resolved without any complications, her liver transaminase levels returned to normal, and there were no visible sequelae to the fetus.</td>
<td>This report discusses the case of a pregnant woman in her first trimester presenting with symptoms suggestive of hyperemesis gravidarum after previous treatment with hydroxychloroquine. However, the patient was ultimately diagnosed with COVID-19, resulting in spontaneous resolution and no known fetal sequelae.</td>
<td>Lamazou F, Oger P, Dieli-Crimi R, et al. COVID-19 infection in first trimester of pregnancy marked by a liver cytolysis in a woman previously treated by hydroxychloroquine for repeated implantation failure: a case report. BMC Infect Dis. 2020;20(1):845. Published 2020 Nov 16. doi:10.1186/s12879-020-05551-0</td>
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<td>SARS-CoV-2; COVID-19; Remdesivir; Children; Infant; Spain</td>
<td>16-Nov-20</td>
<td>Compassionate use of remdesivir in children with COVID-19</td>
<td>European Journal of Pediatrics</td>
<td>Short Communication</td>
<td>The authors conducted a multi-center observational study of children (under 16 years) with COVID-19 who received remdesivir (RDV) in Spain during March 2020. Previous studies conducted in adult patients with COVID-19 have shown that RDV may shorten the time to recovery. Clinical trials have focused on adults with COVID-19, and the authors stress the need for more data on RDV use in pediatric patients. Of the 8 patients enrolled in this study, 4 had underlying medical conditions. All the patients’ median age was 5 years (IQR 0.3-11 years) [this article appears to have discrepancies in reporting age mean and median between abstract and full text]. Those with pre-existing medical conditions had a mean age of 10.3 years (IQR 3-14.2 years). All 8 patients presented with hypoxemia, and 6 required pediatric ICU admissions; none had adverse events from the RDV, although 1 patient died 10 days after receiving RDV. The median time from first COVID-19 symptoms to RDV administration was 8 days (IQR 7.25-11.75 days). 3 of the patients had false-negative PCR results leading to delays in RDV treatment. RDV is a promising</td>
<td>An observational study was conducted of 8 pediatric patients (&lt;16 years) with severe COVID-19 in Spain during March 2020 who received remdesivir (RDV). As a compassionate exception medication for pediatric patients, delays in receiving RDV lead to a median administration of 8 days from symptom onset. None of the children had adverse outcomes to RDV, although 1 patient died from a severe case of COVID-19. More extensive</td>
<td>Méndez-Echevarría A, Pérez-Martínez A, Gonzalez Del Valle L, et al. Compassionate use of remdesivir in children with COVID-19 [published online ahead of print, 2020 Nov 16]. Eur J Pediatr. 2020;1-6. doi:10.1007/s00431-020-03876-1</td>
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<td>COVID-19; Mental health; Depression; Anxiety; Children; Income; Poverty</td>
<td>16-Nov-20</td>
<td>Factors Affecting Children’s Mental Health During the Coronavirus Disease 2019 Pandemic</td>
<td>Journal of the American Medical Association (JAMA) Pediatrics</td>
<td>Letter to the Editor</td>
<td>The authors review current research on the negative impact of the COVID-19 pandemic and other socioeconomic factors on children’s mental health and note the possibility of residual confounding and more hierarchical explorations. During the COVID-19 pandemic, research indicates that the decrease of outdoor activities and social interaction may increase the occurrence of children’s depressive symptoms. The authors argue that mental health of children is impacted by a variety of additional factors. Compared to children without mental, behavioral, and developmental disorders (MBDDs), those with MBDDs more often lived in the lowest income category (prevalence ratio [PR], 1.4) while fewer in the highest income category (PR, 0.8), which indicated that household income plays an essential role in children’s mental health. Additionally, among children living at less than 100% of the federal poverty level, 22% had MBDD. Simultaneously, children of parents with mood or substance use disorders may be at increased risk of externalizing and internalizing disorders, and the same is true of those who are affected by violence, abuse, poverty, and maltreatment. Prior research proposed that diagnoses of depression and anxiety are more common with increased age, and behavior problems are more prevalent among children aged 6-11 years than children younger or older. The authors declare that the possibility of residual confounding and more hierarchical explorations need to be explored in COVID-19-related mental health research.</td>
<td>The authors review current research on the negative impact of the COVID-19 pandemic and other socioeconomic factors on children’s mental health and note the possibility of residual confounding and more hierarchical explorations. Children’s mental health is impacted by factors including household income, parental mental or physical health, and parent emotional support with differences among age groups.</td>
<td>Liang S, Zeng Q. Factors Affecting Children’s Mental Health During the Coronavirus Disease 2019 Pandemic. JAMA Pediatr. Published online November 16, 2020. doi:10.1001/jamapediatrics.2020.4933</td>
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<td>Health equity, digital platforms, campaign, pregnancy, low birthweight, USA</td>
<td>15-Nov-20</td>
<td>Building Strong Futures: The Feasibility of Using a Targeted Digital Media Campaign to Improve Knowledge About Pregnancy and Low Birthweight Among Black Women</td>
<td>Maternal and Child Health Journal</td>
<td>Original Article</td>
<td>Black women in the United States experience a disproportionately high prevalence of low birthweight neonates. With the COVID-19 pandemic shifting many in-person programs to offer virtual options, digitally-based interventions offer an enticing way to achieve positive pregnancy-related behavior changes. The authors present the Strong Beautiful Future campaign, which communicated information predominantly through social media (Instagram, Facebook and Twitter) and a website to women in 15 zip codes in Florida, USA focusing on prenatal care, weight gain, nutrition, and health impacts of low birth weight. The platform focused on empowering messages that were intended to resonate with Black women, for example using original artwork designed by a Black artist highlighting Black women in empowering pregnancy-related images. Baseline and two follow-up cross-sectional online surveys were conducted.</td>
<td>The authors present a digital campaign (Strong Beautiful Future) developed in Florida, USA which aims to provide information regarding low birthweight neonates to increase knowledge and health equity among Black women in Florida. The authors believe digital campaigns are an especially desirable platform given the COVID-19 pandemic and the shift</td>
<td>Bonnevie E, Rosenberg SD, Goldberg J, Ashley-West A, Smyser J. Building Strong Futures: The Feasibility of Using a Targeted Digital Media Campaign to Improve Knowledge About Pregnancy and Low Birthweight Among Black Women. Matern Child Health J. 2020 Nov 15;1–9. doi: 10.1007/s10995-020-03068-1.</td>
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<td>Children, pediatrics, epidemiology, clinical characteristics, Istanbul</td>
<td>15-Nov-20</td>
<td>COVID-19 IN Turkey: A tertiary center experience</td>
<td>Pediatric International</td>
<td>Case Series</td>
<td>In this article, the authors present the epidemiological and clinical features of 37 children diagnosed with COVID-19 in a hospital in Istanbul from March 1-May 1, 2020. Median age was 10 years (age range 7 months-17 years). Duration of patients' symptoms varied from 1 to 7 days (median 2 days). 29 (78.3 %) of the patients had a history of contact with an adult patient diagnosed with COVID-19. 10 (27%) of children had a comorbid disease. 15 (40.5%) of patients had a mild infection while 12 (32.4%) had moderate infection and 10 (27.1%) were classified as severe or critically ill. 29 (78.3%) were positive for SARS-CoV-2 by RT-PCR while the other 8 (21.7%) were negative but with clinical and radiological findings compatible with COVID-19. 10 children (27%) were admitted to the ICU. The most common symptom was dry cough in 28 (75.6%) patients, followed by fever (70.2%), fatigue (48.6%), and shortness of breath (35.4 %). Most common abnormal laboratory findings were decreased lymphocytes (45.9%), and increased D- dimer values (43.2 %). 24 (64.8%) patients received azithromycin, 22 (59.4%) received oseltamivir, and 3 (8.1%) received favipiravir. Hydroxychloroquine was used in combination with azithromycin in 13 (35.1%) children. Non-invasive mechanical ventilation was required for 8 patients (21.6%). Median duration of hospitalization was 7 days (4-17 days) except 1 patient still hospitalized at the time of the manuscript.</td>
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<td>Carbajal R, Lorrot M, Levy Y, et al. Multisystem inflammatory syndrome in children rose and fell with the first wave of the COVID-19 pandemic in France. Acta Paediatr. 2020 Nov 15. doi: 10.1111/apa.15667.</td>
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<td>Pediatrics, MIS-C, KD, Kawasaki Disease, inflammatory syndromes, France</td>
<td>15-Nov-20</td>
<td>Multisystem inflammatory syndrome in children rose and fell with the first wave of the COVID-19 pandemic in France</td>
<td>Acta Paediatrica</td>
<td>Original research</td>
<td>This retrospective study aimed to determine the influence of the COVID-19 pandemic on the occurrence of multi-system inflammatory syndrome in children (MIS-C) and compared the main characteristics of MIS-C and Kawasaki disease (KD). Patients up to 18 years of age who were diagnosed with MIS-C or KD in a pediatric university hospital in Paris, France from January 1, 2018- July 15, 2020 were included. Clinical, laboratory and imaging characteristics were assessed. There were 7 children with MIS-C (6 months-12 years of age) who were all positive for SARS-CoV-2,</td>
<td>This study highlights some of the major differences in characteristics between children diagnosed with Kawasaki Disease and those with MIS-C in a pediatric hospital in Paris, France. Those with MIS-C were on average older and had</td>
<td>Önal P, Kılıç AA, Ayyüng F, Durak C, Çokuğraş H. COVID-19 IN Turkey: A tertiary center experience. Pediatr Int. 2020 Nov 15. doi: 10.1111/ped.14549.</td>
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<td>India; psychological; COVID-19; lockdown; SARS-CoV-2; children</td>
<td>15-Nov-20</td>
<td>The Psychological Effects of COVID-19 Pandemic Related Lockdown in Children</td>
<td>Indian Pediatrics</td>
<td>Correspondence</td>
<td>In this correspondence, the authors reported on the psychological effects of the lockdown on children in India. Since late March 2020, the government imposed strict lockdowns in the country, the rules of which varied from state to state. Schools were closed and movement was curbed to contain the spread of SARS-CoV-2, forcing children to stay indoors. The authors cite that reduced social contact, reduced physical activity, monotony in daily routine and difficulty being engaged can have negative impacts on children. These can lead them to internalize feelings such as anxiety, depression, and withdrawn state, while externalizing states such as irritability, aggression, disruptive and rule-breaking responses. Children could also be susceptible to sleep instability, and symptoms of psychological distress; however, the reduction in academic pressures may also cause a reduction in stress for children. The understanding of the psychological impact of COVID-19 on children is still evolving and, more studies are required to explore this topic in-depth in the pediatric cohort.</td>
<td>The authors discussed the psychological impacts of lockdowns in children in India, during which schools were shut down and physical movement outdoors curbed to slow the spread of SARS-CoV-2. They highlighted the possibility of internalization of anxiety and stresses, while externalizing irritability, aggression, and disruptive behaviors.</td>
<td>Babu TA, Selvapandiyan J. The Psychological Effects of COVID-19 Pandemic Related Lockdown in Children. Indian Pediatr. 2020 Nov;57(11):1087. doi: 10.1007/s13312-020-2053-x. PMID: 33231192; PMCID: PMC7678587.</td>
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<td>COVID-19; maternal health; trophoblast necrosis; chronic histiocytic intervillitis; placental risk factors; neonatal health; vertical transmission; SARS-CoV-2; transplacental transmission</td>
<td>15-Nov-20</td>
<td>Placental Pathology of COVID-19 with and without Fetal and Neonatal Infection: Trophoblast Necrosis and Chronic Histiocytic Intervillitis as Risk Factors for Transplacental Transmission</td>
<td>Viruses</td>
<td>Commentary</td>
<td>Transmission of SARS-CoV-2 from mother to infant has been suspected in certain cases but has been difficult to confirm. This article summarizes pathology findings from pregnant women with COVID-19 based upon the infection status of their infants to help determine SARS-CoV-2’s effects on the placenta and the pathophysiology of maternal-fetal infection. Placentas from pregnant women with COVID-19 and uninfected neonates show significant variability in pathology findings. In contrast, placentas from infected maternal-neonatal dyads are characterized by mononuclear cell inflammation of the intervillous space, termed chronic histiocytic intervillitis, and syncytiotrophoblast necrosis. These placentas show prominent positivity of syncytiotrophoblast by SARS-CoV-2, meeting criteria for transplacental viral transmission and confirmed in fetal cells by immunohistochemistry or viral nucleic acid using RNA in situ.</td>
<td>This article summarizes pathology findings from pregnant women with COVID-19 based on the infection status of their infants to help determine SARS-CoV-2’s effects on the placenta and the pathophysiology of maternal-fetal infection. The authors find similar features among placentas from infected maternal-neonatal dyads, all with the same lesion histiocytic</td>
<td>Schwartz DA, Morotti D. Placental Pathology of COVID-19 with and without Fetal and Neonatal Infection: Trophoblast Necrosis and Chronic Histiocytic Intervillitis as Risk Factors for Transplacental Transmission of SARS-CoV-2. Viruses. 2020 Nov 15. doi: 10.3390/v12111308</td>
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<td>severe acute respiratory syndrome coronavirus 2; SARS-CoV-2; COVID-19; infant; newborn; infectious disease transmission; vertical; Iran</td>
<td>14-Nov-20</td>
<td>Possible Vertical Transmission of COVID-19 to the Newborn; a Case Report</td>
<td>Archives of Academic Emergency Medicine</td>
<td>Case Report</td>
<td>The authors report the possible vertical transmission of COVID-19 from a mother to a neonate. A 41-year-old mother in Iran with signs and symptoms of acute respiratory illness presented with labor pain and leaking of amniotic fluid at 37 weeks’ gestation, and tested positive for SARS-CoV-2 infection using RT-PCR [dates of admission not included]. She underwent emergency C-section delivery due to history of 4 previous C-sections. The RT-PCR results of the amniotic fluid and neonate &lt; 24 hours after birth were positive for SARS-CoV-2 infection. The infant was admitted to the neonatal ICU and received supportive care. The baby was fed formula only. After 11 and 14 days, she tested negative for SARS-CoV-2. The neonate did not have any symptoms but developed fever from the 10th day of birth. The fever resolved with appropriate anti-pyretic therapy and antibiotic therapy, and she was discharged from the hospital on day 28. The authors argue that the current case supports vertical transmission of SARS-CoV-2, since the neonate was positive within the first day of life.</td>
<td>intervillositis. The co-occurrence of chronic histiocytic intervillositis and trophoblast necrosis appears to be a risk factor for placental infection with SARS-CoV-2 as well as for maternal-fetal viral transmission, suggesting a potential mechanism by which the virus can breach the maternal-fetal interface. The authors argue that use of proposed criteria by Schwartz et al. for identifying transplacental transmission of SARS-CoV-2 using molecular analysis the placenta will help differentiate cases of transplacental infection from other mechanisms of neonatal infection.</td>
<td>Parsa Y, Shokri N, Jahedbozorgan T, Naeiji Z, Zadehmoadres S, Moridi A. Possible Vertical Transmission of COVID-19 to the Newborn; a Case Report. Arch Acad Emerg Med. 2020;9(1):e5.</td>
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<td>SARS-CoV-2; COVID-19; PMIS; children</td>
<td>14-Nov-20</td>
<td>Characteristics of pediatric multi-system inflammatory syndrome (PMIS) associated with COVID-19: a meta-analysis and insights into pathogenesis</td>
<td>International Journal of Infectious Diseases</td>
<td>Systematic Review</td>
<td>At the time of this review, there is still no standardized diagnostic criteria and treatment regimen for PMIS, and the cause of this syndrome still remains unclear. The authors performed a systematic review on PubMed and Embase from the first identification of PMIS in May 2020 to June 2020 in order to analyze relevant cases. Studies were eligible only if they involved patients &lt;18 years old with elevated inflammatory markers, and with no other obvious microbial causes of inflammation. From the 7 included studies including 182 PMIS patients, 80% of patients suffered persistent fever and 90% had gastro-intestinal symptoms. Mean age was 8.99 years (95% CI 7.99-9.98) [no age range specified]. IgG antibody against SARS-CoV-2 was positive on 81% of patients, while 37% of the patients were nucleic acid positive. C-reactive protein, IL-6 and PCT were elevated and IV immunoglobulin was a routine treatment for PMIS. Over half of the patients suffered persistent fever and 90% had gastro-intestinal symptoms. Mean age was 8.99 years (95% CI 7.99-9.98) [no age range specified]. IgG antibody against SARS-CoV-2 was positive on 81% of patients, while 37% of the patients were nucleic acid positive. C-reactive protein, IL-6 and PCT were elevated and IV immunoglobulin was a routine treatment for PMIS. Over half of the patients suffered persistent fever and 90% had gastro-intestinal symptoms. Mean age was 8.99 years (95% CI 7.99-9.98) [no age range specified]. IgG antibody against SARS-CoV-2 was positive on 81% of patients, while 37% of the patients were nucleic acid positive. C-reactive protein, IL-6 and PCT were elevated and IV immunoglobulin was a routine treatment for PMIS. Over half of the patients suffered persistent fever and 90% had gastro-intestinal symptoms. Mean age was 8.99 years (95% CI 7.99-9.98) [no age range specified].</td>
<td>This systematic review of literature published between May to June 2020 analyzed 7 studies comprising 182 cases of PMIS in patients &lt;18 years old. Common symptoms included persistent fever, gastro-intestinal symptoms, shock, heart dysfunction, and Kawasaki-like symptoms. Future research should focus on the role of children’s immune response to the</td>
<td>Zou H, Lu J, Liu J, et al. Characteristics of pediatric multi-system inflammatory syndrome (PMIS) associated with COVID-19: a meta-analysis and insights into pathogenesis [published online, 2020 Nov 14]. Int J Infect Dis. 2020;102:319-326. doi:10.1016/j.ijid.2020.11.145</td>
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<td>COVID-19, children, thromboprophylaxis, low molecular weight heparin, hospitalized, expert opinion, consensus</td>
<td>14-Nov-20</td>
<td>Consensus-based Clinical Recommendations and Research Priorities for Anticoagulant Thromboprophylaxis in Children Hospitalized for COVID-19-related Illness</td>
<td>Journal of Thrombosis and Haemostasis</td>
<td>Recommendatios and Guidelines</td>
<td>The objective of this scientific statement is to provide consensus-based recommendations on the use of anticoagulant thromboprophylaxis in children hospitalized for COVID-19-related illnesses and to identify priorities for future research. The authors surveyed pediatric hematologists and pediatric critical care physicians (18 respondents, 90% response rate) from North America, South America, Europe, Asia/Middle East, and Australia/New Zealand regarding their expert opinions on the use of anticoagulant thromboprophylaxis in children hospitalized with COVID-19-related illnesses. They also conducted a comprehensive review of the literature on COVID-19 in children. Based on the consensus of expert opinions, the authors suggest the administration of low-dose low molecular weight heparin subcutaneously twice-daily as anticoagulant thromboprophylaxis (in the absence of contra-indications and in combination with mechanical thromboprophylaxis with sequential compression devices) in children hospitalized for COVID-19-related illness (including MIS-C) who have markedly elevated D-dimer levels or superimposed clinical risk factors for hospital-associated venous thrombo-embolism (VTE). For children who are clinically unstable or have severe renal impairment, the authors suggest using unfractionated heparin by continuous IV infusion as anticoagulant thromboprophylaxis. The authors identify efforts to characterize VTE risk and evaluate the safety and efficacy of anticoagulant thromboprophylaxis as key priorities for future research in children hospitalized for COVID-19.</td>
<td>Development of PMIS in order to provide a better understanding of the cause of this syndrome and to identify risk factors.</td>
<td>Goldenberg NA, Sochet A, Albisetti M, et al. Consensus-based clinical recommendations and research priorities for anticoagulant thromboprophylaxis in children hospitalized for COVID-19-related illness. J Thromb Haemost. 2020;18(11):3099-3105. doi:10.1111/jth.15073</td>
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<td>Children and Youth</td>
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<td>admitted from March 1-May 22, 2020 at 8 sites in the USA were divided into three groups based on clinical features. 143 (51%) had respiratory disease, 69 (25%) had MIS-C, and 69 (25%) had other manifestations (gastro-intestinal illness or fever). Patients with MIS-C were more likely to identify as non-Hispanic black compared with patients with respiratory disease (35% vs 18%, p=0.02). 7 patients (2%) died and 114 (41%) were admitted to the ICU. In multivariable analyses, obesity (OR=3.39, 95% CI:1.26-9.10, p=0.02) and hypoxia on admission (OR=4.01; 95% CI:1.14-14.15; p=0.03) were predictive of severe respiratory disease. Lower absolute lymphocyte count (OR=8.33 per unit decrease in 109 cells/L, 95% CI:2.32-33.33, p=0.001) and higher C-reactive protein (OR=1.06 per unit increase in mg/dL, 95% CI:1.01-1.12, p=0.017) were predictive of severe MIS-C. Race/ethnicity or socio-economic status were not predictive of disease severity.</td>
<td>hypoxia were predictive of severe respiratory disease, while lower absolute lymphocyte count and higher C-reactive protein were predictive of severe MIS-C.</td>
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<td>Portugal, vertical transmission, stillbirth, SARS-CoV-2</td>
<td>14-Nov-20</td>
<td>Signs suggestive of congenital SARS-CoV-2 infection with intrauterine fetal death: a case report</td>
<td>European Journal of Obstetrics and Gynecology and Reproductive Biology Correspondence</td>
<td>This correspondence reports the case of congenital SARS-CoV-2 infection ending in stillbirth in an asymptomatic 19-year-old pregnant woman with COVID-19 in Portugal. At 34 weeks of gestation, the woman underwent a fetal ultrasound scan which revealed that the fetus was in the 0.3 percentile (weight estimate 1.407 g) with pleural effusion, cardiomegaly and ascites and no longer had a heartbeat. Naso-oropharyngeal swab testing for SARS-CoV-2 by PCR revealed the woman was positive for the virus, though she remained asymptomatic for the duration of her stay at the hospital. Results from the autopsy on fetal lung samples were positive for SARS-CoV-2 via PCR testing. The authors state that this finding supports the hypothesis of vertical transmission of the virus. They note the limitation that the placenta was not tested for the virus, but state that immunohistochemical studies will be performed on the placenta and fetal tissues soon.</td>
<td>This correspondence reports the case of a congenital SARS-CoV-2 infection ending in stillbirth. PCR result from fetal lung tissue indicated the presence of the virus, supporting the hypothesis that vertical transmission is possible.</td>
<td>Rodrigues ML, Gasparinho G, Sepúlveda F, et al. Signs suggestive of congenital SARS-CoV-2 infection with intrauterine fetal death: A case report. European Journal of Obstetrics &amp; Gynecology and Reproductive Biology. 2020. doi: <a href="https://doi.org/10.1016/j.ejogr.2020.11.042">https://doi.org/10.1016/j.ejogr.2020.11.042</a>.</td>
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<td>COVID-19; pregnancy; childbirth</td>
<td>13-Nov-20</td>
<td>Fear of childbirth in time of the new coronavirus pandemic</td>
<td>Revista Brasileira de Enfermagem Article</td>
<td>The authors describe a study that uses reflective analysis to assess how the COVID-19 pandemic has triggered or accentuated the fear of childbirth in pregnant women and affected childbirth care practices. The analysis considers the experiences of women and midwives/obstetricians from different health institutions, transmitted personally or disseminated by the media (e.g., television reports) and social networks (e.g., testimonies shared in groups on Facebook and Twitter). Scientific recommendations on care in pregnancy, labor and delivery, and postpartum during the pandemic, published by national and international reference organizations until August 2, 2020, are also considered. The findings indicate that the pandemic and the protocols implemented by health institutions to prevent SARS-CoV-2 transmission have reconfigured the expectations of pregnant women and affected childbirth care practices.</td>
<td>The authors describe a study that uses reflective analysis of women's experiences and scientific recommendations to assess how the COVID-19 pandemic has triggered or accentuated the fear of childbirth in pregnant women and affected childbirth care practices. The findings indicate that the pandemic and the protocols implemented by health institutions to prevent SARS-CoV-2 transmission have reconfigured the expectations of pregnant women and affected childbirth care practices.</td>
<td>Souto SPAD, Albuquerque RS, Prata AP. Fear of childbirth in the new coronavirus pandemic. Rev Bras Enferm. 2020;73(Suppl 2):e20200551. English, Portuguese. doi:10.1590/0034-7167-2020-0551.</td>
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<td>COVID-19; pediatric emergency medicine; child psychiatry; emergency services; pandemics; psychiatric; United States</td>
<td>13-Nov-20</td>
<td>Changes in pediatric emergency department visits for mental health during the COVID-19 pandemic: A cross-sectional study</td>
<td>Clinical Child Psychology and Psychiatry</td>
<td>Research Article</td>
<td>The authors conducted a cross-sectional study in the USA to compare visit frequency and patient demographics among children and adolescents &lt; 16 years old presenting to a single pediatric emergency department (PED) for mental health concerns, between the COVID-19 pandemic (March 10-May 20, 2020) and the same period in 2019. During the pandemic period, 148 patients presented to the PED with mental health-related diagnoses, compared to 378 in the pre-pandemic period, a reduction of 60.84%. Compared to white children, black children were 0.55 times less likely to present with a mental health condition as compared to the pre-pandemic study period (p = 0.002). Despite identified mental health stressors for children during the COVID-19 pandemic, the authors found that mental health visits were less frequent during the pandemic compared to the pre-pandemic period. These observations may reflect an increase in delayed and unmet need and are compounded by decreased access to outpatient mental health services. The authors conclude that children with mental and behavioral health disorders who seek care in PEDs may be at risk for delayed presentations of mental health disorders. African American children may be a particularly vulnerable population to screen for mental health disorders as re-opening procedures are initiated.</td>
<td>health institutions to prevent SARS-CoV-2 transmission have reconfigured the expectations of pregnant women in relation to childbirth, causing additional levels of fear, concern, and uncertainty. Efforts to promote safe and positive birth experiences for women can help alleviate this fear.</td>
<td>Lefk RA, Setzer E, Cicero MX, Auerbach M. Changes in pediatric emergency department visits for mental health during the COVID-19 pandemic: A cross-sectional study [published online 2020 Nov 13]. Clin Child Psychol Psychiatry. 2020. doi:10.1177/1359104520972453</td>
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<td>COVID-19; newborn intensive care unit (NICU); pediatric intensive care unit (PICU); psychosocial effects; mental health; China</td>
<td>13-Nov-20</td>
<td>Principles of approach to suspected or infected patients related Covid-19 in newborn intensive care unit and pediatric care</td>
<td>Perspectives in Psychiatric Care</td>
<td>Review</td>
<td>This review summarizes the physical and mental health (MH) effects of COVID-19 on children (including neonates) and their parents, with evidence and recommendations specific to pediatric ICUs and neonatal ICUs (NICUs) in China. The authors discuss transmission routes, incubation period, IPC strategies, and diagnostic methods for SARS-CoV-2 as well as clinical characteristics, treatment, and considerations for managing COVID-19 in pregnancy. Diagnostic criteria for suspected SARS-CoV-2 in neonates include temperature instability; hypo-activity, poor feeding, or tachypnoea; abnormal chest radiograph; and</td>
<td>This review summarizes the physical and mental health (MH) effects of COVID-19 on children (including neonates) and their parents, with evidence and recommendations specific to pediatric ICUs and neonatal ICUs (NICUs) in</td>
<td>Sarman A, Tuncay S. Principles of approach to suspected or infected patients related Covid-19 in newborn intensive care unit and pediatric intensive care unit [published online ahead of print, 2020 Nov 13]. Perspect Psychiatr Care. 2020;10.1111/ppc.12643. doi:10.1111/ppc.12643</td>
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<td>intrauterine transmission, cytokine storm,</td>
<td>13-Nov-20</td>
<td>Intrauterine Transmission of SARS-CoV-2</td>
<td>Emerging Infectious Diseases</td>
<td>Case Report</td>
<td>The authors present the case of a 42-year-old pregnant woman who tested positive for both rhinovirus and SARS-CoV-2 and sought treatment at a Brazilian hospital at 27 weeks of gestation, after presenting with dry cough, fever, dyspnea, anosmia, and nausea. After 6 days of hospitalization, ultrasound revealed absence of fetal movements and heart rate, and a C-section was performed to deliver the stillborn fetus. The authors report that the fetal death was associated with intra-uterine transmission of SARS-CoV-2. Upon postpartum examination, they found chronic histiocytic inter-villositis and maternal and fetal vascular mal-perfusion of the placenta, as well as microglial hyperplasia and lymphocytic infiltrate in fetal muscle tissue. Placenta and umbilical cord blood tested positive for SARS-CoV-2 by RT-PCR, confirming trans-placental transmission. The authors hypothesize that intra-uterine asphyxia, maternal history of hypertension, and cytokine storm were significant in these observed clinical outcomes. Further research using placental and fetal gross and microscopic evaluation is needed to better understand the pathophysiology of COVID-19 and congenital transmission of SARS-CoV-2.</td>
<td>The authors present the case of a pregnancy that resulted in stillbirth; the authors attribute the fetal demise to intra-uterine vertical transmission of SARS-CoV-2. The fetal sample had abnormal clinical markers hypothesized to have been a result of intra-uterine asphyxia, cytokine storm, and maternal history of hypertension.</td>
<td>Stonoga ETS, de Almeida Lanzoni I, Rebustini PZ, et al. Intrauterine Transmission of SARS-CoV-2. Emerg Infect Dis. 2020;27(2):10.3201/eid2702.203824. doi:10.3201/eid2702.203824</td>
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<td>SARS-CoV-2, PCR, assay, testing, saliva,</td>
<td>13-Nov-20</td>
<td>The Use of Saliva as a Diagnostic Specimen for SARS-CoV-2 Molecular Diagnostic Testing for Pediatric Patients</td>
<td>medRxiv</td>
<td>Pre-print (not peer reviewed)</td>
<td>The authors assessed the clinical utility/acceptability of saliva as a specimen source in asymptomatic and symptomatic pediatric patients and conducted an analytical validation study of saliva specimens compared to nasopharyngeal (NP) specimens. They analyzed 526 patients between ages 3 and 61 years at the Children’s National Hospital in Washington, DC, USA, from July to September 2020. Study participants included patients who were being tested for COVID-19 in the Emergency Department, peri-operative testing program and employees being tested through the Occupational Health Department. SARS-CoV-2 PCR testing of saliva specimens was comparable in outcomes and laboratory performance to nasopharyngeal specimens when mixed with saliva-stabilizing solution.</td>
<td>The authors observed that saliva collected from SARS-CoV-2 infected symptomatic and asymptomatic pediatric patients yields clinically comparable PCR results to nasopharyngeal specimens when mixed with saliva-stabilizing solution. This clinical study provides evidence for the feasibility of using saliva as a specimen source for SARS-CoV-2 testing in children.</td>
<td>Delaney M, Simpson J, Thomas B, et al. The Use of Saliva as a Diagnostic Specimen for SARS-CoV-2 Molecular Diagnostic Testing for Pediatric Patients. medRxiv. November 2020. doi:<a href="https://doi.org/10.1101/2020.11.11.20223800">https://doi.org/10.1101/2020.11.11.20223800</a></td>
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<td>COVID-19, pediatric, KD, pneumonia, IVIG, lopinavir/ritonavir, treatment</td>
<td>13-Nov-20</td>
<td>Effectiveness of Lopinavir/Ritonavir on Covid-19 Related Pneumonia in a Child with Covid-19 Associated Kawasaki Disease</td>
<td>Cardiology in the Young</td>
<td>Case Report</td>
<td>This article reviews the use of lopinavir-ritonavir treatment in a pediatric case with Kawasaki disease (KD) associated with SARS-CoV-2 infection. The authors discuss the case of a 10-year-old previously healthy boy who was admitted to the hospital with classic signs and symptoms of KD and pneumonia. The patient’s parents were diagnosed with COVID-19 10 days before his illness and were isolated at home. He subsequently tested negative for SARS-CoV-2 by PCR testing but tested positive for SARS-CoV-2 antibodies. He was treated with IV antibiotics, oseltamivir, and hydroxychloroquine, as well as aspirin and IVIG. Despite treatment, his pneumonia progressed, and he was started on high-flow nasal cannula oxygen therapy. Additionally, lopinavir/ritonavir was started while all other treatments except IV Unasyn were discontinued. The patient completed 14 days of lopinavir/ritonavir, and his pneumonia ultimately resolved. The authors concluded that lopinavir/ritonavir treatment is effective in children with pneumonia related to SARS-CoV-2 infections.</td>
<td>The authors reviewed the case of a 10-year-old boy diagnosed with Kawasaki disease associated with SARS-CoV-2 infection and pneumonia who recovered after treatment with lopinavir/ritonavir.</td>
<td>Orbak Z, Laloglu F, Akat H. Effectiveness of lopinavir/ritonavir on covid-19 related pneumonia in a child with Covid-19 associated Kawasaki disease. Cardiology in the Young. 2020:1-9. doi:10.1017/S1047951120004291</td>
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<td>Neonate, pregnancy, perinatal, COVID-19, SARS-CoV-2, meta-analysis</td>
<td>13-Nov-20</td>
<td>Maternal and Perinatal Outcomes in Pregnant Women Infected by SARS-CoV-2: A Meta-Analysis</td>
<td>European Journal of Obstetrics &amp; Gynecology and Reproductive Biology</td>
<td>Review Article</td>
<td>The authors’ objective was to evaluate maternal and neonatal outcomes in SARS-CoV-2 infected pregnancies and identify factors associated with perinatal viral transmission. They searched the Medline, Scopus, CENTRAL, Web of Science, and Google Scholar databases from inception to June 3, 2020, and included 16 observational studies and 44 case reports/series in their analysis. The results showed that fever was the most frequent maternal symptom, followed by cough and shortness of breath, while approximately 15% of infected cases were asymptomatic. Severe disease occurred in 11% of women in case reports/series and in 7% of women (95% CI: 4%-10%) in observational studies, and two maternal deaths were reported. This meta-analysis showed that maternal and neonatal SARS-CoV-2 infections are typically mild with low mortality rates. The authors suggest that the risk of vertical transmission is low and may not be affected by the severity of the maternal infection.</td>
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<td>Bellos I, Pandita A, Panza R. Maternal and perinatal outcomes in pregnant women infected by SARS-CoV-2: A meta-analysis. Eur J Obstet Gynecol Reprod Biol. 2020 Nov 13. doi:10.1016/j.ejogrb.2020.11.038</td>
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<td>USA; children; mental health; ED visits</td>
<td>13-Nov-20</td>
<td>Mental Health-Related Emergency Department Visits Among Children Aged &lt;18 Years During the COVID-19 Pandemic-United States, January 1 - October 17, 2020</td>
<td>Morbidity and Mortality Weekly Report (MMWR)</td>
<td>Original Research</td>
<td>Of note, the rate of neonatal transmission did not differ between women with or without severe disease (OR: 1.94, 95% CI: 0.50 - 7.60). The majority of neonates were delivered by C-section (83.5%), with preterm birth (&lt;37 weeks) occurring in 29.7% of cases. Stillbirth occurred in 3 cases, and 2 neonatal deaths were observed. Fever was the most common neonatal symptom (40%), followed by shortness of breath (28%) and vomiting (24%), while 20% of neonates were asymptomatic. Therefore, the maternal and neonatal course of SARS-CoV-2 infection was mild, with low mortality rates.</td>
<td>The proportion of children’s mental health-related emergency department (ED) visits in the US increased from 2019 levels during the COVID-19 pandemic (April to October 2020). There is concern that EDs cannot care for this population’s needs, but that other avenues of care had closed for mitigation purposes during the pandemic. Furthermore, the pandemic may have increased the demand for children’s mental health care. Tele-health should be considered to prevent this group from seeking care in the ED.</td>
<td>Leeb RT, Bitsko RH, Radhakrishnan L, Martinez P, Njai R, Holland KM. Mental Health-Related Emergency Department Visits Among Children Aged &lt;18 Years During the COVID-19 Pandemic - United States, January 1-October 17, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(45):1675-1680. Published 2020 Nov 13. doi:10.15585/mmwr.mm6945a3</td>
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<td>Spain, umbilical cord, SARS-CoV-2</td>
<td>13-Nov-20</td>
<td>Umbilical cord clamping and skin-to-skin contact in deliveries from women positive</td>
<td>Obstetrics and Gynecology</td>
<td>Original Research</td>
<td>The article aimed to demonstrate the safety of delayed cord clamping (DCC) in mothers with confined SARS-CoV-2 infections in Spain. Epidemiological data was collected from 403 pregnant women with confirmed SARS-CoV-2 infections across 70 centers that participate in the Spanish Registry of COVID-19 from March 1 - May 31, 2020. The early cord clamping (ECC) group consisted of</td>
<td>This article assessed whether delayed cord clamping is safe in SARS-CoV-2-positive mothers. The authors state that since there were no</td>
<td>Mejía Jiménez, I., Salvador López, R., García Rosas, et al. Umbilical cord clamping and skin-to-skin contact in deliveries from women positive for SARS-CoV-2: a prospective observational study.</td>
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Czech Republic children, COVID SARS CoV-2, vaccination, children, parents, vaccine hesitancy, vaccination, herd immunity, USA

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<td>vaccination, vaccine hesitancy, children, parents, immunization, COVID-19, SARS-CoV-2, herd immunity, USA</td>
<td>13-Nov-20</td>
<td>Parents’ Likelihood to Vaccinate Their Children and Themselves Against COVID-19</td>
<td>medRxiv Preprint (not peer reviewed)</td>
<td>In this cohort study, the authors fielded a national household survey among parents in the USA from June 5-10, 2020 (n=1008) to investigate parents’ likelihood of immunizing their children and themselves against COVID-19. The survey was presented in English and Spanish. The authors fit separate regression models of parents’ likelihood to vaccinate themselves and their children against COVID-19, using bivariate and multivariable approaches in analyses weighted to be nationally representative. Overall, 63% of parents (95% CI: 59%, 66%) were likely to vaccinate their children against COVID-19, and 60% (95% CI: 57%, 64%) were likely to get a vaccine themselves. These responses were highly correlated (r=0.89). Race and ethnicity were significantly associated with parents’ likelihood to vaccinate their children. In multivariable analyses, younger parents were significantly less likely than older parents to vaccinate their children and themselves against COVID-19, as were parents with high school or less education compared with parents with bachelor’s degrees. Non-Hispanic White parents were also less likely to vaccinate compared with Hispanic parents (all p&lt;0.05). The authors assert that addressing parents’ hesitancy to vaccinate themselves and their children against COVID-19 will be instrumental in achieving herd immunity in the US.</td>
<td>This cohort study fielded a national household survey among parents in the USA to investigate parents’ likelihood of immunizing their children and themselves against COVID-19, ultimately finding that 63% of parents were likely to vaccinate their children and 60% were likely to vaccinate themselves. The authors suggest that addressing parents’ hesitancy to vaccinate their families will assist in achieving herd immunity.</td>
<td>Davis MM, Zickafoose JS, Halvorson AE, et al. Parents’ Likelihood to Vaccinate Their Children and Themselves Against COVID-19. MedRxiv. 2020; doi: 10.1101/2020.11.10.20228759</td>
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<td>SARS-CoV-2, COVID-19, children, antibodies, serum, seropositive, Czech Republic</td>
<td>12-Nov-20</td>
<td>Searching for COVID-19 Antibodies in Czech Children—A Needle in the Haystack</td>
<td>Frontiers in Pediatrics Original Research</td>
<td>The authors conducted a cross-sectional single time-point survey to determine anti-SARS-CoV-2 antibody frequency amongst children and adolescents in Prague, Czech Republic. 200 children (age 0-18 years [no median/mean reported]) were evaluated July 3 - August 19, 2020. Venous blood was drawn and commercially available Elecsys anti-SARS-CoV-2 assay from Roche Diagnostics was used to quantify antibodies. A cutoff index ≥1.0 was considered positive. Positive results were confirmed via enzyme-linked immunosorbent assay (ELISA). In this cohort, not a single case of sero-positivity was found. When adjusted for assay performance (99.5% sensitivity) the sero-prevalence of SARS-CoV-2 was 0-0.5%. The authors acknowledge that the study cohort was limited in size, and that its representativeness was applicable to the general population of Czech Republic children. The authors performed a cross-sectional study on children (age 0-18 years [no median/mean reported]) in the Czech Republic to identify whether they had anti-SARS-CoV-2 antibodies present in their sera. They did not find any positive results, and therefore interpreted that the cohort seroprevalence was 0-</td>
<td>The authors performed a cross-sectional study on children (age 0-18 years [no median/mean reported]) in the Czech Republic to identify whether they had anti-SARS-CoV-2 antibodies present in their sera. They did not find any positive results, and therefore interpreted that the cohort seroprevalence was 0-</td>
<td>Bloomfield M, Pospisilova I, Cabelova T, et al. Searching for COVID-19 Antibodies in Czech Children-A Needle in the Haystack. Front Pediatr. 2020;8:597736. Published 2020 Nov 12. doi:10.3389/fped.2020.597736</td>
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<td>COVID-19; thrombosis; SARS-CoV-2; hypercoagulation</td>
<td>12-Nov-20</td>
<td>Right Atrial Thrombus in a COVID-19 Child Treated Through Cardiac Surgery</td>
<td>Frontiers in Cardiovascula r Medicine</td>
<td>Case Report</td>
<td>The authors reported the case of an 11-year old male presenting to a pediatric hospital in Esfahan, Iran, with high fever, dyspnea, and skin rashes, with a history of seizures and neurodevelopmental delay. He had a blood pH of 7.27, white blood cell count of 11.4 × 10^9/L, C-reactive protein 38 mg/dL, erythrocyte sedimentation rate 38 mm/h, and lactate dehydrogenase 427 U/L. Chest X-ray and high-resolution CT displayed bilateral ground-glass opacities suggestive of viral pneumonia, and he eventually tested positive for SARS-CoV-2. He was put on a ventilator after displaying shortness of breath and decreasing consciousness and subsequently taken off, with tests indicating significant leukocytosis and neutrophilia. The discovery of a large homogeneous mass on the tricuspid valve leaflet led to surgical intervention (sternotomy with cardiopulmonary bypass) and the removal of a large thrombus in the right atrium, with no SARS-CoV-2 detected in the thrombus. Thus, the authors suggested using thrombectomy to remove large right atrial thrombi in the absence of contraindications for surgery. Additionally, using this case, they highlighted the growing concern of hypercoagulation and acute thrombosis in patients with COVID-19, advising vigilance in monitoring patients with COVID-19 on anticoagulants to prevent subsequent hypercoagulation and thrombus formation.</td>
<td>The authors reported the case of an 11-year old male with COVID-19 who presented with high fever, dyspnea, rash, and laboratory tests indicating infection-induced inflammatory changes. A large thrombus was discovered in his right atrium and removed via sternotomy with cardiopulmonary bypass, with subsequent symptom resolution. The authors highlighted the concern of hypercoagulation and acute thrombosis in COVID-19 patients, with particular attention given to patients on anticoagulants to prevent hypercoagulation and thrombus formation.</td>
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<td>Pregnancy, global health, standardization, collaboration, protocol</td>
<td>12-Nov-20</td>
<td>Protocol for a Sequential, Prospective Meta-Analysis to Describe COVID-19 in Pregnancy and Newborn Periods</td>
<td>medRxiv</td>
<td>Preprint (not peer-reviewed)</td>
<td>Given the scarcity of COVID-19 data in pregnancy and differences in data collection protocols globally, the authors present an approach to obtaining high quality information with which to make evidence-based decisions on the prevention and treatment of COVID-19 in pregnant women. They propose that a sequential, prospective meta-analysis (PMA) is the best approach to rapidly accrue harmonized global data. The PMA protocol they developed has the following proposed benefits: 1) Standardization of data collection components, 2) Early planning for pooling with the potential to reduce research waste (e.g. duplication of efforts) and improve the collective value of data in a collaborative way, and 3) Inclusion of individual participant data to avoid duplicate case counting. Currently, 19 studies taking place in 21 countries have prospectively agreed to pool data for</td>
<td>The authors present their protocol for a sequential, prospective meta-analysis (PMA) on COVID-19 in pregnancy which they designed with the intent of rapidly accruing harmonized global data. There are currently 19 studies in 21 countries that have prospectively agreed to pool data for the analysis.</td>
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<td>Neoneate, transmission, breast feeding, breast milk, clinical characteristics</td>
<td>12-Nov-20</td>
<td>Perinatal COVID-19: review of current evidence and practical approach towards prevention and management</td>
<td>European Journal of Pediatrics</td>
<td>Review article</td>
<td>In this review, the authors summarize available literature on the clinical spectrum of COVID-19 in neonates born to mothers with SARS-CoV-2 during pregnancy. They conducted a comprehensive search of PubMed, Google Scholar and Cochrane Database of Systematic Review from November 2019-June 2020. This review included 793 neonates born to 786 mothers, among which 64% (504) were delivered by C-section. There were 3 stillbirths and 107 (14%) were delivered preterm, which was the most common adverse pregnancy outcome. 629 neonates (79%) were tested for COVID-19 infections in neonates.</td>
<td>The authors describe the clinical characteristics of neonates born to mothers with SARS-CoV-2 during pregnancy, and make practice recommendations for prevention and management of SARS-CoV-2 infections in neonates.</td>
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<td>Pediatrics, children, myocarditis, myocardial injury, biopsy, histology, London, United Kingdom</td>
<td>12-Nov-20</td>
<td>Endomyocardial Biopsy in a Pediatric Patient With Cardiac Manifestations of COVID-19</td>
<td>Circulation. Heart Failure</td>
<td>Case Report</td>
<td>COVID-19 can present with myocardial injury. However, it remains unclear whether these cases represent primary viral myocarditis or cytokine-induced myocardial injury. The authors present a case of the first reported endomyocardial biopsy (EMB) in a pediatric patient with COVID-19. An 11-year-old girl with a history of mild asthma presented to a hospital in London, United Kingdom with 3 days of fever, myalgia, abdominal pain, and diarrhea. Within 48 hours, despite antibiotics, she developed hemo-dynamic instability and metabolic acidosis requiring intubation and ventilation. Echocardiography showed left ventricular dilatation and severe global systolic dysfunction (ejection fraction &lt;20%). Nasopharyngeal PCR was positive for SARS-CoV-2. Veno-arterial extracorporeal membrane oxygenation (ECMO) was rapidly initiated. She developed bilateral lung consolidation and required norepinephrine and epinephrine infusions. She received 2 doses of IV immunoglobulin and methylprednisolone. Atrial septostomy was performed with satisfactory reduction in left atrial pressure. Right ventricular EMB samples were obtained. The biopsy showed interstitial edema, increased numbers of lymphocytes and macrophages, and prominent capillary endothelium without intraluminal thrombosis. CD3 staining demonstrated increased T-lymphocytes; C4d immunostaining was negative, indicating no complement deposition. Human Leukocyte Antigen - DR isotype (HLA-DR) was not activated. SARS-CoV-2 PCR of the biopsy was negative. The findings were considered borderline for lymphocytic myocarditis. There was gradual improvement of cardio-respiratory status and resolution of left ventricular function permitting ECMO decannulation on day 11 and the patient was transferred for rehabilitation.</td>
<td>The authors describe a case of COVID-19 in an 11-year-old girl in London, UK who developed myocardial injury. They present the histological findings of the endomyocardial biopsy, which demonstrated borderline lymphocytic myocarditis.</td>
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<td>Malta, COVID-19, SARS-CoV-2, pediatrics, medical admissions,</td>
<td>12-Nov-20</td>
<td>COVID-19 related acute decline in pediatric admissions in Malta, a population-based study</td>
<td>Early Human Development</td>
<td>Original Research</td>
<td>This population-based study aimed to determine whether there were differences in numbers or characteristics of acute pediatric medical admissions during the first wave of COVID-19 in Malta (March 1 – May 9, 2020) compared with the corresponding 2019 period. Data was collected from Malta’s acute general hospital using health records and computer databases of 995 children 0-15 years old [mean age and range not reported]. Age groups are presented in 8 categories (0-28 days, 28 days – 3 months, 3 months – 1 year, 1-2 years, 3-4 years, 5-6 years, 7-10 years, 11-15 years). Data are presented in 4 tables: patient characteristics, diagnostic data, hospital length of stay, and correlation calculations. Acute pediatric medical admissions dropped by 63.5% overall between the two periods. Neonate admissions increased from 3.8% to 9% (p = 0.001) and an increase in child abuse cases (p &lt; 0.001) was also noted. Data analyzed after school closures revealed a significant drop in the number of infectious disease admissions (p &lt; 0.001). There was also a negative correlation between daily pediatric admissions and active COVID-19 cases in Malta (p = 0.005). The authors attribute decreases in communicable cases to school closures but caution that decreases in non-communicable cases may be caused by fear of contracting SARS-CoV-2 in hospital environments. Public health measures to alleviate guardians’ concerns are important to decrease further potential avoidable consequences from the ongoing pandemic.</td>
<td>This population-based study aimed to determine whether there were any differences in numbers or characteristics of acute pediatric medical admissions during the first wave of COVID-19 in Malta compared with the corresponding 2019 period. The authors note an overall decrease in acute pediatric admissions, but an increase in neonate admissions and child abuse cases.</td>
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<td>Pregnancy, ethics, bioethics, protocols, labor and delivery, USA</td>
<td>12-Nov-20</td>
<td>Application of the Principles of Biomedical Ethics to the Labor and Delivery Unit</td>
<td>Journal of Women’s Health</td>
<td>Commentary</td>
<td>The authors were tasked with developing protocols for women who presented to labor and delivery at West Virginia University Hospitals, USA during the COVID-19 pandemic. They focused on applying 4 pillars of biomedical ethics — beneficence, non-maleficence, autonomy, and delivery, USA.</td>
<td>The authors used the bioethical principles of beneficence, non-maleficence, autonomy, and beneficence, non-maleficence, autonomy.</td>
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maleficence, autonomy, and justice, and this article focuses on how these principles guided recommendations. With respect to beneficence vs non-maleficence, they advocated for women to have support person for labor and delivery but limited to one individual. They minimized the use of trainees in direct care of COVID-19 patients and limited the number of personnel in a patient’s room, while focusing on frequent communication. They attempted to strike a balance between what would be most beneficial to a woman and her family, and what would present the lowest risk of infection to hospital personnel. Examples of how they respected a women’s autonomy included (1) education to allow women to make informed decisions about an epidural and (2) discussions about the CDC recommendation to separate a woman who is positive for COVID-19 from her newborn(s). Protocols did not mandate separation but called for discussion and a neonatal disposition based on the mother’s wishes. In the evaluation of justice based on equity and equality, the protocols designated that anesthesiologists were among the first to get personal N95 respirator masks, given their frequent potential exposure to the virus during intubation. The authors conclude that a bio-ethical framework can be used as a guide in developing protocols that are equitable, while further research will guide evidenced-based best practices for health care during a global pandemic.

This survey of pediatricians and analysis of inpatient admissions data revealed a reduction in pediatric medical care in one Frankfurt, Germany university hospital in April 2020 compared to April 2019. Reductions were seen in the following areas: pediatric hospital admissions, acute bronchitis diagnoses, hospital admissions due to acute respiratory tract infections and asthma exacerbations, neonatal disorders, and oncological disorders.

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<td>racial disparities, UK, MIS-C, COVID-19, children</td>
<td>12-Nov-20</td>
<td>COVID-19 complications in children</td>
<td>British Journal of Nursing</td>
<td>Comment</td>
<td>This article briefly describes the complications of COVID-19 in children [ages not specified], with a focus on data specific to the UK. During the early stages of the pandemic, a syndrome of unusual clinical manifestations temporally associated with COVID-19, now known as MIS-C, were observed in small numbers of young patients. MIS-C typically presents 3–4 weeks following SARS-CoV-2 infection and can include shock and multiasystem dysfunction. Typical symptoms are fever, rash abdominal pain, diarrhea, and vomiting. Laboratory investigations usually show abnormal blood findings suggestive of severe inflammation— including high neutrophil count, elevated C-reactive protein and low lymphocyte count. A systematic review of 39 observational studies with 662 children presenting with symptoms of MIS-C found that many did not have a positive PCR test for SARS-CoV-2 yet showed presence of anti-SARS-CoV-2 antibodies. 71% of these 662 children with MIS-C required ICU admission, and 11 died. A UK-based study reported that older children (median age 10.7 years) were at higher risk of developing MIS-C; other studies have reported that patients from Black, Asian, and minority ethnic backgrounds have had more severe outcomes from SARS-CoV-2. Other studies have shown that 71% of MIS-C patients were of non-white descent. If a child presents with signs and symptoms of MIS-C after a possible SARS-CoV-2 infection, an early multidisciplinary team approach is indicated, including critical care.</td>
<td>This article briefly describes the complications of COVID-19 in children, including MIS-C, with a focus on data specific to the UK. The authors discuss common symptoms, laboratory findings, outcomes, and demographic characteristics of MIS-C patients. The authors note that MIS-C tends to be seen in older children and disproportionately manifests in racial/ethnic minorities.</td>
<td>Baron M, Sherwen O, Heaton PA, Paul SP. COVID-19 complications in children. Br J Nurs. 2020;29(20):1146. doi:10.12968/bjon.2020.29.20.1146</td>
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<td>Pregnancy, nephrology, transplant, immunosuppression, United Kingdom</td>
<td>12-Nov-20</td>
<td>Lesson for the clinical nephrologist: Kidney transplant, COVID-19 and pregnancy</td>
<td>Journal of Nephrology</td>
<td>Case Report</td>
<td>In April 2020, a 29-year-old woman with a history of deceased donor kidney transplant 18 months prior to pregnancy presented to a hospital in London, United Kingdom at 30 weeks gestation with 5 days of cough and shortness of breath. She was on tacrolimus monotherapy immunosuppression. On admission she was febrile, tachycardic, and tachypneic and cardiotocograph showed fetal tachycardia. Chest X-ray showed multiple opacities and nasopharyngeal swab confirmed SARS-CoV-2 RNA. Creatinine was 86 umol/L from a baseline of 68umol/L. She was started on oxygen and antibiotics along with magnesium sulphate and betamethasone for fetal development. Given maternal and fetal improvement, the decision was made to delay delivery. She was started on prophylactic low molecular weight heparin. Her trough tacrolimus levels were within target range and creatinine improved to 70–75 umol/L. She recovered and delivered a full-term infant.</td>
<td>The authors describe the case of a pregnant woman with a history of kidney transplant who presented with COVID-19. She recovered well with supportive therapy, was continued on her immunosuppressant, and delivered a healthy full-term infant.</td>
<td>Gleeson S, Noori M, Lightstone L, Webster P. Lesson for the clinical nephrologist: Kidney transplant, COVID-19 and pregnancy. J Nephrol. 2020 Nov 12:1–3. doi: 10.1007/s40620-020-00897-9</td>
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<td>Iraq, COVID-19, psychological wellbeing, children</td>
<td>12-Nov-20</td>
<td>Psychological response of children to home confinement during COVID-19: A qualitative arts-based research</td>
<td>International Journal of Social Psychiatry (IJSP)</td>
<td>Original Research</td>
<td>Evidence has shown that children are more susceptible to the emotional effects of traumatic events such as global pandemics with the possible disruption to their daily lives. In this paper, the authors discuss the psychological wellbeing of children during the COVID-19 outbreak through an art-based qualitative study among children in Kurdistan, Iraq. The study period was between 25 April - 02 May 2020. 15 children aged 6 to 13 years old (mean age 9.7 years, SD: 2.4 years) were confined at home during the COVID-19 outbreak for at least 1 month were included. The children were guided to paint their feelings, reactions, and reflections regarding the COVID-19 pandemic. The children were asked to explain their drawings; these explanations were analyzed by qualitative content analysis. 1 table shows the general characteristics of the children and 4 figures provide examples of the children’s drawings. The authors report that children have a high level of stress, loneliness, and sadness due to home confinement and social distancing. Most children feared the possibility of infection by SARS-CoV-2. That authors stress that mental health care providers must take the experiences of children who are caught in this global pandemic seriously and ensure that appropriate care is offered to the children and their parents.</td>
<td>This qualitative art-based study in Iraq discusses the psychological wellbeing of children aged 6-13 years old during the COVID-19 pandemic. Children in this study experienced stress, loneliness, and sadness due to home confinement and most feared the possibility of SARS-CoV-2 infection.</td>
<td>Abdulah DM, Abdulla BMO, Liamputtong P. Psychological response of children to home confinement during COVID-19: A qualitative arts-based research [published online ahead of print, 2020 Nov 12]. Int J Soc Psychiatry. 2020;20764020972439. doi:10.1177/0020764020972439</td>
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<td>Turkey, COVID-19, cystic fibrosis, interstitial lung disease, telemedicine, exacerbation</td>
<td>12-Nov-20</td>
<td>Telephone surveillance during 2019 novel coronavirus disease: Is it a helpful diagnostic tool for detecting acute pulmonary exacerbations in children with chronic lung disease?</td>
<td>Journal of Telemedicine and Telecare</td>
<td>Original Research</td>
<td>The global burden of the COVID-19 pandemic on the healthcare system as well as the high transmission risk of SARS-CoV-2 has led to alternative strategies for evaluating children with chronic conditions. This study, conducted in Turkey between 1 April–31 May 2020 and 1 June–31 September 2020, aimed to evaluate the efficiency of telephone visits to determine pulmonary exacerbations and hospitalization rates of children with cystic fibrosis (CF) and interstitial lung disease (ILD) during the COVID-19 pandemic. A total of 119 children with CF (median age 11.7 years, IQR 7.7 years) or ILD (mean age 10.6 years, SD 5.5 years) were enrolled and telephone visits were applied during the peak time of the pandemic in Turkey [age ranges not specified]. 6 tables and figures detail patient demographics, hospital admissions, and acute pulmonary exacerbations. All patients tested negative for SARS-CoV-2 via PCR; therefore, the authors</td>
<td>This study in Turkey evaluated the efficiency of telephone visits to determine pulmonary exacerbations and hospitalization rates of children with cystic fibrosis (CF) and interstitial lung disease (ILD). There was no statistical difference for in-patient admissions related to acute pulmonary exacerbation for CF or ILD during the pandemic.</td>
<td>Ozszezen B, Emiralıoglu N, Tural DA, et al. Telephone surveillance during 2019 novel coronavirus disease: Is it a helpful diagnostic tool for detecting acute pulmonary exacerbations in children with chronic lung disease? [published online ahead of print, 2020 Nov 12]. J Telemed Telecare. 2020;1357633X20972008. doi:10.1177/1357633X20972008</td>
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<td>COVID-19; children; emergency; pediatric surgery; Italy</td>
<td>12-Nov-20</td>
<td>The Challenges Of a Children's Hospital during the COVID-19 Pandemic: The Pediatric Surgeon's Point of View</td>
<td>Pediatric Reports</td>
<td>Report</td>
<td>The authors describe changes to procedures and workflow that were implemented to convert a pediatric surgical department in a children’s hospital in Italy to an acute care pediatric surgical department starting in March 2020 due to the COVID-19 pandemic. The protocols that were implemented addressed 5 points: preservation of pediatric specificity, re-organization of working spaces and resources, definition of adapted surgical protocols, standardization of phases of patient care, and additional supportive care. Details on how resource optimization was used to maintain quality with the implementation of these changes are provided. A multidisciplinary team working at different levels of intensity of care helped to facilitate the transition from a pediatric surgical department to an acute care surgical department. Measures to facilitate continuity of care are described, along with how telemedicine was adapted for pre- and post-operative care. The authors highlight the issue of disrupted care due to postponed appointments, potentially resulting in delayed treatment and disease aggravation. This article outlines the changes made by pediatric surgical department in an Italian children’s hospital, to transition to an acute care surgical department during the COVID-19 pandemic. Factors that facilitated the changes included implementation of specific protocols, resource optimization, a multidisciplinary team, continuity of care, and telemedicine.</td>
<td></td>
<td>Pelizzo G, Costanzo S, Maestri L, et al. The Challenges of a Children’s Hospital during the COVID-19 Pandemic: The Pediatric Surgeon’s Point of View. Pediatr Rep. 2020;12(3):114-123. Published 2020 Nov 12. doi:10.3390/pediatric12030025</td>
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<td>COVID-19, Neonate, Pregnant Women, Vertical Transmission, New York, USA</td>
<td>12-Nov-20</td>
<td>Vertical Transmission of COVID-19 to the Neonate</td>
<td>Infectious Diseases in Obstetrics and Gynecology</td>
<td>Research Article</td>
<td>The authors conducted a retrospective observational study of pregnant women diagnosed with a SARS-CoV-2 infection to estimate the incidence of vertical transmission of SARS-CoV-2 to the neonate during the third trimester. The study was performed at Flushing Hospital Medical Center (FHMC) and Jamaica Hospital Medical Center (JHMC), New York, USA, between March 20 and April 30, 2020, and included symptomatic pregnant women diagnosed with a SARS-CoV-2 infection confirmed by RT-PCR testing in the third trimester. Evidence of vertical transmission was assessed in the neonate via RT-PCR testing with nasopharyngeal swabs collected on the neonates 24 hours after birth. The results showed that 19 symptomatic pregnant women were diagnosed with SARS-CoV-2 infections, including two women with twin pregnancies. Seven patients (36.8%) delivered via cesarean section, 12 patients (63.1%) presented in spontaneous labor, and eight patients (38.1%) had preterm delivery. Of note, 21 neonates were evaluated for SARS-CoV-2 infections after birth, and all (100%) tested negative. Furthermore, 13 neonates (61.9%) were admitted to the neonatal intensive care unit. Findings from this retrospective observational study showed no vertical transmission of SARS-CoV-2 to the neonate from symptomatic pregnant women diagnosed with COVID-19 during the third trimester.</td>
<td>Moreno SC, To J, Chun H, Ngai IM. Vertical Transmission of COVID-19 to the Neonate. Infect Dis Obstet Gynecol. 2020;2020:8460672. Published 2020 Nov 12. doi:10.1155/2020/8460672</td>
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<td>Primary school closure, years of life lost, COVID-19 pandemic, United States of America</td>
<td>12-Nov-20</td>
<td>Estimation of US Children’s Educational Attainment and Years of Life Lost Associated With Primary School Closures During the Coronavirus Disease 2019 Pandemic</td>
<td>Journal of the American Medical Association (JAMA) Network Open</td>
<td>Original investigation</td>
<td>The authors, using the association of decreased educational attainment with a decreased life span, present analytical modeling estimating the potential years of life lost (YLL) associated with primary public school closures in the United States during January 1 - May 30, 2020 during the COVID-19 pandemic. They then compared the YLL due to school closures with a hypothetical model looking at direct and future mortality (in YLL) that might have resulted if school openings had led to increased transmission of COVID-19. They utilized public data sources including the US CDC, the US Social Security Administration, and the US Census Bureau. A total of 24.2 million children aged 5-11 years attending public schools lost a median of 54 days of education. This is associated with a mean loss of 0.31 (95% CI 0.10-0.65) and 0.21 (95% CI 0.06-0.46) years of final educational attainment in boys and girls, respectively, resulting in 5.53 million (95% CI 1.88-10.80) YLL across the population. Had schools remained open, 1.47 million (95% CI 0.45-2.59) additional YLL could have been expected due to COVID-19 deaths. Overall, analysis favored schools remaining open rather than closing. The authors conclude that future decisions regarding school closures during the pandemic should consider the association between educational disruption and decreased expected lifespan.</td>
<td>The authors present analytical modeling showing a worse outcome in years of life lost with school closure versus no school closure for primary school students in the US during the current COVID-19 pandemic. They conclude that future decisions regarding school closures during the pandemic should consider the association between educational disruption and decreased expected lifespan.</td>
<td>Christakis DA, Van Cleve W, Zimmerman FJ. Estimation of US Children’s Educational Attainment and Years of Life Lost Associated With Primary School Closures During the Coronavirus Disease 2019 Pandemic. JAMA Netw Open. 2020;3(11):e2028786. doi:10.1001/jamanetworkopen.2020.28786</td>
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<td>SARS-CoV-2, dermatology, pediatric, children, chilblain-like lesions</td>
<td>12-Nov-20</td>
<td>Skin manifestations of COVID-19 in children: Part 1</td>
<td>Clinical and Experimental Dermatology</td>
<td>Review Article</td>
<td>The overall clinical presentation, course and outcome of SARS-CoV-2 infection in children differ from those in adults as do the cutaneous manifestations of childhood. This article represents part 1 of a 3-part review series on the skin manifestations of COVID-19 in children. They detail clinical features, testing considerations, treatments and outcomes, and possible mechanisms by which SARS-CoV-2 infection and chilblain lesions may be related in the pediatric population.</td>
<td>This article represents part 1 of a 3-part review series on the skin manifestations of COVID-19 in children. In this article, the authors discuss one of the first and most widespread cutaneous manifestation of COVID-19, chilblain-like lesions. The article details clinical features, testing considerations, treatments and outcomes, and possible mechanisms by which SARS-CoV-2 infection and chilblain lesions may be related in the pediatric population.</td>
<td>Andina D, Belloni-Fortina A, Bodemer C, et al. Skin manifestations of COVID-19 in children: Part 1 [published online, 2020 Nov 12]. Clin Exp Dermatol. 2020;10.1111/ced.14481. doi:10.1111/ced.14481</td>
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### Key Terms
- Antibody, Spain
- Households, family, seroprevalence, children, adults, SARS
- Breastfeeding practices, COVID-19
- Milk composition, microbiome, milk
- Human, practices, COVID-19
- Breastfeeding benefits, breastfeeding

### Published Date
- 12-Nov-20

### Type of Publication
- Commentary

### Summary & Key Points
- 19 associated chilblains, nasopharyngeal PCR and blood serologies were negative and suspected COVID-19 symptoms were mild. The authors propose that chilblains may be a late manifestation when viral RNA is no longer detectable. The link between COVID-19 and chilblains remains to be proven; some hypotheses include microvascular pathology induced by SARS-CoV-2, thrombotic manifestations and elevated D-dimers associated with COVID-19, or a robust interferon type I response in children attenuating the virus (resulting in milder COVID-19 seen in chilblains patients) but inducing micro-angiopathic changes and producing lesions. Changes in physical activity during lockdown could also contribute, although evidence is limited.

### Specific Observations
- This commentary discusses a review by Groer et al., which explores the human milk microbiome (HMM) and its interaction with other microbes, including pathogens. The author of this commentary argues that maternal immunity transferred via breastmilk is the most likely way that infants will be protected from COVID-19 until a vaccine safe for infants is identified. Breastmilk contains secretory antibodies from the mother and T cells with memory characteristics, which allows a breastfed infant to fight infections more effectively and quickly. The author notes that the relationship of HMM to infant biology and health is not fully known, and this lack of understanding may have consequences during the COVID-19 pandemic. The effect of SARS-CoV-2 infection on HMM and the cells within breastmilk is unknown. Additionally, a lack of adequate technology may lead public health officials and scientists to lack insight and give faulty advice. The author urges those with authority to be careful about the recommendations they give to breastfeeding mothers during the COVID-19 pandemic and pursue future scientific inquiry, especially during public health crises, with rigor and a balanced perspective.

### Full Citation

### Summary & Key Points
- The authors’ objective was to assess the seroprevalence of SARS-CoV-2 infection in children and adult contacts living with first reported PCR-positive adult cases in quarantined family households and determine the persistence of antibody response in cases. They analyzed 381 families with at least one first reported adult case positive by SARS-CoV-2 PCR and at least one child aged < 15 years living in the same household under strict home confinement, in metropolitan Barcelona, Spain, during the COVID-19 pandemic from April 28 - June 3, 2020. All household members were tested at home by a rapid SARS-CoV-2 antibody assay in finger-prick obtained capillary blood. The results showed that the SARS-CoV-2 infection seroprevalence rates were 17.6% in children and adult contacts in quarantined family households, with most children being asymptomatic or having mild symptoms. The authors also observed a weak antibody response against SARS-CoV-2 among children aged < 15 years.

### Specific Observations
- This study’s findings showed similar SARS-CoV-2 seroprevalence rates in children and adult contacts in quarantined family households, with most children being asymptomatic or having mild symptoms. The authors also observed a weak antibody response against SARS-CoV-2 among children aged < 15 years.

### Full Citation

### Journal / Source
- Journal of Human Lactation

### Publication Type of
- Commentary

### Source
- Journal of Maternal and Child Health Research

### Type
- Original Research

### Title
- Susceptibility to Sars-CoV-2 Infection Among Children And Adults: A Seroprevalence Study of Family Households in the Barcelona Metropolitan Region, Spain
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<td><strong>SARS-CoV-2, Nasal strip, deep throat saliva, sampling methods, Hong Kong</strong></td>
<td>12-Nov-20</td>
<td>SARS-CoV-2 detection by nasal strips: a superior tool for surveillance of pediatric population</td>
<td>Journal of Infection</td>
<td>Letter to the Editor</td>
<td>The authors compare different sample collection methods for diagnosing SARS-CoV-2 including a nasal strip. Nasopharyngeal swabs require trained personnel, and trigger sneezing and coughing which can spread the disease. Saliva tests are good for adults but is difficult to collect in children and less accurate. Pediatric (n=18, age range 6-17 years) and adult (n=20, age range 22-74 years) patients were assessed at the Prince of Wales hospital in Hong Kong. Nasal epithelial lining fluid was obtained by nasal strip (n=43) and compared against pooled nasopharyngeal swabs (N=21) or deep throat saliva (n=21). Samples were subjected to RT-PCR targeting the nucleoprotein gene. They found high correlation between nasal strip samples and standard sampling methods, and the nasal strip test had an accuracy of 95.2%. Further, the strip would provide consistent qualitative results even after 24-72-hour storage at room temperature. Although this study is limited by its size and scope, nonetheless authors conclude that the nasal strip test is more accurate for pediatric patients than a saliva test and less invasive than a nasopharyngeal swab.</td>
<td>Authors present data from pediatric and adult patients in Hong Kong that shows the nasal strip test is an accurate method for diagnosing SARS-CoV-2 that is more accurate for pediatric patients than a saliva test and less invasive than a nasopharyngeal swab.</td>
<td>Chan RW, Chan KC, Chan KY, et al. SARS-CoV-2 detection by nasal strips: a superior tool for surveillance of pediatric population. Journal of Infection. November 2020. doi:10.1016/j.jinf.2020.11.009.</td>
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<td><strong>MIS-C, COVID-19; new onset diabetes; glycemic monitoring; glycemic management; inflammation; beta cells; USA</strong></td>
<td>12-Nov-20</td>
<td>New onset diabetes with diabetic ketoacidosis in a child with multisystem inflammatory syndrome due to COVID-19</td>
<td>Journal of Pediatric Endocrinology and Metabolism</td>
<td>Case Report</td>
<td>The authors present a case of an 8-year-old female in the USA who presented with severe COVID-19-related symptoms warranting MIS-C diagnosis, and concurrent new onset diabetes. The patient, who had family history of type 2 diabetes, was treated with an intravenous immunoglobulin (IVIG) 2g/kg dose and infliximab and has since restored to general physiologic stability. The patient’s one-month follow-up showed HbA1c levels trending down. The finding of simultaneous MIS-C and new onset diabetes led the authors to suggest the possibility of COVID-19 impacting beta cell function through hastened cell death. Given this potential association, they postulate that antibodies against SARS-CoV-2 may trigger inflammatory process that facilitate beta cell death and diabetes onset, and that glycemic monitoring should thus be considered in MIS-C management.</td>
<td>The authors describe a unique case of an 8-year-old patient in the USA with concurrent MIS-C and new onset diabetes and present evidence that new onset diabetes can present in MIS-C in children. They hypothesize that SARS-CoV-2 antibodies may trigger inflammatory processes related to beta cell death and subsequently, that glycemic monitoring is</td>
<td>Naguib MN, Raymond JK, Vidmar AP. New onset diabetes with diabetic ketoacidosis in a child with multisystem inflammatory syndrome due to COVID-19 [published online ahead of print, 2020 Nov 12]. J Pediatr Endocrinol Metab. 2020;//jpem.ahead-of-print/jpem-2020-0426/jpem-2020-0426.xml. doi:10.1515/jpem-2020-0426</td>
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<td>Switzerland, MIS-C, cytokine, antibodies</td>
<td>12-Nov-20</td>
<td>Immunological assessment of pediatric multisystem inflammatory syndrome related to COVID-19</td>
<td>Journal of the Pediatric Infectious Diseases Society</td>
<td>This article reports 4 pediatric case studies admitted to Geneva University Hospital, Switzerland between April 11 - 26, 2020. All children (age range 11-13 years) presented with persistent fever and laboratory evidence of inflammation meeting the published definition of MIS-C related to COVID-19. Results from the 4 patients indicated that PCRs were negative, whereas anti-SARS-CoV-2 IgG and IgA antibodies were strongly positive by ELISA and immunofluorescence. Assays showed the presence of neutralizing antibodies in all children, confirming a recent infection with SARS-CoV-2. The authors stated that negative PCR testing associated with positive serology in most cases suggests a post-infectious syndrome. Additionally, analysis of cytokine profiles showed an elevation of all cytokines similar to adults with COVID-19. The levels of soluble IL-2 receptor (sIL-2R) correlated with the severity of disease, reflecting recent T-cell activation. The authors concluded that these findings suggest that MIS-C related to COVID-19 is caused by a post-infectious inflammatory syndrome associated with elevation in all cytokines and markers of recent T-cell activation (sIL-2R) despite a strong and specific humoral response to SARS-CoV2.</td>
<td>This article assesses data from 4 pediatric patients with suspected MIS-C. Based on the results of the analysis, the authors hypothesize that MIS-C related to COVID-19 is caused by a post-infectious inflammatory syndrome associated with elevation in all cytokines and evidence of recent T-cell activation.</td>
<td>Graziosi S, Tavaglione F, Torriani G, et al. Immunological assessment of pediatric multisystem inflammatory syndrome related to COVID-19. J Pediatric Infect Dis Soc. 2020 Nov 12; piaa142. doi: 10.1093/jpids/piaa142.</td>
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<td>COVID-19; SARS-CoV-2; liver; children; PIM-TS; MIS-C; hepatic damage</td>
<td>11-Nov-20</td>
<td>COVID-19 and Liver Damage: Narrative Review and Proposed Clinical Protocol for Critically Ill Pediatric Patients</td>
<td>Clinics</td>
<td>The authors conducted a literature review to summarize liver abnormalities related to SARS-CoV-2 infections and possible physio-pathological mechanisms, and developed a protocol for the assessment and care of pediatric patients with COVID-19 and liver function abnormalities. The emergence of pediatric cases of multisystem inflammatory syndrome related to SARS-CoV-2 infection (PIM-TS) has raised concerns over the issue of hepatic damage and liver enzyme elevation in critically ill children with COVID-19. Some retrospective cohorts and case series have shown hepatic enzyme (ALT/AST) elevation in SARS-CoV-2 infections, and liver damage has been associated with higher levels of inflammatory markers, C-reactive protein, and procalcitonin. Proposed patho-physiological mechanisms for liver effects include an uncontrolled exacerbated inflammatory response, drug-induced liver injury, direct viral infection and damage to cholangiocytes, hypoxic-ischemic lesions, and microthrombosis in the liver. The proposed surveillance, evaluation, management, and follow-up guidelines for pediatric patients with COVID-19-associated liver damage includes tests to assess hepatic damage and age-specific frequent etiologies and treatments to resolve abnormalities. The authors present what they believe to be the first pediatric COVID-19 protocol focused</td>
<td>The authors conducted a literature review to summarize liver abnormalities related to SARS-CoV-2 infections and possible physio-pathological mechanisms. They subsequently developed a protocol for the assessment and care of pediatric patients with COVID-19 and liver function abnormalities, which the authors believe is the first protocol of its kind.</td>
<td>Luglio M, Tannuri U, de Carvalho WB, et al. COVID-19 and Liver Damage: Narrative Review and Proposed Clinical Protocol for Critically Ill Pediatric Patients. Clinics (Sao Paulo). 2020;75:e2250. Published 2020 Nov 11. doi:10.6061/clinics/2020/e2250</td>
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<td>Key Terms</td>
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<td>MIS-C, infant, pediatrics, cytokine storm, Israel</td>
<td>11-Nov-20</td>
<td>Multisystem inflammatory syndrome in children associated with SARS-CoV-2 in an 8-week old infant</td>
<td>Journal of the Pediatric Infectious Diseases Society</td>
<td>Case Report</td>
<td>The authors present a case of an 8-week-old infant in Israel [date not provided] who presented with a 7-day history of bloody diarrhea, vomiting, and fever. Both parents had tested positive for SARS-CoV-2 by PCR when the infant was 2 weeks of age. The family quarantined and the infant was asymptomatic at the time. The infant’s first PCR test was misplaced, and subsequent testing was negative. On admission, the infant was lethargic and tachycardic. Notable laboratory findings included leukocytosis, thrombocytosis, hypo-albuminemia, elevated C-reactive protein (CRP), metabolic acidosis and elevated B-type natriuretic peptide (BNP). Initial infectious workup was negative. The infant had cracked lips but no other signs of Kawasaki Disease. Total parenteral nutrition was initiated, however diarrhea persisted with worsening hypo-albuminemia. Abdominal sonograms showed intestinal edema and splenomegaly, and colonoscopy demonstrated colitis. During the hospitalization, the infant then experienced severe anemia (5.9 g/dL) requiring blood transfusion, elevated D-dimer, elevated ferritin levels and thrombocytopenia. Echocardiogram showed mild-moderate mitral regurgitation. Nasopharyngeal SARS-CoV-2 PCR was negative, however SARS-CoV-2 IgG was positive. The infant therefore fulfilled the WHO case definition for PIMS/MIS-C and was treated with IV immunoglobulins, pulse methylprednisolone therapy (30 mg/kg/d) for 3 days, and 4 doses of Anakinra (IL-1 receptor antagonist). She was discharged on a weaning course of oral prednisolone and was successfully weaned by one-month post-discharge. The authors conclude that clinicians should be aware of MIS-C in the neonatal and infantile age groups to facilitate timely identification and treatment.</td>
<td>The authors present a case of MIS-C in an 8-week-old infant in Israel requiring parenteral nutrition, blood transfusion, and treatment with IVIG, methylprednisolone, and Anakinra (IL-1 antagonist).</td>
<td>Orlanski-Meyer E, Yoge D, Auerbach A, Megged O, Glikman D, Hashkes PJ, Bar-Meir M. Multisystem inflammatory syndrome in children associated with SARS-CoV-2 in an 8-week old infant. J Pediatric Infect Dis Soc. 2020 Nov 11:piaa137. doi: 10.1093/jpids/piaa137.</td>
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<td>COVID-19; Complications; Nasal septal abscess; Vestibulitis; India</td>
<td>11-Nov-20</td>
<td>An Unusual Case of a Pediatric Nasal Septal Abscess with Life-Threatening Complications in COVID-19 Pandemic</td>
<td>Indian Journal of Otolaryngology and Head and Neck Surgery</td>
<td>A Case Report</td>
<td>This is a case report of an 11-year-old immunocompetent boy with a complicated nasal septal abscess (NSA) due to delayed healthcare seeking during the COVID-19 pandemic. The patient was admitted to the otorhinolaryngology department in Punjab, India, with high-grade fever, swelling, and pain around the nose and eyes for 4 days. He subsequently developed meningitis features. No other significant symptoms and past medical history were identified. The patient tested negative for SARS-CoV-2, and blood tests were within normal limits except for leukocytosis. His nasal septal swelling resolved after nasal endoscopy with needle aspiration, and he was started initially on intravenous ceftriaxone, metronidazole, paracetamol infusion, mupirocin local application, and oral ibuprofen. He then received empirical therapy of intravenous vancomycin (40 mg/kg/day), imipenem,</td>
<td>The authors present a case report of an 11-year-old boy with life-threatening complications from a nasal septal abscess resulting from a delay in seeking treatment during the COVID-19 lockdown, who subsequently recovered after medical intervention.</td>
<td>Maan AS, Kaur G, Arora R et al. An Unusual Case of a Pediatric Nasal Septal Abscess with Life-Threatening Complications in COVID-19 Pandemic [published online, 2020 Nov 11]. Indian J Otolaryngol Head Neck Surg. 2020;1-4. doi:10.1007/s12070-020-02264-3</td>
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<td>Sepsis, pediatrics, MIS-C, guidelines</td>
<td>11-Nov-20</td>
<td>Pediatric Sepsis in the Time of Coronavirus Disease 2019</td>
<td>Pediatric Critical Care Medicine</td>
<td>Editorial</td>
<td>In this editorial, the author discusses how the hyper-inflamatory multiple organ involvement that can occur after pediatric SARS-CoV-2 infection, known as MIS-C or PIMS-TS, can cause sepsis in children that warrants management principles similar to other causes of pediatric sepsis. The Surviving Sepsis Campaign (SSC) International Guidelines for the Management of Septic Shock and Sepsis-associated Organ Dysfunction in Children provide the most detailed and evidence-based review on the diagnosis and management of pediatric sepsis. The guidelines were developed to provide consistency in care, and the basics of sepsis management remain the same regardless of etiology. The author cautions against premature exclusion of alternative or concurrent pathogens as the cause of sepsis during the heightened attention on COVID-19. A primary bacterial infection remains the most common cause of pediatric sepsis for which early anti-microbial therapy is critical. The author also notes that the recommendations for management of sepsis-associated myocardial dysfunction in the SSC guidelines remain the same for acute COVID-19 infection. However, the prevalence of myocardial dysfunction in COVID-19 sepsis and PIMS-TS/MIS-C may be greater than in non-COVID-19 sepsis. Therefore, earlier attention to diagnostic cardiac evaluation in sepsis patients is warranted during the pandemic. Given the variability in evidence for COVID-19 specific therapies, the authors conclude that consultation with infectious disease and other subspecialists is important when determining the best adjunctive approaches for managing MIS-C.</td>
<td>The author highlights the importance of using evidence based sepsis management guidelines, the Surviving Sepsis Campaign (SSC) International Guidelines for the Management of Septic Shock and Sepsis-associated Organ Dysfunction in Children, when treating SARS-CoV-2 related pediatric hyper-inflammatory illness (MIS-C).</td>
<td>Fortenberry JD. Pediatric Sepsis in the Time of Coronavirus Disease 2019. Pediatr Crit Care Med. 2020 Nov;21(11):1020-1021. doi: 10.1097/PCC.0000000000002586 . PMID: 32941294; PMCID: PMC7597757.</td>
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<td>Children, obesity, weight, disease severity, inflammation, USA</td>
<td>11-Nov-20</td>
<td>When pandemics collide: The impact of COVID-19 on childhood obesity</td>
<td>Journal of Pediatric Nursing</td>
<td>Original Article</td>
<td>This report addresses the impact of COVID-19 on children with obesity and identifies several interventions. Obesity is a risk factor for increased severity of COVID-19, as excess weight decreases an individual's immune response. Inflammation from obesity combined with COVID-19 hyper-inflammation and weakened immune response increases the risk of developing sepsis and organ failure. Another impact of the pandemic on children with obesity is increased stress, and children with obesity report more stress and eat in response to stress to a greater degree than normal weight peers. In addition, school</td>
<td>This article addresses how the COVID-19 pandemic has overlapped with the global obesity pandemic and exacerbated risk for children and adolescents. The authors provide recommendations for mitigating these effects.</td>
<td>Browne NT, Snethen JA, Greenberg CS, Frenn M, Kilanowski JF, Gance-Cleveland B, Burke PJ, Lewandowski L. When pandemics collide: The impact of COVID-19 on childhood obesity. Journal of Pediatric Nursing. 2020 Nov 11.</td>
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<td>Key Terms</td>
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<td>Pregnancy, simulation, briefing and debriefing, teamwork, improvement, Spain</td>
<td>11-Nov-20</td>
<td>Analysis of the care management protocol for COVID-19 in pregnant women and detection of improvement proposals applying clinical simulation methodology</td>
<td>Revista Española de Anestesiología y Reanimación (English Edition)</td>
<td>Original Research</td>
<td>In this observational study, the authors sought to determine whether clinical simulation methodology (briefing and debriefing) could be used to adapt protocols and improve clinical practice for clinicians involved in the management of COVID-19 patients during childbirth. They describe 5 cases of pregnant patients with COVID-19 treated in a hospital in Spain from March 24-April 11, 2020, which included both emergency and scheduled C-sections and deliveries. A multi-disciplinary briefing occurred before each procedure, followed by a post-procedure debriefing in which the team’s actions were analyzed using gather-analyze-synthesize (GAS) methodology. Briefing sessions held before each case were reported to be useful for improving the communication and coordination of a multidisciplinary team. Briefing sessions also helped with appointing a team coordinator, a fundamental role in adapting existing protocols to the reality of the dynamic, ever-changing clinical context. Holding a post-procedure debriefing session to assess the team’s actions and difficulties enabled the improvement of existing protocols. This led to the creation of an isolated COVID-19 area within the delivery room and fast-track PCR testing for pregnant women in labor, improving the overall safety of maternal-fetal care for women and providers.</td>
<td>The authors describe how the use of clinical simulation methodology (briefing and debriefing) during the management of pregnant patients with COVID-19 in Spain facilitated teamwork and the adaptation and implementation of protocols to improve maternal-fetal safety.</td>
<td>González AM, Pinto PH, Maldonado S, Villalobos I, Sierra N, Melgosa I. Analysis of the care management protocol for COVID-19 in pregnant women and detection of improvement proposals applying clinical simulation methodology. Revista Española de Anestesiología y Reanimación (English Edition). 2020 Nov 11.</td>
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<td>Viral meningitis, COVID-19, coronavirus, case report, Iran</td>
<td>11-Nov-20</td>
<td>Viral meningitis associated with COVID-19 in a 9-year-old child: A case report</td>
<td>The Pediatric Infectious Disease Journal</td>
<td>Case Report</td>
<td>This is a case report of COVID-19-associated viral meningitis in a 9-year-old Iranian Turkish girl at Imam Hassan Hospital in Bojnurd, Iran [date not specified]. The patient, with no history of internal disease, presented with 3 days of fever, headache, and low back pain. The patient had contact with her uncle, who had COVID-19. Her vital signs were normal. Clinical examination showed head and neck muscle stiffness, positive Brudzinski and Kernig tests, photophobia, diplopia, right eye edema with limited movement in the right eye, and sixth nerve paralysis. Laboratory results showed an elevated C-reactive protein, leukocytosis (white blood cell count of 19,000 cells/microliter, predominantly closures exacerbate food insecurity and impact physical activity levels. The authors provide several recommendations: Internet resources can be used to support children with obesity to achieve a healthier lifestyle, especially tailored interventions that include parents. Policy interventions should limit internet advertising used to market food high in salt, fat and sugar. Maintaining availability of parks, trails, and water activities is important for family outings. Finally, the authors recommend clinicians use person first language to reduce stigmatization of children with obesity. They conclude that the clashing of childhood obesity and COVID-19 pandemics has placed children and adolescents at increased risk of developing obesity and worsening their disease severity.</td>
<td>This is a case report of COVID-19–associated viral meningitis in a 9-year-old Iranian Turkish girl at Imam Hassan Hospital in Bojnurd, Iran.</td>
<td>Yousefi K, Poorbarat S, Abasi Z, et al. VIRAL MENINGITIS ASSOCIATED WITH COVID-19 IN A 9-YEAR-OLD CHILD: A CASE REPORT [published online, 2020 Nov 11]. Pediatr Infect Dis J. doi:10.1097/INF.0000000000002979</td>
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<td>COVID-19; pediatric; primary care; utilization; United States</td>
<td>11-Nov-20</td>
<td>Changes in Primary Care Visits in the 24 Weeks After COVID-19 Stay-at-Home Orders Relative to the Comparable Time Period in 2019 in Metropolitan Chicago and Northern Illinois</td>
<td>Journal of Primary Care and Community Health</td>
<td>Original Research</td>
<td>This study examined the use of pediatric primary care services before and during the COVID-19 pandemic. Billing and coding data were analyzed from 16 pediatric practices in Chicago, USA. Visits were categorized by whether they occurred via telehealth and if the purpose was well-child and immunization or another type of visit. Counts of visits and proportion of visits conducted via telehealth were compared between the first 24 weeks of the COVID-19 pandemic in 2020 and the similar period in 2019. The authors found that the count of well-child and immunization visits at the start of the COVID-19 pandemic in 2020 were 50% lower than in the comparable period in 2019, but these counts increased to 90% of the previous year within 8 weeks. The other visit types were 70% below the same period in 2019 and remained at that level throughout, potentially associated with fewer ear, nose, and throat infections in children due to social distancing practices. Telemedicine use for pediatric primary care services increased in March and peaked in April 2020 at 21% of visits, but then decreased to less than 10% of visits in June 2020. The findings demonstrate potential financial impacts of the COVID-19 pandemic on pediatric primary care practices that rely on fee-for-service reimbursement.</td>
<td>This article examines the use of pediatric primary care services in 16 practices in Chicago, USA during the first 24 weeks of the COVID-19 pandemic, including visits conducted in the clinic and via telehealth. These rates were compared with the same time period in 2019, to determine changes in utilization of services amidst the pandemic. Well-child and immunization visits declined during the 2020 period, along with visits for other reasons, with the visits for other reasons declining more than the visits for well-child and immunization.</td>
<td>Macy ML, Huetteman P, Kan K. Changes in Primary Care Visits in the 24 Weeks After COVID-19 Stay-at-Home Orders Relative to the Comparable Time Period in 2019 in Metropolitan Chicago and Northern Illinois. J Prim Care Community Health. 2020;11:2150132720969557. doi:10.1177/2150132720969557</td>
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<td>Children, pediatrics, comorbidities, treatment</td>
<td>11-Nov-20</td>
<td>Characterizing and Managing Pediatric SARS-CoV-2 Infection. Learning about the Virus in a Global Classroom</td>
<td>Acta Paediatrica</td>
<td>Review Article</td>
<td>In this comprehensive review, the authors summarize data regarding pediatric SARS-CoV-2 infections, including current treatment guidelines. The literature was systematically searched for COVID-19, SARS-CoV-2, and children in September, 2020. Results were limited to 2019 and onward, in English, French and Spanish language for a total of 292 citations. A multitude of studies have shown that children have reduced COVID-19 severity compared to adults. Age-related differential expression of ACE-2 receptor may account for the heterogeneity. Another possibility is that viral co-infection in the mucosa of lungs and airways in young children could limit SARS-CoV-2 invasion by direct competition. The most common symptoms in children are</td>
<td>In this comprehensive systematic review, the authors present data regarding pediatric SARS-CoV-2 infections, including current treatment guidelines.</td>
<td>Cardenas MC, Bustos SS, Enninga EAL, Mofenson L, Chakraborty R. Characterizing and Managing Pediatric SARS-CoV-2 Infection. Learning about the Virus in a Global Classroom. Acta Paediatr. 2020 Nov 11. doi:10.1111/apa.15662.</td>
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<td>Pediatrics, repository, data sharing, collaboration, children</td>
<td>11-Nov-20</td>
<td>The urgent need for research coordination to advance knowledge on COVID-19 in children</td>
<td>Pediatric Research</td>
<td>Commentary</td>
<td>The COVID-19 pandemic has highlighted the fragmentation of pediatric research. The authors describe the development of a repository developed in Boston, USA, to share pediatric COVID-19 data and resources across existing studies and strengthen research capacity during the pandemic. The Repository of Aggregated Pediatric International Data on COVID-19 (RAPID-19) leverages contemporary informatics methodologies that efficiently pool data. RAPID-19 aggregates de-identified clinical data on pediatric patients with laboratory-confirmed SARS-CoV-2 infection, curated across existing research activities, and all data contributors are able to access the integrated data. One challenge encountered has been the need for data standardization across sites, as certain studies participating in the Repository collect different variables and use distinct definitions for data elements. The authors make the following recommendations for strengthening the sharing of pediatric COVID-19 data: all data should be FAIR: Findable, Accessible, Interoperable, and Re-usable; whenever possible, new studies should deploy standard definitions; pediatric studies must be developed with data sharing and combined analyses in mind; and participation in collaborative studies should be incentivized.</td>
<td>In this commentary, the authors share their experience building a repository of pooled data on pediatric research regarding COVID-19, and highlight some of the benefits and challenges.</td>
<td>Bourgeois FT, Avillach P, Turner MA. The urgent need for research coordination to advance knowledge on COVID-19 in children. Pediatr Res. 2020 Nov 11:1-3. doi: 10.1038/s41390-020-01259-8.</td>
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<td>Vaccines, gender, women, pregnancy, birth outcomes, trials</td>
<td>11-Nov-20</td>
<td>impact of COVID-19 on women and children and the need for a gendered approach in vaccine development</td>
<td>Human Vaccines and Immunotherapeutics</td>
<td>Original Article</td>
<td>This article describes the results of a literature search [dates not specified] on the impact of COVID-19 on women and newborns and describes efforts to develop a vaccine from a gender perspective. The risk of contracting COVID-19 is higher in women, which the authors propose may be because they are more likely to be the primary caregivers of sick relatives or make up a large proportion of frontline workers. In addition, women are further compromised by disruptions to reproductive health services because of the pandemic. To date, there have been no reports of natural immunity or natural antibodies to SARS-CoV-2. The authors highlight gender-based perspectives regarding the impacts of COVID-19, the pandemic, and the development of vaccines, particularly for women. They advocate for gender-specific analysis of responses to vaccination.</td>
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<td>Vora KS, Sundararajan A, Saiyed S, Dhama K, Natesan S. Impact of COVID-19 on women and children and the need for a gendered approach in vaccine development. Hum Vaccin Immunother. 2020 Nov 11:1-6. doi:</td>
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<td>COVID-19; Children; Adolescents; Mental health; social isolation; Stress</td>
<td>11-Nov-20</td>
<td>COVID-19 pandemic impact on children and adolescents' mental health: Biological, environmental, and social factors</td>
<td>Progress in Neuro-Psychopharmacology and Biological Psychiatry</td>
<td>The authors describe the impact of the COVID-19 pandemic on the mental health of children and adolescents. Bio-psycho-social stressors resulting from the COVID-19 pandemic are explained, including disruption in daily life, social isolation, parental stress, and the inability to fully comprehend short- and long-term consequences of the pandemic. The issues of stress and neuro-inflammation; social isolation and diet; brain plasticity; social inequalities, neglect, and distress; the lack of playing and nature environments; and public health and support are assessed in detail. The article includes a figure highlights immediate and long-term consequences of COVID-19 pandemic stressors on children and adolescents, as well as related policy considerations.</td>
<td>This review article highlights the bio-psycho-social stressors on children and adolescents amidst the COVID-19 pandemic, consequences of these stressors, and policy considerations.</td>
<td>10.1080/21645515.2020.1826249.</td>
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<td>family; children; SARS-CoV-2; Australia; virology; serology</td>
<td>11-Nov-20</td>
<td>Immune responses to SARS-CoV-2 in three children of parents with symptomatic COVID-19</td>
<td>Nature Communications</td>
<td>Case series</td>
<td>This study describes clinical features, virology, longitudinal cellular, and cytokine immune profile, SARS-CoV-2-specific serology, and salivary antibody responses (figures available). They analyze from a family of two parents (mother 38 years, and father 47 years) residing in Melbourne, Australia, with PCR-confirmed symptomatic SARS-CoV-2 infection and their 3 children, who repeatedly tested SARS-CoV-2 PCR negative. Seven days after the onset of the parents’ symptoms, child one (male 9 years, child 1) developed a mild cough, coryza, sore throat, abdominal pain, and loose stools, and child 2 (male 7 years, child 2) developed mild cough and coryza. The third child (female 5 years, child 3) was asymptomatic. Physical distancing was not feasible, and child 3 had close contact. Cellular immune profiles and cytokine responses of all children were similar to their parents at all timepoints. All family members had salivary anti-SARS-CoV-2 antibodies detected, predominantly lgA, that coincided with symptom resolution in 3 of 4 symptomatic members. These data indicate that children can mount an immune response to SARS-CoV-2 without virological confirmation of infection, raising the possibility that children’s immunity can prevent SARS-CoV-2 infection. Despite an evident immune response, the mismatch—between the PCR results and serology—highlights limitations to the sensitivity of nasopharyngeal PCR and current diagnostic serology in children and affects epidemiological and clinical studies across the lifespan. The authors emphasize the need for further detailed investigation of the immune response to SARS-CoV-2 to advance the understanding of exposure and protective immunity in children.</td>
<td>This study describes clinical and laboratory features in a family of two symptomatic COVID-19 parents and their three children. Children’s immunity can prevent SARS-CoV-2 infection; however, virological and serological testing may not sensitive enough to identify exposed children.</td>
<td>Tosif S, Neeland MR, Sutton P, et al. Immune responses to SARS-CoV-2 in three children of parents with symptomatic COVID-19. Nature Communications. 2020;11(1):5703. doi:10.1038/s41467-020-19545-8</td>
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<td>COVID-19; child mortality; pneumonia; vaccines</td>
<td>11-Nov-20</td>
<td>Leveraging the COVID-19 response to end preventable child deaths from pneumonia</td>
<td>The Lancet</td>
<td>Commentary</td>
<td>This commentary highlights the detrimental impact COVID-19 on pneumonia-related child survival as well as the possibilities for improvement resulting from COVID-19 measures. COVID-19 has resulted in service disruptions, reductions in access to care because of lockdown measures, and increased rates of wasting due to food shortages. Furthermore, there have been significant drops in coverage of the pertussis, Hemophilus influenzae type b, pneumococcal, and measles vaccines, which all offer protection against pneumonia in children. However, mask wearing, physical distancing, and improved hand and cough hygiene reduce the circulation of not only COVID-19, but also other viruses and bacterial pathogens that cause severe infections, including</td>
<td>The commentary highlights COVID-19 related opportunities and threats to end preventable child deaths from pneumonia. Despite significant service and vaccine program disruption, the heightened focus on primary health care and distribution of equipment may result in</td>
<td>Fore, H. H., Ghebreyesus, T. A., Watkins, K., Greenslade, L., Berkley, S., Bassat, Q., . . . Golden, A. [2020]. Leveraging the COVID-19 response to end preventable child deaths from pneumonia. The Lancet. doi:10.1016/s0140-6736(20)32348-5</td>
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<td>fever; COVID-19; management; United States; children</td>
<td>11-Nov-20</td>
<td>Winter is coming: care of the febrile children in the time of COVID-19</td>
<td>World Journal of Pediatrics</td>
<td>Commentary</td>
<td>This commentary reflects on the challenges of managing children with febrile illness amid COVID-19 pandemic in the United States. Since the introduction of Haemophilus influenzae type b vaccine, and the pneumococcal vaccine, evaluation of febrile children was easier for pediatricians because of a far lower risk of invasive bacterial diseases. However, in April 2020, reports of a multi-system inflammatory syndrome in children (MIS-C) began to surface. This resulted in a rush to develop guidelines for laboratory screening of febrile children. Now, children with a fever are closely evaluated. The authors wonder whether every fever be evaluated with a nasopharyngeal swab and whether 10 days of isolation would be recommended for every febrile illness. Additionally, the authors pose questions regarding laboratory screening for MIS-C and how to interpret results, as there are currently no reference values for children with viral illnesses.</td>
<td>Improved pneumonia diagnosis and treatment capabilities to improve child survival.</td>
<td>Gerber, N., Farkas, J. S., &amp; Ratner, A. J. (2020). Winter is coming: care of the febrile children in the time of COVID-19. World journal of Pediatrics : WJP, 1–2. Advance online publication. <a href="https://doi.org/10.1007/s12519-020-00396-8">https://doi.org/10.1007/s12519-020-00396-8</a></td>
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<td>pediatric oncology; COVID-19; chemotherapy; Saudi Arabia</td>
<td>11-Nov-20</td>
<td>COVID-19 in Pediatric Cancer Patients: How Concerned We Should Be? Lessons Learned From a Single Center in Middle East</td>
<td>Journal of Pediatric Hematology/Oncology</td>
<td>Letter to the Editor</td>
<td>The authors screened 293 inpatient and outpatient pediatric oncology and stem cell transplant patients at King Abdullah Specialized Children's Hospital in Riyadh, Saudi Arabia from March - July 2020 to understand COVID-19 complications in pediatric cancer patients. They found only 10 of these patients returned a positive RT PCR result for SARS-CoV-2 infection, 4 of whom were asymptomatic. Most COVID-19-positive pediatric patients exhibited mild symptoms (fever, cough, runny nose) that resolved within 5 days after antibiotic treatment and had no lasting respiratory complications. Overall, the authors found that COVID-19 experience is relatively mild in pediatric patients, and that infection risk is not significant enough to warrant chemotherapy interruption.</td>
<td>This letter provides a descriptive analysis of COVID-19 prevalence in pediatric oncology units at a Saudi Arabian hospital March - July 2020, where only 10 of 293 patients had a very mild case of COVID-19. The authors state that the relative benign course of COVID-19 in pediatric cancer patients therefore does not warrant chemotherapy interruption in this group.</td>
<td>Ahmad N, Eltawel M, Khan WM, Essa MF, Alharbi T, Al-Sudairy R. COVID-19 in Pediatric Cancer Patients: How Concerned We Should Be? Lessons Learned From a Single Center in Middle East [published online ahead of print, 2020 Nov 11]. J Pediatr Hematol Oncol. 2020;10.1097/MPH.0000000000002013.</td>
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<td>COVID-19, validation, USA, ICD-10, pediatric</td>
<td>11-Nov-20</td>
<td>Validation of ICD-10 code for identifying children hospitalized with COVID-19</td>
<td>Journal of Pediatric Infectious Diseases Society</td>
<td>Letter to the Editor</td>
<td>In this letter, the authors summarize the results of the validation study they had conducted on the ICD-10 code “U07.1 – COVID-19, virus identified”, which was introduced in April 2020 and expanded to include MIS-C. They performed a single-center validation study of pediatric inpatients in Philadelphia (USA), with admission beginning on April 1, 2020. They analyzed electronic health records for admitted patients, who were assigned a primary/secondary diagnosis code of “U07.1” between April 1-August 1, 2020. Of the 3905 patients included in the study, 117 (3.0%) were COVID-19 positive, 110 (2.8%) were U07.1 positive. Five patients were U07.1 positive but negative for SARS-CoV-2 with no diagnosis of MIS-C. Of the 117 patients positive for COVID-19, 21 were diagnosed with MIS-C. The sensitivity of the U07.1tr code for identifying those with a positive SARS-CoV-2 test was 90.5% (95% CI: 82.8%-94.6%), the specificity was 99.9% (95% CI: 99.7-100%). This yielded an area of 0.952(95% CI: 0.920-0.976) under the ROC curve. The PPV was 96.3% (95% CI: 89.7%-98.5%) and the NPV was 99.7% (95% CI: 99.4%-99.8%). The authors concluded that ICD-10 based identification provided high sensitivity and specificity for pediatric COVID-19 patients, and thus was a valid method of identifying pediatric COVID-19 patients in administrative databases.</td>
<td>The authors present the results from a single-center validation study conducted in Philadelphia, USA between April 1, 2020-August 1, 2020 for the ICD-10 code “U07.1 - COVID-19 virus identified”, using the electronic health records of pediatric patients as a gold standard. They determined that the code had high sensitivity 90.5% and specificity 99.9% for identifying pediatric patients with a positive SARS-CoV-2 test, thus affirming its validity in identifying patients with COVID-19 in administrative data.</td>
<td>Blatz AM, David MZ, Otto WR, et al. Validation of ICD-10 code for identifying children hospitalized with COVID-19. J Pediatric Infect Dis Soc. 2020 Nov 11:piaa140. doi: 10.1093/jpids/piaa140. Epub ahead of print. PMID: 33175166.</td>
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<p>| Youth, adolescents, mental health, social and emotional learning, schools, United States | 10-Nov-20 | Adolescent mental health, COVID-19, and the value of school-community partnerships | Injury Prevention | Special Feature | Data from the CDC’s Youth Risk Behavior Survey (YRBS) from 2009-2019 showed significant increases in adolescent suicide-related behaviors in the United States. The nationally representative survey found increases in the percent of US high school students experiencing persistent sadness or hopelessness (from 26% in 2009 to 37% in 2019), considering attempting suicide (from 14% to 19%), making a suicide plan (from 11% to 16%) or attempting suicide (from 6% to 9%). The COVID-19 pandemic may further affect adolescent mental health, and studies examining the impact of COVID-19 on youth mental health have demonstrated increased worry, irritability, acting out, eating and sleeping changes, depression and post-traumatic stress disorder. Nationwide school closures may also limit access to and receipt of mental health services for many vulnerable youths. However, implementation of school-community partnerships can be instrumental in supporting students. The Multi-Tiered System of Supports (MTSS) framework, used by many school districts to guide their mental health activities, can structure this work. During the 2020–21 school year, schools can consider implementing or expanding social and emotional learning (SEL) programs, associated with decreases in suicide ideation and attempts and increases in social and emotional skills, attitudes, behaviors and academic performance. | Data from the CDC’s Youth Risk Behavior Survey (YRBS) from 2009-2019 showed that US adolescents continue to suffer from poor mental health and suicidality at alarming rates. The COVID-19 pandemic has the potential to further affect adolescent mental health, however the authors describe how school-community partnerships can be leveraged to mitigate the impact. | Hertz MF, Barrios LC. Adolescent mental health, COVID-19, and the value of school-community partnerships. Inj Prev. 2020 Nov 10;injuryprev-2020-044050. doi: 10.1136/injuryprev-2020-044050. |</p>
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<td>Community partnerships can also vastly improve the ability of schools to provide mental health screening and treatment. Moving forward, the 2021 YRBS will include new mental health questions, including questions about the impact of the COVID-19 pandemic. These data will be used to monitor the impact of COVID-19 epidemic and enable practitioners to enhance or adapt efforts accordingly.</td>
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<td>10-Nov-20</td>
<td>Parsonage-turner syndrome associated with SARS-CoV2 (COVID-19) infection</td>
<td>Clinical Imaging</td>
<td>Case Report</td>
<td>Parsonage-Turner Syndrome (PTS) is a condition characterized by acute onset shoulder pain which may progress to neurologic deficits such as paresthesias. Although the etiology remains unclear, recent viral illness has been reported as the most common associated risk factor. The authors present a case of a previously healthy 17-year-old female patient who presented in New York, USA with several weeks of severe joint pain in the setting of a recent viral illness. Serum IgG antibodies for SARS-CoV2 were positive, suggesting prior infection/exposure. On admission, her serum inflammatory markers were markedly elevated, including C-reactive protein (CRP) of 92.6 mg/L (reference range ≤3.0 mg/L), erythrocyte sedimentation rate (ESR) of 98 mm/h (reference range 0–30 mm/h), D-dimer of 3479.5 ng/mL (reference range 30–230 ng/mL), and ferritin of 1216.1 ng/mL (reference range 8.0–252.0 ng/mL). MRI of the left shoulder showed uniform increased T2 signal of the supraspinatus, infraspinatus, teres minor, teres major, and trapezius muscles, consistent with PTS. Bone marrow biopsy results excluded malignancy and hyper-eosinophilic syndrome as other possible etiologies. Additional rheumatologic work-up was also negative, suggesting the etiology of PTS in this patient to be related to recent infection with SARS-CoV2. The authors conclude that radiologists should be aware of this possible etiology of shoulder pain as the number of cases of COVID-19 increases.</td>
<td>The authors present a case of Parsonage-Turner Syndrome in a 17-year-old female in New York, USA following SARS-CoV-2 infection. The authors conclude that radiologists should be aware of this etiology of shoulder pain as the number of cases of COVID-19 increases.</td>
<td>Mitrty MA, Collins LK, Kazarn JJ, Kaicker S, Kovanlikaya A. Parsonage-turner syndrome associated with SARS-CoV2 (COVID-19) infection. Clin Imaging. 2020 Nov 10;72:8-10. doi: 10.1016/j.clinimag.2020.11.017.</td>
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<td>10-Nov-20</td>
<td>Stress, Resilience, and Well-Being in Italian Children and Their Parents during the COVID-19 Pandemic</td>
<td>International Journal of Environmental Research and Public Health (IJEHPH)</td>
<td>Original Research</td>
<td>The COVID-19 outbreak has forced parents and children to adopt significant changes in their daily routine. This study analyzed the potential risk and protective factors for parents’ and children’s well-being during COVID-19 quarantine. 463 parents of children aged 5-17 years in Italy completed an online survey between 25 April – 8 May, 2020 consisting of the Psychological General Well-Being Index to assess parental well-being, the Strengths and Difficulties Questionnaire to measure children’s well-being, the Parent Stress Scale, and the Child and Youth Resilience Measure. Participants were asked to think about one of their children (who were male in 56.2% of cases with mean age of 9.72 years) and answer accordingly. The results show that confinement measures and daily routine changes negatively affect parents’ psychological potential risk and protective factors for parents’ and children’s well-being during COVID-19. Risk factors included parental stress, lower levels of resilience in children, changes in working conditions, and parental psychological, physical, or genetic problems.</td>
<td>This study in Italy analyzed the potential risk and protective factors for parents’ and children’s well-being during COVID-19 quarantine.</td>
<td>Cusinato M, Iannattone S, Spoto A, et al. Stress, Resilience, and Well-Being in Italian Children and Their Parents during the COVID-19 Pandemic. Int J Environ Res Public Health. 2020;17(22):8297. Published 2020 Nov 10. doi:10.3390/ijerph17228297</td>
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<td>PIMS-TS, MIS-C, defibrotide, pharmacotherapy, teens, children, Germany</td>
<td>10-Nov-20</td>
<td>Defibrotide for the Treatment of Pediatric Inflammatory Multisystem Syndrome Temporally Associated With Severe Acute Respiratory Syndrome Coronavirus 2 Infection in 2 Pediatric Patients</td>
<td>Journal of the Pediatric Infectious Disease Society</td>
<td>Case Report</td>
<td>Given the similarity of the endothelial damage in patients with sinusoidal obstruction syndrome (SOS), a disease of the endothelial system, and PIMS-TS, the authors hypothesized that the medication defibrotide (DF) used for SOS could also be a treatment for PIMS-TS. They describe 2 cases of PIMS-TS treated with DF in Germany. Both patients presented with fever and abdominal pain and both had SARS-CoV-2 infection documented. The 1st patient, a 13-year-old female, was admitted to the ICU for treatment of hypotension. DF was started at 4 mg/kg every 6 hours for 1 day followed by 6 mg/kg every 6 hours for an additional 3 days together with low-dose heparin. After treatment, her elevated D-dimers, troponin, and bilirubin decreased, while lymphocyte and platelet numbers increased. No side effects of DF were seen, and the patient was discharged. In the 2nd patient, a 10-year-old female, the authors observed increased clot firmness in a visco-elastic coagulation assay. DF was then initiated at a dose of 25 mg/kg/day divided into 4 doses together with low-dose heparin. After 3 doses of DF, the clot firmness was reduced, and tissue plasminogen activator mediated clot lysis was significantly improved. After 8 days of DF treatment, the patient was afebrile and discharged with normal laboratory results. The authors conclude that DF might be an effective drug to treat endothelial damage in SARS-CoV-2 infections.</td>
<td>The authors present 2 cases of PIMS-TS in teens of 13 and 10 years old treated with defibrotide as a profibrinolytic, antithrombotic, anti-inflammatory medication in Germany, and propose that it might be an effective drug to treat endothelial damage in SARS-CoV-2 infections.</td>
<td>Lang P, Eichholz T, Bakchoul T, et al. Defibrotide for the Treatment of Pediatric Inflammatory Multisystem Syndrome Temporally Associated With Severe Acute Respiratory Syndrome Coronavirus 2 Infection in 2 Pediatric Patients. J Pediatric Infect Dis Soc. 2020 Nov 10;9(5):622-625. doi: 10.1093/jpids/piaa117.</td>
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<td>COVID-19; education; psychology; Facebook; parents; school children; distance learning; Jordan</td>
<td>10-Nov-20</td>
<td>Barriers to distance learning during the COVID-19 outbreak: A qualitative review from parents’ perspective</td>
<td>Heliyon</td>
<td>Article</td>
<td>The author describes a study to review the content posted in local Facebook groups to explore the perceptions of parents regarding the challenges of distance learning faced by their children during the COVID-19 outbreak in Jordan. The Facebook search engine was used to identify local Facebook groups, using keywords including distance learning, parents, and Jordan. Posts and discussion flow on distance learning from 15 March-25 April 2020 were reviewed. The study identified a total of 248 posts and threads which were categorized thematically for further analysis. The selected threads revealed 4 underlying themes: personal, technical, logistical, and financial barriers, discussed in 50%, 20%, 13% and 17% of posts, respectively. Overall, parents could not maintain their daily routines during the pandemic, because they</td>
<td>The author describes a study to review the content posted in local Facebook groups, to explore the perceptions of parents regarding the challenges of distance learning faced by their children during the COVID-19 outbreak in Jordan. 4 themes identified were personal, technical, logistical, and financial</td>
<td>Abuhammad S. Barriers to distance learning during the COVID-19 outbreak: A qualitative review from parents’ perspective. Heliyon. 2020;6(11):e05482. doi:10.1016/j.heliyon.2020.e05482.</td>
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<td>MIS-C, COVID-19, children, adolescents, USA</td>
<td>10-Nov-20</td>
<td><strong>Fatal SARS-CoV-2 Inflammatory Syndrome and Myocarditis in an Adolescent: A Case Report</strong> [Free Access to Abstract Only]</td>
<td>The Pediatric Infectious Disease Journal</td>
<td>Case Report</td>
<td>This case report details a fatal case of COVID-19 with hyperinflammatory features in a 15-year-old African-American girl. She presented to the authors' hospital in the USA after transfer from a community hospital in May 2020 with 1 week of worsening epigastric pain and loss of appetite and 2 days of nasal congestion, rhinorrhea, and loss of smell and taste. Upon transfer she had a fever of 38.9°C and was tachycardic. Initial laboratory results showed leukocytosis with neutrophilia and lymphopenia, elevated C-reactive protein (24.3mg/dL) and an erythrocyte sedimentation rate if 74mm/h. SARS-CoV-2 PCR tests on days 7 and 8 of illness were both negative, the 2nd of which was taken on hospitalization day (HD) 1. By HD 3, she developed worsening abdominal pain, myalgias, sore throat, diffuse paraspinal tenderness and pleuritic chest pain; on HD 4 her breathing worsened and she maintained fever, tachycardia, and hypotension despite fluid boluses, requiring transfer to the pediatric ICU. SARS-CoV2 IgG and IgA antibodies were detected (from a sample taken HD 3, illness day 10), raising suspicion of MIS-C. Electrocardiogram showed sinus tachycardia, and CT revealed mesenteric and peripancreatic stranding, prominent diffuse lymphadenopathy and interstitial pulmonary opacities. On HD 5 (illness day 12) she suffered 3 pulseless electrical activity arrests, and a 3rd PCR test returned positive for SARS-CoV-2. After 90 minutes of CPR following the 3rd arrest, the team ceased resuscitative efforts. Because of the ambiguity of this case, the authors stress that appropriate clinical suspicion is necessary for both acute COVID-19 and MIS-C and serological tests may be helpful when PCR results are negative.</td>
<td>This case report describes a fatal case of COVID-19 in a 15-year-old girl in the USA, with hyperinflammatory features suggestive of MIS-C. Following 2 negative PCR tests on days 7 and 8 of illness, she was positive for SARS-CoV-2 antibodies on illness day 10, and a 3rd PCR test was positive on illness day 12. Because of the ambiguity of this case, the authors stress that appropriate clinical suspicion is necessary for both acute COVID-19 and MIS-C and serological tests may be helpful when PCR results are negative.</td>
<td>Beaudry JT, Dietrick B, Lammert DB, et al. Fatal SARS-CoV-2 Inflammatory Syndrome and Myocarditis in an Adolescent: A Case Report [published online, 2020 Nov 10]. Pediatr Infect Dis J. 2020. doi:10.1097/INF.0000000000002978</td>
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<td>Children, steroids, chronic conditions, toxicity, lockdown, India</td>
<td>10-Nov-20</td>
<td>Effect of inadvertent steroid use during COVID-19 lockdown in chronic illnesses in children</td>
<td>Tropical Doctor</td>
<td>Brief Report</td>
<td>The authors examined the impact of COVID-19 lockdown in India on adverse side effects from prolonged steroid use in children. 24 patients with features of steroid toxicity who presented to pediatric outpatient and emergency departments in Haryana, India from June 1-July 15, 2020, were included, with a mean age of 7.8 years (range 5–13 years). Mean duration of steroid use was 2.5 months (range 1.5–4.7 months). 17 (70.8%) patients were taking prednisolone and 7 (29.2%) were taking dexamethasone. Out of 24 patients, 12 had frequently relapsing nephrotic syndrome in whom steroids could not be tapered as they were not able to come for follow-up during lockdown. 5 patients with neurocysticercosis and 2 patients with tubercular meningitis continued taking oral dexamethasone. 3 patients with asthma took oral steroids for acute exacerbation which they continued for more than the prescribed duration and 2 patients were on oral steroid for skin conditions. All 24 patients developed cushingoid features, 19 had significant weight gain, 5 had hypertension, 2 had hyperglycemia, 2 developed hirsutism, 2 had osteoporosis, and one patient developed severe gastro-intestinal bleeding from peptic ulcer formation. These results demonstrate a clear negative impact of the pandemic lockdown on steroid use in chronic conditions. The authors advocate for continuing routine care of chronic conditions, increasing awareness within the professional community, and on-going training for rural healthcare practitioners on the adverse effects of chronic steroid use.</td>
<td>The authors examined the impact of the COVID-19 lockdown in India on side effects from steroid use in children with chronic conditions. Features of steroid toxicity were observed in 24 children who were disconnected from medical care, and the authors advocate for ongoing routine care of chronic conditions.</td>
<td>Bhalla K, Verma A, Nanda S. Effect of inadvertent steroid use during COVID-19 lockdown in chronic illnesses in children. Trop Doct. 2020 Nov 10:49475520969507. doi: 10.1177/0049475520969507.</td>
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<td>COVID-19; headache; migraine; telemedicine; teleneurology, India</td>
<td>10-Nov-20</td>
<td>Caregiver Satisfaction and Effectiveness of Teleconsultation in Children and Adolescents With Migraine During the Ongoing COVID-19 Pandemic</td>
<td>Journal of Child Neurology</td>
<td>Original Article</td>
<td>The authors analyzed telemedicine consultations performed by a single health institution in India during the COVID-19 pandemic, 25 March - 4 June 2020, to review the feasibility, efficacy, and advantages of telehealth care for children with migraine. A total of 146 telemedicine consultations were performed in 51 participants (age range 5-18 years, mean 9.42 years), who were established patients at the institution. All participants had already received baseline in-person evaluation and imaging studies. 36 patients were identified to have 42 significant clinical events (worsening clinical status/partial response to medications (n=18; 44%), drug-related adverse effects (n=10; 19%), unrelated systemic complaints (n=7; 13%), and worsening of headache due to stress/triggers (n=7; 13%). In the rest of the patients, the reason for the consultation was concern regarding COVID-19–related symptoms. Content of the consultations included migraine characteristics, analgesic/prophylactic drug regimens, headache frequency/severity/disability, compliance, drug-related/unrelated adverse effects, and unavailability of drugs. 29 children required change in drug dose or addition of new drug or These authors analyzed telemedicine consultations performed in India during the COVID-19 pandemic, to evaluate the use of telehealth care for children with migraine. The authors concluded that teleconsultation is a feasible and efficacious option, with excellent caregiver satisfaction, for children with migraine.</td>
<td>These authors analyzed telemedicine consultations performed in India during the COVID-19 pandemic, to evaluate the use of telehealth care for children with migraine. The authors concluded that teleconsultation is a feasible and efficacious option, with excellent caregiver satisfaction, for children with migraine.</td>
<td>Sharawat IK, Panda PK. Caregiver Satisfaction and Effectiveness of Teleconsultation in Children and Adolescents With Migraine During the Ongoing COVID-19 Pandemic. J Child Neurol. 2020 Nov 10:883073820968653. doi: 10.1177/0883073820968653. Epub ahead of print. PMID: 33170754.</td>
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<td>cytokine, inflammation, blastocyte, implantation, early pregnancy, embryo, zygote</td>
<td>10-Nov-20</td>
<td>An Experimental Model for Periconceptual COVID-19 Pregnancy Loss and Proposed Interventions to Optimize Outcomes</td>
<td>International Journal of Molecular and Cellular Medicine</td>
<td>Review</td>
<td>There is currently little research on the impact of SARS-CoV-2 infection early in pregnancy. These authors speculate that SARS-CoV-2 infection soon after implantation or in early gestation adversely affects viability of the pregnancy. They note that because embryo orientation, apposition, docking, and invasion are all affected by cytokine control, any excess inflammatory signaling can be detrimental to these processes. The &quot;cytokine storm&quot; of COVID-19 complicates early blastocyst-endometrial signaling required for embryo docking and amplifies microvascular thrombus formation at the trophectoderm-endometrial interface. There is no standardized protocol to manage these phenomena, and while the authors offer an approach incorporating steroid immunomodulation and anticoagulation with antiviral therapy, its efficacy has not been verified by randomized controlled trials. The authors also identify potential drug candidates for the management of COVID-19 in pregnancy, offering the mechanisms and rationale of hydroxychloroquine, remdesivir, tocilizumab, and hydroxyctydine. While more research is needed, the authors argue that available evidence supports their 'cytokine-mediated inflammation and disruption of maternal coagulation' model to explain the apparent adverse early reproductive outcomes with COVID-19.</td>
<td>These authors speculate that SARS-CoV-2 infection soon after implantation or in early gestation adversely affects viability of the pregnancy due to the inflammatory response to the virus, and they offer a model to explain these apparent adverse early reproductive outcomes with COVID-19. While there is no standard protocol for managing COVID-19 early in pregnancy, the authors offer potential strategies based on their proposed model of cytokine-mediated inflammation and disruption of maternal coagulation.</td>
<td>Sills ES, Wood SH. An Experimental Model for Periconceptual COVID-19 Pregnancy Loss and Proposed Interventions to Optimize Outcomes. Int J Mol Med. 2020;9(3):180-187. doi:10.22088/IJMCM.BUMS.9.3.180</td>
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<td>COVID-19, household transmission, pediatrics, SARS-CoV-2, USA</td>
<td>10-Nov-20</td>
<td>Burden of Illness in Households With Severe Acute Respiratory Syndrome Coronavirus 2-Infected Children</td>
<td>Journal of the Pediatric Infectious Diseases Society</td>
<td>Brief Report</td>
<td>The authors investigated illness among household members of SARS-CoV-2 infected children receiving medical care. They identified 32 children aged &lt;18 years (median age 12.7 years; IQR, 8.3–15.7) with laboratory-confirmed SARS-CoV-2 from March 16–June 14, 2020, who were seen by a healthcare provider at a children's Healthcare of Atlanta facility, USA. Symptomatic children with positive SARS-CoV-2 nasopharyngeal PCR tests were identified as SARS-infected children who sought care (SICs). Parents of enrolled children completed a survey to evaluate their children's symptom duration and household contacts (HCs) with COVID-19 symptoms or laboratory-confirmed SARS-CoV-2. HCs were defined as an adult (aged ≥18 years) or a child (aged &lt;18 years) who resided in the home with the SIC at the time of diagnosis. The authors identified 144 HCs, including 58 children and 86 adults. The results showed that 46.5% of HCs developed COVID-19 symptoms or had a laboratory-confirmed SARS-CoV-2 infection. Although most cases originated in an adult</td>
<td>The authors aimed to identify the rate of transmission of SARS-CoV-2 infections between infected children and household contacts. Of 32 patients, 7 cases (22%) of presumed child-adult transmission were identified based on the study criteria; this was a higher rate than previously described.</td>
<td>Teherani MF, Kao CM, Camacho-Gonzalez A, et al. Burden of Illness in Households With Severe Acute Respiratory Syndrome Coronavirus 2-Infected Children. Journal of the Pediatric Infectious Diseases Society. 2020;9(5):613-616. doi:10.1093/jpids/piaa097</td>
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<td>COVID-19, coronavirus, testing, epidemiology, pediatric, USA</td>
<td>10-Nov-20</td>
<td>The Epidemiology of Severe Acute Respiratory Syndrome Coronavirus 2 in a Pediatric Healthcare Network in the United States</td>
<td>Journal of the Pediatric Infectious Diseases Society</td>
<td>Original Article</td>
<td>In this retrospective case series, the authors identified patients tested for SARS-CoV-2 infections across a pediatric healthcare network, and evaluated the clinical features and outcomes of those with positive test results. The authors included all patients aged ≤21 years (median age: 5.9 years; IQR:1.7–13.2) with a valid result for a SARS-CoV-2 PCR test from March 9–June 1, 2020, across the Children’s Hospital of Philadelphia Care Network, USA. The results showed that of 7256 children tested for SARS-CoV-2, 424 (5.8%) were positive. Also, patients aged 18-21 years had the highest test positive rate (11.2%), while those aged 1-5 years had the lowest (3.9%). By indication for testing, 21.1% of patients with reported exposures or clinical symptoms tested positive, whereas 3.8% of those undergoing pre-procedural or pre-admission screening tested positive. Of the 424 patients who tested positive for SARS-CoV-2, 182 (42.9%) had no comorbidities, 87 (20.5%) had asthma, and 55 (13.0%) were obese. Furthermore, 77 (18.2%) SARS-CoV-2-positive patients were hospitalized, of whom 24 (31.2%) required respiratory support. There were 2 reported deaths. The authors concluded that the overall frequency of infection was low but varied by testing indication and patient demographics. Most children with SARS-CoV-2 infection were asymptomatic or only mildly ill, and few children required intensive care.</td>
<td>The authors found that in this large cohort of pediatric patients tested for SARS-CoV-2, the infection rate was low but varied by testing indication, and most cases were mild.</td>
<td>Otto WR, Geoghegan S, Posch LC, et al. The Epidemiology of Severe Acute Respiratory Syndrome Coronavirus 2 in a Pediatric Healthcare Network in the United States. J Pediatric Infect Dis Soc. 2020;9(5):523-529. doi:10.1093/jpids/piaa074</td>
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<td>Pediatrics, PIM-TS, inflammatory syndromes, cardiology</td>
<td>10-Nov-20</td>
<td>Pediatric Inflammatory Multisystem Syndrome Associated With SARS-CoV-2: A Case Series Quantitative Systematic Review [Free Access to Abstract Only]</td>
<td>Pediatric Emergency Care</td>
<td>Review Article</td>
<td>In this systematic review of the cases of pediatric inflammatory syndromes associated with SARS-CoV-2 infection published from May 1–July 1, 2020, 11 case series were selected covering 468 children from 196 health centers. The average age was 9.2 years (95% CI, 8.5–9.9), and all patients were febrile at presentation. Rash was reported in 58%, conjunctivitis in 56%, and shock in 76%. 26% of cases fulfilled the American Heart Association Kawasaki Disease criteria, whereas 29% developed myocarditis. Chest X-ray or lung CT scan showed pulmonary infiltrates in 41%, while echo-cardiogram demonstrated left ventricular dysfunction in 72%, abnormalities in the coronary arteries in 24%, and pericardial effusion or pericarditis in 24%. Overall, 82% of the patients required ICU care and 27% received mechanical ventilation. IV immune globulin was used in 79% of patients, followed by steroids in 47%, while other therapies were used more inconsistently. Standardized ICU length of stay was 6 days. In this systematic review, the authors summarize the clinical findings, treatment, and outcomes of pediatric inflammatory syndromes (PIMS-TS) associated with SARS-CoV-2 infection.</td>
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<td>Bustos B R, Jaramillo-Bustamante JC, Vasquez-Hoyos P, Crues P, Díaz F. Pediatric Inflammatory Multisystem Syndrome Associated With SARS-CoV-2: A Case Series Quantitative Systematic Review. Pediatr Emerg Care. 2020 Nov 10. doi: 10.1097/PEC.0000000000002306</td>
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<td>dried blood spot (DBS); serum; plasma; monitoring; school; pediatrics; children; Italy; COVID-19; SARS-CoV-2</td>
<td>10-Nov-20</td>
<td>Dried Blood Spot as an Alternative to Plasma/Serum for SARS-CoV-2 IgG Detection, an Opportunity to Be Sized to Facilitate COVID-19 Surveillance Among Schoolchildren</td>
<td>Pediatric Infectious Diseases Journal</td>
<td>Letter to the Editor</td>
<td>Dried blood spots (DBSs) can be collected with minimally invasive procedures and are used for serological investigations of childhood infections such as Measles and Rubella. In this letter, the authors describe data and detailed methods from a small study assessing the adequacy of DBS as a tool to collect samples for the detection of SARS-CoV-2 IgG via a semi-quantitative ELISA by comparing results obtained from matched serum and DBS samples from healthcare workers (n=23). The correlation coefficient (R2) between the DBS and corresponding serum was 0.9553, with P&lt;0.0001. The authors note that they are using DBSs to monitor the spread of SARS-CoV-2 among children returning to school in Milan, Italy, as this approach is a valid alternative to serum/plasma. Using DBSs instead of serum will minimize the risk of measures requiring drastic responses, such as prolonged school closures. The authors recommend that other studies focusing on children also implement DBS testing and suggest that DBSs could also be used for routine monitoring of SARS-CoV-2 spread within schools. This letter discusses data comparing the detection of SARS-CoV-2 IgG in dried blood spots (DBSs) to that in serum, and found that the correlation coefficient (R2) between the DBS and corresponding serum was 0.9553. The authors are using DBSs to monitor the spread of SARS-CoV-2 among children returning to school in Milan, Italy, and suggest that other monitoring efforts and studies focusing on schoolchildren could do the same.</td>
<td>Amendola A, Bianchi S, Gori M, et al. Dried Blood Spot as an Alternative to Plasma/Serum for SARS-CoV-2 IgG Detection, an Opportunity to Be Sized to Facilitate COVID-19 Surveillance Among Schoolchildren. Pediatr Infect Dis J. 2020;10.1097/INF.0000000000002955.</td>
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<td>COVID-19; Children; respiratory virus infections; MIS-C; Sub-Saharan Africa</td>
<td>10-Nov-20</td>
<td>Clinical experience with SARS-CoV-2 related illness in children - hospital experience in Cape Town, South Africa</td>
<td>Clinical Infectious Diseases</td>
<td>Research</td>
<td>This study reflects clinical data on South African children with SARS-CoV-2. The authors collected clinical data of 159 children aged &lt; 13 years (median 48 months (IQR 12-106)) with laboratory-confirmed SARS-CoV-2 from Tygerberg Hospital, Cape Town between April 17 and July 24, 2020. They found hospitalized children (n=62) were significantly younger (median age 13.5 months (IQR 1.8-43.5) compared to children who were not admitted (median age 81 months (IQR 34.5-120.5, p&lt; 0.01). 20.8% (n=33/159) children had pre-existing medical conditions. Respiratory support was required in 25 out of 51 (49.0%) symptomatic children. Of the 51, 11 (21.6%) children (median age 20 months (IQR 3.0-62.0) needed PICU admission. One child was HIV infected, 11/51 (21.2%) were HIV-exposed uninfected, and 7/51 (13.7%) children had a recent or new tuberculosis diagnosis. HIV infection was uncommon, but the link between COVID-19 and tuberculosis and HIV exposure may need further investigation. The access to oxygen may be limited in some low-and-middle-income countries, potentially driving morbidity and mortality. Given that these hospitalized children were young and required respiratory support, the authors suggest the widespread implementation of oxygen and non-invasive respiratory support for children &lt; 1-year-old hospitalized with SARS-CoV-2 in Cape Town, South Africa frequently required respiratory support. Widespread implementation of oxygen and non-invasive respiratory support strategies is critical in resource-limited settings to limit COVID-19 mortality.</td>
<td>van der Zalm, M. M., Lishman, J., Verhagen, L. M., et al. (2020). Clinical experience with SARS-CoV-2 related illness in children - hospital experience in Cape Town, South Africa. Clinical infectious diseases: an official publication of the Infectious Diseases Society of America. Advance online publication. <a href="https://doi.org/10.1093/cid/ciaa1666">https://doi.org/10.1093/cid/ciaa1666</a></td>
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<td>Attitudes; COVID-19; Practices; Precaution; Pregnant; Survey; Singapore</td>
<td>10-Nov-20</td>
<td>Attitudes and precaution practices towards COVID-19 among pregnant women in Singapore: a cross-sectional survey</td>
<td>BMC Pregnancy and Childbirth</td>
<td>Original Research</td>
<td>The online cross-sectional survey study aimed to understand the attitudes and precaution practices of non-infected pregnant women attending antenatal clinics towards the COVID-19 outbreak in Singapore. The authors obtained a total of 167 survey responses over eight weeks, from April to June 2020. The majority of women were aged ≤35 years (76%, n = 127), of Chinese ethnicity (55%, n = 91), attained tertiary education (62%, n = 104), and were not working as frontline staff (70%). Malay ethnicity (vs. Chinese, β 0.24; 95% CI 0.04, 0.44) was associated with a higher frequency of practicing social distancing. Malay women (β 0.48; 95% CI 0.16, 0.80) and those who worked as frontline staff (β 0.28; 95% CI 0.01, 0.56) sanitized their hands at higher frequencies. Age of ≥36 years (vs. ≤30 years, β 0.24; 95% CI 0.01, 0.46), Malay (vs. Chinese, β 0.27; 95% CI 0.06, 0.48) and Indian ethnicity (vs. Chinese, β 0.41; 95% CI 0.02, 0.80), and attendance at high-risk clinic (vs. general clinic, β 0.20; 95% CI 0.01, 0.39) were associated with higher frequency of staying-at-home. The authors emphasize the importance of appropriate counseling and focused clarification on the effect of COVID-19 among pregnant women by clinicians.</td>
<td>This is an online cross-sectional survey of COVID-19 awareness among pregnant women attending antenatal clinics in Singapore. Social demographical factors and attitude at high-risk clinics influence pregnant women's attitudes and precaution practices towards COVID-19.</td>
<td>Lee RWK, Loy SL, Yang L, et al. Attitudes and precaution practices towards COVID-19 among pregnant women in Singapore: a cross-sectional survey. BMC Pregnancy Childbirth. 2020;20(1):675. Published 2020 Nov 10. doi:10.1186/s12884-020-03378-w</td>
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<td>Social determinants; COVID-19; children; future research</td>
<td>10-Nov-20</td>
<td>Where to make a difference: research and the social determinants in pediatrics and child health in the COVID-19 era</td>
<td>Pediatric Research</td>
<td>Comment</td>
<td>In this paper, the author reviewed the social determinants in child health during the COVID-19 era in current literature and the opportunities for future research. Social determinants of health (SDH) influence life opportunities, disease profiles, health outcomes, and life expectancy. Social determinants may play role in COVID-19 transmissions, due to overcrowding and the inability to apply preventive measures, as well as the social consequences due to loss of family income, loss of schooling, and loss of non-COVID public health interventions, thereby perpetuating the cycle. He also explained the bidirectional influence between pandemic and SDH. The author covers the key areas that require attention: 1) illness severity and sequelae; 2) collateral damage of the lockdown and social distancing; 3) impact of disparities in digital health and learning. The author also identifies several potential future research: to assess the impact on 1) isolation, 2) child protection, 3) treatment of children with chronic conditions and comorbidities, 4) delayed diagnosis, morbidity, and mortality, 5) COVID-19 on pregnancy, 6) children and LGBTQ adolescents; and 7) to assess the new ways of delivering care. The author suggests readers avoid the temptation to be judgmental on the disparities exposed by the SARS-CoV-2 infection, to do more</td>
<td>In this paper, the author reviewed the social determinants in child health during the COVID-19 era in the current literature. SDH may influence the likelihood of COVID-19 infection and transmission. The author points out the important key outcome and identifies future research suggestions.</td>
<td>Lachman P. Where to make a difference: research and the social determinants in pediatrics and child health in the COVID-19 era. Pediatr Res. 2020. doi:10.1038/s41390-020-01253-0</td>
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<td>Children, adults, COVID-19, household, symptoms, UK</td>
<td>10-Nov-20</td>
<td>Symptoms Suggestive of COVID-19 in Households With and Without Children: A Descriptive Survey</td>
<td>medRxiv</td>
<td>Preprint (not peer-reviewed)</td>
<td>The authors characterize symptoms suggestive of COVID-19 in UK households and examine whether the symptoms varied between households with and without children and between adults and children from March to May 2020. Adults ≥ 18 years residing in the UK completed an online questionnaire posted on social media (Mumsnet, Twitter, and Facebook) on demographic information, activities that involved contact with other people, contact with COVID-19 cases, and symptoms suggestive of COVID-19 experienced by each household member and their duration. The results from 508 households (1057 adults and 398 children) showed that 64.1% of households with children and 59.1% of households without children had adults with symptoms suggestive of COVID-19. The proportion of adults with symptoms was 46.1% in households with children and 36.7% in households without children. In 37.8% of households with at least one adult and one child with symptoms, the child’s onset of symptoms started before the adult. Children had a shorter (median: 5 days) and a milder illness course than adults (median: 10 days). Of note, fatigue was the most common symptom in adults (79.7%), while cough was the most common symptom in children (53.5%). Furthermore, chest tightness, shortness of breath, fatigue, muscle ache, and diarrhea were more common in adults than in children, while cough and fever were equally common.</td>
<td>Findings from this study in the UK showed that children had a shorter and milder COVID-19 course than adults. However, in over a third of both adult and child symptomatic households, the child was the first to become ill.</td>
<td>Grove G, Ziauddeen N, Alwan NA, et al. Symptoms suggestive of COVID-19 in households with and without children: a descriptive survey [published online, 2020 Nov 10]. medRxiv. 2020. doi: <a href="https://doi.org/10.1101/2020.11.09.20228205">https://doi.org/10.1101/2020.11.09.20228205</a></td>
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<td>Italy, caregivers, neurodevelopmental disabilities</td>
<td>10-Nov-20</td>
<td>Rehabilitation services lockdown during the COVID-19 emergency: the mental health response of caregivers of children with neurodevelopmental disabilities</td>
<td>Disability and Rehabilitation</td>
<td>Original Research</td>
<td>The aim of this study was to investigate the impact COVID-19-related rehabilitation services lockdown on the mental health of caregivers of children (age range 1–15 years) with neurodevelopmental disabilities. Between 26 March and 11 May 2020, 84 caregivers in Pavia, Italy filled out ad-hoc and standardized questionnaires through an online survey in order to measure their psychological response to the emergency and lockdown as well as their levels of parenting stress, anxiety and depression. Results from the surveys indicated that worries about COVID-19 contagion and concerns for the child not having rehabilitation were the greatest causes of mental health burdens for caregivers. Additionally, they indicated that concerns for the well-being of the child was significantly associated with caregivers’ reports of stress, depressive, and anxious symptoms (Pearson correlation coefficient= 0.60 (p &lt; 0.001), 0.46 (p &lt; 0.001), and 0.52 (p &lt; 0.001) respectively). The authors state that these findings highlight the burden faced by caregivers of children with neuro-developmental disabilities during the COVID-19 emergency in Italy. The authors recommend that families of children with neurodevelopmental disabilities seek assistance and research, and to test interventions that will improve the SDH — and ultimately health itself.</td>
<td>This article investigated the effects of the COVID-19 lockdown on caregivers for children with neurodevelopmental disabilities. They found concerns for the child not having rehabilitation were the greatest causes of mental health burdens for caregivers.</td>
<td>Grumù S, Provenzi L, Gardani A, et al. Rehabilitation services lockdown during the COVID-19 emergency: the mental health response of caregivers of children with neurodevelopmental disabilities. Disabil Rehabil. 2020 Nov 10:1-6. doi: 10.1080/09638288.2020.1842520.</td>
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<td>COVID-19; 1918 epidemic; exposure in utero; United States</td>
<td>10-Nov-20</td>
<td>Will prenatal exposure to SARS-CoV-2 define a birth cohort with accelerated aging in the century ahead?</td>
<td>Journal of Developmental Origins of Health and Disease</td>
<td>Review</td>
<td>This review discusses how contracting COVID-19 and living in the pandemic environment during pregnancy in the United States may affect fetal and postnatal development. The authors cite the 1918 Influenza pandemic as an example, where individuals exposed in-utero experienced earlier adult mortality, more diabetes, ischemic heart disease, and depression. The authors summarized the preliminary published evidence of the effects of COVID-19 on pregnant women and infants and reported limited data availability on vertical transmission of SARS-CoV-2. Additionally, they recommended that existing birth cohort studies consider immediate data collection followed by analysis of child growth and development, and lifelong study of health, behavioral patterns, and cognitive functioning. The authors conclude by highlighting the need to establish life-long cohort studies to examine the long-term consequences of in-utero exposure to SARS-CoV-2.</td>
<td>This review argues for the establishment of life-long cohort studies to examine the long-term consequences of in utero exposure to SARS-CoV-2 and pandemic-associated stresses. The authors compare COVID-19 to other disease (most notably, the 1918 flu) and summarize the preliminary published evidence of the effects of COVID-19 on pregnant women and infants.</td>
<td>Easterlin, M. C., Crimmins, E. M., &amp; Finch, C. E. (2020). Will prenatal exposure to SARS-CoV-2 define a birth cohort with accelerated aging in the century ahead?. Journal of Developmental Origins of Health and Disease, 1–5. Advance online publication. <a href="https://doi.org/10.1017/S20401742000104X">https://doi.org/10.1017/S20401742000104X</a></td>
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<td>COVID-19, SARS-CoV-2, maternal outcomes, fetal outcomes, premature delivery, USA</td>
<td>10-Nov-20</td>
<td>COVID-19 Poses Pregnancy Risks</td>
<td>The Journal of the American Medical Association (JAMA)</td>
<td>News Article</td>
<td>This article briefly reports on surveillance data from the Centers for Disease Control and Prevention (CDC), suggesting that pregnant women with COVID-19 may be at increased risk of severe illness and pregnancy loss. Data was collected from hospitals in 13 US states on pregnant women aged 15-49 years, infected with SARS-CoV-2 and hospitalized between March-August 2020. About half of these women were asymptomatic; of the asymptomatic women, most were admitted during their 3rd trimester for delivery rather than for reasons related to their SARS-CoV-2 infection. Of the pregnant women who were symptomatic, most were admitted during their 1st or 2nd trimester, 16% were admitted to the ICU, 8.5% required mechanical ventilation, and 2 died. In contrast, none of the asymptomatic women received ICU care or ventilation, and none died. Nearly 1/4 of symptomatic women who had a live birth delivered prematurely compared with 8% of asymptomatic women. 7 symptomatic women experienced pregnancy loss compared to 3 asymptomatic pregnant women. Among the 16% of symptomatic women who received investigational treatments, about 7% were treated with the antiviral medication remdesivir and 7% received hydroxychloroquine. A link to the full CDC report is provided in the article.</td>
<td>This article briefly reports on surveillance data from hospitals in 13 US states comparing admissions data and outcomes of symptomatic and asymptomatic pregnant women infected with SARS-CoV-2. Between March and August 2020, a greater percentage of symptomatic women experienced pregnancy loss, premature delivery, ICU care, mechanical ventilation, and death in comparison to asymptomatic pregnant women.</td>
<td>Kuehn BM. COVID-19 Poses Pregnancy Risks. JAMA. 2020 Nov 10;324(18):1819. doi: 10.1001/jama.2020.21129. PMID: 33170250.</td>
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<td>adolescence; child</td>
<td>9-Nov-20</td>
<td>Adolescent Lifestyle Behaviors, Coping Strategies and Subjective Wellbeing during the COVID-19 Pandemic: An Online Student Survey</td>
<td>Healthcare</td>
<td>Original Research</td>
<td>The authors conducted a study of 306 Italian adolescents aged 15-21 years old (mean 18.1 years; 72.9% male) between April 1-10, 2020 to investigate lifestyle behaviors, coping strategies, and subjective wellbeing in relation to the ongoing COVID-19 pandemic. Most adolescents demonstrated adaptive coping strategies by planning their daily routine (57.8%), engaging in structured activities (17.6-67.3%), developing new interests (54.6%), and giving a positive interpretation of the ongoing period (57.8%). A change in subjective wellbeing (49.3%) and symptoms of anxiety (39.9%) were frequently reported. A number of factors predicted a change in subjective wellbeing. Students who found it hard to stay at home (OR = 3.852; 95% CI 1.953–7.599), argued more easily with family members (OR = 2.158; 95% CI 1.122–4.150), and feared a negative impact of the ongoing period on their educational path (OR = 1.971; 95% CI 1.063–3.655), were all more likely to report a subjective change in their psychological wellbeing. Being female (OR = 3.647; 95% CI 1.694–7.851), doing physical activity (OR = 2.609; 95% CI 1.297–5.247), and engaging in different activities than before (OR = 2.212; 95% CI 1.157–4.230), were all associated with a higher likelihood of reporting a subjective change in one’s psychological wellbeing. The authors concluded that personal and environmental coping resources are relevant to subjective wellbeing in adolescents.</td>
<td>The authors conducted a study of Italian adolescents aged 15-21 years old to investigate lifestyle behaviors, coping strategies, and subjective wellbeing in relation to the ongoing COVID-19 pandemic. The authors concluded that personal and environmental coping resources are relevant to subjective wellbeing in adolescents.</td>
<td>Pigiai Y, Zoccante L, Zocca A, et al. Adolescent Lifestyle Behaviors, Coping Strategies and Subjective Wellbeing during the COVID-19 Pandemic: An Online Student Survey. Healthcare (Basel). 2020;8(4):472. Published 2020 Nov 9. doi:10.3390/healthcare8040472</td>
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<td>and adolescent psychiatry; family; mental health prevention; resilience; school; stress; Italy</td>
<td>9-Nov-20</td>
<td>Pandemic and vaccine coverage: challenges of returning to schools</td>
<td>Revista de Saúde Pública</td>
<td>Commentary</td>
<td>Due to the COVID-19 pandemic, face-to-face attendance in health services dropped dramatically in many countries in 2020, which included appointments for child vaccination. A risk-benefit study in African countries showed that avoidable deaths from routine vaccination outweighed the excess risk of death from COVID-19 associated with healthcare exposure. Despite this risk-benefit analysis favoring vaccination, studies in the USA, England, Indonesia, and others showed decreases in overall childhood vaccination rates during the pandemic. The WHO estimates that at least 80 million children will be susceptible to immune-preventable diseases such as measles, diphtheria and polio because of the decrease in vaccination coverage. This is a major consideration for the safe resumption of day care centers and schools, especially in Brazil, where an epidemic of measles recently occurred that resulted in thousands of cases due to decreased vaccinations. The authors conclude that when social distancing measures are loosened in Brazil, many children will be susceptible to preventable diseases, and there will be a need to assess the vaccine situation of schoolchildren before they return to school.</td>
<td>The authors raise concerns about the return of children to schools in Brazil once lockdown restrictions from COVID-19 are lifted, given that vaccination rates for other preventable diseases (such as measles) have been declining.</td>
<td>Sato APS. Pandemic and vaccine coverage: challenges of returning to schools. Rev Saude Publica. 2020 Nov 9;54:115. doi: 10.11606/s1518-8787.2020054003142.</td>
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<td>Pregnancy, anxiety, stress, depression, delays in care, Iran</td>
<td>9-Nov-20</td>
<td>Health Anxiety Predicts Postponing or Cancelling Routine Medical Care Appointments among Women in Perinatal Stage during the Covid-19 Lockdown</td>
<td>International Journal of Environmental Research and Public Health</td>
<td>Original Research</td>
<td>In this article, the authors investigated whether health anxiety, stress or depression led to postponement or cancellation of routine medical appointments for perinatal women in Iran during the COVID-19 pandemic. 103 patients (66 [64.1%] pre-partum and 37 [35.9%] post-partum) of the Arak University of Medical Sciences completed a booklet of questionnaires covering socio-demographics, information regarding pregnancy, delivery and the post-partum stage, health anxiety (Health Anxiety Inventory), post-partum depression (Edinburgh Postnatal Depression Scale; EPDS), perceived stress (Perceived Stress Scale), and specific COVID-19-related questions [dates of study not provided]. Mean age of participants was 28.57 years (SD 6.85 years). Participants living with or being in contact with a person with COVID-19 had significantly higher health anxiety scores (p&lt;0.001). No differences were found for depression or stress. Participants postponing/cancelling routine medical care appointments had significantly higher health anxiety and depression scores (p&lt;0.001). No differences were found for stress. Higher illness severity, overall health anxiety scores, and lower stress scores predicted those participants who postponed or cancelled their routine medical appointments. The authors concluded that due to missed appointments, higher health anxiety could be associated with a greater risk of not detecting and preventing potential health problems for perinatal women.</td>
<td>Among a sample of perinatal women in Iran assessed during the COVID-19 pandemic, health anxiety was related to proximity to others suffering from COVID-19, and higher health anxiety was associated with postponing or cancelling routine medical appointments.</td>
<td>W. Schiappa, M. Mahdavi, F. Haghighi M, Sadeghi Bahmani D, Brand S. Health Anxiety Predicts Postponing or Cancelling Routine Medical Care Appointments among Women in Perinatal Stage during the Covid-19 Lockdown. Int J Environ Res Public Health. 2020 Nov 9;17(21):8272. doi: 10.3390/ijerph17218272.</td>
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<td>Cognitive Behavioral Therapy, insomnia, children, sleep training, SARS-CoV-2, Germany</td>
<td>9-Nov-20</td>
<td>Online cognitive behavioral group therapy (iCBT-I) for insomnia for school children and their parents: Adaptation of an established treatment (KiSS training)</td>
<td>Somnologie</td>
<td>Original Research</td>
<td>Due to the SARS-CoV-2 crisis, online adaptation of sleep trainings is necessary. As sleep disturbances in school children are common, prevention of chronification is essential. The aim of this study was to adapt an established German age-oriented cognitive behavioral therapy for insomnia (CBT-I) group training for 5-10-year-old children with insomnia and their parents to an online version (group iCBT-I). This pilot study included 12 parents between 40 - 51 years old (mothers 40–44 years, fathers 40–51 years) and 6 children aged 5.4–10.10 years [mean ages not reported]. The adapted online version consisted of 3 parental sessions, whereas child-oriented sessions were transferred into videoclips. The new group iCBT-I was well accepted by parents. &gt; 80% of parents rated most modules as adequate, 74.9% found tips and tricks concerning sleep problem-solving helpful, and 91% found the group format very helpful. &gt; 50% rated the online format as comfortable. Videos were rated by 75% of parents as helpful for them as parents. After training, 67% of children showed reduced sleep problems according to parental rating. This pilot study shows that the online group format is possible for parents of schoolchildren and that child-oriented treatment elements can be transferred into videoclips.</td>
<td>The aim of this study was to adapt an established German age-oriented cognitive behavioral therapy for insomnia group training for 5-10-year-old children with insomnia and their parents to an online version. After training, 67% of children showed reduced sleep problems according to parental rating. This pilot study shows that the online group format is possible for parents and children.</td>
<td>Schlarb AA, Schulte H, Selbmann A, et al. Online cognitive behavioral group therapy (iCBT-I) for insomnia for school children and their parents: Adaptation of an established treatment (KiSS training) [published online ahead of print, 2020 Nov 9]. Somnologie (Berl). 2020;1:1-8. doi:10.1007/s11818-020-00280-7</td>
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<td>Universal screening, pregnancy, testing, prevalence, Japan</td>
<td>9-Nov-20</td>
<td>COVID-19 testing of pregnant women in Japan</td>
<td>Journal of Obstetrics and Gynecology Research</td>
<td>Letter</td>
<td>In this letter, the authors comment on the study by Umazume et al. which reported the results of a nationwide survey on the use of PPE during labor and delivery and COVID-19 testing of pregnant women in Japan. The original article reported that 9–17% of pregnant women in Japan underwent prenatal screening. The authors of this letter conducted a study in Fukui, a low-prevalence area of Japan, in which they performed voluntary SARS-CoV-2 PCR screening of pregnant women based on the individual’s level of concern about COVID-19. The test was performed 2 weeks before the expected delivery date in 805 pregnant women using a nasopharyngeal sample from April 24–July 25, 2020. Fukui had SARS-CoV-2 prevalence of 16.5 per 100,000 population during this period. Of the 805 pregnant women tested, 15 had mild symptoms and 790 had no symptoms. None of them tested positive for SARS-CoV-2 and there were no false-negative results. The authors conclude that universal screening of pregnant women may not be necessary and should not be mandatory in low-prevalence areas of COVID-19.</td>
<td>The authors respond to a study by Umazume et al. on SARS-CoV-2 testing of pregnant women in Japan, and suggest that in low prevalence areas, universal screening may not be necessary.</td>
<td>Orisaka M, Kawamura H, Yoshida Y. COVID-19 testing of pregnant women in Japan. J Obstet Gynaecol Res. 2020 Nov 9. doi: 10.1111/jog.14567.</td>
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<td>Children, pediatrics, PIMS, PIMS-TS, MIS-C, imaging, Iran</td>
<td>9-Nov-20</td>
<td>Clinical characteristics of 10 children with a pediatric inflammatory multisystem syndrome associated with COVID-19 in Iran</td>
<td>BioMed Central (BMC) Pediatrics</td>
<td>Case Report</td>
<td>This report aimed to characterize PIMS (PIMS-TS/MIS-C) in a pediatric referral hospital in northern Iran. 10 febrile children (mean age 5.37 years, range 13 months-12 years) were admitted with COVID-19 from March 28–June 24, 2020, all of whom showed characteristics of PIMS. Demographic and clinical characteristics, laboratory and imaging findings and therapeutic modalities were recorded. Chest CT scan, RT-PCR, and serum immunoglobulin M and G were used for the diagnosis of COVID-19. The most common presentations in these cases (8/10) were fever and rash with no respiratory symptoms. Only 3 patients had a cough or other respiratory complaints on admission. However, 3-4 days after hospitalization, almost all patients developed respiratory symptoms. The most common lab abnormalities were anemia, lymphopenia, hypo-albuminemia and all 10 patients had increased erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). CT-scan was normal at the time of admission for all patients. However, 3 days after hospitalization, 5 patients had findings compatible with COVID-19 with the most common findings including patchy infiltration, ground glass opacity with halo or reverse halo sign in the lower lobes, and pleural effusion. IV Immunoglobulin G (IVIG) was given to 6 patients and corticosteroids were prescribed for 2. Almost all patients were discharged without complication, except 1 case with a giant aneurysm and 1 death due to a history of uncontrolled renal failure and late referral.</td>
<td>The authors provide case reports for 10 children in northern Iran with PIMS (PIMS-TS/MISC) related to SARS-CoV-2 infection, and highlight the most common symptoms, laboratory findings, imaging characteristics, and outcomes.</td>
<td>Shahbazejad L, Navaeifar MR, Abbaskhanian A, Hosseinzadeh F, Rahimzadeh G, Rezai MS. Clinical characteristics of 10 children with a pediatric inflammatory multisystem syndrome associated with COVID-19 in Iran. BMC Pediatr. 2020 Nov 9;20(1):513. doi: 10.1186/s12887-020-02415-z.</td>
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### Key Terms

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<th>Children, cancer, ethics, psychology, bioethics</th>
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<td>9-Nov-20</td>
<td><strong>Telling the Truth to Child Cancer Patients in COVID-19 Times</strong></td>
<td><em>Journal of Bioethical Inquiry</em></td>
<td>Original Article</td>
<td>Despite a lower risk of children becoming acutely ill with COVID-19, there may be significant effects of COVID-19 on the psychological and emotional well-being of children with cancer. Focusing on the context of children's cancer care, the authors address the following ethical question, ‘should we (healthcare providers) explicitly point out and explain to children all the changes to their care?’ The authors propose that “truth-telling” to seriously ill children should be assessed case by case. In general, young children do not really have a say in major decisions that are made about their medical treatment and this is not different, in principle, in COVID-19 times. The authors argue that there are not compelling reasons to tell children about increased risks and poorer prognosis that may be associated with necessary changes to treatment protocols as a result of COVID-19 unless they ask. However, there are compelling reasons to explain changes which will be apparent to children such as changes in staff appearance, the hospital environment and visitor restrictions, and a change from an unrelated bone marrow transplant donor to a parent donor. Key reasons for telling children about changes in care include that it promotes their ability to cope with unpleasant experiences, builds the therapeutic relationship between children and providers, and demonstrates respect for the child as a person.</td>
<td>The authors describe ethical considerations to how much information to provide children with cancer about changes in their care due to the COVID-19 pandemic. For changes that children can observe, truth-telling promotes their ability to cope with unpleasant experiences, builds the therapeutic relationship between children and providers, and demonstrates respect for the child as a person.</td>
<td>Gillam L, Spriggs M, Delaney C, Conyers R, McCarthy M. Telling the Truth to Child Cancer Patients in COVID-19 Times. <em>J Bioeth Inq.</em> 2020 Nov 9:1–5. doi: 10.1007/s11673-020-10052-5.</td>
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| 9-Nov-20 | **Multisystem Inflammatory Syndrome in Children Related to COVID-19: the First Case in Korea** | *Journal of Korean Medical Science* | Case Report | This case report describes the first case of MIS-C related to COVID-19 in Korea. A previously healthy 11-year-old boy was hospitalized on April 29, 2020 with a 4-day history of fever, nausea, and abdominal pain. Laboratory findings revealed elevated C-reactive protein (CRP, 121.50 mg/L) and procalcitonin (0.750 mcg/L) levels. Abdominal and pelvic CT revealed bowel wall thickening in the terminal ileum and multiple enlarged lymph nodes along the ileo-colic artery. After the administration of IV antibiotics, his symptoms persisted, and he developed diarrhea. On hospital day 3, he suddenly developed hypotension (66/36 mmHg), requiring administration of inotropic agents in the ICU. His blood test then revealed elevated inflammatory markers, thrombocytopenia, hypoalbuminemia, and coagulopathy (international normalized ratio: 1.52). Afterward, he developed signs of Kawasaki Disease including conjunctival injection, strawberry tongue, cracked lip, coronary artery dilatation, and parenchymal consolidation on CT. He received high dose aspirin for two days. Microbiological tests were all negative including SARS-CoV-2 RT-PCR. However, serum immunoglobulin G against SARS-CoV-2 was positive in repeated tests using enzyme-linked immunosorbent assay and fluorescent immunoassay, confirming the diagnosis of MIS-C. IV Immunoglobin was administered and the authors describe a case of MIS-C in an 11-year-old boy in Korea resulting in shock and requiring ICU administration of inotropic agents. After treatment with immunoglobulin G, he recovered well without complications. | The authors describe a case of MIS-C in an 11-year-old boy in Korea related to COVID-19: the First Case in Korea. *J Korean Med Sci.* 2020 Nov 9;35(43):e391. doi: 10.3346/jkms.2020.35.e391. | Kim H, Shim JY, Ko JH, et al. Multisystem Inflammatory Syndrome in Children Related to COVID-19: the First Case in Korea. *J Korean Med Sci.* 2020 Nov 9;35(43):e391. doi: 10.3346/jkms.2020.35.e391. |
Placenta, pregnancy, vertical transmission, ACE2, ENDOU, COVID-19, SARS-CoV-2

9-Nov-20 Connecting the dots on vertical transmission of SARS-CoV-2 using protein-protein interaction network analysis – Potential roles of placental ACE2 and ENDOU Placenta Original Research

In this protein-protein interaction (PPI) network study, the authors analyzed proteins relevant to COVID-19 in placenta from patients (n=62) with severe pre-eclampsia (sPE; n=4), intra- amniotic infection and/or inflammation (Triple-I; n=25), and idiopathic preterm birth (i=33). PPI networks from sPE and Triple-I patients were intersected with the PPI network from coronavirus infection [the authors do not state if “coronavirus infection” refers to any coronavirus infection or specifically to SARS-CoV-2 infection]. Common proteins included the SARS-CoV-2 entry receptor ACE2 and ENDOU, a placental endoribonuclease homologous to Nsp15, a protein produced by coronaviruses to escape host immunity. Placental ENDOU mRNA expression was significantly greater than that of ACE2, especially in pre-eclamptic placentas (p<0.05). Immuno-histochemistry confirmed ENDOU localization at the hemochorial maternal-fetal interface. The authors conclude that their data suggest a potential mechanism favoring vertical SARS-CoV-2 transmission in pre-eclampsia patients or for inducing pre-eclampsia-like symptoms in SARS-CoV-infected mothers.

This protein-protein interaction network study found that ACE2 and the Nsp15 homologue ENDOU were commonly expressed in placenta of patients with pregnancy and birth complications. ENDOU gene expression was significantly greater than ACE2 in pre-eclamptic placentas, suggesting a potential mechanism favoring vertical SARS-CoV-2 transmission in pre-eclampsia patients or for inducing pre-eclampsia symptoms in infected mothers.


Multisystem inflammatory syndrome in children; MIS-C; COVID-19; Pregnancy; Brazil

9-Nov-20 Multisystem inflammatory syndrome in children (MIS-C) during SARS-CoV-2 pandemic in Brazil: a multicenter, prospective cohort study Jornal de Pediatria Original research

This study aimed to describe the epidemiological, clinical, laboratory, and radiological characteristics and the outcomes of children with Multisystem Inflammatory Syndrome in Children (MIS-C). From March to August 2020, a prospective cohort study was conducted in 17 pediatric ICUs in five Brazilian states. 56 children (1 month to 19 years) that met the MIS-C diagnostic criteria were enrolled. Participants' median age was 6.2 years old, 70% were boys, 57% were mixed-race or Black, and 20% had comorbidities (commonly chronic neurological diseases). SARS-CoV-2 infection could not be confirmed in 45% of participants because of test unavailability. The most common MIS-C phenotype was Kawasaki-like disease (KD) (46%) and incomplete KD (29%), most commonly in boys. 71% of participants had gastrointestinal symptoms, and 59% had shock symptoms (i.e., tachycardia, hypotension). 80% and 75% had increased D-Dimer and cardiac dysfunction markers, respectively. IV immunoglobulin was given to 89% of participants, and 50% received corticosteroids and enoxaparin. 20 children needed respiratory support, and 11% of those required invasive mechanical ventilation. One child died. The authors conclude that while this study gives a broader understanding of MIS-C features and the short term consequences, long term follow-up is needed in order to determine if there are chronic cardiac impairment outcomes and other sequelae.

The authors give a broader understanding of MIS-C features and short term consequences through a prospective, multi-site cohort study of children with MIS-C in Brazil.

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<td>antenatal care; intrapartum care; postnatal care; COVID-19; SARS-CoV-2; obstetrics guidelines; public health</td>
<td>9-Nov-20</td>
<td>Guidelines for Pregnancy Management During the COVID-19 Pandemic: A Public Health Conundrum</td>
<td>International Journal of Environmental Research and Public Health</td>
<td>Review</td>
<td>The authors compared obstetric guidelines available online from December 2019-April 2020 for usefulness when caring for patients during the COVID-19 pandemic. Because little is known about SARS-CoV-2 infection in pregnancy, the authors believe healthcare guidelines play a vital role in managing pregnant patients. A total of 11 guidelines from China, Italy, Spain, the United Kingdom, and the US were reviewed. Each was assessed for timeliness, accessibility, completeness, and consistency. The Royal College of Obstetricians and Gynecologists (RCOG) was the first to release a guideline and was updated most frequently. Accessibility was evaluated by the number of clicks it took to access the guideline from its webpage. 4 guidelines were accessible with only one click (WHO, CDC, the Chinese expert consensus, and the American College of Obstetrics and Gynecology). The authors chose 30 topics they deemed foundational and examined each guideline for all 30 topics to define completeness. The International Federation of Gynaecology and Obstetrics and RCOG were the most complete. The authors noted that those in pdf format were more likely to be complete than others presented in a question-and-answer format. Finally, consistency was compared between all 11 guidelines for recommendations in care and treatment. The guidelines varied widely, and the authors considered this to be due to differing healthcare situations in each country. The authors suggest a coordinated global response to present a guideline ensuring that all pregnant mothers receive the best possible care during the pandemic.</td>
<td>The authors present a review of 11 obstetric guidelines from multiple countries and international organizations as to their timeliness, accessibility, completeness, and consistency in providing quality advice to healthcare workers of pregnant women. The guidelines varied widely, and the authors suggest a coordinated global response to assist healthcare workers in caring for pregnant women.</td>
<td>Benski C, Di Filippo D, Taraschi G, Reich MR. Guidelines for Pregnancy Management During the COVID-19 Pandemic: A Public Health Conundrum. Int J Environ Res Public Health. 2020;17(21):E8277. Published 2020 Nov 9. doi:10.3390/ijerph17218277</td>
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<td>Schools; COVID-19; Portugal; nutritional status; malnutrition; obesity; underweight</td>
<td>9-Nov-20</td>
<td>Nutritional status of children in school age: A look of concern in an era of COVID-19 pandemic</td>
<td>[Johns Hopkins Institutional Access, Abstract available only]</td>
<td>Original Research</td>
<td>This descriptive study aimed to analyze the evolution of nutritional imbalances on child infection susceptibility. The authors studied two elementary schools during 4 school years, starting in 2016/2017. They included 1155 students (6 - 14 years old, 48.5% female). The mean body mass index (BMI) z-scores of each year were: 0.43 ±1.17 in 2016/2017, 0.70 ±1.31 in 2017/2018, 0.38 ±1.30 in 2018/2019, and 0.34 ±1.86 in 2019/2020. The 2019/2020 school year recorded the highest percentage of underweight (10%), the highest percentage of normal weight was in 2016/2017 (67.2%), 2017/2018 registered the highest percentage of overweight (24.6%), and the highest percentage of obesity was in 2019/2020 (18.2%). They found an increase of underweight (2.2% to 10%) and obesity (8.1% to 18.2%); and a decrease of normal weight (67.2% to 54.6%) and overweight (22.5% to 17.1%) from 2016-2017 to 2019-2020. During a pandemic, where obesity and undernutrition are risk factors, the increase in their prevalence is higher.</td>
<td>This descriptive study in Portugal analyzes the evolution of Elementary School children’s nutritional status and infers the impact of nutritional imbalances on child infection susceptibility. The authors found an increase in obesity and malnutrition prevalence and emphasize the importance of school nutritionists to promote health and nutrition literacy among students, especially during pandemic times.</td>
<td>Correia L, Medeiros M, Chaves R, et al. Nutritional status of children in school age: A look of concern in an era of COVID-19 pandemic. Clinical Nutrition ESPEN. 2020;40:619. doi:10.1016/j.clnesp.2020.09.639</td>
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<td>COVID-19, SARS-CoV-2, multisystem inflammatory syndrome in children, MIS-C, Kawasaki Disease, KD, shock</td>
<td>9-Nov-20</td>
<td>Review of Cardiac Involvement in Multisystem Inflammatory Syndrome in Children</td>
<td>Circulation</td>
<td>Literature Review</td>
<td>The authors describe the data on MIS-C and its effect on the cardiovascular system and provide clinical considerations for cardiac evaluation. They reviewed the published literature on pediatric COVID-19 and MIS-C from 1 January - 22 June 2020. Individuals aged &lt;18 years are considerably less susceptible to SARS-CoV-2 infection, and the majority is asymptomatic. MIS-C is a rare COVID-19 complication and often occurs a few weeks after acute infection due to a dysregulated inflammatory response to SARS-CoV-2 infection. MIS-C is more common in Black and Hispanic, and the average age is 9-11 years. Persistent fever and gastro-intestinal symptoms are the most common symptoms. The authors summarize the MIS-C-related cardiac manifestations and suggested cardiac testing and follow-up in tables. Left ventricular dysfunction is the most common cardiac manifestation in MIS-C patients. The largest case series to date reported N-terminal Pro B-type Natriuretic Peptide and troponin elevation in 93% and depressed LV ejection fraction in 52% of patients. Coronary artery</td>
<td>The authors describe the published MIS-C data including clinical manifestations with a focus on cardiac complications and provide clinical considerations for cardiac evaluation and follow-up.</td>
<td>Alsaidi T, Tremoulet AH, Burns JC, Saidi A, Dione A, Lang SM, Newburger JW, de Ferranti S, Friedman KG. Review of Cardiac Involvement in Multisystem Inflammatory Syndrome in Children. Circulation. 2020 Nov 9. doi: 10.1161/CIRCULATIONAHA.120.049836. Epub ahead of print. PMID: 33166178.</td>
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<td>Pandemic; Early pregnancy; miscarriage; first-trimester miscarriage; Quebec</td>
<td>9-Nov-20</td>
<td>COVID-19 pandemic effect on early pregnancy: are miscarriage rates altered in asymptomatic women?</td>
<td>Archives of Gynecology and Obstetrics</td>
<td>Original research</td>
<td>The study aimed to evaluate the effect of COVID-19 pandemic environment, not the disease itself, on 1st trimester pregnancy outcomes. A retrospective cohort of 2 groups of women were compared: All women who came for a 1st trimester viability scan at a university-affiliated fertility center in Montreal, Canada from March 13 until May 6, 2020 (pandemic group, N=113) and those who came for a scan between March 1 and May 17, 2019 (pre-pandemic group, N=172). None of the participants reported symptoms of COVID-19. The average ages in the pandemic and pre-pandemic groups were 36.5 and 37.2 years, respectively. The groups were similar in their method of conception, gravidity and history of repeat pregnancy loss. The viable clinical pregnancy rate was not significantly different between the two groups (76.1% (pandemic) vs. 80.2% (pre-pandemic), p = 0.41). No significant difference was seen in the total number of arrested pregnancies (defined as the sum of biochemical, 1st trimester miscarriages, and blighted ova) (22.1 (pandemic) vs. 16.9% (pre-pandemic), p = 0.32). There were non-significant odds of missed abortion (OR=1.2, 95% CI: 0.50-5.2), biochemical pregnancy (OR=2.3, 95% CI:0.7-8.1) and blighted ovum (OR=2.0, 95% CI: 0.5-8.5) comparing the2o groups. The authors conclude that in a non-symptomatic population, early 1st trimester pregnancies are not jeopardized.</td>
<td>Using a retrospective cohort of women in Montreal, Canada, the authors demonstrate that COVID-19 environment (not the disease itself) is not associated with poor 1st trimester pregnancy outcomes in non-symptomatic women</td>
<td>Rotshenker-Olshinka K, Volodarsky-Perel A, Steiner N, Rubenfeld E, H Dahan M. COVID-19 pandemic effect on early pregnancy: are miscarriage rates altered, in asymptomatic women? Arch Gynecol Obstet. 2020 Nov 9:1–7. doi: 10.1007/s00404-020-05848-0. Epub ahead of print. PMID: 33169234; PMCID: PMC7652042.</td>
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<td>SARS-CoV-2, child-to-child transmission, child-to-adult transmission, school transmission, school closure</td>
<td>September 9, 2020</td>
<td>The Role of Children in the Transmission Chain of SARS-CoV-2: A Systematic Review and Update of Current Evidence</td>
<td>medRxiv</td>
<td>Pre-print (not peer-reviewed)</td>
<td>Using a systematic literature review, the authors assess child-to-child and child-to-adult SARS-CoV-2 transmission and characterize the potential role of school closures on community transmission. Of the 1337 peer-reviewed articles published December 2019 through August 31, 2020 that were screened, 22 were included in the review. The review provides evidence of child infection with and transmission of SARS-CoV-2 in household, community, and school settings. Four studies looked at household settings showing that children were found to be the index case in 8-22% of households. Other studies showed that the secondary household transmission rate was 5.3% in 0-9-year-olds and 19% in 10-19-year-olds although the non-household secondary transmission rate was much lower (&lt;1.1%). In school settings, four studies showed that children were rarely index cases leading to transmission in school, particularly in programs that implemented hygiene, social distancing, and universal screening. The authors included a review of 8 studies of school closures (7/8 were modeling studies) showing that closures would be associated with a reduction in community cases, rate of hospitalization, and ICU admissions. The authors do note that societal, economic, and educational impacts of prolonged school closures must be considered.</td>
<td>The authors present the results of a literature review assessing child-to-child and child-to-adult SARS-CoV-2 transmission and the potential role of school closures on community transmission. Their results show limited and variable transmission dependent of the child’s age and location.</td>
<td>Suk J, Vardavas C, Nikitara K, et al. The Role of Children in the Transmission Chain of SARS-CoV-2: A Systematic Review and Update of Current Evidence. medRxiv preprint. 2020 Nov 9. doi:10.1101/2020.11.06/20227264.</td>
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<td>children, infants, COVID-19, China</td>
<td>September 9, 2020</td>
<td>Corrigendum: Clinical and Epidemiological Features of 46 Children &lt;1 Year Old With Coronavirus Disease 2019 in Wuhan, China: A Descriptive Study</td>
<td>The Journal of Infectious Diseases</td>
<td>Corrigendum</td>
<td>The authors report two errors in the article “Clinical and Epidemiological Features of 46 Children &lt;1-Year-Old With Coronavirus Disease 2019 in Wuhan, China: A Descriptive Study” by Liu et al (2020) published in the Journal of Infectious Diseases. First, they note an error in the abstract where “lymphocytosis” should be “lymphopenia.” In addition, the authors recognize that 36 of the 46 patients in the study have overlapping data with those reported elsewhere by Sun et al (2020). The authors independently obtained data from the same hospital, and were not aware of this overlap since they submitted their manuscript prior to the publication of the studies by Sun et al.</td>
<td>This corrigendum notes two errors in a previously published study (Liu et al., 2020). The authors note that “lymphocytosis” should be corrected to “lymphopenia” and also report overlapping data obtained from the same hospital as another study by (Sun et al., 2020).</td>
<td>Liu X, Tang J, Xie R, et al. Corrigendum to: Clinical and Epidemiological Features of 46 Children &lt;1 Year Old With Coronavirus Disease 2019 in Wuhan, China: A Descriptive Study. J Infect Dis. 2020 Nov 9:jiaa624. doi: 10.1093/infdis/jiaa624. Epub ahead of print. PMID: 33166395.</td>
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<td>COVID-19, SARS-CoV-2, neonatal outcomes, newborns, incidence, ethnic groups, United Kingdom</td>
<td>9-Nov-20</td>
<td>Characteristics and outcomes of neonatal SARS-CoV-2 infection in the UK: a prospective national cohort study using active surveillance</td>
<td>Lancet Child Adolescent Health</td>
<td>Article</td>
<td>This study describes the incidence, characteristics, transmission, and outcomes of SARS-CoV-2 infection in neonates who received inpatient hospital care in the UK. This prospective UK population-based cohort study included infants with confirmed SARS-CoV-2 infection in the first 28 days of life who received inpatient care between March 1 - April 30, 2020. Infected infants were identified through active national surveillance via the British Pediatric Surveillance Unit. Analysis found 66 infants with confirmed SARS-CoV-2 infection (incidence 5.6 (95% CI 4.3–7.1) per 10 000 livebirths), of whom 28 (42%) had severe neonatal SARS-CoV-2 infection (incidence 2.4 (95% CI 1.6–3.4) per 10 000 livebirths). 16 (24%) of these infants were born preterm. 36 (55%) infants were from white ethnic groups (SARS-CoV-2 infection incidence 4.6 (95% CI 3.2–6.4) per 10 000 livebirths), 14 (21%) were from Asian ethnic groups (15.2 (95% CI 8.3–25.5) per 10 000 livebirths), 8 (12%) were from Black ethnic groups (18.0 (95% CI 7.8–35.5) per 10 000 livebirths), and 7 (11%) were from mixed or possible vertically acquired.</td>
<td>This is the first national, active surveillance study of neonatal SARS-CoV-2 infection in the UK identifying 66 infants with confirmed SARS-CoV-2 infection in the first 28 days of life who received inpatient care, March 1 - April 30, 2020. 17 (26%) infants with confirmed infection were born to mothers with known perinatal SARS-CoV-2 infection, 2 (3%) were considered to have possible vertically acquired.</td>
<td>Gale C, Quigley MA, Placzek A, et al. Characteristics and outcomes of neonatal SARS-CoV-2 infection in the UK: a prospective national cohort study using active surveillance. Lancet Child Adolesc Health 2020 Published Online November 9, 2020 <a href="https://doi.org/10.1016/S2352-4642(20)30342-4">https://doi.org/10.1016/S2352-4642(20)30342-4</a></td>
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other ethnic groups (5.6 (95% CI 2.2–11.5) per 10,000 livebirths). 17 (26%) infants with confirmed infection were born to mothers with known perinatal SARS-CoV-2 infection, 2 (3%) were considered to have possible vertically acquired infection (SARS-CoV-2-positive sample <12 hours of birth where the mother was also positive). 8 (12%) infants had suspected nosocomially acquired infection. As of July 28, 2020, 58 (88%) infants had been discharged home, 7 (11%) were still admitted, and one (2%) had died of a cause unrelated to SARS-CoV-2 infection. Neonatal SARS-CoV-2 infection is uncommon in infants admitted to hospital. Infection with neonatal admission following birth to a mother with perinatal SARS-CoV-2 infection was unlikely, and possible vertical transmission rare, supporting international guidance to avoid separation of mother and newborn. The high proportion of infants from Black, Asian, or minority ethnic groups requires investigation.

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<th>Key Terms</th>
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<th>Summary &amp; Key Points</th>
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<td>Children, rapid test, seropositivity, Switzerland</td>
<td>8-Nov-20</td>
<td>Prevalence of IgG against SARS-CoV-2 and evaluation of a rapid MEDsan IgG test in children seeking medical care</td>
<td>Clinical Infectious Diseases</td>
<td>Original Research</td>
<td>This study aimed to evaluate the prevalence of SARS-CoV-2 IgG (immunoglobin) in children who presented to Geneva University Hospitals, Switzerland, between April 1-30, 2020 for blood testing unrelated to COVID-19. It also aimed to evaluate the SARS-CoV-2 IgG detection performance of the MEDsan COVID-19 IgG rapid diagnostic test (RDT) in children. Assessment of seropositivity rate was performed using a commercial enzyme-linked immunosorbent assay (ELISA) with confirmation by immunofluorescence (rIFA). This was the gold-standard against which the MEDsan RDT was compared. 208 children were included in the analysis with a median age of 9.0 years (3.6–13.3 years). 19 (9.1%) were tested as seropositive by ELISA, 8 (3.8%) as indeterminate, and 181 (87.0%), as seronegative. 16 of the positive and 2 of the indeterminate were confirmed positive by rIFA, leading to a seropositivity rate of 8.7% (18/208). Using the MEDsan RDT, IgG were positive in 26 (12.5%) and negative in 182 (87.5%) of children. Performance of the MEDsan RDT against ELISA+rIFA showed a sensitivity and specificity of 88.9% (16/18 [95% CI; 64%-98%]) and 94.7% (180/190 [95% CI; 90%-97%]), respectively. The positive predictive value and negative predictive value were 61.5% (16/26 [95% CI; 41%-79%]) and 98.9% (180/182 [95% CI; 96%-100%]), respectively. The Kendall correlation coefficient between the RDT and ELISA+rIFA was 0.71 (p&lt;0.001). The authors conclude that in absence of centralized test availability, the MEDsan IgG RDT could be an acceptable option for rapid assessment of SARS-CoV-2 IgG seroprevalence in children.</td>
<td>The authors assessed the seroprevalence of SARS-CoV-2 IgG in a population of children in Switzerland who presented to the hospital for non-COVID related concerns, and compared the MEDsan COVID-19 IgG rapid diagnostic test to ELISA + immunofluorescence. Sensitivity of the MEDsan RDT was 88.9% and specificity was 94.7%.</td>
<td>Posfay-Barbe KM, Andrey DO, Virzi J, et al. Prevalence of IgG against SARS-CoV-2 and evaluation of a rapid MEDsan IgG test in children seeking medical care. Clin Infect Dis. 2020 Nov 8;ciaa1702. doi: 10.1093/cid/ciaa1702.</td>
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<td>Mental Health; children; adolescents; families; COVID-19; USA</td>
<td>8-Nov-20</td>
<td>Addressing the mental health needs of children/adolescents, families, and ourselves during our unprecedented COVID-19 times</td>
<td>Journal of Child and Adolescent Psychiatric Nursing</td>
<td>Editorial</td>
<td>The author of this editorial reminds U.S. based psychiatric-mental health (PMH) professionals that they are not alone in experiencing the stresses of the COVID-19 pandemic. Families of children and adolescents are experiencing new challenges and dealing with feelings of anxiety, exhaustion, and failure. The author points out that it is not weakness leading to these emotions, but the traumas that all are experiencing in predictable and explainable ways. The pandemic has led to isolation, contact restrictions, and a complete change to many psychosocial environments. Children and teenagers already with complex needs are at greater risk for poor outcomes, and PMH nurses are at the forefront of this need and can use innovations brought on by the pandemic to serve their clients better. Restrictions on reimbursements and state-to-state practices have already been lifted for PMH nurses and open the way for further innovations.</td>
<td>Changes brought about by the COVID-19 pandemic have affected the families, caregivers, and psychiatric-mental health providers (PMH) of children and adolescents already suffering from mental health challenges. PMH nurses can use this opportunity to explore innovative ways to care for their patients.</td>
<td>Lusk P. Addressing the mental health needs of children/adolescents, families, and ourselves during our unprecedented COVID-19 times. J Child Adolesc Psychiatr Nurs. 2020;33(4):185-186. doi:10.1111/jcap.12297</td>
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<td>COVID-19 pregnancy, SARS-CoV-2, lactoferrin, oxidative stress, inflammation, neurological dysfunction</td>
<td>8-Nov-20</td>
<td>COVID-19 During Pregnancy and Postpartum: 1) Pathobiology of Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2) at Maternal-Fetal Interface</td>
<td>Journal of Dietary Supplements</td>
<td>Review Article</td>
<td>The authors present a detailed review of the pathobiology of SARS-CoV2 infections in pregnancy (which the authors call “COVID-19 Pregnancy”) with respect to maternal physiology, known virology, and risk assessment. They review many areas of physiology including: immunological changes with pregnancy, vertical and horizontal transmission data, immune-redox changes at the placenta, multiple mechanisms of viral entry, unique virulence traits, detailed review of spike(S) protein anatomy and physiology, protein and lectin-type cell surface receptors, and the protective role of lactoferrin. The authors also review the concept of “original antigenic sin” (OAS) that in this situation describes the initial immunological imprint after common coronaviruses (CoV) and the possible impaired clearance of subsequent variant viruses such as SARS-CoV-2 infecting the same individual. This theory would support subsequent ineffective cross-reactive antibody secretion elevating the inflammatory response and facilitating viral cell entry. They discuss intrinsically disordered regions (IDRs) of the virus that enhance its ability to invade and hijack various host systems as well as survive in harsh environments. They describe the possibility of the virus using host neutralizing antibodies as a “trojan horse” receptor to gain entry into the host cell via CD32a in particular. In addition, they examine the COVID-19 Pregnancy with respect to mucosal, maternal placenta barrier, and the protective role of lactoferrin in defense against the virus. And finally, they note that fetal affects related to prolonged placental inflammation may result in abnormal brain development including possible dysfunction and behavioral disorders.</td>
<td>The authors present an extensive review of the pathobiology of SARS-CoV-2 infections in the human host and specifically during pregnancy with emphasis on the multiple advantages this virus has with respect to overall virulence over human defenses. They detail the maternal and placental defenses against this virus during a COVID-19 pregnancy. And, due to concerns of the prolonged inflammation and cytokine storms seen with infections, they recommend close neurological follow-up of infants born to mothers with COVID-19 during pregnancy.</td>
<td>Naidu Ms PharmD SAG, Clemens DrPH Fift Cfs Fasn Facn Cns Fiafsf RA, Pressman Md Ms Facn P, Zaigham BSc Md PhD M, Kadkhoda PhD Sm Ascp D Abmm D Abml K, Davies PhD Dsc Mae Frcp Frcps Fls Fri Kja, Naidu PhD Facn Fls Fissvd As. COVID-19 during Pregnancy and Postpartum. J Diet Suppl. 2020 Nov 8:1-28. doi: 10.1080/19390211.2020.1834049. Epub ahead of print. PMID: 33164601.</td>
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<td>coronavirus infections; female; infant; lactoferrin; pregnancy</td>
<td>8-Nov-20</td>
<td>COVID-19 during Pregnancy and Postpartum: Antiviral Spectrum of Maternal Lactoferrin in Fetal and Neonatal Defense</td>
<td>Journal of Dietary Supplements</td>
<td>Review</td>
<td>This review explores the containment of SARS-CoV-2 infection in pregnancies and the risk of vertical transmission of virus from mother-to-fetus. Most pregnant patients with COVID-19 showed mild to moderate COVID-19 pneumonia with no pregnancy loss and no congenital transmission of the virus; however, an increase in hypoxia-induced preterm deliveries was apparent. The breastmilk of several mothers with COVID-19 tested negative for the virus. Lactoferrin (LF) is a potent antiviral iron-binding protein present in the maternal-fetal interface. In concert with immune co-factors, maternal-LF modulates chemokine release and lymphocyte migration and amplify host defense during pregnancy. LF levels during pregnancy may resolve hypertension via down-regulation of ACE2 and may consequently limit the membrane receptor access to SARS-CoV-2 for cellular entry. Furthermore, an LF-derived peptide (LRPVAA) has been shown to block ACE receptor activity in vitro. LF may also reduce viral docking and entry into host cells and limit the early phase of SARS-CoV-2 infection. The authors suggest that increased understanding of LF and other soluble mammalian milk-derived innate antiviral factors may provide insights to reduce co-morbidities of SARS-CoV-2 infection and may lead to the development of effective nutraceutical supplements.</td>
<td>This review explores the containment of SARS-CoV-2 infection in pregnancies and the risk of vertical transmission of virus from mother-to-fetus. The authors suggest that increased understanding of soluble mammalian milk-derived innate antiviral factors may lead to the development of effective nutraceutical supplements to reduce SARS-CoV-2 infection and co-morbidities.</td>
<td>Naidu SAG, Clemens RA, Pressman P, et al. COVID-19 during Pregnancy and Postpartum: Antiviral Spectrum of Maternal Lactoferrin in Fetal and Neonatal Defense. J Diet Suppl. 2020;1-37. doi:10.1080/19390211.2020.1834047</td>
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<td>COVID-19, lung ultrasound, pediatric, Spain, pulmonary</td>
<td>7-Nov-20</td>
<td>Lung Ultrasound for Evaluation of COVID-19 in Children</td>
<td>Archivos de Bronconeumología</td>
<td>Scientific Letter</td>
<td>In this letter, the authors address the usage of point-of-care lung ultrasound (LUS), to assess pulmonary involvement in children with symptoms possibly due to SARS-CoV-2 infection. The authors conducted a prospective observational study in the pediatrics department of a tertiary hospital in Madrid, Spain from April-June 2020. LUS’s were performed &lt; 24 hours of admission by 4 pediatricians with ultrasonography experience. Patients included in the study (n=20, median age=5.2 years [IQR 2.9-11.4], 65% male) presented with fever (80%), cough (55%), and shortness of breath (40%). SARS-CoV-2 infection was confirmed in 50% of the patients by RT-PCR (42%) or a positive serology (8%), with an alternate etiology being found in two cases (mycoplasma and metapneumovirus). All but one patient had chest X-ray abnormalities. Ultrasound abnormalities were bilateral in 75% of the cases in both the confirmed and unconfirmed COVID-19 groups. Pleural irregularities were seen in 70% of the cases, and consolidations in 30% of them, with no difference between groups. None of the ultrasound findings showed a high sensitivity for COVID-19, with no particular pattern being detected. The accuracy of point of care thorax ultrasound was determined to be comparable to X-rays to detect lung abnormalities in SARS-CoV-2 infection.</td>
<td>The authors address the usage of point-of-care lung ultrasound to detect pulmonary involvement in children with symptomology reflective of COVID-19. They determined that in isolation, none of the ultrasound findings displayed a high sensitivity for COVID-19, with its accuracy being comparable to X-rays for detecting lung abnormalities in SARS-CoV-2 infection.</td>
<td>Talía Sainz, Clara Udaondo, Ana Méndez-Echevarría, Cristina Calvo. Lung Ultrasound for Evaluation of COVID-19 in Children, Archivos de Bronconeumología, 2020,</td>
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<td>Non-operative treatment, acute uncomplicated appendicitis, pediatric, children, pediatric surgeons, South Asia, Bangladesh, India, Pakistan, Nepal</td>
<td>7-Nov-20</td>
<td>Management of Acute Appendicitis in Children: Takeaway from Coronavirus Disease-2019, a Perspective of Pediatric Surgeons from South Asia</td>
<td>medRxiv</td>
<td>Pre-print (not peer reviewed)</td>
<td>Owing to the effects of the COVID-19 pandemic on healthcare, the practice of non-operative treatment (NOT) in pediatric acute uncomplicated appendicitis generally increased by necessity and may, in a post-COVID world, change surgeons' perceptions of NOT. This study aimed to determine whether the use of NOT has increased in South Asia during the pandemic and whether these levels of practice would be sustained after the pandemic subsides. A survey was conducted on pediatric surgeons in South Asia, particularly Bangladesh, India, Pakistan, and Nepal, regarding their position, institute, country, the number of appendicitis cases managed, and their mode of treatment between identical periods in 2019 and 2020 (April 1 to August 31). A total of 134 responses were collected. There was a significant increase in the percentage of appendicitis treated non-operatively in 2020 compared to the same period in 2019 (P&lt;0.0001), although no effect was observed when grouped by country or institute. When grouped by position, senior surgeons increased the practice of NOT the most, while junior surgeons reported the least change. Only professors would be inclined to maintain the COVID-19 level of NOT practice after the pandemic (P=0.037).</td>
<td>This study determined the effect of the COVID-19 pandemic on the non-operative treatment (NOT) for pediatric acute uncomplicated appendicitis in South Asia, suggesting that the practice of NOT increased, especially by senior surgeons, and only professors consider maintaining this level of practice after the pandemic.</td>
<td>Hannan MJ, Farveen MK, Hoque MM, et al. Management of Acute Appendicitis in Children during Coronavirus Disease-2019, a Perspective of Pediatric Surgeons from South Asia. medRxiv 2020.10.27.20220442; doi: <a href="https://doi.org/10.1101/2020.10.27.20220442">https://doi.org/10.1101/2020.10.27.20220442</a></td>
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<td>SARS-CoV-2, COVID-19, Pediatric Multisystem Inflammatory Syndrome (PMIS), MIS-C, Myocardial dysfunction, cardiac, congenital heart disease, myocarditis, arrhythmias, Kawasaki's disease</td>
<td>6-Nov-20</td>
<td>Cardiovascular impact of COVID-19 with a focus on children: A systematic review</td>
<td>World Journal of Clinical Cases</td>
<td>Literature review</td>
<td>The authors performed a comprehensive literature review of pediatric COVID-19 articles to summarize the current knowledge about the potential cardiovascular (CV) involvement and Pediatric Multisystem Inflammatory Syndrome temporally associated with COVID-19 (PMIS). They searched the PubMed and MEDLINE databases and other online sources for pertinent English language articles published between January 1 to July 31, 2020, and included 193 articles in their analysis. For PMIS, the authors reviewed 16 articles (each with &gt; 10 patients per study and complete CV data) to provide a meta-analysis of 688 PMIS cases (74% previously healthy, 57% male, mean age of 9 years). Patients with PMIS frequently presented with cardiogenic shock (53%), ECG alterations (27%), myocardial dysfunction (52%), and coronary artery dilation (15%). Most cases required PICU admission (75%) and inotropic support (57%), with the rare need for extracorporeal membrane oxygenation (4%). Almost all of these children wholly recovered in a few days, although rare deaths have been reported (2%). Of note, pediatric patients with pre-existing CV disease or PMIS accounted for 18% and 12% of all pediatric deaths associated with COVID-19. The authors also discuss the management of different cardiac conditions based on current guidelines and expert panel recommendations.</td>
<td>The authors present a comprehensive literature review and meta-analysis of cardiovascular (CV) involvement and Pediatric multisystemic inflammatory syndrome temporally associated with COVID-19 (PMIS) in pediatric patients with COVID-19. They also discuss the management of different cardiac conditions based on current guidelines and expert panel recommendations.</td>
<td>Rodriguez-Gonzalez M, Castellano-Martinez A, Cascales-Poyatos HM, Perez-Reviriego AA. Cardiovascular impact of COVID-19 with a focus on children: A systematic review. World J Clin Cases. 2020;8(21):5250-5283. doi:10.12998/wjcc.v8.i21.5250</td>
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<td>IVF, infertility, fertility clinic,</td>
<td>6-Nov-20</td>
<td>Anxieties and apprehensions</td>
<td>International Journal of Research</td>
<td>Original Research</td>
<td>In this commentary from a fertility clinic in India, the authors discuss adaptations their clinic has made during the COVID-19 pandemic. The authors present a comprehensive literature review and meta-analysis of the impact of COVID-19 on IVF treatment and fertility outcomes. They discuss the challenges faced by fertility clinics during the pandemic, including changes in patient behavior, the impact of lockdowns, and the need for remote consultations. They also review the evidence on the safety and efficacy of IVF treatment during the COVID-19 pandemic.</td>
<td>This commentary and cross-sectional study from</td>
<td>Gupta M, Jaiswal P, Banswal R, et al. Anxieties and apprehensions during the COVID-19 pandemic: A commentary from a fertility clinic in India. J Obstet Gynaecol India. 2020;70(3):222-227.</td>
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<td>SARS-CoV-2, COVID-19, India</td>
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<td>among women waiting for fertility treatments during the COVID-19 pandemic</td>
<td>Gynaecology and Obstetrics</td>
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<td>pandemic, including how to triage patients awaiting infertility treatment, and a cross-sectional study analyzing anxieties their patients are expressing. Teleconsultation services began in May 2020, and in-person visits resumed in June 2020; however, fertility treatments have paused due to the health system prioritizing pandemic management. The authors conducted a cross-sectional study to analyze their patients’ (n=170) concerns during the pandemic. Patient anxieties included losing 1 egg per month and failing to conceive each cycle (83.5%), especially in those over 30 years old, and declining chances of successful in-vitro fertilization with advancing age (86%). Despite worries about the higher risk of SARS-CoV-2 infection if they were to conceive during the pandemic (59%) and financial constraints due to lockdown (57%), 90% of respondents were worried about delays and wanted immediate resumption of their treatment. Infertility and forced delays in treatment were more stressful for women than contracting SARS-CoV-2, reflecting societal pressures and social stigmas associated with infertility in India. The authors include a table to help other clinics make triage decisions when treatment resumes.</td>
<td>a fertility clinic in India found that patient concerns during the COVID-19 pandemic included losing 1 egg per ovulation cycle during treatment delays and decreasing chances of successful in-vitro fertilization with age. The authors also discuss adaptations their clinic has made, and they include a table to assist with triage decisions.</td>
<td>among women waiting for fertility treatments during the COVID-19 pandemic. Int J Gynaecol Obstet. 2020;10.1002/ijgo.13468. doi:10.1002/ijgo.13468</td>
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<td>mental health; COVID-19; support; financial hardship</td>
<td>6-Nov-20</td>
<td>Conclusion for Special Issue on COVID-19: How can we better protect the mental health of children in this current global environment?</td>
<td>Child Abuse &amp; Neglect</td>
<td>Opinion (Special Issue)</td>
<td>Children have mostly been spared severe disease effects of SARS-CoV-2 infection, but have instead dealt with mental and emotional hardship throughout the COVID-19 pandemic. Previous pandemics like SARS and Ebola included increased rates of child abuse, neglect, and exploitation. However, the effect of prolonged pandemics like the COVID-19 pandemic on children’s mental health has not been thoroughly studied. The authors of this piece highlight the importance of researching the effects of social distancing, quarantines, and isolation on children’s mental health, and of subsequently identifying approaches to build resiliency. They especially emphasize this importance among already marginalized populations that bear the brunt of the most negative effects of school and business closures, limited resource allocation, lack of healthcare access, and higher levels of poverty and financial hardship. The authors argue that this research will help protect children from mental health struggles during current and future pandemics.</td>
<td>The authors of this opinion piece highlight the lack of research on the mental health impacts of prolonged social distancing, isolation, and quarantines in children during the COVID-19 pandemic. They emphasize the need for research on how to build resiliency in children facing school and business closures, lack of healthcare access, poverty, and financial hardship, and how to protect children against worsening mental health during pandemics.</td>
<td>Tummala P, Muhammad T. Conclusion for Special Issue on COVID-19: How can we better protect the mental health of children in this current global environment? Child Abuse Negl. 2020;10.1080. doi:10.1016/j.chiabu.2020.10480.8</td>
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<td>Africa; COVID-19; Hunger; livelihoods; LMICs; excess deaths</td>
<td>6-Nov-20</td>
<td>A Crisis within a Crisis: COVID-19 and Hunger in African Children</td>
<td>American Journal of Tropical Medicine and Hygiene</td>
<td>Perspective</td>
<td>The COVID-19 pandemic has led to strategies such as physical distancing, school closures, trade restrictions, and country lockdowns, all to curb the spread of SARS-CoV-2. These measures have significantly increased food insecurity by affecting the production and sales of nutritional, affordable food products, which has led to millions of families relying on nutrient-poor alternatives. Furthermore, travel restrictions have limited The COVID-19 pandemic has led to increases in food insecurities in low- and middle-income countries (LMICs), particularly sub-Saharan Africa and South Asia. Access to nutritious,</td>
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<td>Abovode AT, Ogunsola SO, Adeyemo AO. A Crisis within a Crisis: COVID-19 and Hunger in African Children [published online ahead of print, 2020 Nov 6]. Am J Trop Med Hyg.</td>
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<td>humanitarian responses and are eroding access to essential and often life-saving nutritional services. Modeling exercises have estimated that wasting could increase by 10-50% with 40,000-2 million excess child deaths in low- and middle-income countries (LMICs). It is also estimated that 80% of additional wasting of children &lt; 5 years old during the first 12 months of the pandemic will be experienced by children in sub-Saharan Africa and South Asia. UNICEF estimates US$2.4 billion is urgently needed to protect these children and prevent excess loss of lives. The World Food Programme estimates that the number of people in LMICs facing acute food insecurity will double to 265 million by the end of 2020. The authors recommend 5 actions be taken immediately: provide access to nutritious, safe, and affordable diets, improve maternal and child nutrition through pregnancy and infancy, reactivate early detection and treatment of wasting programs, maintain safe school meal programs for vulnerable children through alternative routes, safeguard access to nutritious diets and essential services for the poorest households. The authors also stress the importance of protecting, promoting, and supporting breastfeeding of children aged 0–23 months.</td>
<td>affordable diets, improving maternal and early child nutrition programs (including the promotion and support of breastfeeding), reactivating early detection and treatment of wasting programs, maintaining school meal programs, and safeguarding nutritious diets for the most vulnerable households must be re instituted to avert an excess of 40,000-2 million child deaths in LMICs.</td>
<td>2020;10.4269/ajtmh.20-1213. doi:10.4269/ajtmh.20-1213</td>
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<td>COVID-19, obesity, lockdown, pediatric obesity</td>
<td>6-Nov-20</td>
<td>COVID-19: a one-way ticket to a global childhood obesity crisis?</td>
<td>Journal of Diabetes &amp; Metabolic Disorders</td>
<td>Review Article</td>
<td>In this article, the authors highlight factors, such as sedentary lifestyle, school closures, and increase in screen time and their effect on childhood obesity. Abrupt school closures and lockdowns/ stay-at-home orders caused significant amounts of stress in children, causing a higher intake of high-calorie foods. School closures were also associated with lower exercise due to a halt in physical education classes, as well as an increase in screen time due to virtual learning and entertainment means. Thus, the authors recommend achieving a balance between screen time and physical activity with some initiatives for physical activities being organized. Early school closures, to some degree, mimicked &quot;summer holidays&quot;, during which children tend to put on weight at a higher rate contributing to the obesity epidemic. Disruptions in antenatal and routine checkups for pregnant women also subjected them to stress-causing an increase in caloric intake and a sedentary lifestyle, which may have deterrent effects on the fetus. The authors recommend healthcare and educational institutes provide adequate support and management systems to deal with childhood obesity through education and advocacy means, as well as paying special attention to pregnant women.</td>
<td>In this review, the authors discuss the possible exacerbation of obesity in children due to the restrictions and closures as a consequence of COVID-19. Factors causing worsening obesity include sedentary lifestyle, little to no exercise, stress-eating, and increased screen time. They conclude by emphasizing the importance of making childhood obesity a priority and tackling the challenge via individual and collective action.</td>
<td>Cuschieri S, Grech S. COVID-19: a one-way ticket to a global childhood obesity crisis? J Diabetes Metab Disord. 2020 Nov 6:1-4. doi: 10.1007/s40200-020-00682-2. Epub ahead of print. PMID: 33173756; PMCID: PMC7644278.</td>
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### Key Terms
- COVID-19
- Twitter; big data
- family violence
- infodemiology
- infoveillance
- machine learning.

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<th>Date Published</th>
<th>Title</th>
<th>Journal / Source</th>
<th>Type of Publication</th>
<th>Summary &amp; Key Points</th>
<th>Specific Observations</th>
<th>Full Citation</th>
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<tr>
<td>6-Nov-20</td>
<td>The Hidden Pandemic of Family Violence During COVID-19: Unsupervised Learning of Tweets</td>
<td>Journal of Medical Internet Research</td>
<td>Original Research</td>
<td>This observational study analyzed public discourse on family violence amidst the COVID-19 pandemic on the Twitter social media platform. 1,015,874 English-language tweets from Twitter posted between April and July 2020 were identified from COVID-19- and family violence-associated hashtags and extracted using Python code. Latent Dirichlet Allocation machine learning, a statistical model that associates topics and themes with text, was used to analyze the data. 9 overarching themes were extracted from the tweets: increased vulnerability, types of family violence including child abuse, forms of family violence such as physical aggression, risk factors linked to family violence, victims of family violence, social services for family violence, law enforcement response, social movements and awareness, and domestic violence-related news. A table in the article provides 33 topics within the themes, associated terms, and tweet examples. Women and children were identified as populations particularly vulnerable to family violence amidst the COVID-19 pandemic. The authors suggest that these themes and topics can be used to direct policy and programs in preparation for future outbreaks.</td>
<td>The authors of this study extracted tweets posted on Twitter concerning family violence and the COVID-19 pandemic. Machine learning was used to identify topics related to family violence and the COVID-19 pandemic. Women and children were noted as populations particularly vulnerable to family violence during the COVID-19 pandemic. The authors indicated that the topics identified could be useful in structuring policies and programs related to family violence during outbreaks.</td>
<td>Xue J, Chen J, Chen C, Hu R, Zhu T. The Hidden Pandemic of Family Violence During COVID-19: Unsupervised Learning of Tweets. J Med Internet Res. 2020;22(11):e24361. Published 2020 Nov 6. doi:10.2196/24361</td>
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<td>6-Nov-20</td>
<td>Severe Acute Respiratory Syndrome due to COVID-19 among children and adolescents in Brazil: profile of deaths and hospital lethality</td>
<td>Epidemiol. Serv.Saude</td>
<td>Research Note</td>
<td>The authors conducted a cross-sectional study of the lethality of COVID-19-associated Severe Acute Respiratory Syndrome (SARS) in hospitalized children (0-19 years old) with laboratory confirmed COVID-19 in Brazil during the COVID-19 pandemic in 2020. [the authors seem to refer to SARS-CoV-2 in their text when noting SARS]. Data were retrieved from SARS notification forms in the Epidemiological Surveillance Information System (SIVEP-Gripe), week 1-38, 2020. Demographic data included: age, sex, race, zone of residence, and geographical macro-regions. Of the 6016 hospitalizations, 661 children died. Lethality was greatest in children &lt; 1 year of age (14.2%), females (9.7%), residence in rural areas (18.1%), of indigenous race (23%) and residence in the Northeast region (15.4%). The authors note that other countries have also seen an increased mortality in infants with COVID-19 &lt; 1 year of age. They discuss the possible causes contributing to the other vulnerable groups including racial and ethnic disparities regardless of age, barriers to health services, malnutrition, quality of health care provision, and social vulnerability. They stress the importance of improving pediatric services with the adoption of appropriate measures for these high-risk groups.</td>
<td>The authors identified multiple demographic factors that were associated with increased mortality rates in hospitalized children with COVID-19 including age &lt; 1-year, female sex, residence in rural areas or from the Northeast region, and those children of indigenous race. They hope to use the information gathered to improve pediatric services with particular attention to these vulnerable groups.</td>
<td>Hillesheim D, Tomasi YT, Figueirô TH, Paiva KM. Severe Acute Respiratory Syndrome due to COVID-19 among children and adolescents in Brazil: profile of deaths and hospital lethality as at Epidemiological Week 38, 2020. Epidemiol Serv Saude. 2020 Nov 6;29(5):e2020644. English, Portuguese. doi: 10.1590/S1679-49742020000500021. PMID: 33175011.</td>
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<td>antibody reactivity, Canada, coronaviruses</td>
<td>6-Nov-20</td>
<td>Antibody reactivity to SARS-CoV-2 is common in unexposed adults and infants under 6 months</td>
<td>medRxiv</td>
<td>Pre-print (not peer-reviewed)</td>
<td>The authors of this paper investigated pre-existing antibody reactivity against SARS-CoV-2 in un-exposed people as a potentially important consideration for COVID-19 severity and vaccine response. They measured IgG antibodies against multiple SARS-CoV-2 antigens, SARS-CoV and other circulating coronavirus spike proteins using a highly sensitive multiplex assay. A total of 276 adults from the Vancouver area, Canada from May 17 - June 19, 2020 were assayed for SARS-CoV-2 spike-specific antibodies (IgG/M/A). Results indicated that the seroprevalence of SARS-CoV-2 exposure, adjusted for false-positive and false-negative test results, was 0.60% in this specific cohort. High antibody reactivity to circulating endemic coronaviruses was observed in all adults and was ~10-fold lower in infants &lt;6 months. Additionally, reactivity in infants decreased more than 50-fold ~8 months later. The antibody reactivity correlated with titers against circulating coronaviruses, but not with age, sex, or whether adults were healthcare workers. The authors conclude that a majority of un-exposed adults have pre-existing antibody reactivity against SARS-CoV-2. They state that the lack of similar antibody reactivity in infants, where maternal antibodies have waned, suggests that this cross-reactivity is acquired.</td>
<td>The authors of this paper assessed the pre-existing antibody reactivity against SARS-CoV-2 in un-exposed people and concluded that a majority of un-exposed individuals do have pre-existing antibody reactivity against SARS-CoV-2 and the lack of similar antibody reactivity in infants, suggests that this cross-reactivity is acquired</td>
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<td>COVID-19, SARS-CoV-2, Encephalopathy, Postpartum, Hypertension, Cerebral Edema, Posterior reversible encephalopathy syndrome</td>
<td>6-Nov-20</td>
<td>Postpartum Consciousness Disturbance: Can COVID-19 Cause Posterior Reversible Encephalopathy Syndrome?</td>
<td>Revista Española de Anestesiología y Reanimación</td>
<td>Case Report</td>
<td>The authors describe a 24-year-old pregnant woman with COVID-19 in Spain who developed posterior reversible encephalopathy syndrome (PRES) after delivery during the COVID-19 pandemic in 2020. This previously healthy woman was admitted with bilateral pneumonia with a positive PCR for SARS-CoV-2. She has treated with hydroxychloroquine, azithromycin, ceftriaxone, lopinavir/ritonavir, and enoxaparin. She developed worsening hypoxemia and dyspnea and underwent urgent C-section with intubation and general anesthesia due to her inability to lay flat. She was extubated 20 hours after delivery and was noted to have an altered mental state. CT and CT-angiography were normal and spinal tests were non-specific (although no SARS-CoV-2 PCR was performed on the cerebral spinal fluid). She developed additional neurological symptoms, was started on steroids, required reintubation, and was given levetiracetam as well. She developed a worsening pro-inflammatory state and tocilizumab was started. Brain MRI revealed PRES. She developed hypertension 11 days after delivery and was treated with antihypertension agents. She was discharged home on hospital day 18 on enalapril, amlopidine, and levetiracetam. She is recovering at home. The authors note atypical features of PRES in this clinical course and that COVID-19 can also cause hypertension, cerebral edema, encephalitis, and hypertensive encephalopathy.</td>
<td>The authors present the case details of a 24-year-old pregnant women with COVID-19 who in the postpartum period developed PRES with subsequent hypertension or possibly SARS-CoV-2 induced encephalopathy, cerebral edema, and hypertension.</td>
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<td>COVID-19; children; hospitalization; characteristics; Argentina</td>
<td>6-Nov-20</td>
<td><strong>Children hospitalized for COVID-19 during the first winter of the pandemic in Buenos Aires, Argentina</strong></td>
<td>medRxiv</td>
<td>Pre-print (not peer reviewed)</td>
<td>The authors aimed to describe the characteristics of pediatric patients hospitalized for SARS-CoV-2 in a tertiary pediatric hospital from 26 April-31 October 2020 in Buenos Aires, Argentina. Of the 578 hospitalized COVID-19 cases positively identified by RT-PCR testing of nasopharyngeal secretions (median age = 4.2 years, range = 0.7-11.2 years), 54.5% were male, 23.1% lived in a poor neighborhood and 83% had a history of close contact with a confirmed case. 30.8% were asymptomatic, while 60.4%, 7.4% and 1.4% had mild, moderate and severe symptoms respectively. The most frequent symptom was fever (51.7%), followed by sore throat (12.2%) and cough (10%). The time of symptoms onset was 1-3 days. 35.3% had a previous or concomitant diagnosis of other disease, asthma being the most frequent (n = 49). Of the severe cases, only 1 required assisted ventilation, and 2 presented with SARS-CoV-2-related multisystemic inflammatory syndrome (MIS-C). 1 patient with COVID 19 died, due to causes other than the disease, since he was in end-of-life care. All patients were discharged without complications (with phone follow-up), except those whose comorbidity prevented it.</td>
<td>The authors describe the characteristics of pediatric patients hospitalized for COVID-19 in a tertiary pediatric hospital from 26 April-31 October 2020 in Buenos Aires, Argentina. Most patients presented their disease as mild or asymptomatic, supporting the idea that the disease is less severe in the pediatric population.</td>
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<td>COVID-19; children; parental perceptions; United Kingdom</td>
<td>6-Nov-20</td>
<td><strong>Parental perceptions of COVID-19-like illness in their children</strong></td>
<td>medRxiv</td>
<td>Pre-print (not peer reviewed)</td>
<td>The authors describe a qualitative study to explore parental perceptions of COVID-19-like symptoms in their child and attitudes towards isolation in the household when unwell in the United Kingdom. 30 semi-structured telephone interviews were conducted with parents (66.7% mothers, 33.3% fathers) of children aged 4-18 years between 15-21 April 2020. Results were analyzed using an inductive approach to thematic analysis. The following themes related to symptom attribution were found: “normalizing symptoms”, “err on the side of caution”, “experience of temperature” and “symptoms not normal for us”. Parents generally were more likely to attribute symptoms to COVID-19 if a temperature was present or the symptoms were perceived as unusual for their family. The following themes for self-isolation were found: “difficult to prevent contact with children”, “isolation would be no different to lockdown life”, “ability to get food supplies” and “limited space”. Parents believed they would find isolation within the household difficult or impossible if they had dependent children, had limited space or could not shop for groceries. These findings highlight complexities in symptom perception, attribution, and household isolation, which may be overcome by providing better guidance on what symptoms require action and how to prevent infection within the household and by supporting families with grocery shopping through a potential future wave.</td>
<td>The authors describe a qualitative study to explore parental perceptions of COVID-19-like symptoms in their child and attitudes towards isolation in the household when unwell in the United Kingdom. Parents generally were more likely to attribute unusual symptoms to COVID-19 but found isolation within the household to be difficult/impossible if they had dependent children, had limited space or could not shop for groceries.</td>
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<td>ACE2 receptor, COVID-19 pathogenesis, immune response, serological testing, inflammation, vertical transmission</td>
<td>6-Nov-20</td>
<td>COVID-19 Susceptibility in Pregnancy: Immune/Inflammatory Considerations, the role of Placental ACE-2 and Research Considerations</td>
<td>Reproductive Biology</td>
<td>Review Report</td>
<td>In this review, the authors explore the physiological and immune/inflammatory considerations that may explain the heightened susceptibility of pregnant women to SARS-CoV-2 infection and COVID-19 disease severity through an analysis of existing research. The authors discuss shifts in pregnant women’s immunological profiles (such as cytokine expression) throughout gestation that are designed to promote fetal protection but may heighten maternal vulnerability to SARS-CoV-2 infection. The authors also note the need for further studies to highlight the usefulness of serological studies of SARS-CoV-2 infection in pregnant women and that molecular testing may better identify SARS-CoV-2 infection in this population. Several articles found conflicting evidence on the abundance of ACE2 in the placenta, thus casting doubt on evidence for the placenta as a likely pathway for vertical transmission of SARS-CoV-2 from mother to child. The authors conclude that significantly more data on SARS-CoV-2 infection in pregnant women is required, and clinical trials including pregnant women must be performed to ensure clinical guidance is applicable to them.</td>
<td>In this review, the authors explore immunological considerations that may explain the heightened susceptibility of pregnant women to SARS-CoV-2 infection and COVID-19 disease severity. They find conflicting evidence regarding abundance of the placental ACE2 receptor, subsequent possibility of vertical transmission, and serological vs. molecular testing for pregnant women.</td>
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<td>Healthcare access; children with developmental disabilities; telehealth; health disparities; COVID-19</td>
<td>6-Nov-20</td>
<td>Adaptive innovations to provide services to children with developmental disabilities during the COVID-19 pandemic</td>
<td>Journal of Pediatrics and Child Health</td>
<td>Opinion</td>
<td>This opinion piece summarizes the disparities in healthcare access among children with developmental disabilities, heightened due to school closures, self-isolation, and financial losses. COVID-19 has disrupted children’s access to essential child health and development services, the loss of which has been compounded by school closures, educational format changes, self-isolation, and financial losses. The in-accessibility of these key prevention and health promotion resources will especially impact children from disadvantaged backgrounds, and children with developmental and other disabilities. The authors argue that innovative care delivery models such as telehealth must be prioritized both during and after the current pandemic to ensure children with developmental disabilities do not fall behind in their health check-ups. Through innovative delivery models and related healthcare telehealth subsidies, these children will be able to use in-home video services and telehealth options for developmental assessment.</td>
<td>This opinion piece summarizes the disparities in healthcare access among children with developmental disabilities. To prevent these children from falling behind in their health check-ups, innovative care delivery models like telehealth visits must be prioritized and subsidized by healthcare agencies.</td>
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<td>Mental health anxiety, depression quarantine, adolescents, home confinement, Greece</td>
<td>6-Nov-20</td>
<td>Adding stress to the stressed: Senior high school students’ mental health amidst the COVID-19 nationwide</td>
<td>Psychiatry Research</td>
<td>Original Article</td>
<td>The present study reports the results from 442 senior high school students in Greece [age range not specified] who completed an online survey (16 April – 30 April, 2020) concerning the COVID-19 lockdown’s impact on their mental health, using the Patient Health Questionnaire 9 (PHQ-9) and the Generalized Anxiety Disorder 7 (GAD-7) to screen for depression and anxiety, respectively. Overall, compared to one month before the lockdown, the rate of the positive screen for depression (PHQ-9 score ≥ 11) significantly increased from 48.5% to 63.8%. The present study reports the results from 442 senior high school students in Greece concerning the COVID-19 lockdown impact on their mental health, suggesting significant increases in the proportion of those</td>
<td>Giannopoulou Ioanna, Efstathiou Vasiliki, Triantafillou Georgia, et al. Adding stress to the stressed: Senior high school students’ mental health amidst the COVID-19 nationwide lockdown in Greece. Psychiatry Research, 2020, 113560, ISSN 0165-1781,</td>
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| Key Terms                                      | Date Published | Title                                                                 | Journal / Source                               | Type of Publication | Summary & Key Points                                                                                                                                                                                                                                                                                                                                 | Specific Observations                                                                                                                                                                                                                   | Full Citation                                                                                                                                                                                                                           |
|------------------------------------------------|----------------|-----------------------------------------------------------------------|-----------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| lockdown in Greece                            |                | Reactivation of Elective Surgery During SARS-CoV-2 Pandemic: Pediatric Medically Necessary Time-Sensitive Score Implementation at a High-Complexity Pediatric Hospital | Journal of American College of Surgery         | Letter              | During the mitigation phase of the SARS-CoV-2 pandemic, low-risk procedures, with potential shorter hospital lengths of stay and ICU occupation, have been prioritized. The authors applied the pediatric Medically Necessary Time Sensitive (pMeNTS) prioritization process score in a pediatric surgery department in Colombia to identify a cut-off value for selecting elective surgery candidates. According to the pMeNTS system, a lower score is associated with favorable risk and favorable resource use, whereas a high score corresponds to excessive risk and resource use. A retrospective review of 107 clinical records (54 scheduled procedures and 53 deferred) from May-June 2020 was performed. The average ages for each group were 8.7 years (SD 6.5 years) for scheduled and 7.4 years (SD 4.2 years) for deferred procedures. The pMeNTS score was calculated for scheduled and deferred patients, and the results were compared with lower and higher cut-off pMeNTS values proposed in a previous study (42 and 49 points, respectively). These authors found a global mean score of 47 points (SD 6.52) for scheduled cases and 46 points (SD 5.46) for deferred cases. The authors concluded that the tool was not substantially useful in this setting. | The authors applied the pediatric Medically Necessary Time Sensitive (pMeNTS) prioritization process score in a pediatric surgery department in Colombia to 107 clinical records to identify a cut-off value for selecting elective surgery candidates. The authors concluded that the tool was not substantially useful in this setting. | https://doi.org/10.1016/j.jamcollsurg.2020.113560. |
| COVID-19, pediatric, surgery, reactivation, Colombia | 5-Nov-20       | Features Discriminating COVID-19 From Community-Acquired Pneumonia in Pediatric Patients | Frontiers in Pediatrics | Original Research   | The authors discuss the clinical, laboratory, and chest computed tomography (CT) findings in pediatric patients between 18 days to 15 years old with COVID-19 and community-acquired pneumonia (CAP). They retrospectively analyzed and compared 80 COVID-19 patients from January 21 to March 14, 2020, to 95 patients with mycoplasma pneumonia and 50 patients with other viral pneumonia from November 1 to December 31, 2019, at Wuhan Children’s Hospital, China. The authors found that most COVID-19 and mycoplasma pneumonia patients were > 6 years old (48.8 and 48.4%), while other viral pneumonia patients were mostly < 1-year-old (68%). Although clinical symptoms were similar between the three groups, fever, cough, and tachypnea were more common, whereas ground-glass opacity and higher alanine aminotransferase levels were more common in COVID-19 pediatric patients than in pediatric patients with community-acquired pneumonia. | This study showed that fever, cough, and tachypnea were less common, whereas ground-glass opacity and higher alanine aminotransferase levels were more common in COVID-19 pediatric patients than in pediatric patients with community-acquired pneumonia. | Guo Y, Xia W, Peng X, Shao J. Features Discriminating COVID-19 From Community-Acquired Pneumonia in Pediatric Patients. Front Pediatr. 2020;8:602083. Published 2020 Nov 5. doi:10.3389/fped.2020.602083 |
### Key Terms
- Lockdown
- COVID
- Physical activity, adolescent
- Ireland
- Tehran, Iran
- Pediatric surgery
- Intestinalis
- Pneumatosis

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<td>Pediatrics, pneumatosis intestinalis, pediatric surgery, Tehran, Iran</td>
<td>5-Nov-20</td>
<td>Protein losing enteropathy and pneumatosis intestinalis in a child with COVID-19 infection</td>
<td>Journal of Pediatric Surgery Case Reports</td>
<td>Case Report</td>
<td>This is a case of pneumatosis intestinalis in a child with COVID-19. A 6-year-old boy with severe abdominal pain was admitted to an emergency ward in Tehran, Iran with a history of fever, 9 days of diarrhea and recurrent vomiting. He was admitted to the pediatric surgery ward after surgical consultation to rule out acute appendicitis. The results of initial lab studies demonstrated leukocpenia and lymphopenia, and PCR for SARS-CoV-2 was positive. During admission, the patient's cough increased, and abdominal distention evolved accompanied by intractable vomiting. Abdominal and pelvic CT was then performed, which detected pneumatosis intestinalis in the ascending colon with dilatation in colon caliper. A miliary-like pattern of lung infiltrates was also reported. Stool exam revealed significant loss of protein despite normal pancreatic and enterocyte function. A high calprotectin also indicated inflammation in the large intestine. Due to concern for necrotizing enterocolitis, wide spectrum IV antibiotics were initiated (ceftriaxone 150 mg/kg/d + metronidazole 30 mg/kg/d for 14 days) along with parenteral nutrition. After 14 days patients slowly resumed oral feeding. All symptoms resolved except for the cough and the patient was discharged.</td>
<td>The authors present a case of a 6-year-old boy with COVID-19 who was diagnosed with pneumatosis intestinalis requiring 14 days of IV antibiotics and parenteral nutrition. The child returned to stable health and was discharged.</td>
<td>Rohani P, Karimi A, Tabatabaie SR, Khalili M, Sayyari A. Protein losing enteropathy and pneumatosis intestinalis in a child with COVID-19 infection. Journal of Pediatric Surgery Case Reports. 2020 Nov 5;64:101667.</td>
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<td>Ireland, adolescent, physical activity, COVID-19, lockdown</td>
<td>5-Nov-20</td>
<td>Barriers and facilitators to changes in adolescent physical activity during COVID-19</td>
<td>British Medical Journal (BMJ)</td>
<td>Original Research</td>
<td>This study examined how adolescent physical activity (PA) changed during COVID-19 school closures in Ireland, to identify the key barriers and facilitators for these changes during lockdown, and to prevent physical inactivity in future crises. Irish adolescents (N=1214; ages 12–18 years [no median given]) participated in an online cross-sectional study during April 2020. Adolescents reported they did less PA (50%), no change (30%) or did more PA during lockdown (20%). COVID-19 restrictions were both a barrier to and an opportunity for PA. The most-cited barriers to PA were &quot;coronavirus&quot; (restrictions due to COVID-19), cancellation of club training, and lack of time due to school work. Strong associations for doing more PA included participation in strengthening exercises at least three times in the past 7 days [ \text{Summary &amp; Key Points} ]</td>
<td>This study examined adolescent physical activity changes in Ireland during COVID-19 school closures. 50% of adolescents reported they did less physical activity during COVID-19 lockdown. Barriers and facilitators to physical activity are summarized. Parents, schools, public health officials, Ng K, Cooper J, McHale F, Clifford J, Woods C. Barriers and facilitators to changes in adolescent physical activity during COVID-19. BMU Open Sport Exerc Med. 2020;6(1):e000919. Published 2020 Nov 5. doi:10.1136/bmjsem-2020-000919.</td>
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<td>Pregnancy, depression, postpartum, Hong Kong, outpatient emotion, behavior</td>
<td>5-Nov-20</td>
<td>Psychological characteristics of parents in a Paediatric Outpatient during the SARS-CoV-2 Epidemic</td>
<td>Psychology, Health &amp; Medicine</td>
<td>Original Research</td>
<td>This is a descriptive study of parents’ psychological characteristics in a pediatric outpatient clinic in China from 26 January to 8 March 2020, during the SARS-CoV-2 outbreak. By analyzing parents’ psychological states, the study aimed to improve quality of medical care, reduce the occurrence of doctor-patient conflicts, protect children’s physical and mental health, and ensure a functional medical environment. The authors randomly selected and analyzed 18,000 family members who visited a fever clinic at one Chinese hospital. Participants included 10,346 women (57.5%), and 13,650 participants were &lt;50 years old (75.8%) (age range was not specified). Psychological status was assessed by a psychiatrist using the Hamilton scale. The authors found that 25.67% of respondents were anxious and exhibited various uncooperative behaviors: requesting earlier access to services (4.43%), refusing to transfer to the fever clinic (1.17%), and refusing lab testing (10.39%). Women exhibited more anxiety than males. People &gt; 50 years of age were more nervous and had more difficulty communicating, which the authors say may be related to slower thinking and hearing loss. The authors suggest that all health workers should grasp children’s and parents’ psychological needs and emotional responses during the COVID-19 pandemic. Understanding and responding to their needs will improve doctor-patient relationships by building trust and security, which is critical to maintaining effective treatment and diagnosis during the SARS-CoV-2 pandemic.</td>
<td>This is a descriptive study of parents’ psychological characteristics in a pediatric outpatient clinic in China from January to March 2020, during the COVID-19 outbreak. All health workers should identify children’s and parents’ psychological needs and understand their emotional responses, to improve relationships among health care staff and patients/families during the pandemic.</td>
<td>Li X, Wu X. Psychological characteristics of parents in a Paediatric Outpatient during the SARS-CoV-2 Epidemic [published online, 2020 Nov 17]. Psychol Health Med. 2020;1-5. doi:10.1080/13548506.2020.1849747</td>
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<td>Hong Kong, postpartum depression, pregnancy</td>
<td>5-Nov-20</td>
<td>Effect of COVID-19 on delivery plans and postnatal depression scores of pregnant women</td>
<td>Hong Kong Medical Journal</td>
<td>Original Research</td>
<td>The aim of this study was to investigate the effect of delivery plans’ restrictive measures following COVID-19 alert announcement in Hong Kong on the risk of postpartum depression. Restrictive measures included suspension of companionship during childbirth, and cancellation of prenatal exercises, antenatal talks, hospital tours, and postnatal classes. Postpartum depression was assessed using the Edinburgh Postpartum Depression Scale (EPDS). The EPDS consists of 10 questions with a maximum score of 30 and a depression cut-off of ≥10. Pregnancy data and the EPDS scores of women who delivered between the pre-alert period (January 1, 2019 - January 4, 2020) and post-alert period (January 5 - April 30, 2020) were compared in a tertiary university public hospital in Hong Kong. Results indicated a 13.1% reduction in the number of deliveries.</td>
<td>The authors of this paper examined the prevalence of post-natal depression in pregnant mothers in Hong Kong. They found an increased rate of post-natal depression as a possible consequence of delivery plans’ restrictive measures.</td>
<td>Hui PW, Ma G, Seto MTY, Cheung KW. Effect of COVID-19 on delivery plans and postnatal depression scores of pregnant women. Hong Kong Med J. 2020 Nov 5. doi:10.12809/hkmj208774.</td>
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### Key Terms

- UK, child health, mental health, educational disparities, school closures
- Spain, MIS-C, pediatric intensive care, myocardial injury

### Summary & Key Points

**UK, child health, mental health, educational disparities, school closures**

- **Date Published**: 5-Nov-20
- **Title**: Growing up in the shadow of COVID-19
- **Journal / Source**: The Lancet Child & Adolescent Health
- **Type of Publication**: Editorial
- **Specific Observations**: Although children and adolescents are less clinically vulnerable to COVID-19 than adults, the wider effects of COVID-19 policies in the UK - closures of schools, nurseries, outdoor play spaces, and community services - have disproportionately affected the young. In some areas of England, over half of the health visitors who support new parents and infants have been redeployed to COVID-19 services. 1/4 of students (roughly 2.5 million children in the UK) had no schooling or tutoring during COVID-19 lockdown; while 74% of those at private schools had full days of teaching, the proportion was only 38% for state school students. Preliminary results of a survey of 500 parents revealed that young children (aged 0–3 years) from disadvantaged backgrounds had less access to outdoor space and books, fewer enriching activities, and had more daily screen time than wealthier peers. In July 2020, a survey of 3570 participants aged 5–22 years found that 16% had a probable mental disorder, a sizeable increase from 11% in 2017. To mitigate the impact of this pandemic on child health, the authors recommend prioritizing early childhood interventions to regain months of missed social and educational development, mental health support in schools, catch-up vaccinations, social care for vulnerable families, funding to alleviate child poverty, and coordinated test-trace-isolate strategies.

**Spain, MIS-C, pediatric intensive care, myocardial injury**

- **Date Published**: 5-Nov-20
- **Title**: Shock and Myocardial Injury in Children With Multisystem Inflammatory Syndrome Associated With SARS-CoV-2 Infection: What We Know. Case Series and Review Article
- **Journal / Source**: Journal of Intensive Care Medicine
- **Type of Publication**: Case Studies and Review Article
- **Specific Observations**: This review aimed to describe the characteristics of shock and myocardial injury in children with confirmed or suspected COVID-19 during the SARS-CoV-2 pandemic in Spain, including clinical presentation, laboratory and imaging findings, treatment, disease course, and outcome. Data from retrospective case studies including all children (age 1 month-18 years) admitted to a pediatric ICU in Madrid, Spain, from March 15 - April 30, 2020 with suspected or confirmed SARS-CoV-2 infection and shock were collected. A total of 12 children were diagnosed with shock (ages 5-14 years). All required volume resuscitation, and 75% required vasoactive/inotropic support. Additionally, 4 patients showed cardiogenic shock, 8 were diagnosed with myocardial injury between January 1, 2019 and April 4, 2020. Additionally, a significantly higher proportion of women had EPDS scores of ≥ 10 1 day after delivery in the post-alert group than the pre-alert group (14.4% vs 11.9%; P<0.05), indicating increased rates of post-natal depression. The authors conclude that pregnant women reported more depressive symptoms in the postpartum period following COVID-19 alert announcement in Hong Kong. They suspect that the suspension of childbirth companionship may have altered the overall pregnancy experience.

### Full Citation


The authors of this paper provide an extensive literature review on the clinical presentations and disease progression of COVID-19. In addition, they present case studies of COVID-19 with resulting shock in young children (ages 5–14 years) in Spain and discuss Kawasaki disease and MIS-C.

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<tr>
<th>Key Terms</th>
<th>Date Published</th>
<th>Title</th>
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<th>Summary &amp; Key Points</th>
<th>Specific Observations</th>
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<tbody>
<tr>
<td>COVID-19; Childhood obesity; Diet; Obesogenic environment; SARS-CoV-2</td>
<td>5-Nov-20</td>
<td>The COVID-19 Pandemic: An Unprecedented Tragedy in the Battle Against Childhood Obesity</td>
<td>Clinical and Experimental Pediatrics</td>
<td>Review Article</td>
<td>The author applies findings from the literature to describe the factors contributing to the unprecedented obesogenic environment for children worldwide amidst the COVID-19 pandemic. These factors are categorized by the authors as physical, nutritional, and psychosocial, and include unfamiliar stressors, school closures, home confinement, less structure, poor diet, irregular sleep, and increased screen time. The authors note implications of the obesogenic environment and worsening childhood obesity, including habit formation and long-term obesity. After noting potential limitations, the authors propose that decision makers address the obesogenic environment in pandemic planning.</td>
<td>This review article characterizes the obesogenic environment created for children worldwide amidst the COVID-19 pandemic. The author notes physical, nutritional, and psychosocial contributing factors and potential implications.</td>
<td>Sorkz MA. The COVID-19 Pandemic: And Unprecedented Tragedy in the Battle Against Childhood Obesity [published online ahead of print, 2020 Nov 5]. Clin Exp Pediatr. 2020; 10.3345/cep.2020.01081</td>
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<tr>
<td>COVID-19; dynamic triaging; green zone; pregnancy; quality improvement; India</td>
<td>5-Nov-20</td>
<td>Dynamic Triaging Using Quality Improvement (QI) Methodology to Prevent the Admission of Asymptomatic COVID Positive Obstetric Patients [Free Access to Abstract Only]</td>
<td>Evaluation &amp; the Health Professions</td>
<td>Original Research</td>
<td>This study assessed the efficacy of a 4-week quality improvement intervention at a hospital in India, in June-July 2020. The project aimed to reduce admission of obstetric patients with asymptomatic SARS-CoV-2 infection to the &quot;green zone&quot; where patients without COVID-19 are admitted. An action team analyzed the problem via Fish Bone analysis and revealed that an inadequate triaging policy was primarily responsible for the inadvertent admission of positive patients to the green zone. The team then proposed ideas for changing the process, and analyzed these ideas using multiple Plan-Do-Study-Act cycles, in which proposed changes were rapidly identified and implemented, while outcomes were monitored. Final ideas generated through the process included revised testing strategies and the creation of &quot;gray zones&quot; for patients with pending SARS-CoV-2 results. Following the quality improvement initiative, admission of obstetric patients with asymptomatic COVID-19 to the green zone had decreased from 20% to 0% in the 4 weeks, and the number of health care workers testing positive for COVID-19 had decreased from 7.9% (40/502 workers) to 4.9% (23/462 workers). The authors conclude that quality improvement methods can produce effective strategies to prevent spread of COVID-19.</td>
<td>In order to reduce admissions of asymptomatic patients with SARS-CoV-2 infection to the COVID-19 negative zone of an obstetric unit, the authors planned a quality improvement initiative. 4 weeks following the implementation of Plan-Do-Study-Act cycles, admission of unsuspected COVID-19 positive patients to the COVID-19 negative zone decreased from 20% to 0%.</td>
<td>Puri M, Agrawal S, Singh A, et al. Dynamic Triaging Using Quality Improvement (QI) Methodology to Prevent the Admission of Asymptomatic COVID Positive Obstetric Patients [published online ahead of print, 2020 Nov 5]. Eval Health Prof. 2020;163278720971031.</td>
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<tr>
<td>Convalents plasma;</td>
<td>5-Nov-20</td>
<td>Rapid improvement of</td>
<td>International Journal of</td>
<td>Case Study</td>
<td>This case report details the June 2020 treatment of a 33-year-old SARS-CoV-2-infected pregnant woman (27 weeks gestation) in this case report details the treatment and use of</td>
<td>Magallanes-Garza GI, Valdez-Alatorre C, Dávila-González D, et</td>
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<td>Pregnancy; SARS-CoV-2; Mexico</td>
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<td>a critically ill obstetric patient with SARS-CoV-2 infection after administration of convalescent plasma</td>
<td>Gynecology &amp; Obsetrics</td>
<td>Mexico. At admission, the patient presented with respiratory distress and oxygen saturation below 90%, and chest X-ray showed bilateral interstitial infiltrates. Her medical history included smoking, which she had stopped at 4 gestational weeks. The patient was treated with oxygen therapy (8 L/m), enoxaparin (60 mg), azithromycine (250 mg), ceftaroline (600 mg), lopinavir/ritonavir (400 mg/100mg), methylprednisolone (40 mg), and supportive care; however, the patient worsened despite these treatments and was intubated and placed on mechanical ventilation on hospital day (HD) 3. Her condition continued deteriorating, and fetal heartbeat was non-reassuring. Serum immunoglobulin G against SARS-CoV-2 was undetectable. Methylprednisolone was discontinued, prenatal corticosteroid therapy was initiated, and 2 doses of convalescent plasma were administered over HD4-5. No adverse effects were identified. The patient was discharged on HD14 and vaginally delivered a female neonate with growth restriction at 39 weeks gestation. The authors state that growth restriction is associated with SARS-CoV-2 infection in pregnancy. The authors conclude that convalescent plasma may be a safe treatment for pregnant women with rapid respiratory function deterioration and a seronegative state in which the fetus shows distress parameters.</td>
<td>convalescent plasma in a SARS-CoV-2-infected pregnant woman in Mexico. The authors suggest that convalescent plasma may be a safe treatment for pregnant women with rapid respiratory function deterioration and a seronegative state in which the fetus shows distress parameters.</td>
<td>al. Rapid improvement of a critically ill obstetric patient with SARS-CoV-2 infection after administration of convalescent plasma. Int J Gynaecol Obstet. 2020; 10.1002/ijgo.13467. doi:10.1002/ijgo.13467</td>
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<td>COVID-19; children; mental health research</td>
<td>5-Nov-20</td>
<td>Evidence suggests children are being left behind in COVID-19 mental health research</td>
<td>European Child &amp; Adolescent Psychiatry</td>
<td>The authors discuss the lack of research related to mental health in children since the COVID-19 pandemic compared to adults. A large-scale search across 5 databases (PsycINFO, Cochrane Central Register of Controlled Trials, EMBASE, and MEDLINE) that reviewed 3,405 abstracts revealed 73 independent studies documenting the prevalence of depression, anxiety, and stress in adults since COVID-19, compared to only 6 studies in children (ratio of adults to child mental health studies =12:1). While 25% of the world’s population are children, they make up only ~ 8% of research being conducted on the mental health impacts of COVID-19. There is an urgent need to prioritize funding for research initiatives that explicitly examine children’s mental health. School closures have not only stripped many children of one of their primary social supports and mental health resources but also exacerbated social and economic inequalities, particularly for children who are at most risk for developing mental health difficulties. Exposure to high levels of stress in childhood can alter the way individuals respond to stress later in life and predispose them to health and mental health difficulties. There is a need to understand the specific processes and mechanisms that impact children’s mental health and the best way to intervene. Finally, prioritizing child mental health research is in the best interest of long-term economic prosperity.</td>
<td>The authors discuss the lack of research related to mental health in children since the COVID-19 pandemic compared to adults.</td>
<td>Racine N, Korczak DJ, Madigan S. Evidence suggests children are being left behind in COVID-19 mental health research. Eur Child Adolesc Psychiatry. 2020;1–2. doi: 10.1007/s00778-020-01672-8.</td>
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<td>COVID-19; children; eating disorders; acute respiratory infections; Australia</td>
<td>5-Nov-20</td>
<td>Eating disorders double and acute respiratory infections tumble in hospitalized children during the 2020 COVID shutdown on the Gold Coast</td>
<td>Journal of Pediatrics and Child Health</td>
<td>Letter to the Editor</td>
<td>The authors discuss the changes in the case mix of in-patient children managed at Gold Coast University Hospital in Australia during the COVID-19 pandemic. An audit of the registrar handover sheets used for daily report was conducted from 1 May-31 July 2020 and compared to the corresponding period of 2019. The number of admissions and average length of stay for respiratory and mental health admissions were assessed. A dramatic reduction in respiratory admissions with 101 fewer respiratory admissions and a 77% reduction in the average number of acute respiratory patients per day from 5.8 to 1.2 patients/day in 2020 were observed. Notable changes included a large drop in bronchiolitis, pneumonia, and upper respiratory infection admissions (71%, 96% and 32% decrease respectively). The reduction in respiratory infection was consistent with the drop-in influenza cases in Australia from 106,000 between 1 May-31 July 2019 to 642 in 2020. There was also a collapse of tourism leading to a 97% reduction in arrivals to Gold Coast Airport from 1,530,000 in May-July 2019 to 50,000 in 2020, leading to a decrease in hospital admission of interstate children. There was, however, doubling of pediatric cases requiring acute in-patient care as well as an increase in average length of stay for eating disorders in 2020 (212% and 42% increase respectively). This is speculated to be due to increase in stress and anxiety and decrease in availability/accessibility of mental health services due to COVID-19.</td>
<td>The authors discuss the changes in the case mix of in-patient children managed at Gold Coast University Hospital in Australia during the COVID-19 pandemic. Decrease in acute respiratory infections and increase in eating disorders were observed.</td>
<td>Jones PD, Gentin A, Clarke J. Eating disorders double and acute respiratory infections tumble in hospitalised children during the 2020 COVID shutdown on the Gold Coast. J Paediatr Child Health. 2020. doi:10.1111/jpc.15248.</td>
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<tr>
<td>SARS-CoV-2, MIS-C, ARDS, adult, children, antibody, antibodies, USA</td>
<td>5-Nov-20</td>
<td>Distinct antibody responses to SARS-CoV-2 in children and adults across the COVID-19 clinical spectrum</td>
<td>Nature Immunology</td>
<td>Original Research</td>
<td>Specificity and function of antibody response was assessed in adult and pediatric patients from the New-York Presbyterian/Colombia University Irving Medical Center and Morgan Stanley Children's Hospital of New York (USA) from March to June 2020. Four cohorts were assessed: adults (ages 19-84 years) recruited as convalescent plasma donors who recovered from mild COVID-19 (non-hospitalized), adults hospitalized with severe ARDS, children (ages 3-18 years) hospitalized with severe respiratory distress, and children infected with mild COVID-19. Cohorts totaled 79 individuals. Regardless of disease severity, children have antibody responses that are largely IgG with anti-S protein antibodies that have low neutralizing activity compared to adult cohorts. Between adult cohorts, those with severe disease had higher number, breadth, and neutralizing activity of antibodies with longer-lasting antibody abundance compared to those with mild disease. The authors assert that the similar antibody profiles among both mild and severe children cohorts suggest that the adaptive immune response is not associated with severe pathology.</td>
<td>Authors assessed specificity and function of antibody response in adult and child COVID-19 patients with mild vs. severe disease in New York (USA). They find that adults have more robust antibody response than children, and adults with severe disease have the most neutralizing antibodies of all groups.</td>
<td>Weisberg, S.P., Connors, T.J., Zhu, Y. et al. Distinct antibody responses to SARS-CoV-2 in children and adults across the COVID-19 clinical spectrum. Nat Immunol (2020). <a href="https://doi.org/10.1038/s41590-020-00826-9">https://doi.org/10.1038/s41590-020-00826-9</a></td>
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<td>5-Nov-20</td>
<td>Management of malaria in children under 5-years-old during COVID-19 pandemic in Sierra Leone: a lesson learned?</td>
<td>MedRxiv</td>
<td>Pre-Print (Not Peer Reviewed)</td>
<td>The authors performed a retrospective study to evaluate the impact of COVID-19 on malaria programs in Sierra Leone. This area had been involved in the Ebola outbreak, and experienced an increase in malarial infection due to decreased capacity to treat patients as well as widespread fear of contracting Ebola from health centers. Children aged 0-60 months who had confirmed malaria infection from January through May of 2020 were evaluated in the Konta Wallah Community Health Center of Port Loko District, Kamasondo Childdom. Gross numbers of diagnosed malaria infections were compared with numbers confirmed during the same months of 2018 and 2019. The authors found that the number of diagnosed malaria cases did not change significantly. This suggests that the pro-active approach in managing malaria in endemic countries has had a positive impact.</td>
<td>Authors sought to find out whether COVID-19 has had a similar negative impact on the diagnosis of malaria infections as Ebola did in Sierra Leone. They find that COVID-19 has not had a significant impact on malarial infections.</td>
<td>Danilo Buoncristiani, Francesco Iodice, Bianca Cinciola, Francesca Raffaelli, Solia Sova, Walter Ricciardi. Management of malaria in children under 5-years-old during COVID-19 pandemic in Sierra Leone: a lesson learned? medRxiv 2020.11.04.20225714; doi: <a href="https://doi.org/10.1101/2020.11.04.20225714">https://doi.org/10.1101/2020.11.04.20225714</a></td>
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<td>5-Nov-20</td>
<td>COVID19 in children with cancer in low- and middle-income countries: Experience from a cancer center in Chennai, India</td>
<td>Pediatric Hematology and Oncology</td>
<td>Report</td>
<td>Authors sought to investigate the effect of COVID-19 on children with cancer in low-income countries. Patients in this study had cancer and tested positive for SARS-CoV-2 between April 27th and July 8th, 2020. Patients were under 18 years of age and treated at Cancer Institute (W.I.A.) in Chennai, Southern India. Of 89 patients tested for SARS-CoV-2 during this period, 15 patients tested positive. They observed only 33% of these were symptomatic and only one patient required respiratory support. These results are similar to what has been reported in New York pediatric cancer patients. They also noted that an outbreak that occurred at the hospital was found to come from a single nurse and re-emphasize the importance of routine testing and preventative measures to prevent infection.</td>
<td>Authors found that children with cancer in low-income countries experience similar COVID-19 disease course as those in high-income countries such that a minority of patients are symptomatic and need respiratory support.</td>
<td>Radhakrishnan V, Ovett J, Rajendran A, et al. COVID19 in children with cancer in low- and middle-income countries: Experience from a cancer center in Chennai, India. Pediatric Hematology and Oncology. November 2020:1-7. doi:10.1080/08880018.2020.1831113.</td>
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<td>5-Nov-20</td>
<td>Fatal pneumonia, hyperinflammation and digital gangrene caused by human corona virus in a child post haploidentical stem cell transplant</td>
<td>Pediatric Hematology Oncology Journal</td>
<td>Article</td>
<td>A 14-year old male was diagnosed with acute lymphoid leukemia in 2018. He relapsed one year later and achieved complete remission [date not specified]. With no bone marrow donor available, he was given a haplo-identical stem cell transplant from his mother at the authors’ hospital in India. On day 16 he developed fever, which decreased after an additional week. Cough persisted and he developed respiratory distress which required oxygen supplement. He tested positive for para influenza and human coronavirus (HCoV) but negative for SARS-CoV-2 via RT-PCR of nasopharyngeal and throat swabs. After improvement and discharge, he was readmitted a month later with breathing difficulty and was transferred to the ICU. He tested negative again for SARS-CoV-2 and developed gangrene on one of his fingers on the right hand. Despite all therapeutic interventions, the patient passed away on day 67. The authors conclude the patient developed multisystem inflammatory syndrome resembling Kawasaki disease, possibly due to HCoV, but similar to</td>
<td>Authors present a case where a 14-year old acute lymphoid leukemia patient died after haploid stem cell transplant in India. They assert that his death was due to human coronavirus infection but that the disease course was very similar to MIS-C and COVID-19.</td>
<td>Yadav SP, Thakkar D, Chatterjee G, Kapoor R, Rastogi N, Fatal pneumonia, hyperinflammation and digital gangrene caused by human corona virus in a child post haploidentical stem cell transplant, Pediatric Hematology Oncology Journal (2020), doi: <a href="https://doi.org/10.1016/j.phoj.2020.10.007">https://doi.org/10.1016/j.phoj.2020.10.007</a>.</td>
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<td>Canada, pregnant women, SARS-CoV-2</td>
<td>5-Nov-20</td>
<td>Screening and Testing Pregnant Patients for SARS-CoV-2: First Wave Experience of a Designated COVID-19 Hospitalization Centre in Montreal</td>
<td>Journal of Obstetrics and Gynecology Canada</td>
<td>Original Research</td>
<td>The aim of this article was to describe the clinical characteristics of patients who tested positive for SARS-CoV-2 during pregnancy at a designated COVID-19 hospitalization center in Montreal, Quebec in Canada. The cohort included all pregnant women who tested positive for SARS-CoV-2 from March 22 - July 31, 2020, and data was collected through chart review. Initially, testing was restricted to at-risk patients, but on May 15, 2020, universal testing was implemented, and all pregnant patients admitted to hospital were tested. Of 803 patients tested for SARS-CoV-2 during the study period, 41 (5%) tested positive, and among the patients that were symptomatic, the most commonly reported symptoms were cough (53%), fever (37%), dyspnea (30%), anosmia and/or aguesia (20%). The authors state that these findings suggest that most pregnant women with a positive SARS-CoV-2 diagnosis are asymptomatic or present with mild symptoms. They also recommend for universal testing of pregnant women to be implemented in order to prevent in-hospital and community transmission of the virus.</td>
<td>This article assessed the incidence rate of SARS-CoV-2 in pregnant women at a hospital in Quebec, Canada. They determined that most pregnant women are asymptomatic or experience very minimal symptoms.</td>
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<td>Children, mental health, parent, Turkey</td>
<td>5-Nov-20</td>
<td>Parental psychological distress associated with COVID-19 outbreak: A large-scale multicenter survey from Turkey</td>
<td>International Journal of Social Psychiatry</td>
<td>Original Article</td>
<td>This study aimed to comparatively examine the COVID-19 related stress and psychological burden of the parents with different occupations, locations, and mental health statuses in Turkey. A large-scale multicenter online survey was completed by 3278 parents (mean age=40.8±6.88 years) of children aged 6 to 18 years. Parents had different occupational (health care workers (HCW) [18.2%]), geographica [38.2%], and psychiatric (child with a mental disorder [37.8%]) backgrounds. 1,239 (37.8%) of parents had a child utilizing to mental health services (mean age=11.36±4.06 years). Multivariable logistic regression analysis showed that being an HCW parent (OR 1.79, p&lt;0.001), a mother (OR 1.67, p&lt;0.001), and a younger parent (OR 0.98, p=0.012), living with an adult with a chronic physical illness (OR 1.38, p&lt;0.001), having an acquaintance diagnosed with COVID-19 (OR 1.22, p=0.043), positive psychiatric history (OR 1.29, p&lt;0.001), and living with a child with moderate or high emotional distress (OR 1.29, p&lt;0.001; OR 2.61, p&lt;0.001) were independently associated with significant parental distress. Significant psychological distress in parents associated with the COVID-19 pandemic warrants further research to investigate its wider impact on the whole family unit.</td>
<td>This study in Turkey examined the COVID-19 related stress and psychological burden of 3278 parents of children aged 6 to 18 years, suggesting that being a health care worker, mother, younger, living with an adult with a chronic physical illness, having an acquaintance diagnosed with COVID-19, positive psychiatric history, and living with a child with emotional distress were independently associated with significant parental distress.</td>
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<td>Physical activity, screen-time,</td>
<td>5-Nov-20</td>
<td>Brief Report: The impact of the COVID-19 pandemic on health care workers in Turkey</td>
<td>Disability and Health Journal</td>
<td>Original Article</td>
<td>There is concern that the COVID-19 pandemic may negatively affect health behaviors in youth, especially youth diagnosed with COVID-19. This observational study was conducted in Central Florida.</td>
<td>There is concern that the COVID-19 pandemic may negatively affect health behaviors in youth, especially youth diagnosed with COVID-19. This observational study was conducted in Central Florida.</td>
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**Key Terms**: COVID-19, Maternal and Child Health, Nutrition – Literature Repository

**November 2020**
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<tr>
<td>Autism Spectrum Disorder, adolescents, USA</td>
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<td>COVID-19 pandemic on health behaviors in adolescents with Autism Spectrum Disorder</td>
<td>BMC Med.</td>
<td>Original research</td>
<td>Autism Spectrum Disorder (ASD). The purpose of this observational study conducted at a private school in Central Florida (USA) was to examine changes in physical activity (PA), screen-time (ST), and sleep in adolescents with ASD aged 14-19 years due to the pandemic. 9 adolescents with ASD completed surveys containing items measuring health behaviors adapted from the National Survey of Children’s Health before the pandemic (prior to local quarantine in March 2020) and during the pandemic (end of April 2020). The mean age was 16.87±1.36 years. Participants reported a greater number of days where they participated in 60 minutes or more of PA before the pandemic compared to during the pandemic (4.17 days vs. 2.27 days; p=0.0006). A significant increase in hours of both weekday (3.69 vs. 6.25; p=0.007) and weekend ST (5.94 vs. 7.39; p=0.004) was observed during the pandemic. No changes regarding sleep duration were observed. Although preliminary, results suggest that PA and ST may be negatively affected by the COVID-19 outbreak in youth with ASD. The development of interventions to promote health behaviors in ASD populations during long periods of structured time should be considered.</td>
<td>Florida (USA) investigating changes in physical activity, screen-time, and sleep in adolescents with Autism Spectrum Disorder, suggesting that physical activity decreased and screen time increased during the pandemic.</td>
<td>Wang Y, Chen L, Wu T, et al. Impact of COVID-19 pandemic on health behaviors in adolescents with Autism Spectrum Disorder, Disability and Health Journal, 2020, 101021, ISSN 1936-6574, <a href="https://doi.org/10.1016/j.dhjo.2020.101021">https://doi.org/10.1016/j.dhjo.2020.101021</a>.</td>
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<td>Pregnancy, psychology, PTSD, depression, development, separation, China</td>
<td>4-Nov-20</td>
<td>Impact of Covid-19 in pregnancy on mother’s psychological status and infant’s neurobehavioral development: a longitudinal cohort study in China</td>
<td>BioMed Central (BMC) Medicine</td>
<td>Original research</td>
<td>In this longitudinal cohort study conducted from May 1-July 31, 2020 in China, the authors aimed to evaluate the long-term impact of COVID-19 in pregnancy on maternal psychological status and infant neurobehavioral development. Pregnant women with confirmed COVID-19 were contacted and surveyed at 4 time points: at the time of recruitment and at 1 week, 1 month, and 3 months after delivery. The PTSD Checklist-Civilian Version (PCL-C), Edinburgh Postnatal Depression Scale (EPDS), Ages and Stages Questionnaires, third edition (ASQ-3) and the Ages and Stages Questionnaire: Social-Emotional, second edition (ASQ:SE-2) were used to assess maternal symptoms and infant development. Among 72 pregnant patients, 13 (18.1%) were infected with SARS-CoV-2 in the 1st trimester, 6 cases (8.3%) in the 2nd trimester, and 53 cases (73.6%) in the 3rd trimester. 57 pregnant patients (79.2%) had a live birth, while 15 cases (20.8%) experienced an induced abortion. 22.2% (14/63) of pregnant women were suffering from either PTSD or depression at 3 months. Among 57 live births, only 1 neonate was positive for SARS-CoV-2 nucleic acid. The breastfeeding rate was 8.8% at 1 week after birth, 19.3% at 1 month, and 36.8% at 3 months. The median duration of mother–infant separation was 35 days (16-52 days). On assessment of the neurobehavioral development of infants, four domains were found to be negatively linked with mother–infant separation, including gross motor, problem solving, personal–social, and social–emotional domains of development.</td>
<td>The authors assessed the long-term impact of COVID-19 in pregnancy on maternal psychological status and infant neurobehavioral development. More than one in five women experienced PTSD or depression by three months after delivery. Only 36.8% of infants were breastfeeding at 3 months.</td>
<td><a href="https://doi.org/10.1186/s12916-020-01825-1">https://doi.org/10.1186/s12916-020-01825-1</a>.</td>
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<td>Italy</td>
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<td>development (p &lt; 0.05). The authors conclude that healthcare providers should pay attention to maternal mental health and infant early development following maternal SARS-CoV-2 infection.</td>
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<td>Children, anxiety, stress, lockdown, sleep impairment, Netherlands</td>
<td>4-Nov-20</td>
<td>The impact of lockdown during the COVID-19 pandemic on mental and social health of children and adolescents</td>
<td>medRxiv</td>
<td>Pre-print (not peer-reviewed)</td>
<td>In this cross-sectional study comparing two Dutch samples of children (8-18 years) before COVID-19 (Dec. 2017-July, 2018) and during the COVID-19 lockdown (April-May 2020) in the Netherlands, the authors assessed the impact of the lockdown on the daily life of children and adolescents. Of the 844 children who participated, more children reported severe anxiety during the lockdown than before (16.7% vs. 8.6%; RR 1.95; 95% CI 1.55-2.46) and more children reported sleep-related impairment during the lockdown (11.5% vs. 6.1%; RR 1.89; 95% CI 1.29-2.78). Fewer children reported poor global health during the pandemic (1.7% vs. 4.6%; RR 0.36; 95% CI 0.20-0.65). Mental and social health complaints during the COVID-19 lockdown were found more frequently in children and adolescents growing up in a single parent family, those in families with ≥ 3 children, those whose parents experienced a negative change in work situation due to COVID-19 regulations, and those who had a relative/friend infected with COVID-19. A large majority (&gt;90%) reported a negative impact of the COVID-19 regulations on their daily life. The authors conclude that the COVID-19 lockdown has had negative effects on mental and social health of children and adolescents in the Netherlands.</td>
<td>The authors assessed the impact of lockdown during the COVID-19 pandemic on mental and social health of children in the Netherlands, and found that compared to before the pandemic, children reported worse mental and social health during the pandemic (higher anxiety and depressive symptoms).</td>
<td>Luijten MA, van Muilekom MM, Teela L, van Oers HA, Terwee CB, Zijlmans J, Klaufus L, Popma A, Oostrom KJ, Polderman TJ, Haverman L. The impact of lockdown during the COVID-19 pandemic on mental and social health of children and adolescents. medRxiv. 2020 Nov 4.</td>
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<tr>
<td>Migraine; COVID-19; lockdown, lifestyle; children; Italy</td>
<td>4-Nov-20</td>
<td>I stay at home with headache. A survey to investigate how the lockdown for COVID-19 impacted on headache in Italian children</td>
<td>Cephalalgia</td>
<td>Research Article</td>
<td>This Italian multicenter study aimed at investigating whether the course of primary headache disorders in children and adolescents changed during the COVID-19 lockdown. The authors conducted an online questionnaire from March 27 to April 20 for 707 patients with primary headache disorders diagnosis, aged between 5 and 18 years (scholar age), and their parents. On average, patients reported that they had been in lockdown for 33 days (from 15–60 days). Headache symptom was improved in 323 patients (46%), remained stable in 277 (39%), and worsened in 107 (15%) compared to the previous 2 months. The average duration of headache was 39.6 ± 32 months for the total population. They found that the reduction of school effort and anxiety was the main factor in improving headaches, intensity, and frequency of the attacks (p &lt;0.001). The greater the severity of the headache, the larger was the clinical improvement (p &lt;0.001). Disease duration was negatively associated with the improvement (p &lt;0.001). It is noteworthy that clinical</td>
<td>This Italian multicenter study found that primary headache disorders in children and adolescents were improved and remained stable during the lockdown. Lifestyle modification represents the main factor impacting primary headache disorders in children and adolescents, indicating any intervention on stress factors is more likely to be effective than the currently available drugs.</td>
<td>Papetti L, Loro PAD, Tarantino S, et al. I stay at home with headache. A survey to investigate how the lockdown for COVID-19 impacted on headache in Italian children. Cephalalgia. 2020;40(13):1459-1473. doi:10.1177/0333102420965139</td>
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</table>
### Key Terms
- Children; Epidemiology; SARS-CoV-2 infection; Shanghai; Seropositivity; Viral shedding.

### Date Published
- 4-Nov-20

### Title
- COVID-19 in Hospitalized Ethiopian Children: Characteristics and Outcome Profile

### Journal / Source
- medRxiv

### Type of Publication
- Pre-print (not peer-reviewed)

### Summary & Key Points
- Improvement was independent of prophylaxis (p >0.05), presence of chronic headache disorders (p >0.05), and geographical area (p >0.05). Patients under prophylactic therapy showed a worsening of both the trend of headache and intensity of attacks (p <0.05). The intensity was significantly associated with generalized anxiety (p <0.05) and the frequency with depressed mood (p <0.05). Lifestyle modification represents the main factor impacting primary headache disorders in children and adolescents, which suggests that stress factors reduction is more likely to be effective than the currently available drugs.

### Specific Observations
- The authors of this study assessed the characteristics of SARS-CoV-2 positive children in Ethiopia. They found that children with one or more symptoms at presentation were more likely to develop moderate COVID-19 compared to asymptomatic children. Additionally, a significantly longer time was needed for girls to achieve clinical improvement compared to boys.

### Full Citation

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### Key Terms
- COVID-19, Shanghai; infection; seropositivity; Epidemiology; presentation

### Date Published
- 4-Nov-20

### Title
- Comparison of Clinical and Epidemiological Characteristics of Asymptomatic and Symptomatic SARS-CoV-2 Infection in Children

### Journal / Source
- Virologica Sinica

### Type of Publication
- Original Research

### Summary & Key Points
- This is a prospective study in Shanghai, China between January and April 2020 to compare features of the symptomatic and asymptomatic pediatric cases of COVID-19. They enrolled 49 confirmed cases (mean age 11.5 ± 5.12 years; age range 7 months – 17 years), in which 28 (57.1%) were symptomatic, and 21 (42.9%) were asymptomatic. None of the cases progressed to severe disease. 45 out of 49 (91.8%) cases had viral RNA detected in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 between asymptomatic and symptomatic cases in the upper respiratory tract and stool. Children <7 years shed viral RNA in the stool for a longer duration than school-aged children (P < 0.05). 43 (87.8%) cases had viral RNA detected in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool. There was no significant difference in mean duration of viral shedding for SARS-CoV-2 in stool.

### Specific Observations
- This prospective study in China from January 19 and April 30, 2020, aimed to describe epidemiological and clinical features of the symptomatic and asymptomatic pediatric cases of COVID-19. Children <7 years shed viral RNA in the stool for a longer duration than older children Asymptomatic.

### Full Citation
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<th>Key Terms</th>
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<tr>
<td>COVID-19, SARS-CoV-2, coronavirus; first trimester, maternal infection, nuchal translucency, pregnancy, pregnancy loss, Denmark</td>
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<th>Summary &amp; Key Points</th>
<th>Specific Observations</th>
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<tr>
<td>4-Nov-20</td>
<td>SARS-CoV-2 in first trimester pregnancy: a cohort study</td>
<td>Human Reproduction</td>
<td>Original Research</td>
<td>had seropositivity for antibodies against SARS-CoV-2 within 1–3 weeks after confirmation with infection. The authors do not recommend routine imaging for asymptomatic cases or symptomatic disease without clinical signs of disease progression. Asymptomatic cases might be common in children; however, none of them in this study progressed to the symptomatic stage. Asymptomatic cases had earlier seropositivity for antibodies, suggesting they had acquired SARS-CoV-2 infection for some time before laboratory-confirmation and mandatory isolation. Asymptomatic cases shed viral RNA in a similar pattern as symptomatic cases, indicating the same transmissibility that potentially seeds transmissions of SARS-CoV-2 and poses a challenge to disease control.</td>
<td>cases shed viral RNA in a similar pattern as symptomatic cases and potentially seed transmission of SARS-CoV-2.</td>
<td>la Cour Freiesleben N, Egerup P, Vauvert Römmelmayer Hviid K, et al. SARS-CoV-2 in first trimester pregnancy: a cohort study. Hum Reprod. 2020 Nov 4;deaa311. doi: 10.1093/humrep/deaa311. Epub ahead of print. PMID: 33145598.</td>
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<th>Accelerated Puberty; COVID-19; Precocious Puberty; Italy</th>
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<th>Specific Observations</th>
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<tr>
<td>4-Nov-20</td>
<td>Increased incidence of precocious and accelerated puberty in females during and after the Italian lockdown</td>
<td>Italian Journal of Pediatrics</td>
<td>Original Research</td>
<td>These authors retrospectively evaluated the incidence of newly diagnosed central precocious puberty (CPP) and the rate of pubertal progression in previously diagnosed CPP patients during and after the Italian COVID-19 lockdown, the study also analyzed whether body mass index (BMI) and the use of electronic devices increased during lockdown in these patients. The 49 Italian girls in the study were divided into group 1: newly diagnosed CPP (n=37), and group 2: previously diagnosed slow-progression CPP,</td>
<td>The authors of this study assessed the medical records of 49 Italian girls’ female children with central precocious puberty (CPP). Rates amidst the COVID-19 pandemic of new diagnoses of CPP and</td>
<td>Stagi S, De Masi S, Bencini E, et al. Increased Incidence of precocious and accelerated puberty in females during and after the Italian lockdown for the coronavirus 2019 (COVID-19) pandemic. Ital J Pediatr. 2020;46(1):165. Published 2020.</td>
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<td>nutrition; vitamin children; diet; supplements; nutritional COVID 19</td>
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<td>with accelerated progression during and following lockdown (n=12). Clinical data from March to July 2020 for both groups were compared to corresponding control groups from March to July, each year 2015-2019. [Age ranges were not given for any of the groups, and mean ages were only given related to pubertal findings.] The rates of new CPP diagnoses and pubertal development acceleration were greater in the study groups than in the control groups (37 vs. mean 17.8 + 1.2 cases per year, p&lt;0.0005; and 71 vs. mean 2.2 + 0.4 cases per year, p=0.0005, respectively). Age at diagnosis was lower for patients with newly diagnosed CPP (7.11 ± 0.72 years) when compared to controls (7.53 ± 0.50 years, p &lt; 0.0005). BMI increased for the pubertal development acceleration group during lockdown (p &lt; 0.05), and the use of electronic devices increased for both groups during lockdown (p &lt; 0.0005). The authors hypothesize that environmental factors amidst the COVID-19 pandemic may contribute to higher incidence of CPP and faster pubertal progression.</td>
<td>accelerated pubertal progression among those with CPP were compared with the rates among patients over the previous five years. Both of these rates significantly increased amidst the COVID-19 pandemic when compared with previous years.</td>
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<tr>
<td>Public health campaigns, children, COVID-19, comics</td>
<td>4-Nov-20</td>
<td>Informing children citizens efficiently to better engage them in the fight against COVID-19 pandemic</td>
<td>Public Library of Science (PLoS) Neglected Tropical Diseases</td>
<td>Op-ed</td>
<td>This op-ed explores the lack of COVID-19 public health information campaigns tailored specifically to children. The authors assert that children worldwide need to fully grasp the modes of transmission of SARS-CoV-2, the health risks, the scientific notions of the immune system, the value of barrier measures, and the progress of scientific research as they return to schools. According to the authors, comics should be considered to address this need, as they can be beneficial for quickly and effectively communicating abstract and essential information to children who might be under the influence of a large amount of sometimes contradictory information. Conveying precise, reliable, and accessible information to children is critical in a world overwhelmingly impacted by the outbreak. It is the responsibility of world health official leaders and governments to ensure children receive such information in compliance with the United Nations Convention on the Rights of the Child. The authors advocate for children’s engagement in the worldwide public health fight against COVID-19 and provide suggestions for how governments, mainstream media, scientists, communication experts, and education specialists can assist in this endeavor.</td>
<td>This op-ed addresses the lack of COVID-19 public health campaigns tailored to children. The authors advocate for children’s engagement in the fight against COVID-19 and provide suggestions for how governments, mainstream media, scientists, communication experts, and education specialists can assist in this endeavor.</td>
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<td>COVID-19, lockdown, social distancing, pregnancy, preterm birth, neonates, risk factors</td>
<td>4-Nov-20</td>
<td>Exploring modifiable risk-factors for premature birth in the context of COVID-19 mitigation measures: A discussion paper</td>
<td>Journal of Neonatal Nursing</td>
<td>Discussion Paper</td>
<td>In this article, the authors summarize the impacts of COVID-19 on neonatal care and risk factors for premature birth. Social distancing measures have impacted the ability to effectively communicate with and emotionally support parents in the neonatal unit. Research from Ireland, Denmark, and the Netherlands has shown a fall in preterm births following the implementation of COVID-19 mitigation measures, possibly due to changes in lifestyle, social support, diet, hygiene, and pathogen exposure. Currently, there is conflicting evidence on the role of maternal SARS-CoV-2 infection on the risk of preterm delivery. However, some of the risk factors for severe COVID-19 are also risk factors for preterm birth, such as pre-existing comorbidities, high maternal age (defined as &gt;35 years for premature birth), and high BMI. There are also secondary effects of the COVID-19 pandemic that may increase risk of preterm birth, including lack of antenatal care, increased stress, and intimate partner violence. To ensure reduction of modifiable risk factors for premature birth in the context of the COVID-19 pandemic, the authors recommend pregnant women practice social distancing as much as possible and remain up to date on influenza vaccinations and prenatal visits.</td>
<td>This article summarizes the impacts of COVID-19 on neonatal care and risk factors for premature birth that may be influenced by the pandemic. The authors discuss evidence of reduced preterm births in some countries following social distancing measures, shared risk factors for COVID-19 and preterm birth, and possible secondary effects of the COVID-19 pandemic that may both increase and decrease the risk for premature delivery.</td>
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<td>SARS-CoV-2, RT-PCR, pregnant women, outcomes, negative result, monocyte count, LDH, Spain</td>
<td>4-Nov-20</td>
<td>Maternal and Perinatal Outcomes in Patients with Suspected COVID-19 and Their Relationship with a Negative RT-PCR Result</td>
<td>Journal of Clinical Medicine</td>
<td>Original Research</td>
<td>The authors conducted a study to examine maternal-perinatal outcomes in pregnant women with suspected COVID-19 according to the result of an RT-PCR test and to investigate possible variables that could be useful for predicting a negative RT-PCR result. They analyzed 111 patients with suspected COVID-19 who underwent an RT-PCR test during pregnancy, labor, or puerperium at a tertiary hospital in Madrid, Spain, from March 10 to May 12, 2020. The authors compared the clinical characteristics and outcomes of the RT-PCR-positive group to the RT-PCR-negative group. Their results showed that of the 111 pregnant patients analyzed, 38.7% had a negative SARS-CoV-2 RT-PCR result, while 61.3% were positive. The RT-PCR-negative findings from this study showed that, compared to the SARS-CoV-2 RT-PCR-positive group, pregnant women with negative SARS-CoV-2 RT-PCR results had a significantly lower proportion of pneumonia and severe or critical COVID-19, higher monocyte counts, lower LDH levels, less need for</td>
<td>Cuñarro-López Y, Cano-Valderrama O, Pintado-Recarte P, et al. Maternal and Perinatal Outcomes in Patients with Suspected COVID-19 and Their Relationship with a Negative RT-PCR Result. J Clin Med. 2020;9(11):E3552. Published 2020 Nov 4. doi:10.3390/jcm9113552</td>
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<td>Immunoglobulins; fetus; neonates; sepsis; hemolysis; hyperbilirubinemia; necrotizing enterocolitis; COVID-19; Turkey</td>
<td>4-Nov-20</td>
<td>Intravenous Immune Globulin Uses in the Fetus and Neonate: A Review</td>
<td>Antibodies</td>
<td>Review Report</td>
<td>In this review, the authors discuss how intravenous immunoglobulin (IVIG) has been used to manage different clinical conditions such as COVID-19 in fetuses and neonates. The authors particularly note that there is limited but beneficial evidence suggesting a 2g/kg IVIG dose may treat COVID-19 symptoms. The authors cite an existing example of an infant born at 34 weeks who developed severe symptoms and responded successfully to the 2g/kg IVIG dose in Istanbul, Turkey. The authors discuss many other neonatal diseases that include IVIG as a potential treatment, but emphasize that recommendations are only strongest for antenatal and postnatal management, and limited evidence is present for the use of IVIG for the treatment of other clinical indications such as COVID-19, primary immunodeficiency, neonatal Kawasaki Disease, enterovirus infection, etc. The lack of a clear risk-benefit ratio of using IVIG in the treatment of infectious and immune-mediated diseases warrants further studies to evaluate the efficacy of IVIG in fetuses and neonates.</td>
<td>Despite lacking FDA approval, intravenous immunoglobulin (IVIG) has shown limited but beneficial evidence in the management of several neonatal clinical conditions. In the case of COVID-19, IVIG may show positive effects, as seen in 1 infant exhibiting severe COVID-19 symptoms who received IVIG and was subsequently relieved of symptoms.</td>
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<td>India; hospital admissions; COVID-19; emergency department</td>
<td>4-Nov-20</td>
<td>Impact of the COVID-19 Pandemic on Admissions to the Pediatric Emergency Department in a Tertiary Care Hospital</td>
<td>The Indian Journal of Pediatrics</td>
<td>Scientific Letter</td>
<td>In this letter, the authors compare the demographic changes in symptomology presentation and pediatric hospital admissions in a tertiary hospital in Tamil Nadu, India, between April-May 2020 with the same period in 2019. The authors observed a 65% drop in admission to the pediatric emergency department (n=288) compared to 2019 (n=790). The most significant decrease was observed in admissions due to respiratory (13.7% to 8.5%, p=0.023) and gastro-intestinal emergencies (19.3% to 11.1%, p=0.002). The authors also noted an increase in the proportion of pediatric admissions in the emergency department requiring ICU care, from 9.6% in 2019 (n=76) to 20% in 2020 (n=56), with a p-value &lt;0.0001. They determined the imposition of COVID-19 lockdowns and restrictions brought about lifestyle changes, such as reduction in vehicular pollution, universal masking and improvements in hand hygiene. These in conjunction with reduced transmission due to closure of schools and other public spots, could have resulted in the sharp decrease in respiratory group had lower rates of pneumonia, less severe or critical clinical features, lower lactate dehydrogenase (LDH) levels, a greater need for maternal treatment, a reduced need for oxygen therapy, and a lower rate of ICU admission than the RT-PCR-positive group. However, the RT-PCR negative group had statistically significant higher monocyte counts than the RT-PCR positive group. Therefore, the authors' predictive model for a negative test result included the monocyte count, LDH level, and need for oxygen therapy. Their model was able to identify 73.5% of patients with a negative RT-PCR result</td>
<td>The authors examined the demographic characteristics of pediatric admissions at a tertiary care center in India during the pandemic period (April-May 2020) compared to the same period in 2019. They found a marked decrease in respiratory and gastro-intestinal emergency admissions, possibly due to lifestyle changes. However, more emergency admissions required ICU care.</td>
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<td>Immunity, resistance, susceptibility</td>
<td>3-Nov-20</td>
<td>Are Children Essentially Immune to COVID-19? - A Review</td>
<td>International Journal of Current Research and Review</td>
<td>Review</td>
<td>This brief study aims to find whether children are essentially immune to COVID-19. The authors reviewed over 70 articles pertaining to COVID-19 in children. They determined that children exposed to SARS-CoV-2 can be infected with COVID-19 and display signs of COVID-19, and that young children, particularly infants, are vulnerable to the disease. The amount of infection in children is similar to that among the adult population, but they display much milder symptoms and often have a much better prognosis than adults. The authors report that children can be asymptomatic carriers of the disease. From this review, the authors conclude that children are also susceptible to COVID-19 upon exposure to the virus, and that they are not essentially immune to COVID-19.</td>
<td>The present study aims to find whether children are essentially immune to COVID-19. The authors conclude that children are susceptible to COVID-19 upon exposure to the virus, and that they are not essentially immune to COVID-19.</td>
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<tr>
<td>Children, MIS-C, ferritin, clinical characteristics, USA</td>
<td>3-Nov-20</td>
<td>Non-SARS-CoV-2 Infections Among Patients Evaluated For MIS-C Associated With COVID-19</td>
<td>Pediatric Infectious Disease Journal</td>
<td>Brief Report</td>
<td>In this retrospective cohort study of hospitalized patients evaluated for MIS-C at a single children’s hospital in Massachusetts, USA, the authors compared clinical characteristics and treatments among patients who were ultimately diagnosed with MIS-C with those diagnosed with non-SARS-CoV-2 infections. Data were collected from May 14–June 6, 2020 which included 39 patients ages &lt;21 years who underwent echocardiogram and rheumatology consultation. Median age was 5 years [range 0.9-16.5 years]; 24/39 (62%) were female. 9 (23%) patients had history of a complex chronic condition. 19 (49%) patients were diagnosed with MIS-C according to the Department of Public Health case definition. 8 (21%) patients were found to have a non-SARS-CoV-2 infection without MIS-C (6 bacterial and 2 viral), and 3 (8%) patients with MIS-C were found to have non-SARS-CoV-2 infections (2 bacterial and 1 viral). Clinical features were similar in patients with MIS-C and patients with non-SARS-CoV-2 infections. Higher ferritin levels were reported in patients with MIS-C compared to patients without MIS-C [median 538 ng/mL (IQR 241–1116 ng/mL) vs. 111 ng/mL (IQR 77–170 ng/mL), respectively, P &lt; 0.001]. Ferritin of 228 ng/mL was identified as an optimal cut-point to differentiate patients with and without MIS-C with a sensitivity of 0.83 and specificity of 0.95. Most patients with MIS-C received immune-modulatory therapy and anti-thrombotics.</td>
<td>In this retrospective study comparing clinical characteristics between children diagnosed with MIS-C and those diagnosed with non-SARS-CoV-2 infections, the authors found the clinical features were similar but higher ferritin levels were identified in those diagnosed with MIS-C.</td>
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<td>COVID-19 pandemic; SARS-CoV-2; Female Sexual Function</td>
<td>3-Nov-20</td>
<td>Risk factors for sexual dysfunction in pregnant women</td>
<td>International Journal of Gynaecology and Obstetrics</td>
<td>Original Research</td>
<td>Sexual dysfunction adversely impacts pregnant women’s quality of life and increases stress during pregnancy. This study from a university in Turkey used the Female Sexual Function Index (FSFI) to analyze the COVID-19 pandemic’s impact on sexual function</td>
<td>This study from a university in Turkey found that among women uninfected with SARS-CoV-2, ferritin, clinical characteristics, USA</td>
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<td>Index (FSFI); Pregnancy; Sexual dysfunction; Turkey</td>
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<td>during the COVID-19 pandemic</td>
<td>Int J Gynaecol Obstet. 2020;10.1002/ijgo.13462. doi:10.1002/ijgo.13462.</td>
<td>Original Article</td>
<td>among 135 pregnant patients who were not infected with SARS-CoV-2. 45 participants were in the 1st trimester, 45 in the 2nd trimester, and 45 in the 3rd trimester, and 45 non-pregnant women were included as controls. A total of 118 (87.4%) pregnant participants and 31 (68.9%) non-pregnant participants were diagnosed with sexual dysfunction according to the FSFI, where a score of 26.55 or less indicates a diagnosis of sexual dysfunction. FSFI scores were significantly lower (P=0.002) among pregnant participants (score of 21.9±6.9) than non-pregnant participants (23.4±8.37). Participants who had university degrees, attend with their partners, which may have positive psychological and physiological effects. [The authors do not offer any suggestions for pregnant individuals without partners.]</td>
<td>2. pregnant women were significantly more likely to develop sexual dysfunction than non-pregnant women during the COVID-19 pandemic. The authors suggest preventing sexual dysfunction by using online courses that pregnant patients can attend with their partners, which may have positive psychological and physiological effects.</td>
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<td>Nervous system, schizophrenia, epidemiology, children, in-utero exposure</td>
<td>3-Nov-20</td>
<td>Prenatal exposure to viral infection and neuropsychiatric disorders in offspring: A review of the literature and recommendation s for the COVID-19 pandemic</td>
<td>Brain, Behavior, and Immunity</td>
<td>Original Article</td>
<td>In this article, the authors discuss the current understanding of possible neuro-tropism and vertical transmission of SARS-CoV-2. They relate this to the history of viral pandemics to better understand the relationship of viral infection, aberrant immune response, neuro-development, and the risk for schizophrenia disorder. Evidence from previous influenza epidemics reveal a pattern of increased incidence of psychiatric conditions such as anxiety, insomnia, depression, and psychosis. Both epidemiologic and birth cohort studies have demonstrated an association between infections and a corresponding increased incidence of schizophrenia spectrum disorders. In particular, it has been demonstrated that in utero exposure to a variety of pathogens is likely a risk factor for the neuro-developmental insults that contribute to the later-onset schizophrenia spectrum disorders and other neuro-psychiatric conditions. There is emerging evidence that SARS-CoV-2 can infect the central nervous system. A retrospective, observational case series of 214 patients with SARS-CoV-2 found that 36.4% had neurologic manifestations of infection. The authors highlight a compelling need for long-term prospective studies with large sample sizes to investigate the impact of SARS-CoV-2 infection during pregnancy on increased risk of psycho-neurological disorders in offspring.</td>
<td>The authors review the relationship between previous viral pandemics and neuro-psychiatric disease, highlighting the association with increased incidence of schizophrenia spectrum disorders. They call for prospective studies to investigate the impact of SARS-CoV-2 infection during pregnancy on risk of psycho-neurological disorders in offspring.</td>
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<td>ABA; ACT; Parent training; Parental adherence; Telehealth;</td>
<td>3-Nov-20</td>
<td>Developing and Enhancing Adherence to a Telehealth ABA</td>
<td>Behavioral Analysis in Practice</td>
<td>Original Research</td>
<td>The current COVID-19 pandemic poses unique challenges to the delivery of applied behavior analysis (ABA) services, which is a common therapy for autism that uses psychological principles of learning to alter behavior. The authors provide a detailed analysis of the impact of telehealth on adherence to ABA.</td>
<td>The current COVID-19 pandemic poses unique challenges to the delivery of applied behavior</td>
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### Key Terms

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<th>Specific Observations</th>
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<tr>
<td>COVID-19; United States</td>
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<td>Parent Training Curriculum for Caregivers of Children with Autism</td>
<td></td>
<td>Original Article</td>
<td>technological guide on how to develop a telehealth ABA parent training curriculum during the COVID-19 pandemic, and they demonstrate the effectiveness of their service model. The authors provide protocols used in a 60-day telehealth ABA parent training program, which includes acceptance and commitment training (ACT) to enhance parental adherence. ACT is an intervention that uses mindfulness and acceptance strategies with behavior change and commitment strategies to increase flexibility. The authors conducted a randomized controlled trial to examine the effectiveness of this protocol. 13 families with a child with autism from the midwestern US participated in the curriculum before the COVID-19 outbreak. Obtained data indicated that training was effective to teach skills, and parents with supplemental ACT material made significantly more progress than those in the control group (p = 0.038). The COVID-19 crisis occurred halfway through the training, and parents in the ACT group were more likely to continue the program, whereas parents in the control group were significantly more likely to postpone their participation (p = 0.008). Since the COVID-19 pandemic poses unique challenges to the delivery of ABA services, this article can guide practitioners to develop their own programs based on this evidence.</td>
<td>analysis (ABA) services, which is a common therapy to alter behavior in autism. The article provides a detailed technological guide on how to develop a telehealth ABA parent training curriculum during the COVID-19 pandemic. Since the COVID-19 pandemic poses unique challenges to the delivery of ABA services, the article can guide practitioners to develop their own programs based on this evidence.</td>
<td>Children with Autism [published online 2020 Nov 3]. Behav Anal Prac. 2020;1:17. doi:10.1007/s40617-020-00464-5</td>
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<td>Children, cerebral palsy, severe respiratory symptoms, comorbidities</td>
<td>3-Nov-20</td>
<td>Why individuals with cerebral palsy are at higher risk for respiratory complications from COVID-19</td>
<td>Journal of Pediatric Rehabilitation Medicine</td>
<td>Original Article</td>
<td>In this article, the authors integrate clinical and basic science data on respiratory function in children with cerebral palsy (CP) with the potential for individuals with CP to have severe respiratory symptoms from COVID-19. CP is a clinically recognized syndrome defined as a permanent disorder of movement or posture, which can also affect the diaphragm muscle. A mouse model of CP demonstrated fewer phrenic motor neurons, which are responsible for innervating the diaphragm. The diaphragm muscle plays a critical role in reducing susceptibility to respiratory infections in two ways: 1) during the pharyngeal phase of swallowing, it generates a large negative intra-thoracic pressure necessary to propel a food bolus through the pharynx and into the esophagus, with failure resulting in aspiration; and 2) coughing and sneezing, where the diaphragm contributes to increased intra-abdominal pressure necessary to expel aspirates from the airway. Effective and coordinated coughing and sneezing are particularly important when an individual contracts an acute respiratory illness. Since pre-existing respiratory comorbidities are significant risk factors for respiratory complications from COVID-19, the authors conclude individuals with CP who contract COVID-19 should be counseled that they could be at higher risk of progression to severe respiratory symptoms.</td>
<td>The authors discuss how impairment in diaphragm muscle function in patients with cerebral palsy likely increases their risk of developing severe respiratory symptoms from COVID-19. Brandenburg JE, Fogarty MJ, Sieck GC. Why individuals with cerebral palsy are at higher risk for respiratory complications from COVID-19. J Pediatr Rehabil Med. 2020;13(3):317-327. doi: 10.3233/PRM-200746.</td>
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### Key Terms
- Social distancing: pediatric; inpatient care; COVID-19; United States
- COVID-19; Children; Creative play; Play
- Terms

### Table

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<th>Key Terms</th>
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<td>social distancing: pediatric; inpatient care; COVID-19; United States</td>
<td>3-Nov-20</td>
<td>Pediatric Hospitalizations During the COVID-19 Pandemic [No Abstract and Article Not Available for Free]</td>
<td>Pediatrics</td>
<td>Original research</td>
<td>The authors analyzed electronic medical record (EMR) data for children [no age specified] hospitalized in a single hospital in Massachusetts, USA, during 5 weeks in March-April 2020, when social distancing measures were initiated in the state (COVID-19 cohort). The comparison group included the EMR data for children hospitalized during the same weeks in 2016–2019 (pre–COVID-19 cohort). Children hospitalized for surgery, neurology, and cardiology were excluded. There were 339 hospitalizations in the COVID-19 cohort and 3,292 in the 4-year cohort. [Other than the number of hospitalizations, there was no description of the children involved.] The median number of hospitalizations per week was lower in the COVID-19 cohort than the comparison cohort (64 versus 166, p&lt;0.001). Similarly, the median number of hospitalizations per week for asthma (3 versus 8.5, p=0.014), bronchiolitis (1 versus 7, p=0.008), and pneumonia (2 versus 6.5, p=0.064) were higher in the comparison group. There was no change in hospitalizations for conditions not associated with viral infections. The authors conclude that social distancing measures may have reduced pediatric hospitalizations during the COVID-19 pandemic, but also acknowledge the concern that patients may be delaying necessary care during this time.</td>
<td>The authors examine the impact of social distancing measures during the COVID-19 pandemic by comparing median weekly pediatric hospitalizations at a hospital in Massachusetts, USA, during five weeks in March-April 2020 and the same weeks in 2016-2019. They also compared the median weekly hospitalizations for three diagnoses associated with viral infections.</td>
<td>Iqbal SA, Tayyab N. COVID-19 and Children: The Mental &amp; Physical Reverberations of the Pandemic. Child Care Health Dev. 2020. doi: 10.1111/cch.12822.</td>
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<td>COVID-19; Children; Creative play; Play-based learning; School closures</td>
<td>3-Nov-20</td>
<td>COVID-19 and Children: The Mental &amp; Physical Reverberations of the Pandemic</td>
<td>Child: Care, Health and Development</td>
<td>Letter to the Editor</td>
<td>The authors discuss mental and physical effects of the COVID-19 pandemic on children, particularly in under-developed countries, vulnerable communities, and neighborhoods where they are more susceptible to health and survival issues, malnutrition, child labor and abuse. Due to social distancing and lockdown conditions, children now have limited opportunities for interaction with their friends, physical activity, and creative play, which are crucial for development and learning. Consequently, implications of the pandemic may affect children’s cognitive, emotional, and social development. Policy recommendations to mitigate these effects include implementing child-centered interventions such as nutrition and immunization programs, providing mental health support and child protective services, and providing practical guidance to parents and caregivers on how to balance professional duties and parenting during the pandemic. Parents should actively support and promote children’s play and study requirements, look for signs of stress, and communicate with children about the pandemic. Parents need to encourage creative and interactive play opportunities, preferably outdoors, in order to avoid potential anxiety, frustration, or hyperactivity. Tele-schooling should continue, without over-burdening students and teachers.</td>
<td>The authors discuss mental and physical effects of the COVID-19 pandemic on children. They present key considerations and recommendations to mitigate the effects of the pandemic on children and families.</td>
<td>Wilder, J. L., Parsons, C. R., Growdon, A. S., Toomey, S. L., &amp; Mansbach, J. M. (2020). Pediatric Hospitalizations During the COVID-19 Pandemic. Pediatrics, e2020005983. Advance online publication. <a href="https://doi.org/10.1542/peds.2020-005983">https://doi.org/10.1542/peds.2020-005983</a></td>
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<td>Clinical characteristic, pediatric, age-stratified, travel history, Asia, Korea, Hong Kong, China</td>
<td>3-Nov-20</td>
<td>COVID-19 In Children Across Three Asian Cosmopolitan Regions</td>
<td>Journal of Emerging Microbes &amp; Infections</td>
<td>Research Article</td>
<td>This study compared the clinical characteristics of 423 children with confirmed COVID-19 during the first wave of local outbreaks in the Republic of Korea (n=91, February 18–March 31, 2020), the Hong Kong Special Administrative Region (HKSAR) (n=88, February 25–May 31, 2020), and Wuhan, China (n=244, January 21–March 20, 2020). The authors also compared clinical characteristics between domestic and imported pediatric COVID-19 cases and between different age groups across the 3 Asian regions. Wuhan had the earliest peak, followed by Korea and HKSAR. Patients in HKSAR were significantly older than in Korea and Wuhan (mean ageSD: 12.9±5.5, vs. 10.8±5.42, vs. 6.6±5 years, p&lt;0.001, respectively) and had more imported cases (87.5% vs. 16.5% vs. 0%, p&lt;0.001, respectively). The imported cases were also older (13.4 vs. 7.6 years, p&lt;0.001). More cases in HKSAR were asymptomatic compared to Korea and Wuhan (45.5% vs. 22.0% vs. 20.9%, p&lt;0.001, respectively), and significantly more patients from Wuhan developed fever compared to Korea and HKSAR (40.6% vs. 29.7% vs. 21.6%, p=0.003, respectively). Fewer imported cases than domestic cases developed fever, after adjusting for age and region of origin (p=0.046). None developed pediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 (PIMS-TS). Findings also showed that adolescents were more likely to be asymptomatic and less likely to develop fever than younger children, but adolescents required longer hospital stays. In conclusion, most patients in this pediatric Asian cohort had mild disease, none developed PIMS-TS, and their clinical characteristics were influenced by travel history and age.</td>
<td>This study summarized clinical characteristics of 423 pediatric COVID-19 cases from Korea, Hong Kong, and Wuhan, China. Most of the pediatric patients had a mild disease, none developed PIMS-TS, and their clinical characteristics were influenced by travel history and age.</td>
<td>Chua GT, Xiong X, Choi EH, et al. COVID-19 In Children Across Three Asian Cosmopolitan Regions. Emerg Microbes Infect. 2020 Nov 3:1–29. doi: 10.1080/22221751.2020.1846462.</td>
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<td>Dermatologic manifestations; COVID-19: a comprehensive systematic review</td>
<td>3-Nov-20</td>
<td>Dermatologic manifestations of COVID-19: a comprehensive systematic review</td>
<td>International Journal of Dermatology</td>
<td>Systematic Review</td>
<td>In this article, the authors searched 12 databases under the PRISMA-compliant review from November 2019 until July 2020. The authors collated data on 2,560 patients (45 children) with dermatologic manifestations of COVID-19 from 86 retrieved studies. The most common findings were chilblains/pernio-like lesion (51.5%), erythematous maculopapular rashes (13.3%), and viral exanthem (7.7%). Most lesions are self-limited and resolve within 2 weeks of onset. The average pediatric age was 12.9 years (SD 3.6; median 14 years; range 0-18 years; IQR [14, 14]), 57.1% were female. Average latency from time of upper respiratory illness symptoms to cutaneous findings in children was 1.5 days (SD 2.9, range 3 to 7 days). 13.3% children initially presented with skin issues. Roughly one-tenth were otherwise asymptomatic or presented with only skin findings throughout the disease course. The average time to resolution of cutaneous manifestations was 5.8 days (SD 4.8, range 1 to 14 days). Seven skin biopsies in Spain from pediatric patients with chilblains-like</td>
<td>In this systematic review, the authors reported that the most common dermatologic manifestations of COVID-19 reported in the literature include chilblains and pernio-like lesions, erythematous rashes, viral exanthem, and urticaria. Dermatologic findings may play an important role in identifying cases early and serve as an important proxy to manage spread.</td>
<td>Mirza FN, Malik AA, Omer SB, Sethi A. Dermatologic manifestations of COVID-19: a comprehensive systematic review [published online, 2020 Nov 3]. Int J Dermatol. 2020. doi:10.1111/ijd.15168</td>
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<td>participatory research, community engagement, children, adolescents, parents, COVID-19, mental health, UK</td>
<td>3-Nov-20</td>
<td>Working with communities to mitigate the collateral impact of COVID-19 on children and young people</td>
<td>British Medical Journal (BMJ) Pediatrics Open</td>
<td>Editorial</td>
<td>While children and young people (CYP) have been relatively spared from severe clinical manifestations of COVID-19, there are growing concerns about the collateral impact of the pandemic on their health, well-being and development. In this editorial, the authors summarize the concerns of CYP during the COVID-19 pandemic, attempts in the UK to address these concerns, and strategies to promote sustainable engagement with parents during COVID-19. Research in the UK shows that fears of the virus are especially prominent among racial minority parents. Concerns among CYP include the health of vulnerable friends and relatives, the strain on health services, economic consequences, and their own mental health. Organizations in the UK have worked to clear up confusion among CYP caused by conflicting guidance and misinformation and worked to gather their stories and perspectives. Information bundles for parents regarding emergency services access, immunizations, and COVID-19 in children are provided as a supplement to this article. Finally, the authors argue that sustainable engagement with parents and CYP in the UK requires more participatory approaches to research, including the questions of CYP in government briefings, and open and honest communication about risks posed by COVID-19.</td>
<td>In this editorial, the authors explore the concerns of children and young people regarding the COVID-19 pandemic and highlight attempts in the UK to address these concerns. They also offer strategies to strengthen sustainable engagement with children, young people, and their parents as the COVID-19 pandemic evolves.</td>
<td>Coughlan C, Soni A, Ghouneim H, et al. Working with communities to mitigate the collateral impact of COVID-19 on children and young people. BMJ Paediatr Open. 2020 Nov 3;4(1):e000848. doi: 10.1136/bmjpo-2020-000848. PMID: 33173835; PMCID: PMC7640584.</td>
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<td>epidemiology, health services research, virology, USA</td>
<td>3-Nov-20</td>
<td>Reduction in paediatric intensive care admissions during COVID-19 lockdown in Maryland, USA</td>
<td>British Medical Journal (BMJ) Pediatrics Open</td>
<td>Letter to the Editor</td>
<td>The authors are reporting on an observation that admissions to the pediatric ICU (PICU) in Maryland have declined during the COVID-19 pandemic. The state of Maryland (USA) implemented interventions on March 5th, 2020 to curtail SARS-CoV-2 transmission. Admissions to the PICU at the University of Maryland Children’s Hospital in Baltimore were examined between March 1 - 31 2020. These were compared to admissions during the same time period during 2015-2019. In 2020, there was a decrease of 48.2% in PICU admissions compared to 2019, and a decrease of nearly 70% compared to 2015-2018. This decline was largely due to a decrease in respiratory illnesses. Authors assert that a dramatic improvement in air quality due to global lockdowns may be a factor in the dramatic reduction in pediatric asthma admissions.</td>
<td>There has been a significant decline in pediatric admissions to the pediatric ICU at the University of Maryland Children’s Hospital, Baltimore USA this year. This is largely due to a decrease in respiratory illness admissions, which the authors hypothesize may be a consequence of improved air quality due to local and global lockdown measurements.</td>
<td>Graciano AL, Bhutta AT, Custer JW. Reduction in paediatric intensive care admissions during COVID-19 lockdown in Maryland, USA. BMJ Paediatr Open. 2020;4(1):e000876. Published 2020 Nov 3. doi:10.1136/bmjpo-2020-000876.</td>
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<td>Coronavirus; Therapy; type 2; 31; dermatology; Italy</td>
<td>3-Nov-20</td>
<td>Chilblains-like lesions and SARS-CoV-2 in children: an overview in therapeutic approach</td>
<td>Dermatologic Therapy</td>
<td>Case Studies</td>
<td>Dermatologic manifestations in patients with COVID-19 can range from petechiae to papulovesicular rashes to diffuse urticaria and can be confused with rashes of non–COVID-19 conditions. The authors discuss two pediatric cases (7- and 11-year-old girls) with positive SARS-CoV-2 and skin lesions in Italy. They reviewed the current literature for similar reports and related management. Chilblains lesions typically appear early during the COVID-19 course and may be secondary to viral replication or circulating cytokines. However, the pathogenesis of chilblains is still uncertain. Adding a topical therapy could shorten the duration of the skin lesion and improve the symptoms, such as itching or edema. Although these lesions heal spontaneously in most cases, an adequate 'targeted' therapeutic approach can shorten the time and the discomfort of the skin disease. Many therapeutic agents are tested on these lesions, but the drug of choice is still debated. The authors suggest testing SARS-CoV-2 for patients presenting with any skin rash or acrocyanosis to facilitate the timely management of the pediatric COVID-19 cases and prevent SARS-CoV-2 transmission.</td>
<td>The authors discuss two pediatric cases (7- and 11-year-old girls) in Italy with positive SARS-CoV-2 and chilblains-like erythema indicative of SARS-CoV-2 infection. They suggest SARS-CoV-2 testing for patients presenting with any skin rash or acrocyanosis to timely manage the disease and prevent the transmission.</td>
<td>Pavone P, Marino S, Marino L, et al. Chilblains-like lesions and SARS-CoV-2 in children: an overview in therapeutic approach [published online, 2020 Nov 3]. Dermatol Ther. 2020;e14502. doi:10.1111/dth.14502</td>
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<td>COVID-19, SARS-CoV-2, pandemic, health care, pediatric, cardiac, congenital heart disease, CHD</td>
<td>3-Nov-20</td>
<td>Maintaining paediatric cardiac services during the COVID-19 pandemic in a developing country in sub-Saharan Africa: guidelines for a &quot;scale up&quot; in the face of a global &quot;scale down&quot;</td>
<td>Cardiology in the young</td>
<td>Recommendations</td>
<td>The pediatric cardiac services coverage in sub-Saharan Africa has long been suboptimal to care for a large number of children with congenital heart disease (CHD). COVID-19 pandemic has drastically changed cardiac surgical procedures due to restrictions on international travel and scarce health care resources. The authors provide cardiac services recommendations adapted at the Babcock/Tristate Heart and Vascular Center in Nigeria. They summarize infection control measures such as utilizing screening checklists to trace and isolate COVID-19 cases and promoting hand hygiene and mask-wearing in the facility. For the outpatient clinics, all visits should be scheduled to prevent overcrowding. For the emergency services, triage areas for suspected COVID-19 cases and protocols for quick testing are highly advisable. During the cardiovascular examinations, the most skilled personnel should examine to reduce patient contact time. Disposable electrocardiography electrodes can limit fomite transmission. For cardiac surgery, complicated and high-risk cases should be undertaken with caution in resource-limited settings. The authors summarize the challenges encountered including limited COVID-19 testing capabilities and long waiting lists of patients due to the lack of facilities that can handle patient loads under current safety guidelines. Virtual communications will remain an invaluable tool in improving patient care through real-time discussions among the care team. A region-adapted guideline is essential to scale up services for pediatric patients with CHD.</td>
<td>Establishing a region-adapted guideline to scale up services for children with congenital heart disease during the pandemic is critical. The authors provide outline measures adapted in a sub-Saharan tertiary center in Nigeria to maintain pediatric cardiac care.</td>
<td>Sokunbi OJ, Mgbajah O, Olugbemi A, Udom BO, Idowu A, Sanusi MO. Maintaining paediatric cardiac services during the COVID-19 pandemic in a developing country in sub-Saharan Africa: guidelines for a “scale up” in the face of a global “scale down”. Cardiol Young. 2020 Nov 3;1-7. doi: 10.1017/S1047951120003650. Epub ahead of print. PMID: 3314071S.</td>
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<td>COVID in pregnancy, COVID-19, COVID-19 in neonates, coronavirus, ethics, fetus, maternal outcomes, neonatal outcomes, synthesis</td>
<td>3-Nov-20</td>
<td>The impact of COVID-19 on manuscript submissions to Pediatric Research</td>
<td>Journal of Perinatal Medicine</td>
<td>Original Research (Abstract only)</td>
<td>The authors conducted a retrospective analysis of all pregnant women and newborns who tested positive for SARS-CoV-2 within the Nuvance Health System in Danbury, Connecticut, USA. They conducted a descriptive analysis of 40 patients (average age of 29.6-years-old, 35% Hispanic) based on variables including demographics, COVID-19 testing results, symptoms, management, labor course, neonatal information, and complications. One in three patients had comorbidities. 25 out of the 40 pregnant women who tested positive for SARS-CoV-2 delivered. Approximately 84% of the women delivered after 37 weeks. 12% of the women delivered under 33 and 6/7 weeks. 68% of the women had vaginal deliveries, and the remaining had cesarean deliveries. The mean birth weight of neonates was 3212g, and their Apgar scores were unremarkable. All of the 20 neonates who were tested for SARS-CoV-2 had negative results. Overall, pregnant patients and neonates in this cohort had good outcomes with routine prenatal care and preventive measures. At this point, there appears to be no evidence of vertical transmission.</td>
<td>A retrospective analysis of 40 SARS-CoV-2-positive pregnant women has revealed that pregnant women and neonates had good outcomes with routine prenatal care and preventive measures. The authors found no evidence of vertical transmission.</td>
<td>Ogamba I, Kliss A, Rainville N, Chuang L, Panarelli E, Petrini J, Zilberman D. Initial review of pregnancy and neonatal outcomes of pregnant women with COVID-19 infection. J Perinat Med. 2020 Nov 3/;j/pjme.ahead-of-print/jpm-2020-0446/jpm-2020-0446.xml. doi: 10.1515/jpm-2020-0446. Epub ahead of print. PMID: 33141109.</td>
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<td>Pregnancy; Labor; Childbirth; Guidelines; COVID-19; Australia</td>
<td>3-Nov-20</td>
<td>Clinical guidelines for caring for women with COVID-19 during pregnancy, childbirth and the immediate postpartum period</td>
<td>Women and Birth</td>
<td>Review article</td>
<td>This project aimed to develop a database of Australian and international recommendations relating to women's antenatal, intrapartum, and postpartum care during the COVID-19 pandemic. Authors conducted weekly searches from 30 March to 15 May 2020 to identify recommendations on women's care during pregnancy, labor, and the postpartum period from national or international professional societies, specialist colleges, Ministries of Health, Australian state and territory governments, and international guideline development organizations. They extracted individual recommendations and classified them according to intervention type, period, and patient population. Findings were reported using descriptive analysis, with areas of consensus and non-consensus identified. The authors identified 81 guidelines from 48 different organizations. They found variable guidance on the use of nitrous oxide during labor, administration of antenatal corticosteroids, neonatal isolation after birth, labor and birth companions, and the use of disease-modifying agents for treating COVID-19. This review summarizes available national and international recommendations to help clinicians and health services, and other maternal and perinatal health guideline developers. They found variable guidance on the use of nitrous oxide during labor, administration of antenatal corticosteroids, neonatal isolation after birth, labor and birth companions, and the use of disease-modifying agents for treating COVID-19.</td>
<td>This review summarizes available national and international recommendations to help clinicians and health services, and other maternal and perinatal health guideline developers. They found variable guidance on the use of nitrous oxide during labor, administration of antenatal corticosteroids, neonatal isolation after birth, labor and birth companions, and the use of disease-modifying agents for treating COVID-19.</td>
<td>Pavlidis P, Eddy K, Phung L, et al. Clinical guidelines for caring for women with COVID-19 during pregnancy, childbirth and the immediate postpartum period. Women and Birth. Published online November 2020:S187151920303723. doi:10.1016/j.wombi.2020.10.015</td>
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<td>Children; pathogenesis</td>
<td>3-Nov-20</td>
<td>COVID-19 in children: Pathogenesis and current status</td>
<td>Allergy and Asthma Proceedings</td>
<td>Review Article</td>
<td>This report aimed to examine the current evidence that supports the cause and development of COVID-19 in children and the relationship of COVID-19 with Kawasaki disease (KD) and multisystem inflammatory syndrome in children (MIS-C) as a basis for a better understanding of the clinical course, diagnosis, and management of these conditions. There are two overlapping phases for the pathogenesis of COVID-19: the first triggered by SARS-CoV-2 itself and the second by the host immune response. The authors clearly explained this pathogenesis in some figures. Children with KD have fewer of the previously described COVID-19-associated KD features with less prominent acute respiratory distress syndrome and shock than children with MIS-C. Excessive release of pro-inflammatory cytokines and tissue injury–related enzymes results in end-organ damage and vasculopathy, referred to as the “cytokine storm.” Current therapeutic options for severe COVID-19 have included convalescent plasma, anti-inflammatory immune modulators, and antivirals. Children are infected as easily as adults but are more often asymptomatic and have a milder disease because of their immature immune systems. Although children are largely spared from severe respiratory disease, they can present with a SARS-CoV-2-associated MIS-C similar to KD.</td>
<td>This report examined the current evidence that supports the cause and development of COVID-19 in children and the relationship of COVID-19 with Kawasaki disease (KD) and multisystem inflammatory syndrome in children (MIS-C). Children are more often asymptomatic and have a milder disease because of their immature immune systems. However, they can present with a SARS-CoV-2-associated MIS-C similar to KD.</td>
<td>Frenkel L, Gomez F, Bellanti JA. COVID-19 in children: Pathogenesis and current status [published online, 2020 Nov 3]. Allergy Asthma Proc. 2020. doi:10.2500/aap.2020.42.200104</td>
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<td>maternal COVID-19; neonatal transmission; breastfeeding; Alsace, France</td>
<td>3-Nov-20</td>
<td>Favorable outcomes among neonates not separated from their symptomatic SARS-CoV-2-infected mothers</td>
<td>Pediatric Research</td>
<td>Original Research</td>
<td>This retrospective study evaluated all term and near-term infants born to mothers confirmed to have COVID-19 during the last 2 weeks of their pregnancy between March 15 and April 24, 2020. The study examined the results of guidelines from 2 perinatal hospitals in Alsace, France which chose not to systematically separate neonates from their COVID-19 positive mothers. 26 mother-infant pairs were included in the study. SARS-CoV-2 nasal and anal swabs were obtained from the infants at birth and day 3, and breast milk was sampled on days 3 and 7 by PCR testing. Only one infant tested positive via an anal swab collected on day 3. This neonate was asymptomatic, and all other PCR tests on the same infant were negative for SARS-CoV-2. Infants rarely appear to become ill with COVID-19, and when they do, it is often a mild case. Despite a global fear of vertical transmission, the authors found no such cases in this very small study and hypothesize that breastfeeding may, in fact, be protective as antibodies against SARS-CoV-2 have been identified in breast milk. The authors stress that separation may have more significant consequences than providing early skin-to-skin contact and breastfeeding as long as good infection prevention measures are in place. Further study is needed with long term follow-ups to support the positions presented fully.</td>
<td>This retrospective study determined if the guidelines in 2 hospitals in Alsace, France were safe for infants born to SARS-CoV-2 positive mothers. The hospitals did not institute systematic separation, but rather instituted careful follow up and infection prevention measures even during breastfeeding practices. Only one infant tested positive for COVID-19 from one sample and remained asymptomatic.</td>
<td>Martenot A, Labbassi I, Delfils-Stern A, et al. Favorable outcomes among neonates not separated from their symptomatic SARS-CoV-2-infected mothers [published online ahead of print, 2020 Nov 3]. Pediatr Res. 2020;1-4. doi:10.1038/s41390-020-01226-3</td>
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<td>COVID-19; meta-analysis; pregnancy; protocol; breastfeeding; vertical transmission</td>
<td>3-Nov-20</td>
<td>Impact of SARS-CoV-2 (COVID-19) on pregnancy: a systematic review and meta-analysis protocol</td>
<td>British Journal of Medicine (BMJ) Open</td>
<td>Protocol for Meta-Analysis</td>
<td>The authors outline the protocol for a meta-analysis to examine the impact of COVID-19 on maternal and fetal morbidity and mortality [full list in article]. Many of the singular studies published thus far have small sample sizes. Therefore, it is critical that this information is amassed in order to inform decisions on additional protection for pregnant healthcare workers, whether to separate infants from infected mothers, whether it is safe for women to breastfeed and clarify whether pregnant women are more susceptible and if vertical transmission occurs. Numerous databases will be searched for observational studies (cohort and control cases) published from December 2019 to present (publication date). Three independent reviewers will select the studies and extract data and the risk of bias will be assessed using the Newcastle-Ottawa Scale for observational studies. To evaluate the strength of evidence from the included data, the authors will use the Grading of Recommendations Assessment Development and Evaluation (GRADE) approach. GRADE tool classifies the studies as low, moderate, and high quality. The authors will assess the heterogeneity of included studies, and a quantitative synthesis will be performed if studies are sufficiently homogenous.</td>
<td>This is the protocol for a meta-analysis designed to examine the impact of COVID-19 on maternal and infant outcomes. As the previously published studies have a small sample size and varying results, the authors hope to present the results in a concise and practical manner.</td>
<td>Medeiros, K. S., Sarmento, A., Martins, E. S., Costa, A., Eleutério, J., Jr, &amp; Gonçalves, A. K. (2020). Impact of SARS-CoV-2 (COVID-19) on pregnancy: a systematic review and meta-analysis protocol. BMJ open, 10(11), e039933. <a href="https://doi.org/10.1136/bmjopen-2020-039933">https://doi.org/10.1136/bmjopen-2020-039933</a></td>
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<td>mental health; Children; Parents; Day care issues; Healthcare delays; food insecurity; employer-sponsored insurance; USA</td>
<td>3-Nov-20</td>
<td>COVID-19 and worsening parent-child well-being</td>
<td>The Brown University Child and Adolescent Behavior Letter</td>
<td>Supplement</td>
<td>This article summarizes findings of a US study on the worsening of parents’ mental health and children’s behavioral health during the COVID-19 pandemic. It reports that compared to March 2020, in June 2020, a quarter of parents and 14.3% of their children have worsening mental health. The major influencers of these problems have been the lack of employer-sponsored insurance, delays in children’s healthcare, food insecurity, and childcare disruptions. It was found that 38.6% of homes with children 0-5 years old experienced disruptions in childcare, compared to only 7.5% of families with adolescents 13-17 years old. The implications stated are that school closures have caused concerns for parents and their children’s well-being and difficulties in accessing healthcare for children. Suggestions made are that schools prepare to support mental health challenges upon re-opening and work with mental health professionals on ways to support children remotely. Solutions are to increase funding so that schools, communities, and healthcare can support parents to help those suffering from increased mental health challenges.</td>
<td>This article summarizes findings of a US study on worsening parent mental health and child behavioral health during the COVID-19 pandemic.</td>
<td>Knopf, A. COVID-19 and worsening parent-child well-being. The Brown University Child and Adolescent Behavior Letter, 2020; 36: 9-10. doi:10.1002/cbl.30511</td>
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<td>Multicenter; USA; COVID-19; AKI pediatric</td>
<td>3-Nov-20</td>
<td>Preliminary Assessment of Acute Kidney Injury in Critically Ill Children</td>
<td>Clinical Journal of the American Society of Nephrology</td>
<td>Research Letter</td>
<td>In this article, the authors report on a multi-center, point-prevalence of acute kidney injury (AKI) study among critically ill children with COVID-19. The cross-sectional analysis captured weekly data points, with the interim assessment including children (age range: 1 month-18 years) from 41 centers (6</td>
<td>The authors reported the point prevalence of COVID-19 across multiple international centers, determining that 44% of Bjornstad EC, Kraliman KA, Askrenzi D, Zappitelli M, Goldstein SL, Basu RK; SPARC Investigators. Preliminary Assessment of Acute Kidney</td>
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<td>Associated with SARS-CoV-2 Infection: A Multicenter Cross-Sectional Analysis</td>
<td>Oct 2020</td>
<td>Extremely Premature Infants, Scarcity, and the COVID-19 Pandemic</td>
<td>Acta Paediatrica</td>
<td>A Different View</td>
<td>The authors discuss the interplay between scarcity, value, and justice in the care of extremely premature infants (born &lt; 26 weeks old), during the COVID-19 pandemic. Highlighting the legitimacy of suboptimal care, resource consumption, and authentic decision making, the authors elaborate on five points: (1) the enormous cost of premature care in the USA; (2) the high rate of neurodevelopmental impairment after extreme prematurity survival; (3) the lack of evidence for ventilators being denied to premature neonates due to COVID-19 scarcity, likely due to pregnant women opting for palliative comfort care for a host of reasons; (4) authentic informed choice amidst family uncertainty and risk; (5) and the misalignment of values with pregnant women and their families of diverse beliefs and experiences. The authors emphasize on virtuous neonatology, which illustrates evidence-based care, culturally grounded and ethical constructs that are mindful of scarcity’s genesis of privation, adaption, and creativity.</td>
<td>This authors discuss the scarcity of resources that exist to care for extremely premature infants, which was exacerbated by the COVID-19 pandemic. This caused a differential allocation of resources within strained healthcare systems.</td>
<td>Kaempf, J.W., Dirksen, K.M. and Kocker, N.J. (2020), Extremely Premature Infants, Scarcity, and the COVID-19 Pandemic. Acta Paediatrica. Accepted Author Manuscript. <a href="https://doi.org/10.1111/apa.1561">https://doi.org/10.1111/apa.1561</a></td>
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<td>Iran, maternal mortality, pregnancy, clinical presentation</td>
<td>3-Nov-20</td>
<td>Clinical features of pregnant women in Iran who died due to COVID-19</td>
<td>International Journal of Gynecology and Obstetrics</td>
<td>Clinical Article</td>
<td>The mortality rate of pregnant women during the COVID-19 pandemic is not well-known and the effect of SARS-CoV-2 on pregnancy outcomes is unclear. In this study from Iran, the authors obtained data from the electronic medical records of 32 pregnant women (mean age 30.0±5.0 years) (range not provided) who died following a laboratory confirmation of SARS-CoV-2 RNA in order to evaluate their clinical presentation. The mean time from first symptoms to death was 12±7.0 days. Pre-existing comorbidities were seen in 6 patients (19%). The main presentations at admission were fatigue (73%) and coughing (67%), but most women had a fever below 38 °C (93%). Increased white blood cell count (60% at ≥10.0x10⁹/L) and neutrophils (73% at ≥7.0x10⁹/L) were noticeable. A significant drop of oxygen saturation (100% at &lt;90% SpO2) with ground</td>
<td>This study analyzed the records of 32 pregnant women in Iran who died after COVID-19 diagnosis. Based on the results, the authors recommend CT findings, O2 pressure, and regular blood assessment as suitable indicators for the surveillance of pregnant patients with COVID-19.</td>
<td>Moghadam SA, Dini P, Nassiri S, Motavaselian M, Hajibaba M, Sohrabi M. Clinical features of pregnant women in Iran who died due to COVID-19. Int J Gynaecol Obstet. 2020 Nov 3;doi: 10.1002/ijgo.13461. Epub ahead of print. PMID: 33141933.</td>
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<td>Child nutrition, food security, monitoring and evaluation, SMS, cell phones, Guatemala</td>
<td>3-Nov-20</td>
<td>Assessing the use of cell phones to monitor health and nutrition interventions: Evidence from rural Guatemala</td>
<td>PLoS One</td>
<td>Research Article</td>
<td>Face-to-face data collection can be time-consuming and expensive, and introduces increased health risk during the COVID-19 pandemic. In this study, the authors evaluated the feasibility of using cell phones to monitor key health and nutrition interventions in infants’ first 1,000 days of life in rural Guatemala by examining response rates to calendarized text messages (SMS) and phone calls sent to 1,542 households from January 27 - May 26, 2019. Households were from randomly selected communities in Quiche, Guatemala and included either children &lt;2 years old or pregnant women. Phone calls were made in the local language (Ixil, Spanish, Kiche, and Qeqchi), but SMS communication was only made in Spanish due to issues related to literacy and character compatibility. The overall (valid) response rate to phone calls was over 5x higher than to SMS (75.8% versus 14.4%). Simple SMS reminders did not appear to improve the timely reception of health services. Language, education, and age appear to be major barriers to respond to SMS as opposed to phone calls. Response rate was not correlated with geographic location, indicating reception was not a contributing factor. Response veracity was high, with an 84–91% match between household responses and administrative records. Costs per effective answer showed a stark contrast of 7.76 US dollars for SMS and 1.12 US dollars for phone calls. This indicates that mobile phone calls can be an effective, low-cost tool for monitoring infant nutrition during the COVID-19 pandemic. In this study, the authors evaluated the feasibility of using cell phones to monitor key health and nutrition interventions in infants’ first 1,000 days of life in rural Guatemala. Results indicate phone calls were more successful and cost-effective than text messages in monitoring nutritional and developmental interventions. These findings can inform current and future efforts to monitor infant nutrition during the COVID-19 pandemic.</td>
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<td>child sexual abuse, trauma, children, pediatrics, adolescents, COVID-19, reporting, disclosure of abuse, SARS-CoV-2</td>
<td>2-Nov-20</td>
<td>Child Protection: A Guide for Navigating a Disclosure of Sexual Abuse</td>
<td>Rhode Island Medical Journal</td>
<td>Commentary</td>
<td>During the COVID-19 pandemic, a clinician may be one of the only individuals outside of the immediate family with whom a child will interact, necessitating the adequate preparation of physicians for handling children’s and adolescents’ disclosures of sexual abuse. This commentary provides recommendations for healthcare providers on making important clinical decisions while also satisfying reporting requirements to law enforcement in Rhode Island, USA. The authors define sexual abuse and sexual abuse reporting requirements in Rhode Island and describe how children of different ages usually disclose sexual abuse, incorporating a brief discussion on how telemedicine visits may affect how a child or adolescent discloses. The report also includes step-by-step guides on various disclosure scenarios. This commentary provides recommendations for physicians on how to navigate children’s and adolescents’ disclosures of sexual abuse during the COVID-19 pandemic, focusing on Rhode Island, USA. The authors include step-by-step guides on disclosure scenarios, advice for physical exams and contacting authorities,</td>
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Additionally, the authors discuss conducting physical exams in a way that minimizes re-traumatizing the child, and when the provider should call the police and the Department of Children, Youth, and Families. Mental health resources are also listed. Though the commentary focuses on Rhode Island, the provided guidelines are useful to all physicians working with children during the COVID-19 pandemic and beyond.

The authors focus on the key imaging features of the multisystem inflammatory syndrome in children, MIS-C, and identify key questions surrounding MIS-C. This compilation of immunological, genetic/epigenetic and other current research presentations at the NIH expert symposium on MIS-C provides numerous mini-reviews of ongoing scientific exploration investigating the complex immunological process in MIS-C. This state-of-the-art research symposium and report was designed to expedite and facilitate future research in understanding the viral and host immune mechanisms that result in MIS-C.

In part 1 of this article, the authors described imaging hallmarks of the pulmonary and vascular systems of COVID-19. In part 2 of the article, the authors focus on the key imaging features of the extra-pulmonary manifestations of COVID-19. These include cardiac, neurologic, abdominal, dermatologic and ocular, and musculoskeletal systems, as well as the pediatric and pregnancy-related manifestations. Highlights from the article include the following: 1) According to the American College of Radiology Appropriateness Criteria, imaging is not indicated in a well-appearing immunocompetent child older than 3 months of age. However, If the child is not responding to outpatient management or requires hospitalization, chest radiography is considered the most appropriate first step in imaging evaluation.

In pediatric patients with PMIS (MIS-C), 51% of children show signs of cardiac dysfunction, with abnormal echo-cardiographic findings depicting deteriorating myocardial function, myocarditis, and mental health resources.
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<td>COVID-19; intrapartum transmission; vertical transmission; Neonatal infection; Pregnancy; vaginal delivery; Israel</td>
<td>2-Nov-20</td>
<td>Safety of Vaginal Delivery in Women Infected with COVID-19</td>
<td>Pediatrics &amp; Neonatology</td>
<td>Original research</td>
<td>This single-center cohort study from a hospital in Israel assessed the safety of vaginal delivery in women infected with SARS-CoV-2 (n=21) and the risk of neonatal infection in deliveries between March 23-May 8, 2020. No pregnant patients required admission to the ICU, and there were no fatalities. 3 women received treatment with azithromycin (500mg once a day for 5 days) and hydroxychloroquine (200mg twice a day for 10 days), and 1 patient received azithromycin only. 17 women delivered vaginally and 4 by C-section (median gestational age: 39 weeks, gestational age range: 32-41 weeks). 19 deliveries were at term. Apgar scores of all neonates were 9 at 1 minute and 10 at 5 minutes. All birth weights were appropriate for gestational age (mean birth weight: 3353 g; range: 1920-4070 g). 1 neonate was diagnosed with COVID-19 infection 24 hours after birth but did not require any specific support and was normal upon evaluation at 14 days of life. The authors conclude that vaginal delivery in SARS-CoV-2-infected women was not associated with a significant risk of neonatal infection.</td>
<td>This cohort study from a hospital in Israel assessed the safety of vaginal delivery in women infected with SARS-CoV-2 (n=21) and the risk of neonatal infection. Vaginal delivery in SARS-CoV-2-infected women was not associated with a significant risk of neonatal infection.</td>
<td>Lopian M, Kashani-Ligumsky L, Czeiger S, et al. Safety of Vaginal Delivery in Women Infected with COVID-19. Ped Neonat. 2020;4(1):e000842. Published 2020-10.1016/j.pedneo.2020.10.010.</td>
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<td>Epidemiology; health services research; children; vaccination; literature gap</td>
<td>2-Nov-20</td>
<td>Pandemics, epidemics and inequities in routine childhood vaccination coverage: a rapid review</td>
<td>British Medical Journal (BMJ) Paediatrics Open</td>
<td>Original Research</td>
<td>This is a review of pandemics’ impact on existing inequities in routine vaccination coverage in children 0–18 years old. The authors aimed to include papers reporting on social, regional, or gender inequality in reductions in routine childhood vaccination coverage during any pandemic or epidemic, including the COVID-19 pandemic. The authors selected 29 papers selected for full-paper review from 1973 abstracts identified from 10 databases. They found a gap in the literature, as none of the papers met the inclusion criteria. The 29 papers were excluded due to no measures of inequity (14 papers), outbreak-specific vaccine reported (13 papers), and not being pandemic-related (2 papers). The authors describe their PICO (Population, Intervention/Exposure, Comparison, Outcome) search strategy, and include the PRISMA 2009 flow chart in a separate diagram. Equity in routine childhood vaccination coverage, especially for...</td>
<td>This is a review of pandemics’ impact on existing inequities in routine vaccination coverage in children 0–18 years, including the COVID-19 pandemic. The authors did not find any publications encompassing pandemics or epidemics since 1900 up to June 2020 with data on reduced routine childhood vaccination by equity</td>
<td>Spencer N, Nathawad R, Arpin E, et al. Pandemics, epidemics and inequities in routine childhood vaccination coverage: a rapid review. BMJ Paediatr Open. 2020;4(1):e000842. Published 2020 Nov 2. doi:10.1136/bmjpo-2020-000842</td>
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<td>Pregnancy, maternal outcomes, neonatal outcomes, disease severity, Texas, USA</td>
<td>2-Nov-20</td>
<td>Pregnancy Outcomes Among Women With and Without Severe Acute Respiratory Syndrome Coronavirus 2 Infection</td>
<td>Journal of the American Medical Association (JAMA) Open Network</td>
<td>Original Research</td>
<td>In this observational cohort study, comparison of maternal and neonatal outcomes among women with and without SARS-CoV-2 during pregnancy was conducted from March 18 - August 22, 2020, at Parkland Health and Hospital System (Dallas, Texas, USA). 3374 pregnant women (mean age 27.6 years, SD 6 years) tested for SARS-CoV-2 were delivered, including 252 who tested positive and 3122 who tested negative. The cohort included 2520 Hispanic (75%), 619 Black (18%), and 125 White (4%) women. There were no differences in age, parity, body mass index, or diabetes among women with or without SARS-CoV-2. SARS-CoV-2 positivity was more common among Hispanic women (230 [91%] positive vs 2290 [73%] negative; 95% CI, 12.3%-23.5%; P &lt; 0.001). There was no difference in the composite primary outcome of preterm birth, pre-eclampsia with severe features, or cesarean delivery for abnormal fetal heart rate among women delivered after 20 weeks of gestation (52 women [21%] vs 684 women [23%]; relative risk, 0.94; 95% CI, 0.73-1.21; P = 0.64). Early neonatal SARS-CoV-2 infection occurred in 6 of 188 tested infants (3%), primarily born to asymptomatic or mildly symptomatic women. There were no placental pathologic differences by illness severity. 6 of the SARS-CoV-2 positive women (3%) developed severe or critical illness. 14 women (6%) were hospitalized for the indication of COVID-19. The authors conclude that in this large, single-institution cohort study, SARS-CoV-2 infection during pregnancy was not associated with adverse pregnancy outcomes, placental abnormalities were not associated with disease severity, and hospitalization frequency was similar to rates among non-pregnant women.</td>
<td>In this large observational cohort study comparing maternal and neonatal outcomes between pregnant women with and without SARS-CoV-2 in Texas, USA, the authors found that SARS-CoV-2 infection during pregnancy was not associated with adverse pregnancy outcomes and hospitalization frequency was similar to rates among non-pregnant women.</td>
<td>Adhikari EH, Moreno W, Zofkie AC, et al. Pregnancy Outcomes Among Women With and Without Severe Acute Respiratory Syndrome Coronavirus 2 Infection. JAMA Netw Open. 2020 Nov 2;3(11):e2029256. doi: 10.1001/jamanetworkopen.2020.29256.</td>
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<td>SARS-CoV-2; epidemiology; clinical characteristics; children; meta-analysis</td>
<td>2-Nov-20</td>
<td>Epidemiological and Clinical Characteristics of COVID-19 in Children: A Systematic Review</td>
<td>Frontiers in Pediatrics</td>
<td>Systematic review</td>
<td>To summarize the current knowledge of COVID-19 in children with respect to epidemiology, clinical characteristics, rate of viral co-infections, and outcomes, the authors conducted a systematic review and meta-analysis of published literature between January 1- May 7, 2020. The analysis included 96 studies, published in either English or Chinese, with 7004 total cases. The mean age of pediatric cases was 6.48 years (95% CI 5.20-7.75 The authors present a systematic review and meta-analysis of published literature on pediatric COVID-19 epidemiologic data from January 1- May 7, 2020. They conclude</td>
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<td>Li B, Zhang S, Zhang R, Chen X, Wang Y, Zhu C. Epidemiological and Clinical Characteristics of COVID-19 in Children: A Systematic Review and Meta-Analysis. Front Pediatr. 2020;8:591132. Published 2020</td>
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<td>surveillance, USA</td>
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<td>Review and Meta-Analysis</td>
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<td>racial disparities, New York City</td>
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<td>years, with a mistake in reported CI numbers in the abstract) and ages ranged from 1 day to 18 years. 66% of the pediatric patients had mild to moderate clinical symptoms, and those &lt; 5 years had more severe symptoms. The main symptoms were fever (47%, 95% CI 41-53%) and cough (42%, 95% CI 36-48%), and 24% of the children were asymptomatic. The infection source was close family contact for 90% of the pediatric cases. The pooled incubation period in children was found to be 9.57 days (95% CI 7.70-11.44 days), which is much longer than the 4 days previously reported for adults. 27% of the patients had co-morbidities, and 29% presented with a co-infection. Shedding of SARS-CoV-2 in the upper respiratory tract lasted on average 11.43 days, (95% CI 10.1-12.77) and 75% had the virus in their stool. The analysis showed apparent age-related differences in clinical characteristics of COVID-19. The overall reported death rate for pediatric patients was 1%. The authors state that pediatric transmissibility should not be ignored because of the relatively long incubation period, shedding duration, and mild clinical syndromes.</td>
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<td>New York City, race, ethnicity, racial disparities, ethnic disparities, surveillance, USA</td>
<td>2-Nov-20</td>
<td>Race/Ethnicity Among Children With COVID-19-Associated Multisystem Inflammatory Syndrome</td>
<td>Journal of the American Medical Association (JAMA) Network Open</td>
<td>Original Research</td>
<td>This paper summarizes the incidence of COVID-19 related MIS-C reported to the New York City (NYC, USA) Department of Health and Mental Hygiene by racial and ethnic group to quantify the burden of MIS-C as compared to COVID-19 hospitalizations. Researchers analyzed all hospitalizations of children and adolescents &lt; 21 years up to May 4, 2020, with presentation of COVID-19 related MIS-C. Among 223 patients that met MIS-C criteria, the median age was 7 years [IQR: 3-12 years][age range not provided], 127 (57.0%) were male, and 50 patients (22.4%) had one or more underlying condition (asthma [31 patients, 13.9%] and obesity [20 patients, 9.0%] were the most common). SARS-CoV-2 was detected in 175 patients (78.5%) by either PCR or serology, and results were negative or unavailable for 48 patients (21.5%). Overall incidence was 11.4 cases per 100,000 children &lt; 20 years. Black children comprised 19.9% of COVID-19 hospitalizations, and 34.4% of MIS-C cases, despite only comprising 22.2% of the NYC population. Hispanic children comprised 40.0% of COVID-19 hospitalizations, and 29.8% of MIS-C patients, but only 35.6% of the NYC population. White children and Asian or Pacific Islanders were underrepresented in COVID-19 and MIS-C cases. They accounted for 13.8% and 3.2% of COVID-19 hospitalizations, respectively, and 12.8% and 5.5% of MIS-C cases, respectively. However, White and Asian or Pacific Islanders account for 26.1% and 12.8% of the NYC population, respectively. Consistent with previous US literature, this paper shows a higher burden of morbidity from COVID-19 and related syndromes among Black and Hispanic children in NYC.</td>
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<td>COVID-19, SARS-CoV-2, pediatric research, manuscript submission</td>
<td>2-Nov-20</td>
<td>The impact of COVID-19 on manuscript submissions to Pediatric Research</td>
<td>Pediatric Research</td>
<td>Correspondence</td>
<td>The authors studied the effect of COVID-19 on the manuscript submission rate to the journal Pediatric Research from February to July 2020 (COVID-19 impacted period). Total average submissions during the 6-months COVID-19 impacted period was greater than total average submissions in 2017, 2018, and 2019 during the same period (p ≤0.001, p ≤0.001, and p=0.006, respectively). Total average submissions were greater in 2019 than in 2017 (p=0.0244) as well. Average non-COVID-19 articles were significantly greater in 2020 than in 2017 and 2018 (p ≤ 0.001, p=0.0012, respectively). COVID-19-related articles vary across months, with the highest in April and the lowest in February 2020. Manuscript submissions increased by 80.1% from 2017 to 2020, 60.1% from 2018 to 2020, and 39.2% from 2019 to 2020. This indicates the pre-existing trend of increased manuscript submission per year before the pandemic. A Pediatric Research’s editors’ survey revealed that most editors did not feel overwhelmed by the pandemic situation, and most were comfortable handling the manuscripts load. COVID-19 increased the total amount of submissions during the study period; however, the increase was not significant enough to deduce definitive causation for the 2020 submission increase.</td>
<td>Manuscript submissions to the journal Pediatric Research were higher in February-July 2020 than in February-July 2018, 2018, and 2019. Although COVID-19 increased the total amount of manuscript submissions during the study period, the effect would not be significant due to the pre-existing trend of increased manuscript submissions per year before the pandemic.</td>
<td>Alkhouri NB, Mutka MC, Stefanak MP, Bearer C. The impact of COVID-19 on manuscript submissions to Pediatric Research. Pediatr Res. 2020 Nov 2. doi: 10.1038/s41390-020-01220-9. Epub ahead of print. PMID: 33139866.</td>
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<tr>
<td>COVID-19; online learning; school; caregiver preference; virtual learning; child health; United States</td>
<td>2-Nov-20</td>
<td>Factors Associated with Caregiver Preferences for Children’s Return to School during the COVID-19 Pandemic</td>
<td>Journal of School Health</td>
<td>Original research</td>
<td>This study aimed to assess caregiver preferences for in-person versus virtual learning at home for the 2020-2021 academic year during the COVID-19 pandemic and associated factors in order to aid in the development of school re-opening plans. Between July 1 - 13, 2020, caregivers of 4436 children from a single public-school district in Texas, USA completed an anonymous online survey (one for each child). The authors report 18% of caregivers preferred a fully virtual format, 52% preferred an in-person format, and 30% preferred a hybrid format. Caregivers of high and middle school students were more likely to prefer the hybrid format and less likely to prefer the in-person format than caregivers of elementary school students. Child’s health and safety concerns were the greatest drivers of preference for virtual learning; the odds ratios comparing virtual learning to hybrid and in-person across the three grades ranged from OR=7.03 to OR=89.7 (all p&lt;0.001). A lack of childcare options was a strong driver for in-person learning for caregivers of elementary (OR=0.10, p&lt;0.001) and middle school students (OR=0.21, p&lt;0.001). The results highlight the importance of offering virtual options and considering caregivers in re-opening plans, particularly in areas with high COVID-19 rates.</td>
<td>This study highlights differences in caregiver preference for the learning format of the 2020-2021 academic year during the COVID-pandemic. The authors report parents of older children preferring a hybrid or virtual learning environment and that concerns for their child’s health and safety is the primary factor associated with a preference for a fully virtual learning format.</td>
<td>Limbers C. A. (2020). Factors Associated with Caregiver Preferences for Children’s Return to School during the COVID-19 Pandemic. The Journal of school health, 10.1111/josh.12971. Advance online publication. <a href="https://doi.org/10.1111/josh.12971">https://doi.org/10.1111/josh.12971</a></td>
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</table>
**Key Terms**

- COVID-19, SARS-CoV-2, infection, adults, school opening, pandemic, children, household
- pregnancy; maternal mortality; meta-analysis; cesarean delivery; COVID-19; vertical transmission

**Date Published**

- 2-Nov-20

**Title**

- Association between living with children and outcomes from COVID-19: an OpenSAFELY cohort study of 12 million adults in England
- Impact of COVID-19 on maternal and neonatal outcomes: a systematic review and meta-analysis

**Journal / Source**

- medRxiv
- Clinical Microbiology and Infection

**Type of Publication**

- Pre-print (not peer-reviewed)
- Systematic review

**Summary & Key Points**

- Children’s and adolescents’ role in SARS-CoV-2 transmission is uncertain. Quantifying the impact of living with children on the adults’ risk of SARS-CoV-2 infections and outcomes is critical to inform school re-opening. The authors conducted a population-based cohort study in England to investigate whether the SARS-CoV-2 infection risk and severe outcomes are different between adults and school-aged children. The study population included 9,157,814<sub>1</sub> 65-year-olds and 2,567,671<sub>1</sub> 65-year-olds from English general practices, and the authors followed the outcomes from 1 February to 3 August 2020. The authors studied whether living with 1) any children of 0-11-year-old 2) no children of 0-11-year-old but ≥1 child of 12-18-year-old in the household increased the risk of SARS-CoV-2 infection among ≤65 and >65-year-old adults. Among 9,157,814<sub>1</sub> 65-year-olds, living with children of 0-11-year-old was not associated with increased COVID-19 infection risks and COVID-19 related hospital or ICU admission but was associated with reduced risk of COVID-19 death (Hazard Ratio (HR) 0.75,[mv6] [SA7] 95%CI 0.62-0.92). Living with children of 12-18-year-old was associated with a small increased risk of SARS-CoV-2 infection (HR 1.08, 95%CI, 1.03-1.13), but was not associated with other COVID-19 outcomes. Among >65-year-olds, living with children was not associated with COVID-19 outcomes. The findings from this study will better inform the decision-making regarding children’s school attendance during the pandemic.

- This systematic review and meta-analysis aimed to assess the impact of COVID-19 on maternal and neonatal outcomes. Six databases were searched for articles with original data (case series, cohort, retrospective, case control studies) published before May 8, 2020. Two reviewers reviewed 878 deduplicated articles and extracted data from a final 24 articles, including 1100 pregnancies of Chinese, European and North American women in the analysis. The authors present the most common symptoms (pneumonia prevalence = 89%) and outcomes and report that the prevalence of ICU admissions and maternal deaths do not differ from that of non-pregnant women. Prevalence of C-section (85%) and preterm birth (23%) were higher in the COVID-19 infected pregnant women than in the general population. The prevalence of COVID-19-related admission to the NICU was 2% (9 out of 474). There were 3 neonatal deaths and 19 out of 444 neonates had a positive nasopharyngeal swab at birth. The authors conclude that clinical characteristics of COVID-19 in pregnant patients seem to be similar to those in non-pregnant infected adults. Additionally, the authors report there is currently no clear evidence of vertical transmission of COVID-19.

**Specific Observations**

- A population-based cohort study shows no evidence of an increased risk of severe COVID-19 outcomes among ≤65 and >65-year-old adults living with children
- This meta-analysis shows a high frequency of preterm births and cesarean deliveries and a low rate of breastfeeding, not fully explained by the severity of maternal disease or fetal compromise. The authors report no clear evidence of vertical transmission of COVID-19

**Full Citation**

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<tr>
<td>Pregnancy; COVID-19; Coronavirus; infectious disease; emergency physicians; International studies</td>
<td>2-Nov-20</td>
<td>COVID-19 in pregnancy and the puerperium: A review for emergency physicians</td>
<td>American Journal of Emergency Medicine</td>
<td>Narrative review</td>
<td>The authors undertook a narrative review of 59 articles to provide clinicians with data on clinical manifestations of COVID-19 in pregnancy, the effects of pregnancy on the course of the disease, the impact of COVID-19 on pregnancy outcomes, and the safety of COVID-19 treatments during pregnancy, and evidence related to breastfeeding. Most pregnant women diagnosed with COVID-19 have a mild illness course and recover without any problems for their pregnancy. The most common symptoms for pregnant women are similar to the general population of cough and fever, although many pregnant women are asymptomatic. Women in their third trimester have the highest risk for critical illness, ICU admission, and mechanical ventilation. Adverse outcomes associated with COVID-19 include miscarriage, prematurity, and fetal growth restriction. Several studies have shown a higher than standard rate of C-sections and premature births independent of the disease's severity. Miscarriage rates are 16.1% in the first trimester and 3.5% in the second trimester. Vertical transmission and breast milk transmission are possible but have not been proven yet. Given the current paucity of evidence, the WHO and CDC recommend mothers with COVID-19 continue to breastfeed newborns as long as basic hygiene measures are followed, including the use of facemasks. A detailed algorithm for the disposition of pregnant COVID-19 patients is also presented.</td>
<td>This article is a narrative review of 59 articles for clinicians to become more aware of clinical manifestations of COVID-19 in pregnancy, the effects of pregnancy on the course of the disease, the impact of COVID-19 on pregnancy outcomes, the safety of COVID-19 treatments during pregnancy, and evidence related to breastfeeding.</td>
<td>Boushra, MN, Koyfman, A, Long, B. COVID-19 in pregnancy and the puerperium: A review for emergency physicians [published online ahead of print 2 Nov. 2020] American Journal of Emergency Medicine. <a href="https://doi.org/10.1016/j.ajem.2020.10.055">https://doi.org/10.1016/j.ajem.2020.10.055</a></td>
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<td>Immunization; SARS-CoV-2; Vaccine confidence; adolescents; children; United States</td>
<td>2-Nov-20</td>
<td>COVID-19 and Vaccination of Children and Adolescents: Prospects and Challenges</td>
<td>The journal of pediatrics</td>
<td>Commentary (pre-print)</td>
<td>This commentary addresses the prospects of a COVID-19 vaccine for the pediatric population, the rationale for vaccinating minors, potential challenges, impact on vaccine acceptability and moderating the uncritical optimism that a vaccine for children or adults, by itself, will solve our COVID-19 pandemic problems. Despite older adults having higher COVID-related mortality, vaccinating children is important in order to achieve herd immunity, which is the primary public health goal of vaccination. However, only one trial has reportedly had enrolled 100 children aged 12-15 years and 200 children aged 16-17 years by the end of October 2020 and the licensure process may be lengthier than for adults. The authors report that it is unlikely that a vaccine for minors would be available before 2022. Distrust in the public health authorities, general vaccine hesitancy and politicization of COVID-19 interventions make vaccine implementation a challenge. Building back this trust and proper COVID-19 communication is key. The authors conclude that there is a strong rationale for child and adolescent vaccination, but that it is likely that</td>
<td>This commentary declares that child and adolescent vaccination is key in order to achieve herd immunity. However, there are numerous challenges in COVID-19 vaccine licensure and, once available, implementation that must be considered in order to accomplish adequate coverage</td>
<td>Zimet GD, Silverman RD, Fortenberry JD, COVID-19 and Vaccination of Children and Adolescents: Prospects and Challenges, The Journal of Pediatrics (2020), doi: <a href="https://doi.org/10.1016/j.jpeds.2020.11.002">https://doi.org/10.1016/j.jpeds.2020.11.002</a>.</td>
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<td>Pregnancy, maternal outcomes, neonatal outcomes, CDC, United States, preterm birth</td>
<td>2-Nov-20</td>
<td>Birth and Infant Outcomes Following Laboratory-Confirmed SARS-CoV-2 Infection in Pregnancy — SET-NET, 16 Jurisdictions, March 29—October 14, 2020</td>
<td>Morbidity and Mortality Weekly Report (MMWR)</td>
<td>Original Research</td>
<td>Through the Surveillance for Emerging Threats to Mothers and Babies Network (SET-NET), 16 United States jurisdictions collected information on pregnancy and infant outcomes among 5,252 women with laboratory-confirmed SARS-CoV-2 infection from March 29–October 14, 2020. The median age of women was 28.9 years, and 46.0% were Hispanic or Latina ethnicity. At least one underlying medical condition was reported for 1,564 (45.1%) women, with pre-pregnancy obesity (BMI ≥ 30 kg/m²) (35.1%) being the most commonly reported. Most (84.4%) women had infection identified in the 3rd trimester. Among 3,912 live births with known gestational age, 12.9% were preterm (&lt;37 weeks), higher than the reported 10.2% among the general U.S. population in 2019. This finding is consistent with other CDC reports describing higher proportions of preterm births among women hospitalized at the time of SARS-CoV-2 infection. SET-NET will continue to follow pregnancies affected by SARS-CoV-2 to guide clinical and public health practice.</td>
<td>In this analysis of COVID-19 SET-NET data from 16 USA jurisdictions, the proportion of preterm live births among women with SARS-CoV-2 infection during pregnancy (12.9%) was higher than that in the general population in 2019 (10.2%), suggesting that pregnant women with SARS-CoV-2 infection might be at risk for preterm delivery.</td>
<td>Woodward KR, Olsen EO, Neelam V, et al. Birth and Infant Outcomes Following Laboratory-Confirmed SARS-CoV-2 Infection in Pregnancy — SET-NET, 16 Jurisdictions, March 29—October 14, 2020. MMWR Morb Mortal Wkly Rep. ePub: 2 November 2020. DOI: <a href="http://dx.doi.org/10.15585/mmwr.mm6944e2external">http://dx.doi.org/10.15585/mmwr.mm6944e2external</a> icon</td>
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<td>Pregnancy, nonpregnant women, age, ICU, invasive ventilation, ECMO, symptoms, USA</td>
<td>2-Nov-20</td>
<td>Update: Characteristics of Symptomatic Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status — United States, January 22–October 3, 2020</td>
<td>Morbidity and Mortality Weekly Report (MMWR)</td>
<td>Report</td>
<td>The authors present updated information about symptomatic women of reproductive age (15–44 years) with laboratory-confirmed infection with SARS-CoV-2 in the United States. They collected data from the CDC on 1,300,938 women aged 15–44 years with laboratory-confirmed SARS-CoV-2 infection from January 22 to October 3, 2020. The results showed that among all women aged 15–44 years data on pregnant/non-pregnant status were available for 461,825 (35.5%) women with laboratory-confirmed infection: 409,462 (88.7%) were symptomatic. Among symptomatic women, 23,434 (5.7%) were reported to be pregnant. Cough, headache, muscle aches, and fever were the most frequently reported symptoms, and most symptoms were reported less frequently by pregnant women than by non-pregnant women. Of note, after adjusting for age, race/ethnicity, and underlying medical conditions, pregnant women were significantly more likely than non-pregnant women to be admitted to an ICU, receive invasive ventilation, and receive extracorporeal membrane oxygenation. Furthermore, 34 deaths (1.5 per 1,000 cases) were reported among 23,434 symptomatic pregnant women, while 447 deaths (1.2 per 1,000 cases) were reported among 386,028 non-pregnant women, reflecting a 70% increased risk for death associated with pregnancy (aRR = 1.7; 95% CI = 1.2–2.4). Also, regardless of pregnancy status, non-Hispanic Black women experienced a disproportionate number of deaths relative to their distribution among reported cases.</td>
<td>The authors observed that in this cohort of approximately 400,000 women aged 15–44 years with symptomatic COVID-19 in the United States, ICU admission, invasive ventilation, extracorporeal membrane oxygenation, and death were more likely in pregnant women than in non-pregnant women.</td>
<td>Zambrano LD, Ellington S, Strid P, et al. Update: Characteristics of Symptomatic Women of Reproductive Age with Laboratory-Confirmed SARS-CoV-2 Infection by Pregnancy Status — United States, January 22–October 3, 2020. MMWR Mortal Mortal Wkly Rep. ePub: 2 November 2020. DOI: <a href="http://dx.doi.org/10.15585/mmwr.mm6944e3external">http://dx.doi.org/10.15585/mmwr.mm6944e3external</a> icon</td>
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<td>COVID-19; learning disability; McGurk effect</td>
<td>1-Nov-20</td>
<td>McGurk effect and audiovisual speech perception in students with learning disabilities exposed to online teaching during the COVID-19 pandemic</td>
<td>Medical Hypotheses</td>
<td>Letter to the Editor</td>
<td>The McGurk effect refers to the perceptual phenomenon that highlights the interaction between auditory and visual information in speech perception. In this letter, the author highlights the challenges faced by young adults with learning disabilities in higher education to integrate auditory and visual information for speech perception in a regular classroom setting, such as noisy open classrooms and distance from lectures. The author suggests the suitability of online classes as an alternative to in-person classes during the COVID-19 pandemic, hypothesizing that the lecturer’s hyper-articulated speech could lead to clearer speech marked by exaggerated articulatory movements, which can help enhance visual perception. Additionally, the author assumes that through an online medium, students have greater control over their learning pace. Even more so than that provided by computer-aided learning systems, their engagement increases due to feedback being provided by speech-processing software instead of an actual person.</td>
<td>In this letter, the author highlights the suitability of online learning in addressing the challenges faced by young adults with a learning disability, such as the integration of auditory and visual information in speech perception. The author suggests that the control over the pace of online learning and the hyper-articulation of speeches by lecturers can enhance visual perception, increase engagement, and enhance learning.</td>
<td>Kkese E. McGurk effect and audiovisual speech perception in students with learning disabilities exposed to online teaching during the COVID-19 pandemic. Med Hypotheses. 2020;144:110233. doi:10.1016/j.mehy.2020.110233</td>
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**Antibody; COVID-19; Intensive care; MIS-C; PICU; PIMS-TS; Refractory shock; SARS-CoV-2, India**

| Antibody; COVID-19; Intensive care; MIS-C; PICU; PIMS-TS; Refractory shock; SARS-CoV-2, India | 1-Nov-20 | Multisystem inflammatory Syndrome in Children: Clinical Features and Management—Intensive Care Experience from a Pediatric Public Hospital in Western India | Indian Journal of Critical Care Medicine | Original Research | This is an observational study of children (1 month-18 years) who presented at the pediatric ICU with MIS-C between April and July 2020 in Mumbai, India. There were 21 patients (median age=7 years; IQR 1.9–12.1). 8/21 were SARS-CoV-2 RT-PCR positive and 16/21 were antibody positive. Fever was present in all patients, and gastro-intestinal symptoms were common (16/21). One child had aplastic anemia, while the rest had no co-morbidities. Nearly all presented with shock (n = 20/21) and 90% needed vasoactive drugs with a median Vasoprotective Introtric Score of 40 (IQR 20–95). 13 children needed ventilatory support and one needed peritoneal dialysis. 9 children had left ventricular dysfunction and 5 had dilatation of coronaries on echocardiography. Inflammatory markers C-reactive protein (98 mg/dL [IQR 89–119]), serum ferritin (710 mg/dL [IQR 422–1,609]), and serum interleukin-6 levels (215 ng/L [IQR 43–527]) were uniformly elevated. 18 children received pulse methylprednisolone, 11 IV immunoglobulins, and 4 tocilizumab. 18 children (86%) were discharged home while 3 died. Mortality in this cohort was 14%, indicating that more research must be done to find effective treatment, and physicians must be made aware of the clinical presentation of this syndrome. | This is an observational study in Mumbai, India of 21 pediatric ICU patients (median age=7 years) who presented with MIS-C. The most common symptoms were shock, fever, and gastro-intestinal symptoms. Mortality in this cohort was 14%, indicating that more research must be done to find effective treatment, and physicians must be made aware of the clinical presentation of this syndrome. | Prabhu S, Rao S, Prabhu S, et al. Multisystem inflammatory Syndrome in Children: Clinical Features and Management—Intensive Care Experience from a Pediatric Public Hospital in Western India. Indian Journal of Critical Care Medicine. 2020;24(11):1094-1094. doi:10.5005/jp-journals-10071-23658 |

**COVID-19; pediatric; sickle cell disease; hematopoiesis; Oman**

| COVID-19; pediatric; sickle cell disease; hematopoiesis; Oman | 1-Nov-20 | COVID-19 in Omani Children with Hemato-Oncology Diseases | Mediterranea n Journal of Hematology and Infectious Diseases | Letter | The authors discuss SARS-CoV-2 infection in children with hematopoiesis diseases in Oman. To the date of their writing in July 2020, only 10 children with hematopoiesis diseases had required admission for COVID-19 in Oman – 7 with sickle cell disease (SCD), 2 with acute leukemia, and 1 patient for primary immune deficiency after bone marrow transplantation. 3 SCD | The authors discuss SARS-CoV-2 infection in pediatric cases of hematopoiesis diseases in Oman. The letter suggests that in Oman, children with sickle cell disease may have a better outcome than other reports (14%), and the authors assert that care provided must familiarize themselves with MIS-C symptoms and further research is needed to find the best course of treatment. | Al Yazidi LS, Wali Y. COVID-19 in Omani Children with Hemato-Oncology Diseases. Mediterr J Hematol Infect Dis. 2020;12(1):e2020074. doi:10.4084/MJHID.2020.074 |
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<td>1-Nov-20</td>
<td>Cutaneous manifestations of COVID-19 in children (and adults): A virus that does not discriminate</td>
<td>Clinics in Dermatology</td>
<td>Original Article</td>
<td>This article describes the current evidence on the dermatologic impact of COVID-19 in both adult and pediatric populations. The Spanish Academy of Dermatology and Venereology published a review of 375 adult patients with SARS-CoV-2 who developed cutaneous eruptions. These were divided into five presenting categories: pseudo-chilblain, other vesicular eruptions, urticarial lesions, maculopapular eruptions, and livedo or necrosis. Livedo and necrosis were associated with increased disease severity. For children, cutaneous manifestations appear to be one of the early clinical features of COVID-19. These include macules, papules, vesicles, erythema multiforme, and chilblain. Patients may be otherwise asymptomatic, and the cutaneous features may be the first sign of infection. Children can also develop the systemic inflammatory condition MIS-C, and just over half of patients report a skin eruption as part of their clinical presentation in MIS-C. The authors conclude that physicians should remain cognizant when reviewing pediatric patients, who may present for the first time in the dermatology office or emergency room with COVID-19 manifesting as a skin eruption.</td>
<td>Cell disease may have the highest risk of developing severe SARS-CoV-2 infection among children with hemato-oncology problems. The importance of hand hygiene, staying home, and social distancing in this population, along with prompt medical care when needed.</td>
<td>Lavery MJ, Bouvier CA, Thompson B. Cutaneous manifestations of COVID-19 in children (and adults): A virus that does not discriminate. Clinics in Dermatology. 2020 Nov 1.</td>
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<td>1-Nov-20</td>
<td>Child and Family Outcomes Following Pandemics: A Systematic Review and Recommendation</td>
<td>Journal of Pediatric Psychology</td>
<td>Systematic Review</td>
<td>The authors conducted a systematic review of mental health outcomes and needs of children (ages not specified) and families during past pandemics in order to inform recommendations for COVID-19 policies that will best support children and families. The search was restricted to include studies published in the last 20 years from 2000 to 2020 (published in any language); one author conducted a search on April 7 and the 2nd author conducted a search on April 15, 2020. 17 studies were identified.</td>
<td>The authors conducted a systematic review of mental health outcomes and needs of children and families during past pandemics in order to inform recommendations for COVID-19 policies that</td>
<td>C Fong V, Iarocci G. Child and Family Outcomes Following Pandemics: A Systematic Review and Recommendations on COVID-19 Policies. J Pediatr Psychol. 2020 Nov 1;45(10):1124-1143. doi:</td>
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<td>COVID-19; Gastrointestinal tract; Liver; Pediatric; Iran</td>
<td>1-Nov-20</td>
<td>COVID-19 and Digestive System in Children: A Retrospective Study</td>
<td>Archives of Iranian Medicine</td>
<td>Original Article</td>
<td>The authors conducted a retrospective study to identify gastrointestinal (GI) and liver injury presentations in 18 children (mean age 6.87±3.33 years) admitted with COVID-19 in Iran. The most common clinical symptoms were fever, anorexia, and weakness, respectively. 27.8% of cases had abnormally high alanine aminotransferase (ALT), and 38.9% of cases had abnormally high aspartate aminotransferase (AST). In three cases with icteric appearance, total bilirubin (range: 7.1-7.6; mean: 7.35 ± 0.35 mg/dL) and direct bilirubin levels (range: 3.4-4.4; mean: 3.99 ± 0.70 mg/dL) were higher than normal. 50% of cases had pulmonary lesions, but there was no significant relationship between pulmonary lesions and abnormal excess in ALT (P = 0.59) and AST (P = 0.62). The findings suggest that there were no severe clinical GI symptoms in SARS-CoV-2-infected children. Children with increased liver enzymes and bilirubin did not have more respiratory symptoms than those without elevated liver enzymes.</td>
<td>The authors conducted a retrospective study to identify gastrointestinal (GI) and liver injury presentations in children admitted with COVID-19 in Iran. The findings suggest that there were no severe clinical GI symptoms in SARS-CoV-2-infected children. Children with increased liver enzymes and bilirubin did not have more respiratory symptoms than those without elevated liver enzymes.</td>
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<td>chronic illness; computer applications/eHeal</td>
<td>1-Nov-20</td>
<td>The Needle in the Haystack: Identifying</td>
<td>Journal of Pediatric Psychology</td>
<td>Commentary</td>
<td>As mobile health (mHealth) apps are becoming more widely adopted during the COVID-19 pandemic, the authors of this article provide guidance on selecting credible apps for pediatric health problems. Policies should also center families at most risk of poor mental health outcomes, including those experiencing domestic violence, child abuse and neglect, pre-existing addiction and mental health concerns, or including family members with disabilities. Future research should focus on identifying protective factors that promote child and family resilience in the face of pandemics.</td>
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Summary & Key Points:
- Studies examining child outcomes indicate that social isolation and quarantining practices exert a substantial negative impact on child anxiety, post-traumatic stress disorder, and fear symptoms. Risk factors for children include living in rural areas, being female, and increasing grade level. Females between the ages of 12–18 years and students in higher grade levels reported higher rates of anxiety and depression. Studies indicate that parents experience high stress, anxiety, and financial burden during pandemics. The age of the parent and family socio-economic status (SES) appeared to mitigate negative outcomes, where older parents and higher SES families had lower rates of mental health problems. Parents’ fear over the physical and mental health of their children, concerns over potential job loss and arranging childcare contribute to elevated stress and poorer well-being. Based on these findings, the authors recommend implementing “family-friendly” policies that are inclusive and have flexible eligibility criteria, such as universal paid sick leave for parents and financial supports for parents who are also frontline workers. Policies should also center families at most risk of poor mental health outcomes, including those experiencing domestic violence, child abuse and neglect, pre-existing addiction and mental health concerns, or including family members with disabilities. Future research should focus on identifying protective factors that promote child and family resilience in the face of pandemics. | will best support children and families. Based on their findings, the authors recommend implementing universal paid sick leave for parents and financial supports for parents who are frontline workers. Policies should also center families at most risk of poor mental health outcomes, including those experiencing domestic violence, child abuse and neglect, pre-existing addiction and mental health concerns, or including family members with disabilities. Future research should focus on identifying protective factors that promote resilience in the face of the COVID-19 pandemic. |
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<td>th; health behavior; mental health; professional and training issues.</td>
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<td>Credible Mobile Health Apps for Pediatric Populations during a Pandemic and beyond</td>
<td>[Free Access to Abstract Only]</td>
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<td>The authors present the interim results of a multi-center study on breastfeeding practices in the first 56 days after delivery and the presence of SARS-CoV-2 and its antibodies in the breastmilk of mothers with confirmed COVID-19. They recruited 24 mothers with confirmed COVID-19, 19 mothers with suspected COVID-19 but PCR negative, 21 mothers without COVID-19 (control group), and their neonates from Hubei province, China, between February 10 to April 1, 2020. Information on breastfeeding practices was collected via telephone calls, and 44 breast milk samples were collected from the mothers. The authors found that mothers with confirmed COVID-19 had lower rates of breastfeeding compared to mothers without COVID-19. They also evaluated the effectiveness of breastfeeding in terms of SARS-CoV-2 and its antibodies in the breast milk of mothers confirmed with COVID-19. The authors recommend further research to validate these findings.</td>
<td>Mobile Health Apps for Pediatric Populations during a Pandemic and beyond. J Pediatr Psychol. 2020;45(10):1106-1113. doi:10.1093/jpepsy/jsaa094</td>
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<td>COVID-19, SARS-CoV-2, pregnant, cytokine storm syndrome, CSS, hyperinflammation</td>
<td>1-Nov-20</td>
<td>The role of a cytokine storm in severe coronavirus disease 2019 in pregnancy</td>
<td>American Journal of Obstetrics and Gynecology</td>
<td>Comment</td>
<td>The authors present a case of a 31-year-old pregnant woman at 35 2/7 weeks’ gestation with COVID-19 at Southern Medical University in Guangdong Province, China. The patient initially presented with a dry cough and fever on 1 February 2020. Laboratory findings revealed leucopenia, lymphopenia, impaired liver function, and remarkably elevated C-reactive protein, procalcitonin, interleukin-6, and D-dimer. A chest CT showed a large opaque and ground consolidation in the lower lobe of the left lung. The patient soon developed a severe systemic inflammatory response syndrome (SIRS), cytokine storm with acute respiratory distress syndrome (ARDS), and multiple organ failure requiring the use of continuous renal replacement therapy and ECMO. Given the rapidly deteriorating condition, the patient required an emergency C-section and mechanical ventilation. The male neonate was born with an Apgar score of 1 and died 2 hours after birth. The patient’s blood culture on the admission day later revealed coinfection with Streplococcus parasanguinis. Her condition required the combined supportive treatment of CRRT, ECMO, antibiotics, and antiviral treatment, immunoglobulin, and steroids, to which she responded and subsequently recovered. All pregnant women with COVID-19 should be closely observed and screened for hyper-inflammation to enable rapid control of the hyper-inflammatory response.</td>
<td>The authors present a case study of a SARS-CoV-2-infected pregnant woman who presented clinical and laboratory manifestations of a cytokine storm syndrome. Close observation and screening for hyper-inflammation are critical for all pregnant women with COVID-19</td>
<td>Wang X, Wang D, He S. The role of a cytokine storm in severe coronavirus disease 2019 in pregnancy. Am J Obstet Gynecol. 2020 Nov;223(5):780-782. doi: 10.1016/j.ajog.2020.07.010. Epub 2020 Jul 10. PMID: 32659225; PMCID: PMC7348594.</td>
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<td>Neonate, breastfeeding, breast milk, antibody, SARS-CoV-2, pregnancy, China</td>
<td>1-Nov-20</td>
<td>A Study of Breastfeeding Practices, SARS-CoV-2 and its Antibodies in the Breast Milk of Mothers Confirmed with COVID-19</td>
<td>The Lancet Regional Health – Western Pacific</td>
<td>Research Paper</td>
<td>The authors present the interim results of a multi-center study on breastfeeding practices in the first 56 days after delivery and the presence of SARS-CoV-2 and its antibodies in the breastmilk of mothers with confirmed COVID-19. They recruited 24 mothers with confirmed COVID-19, 19 mothers with suspected COVID-19 but PCR negative, 21 mothers without COVID-19 (control group), and their neonates from Hubei province, China, between February 10 to April 1, 2020. Information on breastfeeding practices was collected via telephone calls, and 44 breast milk samples were collected from the mothers. The authors found that mothers with confirmed COVID-19 had lower rates of breastfeeding compared to mothers without COVID-19. They also evaluated the effectiveness of breastfeeding in terms of SARS-CoV-2 and its antibodies in the breast milk of mothers confirmed with COVID-19. The authors recommend further research to validate these findings.</td>
<td>This study's interim findings showed that mothers with confirmed or suspected COVID-19 had lower rates of breastfeeding compared to mothers without COVID-19. Also, there was no evidence of SARS-CoV-2</td>
<td>Peng S, Zhu H, Yang L, et al. A study of breastfeeding practices, SARS-CoV-2 and its antibodies in the breast milk of mothers confirmed with COVID-19. The Lancet Regional Health - Western Pacific. 2020;4:100045. Published 2020 Nov 1.</td>
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<td>COVID-19; Stem cell transplantation; Convalescent plasma; Immunocompromised patients; Pediatric</td>
<td>1-Nov-20</td>
<td>SARS-CoV-2 convalescent plasma therapy in pediatric patient after hematopoietic stem cell transplantation</td>
<td>Transfusion and Apheresis Science</td>
<td>Case Report</td>
<td>This case report describes the treatment of a SARS-CoV-2-infected 9-month-old female pediatric patient with juvenile myelomonocytic leukemia in Russia, who had received a hematopoietic stem cell transfer (HSCT) from a haplo-identical donor prior to infection and was in an immunocompromised state. On day +99 after HSCT, during routine virologic monitoring, SARS-CoV-2 was detected without any clinical symptoms. On day +144, the child developed polysegmental bilateral viral pneumonia with 60% damage to the lung tissue. The patient was treated with tocilizumab and 3 fresh frozen plasma doses obtained from a SARS-CoV-2 convalescent patient. Therapy with tocilizumab and frozen plasma was well tolerated. Despite full resolution of the lung lesions, complete elimination of SARS-CoV-2 had not been achieved as of this report’s publication (4 months after the first detection), which the authors suggest is due to persistence of secondary immune-deficiency after HSCT and the lack of reconstitution of the adaptive immune response. The authors recommend convalescent plasma treatment combined with other therapeutic approaches for immunocompromised SARS-CoV-2 infected pediatric patients, including HSCT recipients, who may have a poor prognosis after contracting COVID-19 due to the absence of a pathogen-specific adaptive immune response.</td>
<td>This case report describes convalescent plasma use in a SARS-CoV-2-infected 9-month-old hematopoietic stem cell transfer recipient in Russia. The authors suggest that convalescent plasma treatment combined with other therapeutic approaches may be a curative option for treating SARS-CoV-2 infection in immunocompromised pediatric patients.</td>
<td>Balashov D, Trakhtman P, Livshits A, et al. SARS-CoV-2 convalescent plasma therapy in pediatric patient after hematopoietic stem cell transplantation. Transfus Apher Sci. 2020;102983. doi:10.1016/j.transci.2020.102983</td>
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<td>Mental health; telespsychiatry; youth; COVID-19; counseling; anxiety; depression</td>
<td>1-Nov-20</td>
<td>Protecting Youth Mental Health During the COVID-19 Pandemic: A Challenging Engagement and Learning Process</td>
<td>Journal of the American Academy of Child &amp; Adolescent Psychiatry</td>
<td>Opinion</td>
<td>In this evidence-based opinion piece, the authors use their experience as mental health professionals to describe challenges in maintaining and improving positive mental health in youth during the COVID-19 pandemic. They emphasize family support through education, proactive engagement with youth, and open communication to reduce helplessness, anxiety, depression, and externalizing behaviors in youth. The authors use several individual cases to demonstrate real-life impacts of these</td>
<td>This piece highlights very prevalent feelings of helplessness, anxiety, depression, and externalizing behaviors among youth during the COVID-19 pandemic. The authors suggest more</td>
<td>Rousseau C, Miconi D. Protecting Youth Mental Health During the COVID-19 Pandemic: A Challenging Engagement and Learning Process. J Am Acad Child Adolesc Psychiatry. 2020;59(11):1203-1207. doi:10.1016/j.jaac.2020.08.007</td>
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### Key Terms

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<td>1-Nov-20</td>
<td>COVID-19 in Children and Adolescents with Endocrine Conditions</td>
<td>Hormone and Metabolic Research</td>
<td>Review</td>
<td>In this article, the authors discuss the impact of COVID-19 on children with endocrine conditions. They summarize the current literature on the impact of COVID-19 in children and adolescents with endocrine disorders. Despite a lack of evidence for differential disease patterns of COVID-19 in children with endocrine disorders, the authors highly recommend adherence to public health and sanitation protocols. They underscore the importance of the maintenance of the euhormonal state and dose adjustments to suit individual needs, as well as the availability of sufficient medication and expanded usage of telemedicine to avoid in-person visits. For children with diabetes mellitus, adrenal insufficiency, hyperpituitarism, and hyperglycemia, the authors recommend the provision of a “sick day” protocol—ensuring the availability of hormones, adequate hydration, and seeking care if symptoms reflective of SARS-CoV-2 infection arise. For children with obesity and Cushing’s syndrome, which can bring about immunocompromised states, the authors highly recommend strict adherence to preventive self-protective measures. The authors conclude by expanding on the far-reaching effects of the pandemic on children, particularly those with endocrine disorders, who may have to deal with the erosion of familial support structures, their susceptibility to infections, as well as possible deaths in the family. They recommend screening for psychological distress to prevent future psychological disorders.</td>
<td>Family and community-based approaches to mental health promotion in youth in order to build more resilience-oriented approaches.</td>
<td>Kostopoulou E, Güemes M, Shah P. COVID-19 in Children and Adolescents with Endocrine Conditions. Horm Metab Res. 2020 Nov;52(11):769-774. doi: 10.1055/a-1227-6635. Epub 2020 Sep 8. PMID: 32898896.</td>
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<td>1-Nov-20</td>
<td>Pediatric COVID-19 Cases Pre- and Post-Lockdown in Italy</td>
<td>Pediatrics</td>
<td>Research Brief</td>
<td>In this study, the authors evaluate the transition from lockdown to gradual reopening on pediatric SARS-CoV-2 infections in Italy from May 4 - September 13, 2020. The study population consisted of children &lt; 18 years old with confirmed COVID-19. As of September 13, 2020, there were 9,868 pediatric COVID-19 cases (3.4% of cases in Italy). Most cases occurred in adolescents aged 13-17 years (2,558, 41.3%). This was followed by children aged: 7-12 years (1,736, 28.0%), 2-6 years (1,303, 28.0%), and 0-1 years (600, 9.7%). The hospitalization rate (4.8%) was highest among children aged ≤ 1 year (16.2%). Underlying medical conditions were found in 2.8% of all cases and in 5.3% of hospitalized cases. Asymptomatic and pauci-symptomatic children formed 81.2% and 8.4% of cases, respectively. 18.5% of children displayed milder symptomatology and 2% had</td>
<td>To outline the impact of transition from lockdown to gradual reopening on COVID-19 infections in the pediatric cohort, the authors review the number of COVID-19 cases in children aged &lt; 18 years between May 4 - September 13, 2020. They determined that most cases occur in adolescents aged 13-17 years. Compared to the first</td>
<td>Bellino S, Rota MC, Riccardo F, et al. Pediatric COVID-19 Cases Pre- and Post-Lockdown in Italy. Pediatrics. 2020 Nov 5:e2020035238. doi: 10.1542/peds.2020-035238. Epub ahead of print.</td>
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<td>severe/critical infection. Northwest regions of Italy reported 33.4% of the total COVID-19 cases, followed by Northeast (30.8%), Center (16.6%), and South and Islands (19.3%). The authors note that in the second phase of the epidemic compared to the first, the pediatric case distribution among age groups was similar, asymptomatic patients increased, and there were fewer severe cases.</td>
<td>phase of the epidemic, there were similar age distributions, more asymptomatic patients, and fewer severe cases of pediatric COVID-19.</td>
<td>SARS-CoV-2; Mississippi; United States; Children; Minority; Positivity rates; Health disparities</td>
<td>1-Nov-20</td>
<td>SARS-CoV-2 Positivity Rates among Children of Racial and Ethnic Minority Groups in Mississippi</td>
<td>Pediatrics</td>
<td>Research Brief</td>
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<td>The authors aimed to characterize the positivity rates for SARS-CoV-2 among children from different racial/ethnic groups in Mississippi, USA. The authors conducted a retrospective study using a COVID-19 registry of children aged ≤18 years old who underwent SARS-CoV-2 RT-PCR testing between March 11-August 12, 2020. Of 4802 children undergoing SARS-CoV-2 RT-PCR testing, 13.0% tested positive. Minority children had higher positivity rates (non-Hispanic Black: 15.8%, Hispanic: 24.6%) than in non-Hispanic white children (5.9%). Positivity rates in Hispanic and other race children were erratic, but rates in Black and white children increased over time. Positivity rates in the last 7-8 weeks of the study period (July-August 2020) were around 20% among non-Hispanic Black children. The authors found substantially higher positivity rates for SARS-CoV-2 testing in minority children compared with white counterparts in Mississippi. This was the first report of positivity rates in children in the American Deep South where health disparities are historic, and in Mississippi, one of the most resource-limited American states.</td>
<td>The authors conducted a retrospective study using a COVID-19 registry of children aged ≤18 years old who underwent SARS-CoV-2 RT-PCR testing between March 11-August 12, 2020 in Mississippi, USA. The authors found substantially higher positivity rates for SARS-CoV-2 testing in minority children compared with white counterparts in Mississippi.</td>
<td>COVID-19; Maternal health; Maternal mortality; Social risk; Vulnerability</td>
<td>1-Nov-20</td>
<td>Letter to the editor regarding the article: COVID-19 and maternal, fetal and neonatal mortality: a systematic review</td>
<td>The Journal of Maternal-Fetal &amp; Neonatal Medicine</td>
<td>Letter to the Editor</td>
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<td>Pregnancy, outcomes, symptoms, ICU, ventilation, NICU, cesarean delivery, complications, Turkey</td>
<td>1-Nov-20</td>
<td>Updated Experience of a Tertiary Pandemic Center on 533 Pregnant Women with COVID-19 infection: A Prospective Cohort Study from Turkey</td>
<td>[Free Access to Abstract Only]</td>
<td>Original Article</td>
<td>The authors present an updated version of the previously published research by Sahin et al. investigating the clinical course and impact of COVID-19 infection on pregnant women in Turkey. They analyzed the clinical characteristics and outcomes of 533 pregnant women with confirmed COVID-19 infection who were followed up at the Turkish Ministry of Health Ankara City Hospital between March 11, 2020, and September 10, 2020. The results showed that of the 533 cases, 161 (30.2%) had comorbidities, of which obesity was the leading one (44.1%). The most common symptoms were cough (33.4%) and myalgia (31.5%), whereas 165 (30.9%) were asymptomatic. 509 (95.5%) had mild disease. Of note, 297 (55.7%) were hospitalized, 7 (1.3%) were admitted to the ICU, and 2 (0.4%) required invasive mechanical ventilation. Also, there were 2 (0.4%) maternal deaths reported. Furthermore, pregnancy complications were observed in 66 (12.4%) patients, of which preterm delivery (4.1%) and miscarriage (2.2%) were the most common. There were 131 deliveries, with 66.4% by C-section. Thirteen (9.9%) neonates were admitted to the NICU due to prematurity, and all neonates tested negative for SARS-CoV-2.</td>
<td>The authors observed that the clinical course of COVID-19 in pregnant women was mild in most cases, although there were increased rates of pregnancy complications and cesarean delivery.</td>
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<td>Depression, anxiety, coronavirus, pregnancy</td>
<td>1-Nov-20</td>
<td>COVID-19 pandemic and maternal mental health: a systematic review and meta-analysis</td>
<td>[Access to abstract only]</td>
<td>Systematic review</td>
<td>This systematic review aims to evaluate the effect of the COVID-19 pandemic on women’s anxiety and depression during pregnancy and perinatal period. The authors systematically searched online databases to identify any report on maternal depression during pregnancy or postpartum using the Edinburgh Postnatal Depression Survey (EPDS) and maternal anxiety using the State-Trait Anxiety Inventory (STAI) until 5th July 2020. The authors conducted a meta-analysis of 8 studies reporting depressive and anxiety states of 7750 women, either pregnant or postpartum. The overall pooled EPDS score was higher among women during pandemic (SMD= 0.40, 95% CI: -0.05 - 0.86, p = 0.083) compared to previous non-pandemic times, without reaching a statistically significant difference. However, the overall pooled STAI score was significantly higher during the pandemic (SMD= 0.82, 95% CI: 0.49 - 1.16, p &lt;0.001). No significant publication bias existed in selected studies (p &gt; 0.05). The authors concluded that the COVID-19 pandemic significantly increases anxiety among women during pregnancy and perinatal period. Support measures should be considered for women during pregnancy or perinatal period.</td>
<td>The authors conducted a meta-analysis to evaluate the effect of COVID-19 on women’s anxiety and depression during pregnancy and perinatal period and found increased anxiety risk compared to pre-pandemic periods.</td>
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<td>Saudi Arabia, childhood, immunization</td>
<td>1-Nov-20</td>
<td>Effects of the Coronavirus disease 2019 pandemic on routine pediatric</td>
<td>Saudi Medical Journal</td>
<td>Original Research</td>
<td>The authors conducted a retrospective study (n=15,870) using electronic health records at a university hospital in Riyadh, Saudi Arabia to assess the impact of the COVID-19 pandemic on pediatric vaccination rates. Vaccination statuses of children with scheduled vaccinations at birth, 2, 4, 6, 9, and 12 months during</td>
<td>The authors report significant reduction in pediatric immunizations in Riyadh, Saudi Arabia during the COVID-19 pandemic on routine pediatric immunization coverage rates at</td>
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<td>Preeclampsia, pregnant women</td>
<td>1-Nov-20</td>
<td>The risk of COVID-19 for pregnant women: Evidences of molecular alterations associated with preeclampsia in SARS-CoV-2 infection</td>
<td>Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease</td>
<td>Research letter</td>
<td>In this research letter, the authors reviewed 14 published studies from January to September 2020 on the association between pre-eclampsia and SARS-CoV-2 infection. They searched for molecular alterations promoted by SARS-CoV-2 infection that might be linked to a correlation between COVID-19 and pre-eclampsia. Pregnant women have altered immunological and physiological responses, which increases their susceptibility to infections and other clinical conditions. Previous clinical data suggest an association between SARS-CoV-2 infection and the increase in potentially life-threatening conditions to pregnant women and their infants, such as pre-eclampsia. They found that SARS-CoV-2 can affect different molecular pathways related to pre-eclampsia.</td>
<td>This research letter searched for molecular alterations promoted by SARS-CoV-2 infection that might be linked to a correlation between COVID-19 and pre-eclampsia. The authors suggested prioritizing antenatal surveillance for women with COVID-19.</td>
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<td>Pediatric neurosurgery, practice, training, education, Iran</td>
<td>1-Nov-20</td>
<td>The effects of COVID-19 pandemic on pediatric neurosurgery practice and training in a developing country</td>
<td>Child's Nervous System</td>
<td>Original Research</td>
<td>The COVID-19 pandemic has influenced all aspects of society, with healthcare being the most affected field. Due to resource limitations, the number of elective pediatric neurosurgical operations has substantially decreased. The authors report their practice experience in pediatric neurosurgery in a tertiary hospital in Iran during the pandemic and the subsequent impact on education and training. Data on all pediatric patients (n=111) who underwent any kind of neurosurgical operation between March and June 2020 were retrospectively reviewed, and compared to the same period in 2019 (n=159). The total number of surgical cases reduced by 31% compared to the last year. Compared with 2019, ventriculoperitoneal shunts (30 vs 23) and supratentorial tumors (20 vs 13) were more frequent; however, there was a considerable reduction during the pandemic in subspecialized educational surgeries like neural tube defects (6 vs 18) and craniosynostoses (6 vs 29). Considering the limitation in the available resources, the number of educational cases may decrease in subspecialized disciplines like pediatric neurosurgery. If the pandemic continues, alternative measures should be taken to compensate for the shortcoming in technical and practical training.</td>
<td>This study describes the changes in elective pediatric neurosurgery at a tertiary hospital in Iran during the COVID-19 pandemic and the subsequent impact on education and training. Results show the total number of surgical cases reduced, particularly subspecialized surgeries important for technical and practical training.</td>
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<td>Kawasaki disease, serum response, pediatrics, MIS-C</td>
<td>1-Nov-20</td>
<td>Serum Responses of Children With Kawasaki Disease Against Severe Acute Respiratory Syndrome Coronavirus 2 Proteins</td>
<td>The Pediatric Infectious Disease Journal</td>
<td>Original Research</td>
<td>In this cohort study, the authors addressed their hypothesis that cross-coronavirus humoral immunity leads to a parallel post-infectious phenomenon in Kawasaki Disease (KD) and MIS-C, which may explain the similar pathologic findings between the conditions. Epidemiologic patterns suggest that KD is related to an infectious agent and non-SARS-CoV-2 coronaviruses; however, KD's etiology remains unknown. The authors hypothesized that if a similar post-coronavirus humoral immune response was responsible for the similar pathology in KD and SARS-CoV-2, they would see targeting of SARS-CoV-2 proteins from children diagnosed with KD before the pandemic. Bio-banked plasma samples from KD patients (n=27 [age range not stated]) and febrile SARS-CoV-2-positive pediatric patients (n=36 [age range not stated]) from a hospital in Buffalo, New York, USA, were assessed for antigen targeting against SARS-CoV-2 proteins (receptor binding domain, nucleocapsid protein, S1/S2 Spike protein). The KD samples had no significant reactivity to the SARS-CoV-2 proteins [p value not stated]. The authors note that their findings do not support their hypothesis and urge further research to determine the pathophysiologic explanation for the inflammatory responses seen in MIS-C and KD.</td>
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