Royal College of Midwives

midirs
Learn, Share & Improve Care
Inspiring midwives, improving maternity care

E: midirs.helpdesk@rcm.org.uk
T: 07768 015063
W: www.midirs.org

Search Pack PN193
Coronavirus (COVID-19) in the infant

Updated 8 April 2022

Includes coronavirus symptoms and infection in infants, Kawasaki disease-like symptoms in children, vertical disease transmission, infant feeding, infant development following infection, safeguarding infants and children during the pandemic. Does not include records on pregnancy (P200), the impact of coronavirus on midwives (M95), labour, birth and the impact on intrapartum care (L69) or postnatal health and care (PN194).

Search Pack Tips:

1. The results of your Search Pack start below. If the full text of an article is freely available online, we will provide the URL - simply click the live hyperlink to view. MIDIRS cannot take responsibility for external content, and hyperlinks provided by external organisations are subject to change.
2. You can search within the Search Pack PDF for relevant keywords by pressing 'CTRL + F' and entering the terms you wish to find.
3. If a record in the Bespoke Search has been published in MIDIRS Midwifery Digest or Essentially MIDIRS then this can be ordered via the following link
4. If a record in the Search Pack does not have a full-text URL link and is not from a MIDIRS publication, then unfortunately we are unable to supply. Try your university library, Trust library, or British library for a copy.

2022-02422

Providing breastfeeding support during the COVID-19 pandemic: concerns of mothers who contacted the Australian Breastfeeding Association. Hull N, Karn RL, Gribble KD (2020), Breastfeeding Review vol 28, no 3, November 2020, pp 25-35

Concerns of mothers seeking breastfeeding support during the COVID-19 pandemic and the experiences of Australian Breastfeeding Association (ABA) volunteers who assisted them were explored via an online survey. Surveys were completed 16 March to 18 May 2020 and described the COVID-19 related concerns of 339 individuals. One hundred and thirty-six mothers (64%) sought support to protect their infants by continuing breastfeeding, increasing milk supply, or restarting breastfeeding. Mothers were commonly stressed, isolated and needing reassurance. Thirty-four (10%) raised concerns about COVID-19 and breastfeeding safety. One hundred and twenty-nine (61%) informed survey respondents (ABA volunteers) they were unable to access face-to-face health services because of fear or unavailability. Most common breastfeeding concerns were related to insufficient milk or weight gain, painful breasts, relactation and reducing supplemental milk. Respondents reported mothers were worried that stress had reduced milk supply, that milk supply concerns were exacerbated by the inability to weigh infants and that seeking medical treatment was delayed. Respondents stated they felt supported and confident assisting mothers while also expressing distress at mothers' situations. ABA's role in emergency response should be recognised and national planning for infant and young child feeding in emergencies must be urgently developed, funded and implemented. (Author)

2022-02356

A Survey of Parental Experience Within the Neonatal Unit During the Coronavirus Pandemic. Loftus E, Smith A, Hayes B (2021), Irish Medical Journal vol 114, no 1, January 2021, P253

Letter to the editor presenting the results of a survey to identify parental experiences during the coronavirus pandemic. Findings indicate that 58% felt restrictions affected their ability to bond with their baby and 71% felt restrictions impacted on their partner's ability to bond. (LDO)

Full URL: http://imj.ie/a-survey-of-parental-experience-within-the-neonatal-unit-during-the-coronavirus-pandemic/

2022-02258

Lactation in quarantine: The (in)visibility of human milk feeding during the COVID-19 pandemic in the United States. Cohen M, Botz C (2022), International Breastfeeding Journal vol 17, no 22, 21 March 2022

Background

In response to the COVID-19 pandemic, billions of people were asked by their state and local governments not to go to work and not leave the house unless they had to. The goal of this qualitative study was to collect the lived experiences of a small group of parents and lactation professionals in the United States about what it was like to feed babies human milk under these conditions of quarantine.

Methods

This project is a social constructionist analysis of lactation narratives of 24 parents feeding their children human milk and 13 lactation professionals. They were interviewed remotely in 2020–21 via videoconferencing about their experiences and perspectives on the pandemic's effect on lactation. Additionally, photographs of 16 of the parents are provided to visualize their practices and how they chose to represent them.

Results

Four interrelated themes were identified in participants' narratives about how they experienced and made sense of human milk feeding during the pandemic: the loneliness of lactation during the pandemic, the construction of human milk as a resource to cope with the crisis, the (in)visibility of lactation amidst heightened multitasking, and the sense of connection created by human milk feeding at a time of unprecedented solitude.

Conclusions

While the pandemic may have had both positive and negative effects on lactation, it exposed continuing inequities in infant feeding, generating new forms of (in)visibility for lactating labor. Going forward, one lesson for policy and lawmakers may be that to adequately support lactation, they should take cues from the families who had positive experiences during the crisis. This would call for systemically overhauling of US laws and policies by guaranteeing: universal basic income, paid parental leave for at least six months, paid lactation leaves and breaks, affordable housing, universal health care, subsidized childcare programs, and equal access to high-quality, non-discriminatory, and culturally appropriate medical care—including lactation counseling—, among other initiatives. (Author)

Full URL: https://doi.org/10.1186/s13006-022-00451-2

2022-02243

Impact of COVID-19 on childhood vaccination counts to week 51, and vaccine coverage to November 2020 in England: interim analyses. Public Health England (2021), Health Protection Report vol 15, no 1, 5 January 2021; pp 1-23

This is the ninth in a series of reports which present an assessment of the extent of COVID-19-related impact on childhood vaccinations, based on both (a) aggregated vaccine counts of dose 1 Hexavalent and dose 1 MMR vaccinations delivered to infants/children and (b) vaccine coverage data for dose 1, 2 and 3 Hexavalent and dose 1 MMR vaccines extracted from ImmForm. This report includes vaccination counts data up to week 51, and vaccine coverage data up to November 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/949448/hpr0121-chldhd-vc_wk51b.pdf

---

2022-02230

Moderna begins testing Covid-19 vaccine on babies and young children. Anon (2021), BBC News 16 March 2021

The US drug company Moderna has begun studying its Covid-19 vaccine in children aged six months to 11 years old. (Author)

Full URL: https://www.bbc.co.uk/news/world-us-canada-56422415

2022-02226

Maternal and Infant Outcomes Associated with Maternity Practices Related to COVID-19: The COVID Mothers Study. Bartick MC, Valdés V, Giusti A, et al (2021), Breastfeeding Medicine vol 16, no 3, March 2021, pp 189-199

Background: Maternity care practices such as skin-to-skin care, rooming-in, and direct breastfeeding are recommended, but it is unclear if these practices increase the risk of clinically significant COVID-19 in newborns, and if disruption of these practices adversely affects breastfeeding.

Methods: We performed a retrospective cohort study of 357 mothers and their infants <12 months who had confirmed or suspected COVID-19. Subjects came from an anonymous worldwide online survey between May 4 and September 30, 2020, who were recruited through social media, support groups, and health care providers. Using multivariable logistic regression, Fisher's exact test, and summary statistics, we assessed the association of skin-to-skin care, feeding, and rooming-in with SARS-CoV-2 outcomes, breastfeeding outcomes, and maternal distress.

Results: Responses came from 31 countries. Among SARS-CoV-2+ mothers whose infection was ≤3 days of birth, 7.4% of their infants tested positive. We found a nonsignificant decrease in risk of hospitalization among neonates who roomed-in, directly breastfed, or experienced uninterrupted skin-to-skin care ($p > 0.2$ for each). Infants who did not directly breastfeed, experience skin-to-skin care, or who did not room-in within arms' reach, were significantly less likely to be exclusively breastfed in the first 3 months, adjusting for maternal symptoms ($p \leq 0.02$ for each). Nearly 60% of mothers who experienced separation reported feeling “very distressed,” and 29% who tried to breastfeed were unable. Presence of maternal symptoms predicted infant transmission or symptoms (adjusted odds ratio = 4.50, 95% confidence interval = 1.52–13.26, $p = 0.006$).

Conclusion: Disruption of evidence-based quality standards of maternity care is associated with harm and may be unnecessary. (Author)

2022-02082

The transfer of vaccine-generated SARS-CoV-2 antibodies into infantile circulation via breastmilk. Lebbe B, Reynders M, Van Praet JT (2022), International Journal of Gynecology & Obstetrics 25 February 2022, online

The contents of this page will be used as part of issue TOC only. It will not be published as part of main article

Vaccine-generated maternal anti-SARS-CoV-2 IgG antibodies are not transferred into infantile circulation via breastmilk. (Author)

2022-02033

Importance of establishing antibody specificity in multisystem inflammatory syndrome in newborn during the COVID-19 pandemic. Leslie AT, Saleh M, Soni N, et al (2022), Acta Paediatrica 24 March 2022, online

Brief report presenting the case of an infant with multi-organ dysfunction due to placental abruption, confounded by SARS-CoV-2 antibodies consistent with multisystem inflammatory syndrome. The infant received received immunomodulatory therapy from day two of life. Multisystem inflammatory syndrome was subsequently ruled out and the infant died due to continued liver failure. (LDO)

Full URL: https://doi.org/10.1111/apa.16345

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

2022-01977

Possible vertical transmission of corona virus disease 19 (COVID-19) from infected pregnant mothers to neonates: a multicenter study. Almaghrabi R, Shaiba LA, Babic I, et al (2022), Journal of Maternal-Fetal and Neonatal Medicine 13 March 2022, online

Introduction

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is highly contagious with various possible routes of transmission, resulting in high mortality globally. Controversy exists regarding the vertical transmission of the SARS-CoV-2 infection to fetuses of COVID-19-infected women. The aim of this study was to investigate the possibility of the vertical transmission of SARS-CoV-2 from COVID-19-infected mothers to their neonates.

Materials and methods

We prospectively collected demographical and clinical characteristics of 31 COVID-19 positive pregnant women and their neonates. All mothers and neonates were tested for SARS-CoV-2 infection using the real-time polymerase chain reaction on nasopharyngeal swabs and breast milk samples. Antenatal and placental abnormalities were ultrasonically and histopathologically examined. In cord blood samples, the immunoglobins (Ig) M and IgG were estimated qualitatively.

Results

The women's mean age and gestational age were 31 years and 38 weeks, respectively, with 58% undergoing an elective cesarean section. Gestational diabetes was reported in 29% of cases, 64.5% of women were medically free and only 16.12% were symptomatic. A normal antenatal ultrasound was observed in 77.42% of cases. Nine cord blood samples were positive for IgG. Villous infarction (24%), villous agglutination, and chorangiosis (51%), accelerated villous maturation (21%) and reduced and hypercoiling were reported for 6.97% of the umbilical cords. Three newborns had possible vertical transmission of SARS-CoV-2 infection, of which, two were preterm and IUFD. The third neonate was born full-term, admitted to NICU and later discharged in good health.

Conclusion

Our findings support the possibility of the direct vertical transmission of the SARS-CoV-2 infection to neonates from infected mothers. Further studies with a larger sample size are required to validate the current findings. (Author)

2022-01907

SARS-CoV-2 positivity in offspring and timing of mother-to-child transmission: living systematic review and meta-analysis.

Allotey J, Chatterjee S, Kew T, et al (2022), BMJ vol 376, no 8330, 16 March 2022, e067696

Objectives To assess the rates of SARS-CoV-2 positivity in babies born to mothers with SARS-CoV-2 infection, the timing of mother-to-child transmission and perinatal outcomes, and factors associated with SARS-CoV-2 status in offspring.

Design Living systematic review and meta-analysis.

Data sources Major databases between 1 December 2019 and 3 August 2021.

Study selection Cohort studies of pregnant and recently pregnant women (including after abortion or miscarriage) who sought hospital care for any reason and had a diagnosis of SARS-CoV-2 infection, and also provided data on offspring SARS-CoV-2 status and risk factors for positivity. Case series and case reports were also included to assess the timing and likelihood of mother-to-child transmission in SARS-CoV-2 positive babies.

Data extraction Two reviewers independently extracted data and assessed study quality. A random effects model was used to synthesise data for rates, with associations reported using odds ratios and 95% confidence intervals. Narrative syntheses were performed when meta-analysis was inappropriate. The World Health Organization classification was used to categorise the timing of mother-to-child transmission (in utero, intrapartum, early postnatal).

Results 472 studies (206 cohort studies, 266 case series and case reports; 28 952 mothers, 18 237 babies) were included. Overall, 1.8% (95% confidence interval 1.2% to 2.5%; 140 studies) of the 14 271 babies born to mothers with SARS-CoV-2 infection tested positive for the virus with reverse transcriptase polymerase chain reaction (RT-PCR). Of the 592 SARS-CoV-2 positive babies with data on the timing of exposure and type and timing of tests, 14 had confirmed mother-to-child transmission: seven in utero (448 assessed), two intrapartum (18 assessed), and five during the early postnatal period (70 assessed). Of the 800 SARS-CoV-2 positive babies with outcome data, 20 were stillbirths, 23 were neonatal deaths, and eight were early pregnancy losses; 749 babies were alive at the end of follow-up. Severe maternal covid-19 (odds ratio 2.4, 95% confidence interval 1.3 to 4.4), maternal death (14.1, 4.1 to 48.0), maternal admission to an intensive care unit (3.5, 1.7 to 6.9), and maternal postnatal infection (5.0, 1.2 to 20.1) were associated with SARS-CoV-2 positivity in offspring. Positivity rates using RT-PCR varied between regions, ranging from 0.1% (95% confidence interval 0.0% to 0.3%) in studies from North America to 5.7% (3.2% to 8.7%) in studies from Latin America and the Caribbean.

Conclusion SARS-CoV-2 positivity rates were found to be low in babies born to mothers with SARS-CoV-2 infection. Evidence suggests confirmed vertical transmission of SARS-CoV-2, although this is likely to be rare. Severity of maternal covid-19 appears to be associated with SARS-CoV-2 positivity in offspring.

Systematic review registration PROSPERO CRD42020178076. (Author)

Full URL: https://doi.org/10.1136/bmj-2021-067696

2022-01825

Disruptions in maternal and child health service utilization during COVID-19: analysis from eight sub-Saharan African countries. Shapira G, Ahmed T, Drouard SHP, et al (2021), Health Policy and Planning vol 36, no 7, August 2021, pp 1140-1151

The coronavirus-19 pandemic and its secondary effects threaten the continuity of essential health services delivery, which may lead to worsened population health and a protracted public health crisis. We quantify such disruptions, focusing on maternal and child health, in eight sub-Saharan countries. Service volumes are extracted from administrative systems for 63 954 facilities in eight countries: Cameroon, Democratic Republic of Congo, Liberia, Malawi, Mali, Nigeria, Sierra Leone and Somalia. Using an interrupted time series design and an ordinary least squares regression model with facility-level fixed effects, we analyze data from January 2018 to February 2020 to predict what service utilization levels would have been in March–July 2020 in the absence of the pandemic, accounting for both secular trends and seasonality. Estimates of disruption are derived by comparing the predicted and observed service utilization levels during the pandemic period. All countries experienced service disruptions for at least 1 month, but the magnitude and duration of the disruptions vary. Outpatient consultations and child vaccinations were the most commonly affected services and fell by the largest margins. We estimate a cumulative shortfall of 5 149 491 outpatient consultations and 328 961 third-dose pentavalent vaccinations during the 5 months in these eight countries. Decreases in maternal health service utilization are less generalized, although significant declines in institutional deliveries, antenatal care and postnatal care were detected in some countries. There is a need to better understand the factors determining the magnitude and duration of such disruptions in order to design interventions that would respond to the shortfall in care. Service delivery modifications need to be both highly contextualized and integrated as a core component of future epidemic response and planning. (Author)

Full URL: https://doi.org/10.1093/heapol/czab064

2022-01563

Conducting Neonatal Intensive Care Unit Research During a Pandemic: Challenges and Lessons Learned. Nist MD, Casavant SG, Dail RB, et al (2022), Nursing Research vol 71, no 2, February 2022, pp 147-152

Background
The coronavirus pandemic disrupted normal clinical operations and research. Nurse scientists conducting research studies in the neonatal intensive care unit experienced significant challenges to continuing their research studies amid national lockdowns and hospital visitation restrictions.

Objectives
The purpose of this article is to describe the challenges encountered by nurse scientists conducting research studies in the neonatal intensive care unit during the pandemic, the creative solutions devised to overcome these barriers, and the lessons learned during this unprecedented time.

Methods
Using our pandemic area studies as exemplars, we highlight the barriers encountered in continuing our research in the intense environment of the neonatal intensive care unit.

Results
Visitor restrictions limited the presence of parents and researchers in the neonatal intensive care unit during the pandemic, causing disruptions to participant recruitment and data collection. Laboratory closures further limited research activities during the pandemic. Strategies to overcome these barriers include building formal collaborations among researchers and clinicians, creating the infrastructure to support virtual recruitment and electronic consent, and developing contingency plans for studies involving the analysis of biological samples.

Discussion
The neonatal intensive care unit is a unique environment because of vulnerable patient population and need for researchers to interact with parents to recruit study participants. Implementing the strategies developed during the coronavirus pandemic may allow for the continuation of research activities during future public health crises. (Author)

2022-00974

Evidence of vertical transmission of SARS-CoV-2 and interstitial pneumonia in second trimester twin stillbirth in asymptomatic woman. Case report and review of the literature. Patanè L, Cadamuro M, Massazza G, et al (2022), American Journal of Obstetrics & Gynecology MFM 4 February 2022, online

Data on the vertical transmission rate of COVID-19 in pregnancy are limited, while data reporting mother-fetal transmission in the second trimester of pregnancy are controversial.
We described a case of second trimester twin stillbirth in a woman positive for SARS-CoV-2 in which, despite the absence of respiratory syndrome, placental and fetal markers of infection were detected. The patient developed a clinical chorioamnionitis and spontaneously delivered two stillborn infants. Placental histology and immunohistochemistry demonstrated SARS-CoV-2 infection mostly within the syncytiotrophoblast and the fetal autopsy showed development of interstitial pneumonia.
Our findings demonstrate that, in utero vertical transmission is possible, also in asymptomatic SARS-CoV-2 pregnant women and that infection can lead to severe morbidity in the second trimester of pregnancy. (Author)

Full URL: https://doi.org/10.1016/j.ajogmf.2022.100589

2022-00856

Investigation for SARS-CoV-2 vertical transmission in a COVID-19 pregnant woman: a case report. Kim TE, Kim H, Ahn KH, et al (2022), Journal of Obstetrics and Gynaecology 15 February 2022, online

The authors present the case of a pregnant woman with confirmed COVID-19 and present the laboratory study profiles of various samples, including amniotic fluid and vaginal discharge, to determine the possibility of vertical transmission to the fetus or neonate. (LDO)

2022-00714

Inflammation and Cytopenias in a Well-Appearing Infant With SARS-CoV-2. Karim SA, Weiss CN, Marrinan JE, et al (2022), Clinical Pediatrics vol 61, no 2, February 2022, pp 116-119

Case report of a 5-week-old baby presenting with a fever and subsequent diagnosis of COVID-19. The authors discuss whether laboratory markers should be obtained in well-appearing infants who test positive for SARS-CoV-2. (LDO)

Full URL: https://doi.org/10.1177/00099228211048599

2022-00570

Parents' pandemic NICU experience in the United States: a qualitative study. Vance AJ, Malin KJ, Miller J, et al (2021), BMC Pediatrics vol 21, no 558, 9 December 2021

Background

Prior to the COVID-19 pandemic, parents of infants in the Neonatal Intensive Care Unit (NICU) frequently reported high levels of stress, uncertainty, and decreased parenting confidence. Early research has demonstrated that parents have had less access to their infants in the hospital due to restrictions on parental presence secondary to the pandemic. It is unknown how parents have perceived their experiences in the NICU since the beginning of the COVID-19 pandemic. The purpose of this study was to describe the lived experience of parents who had an infant in the NICU in the context of the COVID-19 pandemic to inform healthcare providers and policy makers for future development of policies and care planning.

Methods

The study design was a qualitative description of the impact of the COVID-19 pandemic on parents' experiences of having an infant in the NICU. Free-text responses to open-ended questions were collected as part of a multi-method study of parents' experiences of the NICU during the first six months of the pandemic. Participants from the United States were recruited using social media platforms between the months of May and July of 2020. Data were analyzed using a reflexive thematic approach.

Findings

Free-text responses came from 169 parents from 38 different states in the United States. Three broad themes emerged from the analysis: (1) parents' NICU experiences during the COVID-19 pandemic were emotionally isolating and overwhelming, (2) policy changes restricting parental presence created disruptions to the family unit and limited family-centered care, and (3) interactions with NICU providers intensified or alleviated emotional distress felt by parents. A unifying theme of experiences of emotional distress attributed to COVID-19 circumstances ran through all three themes.

Conclusions

Parents of infants in the NICU during the first six months of the COVID-19 pandemic experienced emotional struggles, feelings of isolation, lack of family-centered care, and deep disappointment with system-level decisions. Moving forward, parents need to be considered essential partners in the development of policies concerning care of and access to their infants. (Author)

Full URL: https://doi.org/10.1186/s12887-021-03036-w

2022-00488

Impact of COVID-19 on maternity and neonatal services– Three year-on-year review data from the North East of England. Athiraman NK, Patience A, Onwuneme C, et al (2022), Acta Paediatrica 24 January 2022, online

The objective of this study was to assess whether the COVID-19 pandemic impacted on pregnancy outcomes including rates of caesarean sections, induction of labour (IOL), intra-uterine death (IUD), term and preterm admissions to the neonatal unit. (Author, edited)

Full URL: https://doi.org/10.1111/apa.16264

2022-00340

Impact of Coronavirus Disease-2019 on Hospital Care for Neonatal Opioid Withdrawal Syndrome. MacMillan KDL, Morrison TM, Melvin P, et al (2022), The Journal of Pediatrics 4 February 2022, online

Objectives

To compare prenatal exposures, hospital care processes, and hospitalization outcomes for opioid-exposed newborns (OENs) before and during the COVID-19 pandemic.

Study design

In this multi-center retrospective analysis, data were collected from 19 Massachusetts hospitals including 5 academic and 14 community hospitals. The pre-COVID cohort was defined as births occurring during 3/1/2019-2/28/2020 and the COVID cohort as births during 3/1/2020-12/31/2020. OEN born >/= to 35 weeks gestation were included. Differences in prenatal substance exposures, hospital care processes, and NOWS outcomes including pharmacologic treatment (PharmTx), length of stay (LOS), and as needed (PRN) treatment failure rates were evaluated.

Results

There were 663 OEN in the pre-COVID and 476 in the COVID group. No differences between groups were seen in prenatal substance exposures or need for PharmTx. Compared with the pre-COVID group, in the COVID group there were decreases in rooming-in after maternal discharge (63.0% to 53.8%, P=0.001) and care in the pediatric unit setting (25.3% to 23.5%, P=0.001), and increases in LOS (aRR 1.04, 95% CI 1.01-1.08) and breastmilk receipt at discharge (aOR 2.03, 95% CI 1.22-3.39). Within the subset of academic centers, more infants failed PRN treatment in the COVID group [53.8% vs 26.5%, p=0.02; aOR 3.77 (95% CI 0.98-14.5)].

Conclusions

Among hospitals in our collaborative, hospital processes for NOWS including care setting, rooming-in and LOS were negatively impacted in the COVID group, particularly in academic medical centers.(Author)

2022-00302

The COVID-19 Pandemic Can Impact Perinatal Mental Health and the Health of the Offspring. Caparros-Gonzalez RA, Ganho-Ávila A, de la Torre-Luque A (2020), Behavioral Sciences vol 10, no 11, 23 October 2020, p 162

The COVID-19 ongoing pandemic constitutes a major challenge for countries throughout the world due to the rapid spread of SARS-CoV-2 and devastating consequences in health. No one is free from COVID-19 impact. In this regard, pregnant women are not the exception. The COVID-19 outbreak represents a massive source of stressful agents for women and their babies during the perinatal period. The COVID-19 pandemic has been suggested to potentially have short- and long-term detrimental effects on pregnant women and the baby. These adverse consequences range from mental to medical diseases. During the last centuries, several dreadful and fatal incidents have put pregnant women and their babies at higher risk of mortality and health deterioration. For example, it has been informed that women exposed to the 1918 flu pandemic (commonly known as the Spanish flu) while pregnant showed higher rates of premature delivery in the short term. Long-term consequences have also been reported and individuals (both males and females) who were exposed to the 1918 flu pandemic while in utero had a higher risk of developing schizophrenia, diabetes, coronary heart disease or cancer throughout their lifespan. (Author)

Full URL: https://www.mdpi.com/2076-328X/10/11/162/htm

2022-00208

Women's postpartum experiences in Canada during the COVID-19 pandemic: a qualitative study. Rice K, Williams S (2021), CMAJ Open vol 9, no 2, May 2021, pp E556-E562

Background: The mental health of postpartum women has worsened during the COVID-19 pandemic; however, the experiences that underlie this remain unexplored. The purpose of this study was to examine how people in Canada who gave birth during the pandemic were affected by policies aimed at limiting interpersonal contact to reduce SARS-CoV-2 transmission in hospital and during the early weeks postpartum.

Methods: We took a social constructionist approach and used a qualitative descriptive methodology. Sampling methods were purposive and involved a mix of convenience and snowball sampling via social media and email. Study inclusion was extended to anyone aged 18 years or more who was located in Canada and was pregnant or had given birth during the COVID-19 pandemic. Data were obtained via semistructured qualitative telephone interviews conducted between June 2020 and January 2021, and were analyzed through thematic analysis.

Results: Sixty-five interviews were conducted; data from 57 women who had already delivered were included in our analysis. We identified the following 4 themes: negative postpartum experience in hospital owing to the absence of a support person(s); poor postpartum mental health, especially in women with preexisting mental health conditions and those who had had medically complicated deliveries; asking for help despite public health regulations that prohibited doing so; and problems with breastfeeding owing to limited in-person follow-up care and lack of in-person breastfeeding support.

Interpretation: Policies that restrict the presence of support persons in hospital and at home during the postpartum period appear to be causing harm. Measures to mitigate the consequences of these policies could include encouraging pregnant people to plan for additional postpartum support, allowing a support person to remain for the entire hospital stay and offering additional breastfeeding support. (Author)

Full URL: https://doi.org/10.9778/cmajo.20210008

2022-00205

Wellbeing of Breastfeeding Women in Australia and New Zealand during the COVID-19 Pandemic: A Cross-Sectional Study. Sakalidis VS, Rea A, Perrella SL, et al (2021), Nutrients vol 13, no 6, May 2021, p 1831

During the COVID-19 pandemic, breastfeeding women have experienced restricted access to support, placing them at increased risk of mental health concerns and limited breastfeeding assistance. This study investigated the effect of the pandemic on feeding choices and maternal wellbeing amongst breastfeeding mothers living in Australian and New Zealand. We conducted a cross-sectional online survey that examined feeding methods, maternal mental wellbeing, worries, challenges, and positive experiences during the pandemic. Most women were exclusively breastfeeding (82%). Partial breastfeeding was associated with perceived low milk supply and longer pregnancy duration during the pandemic. Reduced mental health and wellbeing was associated with lower levels of family functioning, increased perceived stress, and perinatal anxiety. Longer pregnancy duration during the pandemic was associated with lower mental health wellbeing scores, while higher perceived stress scores were reported for regions with higher COVID-19 infection rates and women with perceived low milk supply. Women reported that the pandemic resulted in less pressure and more time for family bonding, while worries about the pandemic, family health, and parenting challenges were also cited. Mental health concerns of breastfeeding women appear to be exacerbated by COVID-19, highlighting a critical need for access to mental health and broader family support during the pandemic. (Author)

2022-00202

"Mourning the Experience of What Should Have Been": Experiences of Peripartum Women During the COVID-19 Pandemic.

Shuman CJ, Morgan ME, Chiangong J, et al (2022), Maternal and Child Health Journal vol 26, no 1, January 2022, pp 102-109

Objectives

The ongoing COVID-19 pandemic may significantly affect the peripartum experience; however, little is known about the perceptions of women who gave birth during the COVID-19 pandemic. Thus, the purpose of our study was to describe the peripartum experiences of women who gave birth during the COVID-19 pandemic in the United States.

Methods

Using a cross-sectional design, we collected survey data from a convenience sample of postpartum women recruited through social media. Participants were 18 years of age or older, lived in the United States, gave birth after February 1, 2020, and could read English. This study was part of the COVID-19 Maternal Attachment, Mood, Ability, and Support study, which was a larger study that collected survey data describing maternal mental health and breastfeeding during the COVID-19 pandemic. This paper presents findings from the two free-text items describing peripartum experiences. Using the constant comparative method, responses were thematically analyzed to identify and collate major and minor themes.

Results

371 participants responded to at least one free-text item. Five major themes emerged: (1) Heightened emotional distress; (2) Adverse breastfeeding experiences; (3) Unanticipated hospital policy changes shifted birthing plans; (4) Expectation vs. reality: "mourning what the experience should have been;" and (5) Surprising benefits of the COVID-19 pandemic to the delivery and postpartum experience.

Conclusions for Practice

Peripartum women are vulnerable to heightened stress induced by COVID-19 pandemic sequalae. During public health crises, peripartum women may need additional resources and support to improve their mental health, wellbeing, and breastfeeding experiences. (Author)

Full URL: https://doi.org/10.1007/s10995-021-03344-8

2022-00199

The breastfeeding experiences of COVID-19-positive women: A qualitative study in Turkey. Aşcı Ö, Bal MD, Ergin A (2022), Japan Journal of Nursing Science vol 19, no 1, January 2022, e12453

Aim

The aim of the study was to determine the breastfeeding experiences of COVID-19-positive women.

Methods

This was a qualitative study of 14 women diagnosed with COVID-19. One-to-one telephone interviews were conducted and recorded. The data were analyzed thematically.

Results

Three main themes were identified. Theme 1 was “increased emotional load,” outlining the emotional effects of the disease in the women, such as feeling sad and inadequate, in addition to anxiety and fear. Theme 2 was “breastfeeding during the disease,” which illustrated the effects of the treatment process on the women, the disease-related symptoms, their influence on breastfeeding attitudes and behavior, and the effects of social media and television. Theme 3 was “perceived social support and need,” defining the social support perceived and expected by the women during isolation with needs.

Conclusion

Women who could not get the professional support they expected had to face the difficult choice between taking medical treatment and breastfeeding. Many women refused drug treatment for COVID-19 and continued to breastfeed with all the resultant emotional and physical difficulties, as they believed in the benefits of mother's milk. The experiences of the women were discussed with an approach that enabled developing health care services further. It was concluded that Turkish health care professionals need to develop an evidence-based and female-centered approach for COVID-19 management in breastfeeding women. (Author)

Full URL: https://doi.org/10.1111/jjns.12453

2022-00196

Experiences of breastfeeding during COVID-19: Lessons for future practical and emotional support. Brown A, Shenker N (2021), Maternal & Child Nutrition vol 17, no 1, January 2021, e13088

The COVID-19 pandemic and subsequent lockdown and social distancing led to changes to breastfeeding support available to women in the United Kingdom. Face-to-face professional support was reduced, and face-to-face peer support was cancelled. Anecdotal media accounts highlighted practices separating some mothers and babies in hospitals, alongside inaccurate stories of the safety of breastfeeding circulating. Meanwhile, new families were confined to their homes, separated from families and support networks. Given that we know breastfeeding is best supported by practices that keep mother and baby together, high-quality professional and peer-to-peer support, and positive maternal well-being, it is important to understand the impact of the pandemic upon the ability to breastfeed. To explore this, we conducted an online survey with 1219 breastfeeding mothers in the United Kingdom with a baby 0-12 months old to understand the impact of the pandemic upon breastfeeding duration, experiences and support. The results highlighted two very different experiences: 41.8% of mothers felt that breastfeeding was protected due to lockdown, but 27.0% of mothers struggled to get support and had numerous barriers stemming from lockdown with some stopped breastfeeding before they were ready. Mothers with a lower education, with more challenging living circumstances and from Black and minority ethnic backgrounds were more likely to find the impact of lockdown challenging and stop breastfeeding. The findings are vital in understanding how we now support those women who may be grieving their loss of breastfeeding and are affected by their negative experiences and how we can learn from those with a positive experience to make sure all breastfeeding women are better supported if similar future events arise. (Author)

Full URL: https://doi.org/10.1111/mcn.13088

2022-00193

Impact of the COVID-19 pandemic on Swiss pregnant and breastfeeding women - a cross-sectional study covering the first pandemic wave. Lambelet V, Ceulemans M, Nordeng H, et al (2021), Swiss Medical Weekly vol 151, 17 September 2021, w30009

Information on the impact of the COVID-19 pandemic on pregnancy and breastfeeding experiences, as well as on perinatal mental health in Switzerland is limited. In Switzerland, there are few national studies and little information. Using an anonymous online survey accessible after the first wave of the outbreak in Switzerland, we have investigated how this pandemic affected pregnant and breastfeeding women. Among women who completed the survey, 69.0% (1050/1518) indicated the first wave of the pandemic affected their personal habits, 61.0% (689/1131) were affected in their work and 40.0% (632/1573) reported impaired relations with healthcare services (different denominators correspond to the number of participants who answered the question). 36.8% (110/299) of women reported an impact of the pandemic on their current pregnancy experience or breastfeeding experience (8.2%, 46/555). Overall, 11.6% (170/1467) of participants who completed the validated screening tests for mental health symptoms (Edinburgh Postnatal Depression Scale, Generalized Anxiety Disorder 7, Perceived Stress Scale) presented a score compatible with symptoms of major depression, severe anxiety or high perceived stress, which is higher than in the pre-pandemic period according to literature. Risk factors independently associated with impaired mental health were being hospitalized, having symptoms of COVID-19, living with a person with COVID-19 symptoms, having comorbidities, having experienced reduced healthcare services, having restricted usual activities and being a housewife. Protective factors independently associated were a high level of education and living with a partner. Our findings suggest that the COVID-19 pandemic might have significantly affected the well-being and mental health of pregnant and breastfeeding women, directly in the case of exposure, and indirectly as a result of the potential modifications in their life habits and in healthcare facilities. (Author)

Full URL: https://doi.org/10.4414/smw.2021.w30009

2022-00108

Baby Friendly Hospital Initiative Breastfeeding Outcomes in Mothers with COVID-19 Infection During the First Weeks of the Pandemic in Spain. Neo-COVID-19 Research Group, Marín Gabriel MA, Domingo Goneche L, et al (2021), Journal of Human Lactation vol 37, no 4, November 2021, pp 639-648

Background:
Adherence to the Ten Steps of the Baby-Friendly Hospital Initiative has been shown to have a protective role for the initiation and maintenance of breastfeeding.

Research Aims:
(1) To determine the breastfeeding rate during the first 6 months of life in children of mothers diagnosed with COVID-19 infection at the time of birth; and (2) to assess the possible influence of being born in a center with Baby-Friendly Hospital Initiative accreditation.

Methods:
This was a two-group comparative longitudinal observational study of infants born to mothers with COVID-19 at the time of birth, between March 13–May 31, 2020 (the first wave of the pandemic) in Spain. Fourteen Spanish hospitals participated, five (35.7%) were Baby-Friendly Hospital Initiative accredited. Type of feeding was assessed prospectively at discharge, 1, 3, and 6 months of age. A total of 248 newborns were included in the study.

Results:
A total of 117 (47.3%) newborns were born in Baby-Friendly Hospital Initiative (BFHI) accredited centers. These centers applied skin-to-skin contact with greater probability (OR = 1.9; 95% CI [1.18, 3.29]) and separated the newborns from their mothers less frequently (OR = 0.46; 95% CI [0.26, 0.81]) than non-accredited centers. No differences were observed in relation to the presence of a companion at the time of birth. At discharge, 49.1% (n = 57) of newborns born in BFHI-accredited centers received exclusive breastfeeding versus 35.3% (n = 46) in non-accredited centers (p = .03). No differences were observed in breastfeeding rates throughout follow-up.

Conclusions:
The exclusive breastfeeding rate at discharge in children of mothers with COVID-19 infection at birth was higher in Baby-Friendly Hospital Initiative accredited centers, which most frequently applied skin-to-skin contact at birth as well as rooming-in. (Author) [Erratum: Journal of Human Lactation, 9 January 2022, online. https://doi.org/10.1177/08903344221075066]

2022-00082

Breastfeeding experiences during the COVID-19 pandemic in Spain: a qualitative study. Rodríguez-Gallego I, Strivens-Vilchez H, Agea-Cano I, et al (2022), International Breastfeeding Journal vol 17, no 11, 22 February 2022

Background

The pandemic caused by COVID-19 has affected reproductive and perinatal health both through the infection itself and, indirectly, as a consequence of changes in medical care, social policy or social and economic circumstances.

The objective of this study is to explore the impact of the pandemic and of the measures adopted on breastfeeding initiation and maintenance.

Methods

A qualitative descriptive study was conducted by means in-depth semi-structured interviews, until reaching data saturation. The study was conducted between the months of January to May 2021. Participants were recruited by midwives from the Primary Care Centres of the Andalusian provinces provinces of Seville, Cádiz, Huelva, Granada, and Jaén. The interviews were conducted via phone call and were subsequently transcribed and analysed by means of reflexive inductive thematic analysis, using Braun and Clarke's thematic analysis.

Results

A total of 30 interviews were conducted. Five main themes and ten subthemes were developed, namely: Information received (access to the information, figure who provided the information), unequal support from the professionals during the pandemic (support to postpartum hospitalization, support received from Primary Health Care during the postpartum period), social and family support about breastfeeding (support groups, family support), impact of confinement and of social restriction measures (positive influence on breastfeeding, influence on bonding with the newborn), emotional effect of the pandemic (insecurity and fear related to contagion by coronavirus, feelings of loneliness).

Conclusion

The use of online breastfeeding support groups through applications such as WhatsApp®, Facebook® or Instagram® has provided important breastfeeding information and support sources. The main figure identified that has provided formal breastfeeding support during this period was that of the midwife. In addition, the social restrictions inherent to the pandemic have exerted a positive effect for women in bonding and breastfeeding, as a consequence of the increase in the time spent at their homes and in the family nucleus co-living. (Author)

Full URL: https://doi.org/10.1186/s13006-022-00453-0

2022-00033

A review of COVID-19 therapeutics in pregnancy and lactation. Jorgensen SCJ, Tabbara N, Burry L (2022), Obstetric Medicine 12 January 2022, online

Pregnant people have an elevated risk of severe COVID-19-related complications compared to their non-pregnant counterparts, underscoring the need for safe and effective therapies. In this review, we summarize published data on COVID-19 therapeutics in pregnancy and lactation to help inform clinical decision-making about their use in this population. Although no serious safety signals have been raised for many agents, data clearly have serious limitations and there are many important knowledge gaps about the safety and efficacy of key therapeutics used for COVID-19. Moving forward, diligent follow-up and documentation of outcomes in pregnant people treated with these agents will be essential to advance our understanding. Greater regulatory push and incentives are needed to ensure studies to obtain pregnancy data are expedited. (Author)

2021-14558

Adapting obstetric and neonatal services during the COVID-19 pandemic: a scoping review. Gold S, Clarfield L, Johnstone J, et al (2022), BMC Pregnancy and Childbirth vol 22, no 119, 11 February 2022

Background

The provision of care to pregnant persons and neonates must continue through pandemics. To maintain quality of care, while minimizing physical contact during the Severe Acute Respiratory Syndrome-related Coronavirus-2 (SARS-CoV2) pandemic, hospitals and international organizations issued recommendations on maternity and neonatal care delivery and restructuring of clinical and academic services. Early in the pandemic, recommendations relied on expert opinion, and offered a one-size-fits-all set of guidelines. Our aim was to examine these recommendations and provide the rationale and context to guide clinicians, administrators, educators, and researchers, on how to adapt maternity and neonatal services during the pandemic, regardless of jurisdiction.

Method

Our initial database search used Medical subject headings and free-text search terms related to coronavirus infections, pregnancy and neonatology, and summarized relevant recommendations from international society guidelines. Subsequent targeted searches to December 30, 2020, included relevant publications in general medical and obstetric journals, and updated society recommendations.

Results

We identified 846 titles and abstracts, of which 105 English-language publications fulfilled eligibility criteria and were included in our study. A multidisciplinary team representing clinicians from various disciplines, academics, administrators and training program directors critically appraised the literature to collate recommendations by multiple jurisdictions, including a quaternary care Canadian hospital, to provide context and rationale for viable options.

Interpretation

There are different schools of thought regarding effective practices in obstetric and neonatal services. Our critical review presents the rationale to effectively modify services, based on the phase of the pandemic, the prevalence of infection in the population, and resource availability. (Author)

Full URL: https://doi.org/10.1186/s12884-022-04409-4

2021-14511

Pregnancy and neonatal outcomes of COVID-19: coreporting of common outcomes from PAN-COVID and AAP-SONPM registries. Mullins E, Hudak ML, Banerjee J, et al (2021), Ultrasound in Obstetrics and Gynecology vol 57, no 4, April 2021, pp 573-581

Objective

Few large cohort studies have reported data on maternal, fetal, perinatal and neonatal outcomes associated with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in pregnancy. We report the outcome of infected pregnancies from a collaboration formed early during the pandemic between the investigators of two registries, the UK and Global Pregnancy and Neonatal outcomes in COVID-19 (PAN-COVID) study and the American Academy of Pediatrics (AAP) Section on Neonatal–Perinatal Medicine (SONPM) National Perinatal COVID-19 Registry.

Methods

This was an analysis of data from the PAN-COVID registry (1 January to 25 July 2020), which includes pregnancies with suspected or confirmed maternal SARS-CoV-2 infection at any stage in pregnancy, and the AAP-SONPM National Perinatal COVID-19 registry (4 April to 8 August 2020), which includes pregnancies with positive maternal testing for SARS-CoV-2 from 14 days before delivery to 3 days after delivery. The registries collected data on maternal, fetal, perinatal and neonatal outcomes. The PAN-COVID results are presented overall for pregnancies with suspected or confirmed SARS-CoV-2 infection and separately in those with confirmed infection.

Results

We report on 4005 pregnant women with suspected or confirmed SARS-CoV-2 infection (1606 from PAN-COVID and 2399 from AAP-SONPM). For obstetric outcomes, in PAN-COVID overall and in those with confirmed infection in PAN-COVID and AAP-SONPM, respectively, maternal death occurred in 0.5%, 0.5% and 0.2% of cases, early neonatal death in 0.2%, 0.3% and 0.3% of cases and stillbirth in 0.5%, 0.6% and 0.4% of cases. Delivery was preterm (< 37 weeks' gestation) in 12.0% of all women in PAN-COVID, in 16.1% of those women with confirmed infection in PAN-COVID and in 15.7% of women in AAP-SONPM. Extreme preterm delivery (< 27 weeks' gestation) occurred in 0.5% of cases in PAN-COVID and 0.3% in AAP-SONPM. Neonatal SARS-CoV-2 infection was reported in 0.9% of all deliveries in PAN-COVID overall, in 2.0% in those with confirmed infection in PAN-COVID and in 1.8% in AAP-SONPM; the proportions of neonates tested were 9.5%, 20.7% and 87.2%, respectively. The rates of a small-for-gestational-age (SGA) neonate were 8.2% in PAN-COVID overall, 9.7% in those with confirmed infection and 9.6% in AAP-SONPM. Mean gestational-age-adjusted birth-weight Z-scores were −0.03 in PAN-COVID and −0.18 in AAP-SONPM.

Conclusions

The findings from the UK and USA registries of pregnancies with SARS-CoV-2 infection were remarkably concordant. Preterm delivery affected a higher proportion of women than expected based on historical and contemporaneous national data. The proportions of pregnancies affected by stillbirth, a SGA infant or early neonatal death were comparable to those in historical and contemporaneous UK and USA data. Although maternal death was uncommon, the rate was higher than expected based on UK and USA population data, which is likely explained by underascertainment of women affected by milder or asymptomatic infection in pregnancy in the PAN-COVID study, although not in the AAP-SONPM study. The data presented support strong guidance for enhanced precautions to prevent SARS-CoV-2 infection in pregnancy, particularly in the context of increased risks of preterm delivery and maternal mortality, and for priority vaccination of pregnant women and women planning pregnancy.

Full URL: https://doi.org/10.1002/uog.23619

2021-14507

Examining the impact of the COVID-19 pandemic on maternal mental health during pregnancy and the postnatal period.
McIntosh GC (2022), MIDIRS Midwifery Digest vol 32, no 1, March 2022, pp 67-73

By exploring physiological aspects of COVID-19 and its adaptations to pregnancy, this paper will examine its prevalence and physical effects, discussing the ramifications for mental health during pregnancy and the postpartum period. (Author, edited)

2021-14493

Breastfeeding Practices During the SARS-CoV-2 Pandemic Were Influenced by Women's Life Event. Wanduru P, Başaran F, Örsal Ö (2022), The Journal of Perinatal and Neonatal Nursing vol 36, no 1, January/March 2022, pp 68-76

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic, which affects the whole world, negatively affects breastfeeding mothers and newborns. This study aimed to evaluate the breastfeeding practices influenced by women's life events and the breastfeeding women compliance with the rules established against the risk of SARS-CoV-2. This prospective cross-sectional online survey design study was carried out on 339 breastfeeding mothers between April 21 and May 10, 2020, in Turkey. Data were collected by an information form and the Impact of Events Scale-Revised (IES-R); 39.2% of breastfeeding mothers were traumatically affected by events experienced as a result of the pandemic. Study results reveal that breastfeeding mothers concerned about the risk of SARS-COV-2 transmission to their infants through human milk or breastfeeding. Noncompliance with SARS-CoV-2 measures among breastfeeding women was high. Policymakers and healthcare providers should not ignore this situation. It may be beneficial to conduct consciousness-raising and awareness studies to increase the compliance ratios of breastfeeding women with the recommended measures to prevent SARS-CoV-2 transmission. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

2021-14276

Impact of the fear of Covid-19 infection on intent to breastfeed; a cross sectional survey of a perinatal population in Qatar.
Reagu SM, Abuyaqoub S, Babarinsa I, et al (2022), BMC Pregnancy and Childbirth vol 22, no 104, 5 February 2022

Objectives
Infection control measures during the Covid-19 pandemic have focused on limiting physical contact and decontamination by observing cleaning and hygiene rituals. Breastfeeding requires close physical contact and observance of hygienic measures like handwashing. Worries around contamination increase during the perinatal period and can be expressed as increase in obsessive compulsive symptoms. These symptoms have shown to impact breastfeeding rates. This study attempts to explore any relationship between the Covid-19 pandemic and perinatal obsessive–compulsive symptomatology and whether the Covid-19 pandemic has any impact on intent to breastfeed.

Methods
A cross sectional survey of perinatal women attending largest maternity centre in Qatar was carried out during the months of October to December 2020. Socio-demographic information, intent to breastfeed and information around obsessive compulsive thoughts around Covid-19 pandemic were collected using validated tools.

Results
15.7% respondents report intent to not breastfeed. 21.4% respondents reported obsessive–compulsive symptoms. 77.3% respondents believed the biggest source of infection was from others while as only 12% of the respondents believed that the source of infection was through breastfeeding and 15.7% believed the vertical transmission as the main source of risk of transmission.

Conclusions
The rates of Obsessive–compulsive symptoms were increased and the rates of intent to breastfeed were decreased when compared with pre pandemic rates. The obsessive–compulsive symptoms and the intent to not breastfeed were significantly associated with fear of infection to the new-born.

Obsessive–compulsive symptoms were not significantly correlated with intent to breastfeed and can be seen as adaptive strategies utilized by women to continue breastfeeding in the context of fear of infection. (Author)

Full URL: https://doi.org/10.1186/s12884-022-04446-z

2021-14266

The Implications of COVID-19 on Family-Centered Care in the NICU. Merritt L, Verklan MT (2022), Neonatal Network: the Journal of Neonatal Nursing vol 41, no 1, January/February 2022, pp 45-50

During the recent COVID-19 pandemic, neonatal intensive care units (NICUs) issued strict visiting policies that limited parent visitation and impacted how family-centered care was practiced. This article describes how these visiting policies impacted parents and neonates. Implications for clinical practice and future research will also be discussed. (Author)

2021-14172

Placental infection with SARS-CoV-2, analysis of 16 cases and literature review. Dadgar S, Mahmoudinia M, Akbari A, et al (2022), Archives of Gynecology and Obstetrics 28 January 2022, online

Purpose

Since December 2019, the whole world has been affected by coronavirus [severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)]. However, the effects of COVID-19 infection on pregnancy and fetal transmission are still unclear. Therefore, this study was conducted to evaluate placenta samples regarding detection of SARS-CoV-2 RNA in women affected with COVID-19.

Method

This study was a part of a cohort study carried out on pregnant women with a diagnosis of COVID-19 infection who had been admitted to the Imam Reza Hospital in Mashhad, Iran, from March 20 to August 5, 2020. Clinical and laboratory information of all the patients was collected and chest computed tomography (CT) scans were reviewed. Totally, 16 placental tissue were prepared for real time polymerase chain reaction (RT-PCR) testing. All samples were tested by PowerChek PCR real-time kit (South Korea) with 2 target genes (E gene and Rd Rp gene), and Pishtaz Teb kit, (Iran) with 2 target genes (N gene and RdRp gene).

Result

In the first RT-PCR kit by PowerChek kit, 6 samples were positive for a single gene (E gene) and 2 samples were positive for both genes (E gene and Rd Rp gene). In the second RT-PCR kit by Pishtaz Teb kit, 3 samples were positive for two genes (N gene and RdRp gene).

Conclusion

This present study showed that infection of placenta with SARS-CoV-2 may occur in pregnancy. However, whether this infection leads to neonatal infection and serious complication in pregnancy remains unclear. (Author)

2021-14053

Impact of COVID-19 on term admissions to neonatal care. Hardy JM, Iqbal S, Geethanath RM (2022), Infant vol 18, no 1, January 2022, pp 35-38

This article analyses a retrospective study of the impact that the COVID-19 pandemic has had on term admissions to the neonatal intensive care unit (NICU) at Sunderland Royal Hospital. Using data gathered between 1 January 2020 and 31 December 2020, the results from this repeat audit are compared with admission data from previous years and with figures from NHS England. This audit considers the impact of the pandemic on term admissions to the NICU, with a focus on social causes and other potentially avoidable reasons for admission. (Author)

2021-13878

Neonatal outcome among pregnant women with COVID-19: a systematic review and meta-analysis. Amirian A, Pakzad R, Hasanpour V, et al (2022), Journal of Maternal-Fetal and Neonatal Medicine 4 January 2022, online

Background

COVID-19 has raised many concerns about the possible side effects of pregnancy. There is currently no conclusive evidence of the vertical transmission of COVID-19. Accordingly, this paper is a Systematic Review and Meta-Analysis investigated neonatal outcomes among pregnant women with COVID-19.

Methods

PubMed, Web of Science (WoS), EMBASE, ProQuest, Scopus, and Google Scholar were searched up to November 2020. The Cochran's Q-test and I2 statistic were applied to assess heterogeneity, a random-effects model was used to estimate the pooled estimate of the mean, and a meta-regression method was utilized to investigate the factors affecting heterogeneity between studies.

Results

Of 1132 studies, 23 were included in the analysis (sample size: 749 for neonates and 820 for mothers). Most of these studies (n = 13) were conducted in China. The pooled estimate for the mean of birth weight, APGAR score in min 1 and 5 was 3084.97 g (95% CI: 2993.66–3176.29), 8.76 (95% CI: 8.27–9.25), and 9.44 (95% CI: 9.18–9.70), respectively. Also, the pooled prevalence of premature birth, shortness of breath, and neonatal death was 17.80% (95% CI: 12.47–23.13), 8.43% (95% CI: 4.50–12.37), and 7.73% (95% CI: 2.00–13.47), respectively. The meta-regression results indicated that the mother's age, disease duration, and sample size had no significant effect on heterogeneity between studies (p-value all of them was >.05). Finally, 15 studies (65.22%) reported that vertical transmission did not occur.

Conclusion

The COVID-19 infection can have adverse outcomes for the newborn. Despite the positive test of neonates, the vertical transmission of COVID-19 from the infected mother to the fetus has not yet been conclusively proven; thus, further research is needed.(Author)

2021-13837

COVID-19-Associated Multisystem Inflammatory Syndrome in a Neonate with Atypical Coronary Artery Involvement. Costa S, Delogu AB, Bottoni A, et al (2022), American Journal of Perinatology 7 January 2022, online

Objective The study aimed to report a novel coronavirus disease 2019 (COVID-19)-associated multisystem inflammatory syndrome in children (MIS-C) in a neonate found to have an atypical diffuse thickening in coronary artery walls whose diagnosis required a multi-imaging approach.

Study Design A neonate presented at birth with multiple organ involvement and coronary artery anomalies. A diagnosis of MIS-C associated with COVID-19 was supported by maternal severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infection during pregnancy, and by the presence of both immunoglobulin (Ig)-G against SARS-CoV-2 and spike-specific memory B-cells response in the neonatal blood. Other plausible causes of the multiple organ involvement were excluded.

Result At admission, a severe coronary artery dilatation was identified on echocardiography, supporting the diagnosis of the MIS-C Kawasaki-like disease; however, coronary artery internal diameters were found to be normal using cardiac computed tomography angiography. At discharge, comparing the two imaging techniques each other, the correct diagnosis resulted to be an abnormal thickening in coronary arterial walls. These findings suggest that the inflammatory process affecting the coronary arterial wall in MIS-C could result not only in typical coronary artery lesions such as dilatation of the lumen or aneurysms development but also in abnormal thickening of the coronary artery wall.

Conclusion Our case provides an alert for pediatric cardiologists about the complexity to assess coronary artery involvement in MIS-C and raises the question that whether an abnormal vascular remodeling, with normal inner diameters, is to be considered like coronary artery dilatation for risk stratification. (Author)

2021-13818

COVID-19 and vertical transmission: assessing the expression of ACE2/TMPRSS2 in the human fetus and placenta to assess the risk of SARS-CoV-2 infection. Beesley MA, Davidson JR, Panariello F, et al (2022), BJOG: An International Journal of Obstetrics and Gynaecology vol 129, no 2, January 2022, pp 256-266

Background

Pregnant women have been identified as a potentially at-risk group concerning COVID-19 infection, but little is known regarding the susceptibility of the fetus to infection. Co-expression of ACE2 and TMPRSS2 has been identified as a prerequisite for infection, and expression across different tissues is known to vary between children and adults. However, the expression of these proteins in the fetus is unknown.

Methods

We performed a retrospective analysis of a single cell data repository. The data were then validated at both gene and protein level by performing RT-qPCR and two-colour immunohistochemistry on a library of second-trimester human fetal tissues.

Findings

TMPRSS2 is present at both gene and protein level in the predominantly epithelial fetal tissues analysed. ACE2 is present at significant levels only in the fetal intestine and kidney, and is not expressed in the fetal lung. The placenta also does not co-express the two proteins across the second trimester or at term.

Interpretation

This dataset indicates that the lungs are unlikely to be a viable route of SARS-CoV2 fetal infection. The fetal kidney, despite presenting both the proteins required for the infection, is anatomically protected from the exposure to the virus. However, the gastrointestinal tract is likely to be susceptible to infection due to its high co-expression of both proteins, as well as its exposure to potentially infected amniotic fluid.

Tweetable abstract

This work provides detailed mechanistic insight into the relative protection & vulnerabilities of the fetus & placenta to SARS-CoV-2 infection by scRNAseq & protein expression analysis for ACE2 & TMPRSS2. The findings help to explain the low rate of vertical transmission. (Author)

Full URL: https://doi.org/10.1111/1471-0528.16974

2021-13809

Maternal-Newborn Health System Changes and Outcomes in Ontario Canada during Wave 1 of the COVID-19 Pandemic – A Retrospective Study. Roberts NF, Sprague AE, Taljaard M, et al (2021), JOGC [Journal of Obstetrics and Gynaecology Canada] 29 December 2021, online

Objective

To determine the population-level impact of COVID-19 pandemic–related obstetric practice changes on maternal and newborn outcomes.

Methods

Segmented regression analysis examined changes that occurred 240 weeks pre-pandemic through the first 32 weeks of the pandemic using data from Ontario's Better Outcomes Registry & Network. Outcomes included birth location, length of stay, labour analgesia, mode of delivery, preterm birth, and stillbirth. Immediate and gradual effects were modelled with terms representing changes in intercepts and slopes, corresponding to the start of the pandemic.

Results

There were 799 893 eligible pregnant individuals included in the analysis; 705 767 delivered in the pre-pandemic period and 94,126 during the pandemic wave 1 period. Significant immediate decreases were observed for hospital births (relative risk [RR] 0.99; 95% CI 0.98–0.99), length of stay (median change –3.29 h; 95% CI –3.81 to –2.77), use of nitrous oxide (RR 0.11; 95% CI 0.09–0.13) and general anesthesia (RR 0.69; 95% CI 0.58– 0.81), and trial of labour after cesarean (RR 0.89; 95% CI 0.83–0.96). Conversely, there were significant immediate increases in home births (RR 1.35; 95% CI 1.21–1.51), and use of epidural (RR 1.02; 95% CI 1.01–1.04) and regional anesthesia (RR 1.01; 95% CI 1.01–1.02). There were no significant immediate changes for any other outcomes, including preterm birth (RR 0.99; 95% CI 0.93–1.05) and stillbirth (RR 1.11; 95% CI 0.87–1.42).

Conclusion

Provincial health system changes implemented at the start of the pandemic resulted in immediate clinical practice changes but no significant increases in adverse outcomes. (Author)

Full URL: https://doi.org/10.1016/j.jogc.2021.12.006

2021-13753

Large gaps in the quality of healthcare experienced by Swedish mothers during the COVID-19 pandemic: a cross-sectional study based on WHO standards. Zaigham M, Linden K, Sengpiel V, et al (2022), Women and Birth: Journal of the Australian College of Midwives 23 January 2022, online

Background and Problem
Existing healthcare systems have been put under immense pressure during the COVID-19 pandemic. Disruptions in essential maternal and newborn services have come from even high-income countries within the World Health Organization (WHO) European Region.
Aim
To describe the quality of care during pregnancy and childbirth, as reported by the women themselves, during the COVID-19 pandemic in Sweden, using the WHO 'Standards for improving quality of maternal and newborn care in health facilities'.
Methods
Using an anonymous, online questionnaire, women ≥18 years were invited to participate if they had given birth in Sweden from March 1, 2020 to June 30, 2021. The quality of maternal and newborn care was measured using 40 questions across four domains: provision of care, experience of care, availability of human/physical resources, and organisational changes due to COVID-19.
Findings
Of the 5003 women included, n = 4528 experienced labour. Of these, 46.7% perceived a poorer quality of maternal and newborn care due to the COVID-19. Fundal pressure was applied in 22.2% of instrumental vaginal births, 36.8% received inadequate breastfeeding support and 6.9% reported some form of abuse. Findings were worse in women undergoing prelabour Caesarean section (CS) (n = 475). Multivariate analysis showed significant associations of the quality of maternal and newborn care to year of birth ($P < 0.001$), parity ($P < 0.001$), no pharmacological pain relief ($P < 0.001$), prelabour CS ($P < 0.001$), emergency CS ($P < 0.001$) and overall satisfaction ($P < 0.001$).
Conclusion
Considerable gaps over many key quality measures and deviations from women-centred care were noted. Findings were worse in women with prelabour CS. Actions to promote high-quality, evidence-based and respectful care during childbirth for all mothers are urgently needed. (Author)

Full URL: https://doi.org/10.1016/j.wombi.2022.01.007

2021-13697

Protection challenges of pregnant women against vertical transmission during COVID-19 epidemic: A narrative review. Hasnain M, Pasha MF, Ghani I, et al (2021), American Journal of Infection Control vol 48, no 12, December 2021, pp 1516-1519

This paper presents a narrative review study of 5 popular data repositories focusing on challenges of pregnant women protection during the COVID-19 pandemic. The study concludes that the likelihood of a vertical transmission of COVID-19 infection from pregnant women to neonates was not observed. Nevertheless, it remains a serious risk for them during their earlier stage of pregnancy, thus, special attention from health professionals has been recommended. (Author)

Full URL: https://doi.org/10.1016/j.ajic.2020.06.206

2021-13517

Association of Birth During the COVID-19 Pandemic With Neurodevelopmental Status at 6 Months in Infants With and Without In Utero Exposure to Maternal SARS-CoV-2 Infection. Shuffrey LC, Firestein MR, Kyle MH, et al (2022), JAMA Pediatrics 4 January 2022, online

Importance Associations between in utero exposure to maternal SARS-CoV-2 infection and neurodevelopment are speculated, but currently unknown.

Objective To examine the associations between maternal SARS-CoV-2 infection during pregnancy, being born during the COVID-19 pandemic regardless of maternal SARS-CoV-2 status, and neurodevelopment at age 6 months.

Design, Setting, and Participants A cohort of infants exposed to maternal SARS-CoV-2 infection during pregnancy and unexposed controls was enrolled in the COVID-19 Mother Baby Outcomes Initiative at Columbia University Irving Medical Center in New York City. All women who delivered at Columbia University Irving Medical Center with a SARS-CoV-2 infection during pregnancy were approached. Women with unexposed infants were approached based on similar gestational age at birth, date of birth, sex, and mode of delivery. Neurodevelopment was assessed using the Ages & Stages Questionnaire, 3rd Edition (ASQ-3) at age 6 months. A historical cohort of infants born before the pandemic who had completed the 6-month ASQ-3 were included in secondary analyses.

Exposures Maternal SARS-CoV-2 infection during pregnancy and birth during the COVID-19 pandemic.

Main Outcomes and Measures Outcomes were scores on the 5 ASQ-3 subdomains, with the hypothesis that maternal SARS-CoV-2 infection during pregnancy would be associated with decrements in social and motor development at age 6 months.

Results Of 1706 women approached, 596 enrolled; 385 women were invited to a 6-month assessment, of whom 272 (70.6%) completed the ASQ-3. Data were available for 255 infants enrolled in the COVID-19 Mother Baby Outcomes Initiative (114 in utero exposed, 141 unexposed to SARS-CoV-2; median maternal age at delivery, 32.0 [IQR, 19.0-45.0] years). Data were also available from a historical cohort of 62 infants born before the pandemic. In utero exposure to maternal SARS-CoV-2 infection was not associated with significant differences on any ASQ-3 subdomain, regardless of infection timing or severity. However, compared with the historical cohort, infants born during the pandemic had significantly lower scores on gross motor (mean difference, −5.63; 95% CI, −8.75 to −2.51; $F_{1,267} = 12.63$; $P<.005$), fine motor (mean difference, −6.61; 95% CI, −10.00 to −3.21; $F_{1,267} = 14.71$; $P < .005$), and personal-social (mean difference, −3.71; 95% CI, −6.61 to −0.82; $F_{1,267} = 6.37$; $P<.05$) subdomains in fully adjusted models.

Conclusions and Relevance In this study, birth during the pandemic, but not in utero exposure to maternal SARS-CoV-2 infection, was associated with differences in neurodevelopment at age 6 months. These early findings support the need for long-term monitoring of children born during the COVID-19 pandemic. (Author)

Full URL: https://doi.org/10.1001/jamapediatrics.2021.5563

2021-13516

Covid-19: Babies born during the pandemic show slight development delays. Wise J (2022), BMJ vol 376, no 8321, 7 January 2022, o29

Babies born during the pandemic's first year scored slightly lower on a developmental screening test at six months compared with babies born just before the pandemic, a small study has found (1).

1. Shuffrey LC et al. JAMA Pediatrics, 4 January 2022, online. https://doi.org/10.1001/jamapediatrics.2021.5563. (Author, edited)

Full URL: https://doi.org/10.1136/bmj.o29

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

2021-13454

Babies in England hospitals with Omicron as a precaution. Roberts M (2022), BBC News 14 January 2022

More babies are going to hospital with Covid during this latest Omicron wave but they are not very sick with the virus, say UK experts - based on the available data since December. (Author)

Full URL: https://www.bbc.co.uk/news/health-59978516

2021-13346

Belgian twins born with the Gamma variant of SARS-CoV-2: Transplacental versus intrapartum transmission?. Massa H, Seyler L, Cras L, et al (2021), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 264, September 2021, pp 383-384

Correspondence piece presenting the case of Belgian twins born with the Gamma variant of SARS-CoV-2. The mother tested positive for COVID-19 in the week prior to her admission and delivered the twins vaginally with epidural analgesia. The twins tested positive four hours after the birth as a result of intrapartum transmission, suggesting that vaginal secretions should be screened in future to prevent the risk of infection. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2021.07.017

2021-13339

Pandemic visitor policies: Parent reactions and policy implications. Vance AJ, Malin KJ, Benjamin A, et al (2022), Acta Paediatrica vol 111, no 3, March 2022, pp 604-606

Brief report aiming to report parental concerns and reactions to visitor policies in the neonatal intensive care unit (NICU) during the COVID-19 pandemic. Findings revealed that there were unintended consequences of visitor policies that did not acknowledge the family as a whole, such as parents being unable to visit together. (LDO)

Full URL: https://doi.org/10.1111/apa.16208

2021-13338

Preterm birth during the COVID-19 pandemic: Parental experience. Marino LV, Collaço N, Johnson MJ, et al (2022), Acta Paediatrica vol 111, no 4, April 2022, pp 772-773

Brief report aiming to explore the experiences, support needs and decision making of parents with preterm or unwell infants in the neonatal intensive care unit (NICU) during the COVID-19 pandemic. Findings revealed that parents were significantly emotionally and psychologically impacted by the pandemic, and they reported feeling lonely and missing out on valuable bonding time with their infants. (LDO)

Full URL: https://doi.org/10.1111/apa.16229

2021-13268

Waning infant pertussis during COVID-19 pandemic. Falkenstein-Hagander K, Appelqvist E, Cavefors A-SF, et al (2022), Archives of Disease in Childhood vol 107, no 3, March 2022, p e19

Measures to reduce the spread of COVID-19 have been associated with reduction in other respiratory infections. Results of a national Swedish cohort study of infant pertussis during April 2020–September 2021 were compared with those during January 2014–March 2020. The number of pertussis cases decreased significantly during the COVID-19 pandemic, from an average of 21 infant cases per quarter of a year before the pandemic to an average of 1 case per quarter during the pandemic. Swedish strategies to mitigate the spread of COVID-19 seem to have had an impact on pertussis incidence in infants. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2021-323055

2021-13211

Impact of Prenatal SARS-CoV-2 Infection on Infant Emergency Department Visits and Hospitalization. Ungar SP, Solomon S, Stachel A, et al (2022), Clinical Pediatrics vol 61, no 2, February 2022, pp 206-211

To better understand the impact of prenatal severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection on infants, this study sought to compare the risk of hospital visits and of postnatal SARS-CoV-2 infection between infants born to mothers with and without prenatal SARS-CoV-2 infection. In this retrospective observational cohort study of 6871 mothers and their infants, overall rates of emergency department (ED) visits and hospital admissions in the first 90 days of life were similar for infants born to mothers with and without prenatal SARS-CoV-2 infection. Infants born to negative mothers were more likely than infants of positive mothers to be hospitalized after ED visit (relative risk: 3.76; 95% confidence interval: 1.27-11.13, P = .003). Five infants tested positive; all were born to negative mothers, suggesting that maternal prenatal SARS-CoV-2 infection may protect infants from postnatal infection. The lower acuity ED visits for infants born to mothers with prenatal SARS-CoV-2 infection may reflect a heightened level of concern among these mothers. (Author)

2021-13195

The Impact of COVID-19 on Breastfeeding Rates in a Low-Income Population. Koleilat M, Whaley SE, Clapp C (2022), Breastfeeding Medicine vol 17, no 1, January 2022, pp 33-37

Objective: To examine the impact of the coronavirus disease 2019 (COVID-19) pandemic on breastfeeding outcomes among participants of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) in Southern California.

Materials and Methods: Data from the 2020 Los Angeles County triennial WIC Survey were used to examine the impact of COVID-19 on breastfeeding outcomes among WIC participants. Chi-square tests were used to explore the association between the COVID-19 pandemic and breastfeeding outcomes along with hospital-friendly practices.

Results: Compared with infants born before March 2020, the percentage of infants who received any breastfeeding at 1 month decreased from 79.66% to 76.96% (p = 0.139). The percentage of infants who received any breastfeeding at 3 and 6 months significantly decreased from 64.57% to 56.79% (p = 0.001) and from 48.69% to 38.62% (p = 0.0035), respectively. The percentage of infants fully breastfed at 1, 3, and 6 months significantly decreased at all time points. Examining hospital practices, there were no differences between the before and during COVID-19 groups.

Conclusions: The prevalence of any breastfeeding at 3 and 6 months and fully breastfeeding at 1, 3, and 6 months was significantly lower among mothers who gave birth during the pandemic compared with mothers who gave birth before the pandemic. The shift to remote services delivery and the corresponding reduction in live support of WIC services owing to the pandemic may explain the decline in the breastfeeding rate. As the nation and the WIC program prepare for the postpandemic life, it is critical to ensure that breastfeeding support is met in a hybrid of remote and face-to-face settings. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0238

2021-13127

Impact of the COVID-19 pandemic on perinatal care and outcomes in the United States: An interrupted time series analysis.
Riley T, Nethery E, Chung EK, et al (2021), Birth 26 December 2021, online

Background
Hospitals quickly adapted perinatal care to mitigate SARS-CoV-2 transmission at the onset of the COVID-19 pandemic. The objective of this study was to estimate the impact of pandemic-related hospital policy changes on perinatal care and outcomes in one region of the United States.

Methods
This interrupted time series analysis used retrospective data from consecutive singleton births at 15 hospitals in the Pacific Northwest from 2017 to 2020. The primary outcomes were those hypothesized to be affected by pandemic-related hospital policies and included labor induction, epidural use, oxytocin augmentation, mode of delivery, and early discharge (<48 hours after cesarean and <24 hours after vaginal births). Secondary outcomes included preterm birth, severe maternal morbidity, low 5-minute Apgar score, neonatal intensive care unit (NICU) admission, and 30-day readmission. Segmented Poisson regression models estimated the outcome level shift changes after the pandemic onset, controlling for underlying trends, seasonality, and stratifying by parity.

Results
No statistically significant changes were detected in intrapartum interventions or mode of delivery after onset of the pandemic. Early discharge increased for all births following cesarean and vaginal birth. Newborn readmission rates increased but only among nulliparas (aRR: 1.49, 95%CI: 1.17, 1.91). Among multiparas, decreases were observed in preterm birth (aRR: 0.90, 95%CI: 0.84, 0.96), low 5-minute Apgar score (aRR: 0.75, 95%CI: 0.68, 0.81), and term NICU admission rates (aRR: 0.85, 95%CI: 0.80, 0.91).

Conclusions
Increases in early discharge and newborn readmission rates among nulliparas suggest a need for more postpartum support during the pandemic. Decreases in preterm birth and term NICU admission among multiparas may have implications beyond the pandemic and deserve further study. (Author)

Full URL: https://doi.org/10.1111/birt.12606

2021-13101

Transplacental transfer of SARS-CoV-2 antibodies in recovered and BNT162b2-vaccinated patients. Treger S, Shiloh SR, Ben-Valid T, et al (2022), American Journal of Obstetrics & Gynecology (AJOG) vol 226, no 4, April 2022, pp 587-589.e2

Research letter aiming to assess the transplacental transfer of anti-SARS-CoV-2 antibodies in women vaccinated with the BNT162b2 vaccine during the second and third trimester. The study found a high neonatal and maternal antibody ratio, and neonatal antibody levels were higher than maternal levels in both vaccinated and recovered patients. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2021.11.1365

2021-12891

Neutralizing Antibodies and Cytokines in Breast Milk After Coronavirus Disease 2019 (COVID-19) mRNA Vaccination.

Narayanaswamy V, Pentecost BT, Schoen CN, et al (2022), Obstetrics & Gynecology vol 139, no 2, February 2022, pp 181-191

OBJECTIVE:
To evaluate immune responses to coronavirus disease 2019 (COVID-19) mRNA-based vaccines present in breast milk and transfer of the immune responses to breastfeeding infants.

METHODS:
We enrolled 30 lactating women who received mRNA-based COVID-19 vaccines from January through April 2021 in this cohort study. Women provided serial milk samples, including milk expressed before vaccination, across 2–3 weeks after the first dose, and across 3 weeks after the second dose. Women provided their blood, spotted on cards (dried blood spots), 19 days after the first dose and 21 days after the second dose. Stool samples from the breastfed infants were collected 21 days after mothers' second vaccination. Prepandemic samples of milk, dried blood spots, and infant stool were used as controls. Milk, dried blood spots, and infant stool were tested by enzyme-linked immunosorbent assay for receptor-binding domain (RBD)–specific immunoglobulin (Ig)A and IgG. Milk samples were tested for the presence of neutralizing antibodies against the spike and four variants of concern: D614G, Alpha (B.1.1.7), Beta (B.1.351), and Gamma (P.1). Levels of 10 cytokines were measured in milk samples.

RESULTS:
Milk from COVID-19-immunized women neutralized the spike and four variants of concern, primarily driven by anti-RBD IgG. The immune response in milk also included significant elevation of interferon-γ. The immune response to maternal vaccination was reflected in breastfed infants: anti-RBD IgG and anti-RBD IgA were detected in 33% and 30% of infant stool samples, respectively. Levels of anti-RBD antibodies in infant stool correlated with maternal vaccine side effects. Median antibody levels against RBD were below the positive cutoffs in prepandemic milk and infant stool samples.

CONCLUSION:
Humoral and cellular immune responses to mRNA-based COVID-19 vaccination are present in most women’s breast milk. The milk anti-RBD antibodies can neutralize severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) spike and variants of concern. Anti-RBD antibodies are transferred to breastfed infants, with the potential to confer passive immunity against SARS-CoV-2. (Author)

Full URL: https://doi.org/10.1097/AOG.0000000000004661

2021-12865

Extremely Preterm Infant Admissions Within the SafeBoosC-III Consortium During the COVID-19 Lockdown. Rasmussen MI, Hansen ML, Pichler G, et al (2021), Frontiers in Pediatrics 12 July 2021, online

Objective: To evaluate if the number of admitted extremely preterm (EP) infants (born before 28 weeks of gestational age) differed in the neonatal intensive care units (NICUs) of the SafeBoosC-III consortium during the global lockdown when compared to the corresponding time period in 2019.

Design: This is a retrospective, observational study. Forty-six out of 79 NICUs (58%) from 17 countries participated. Principal investigators were asked to report the following information: (1) Total number of EP infant admissions to their NICU in the 3 months where the lockdown restrictions were most rigorous during the first phase of the COVID-19 pandemic, (2) Similar EP infant admissions in the corresponding 3 months of 2019, (3) the level of local restrictions during the lockdown period, and (4) the local impact of the COVID-19 lockdown on the everyday life of a pregnant woman.

Results: The number of EP infant admissions during the first wave of the COVID-19 pandemic was 428 compared to 457 in the corresponding 3 months in 2019 (−6.6%, 95% CI −18.2 to +7.1%, p = 0.33). There were no statistically significant differences within individual geographic regions and no significant association between the level of lockdown restrictions and difference in the number of EP infant admissions. A post-hoc analysis based on data from the 46 NICUs found a decrease of 10.3%in the total number of NICU admissions (n = 7,499 in 2020 vs. n = 8,362 in 2019).

Conclusion: This ad hoc study did not confirm previous reports of a major reduction in the number of extremely pretermbirths during the first phase of the COVID-19 pandemic.

Clinical Trial Registration: ClinicalTrial.gov, identifier: NCT04527601 (registered August 26, 2020), https://clinicaltrials.gov/ct2/show/NCT04527601. (Author)

Full URL: https://doi.org/10.3389/fped.2021.647880

2021-12864

The impact of the COVID pandemic on prematurity rates: Conflicting results, publication ethics and academic frustration. Greisen G, Chalak L, Hansen ML, et al (2022), Acta Paediatrica vol 111, no 2, February 2022, pp 269-271

The authors discuss their paper on COVID-19 and prematurity rates which was rejected by three medical journals and subsequently published in June 2021 (1). Highlights the issue of publication bias and the role of editors in publishing both positive and negative findings.

1. Rasmussen MI. Frontiers in Pediatrics, 12 July 2021, online. https://doi.org/10.3389/fped.2021.647880.

(LDO)

Full URL: https://doi.org/10.1111/apa.16164

2021-12600

You and your baby: a national survey of health and care during the 2020 Covid-19 pandemic. Harrison S, Alderdice F, Mcleish J, et al (2021), Oxford: National Perinatal Epidemiology Unit, University of Oxford December 2021, 97 pages

You and Your Baby 2020 explored the health and experiences of maternity care for women who gave birth during the first wave of the Covid-19 pandemic. The study included a survey of 4,611 women recruited through the register of all births in England (the 2020 National Maternity Survey (NMS)). The women in the 2020 NMS gave birth in England during May 2020.

The study also included a parallel survey of 1,622 women recruited through social media. The women in the social media survey gave birth in the UK between March and August 2020.

The findings indicate that some aspects of women's health and maternity care remained consistent or even improved during Covid-19, compared with findings from before the pandemic. Overall levels of satisfaction with care during pregnancy and birth remained high. The findings also indicate, however, that other aspects of women's health and care were negatively impacted by Covid-19, particularly after giving birth. Overall levels of satisfaction with care during the postnatal period fell considerably compared with findings from before the pandemic.

Taken together the survey findings suggest that giving birth during the Covid-19 pandemic may have brought additional stresses for women and families at what can already be a challenging time. Covid-19 may have introduced new challenges to maternity services and also amplified some of the existing problems in parts of the system. (Author)

Full URL: https://www.npeu.ox.ac.uk/assets/downloads/maternity-surveys/reports/You_and_Your_Baby_2020_Survey_Report.pdf

---

2021-12473

Neonatal Outcomes of Premature Infants Born to Women with the Novel Coronavirus (SARS-CoV-2) Infection: A Case Control Study. Yasa B, Memur S, Ozturk DY, et al (2021), American Journal of Perinatology 28 November 2021, online

Objective Novel coronavirus disease 2019 (COVID-19) is a disease associated with atypical pneumonia caused by the severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2). The first cases of COVID-19 were reported in Wuhan at the end of 2019. Transmission usually occurs via infected droplets and close personal contact; the possibility of vertical transmission is still under debate. This retrospective study aimed to analyze clinical characteristics of premature infants born to mothers with symptomatic COVID-19 disease.

Study Design This case control study compared the clinical and laboratory data of 20 premature infants born to mothers infected with SARS-CoV-2 with sex and gestational age–matched historical controls.

Results The median gestational age and birth weight in both groups were similar. Respiratory distress developed in 11 (55.5%) infants in study group and 19 (47.5%) infants in control group. Mechanical ventilation and endotracheal surfactant administration rates were similar. Median duration of hospitalization was 8.5 (2–76) days in study group and 12 days in historical controls. Real-time reverse-transcription polymerase chain reaction tests (RT-PCR) of nasopharyngeal swab samples for SARS-CoV-2 were found to be negative twice, in the first 24 hours and later at 24 to 48 hours of life. No neutropenia or thrombocytopenia was detected in the study group. Patent ductus arteriosus, bronchopulmonary dysplasia, and necrotizing enterocolitis rates were similar between groups. No mortality was observed in both groups.

Conclusion To the best of our knowledge, this is one of the few studies evaluating the clinical outcomes of premature infants born to SARS-CoV-2 infected mothers. There was no evidence of vertical transmission of SARS-CoV-2 from symptomatic SARS-CoV-2-infected women to the neonate in our cohort. The neonatal outcomes also seem to be favorable with no mortality in preterm infants. (Author)

2021-12421

Pregnant women and infants against the infection risk of COVID-19: a review of prenatal and postnatal symptoms, clinical diagnosis, adverse maternal and neonatal outcomes, and available treatments. Khedmat L, Mohaghegh P, Veysizadeh M, et al (2021), Archives of Gynecology and Obstetrics 29 November 2021, online

Background
The establishment of a risk-appropriate care approach for pregnant women and newborn infants under the COVID-19 pneumonia is vital to prevent the main pregnancy complications.

Objectives and design
This study reviewed the vertical transmission (VT) potential of COVID-19 pneumonia in pregnant women. Key-related symptoms and adverse clinical outcomes for mothers and infants before and after childbirth were summarized. Some practical therapies and preventive health solutions were also proposed.

Results
There was a high susceptibility in pregnant women to COVID-19 infection, especially in the third trimester of pregnancy. The most common symptoms in 22–40-year-old patients infected with COVID-19 were fever (87.6%), cough (52.3%), dyspnea (27.6%), fatigue (22.4%), sore throat (13.5%), malaise (9.4%), and diarrhea (3.4%), respectively. The viral infection led to an increase in preterm labor and cesarean delivery without any intrauterine infection and severe neonatal asphyxia. No infection in the newborn infants was reported despite a high risk of the VT phenomenon. The most important therapies were the reception of antiviral and antibiotic drugs, oxygenation therapy, psychological interventions, and food supplements with health-promoting effects. The best proposed medical strategies to control the COVID-19 infection were bi-monthly screening and following-up the mothers' and fetuses' health, not using the potent broad-spectrum antibiotics and corticosteroids, providing the delivery room with negative pressure for emergency cesarean section, and the immediate isolation of newborns after childbirth without direct breastfeeding.

Conclusion
Babies with respiratory problems may be born to some mothers with COVID-19, who have weak immune systems. Thus, the virus transmission cycle should be disrupted to prevent adverse maternal and fetal outcomes by integrating individual health guidelines, efficient medical care therapies, and hospital preventive practices. (Author)

Full URL: https://doi.org/10.1007/s00404-021-06325-y

2021-12379

Neonatal Outcomes of Pregnant Women With Confirmed Coronavirus Disease 2019: One-Year Experience of a Tertiary Care Center. Melekoglu NA, Ozdemir H, Yasar S (2022), Clinical Pediatrics vol 61, no 2, February 2022, pp 177-183

The coronavirus disease 2019 (COVID-19) pandemic became an important public health problem affecting all age groups. The aim of this study was to evaluate clinical and laboratory findings of newborns born to mothers with COVID-19. Thirty pregnant women with COVID-19 were admitted to Turgut Ozal University Hospital for delivery. Fourteen pregnant women had at least one symptom associated with COVID-19. Positive polymerase chain reaction (PCR) results were seen in only 3 (9.7%) of 31 newborns. A statistically significant difference was observed between PCR-positive and PCR-negative newborns in terms of any adverse pregnancy outcomes. Neonatal lymphocyte count and partial arterial oxygen pressure were significantly lower in the PCR-positive group. Results were also compared according to the interval from the maternal diagnosis time to delivery. Hemoglobin and hematocrit levels in newborns born to mothers diagnosed more than 7 days before delivery were significantly lower. Neonates born to mothers with COVID-19 had mild clinical symptoms and favorable outcomes. (Author)

2021-12366

Functional Antibodies Against SARS-CoV-2 Receptor Binding Domain Variants with Mutations N501Y or E484K in Human Milk from COVID-19-Vaccinated, -Recovered, and -Unvaccinated Women. Demers-Mathieu V, Hakansson AP, Hall S, et al (2022), Breastfeeding Medicine vol 17, no 2, February 2022, pp 163-172

Background: New variants are evolving in severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and receptor binding domain (RBD) mutations have been associated with a higher capacity to evade neutralizing antibodies (NAbs). We aimed at determining the impact of COVID-19 vaccine and infection on human milk antibody titers and activity against the RBD mutations from SARS-CoV-2 variants of concern.

Materials and Methods: Milk samples were collected from 19 COVID-19 vaccinated women, 10 women who had a positive COVID-19 PCR test, and 13 unvaccinated women. The titers and NAbs of secretory IgA (SIgA)/IgA, secretory IgM (IgM)/IgM, and IgG against SARS-CoV-2 RBD with mutations N501Y or E484K were measured by using ELISA and a surrogate virus neutralization assay.

Results: The titers of human milk IgG against N501Y were higher in the COVID-19 vaccine group than in the no-vaccine group but comparable with the COVID-19 PCR group. Other antibody titers did not differ between the three groups. The titers of SIgA/IgA were higher than those of SIgM/IgM and IgG in all three groups. The titers of SIgM/IgM and the inhibition of NAbs were higher against the mutation E484K than N501Y. Milk NAb did not differ between the three groups, but the inhibition of NAb against binding of the two mutant RBD proteins to their receptor was higher in the COVID-19 vaccine and PCR groups than in milk from prepandemic women.

Conclusions: COVID-19 vaccination and exposure of mothers to SARS-CoV-2 influenced the titers and NAbs in breast milk against the variants of concern. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0232

2021-12233

Prolonged rectal shedding of SARS-CoV-2 in a 22-day-old-neonate: a case report. Holm-Jacobsen JN, Vonasek JH, Hagstrøm S, et al (2021), BMC Pediatrics vol 21, no 506, 12 November 2021

Background
Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes the novel coronavirus disease 2019 (COVID-19), which is characterized by a diverse clinical picture. Children are often asymptomatic or experience mild symptoms and have a milder disease course compared to adults. Rectal shedding of SARS-CoV-2 has been observed in both adults and children, suggesting the fecal-oral route as a potential route of transmission. However, only a few studies have investigated this in neonates. We present a neonate with a mild disease course and prolonged rectal SARS-CoV-2 shedding.

Case presentation
A 22-day old neonate was admitted to the hospital with tachycardia and a family history of COVID-19. The boy later tested positive for COVID-19. His heart rate normalized overnight without intervention , but a grade 1/6 heart murmur on the left side of the sternum was found. After excluding signs of heart failure, the boy was discharged in a habitual state after three days of admission. During his admission, he was enrolled in a clinical study examining the rectal shedding of SARS-CoV-2. He was positive for SARS-CoV-2 in his pharyngeal swabs for 11 days after initial diagnosis and remained positive in his rectal swabs for 45 days. Thereby, the boy remained positive in his rectal swabs for 29 days after his first negative pharyngeal swab.

Conclusions
The presented case shows that neonates with a mild disease course can shed SARS-CoV-2 in the intestines for 45 days. In the current case, it was not possible to determine if fecal-oral transfer to the family occurred, and more research is needed to establish the potential risk of the fecal-oral transmission route. (Author)

Full URL: https://doi.org/10.1186/s12887-021-02976-7

2021-12207

Management and short-term outcomes of neonates born to mothers with active perinatal SARS-CoV-2 infection. Lamba V, Lien J, Desai J, et al (2021), BMC Pediatrics vol 21, no 400, 13 September 2021

Objective
We report here on the management and outcomes of neonates born to mothers with active perinatal SARS-CoV-2 infection.

Study design
In this prospective study, eligible neonates were enrolled in a database to track in-hospital outcomes and followed up outpatient periodically till 2 months of age to assess for late onset symptoms of infection.

Results
From April 2020 to February 2021, 67 mothers with perinatal SARS-CoV-2 infection and 70 at-risk neonates were included. Two neonates (3%) tested positive for SARS-CoV-2 within 48 h of life but remained asymptomatic during hospitalization and at all follow-up periods. Three infants were reported to have a febrile illness in 2 months follow up period, none of which was attributable to SARS-CoV-2.

Conclusion
Our data supports the emerging evidence which describes a probable low risk of vertical transmission of SARS-CoV-2. We also demonstrate a low risk of post-natal transmission or late-onset symptomatic infection with SARS-CoV-2. (Author)

Full URL: https://doi.org/10.1186/s12887-021-02872-0

2021-12174

Clinical symptoms associated with laboratory findings and placental histopathology in full-term, non-infected neonates born to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) positive mothers. Briana DD, Papaevangelou V, Syridou G, et al (2021), Journal of Maternal-Fetal and Neonatal Medicine 11 November 2021, online

This study comprehensively examines clinical symptoms, laboratory findings, and placental pathology in 40 cases of singleton full-term SARS-CoV-2 negative neonates. Their mothers, previously healthy, with uncomplicated pregnancies, were infected peripartum and presented COVID-19 symptoms of various severity. Neonates had predominately diarrhea, the yet unreported absent sucking reflex, elevated COVID-19 inflammatory and ischemia/asphyxia markers as serum ferritin, interleukin-6 and cardiac troponin-T, while placentas demonstrated mild vascular and/or inflammatory lesions. We hypothesize that the above placental lesions may be associated with transient perinatal hypoxia resulting in absent sucking reflex, as well as with inflammatory cytokines transfer causing diarrhea. (Author)

2021-11785

Experiences in Performing Online Developmental Evaluations of Children From the Neonatal Intensive Care Unit During the COVID-19 Pandemic. Ross GS, Perlman JM (2022), Clinical Pediatrics vol 61, no 2, February 2022, pp 120-123

Brief report describing the authors' experiences of developing online neurodevelopmental assessments of children from neonatal intensive care units during COVID-19. High-risk infants were evaluated at 18 months post-conceptual age, 3 years of age and 6 years of age. (LDO)

Full URL: https://doi.org/10.1177/00099228211058022

2021-11748

Illness severity indicators in newborns by COVID-19 status in the United States, March–December 2020. Wallace B, Chang D, Woodworth K, et al (2021), Journal of Perinatology 2 November 2021, online

Objective

To better understand COVID-19 in newborns, we compared in-hospital illness severity indicators by COVID-19 status during birth hospitalization.

Study design

In a retrospective cohort of newborns born March–December 2020 in the Premier Healthcare Database Special COVID-19 Release, we classified COVID-19 status and severe illness indicators using ICD-CM-10 codes, laboratory data, and billing records. Illness severity indicators were compared by COVID-19 status, stratified by gestational age and race/ethnicity.

Result

Among 701,777 newborns, 209 had a COVID-19 diagnosis during the birth hospitalization. COVID-19 status differed significantly by race/ethnicity, gestational age, payor, and region. Late preterm/term newborns with COVID-19 had increased intensive care unit admission and sepsis risk; early preterm newborns with COVID-19 had increased risk for invasive ventilation. Risk for illness severity varied among racial/ethnic strata.

Conclusion

From March to December 2020, COVID-19 diagnosis in newborns was rare. More clinical data are needed to describe the risk profiles of newborns with COVID-19. (Author)

Full URL: https://doi.org/10.1038/s41372-021-01243-y

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-11662

Covid-19 pandemic impact on maternal and child health services access in Nampula, Mozambique: a mixed methods research. das Neves Martins Pires PH, Macaringue C, Abdirazak A, et al (2021), BMC Health Services Research vol 21, no 860, 23 August 2021

Background

The Covid-19 pandemic has so far infected more than 30 million people in the world, having major impact on global health with collateral damage. In Mozambique, a public state of emergency was declared at the end of March 2020. This has limited people's movements and reduced public services, leading to a decrease in the number of people accessing health care facilities. An implementation research project, The Alert Community for a Prepared Hospital, has been promoting access to maternal and child health care, in Natikiri, Nampula, for the last four years. Nampula has the second highest incidence of Covid-19. The purpose of this study is to assess the impact of Covid-19 pandemic Government restrictions on access to maternal and child healthcare services. We compared health centres in Nampula city with healthcare centres in our research catchment area. We wanted to see if our previous research interventions have led to a more resilient response from the community.

Methods

Mixed-methods research, descriptive, cross-sectional, retrospective, using a review of patient visit documentation. We compared maternal and child health care unit statistical indicators from March–May 2019 to the same time-period in 2020. We tested for significant changes in access to maternal and child health services, using KrushKall Wallis, One-way Anova and mean and standard deviation tests.

We compared interviews with health professionals, traditional birth attendants and patients in the two areas. We gathered data from a comparable city health centre and the main city referral hospital. The Marrere health centre and Marrere General Hospital were the two Alert Community for a Prepared Hospital intervention sites.

Results

Comparing 2019 quantitative maternal health services access indicators with those from 2020, showed decreases in most important indicators: family planning visits and elective C-sections dropped 28%; first antenatal visit occurring in the first trimester dropped 26%; hospital deliveries dropped a statistically significant 4% (p = 0.046), while home deliveries rose 74%; children vaccinated down 20%.

Conclusion

Our results demonstrated the negative collateral effects of Covid-19 pandemic Government restrictions, on access to maternal and child healthcare services, and highlighted the need to improve the health information system in Mozambique. (Author)

Full URL: https://doi.org/10.1186/s12913-021-06878-3

2021-11561

A Neonate With Vertical Transmission of COVID-19 and Acute Respiratory Failure: A Case Report. Farmer ML (2021), Advances in Neonatal Care vol 21, no 6, December 2021, pp 482-492

Background:
This case describes a case of vertical transmission of COVID-19 from a mother to her neonate. The neonate subsequently developed acute respiratory failure consistent with adult symptoms of COVID-19.

Clinical Findings:
This preterm neonate was born at 33 4/7 weeks' gestational age to a COVID-19–positive mother and admitted to the neonatal intensive care unit (NICU) for prematurity and respiratory distress. The neonate developed acute respiratory failure with severe persistent pulmonary hypertension of newborn (PPHN) and required intubation and maximum respiratory and cardiovascular support. The neonate subsequently tested positive for COVID-19 at 24 hours of life.

Primary Diagnosis:
Acute respiratory failure related to COVID-19 infection.

Interventions:
The neonate was admitted to the NICU on CPAP. At 11 hours of life, the neonate began to exhibit signs of worsening respiratory distress requiring intubation, mechanical, and high frequency ventilation. An echocardiogram revealed severe PPHN. The neonate required dopamine to manage hypotension and was treated with steroids to decrease inflammation associated with airway edema noted during intubation. Pharmaceutically induced paralysis, analgesia, and sedation was used to manage persistent hypoxia.

Outcomes:
The neonate fully recovered from acute respiratory failure and was discharged home with the mother.

Practice Recommendations:
Newborns born to mothers who are positive for COVID-19 are at risk for vertical transmis-sion of COVID-19 and should be monitored closely for acute respiratory failure. Respiratory medical management should include supportive care. Staff should also encourage parents to consider receiving the COVID-19 vaccine to protect their newborn from the possibility of developing acute respiratory failure. (Author)

2021-11550

Nursing Care of 26 Infants Born to Mothers With COVID-19. Ding L, Xiong X, Yu G, et al (2022), Advances in Neonatal Care vol 22, no 1, February 2022, pp 15-21

Background:
Novel coronavirus disease (COVID-19) has spread throughout the world; yet, there are few reports of neonatal cases. Thus, information about related clinical care experience is scarce.

Clinical Findings:
This case report includes 26 infants admitted to the neonatal intensive care unit (NICU) of Tongji Hospital in Wuhan City who were born to mothers with suspected/confirmed COVID-19. The nursing and medical staff implemented care of these infants in strict accordance with infection control measures.

Intervention:
Emergency measures for the prevention and control of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in the NICU were developed, and neonatal isolation, observation, and treatment were performed.

Outcomes:
Vital signs of the 26 infants remained stable during isolation and treatment, and no complications occurred. During the study period, neither the infants nor the nursing and medical staff were infected with SARS-CoV-2.

Practice Recommendations:
Based on our strict practices, infants born to mothers with suspected/confirmed COVID-19 should receive care in a single-patient room to support infection control and provide enhanced observation. During initial contact and nursing care, increased attention should be given to the protection of infants born to mothers with suspected/confirmed COVID-19. (Author)

2021-11474

Coronavirus births: 'My baby's first word was mask'. Roxby P (2021), BBC News 10 November 2021

Leanne Howlett knew what post-natal depression felt like. She'd been affected after the birth of her son a few years before - but this time was different. (Author)

Full URL: https://www.bbc.co.uk/news/health-59211183

2021-11395

Breastfeeding supportive practices in European hospitals during the COVID-19 pandemic. Merewood A, Davanzo R, Haas-Kogan M, et al (2021), Journal of Maternal-Fetal and Neonatal Medicine 13 October 2021, online

Introduction

During the first year of the COVID-19 pandemic, international recommendations and guidelines regarding breastfeeding-supportive hospital practices changed frequently. For example, some recommended separation of mothers and infants; others, feeding pumped milk instead of milk fed directly from the breast. Many recommendations were inconsistent or in direct conflict with each other. Guidance from UENPS (the Union of European Neonatal and Perinatal Societies) published in April 2020 recommended rooming in and direct breastfeeding where feasible, under strict measures of infection control, for women who were COVID-19 positive or under investigation for COVID-19.

Key findings

Our study assessed data from respondents from 124 hospitals in 22 nations, with over 1000 births per year, who completed a survey on practices during the COVID-19 epidemic, as they related to the World Health Organization (WHO) Ten Steps to Successful Breastfeeding, considered to be the gold standard for breastfeeding support. The survey was conducted in the fall of 2020/winter of 2021. Overall 88% of responding hospitals had managed COVID positive mothers, and 7% had treated over 50 birthing women with confirmed COVID-19. The biggest change to hospital policy related to visitation policies, with 38% of hospitals disallowing all visitors for birthing women, and 19% shortening the postpartum stay. Eight hospitals (6%) recommended formula feeding instead of breastfeeding for women who tested positive for COVID-19 or were under investigation, whereas 73% continued to recommend direct, exclusive breastfeeding, but with some form of protection such as a mask or hand sanitizer for the mother or cleaning the breast before the feed. While 6% of hospitals discontinued rooming in, 31% strengthened their rooming in policy (keeping mothers and their babies together in the same room) to protect infants against possible exposure to the virus elsewhere in the hospital . Overall, 72% of hospitals used their country's national guidelines when making policy, 31% used WHO guidelines and 22% UENPS/SIN guidelines. Many European hospitals relied on more than one accredited source.

Discussion

Our most concerning finding was that 6% of hospitals recommended formula feeding for COVID positive mothers, a measure that was later shown to be potentially harmful, as protection against the virus is transmitted through human milk. It is encouraging to note that a third of hospitals strengthened rooming in measures. Especially given the emergence of the highly transmissible Delta variant, the situation around postnatal care in maternity hospitals requires ongoing monitoring and may require proactive investment to regain pre-COVID era practices. (Author)

Full URL: https://doi.org/10.1080/14767058.2021.1986482

2021-11374

COVID-19 and clinical outcomes of pregnancy: a comparative study. Smith V, Panda S, O'Malley D, et al (2021), British Journal of Midwifery vol 29, no 11, November 2021, pp 642-647

Background

A series of changes in maternity care provision were implemented internationally in response to the COVID-19 pandemic. This study aimed to assess the impact of COVID-19 on maternal clinical outcomes, resulting from these changes to care provision.

Methods

A before and during comparative study of maternal pregnancy, childbirth, and postpartum clinical outcomes was conducted at a maternity hospital in Ireland. Inferential statistics were used to compare datasets with significance set at P<0.05.

Results

Overall, no difference in caesarean section rates between the two study periods was observed, although more caesarean sections were observed in multiparous women during the pandemic (30% vs 35%, P=0.01). The rate of elective compared to emergency caesarean section was also higher during the pandemic, from a proportionate difference of 3.6% pre-pandemic to 13.6% during the pandemic. Rates of induction of labour for post-dates (post-maturity induction) were also increased during the pandemic.

Conclusions

The changes to maternity care because of the COVID-19 pandemic appear to have affected some maternal clinical outcomes, and thus, potentially, women's overall intrapartum and postnatal health and wellbeing. (Author)

2021-11112

The COVID-19 Pandemic and Breastfeeding: Concerns & Positive Opportunities. Spatz DL (2021), MCN - American Journal of Maternal/Child Nursing vol 46, no 4, July/August 2021, p 238

As nurses, we must continue to promote and protect the use of human milk and breastfeeding during and after the COVID-19 pandemic. We should continue access to online and virtual breastfeeding help but expand opportunities for in-person technical breastfeeding assistance in pediatric offices and in the community. Our breastfeeding expert, Dr. Spatz, offers suggestions for promoting breastfeeding during the pandemic and beyond. (Author)

2021-11059

Comparison of early postnatal clinical outcomes of newborns born to pregnant women with COVID-19: a case–control study.

Akyıldız D, Çamur Z (2021), The Journal of Maternal-Fetal and Neonatal Medicine 3 November 2021, online

Background

The ongoing COVID-19 pandemic has infected millions of people, including pregnant women and newborns and caused many deaths. Studies examining the effects of COVID-19 infection in pregnancy have mostly focused on maternal outcomes and there are limited data on neonatal outcomes.

Objectives

This study aims to compare the early postnatal period clinical outcomes of newborns born to pregnant women with and without COVID-19.

Methods

A retrospective case–control study was used to compare the clinical characteristics of newborns born to pregnant women with and without COVID-19. This study was conducted between 11 March 2020 and 11 March 2021 at Denizli State Hospital, Turkey. This study included 202 newborns selected with a nonprobability method. The clinical records and laboratory results of 202 newborns were reviewed by applying a retrospective questionnaire. Neonatal outcomes were compared between the groups.

Results

There were 101 newborns born to pregnant women with COVID-19 in the case group and 101 without COVID-19 in the control group in the study. A considerably higher rate of newborns born to pregnant women with COVID-19 had cesarean delivery (79.2 versus 35.6%, $p < .001$), premature birth (28.7 versus 10.9%, $p = .001$), low birth weight (15.8 versus 6.9%, $p = .046$), neonatal respiratory distress syndrome (RDS) (37.6 versus 19.8%, $p = .005$), oxygen need (19.8 versus 37.6, $p = .005$), and neonatal intensive care unit admission (10.9 versus 37.6%, $p = .001$). Breastfeeding (1.0 versus 67.3%, $p < .001$) and nutrition with breast milk rates (33.7 versus 80.2%, $p < .001$) of newborns born to pregnant women with COVID-19 were significantly lower. The results of 101 newborns who received nasopharyngeal swab samples for COVID-19 were negative.

Conclusion

Newborns born to pregnant women with COVID-19 were more likely to experience preterm birth, cesarean delivery, low birth weight, neonatal RDS, oxygen demand, need for intensive care, and breastfeeding problems. There was no vertical contamination according to the nasopharyngeal swab samples of the newborns. (Author)

2021-11058

Does breastfeeding protect children from COVID-19? An observational study from pediatric services in Majorca, Spain. Verd S, Ramakers J, Vinuela I, et al (2021), International Breastfeeding Journal vol 16, no 83, 18 October 2021

Background

It has been demonstrated that children who had been breastfed remain better protected against various infections, and notably respiratory tract infections, well beyond infancy. Since the role of breastfeeding to explain why children are less affected by COVID-19 has not been studied until now, the aim of this study was to determine whether any history of breastfeeding reduces the incidence rate of COVID-19 in children.

Methods

This was a secondary analysis of an observational study on clinical and epidemiological characteristics of pediatric COVID-19 in Majorca. A total of 691 children were recruited during the 5 months of August–December 2020. Eligible participants were children under 14 who were tested for SARS-CoV-2 in pediatric emergency services. The independent explanatory variable was any breastfeeding. Bivariate analyses were conducted through the Chi-square test, the Fisher's Exact test or the Student's T test.

All children had the same demographic, epidemiological and clinical data collected through a study team member interview and via the participants medical records.

Results

Within the sample of children who visited emergency services with symptoms of potential COVID-19, we found higher prevalence of positive SARS-CoV-2 RT-PCR test results among those who were exclusively formula fed compared with those who were ever breastfed (OR 2.48; 95% CI 1.45, 3.51; P = 0.036).

Conclusions

The present study suggests that ever breastfeeding reduces the risk of COVID-19 among children, as documented for other infections. (Author)

Full URL: https://doi.org/10.1186/s13006-021-00430-z

2021-11050

Breastfeeding Mother and Child Clinical Outcomes After COVID-19 Vaccination. Low JM, Lee LY, Ng YPM, et al (2022), Journal of Human Lactation vol 38, no 1, February 2022, pp 37-42

Background:
Pre-approval clinical trials of the Pfizer/BioNTech messenger RNA COVID-19 vaccine, BNT162b2 did not include participants who were breastfeeding. Therefore, there is limited evidence about outcomes of breastfeeding mother–child dyads and effects on breastfeeding after vaccination.

Research Aims:
To determine: (1) solicited adverse effects (e.g., axillary lymphadenopathy, mastitis, and breast engorgement), which are unique to lactating individuals; and (2) systemic and local adverse effects of COVID-19 mRNA vaccine on mothers and potential effects on their breastfed infants.

Method:
This was a prospective cohort study of lactating healthcare workers (N = 88) in Singapore who received two doses of BNT162b2 vaccination (Pfizer/BioNTech). The outcomes of mother–child dyads within 28 days after the second vaccine dose were determined through a participant-completed questionnaire.

Results:
Minimal effects related to breastfeeding were reported by this cohort; three of 88 (3.4%) participants had mastitis, one (1.1%) participant experienced breast engorgement, five of 88 (5.7%) participants reported cervical or axillary lymphadenopathy. There was no change in human milk supply after vaccination. The most common side effect was pain/redness/swelling at the injection site, which was experienced by 57 (64.8%) participants. There were no serious adverse events of anaphylaxis or hospital admissions. There were no short-term adverse effects reported in the infants of 67 lactating participants who breastfed within 72 hr after BNT162b2 vaccination.

Conclusions:
BNT162b2 vaccination was well tolerated in lactating participants and was not associated with short-term adverse effects in their breastfed infants.

Study Protocol Registration:
The study protocol was registered at clinicaltrials.gov (NCT04802278). (Author)

2021-11035

Immune Response of Neonates Born to Mothers Infected With SARS-CoV-2. Conti MG, Terreri S, Mortari EP, et al (2021), JAMA Network Open vol 4, no 11, November 2021, e2132563

Importance Although several studies have provided information on short-term clinical outcomes in children with perinatal exposure to SARS-CoV-2, data on the immune response in the first months of life among newborns exposed to the virus in utero are lacking.

Objective To characterize systemic and mucosal antibody production during the first 2 months of life among infants who were born to mothers infected with SARS-CoV-2.

Design, Setting, and Participants This prospective cohort study enrolled 28 pregnant women who tested positive for SARS-CoV-2 infection and who gave birth at Policlinico Umberto I in Rome, Italy, from November 2020 to May 2021, and their newborns. Maternal and neonatal systemic immune responses were investigated by detecting spike-specific antibodies in serum, and the mucosal immune response was assessed by measuring specific antibodies in maternal breastmilk and infant saliva 48 hours after delivery and 2 months later.

Exposures Maternal infection with SARS-CoV-2 in late pregnancy.

Main Outcomes and Measures The systemic immune response was evaluated by the detection of SARS-CoV-2 IgG and IgA antibodies and receptor binding domain–specific IgM antibodies in maternal and neonatal serum. The mucosal immune response was assessed by measuring spike-specific antibodies in breastmilk and in infant saliva, and the presence of antigen-antibody spike IgA immune complexes was investigated in breastmilk samples. All antibodies were detected using an enzyme-linked immunosorbent assay.

Results In total, 28 mother-infant dyads (mean [SD] maternal age, 31.8 [6.4] years; mean [SD] gestational age, 38.1 [2.3] weeks; 18 [60%] male infants) were enrolled at delivery, and 21 dyads completed the study at 2 months' follow-up. Because maternal infection was recent in all cases, transplacental transfer of virus spike-specific IgG antibodies occurred in only 1 infant. One case of potential vertical transmission and 1 case of horizontal infection were observed. Virus spike protein–specific salivary IgA antibodies were significantly increased (P = .01) in infants fed breastmilk (0.99 arbitrary units [AU]; IQR, 0.39-1.68 AU) vs infants fed an exclusive formula diet (0.16 AU; IQR, 0.02-0.83 AU). Maternal milk contained IgA spike immune complexes at 48 hours (0.53 AU; IQR, 0.25-0.39 AU) and at 2 months (0.09 AU; IQR, 0.03-0.17 AU) and may have functioned as specific stimuli for the infant mucosal immune response.

Conclusions and Relevance In this cohort study, SARS-CoV-2 spike–specific IgA antibodies were detected in infant saliva, which may partly explain why newborns are resistant to SARS-CoV-2 infection. Mothers infected in the peripartum period appear to not only passively protect the newborn via breastmilk secretory IgA but also actively stimulate and train the neonatal immune system via breastmilk immune complexes. (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.32563

2021-10796

Association between COVID-19 mandatory lockdown and decreased incidence of preterm births and neonatal mortality. Cuestas E, Gómez-Flores ME, Charras MD, et al (2021), Journal of Perinatology vol 41, no 10, October 2021, pp 2566-2569

Correspondence piece presenting the results of a study on premature birth and neonatal mortality during COVID-19 lockdown in Argentina. Findings show a reduction in premature birth and a significant decrease in neonatal mortality. (LDO)

Full URL: https://doi.org/10.1038/s41372-021-01116-4

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-10586

Newborns' passive humoral SARS-CoV-2 immunity following heterologous vaccination of the mother during pregnancy. Gloeckner S, Hornung F, Heimann Y, et al (2022), American Journal of Obstetrics & Gynecology (AJOG) vol 226, no 2, February 2022, pp 261-262

Research letter aiming to evaluate cord blood and antibody kinetics following a heterologous vaccination regimen in pregnant women. Results show vaccine-induced SARS-CoV-2 Spike Immunoglobulin (IgG) antibodies in all participants. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2021.10.006

2021-10416

Bronchiolitis and SARS-CoV-2. Milani GP, Bollati V, Ruggiero L, et al (2021), Archives of Disease in Childhood vol 106, no 10, October 2021, pp 999-1001

Background It has been speculated that the SARS-CoV-2 was already widespread in western countries before February 2020.

Methods We gauged this hypothesis by analysing the nasal swab of infants with either bronchiolitis or a non-infectious disease admitted to the Ospedale Maggiore, Milan (one of the first epicentres of SARS-CoV-2 outbreak in Europe) from November 2019.

Results The SARS-CoV-2 RNA was never detected in 218 infants with bronchiolitis (95 females, median age 4.9 months) and 49 infants (22 females, median age 5.6 months) with a non-infectious disease between November 2019 and February 2020. On the contrary, two infants hospitalised for bronchiolitis between March and April 2020 tested positive for SARS-CoV-2.

Conclusions This study does not support the hypothesis that SARS-CoV-2 was already circulating among infants before the official outbreak of SARS-CoV-2 infection. However, it shows for the first time that SARS-CoV-2 might cause bronchiolitis requiring hospitalisation. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-321108

2021-10289

A Case Series of SARS-CoV-2 RT-PCR-Positive Hospitalized Infants 60 Days of Age or Younger From 2 New York City Pediatric Emergency Departments. Hassoun A, Daham N, Kelly C (2021), Clinical Pediatrics vol 60, no 4-5, May 2021, pp 247-251

The emergence of novel coronavirus disease-2019 poses an unprecedented challenge to pediatricians. While the majority of children experience mild disease, initial case reports on young infants are conflicting. We present a case series of 8 hospitalized infants 60 days of age or younger with coronavirus disease-2019. A quarter of these patients had coinfections (viral or bacterial). None of these infants had severe disease. Continued vigilance in testing this vulnerable group of infants is warranted. (Author)

2021-10128

Titers of SARS CoV-2 antibodies in cord blood of neonates whose mothers contracted SARS CoV-2 (COVID-19) during pregnancy and in those whose mothers were vaccinated with mRNA to SARS CoV-2 during pregnancy. Kashani-Ligumsky L, Lopian M, Cohen R, et al (2021), Journal of Perinatology vol 41, no 11, November 2021, pp 2621-2624

Objective

We compared neonatal immunity after vaccination against SARS-CoV-2 during pregnancy to that achieved after maternal infection.

Study design

We tested cord blood from women infected with SARS-CoV-2 during pregnancy (group 1, n = 29), women who were vaccinated during pregnancy (group 2, n = 29) and from women not infected and not vaccinated (Group 3, n = 21) for titers of antibodies to both SARS-CoV-2 spike and 'N' proteins.

Results

Seventy-nine women were included: Antibodies against SARS-CoV-2 spike protein were detected in all samples from Group 1 and 2. Antibodies to the 'N' protein were detected in 25/29 samples in Group 1. None of the samples from Group 3 had antibodies to either protein. Mean titers of SARS-CoV-2 antibodies were significantly higher in Group 2 than in Group 1 ($p < 0.05$).

Conclusions

Neonates born to mothers vaccinated during pregnancy have higher antibody titers and may therefore have more prolonged protection than those born to women infected during pregnancy. (Author) [Erratum: Journal of Perinatology, vol 41, no 11, November 2021, p 2696. https://doi.org/10.1038/s41372-021-01272-7]

Full URL: https://doi.org/10.1038/s41372-021-01216-1

2021-09911

Changes in neonatal admissions, care processes and outcomes in England and Wales during the COVID-19 pandemic: a whole population cohort study. Greenbury SF, Longford N, Ougham K, et al (2021), BMJ Open vol 11, no 10, October 2021, e054410

Objectives The COVID-19 pandemic instigated multiple societal and healthcare interventions with potential to affect perinatal practice. We evaluated population-level changes in preterm and full-term admissions to neonatal units, care processes and outcomes.

Design Observational cohort study using the UK National Neonatal Research Database.

Setting England and Wales.

Participants Admissions to National Health Service neonatal units from 2012 to 2020.

Main outcome measures Admissions by gestational age, ethnicity and Index of Multiple Deprivation, and key care processes and outcomes.

Methods We calculated differences in numbers and rates between April and June 2020 (spring), the first 3 months of national lockdown (COVID-19 period), and December 2019–February 2020 (winter), prior to introduction of mitigation measures, and compared them with the corresponding differences in the previous 7 years. We considered the COVID-19 period highly unusual if the spring–winter difference was smaller or larger than all previous corresponding differences, and calculated the level of confidence in this conclusion.

Results Marked fluctuations occurred in all measures over the 8 years with several highly unusual changes during the COVID-19 period. Total admissions fell, having risen over all previous years (COVID-19 difference: −1492; previous 7-year difference range: +100, +1617; p<0.001); full-term black admissions rose (+66; −64, +35; p<0.001) whereas Asian (−137; −14, +101; p<0.001) and white (−319; −235, +643: p<0.001) admissions fell. Transfers to higher and lower designation neonatal units increased (+129; −4, +88; p<0.001) and decreased (−47; −25, +12; p<0.001), respectively. Total preterm admissions decreased (−350; −26, +479; p<0.001). The fall in extremely preterm admissions was most marked in the two lowest socioeconomic quintiles.

Conclusions Our findings indicate substantial changes occurred in care pathways and clinical thresholds, with disproportionate effects on black ethnic groups, during the immediate COVID-19 period, and raise the intriguing possibility that non-healthcare interventions may reduce extremely preterm births. (Author)

Full URL: http://dx.doi.org/10.1136/bmjopen-2021-054410

2021-09857

Providing Breastfeeding Support During COVID-19: A Survey of Staff Experiences. Hoying R, Badreldin N, Shah MD, et al (2022), Journal of Human Lactation vol 38, no 1, February 2022, pp 43-52

Background:
The COVID-19 pandemic presents unique challenges to maternity settings. Its effect on providing in-hospital lactation support has not been well described.

Research Aim:
To describe the experiences of healthcare workers as they provided in-hospital lactation support during the pandemic.

Methods:
A prospective, cross-sectional, online survey evaluated healthcare providers working with postpartum women and newborns affected by COVID-19 at an academic center during March–June 2020. Providers were queried regarding the influence of COVID-19 and COVID-19-specific policies on providing lactation support. Questions assessed guidance received, perceived stress, difficulty providing care, and solicited qualitative responses. The constant comparative method was used to analyze qualitative data.

Results:
Of 108 providers, 70 (65%) completed the survey. Of 57 providing direct lactation support to women affected by COVID-19, most (n = 39, 67%) reported increased stress. Participants reported lower stress scores when receiving guidance through shift meetings or email compared to those not receiving this guidance [stress score with shift meeting guidance (M [SD]): 3.10 (0.88); score without guidance: 3.83 (0.66); n = 39, p = .009; score with email guidance: 3.79 (0.58); score without guidance: 4.50 (0.58); n = 18, p = .045). Qualitative responses (n = 67; 96%) identified three themes: visitor restrictions allowed less distraction during lactation support; physical separation disrupted maternal/infant bonding; workflow challenges resulted from policy changes and supply access.

Conclusions:
Most participating staff providing lactation support to women affected by COVID-19 reported increased stress. Ensuring written or verbal guidance may reduce staff's experiences of stress. Efforts to optimize lactation support during COVID-19 should consider reducing distractions, physical separation, and logistic challenges. (Author)

Full URL: https://doi.org/10.1177/08903344211047843

2021-09838

COVID-19: effects on breastfeeding rates at discharge from the NNU. Collins L, Rao S, Adedokun P, et al (2021), Infant vol 17, no 5, September 2021, pp 222-223

The World Health Organization recommends exclusive breastfeeding for six months following the birth of an infant and exclusive breastfeeding on discharge from neonatal units (NNUs) in the UK is highly recommended. Despite this, mothers may face many barriers that make breastfeeding difficult including prenatal, medical, societal, hospital and sociocultural issues. (Author)

2021-09785

COVID-19 changes to the pregnancy and birth assistance: Catalan midwives' experience. Coll PR, Martínez EG, Falip DR, et al (2021), European Journal of Midwifery vol 5, July 2021, p 27

Letter to the editor providing an overview of changes to maternal health services during the COVID-19 pandemic in Catalonia, Spain. Highlights the increase in workload in maternity hospitals, restrictions on partner support in labour, the reduction of face-to-face consultations and an increase in hospital breastfeeding rates. (LDO)

Full URL: https://doi.org/10.18332/ejm/138705

2021-09701

Belgian twins born with the Gamma variant of SARS-CoV-2: Transplacental versus intrapartum transmission?. Massa H, Seyler L, Cras L, et al (2021), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 264, September 2021, pp 383-384

Correspondence piece presenting the case of twins born with the Gamma variant of SARS-CoV-2 in Belgium. The authors discuss peripartum transmission of SARS-CoV-2 and consider whether vaginal delivery should be contraindicated in COVID-19 positive mothers. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2021.07.017

2021-09584

Maternal and Child Outcomes Reported by Breastfeeding Women Following Messenger RNA COVID-19 Vaccination. Bertrand K, Honerkamp-Smith G, Chambers CD (2021), Breastfeeding Medicine vol 16, no 9, September 2021, pp 697-701

Background: In December 2020, two novel messenger RNA (mRNA) vaccines for severe acute respiratory syndrome coronavirus-2 received emergency use authorization from the U.S. Food and Drug Administration; however, the early trials excluded lactating women.

Methods: Breastfeeding women residing in the United States who received either of the two mRNA vaccines were enrolled into the Mommy's Milk Human Milk Research Biorepository at the University of California, San Diego. From December 14, 2020 to February 1, 2021, 180 women who received two doses of either mRNA vaccine were recruited into the study.

Results: Similar proportions of women reported any one or more symptoms following vaccination with either mRNA vaccine. In addition, the frequency by specific type of symptom did not differ by brand. However, following the second dose of vaccine, women who received the Moderna brand were significantly more likely to report symptoms. A small proportion of women following the first dose of either vaccine brand reported a reduction in milk supply, and significantly, more women reported a reduction in milk supply following the second dose of Moderna. Few infant events were reported for either vaccine brand following either dose, and no serious adverse events were reported.

Conclusions: These data are reassuring regarding the safety of vaccination in breastfeeding women and their breastfed children with either of the mRNA COVID-19 vaccines. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0169

2021-09568

Parental and staff experiences of restricted parental presence on a Neonatal Intensive Care Unit during COVID-19. Garfield H, Westgate B, Chaudhary R, et al (2021), Acta Paediatrica vol 110, no 12, December 2021, pp 3308-3314

Aim

The COVID-19 pandemic had a significant impact on parental presence in the Neonatal Intensive Care Unit (NICU) during the first wave. The NICU team at the Rosie Hospital, Cambridge, endeavoured to explore the impact on parent and staff experiences of supporting parents throughout the period when visiting was restricted, between 13th August and 11th September 2020.

Methods

Bespoke surveys were designed following the first lockdown to gather information on the impact on staff and parents. The questions were developed in the context of initial observations and conversations with staff and parents.

Results

The findings of this study have illustrated the extent of the restrictions on parental wellbeing and mood, with the restrictions having had an adverse effect on these. In addition, the findings illustrate the adverse effect that the parents reported due to the restricted presence in terms of their babies' wellbeing, parent-infant bonding, partners' wellbeing, parental confidence, the ability to breastfeed confidently and parents' access to the medical teams.

Conclusion

The findings of this study have a number of clinical implications for parents and staff. Namely, the data supported the decision not to close NICU again during the second and third waves. (Author)

Full URL: https://doi.org/10.1111/apa.16085

2021-09557

Social distancing during the COVID-19 pandemic resulted in a marked decrease in hospitalisations for bronchiolitis. Risso FM, Cozzi G, Volonnino M, et al (2022), Acta Paediatrica vol 111, no 1, January 2022, pp 163-164

Brief report aiming to explore the impact of social distancing measures on hospitalisations for bronchiolitis in two paediatric children's hospitals in Italy. Results show that the number of hospitalisations fell significantly by 95%. (LDO)

2021-09446

Promoting safety in the home during the pandemic and beyond. Boddy B (2021), Journal of Health Visiting vol 9, no 3, March 2021, pp 106-107

With families home schooling their children, caring for young babies and managing housework during lockdown, it is important for health visitors to promote home safety advice to help prevent unintentional accidents and injuries. (Author)

2021-09407

COVID-19 mRNA vaccine and antibody response in lactating women: a prospective cohort study. Charepe N, Gonçalves JL, Juliano AM, et al (2021), BMC Pregnancy and Childbirth vol 21, no 632, 17 September 2021

Background

Immunological protection via breastfeeding is well known. The immunological profile of human milk changes during lactation. No clinical trials have been conducted in lactating women with the newest mRNA vaccines against SARS- CoV-2. A Few studies have shown the presence of antibodies in breastmilk after vaccination. The aim of this work is to study possible antibodies transfer via breastmilk and also the immunological characteristics of lactating women compared to non-lactating women, after using the BNT162b2 Pfizer vaccine.

Methods

This is a prospective cohort study with a convenience homogenous sample of 24 healthcare workers (14 lactating and 10 non-lactating women) enrolled at the time of COVID-19 vaccination. Clinical data was registered in a questionnaire. Titers of SARS-CoV-2 spike IgG, IgA and IgM were quantified in post vaccination blood and human milk. Antibody quantification was performed by an in-house ELISA to SARS-CoV-2 trimeric spike protein.

Results

All women showed immunity after vaccination with positive antibodies for IgM, IgA and IgG antibodies. The dominant serum antibody response was IgG. Modest levels of antibodies in breastmilk of lactating mothers were observed in this study, especially IgG in 42.9%. There was a moderate association between higher titers of IgG and a longer duration of breastfeeding (R= 0.55, p=0.041).

Conclusions

Evidence of antibody transfer in human milk after COVID-19 vaccination is scarce. The presence of antibodies in human milk is reported, but immunization through breastfeeding is still to be established. (Author)

Full URL: https://doi.org/10.1186/s12884-021-04051-6

2021-09212

Neonatal healthcare workers' perceptions of the impact of the COVID-19 pandemic. MacSween K, Fraser C, Clinton T, et al (2021), Acta Paediatrica vol 110, no 10, October 2021, pp 2814-2816

Brief report presenting a prospective survey of health care workers in two tertiary neonatal intensive care units in July 2020. Results indicate that personal protective equipment and social distancing had a negative impact on communication and practical delivery of care, and restrictions on parental presence resulted in fewer collaborative partnerships with the clinical team. However, fewer visitors resulted in quieter and calmer units with improved infection control. (LDO)

Full URL: https://doi.org/10.1111/apa.15994

2021-09113

Breastfeeding in Mothers with COVID-19: Insights from Laboratory Tests and Follow-Up from Early Outbreak of the Pandemic in China. Luo Q-Q, Xia L, Yao D-J, et al (2021), Journal of Womens Health vol 30, no 11, November 2021, pp 1546-1555

Objective: The outbreak of Coronavirus Disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) threatens a surging number of community groups within society, including women actively breastfeeding. Breastfeeding involves intimate behaviors, a major transmission route of SARS-CoV-2, and is integral to the close mother-baby relationship highly correlated with maternal psychological status.

Materials and Methods: Twenty-three pregnant women and puerperae with either confirmed or suspected diagnoses of COVID-19 were enrolled in the study. The clinical characteristics and outcomes of the mothers and neonates were recorded. The presence of SARS-CoV-2, IgG, and IgM in breast milk, maternal blood, and infant blood, together with feeding patterns, was assessed within 1 month after delivery. Feeding patterns and maternal psychological status were also recorded in the second follow-up.

Results: No positive detection of SARS-CoV-2 was found in neonates. All breast milk samples were negative for the detection of SARS-CoV-2. The presence of IgM for SARS-CoV-2 in breast milk was correlated with IgM presence in the maternal blood. The results of IgG detection for SARS-CoV-2 were negative in all breast milk samples. All infants were in a healthy condition in two follow-ups, and antibody tests for SARS-CoV-2 were negative. The rate of breast milk feeding increased during two follow-ups. All mothers receiving a second follow-up experienced negative psychological factors and status.

Conclusions: Our findings support the feasibility of breastfeeding in women infected with SARS-CoV-2. The additional negative psychological status of mothers due to COVID-19 should also be considered during the puerperium period. (Author)

Full URL: https://doi.org/10.1089/jwh.2020.8978

2021-09105

Breastfeeding in the era of COVID-19. A narrative review. Sokou R, Konstantinidi A, Boutsikou T, et al (2021), Journal of Obstetrics and Gynaecology 14 August 2021, online

Human milk is the best possible nutrition for infants, as it supplies them with nutrients, bioactive molecules as well as antibodies, which contribute to immune maturation, organ development, and healthy microbial colonisation. Few situations are considered definitive contraindications for breastfeeding. The disastrous Coronavirus Disease-2019 (COVID-19) pandemic raised many health issues, including the safety of breastfeeding for infants born to affected mothers. To date relevant data are limited. This review will make an account of the published data so far, regarding the transmission risk of SARS-CoV-2 via human milk; it will also present the current feeding recommendations, issued by several international boards, though not always in agreement, for infants born to mothers suspected or positive for SARS-CoV-2. In most studies existing so far on women with COVID-19, the virus was not detected in breastmilk. Based on currently available data, it seems that breastfeeding and human milk are not contraindicated for infants born to mothers suspected or confirmed with COVID-19. (Author)

2021-09008

Short-term outcomes of infants born to mothers with SARS-CoV-2 infection. Moffat MAQ, Dessie AS, O'Leary K, et al (2021), Journal of Maternal-Fetal and Neonatal Medicine 1 September 2021, online

Objective

The rate of transmission of SARS-CoV-2 from mothers to infants in the peri- and post-natal period remains an area of ongoing investigation. This study aims to determine rates of development of clinically significant COVID-19 disease within 1 month among infants born to symptomatic and asymptomatic SARS-CoV-2 positive mothers.

Materials and methods

This was a single-center, retrospective cohort study of all infants born to SARS-CoV-2 positive mothers who were admitted to the Well Baby Nursery (WBN) at New York University Langone Hospital-Brooklyn from 23 March–23 September 2020. Infants born to asymptomatic mothers were allowed to room-in, while infants born to mothers with symptoms of SARS-CoV-2 were isolated and discharged home to an alternate primary caregiver. A phone follow-up program contacted mothers at 2 weeks and 1 month post discharge to inquire about newborn symptoms, maternal symptoms, personal protective equipment (PPE) usage, and any presentations to care. Medical records were also reviewed for clinic and hospital visits to determine if exposed infants developed any symptoms following discharge.

Results

Of 1903 deliveries during the study period, 131 mothers (21 symptomatic, 110 asymptomatic) tested positive for SARS-CoV-2 and had infants admitted to the WBN. 57 infants (21 born to symptomatic mothers, 36 born to asymptomatic mothers) were tested prior to discharge, and none were positive. 121 of 133 infants had at least 1 follow up call in the study period. Of these, 31 had symptoms potentially concerning for SARS-CoV-2 infection or Multisystem Inflammatory Syndrome in Children, and 19 presented to medical care for these symptoms. 4 infants had SARS- CoV-2 testing after discharge, and none were positive. 2 infants were admitted to the hospital for fever but neither had a positive SARS-CoV-2 result. 65% of mothers reported always adhering to PPE recommendations.

Conclusion

Our results suggest that infants born both to symptomatic and asymptomatic mothers are unlikely to develop clinically significant COVID-19 disease in the peri- and post-natal periods. (Author)

Full URL: https://doi.org/10.1080/14767058.2021.1966412

2021-08969

Quantification of Specific Antibodies Against SARS-CoV-2 in Breast Milk of Lactating Women Vaccinated With an mRNA Vaccine. Esteve-Palau E, Gonzalez-Cuevas A, Guerrero ME, et al (2021), JAMA Network Open vol 4, no 8, August 2021, e2120575

This cohort study assesses the concentration of SARS-CoV-2 antibodies in the breast milk of women who received vaccines for COVID-19 and their correlation with serum antibody levels. (Author) (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.20575

2021-08891

Balancing restrictions and access to maternity care for women and birthing partners during the COVID-19 pandemic: the psychosocial impact of suboptimal care. Lalor J, Ayers S, Celleja Agius J, et al (2021), BJOG: An International Journal of Obstetrics and Gynaecology vol 128, no 11, October 2021, pp 1720-1725

Commentary on access to maternity care for women and birthing partners across Europe during the COVID-19 pandemic. Highlights the inconsistency of restrictions, the inability to meet a human rights-based approach to care, and long-term iatrogenic effects on women and their babies. (LDO)

Full URL: https://doi.org/10.1111/1471-0528.16844

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-08865

Breastfeeding Experiences During the COVID-19 Lockdown in the United Kingdom: An Exploratory Study Into Maternal Opinions and Emotional States. Costantini C, Joyce A, Britez Y (2021), Journal of Human Lactation vol 37, no 4, November 2021, pp 649-662

Background
The COVID-19 pandemic has hugely impacted upon people's psychological and physical wellbeing; however, the effects of the COVID-19 lockdown on mothers of young children, with particular regard to breastfeeding, are unknown.

Research Aims
To explore: (1) Sources of advice and support available to breastfeeding mothers during and prior to the COVID-19 lockdown; (2) Mothers' opinions on statements and recommendations made by the World Health Organization on the importance of breastfeeding and breastfeeding during the COVID-19 pandemic; (3) Maternal emotional states (i.e., anxiety and depression symptoms) experienced by breastfeeding mothers during the COVID-19 lockdown; and (4) influence of breastfeeding duration and number of children on breastfeeding opinions and emotional states.

Methods
Mothers of children aged 0–36 months (N = 4018) took part in an online survey. The survey included demographic questions, as well as the Generalised Anxiety Disorder Questionnaire and the Patient Health Questionnaire. Mothers were further probed on opinions regarding breastfeeding practices during the COVID-19 pandemic.

Results
Participants strongly agreed with the importance of breastfeeding, even if a mother showed symptoms of COVID-19. Differences in opinions on breastfeeding practices (e.g., the use of donor human milk and relactation), were found between participants in relation to breastfeeding duration and number of children. Participants with more than one child showed higher negative emotional states, namely anxiety symptoms. Except for Internet usage, participants indicated a decline in all sources of advice and support for breastfeeding during the COVID-19 lockdown.

Conclusions
Health bodies and professionals should consider maternal viewpoints and opinions regarding breastfeeding during the COVID-19 pandemic. Interventions are urgently needed in order to support breastfeeding mothers and prevent the development of mental health issues. (Author)

Full URL: https://doi.org/10.1177/08903344211026565

2021-08701

Presence of SARS-CoV-2 antibodies in lactating women and their infants following BNT162b2 messenger RNA vaccine. Schwartz A, Nir O, Toussia-Cohen S, et al (2021), American Journal of Obstetrics & Gynecology (AJOG) vol 225, no 5, November 2021, pp 577-579

Research letter aiming to assess whether SARS-CoV-2 immunoglobulins can be detected in breast milk samples of lactating women and in the serum and oral mucosal secretions of breastfed infants following maternal vaccination. Results show that SARS-CoV-2 immunoglobulins were found in breast milk samples, and antibodies were found in the oral mucosa in 60% of the infant samples, but were not found in their circulation. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2021.07.016

2021-08625

Supporting Breastfeeding: Next steps. Kinoshita M, Doolan A (2021), Irish Medical Journal vol 114, no 7, July/August 2021, P399

Editorial on rates of breastfeeding and breastfeeding support in Ireland. Discusses the Health Service Executive's (HSE) Five Year Breastfeeding Action Plan, the Baby Friendly Hospital Initiative and the International Code of Marketing of Breastmilk Substitutes. Highlights barriers to breastfeeding including socioeconomic factors and the COVID-19 pandemic, and concludes that there is a slow but positive trend in national breastfeeding rates. (LDO)

Full URL: http://imj.ie/supporting-breastfeeding-next-steps/

2021-08613

Placental Swab in Supporting Diagnosis of Vertical Transmission in SARS-CoV-2 Positive Mothers. Sweeney I, Al Assaf N, Khan R (2021), Irish Medical Journal vol 114, no 7, July/August 2021, P409

Aims

To review the evidence regarding the possibility of fetal vertical transmission in COVID-19 positive pregnant mothers by diagnosing through placental swabs.

Methods

The search terms ‘pregnant COVID-19 positive mothers’, ‘fetal vertical transmission’ and ‘placental swabs’ were used. 20 papers were selected.

Results

183 COVID-19 positive pregnant women were identified whose 184 placentas and 185 neonates were also analysed by RT-PCR or immunohistochemistry and/or in situ hybridization for the presence of SARS-CoV-2 (one case of monochorionic diamniotic twins and one case of dichorionic diamniotic twins). 183 liveborn neonates were successfully delivered primarily via caesarean section (99%). 2 mothers did not deliver liveborn infants due to severe preeclampsia resulting in a termination of pregnancy and a miscarriage, both occurring in the second trimester. 9 neonates tested positive for SARS-CoV-2 (5%). We report no neonatal mortality after live birth and no maternal mortality. 17 placentas tested positive for SARS-CoV-2 out of a total of 184 tested (9%). Of these 17, 7 cases of SARS-CoV-2 were identified in the maternal, neonatal and placental tissue.

Conclusion

There is no concrete evidence of vertical transmission occurring between mother and infant. We propose further research investigating the effects of COVID-19 on pregnant women by using RTPCR to test the mother, placenta, vaginal fluid, breast milk and infant for SARS-CoV-2 at various stages of transmission. (Author)

Full URL: http://imj.ie/placental-swab-in-supporting-diagnosis-of-vertical-transmission-in-sars-cov-2-positive-mothers/

2021-08501

Good practices in perinatal care and breastfeeding protection during the first wave of the COVID-19 pandemic: a national situation analysis among BFHI maternity hospitals in Spain. Muñoz-Amat B, Pallás-Alonso CR, Hernández-Aguilar M-T, et al (2021), International Breastfeeding Journal vol 16, no 66, 28 August 2021

Background

Although the positive effects of good clinical quality standards in perinatal care and breastfeeding support for women, newborns and families have been already demonstrated, many of these practices were disrupted during the COVID-19 pandemic. The objective of this study was to analyse the impact of the COVID-19 pandemic on perinatal care and breastfeeding support practices offered by the Spanish maternity hospitals committed to the UNICEF Baby-friendly Hospital Initiative (BFHI), to women with and without COVID-19.

Methods

Implementation of perinatal practices was assessed by a cross-sectional survey conducted in May 2020 using an online questionnaire. Comparison with pre-pandemic situation and level of commitment to BFHI practices was performed.

Results

Response rate was 50% (58/116). Mothers with COVID-19 suffered greater restrictions in the practices compared to women without COVID-19, with lower rates of companion of choice during labour (84% vs 100%; $p = 0.003$), skin-to-skin contact (32% vs 52%; $p = 0.04$), rooming-in (74% vs 98%; $p < 0.001$), companion of choice during hospital stay (68% vs 90%; $p = 0.006$), and breastfeeding support (78% vs 94%; $p = 0.02$). Practices were significantly less prevalent in COVID-19 mothers compared to pre-pandemic situation. A lower accompaniment rate was observed in non-COVID-19 group during delivery (24% vs 47.9%; $p < 0.01$). Hospitals with higher commitment to BFHI practices reported higher rates of skin-to-skin contact (45.2% vs 10.5%; $p = 0.01$) and rooming-in (83.9% vs 57.9%; $p < 0.05$) in COVID mothers. Fewer restrictions were observed in hospitals located in the regions where the pandemic hit harder. In these regions there was a significantly higher level of BFHI commitment of the hospitals, but no significant differences were observed in the average size of the hospital. All the practices suffered even more restrictions during the first weeks of the pandemic.

Conclusion

All mothers suffered restrictions in perinatal care during the COVID-19 pandemic. Women with COVID-19 infection suffered more restrictions in perinatal practices than women without infection. The degree of commitment to WHO-UNICEF perinatal quality standards, integrated into the BFHI, was associated with maintenance of good clinical practices. (Author)

Full URL: https://doi.org/10.1186/s13006-021-00407-y

2021-08444

SARS-CoV-2 Exposure from Health Care Workers to Infants: Effects and Outcomes. Shaiba LA, Hadid A, Abdulghani SH, et al (2021), American Journal of Perinatology 27 August 2021, online

Objective This study aimed to evaluate the risk and outcomes of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission from positive health care workers (HCW) to infants in the neonatal intensive care unit (NICU) and the postnatal ward.

Study Design We conducted a retrospective analysis of infants in NICU and the postnatal ward postexposure to a COVID-19 positive HCW between May 1 and July 31, 2020. HCW had the detection of SARS-CoV-2 after being symptomatic. Infants exposed to these HCW were tested for SARS-CoV-2 and were classified as confirmed positive when test was positive 24 hours after exposure; confirmed negative when test was negative with no escalation of respiratory support provided; and probable if test was negative. However, infant required escalation of respiratory support. Infants were followed at 14 days postexposure then at the end of the study period for admitted infants.

Results A total of 31 infants were exposed to SARS-CoV-2 positive HCWs (42 exposure incidences). The median age at exposure was 21 days. None of the infants was confirmed positive. Nine infants were classified as probable cases of whom five infants with underlying chronic illnesses died, two were discharged home, and two were still admitted. Of the 22 confirmed negative cases, 15 were discharged and were well on follow-up, and 7 were still admitted.

Conclusion No active transmission of infection from infected HCW to admitted infants was identified. Although some infants had respiratory escalation postexposure none were confirmed positive. Adhering to personal protective equipment by HCW or low susceptibility of infants to SARS-CoV-2 infection may explain the lack of transmission. (Author)

2021-08440

Video-based reflection on neonatal interventions during COVID-19 using eye-tracking glasses: an observational study. Bäuerl C, Randazzo W, Sánchez G, et al (2022), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 107, no 2, March 2022, pp 156-160

Objective The aim of this study was to determine the experience with, and the feasibility of, point-of-view video recordings using eye-tracking glasses for training and reviewing neonatal interventions during the COVID-19 pandemic.

Design Observational prospective single-centre study.

Setting Neonatal intensive care unit at the Leiden University Medical Center.

Participants All local neonatal healthcare providers.

Intervention There were two groups of participants: proceduralists, who wore eye-tracking glasses during procedures, and observers who later watched the procedures as part of a video-based reflection.

Main outcome measures The primary outcome was the feasibility of, and the proceduralists and observers' experience with, the point-of-view eye-tracking videos as an additional tool for bedside teaching and video-based reflection.

Results We conducted 12 point-of-view recordings on 10 different patients (median gestational age of 30.9±3.5 weeks and weight of 1764 g) undergoing neonatal intubation (n=5), minimally invasive surfactant therapy (n=5) and umbilical line insertion (n=2). We conducted nine video-based observations with a total of 88 observers. The use of point-of-view recordings was perceived as feasible. Observers further reported the point-of-view recordings to be an educational benefit for them and a potentially instructional tool during COVID-19.

Conclusion We proved the practicability of eye-tracking glasses for point-of-view recordings of neonatal procedures and videos for observation, educational sessions and logistics considerations, especially with the COVID-19 pandemic distancing measures reducing bedside teaching opportunities. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2021-321806

2021-08439

SARS-CoV-2 RNA and antibody detection in breast milk from a prospective multicentre study in Spain. Bäuerl C, Randazzo W, Sánchez G, et al (2022), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 107, no 2, March 2022, pp 216-221

Objectives To develop and validate a specific protocol for SARS-CoV-2 detection in breast milk matrix and to determine the impact of maternal SARS-CoV-2 infection on the presence, concentration and persistence of specific SARS-CoV-2 antibodies.

Design and patients This is a prospective, multicentre longitudinal study (April–December 2020) in 60 mothers with SARS-CoV-2 infection and/or who have recovered from COVID-19. A control group of 13 women before the pandemic were also included.

Setting Seven health centres from different provinces in Spain.

Main outcome measures Presence of SARS-CoV-2 RNA in breast milk, targeting the N1 region of the nucleocapsid gene and the envelope (E) gene; presence and levels of SARS-CoV-2-specific immunoglobulins (Igs)—IgA, IgG and IgM—in breast milk samples from patients with COVID-19.

Results All breast milk samples showed negative results for presence of SARS-CoV-2 RNA. We observed high intraindividual and interindividual variability in the antibody response to the receptor-binding domain of the SARS-CoV-2 spike protein for each of the three isotypes IgA, IgM and IgG. Main Protease (MPro) domain antibodies were also detected in milk. 82.9% (58 of 70) of milk samples were positive for at least one of the three antibody isotypes, with 52.9% of these positive for all three Igs. Positivity rate for IgA was relatively stable over time (65.2%–87.5%), whereas it raised continuously for IgG (from 47.8% for the first 10 days to 87.5% from day 41 up to day 206 post-PCR confirmation).

Conclusions Our study confirms the safety of breast feeding and highlights the relevance of virus-specific SARS-CoV-2 antibody transfer. This study provides crucial data to support official breastfeeding recommendations based on scientific evidence.

Trial registration number NCT04768244. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2021-322463

2021-08336

Influence of Vitamin D3 Levels and T Cell-Related Cytokines in Human Milk on Coronavirus Disease 2019 Infection in Lactating Women. Demers-Mathieu V, Lavangnananda S, Medo E, et al (2021), Breastfeeding Medicine vol 16, no 12, December 2021, pp 995-1003

Background: Vitamin D deficiency was associated with an increased risk of coronavirus disease 2019 (COVID-19) infection. Vitamin D deficient mothers are more likely to have infants with vitamin D deficiency, affecting their immunity and protection against infection. This study aimed at comparing the concentrations of vitamin D3 and T cell-related cytokines in milk between mothers with confirmed COVID-19 polymerase chain reaction (PCR) test, mothers with viral infections suggestive of COVID-19, and mothers without infection.

Materials and Methods: Concentrations of vitamin D3 and T cell-related cytokines in milk samples were determined by ELISA from 10 mothers who had a positive COVID-19 PCR test, 10 mothers with viral symptoms suggestive of COVID-19, and 20 mothers without infection.

Results: Vitamin D3 concentration in human milk was higher in women without infection than in women with viral symptoms or COVID-19 PCR. Interleukin-2 level in milk was higher in the no-infection group than the COVID-19 PCR group but it did not differ with the viral symptoms group. Vitamin D3 did not correlate with any cytokines in human milk. Prenatal vitamin intake did not affect the vitamin D3 in human milk. The percentage of milk from mothers with <20 ng/mL of vitamin D3 was 50% in the COVID-19 PCR group, 60% in the viral symptoms group, and 5% in the no-infection group.

Conclusions: Vitamin D3 level in breast milk may influence maternal immunity against COVID-19 infection. A larger study is needed to evaluate the relationship between vitamin D3 concentration in breast milk, maternal immune response, and the incidence of COVID-19 infection in lactating mothers. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0170

2021-08335

Humoral and Cell-Mediated Immune Response in Colostrum from Women Diagnosed Positive for SARS-CoV-2. Narayanaswamy V, Pentecost B, Alfandari D, et al (2021), Breastfeeding Medicine vol 16, no 12, December 2021, pp 987-994

Objective: To evaluate the immune response to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in colostrum from women who tested positive for the virus.

Methods: Between March and September 2020 we obtained bilateral colostrum samples collected on spot cards within 48 hours of delivery from 15 new mothers who had previously tested positive for SARS-CoV-2. Four of 15 women provided liquid colostrum, which was used for validating results obtained from spot cards. Archived bilateral colostrum samples collected from 8 women during 2011–2013 were used as pre-coronavirus disease 2019 (COVID-19) controls. All samples were tested for reactivity to the receptor binding domain (RBD) of the SARS-CoV-2 spike protein using an enzyme-linked immunosorbent assay that measures SARS-CoV-2 RBD-specific IgA, IgG, and IgM and for levels of 10 inflammatory cytokines (interferon-gamma [IFN-γ], tumor necrosis factor-alpha, interleukin [IL]-1β, IL-2, IL-4, IL-6, IL-8, IL-10, IL-12, IL-13) using a multiplex electrochemiluminescent sandwich assay.

Results: Our validation studies indicate that the levels of SARS-CoV-2-specific antibodies and the associated cytokines measured in liquid colostrum are comparable to levels eluted from spot cards. Bilateral colostrum samples from 73%, 73%, and 33% of the 15 COVID-19 mothers exhibited IgA, IgG, and IgM reactivity to RBD, respectively. In addition, symptomatic COVID-19 mothers had statistically significant elevated levels of 4 of the 10 inflammatory markers (IFN-γ, IL-4, IL-6, and IL-12) compared to asymptomatic COVID-19 mothers.

Conclusions: A strong humoral immune response is present in the colostrum of women who were infected with SARS-CoV-2 before delivering. The evolution and duration of the antibody response, as well as dynamics of the cytokine response, remain to be determined. Our results also indicate that future large-scale studies can be conducted with milk easily collected on paper spot cards. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0082

2021-08331

SARS-CoV-2 Infection Among Maternal-Infant Dyads in Ontario, Canada. Fitzpatrick T, Wilton AS, Chung H, et al (2021), JAMA Network Open vol 4, no 8, August 2021, e2120150

This cohort study uses population-based health data to assess SARS-CoV-2 testing outcomes among infants born in Ontario, Canada, during 9 months of the 2020 COVID-19 pandemic to mothers with confirmed infection at delivery. (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.20150

2021-08330

Prevalence of Serious Bacterial Infections Among Febrile Infants 90 Days or Younger in a Canadian Urban Pediatric Emergency Department During the COVID-19 Pandemic. Burstein B, Anderson G, Yannopoulos A, et al (2021), JAMA Network Open vol 4, no 7, July 2021, e2116919

This cross-sectional study compares the prevalence of severe bacterial infections in febrile neonates and infants before vs during the COVID-19 pandemic in Montreal, Quebec, Canada. (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.16919

2021-08298

Locked out: the impact of COVID-19 on neonatal care. McCleverty B, Anderson J (2021), London: Bliss August 2021. 28 pages

This report is based on a survey of parents whose baby, or babies, had spent time in neonatal care in the UK between March 2020 and February 2021. 510 parents responded to the survey, 460 respondents identified themselves as the mother of a baby, or babies, who spent time in neonatal care, 48 identified themselves as the father of a baby, or babies, who spent time in neonatal care and 2 identified themselves as the legal guardian, but not the birth parent, of a baby who received neonatal care. 58 responses were from a parent of twins or multiples. Respondents lived in England (432), Scotland (44), Wales (30) and Northern Ireland (4). The majority of our respondents' babies had gone home from the unit (434), 75 were still receiving neonatal care when their parents filled in the survey and sadly, 11 had died while receiving neonatal care. To understand how NHS England guidance Supporting pregnant women using maternity services during the coronavirus pandemic: Actions for NHS Providers has been implemented, and the barriers that Trusts have faced in facilitating parental presence on neonatal units, we conducted a survey of 161 NHS Trusts in England. The survey was conducted between 26 February 2021 and 26 March 2021. We received 70
responses (a response rate of 43 per cent) to the survey from 15 Neonatal Intensive Care Units (NICU), 35 Local Neonatal Units (LNU), 16 Special Care Baby Units (SCBU) and 4 Surgical NICUs.
Throughout this report, we use the term 'parent' to mean all parents, carers and legal guardians of a baby born premature or sick who is receiving neonatal care and their partners or support persons. (Author)

Full URL: https://s3.eu-west-2.amazonaws.com/files.bliss.org.uk/images/Locked-out-the-impact-of-COVID-19-on-neonatal-care-final.pdf?mtime=20210519184749&focal=none

---

2021-08203

A reflection on supporting breastfeeding during COVID-19. Salt P (2021), MIDIRS Midwifery Digest vol 31, no 3, September 2021, pp 354-356

This reflection looks at the effect that continuity of midwifery carer and COVID-19 can have on women's experiences of breastfeeding. This topic is particularly relevant due to the current COVID-19 pandemic in the UK. This area of research is yet to be fully explored. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

The Royal College of Midwives Trust: A company limited by guarantee. Registered No. 01345335.

2021-08201

High quality breastfeeding support is as effective by video as it is in person. Crowdy S, Noble M, Robertson F (2021), MIDIRS Midwifery Digest vol 31, no 3, September 2021, pp 347-353

Objectives: At the beginning of the first COVID-19 lockdown, a group of professional breastfeeding counsellors (BFCs) in Hampshire rapidly responded by setting up appointment-based support via one-to-one video calls for local mothers. Prior to lockdown, support had been provided at in-person drop-ins. This report aims to compare the effectiveness of breastfeeding support via video calls with the in-person support previously provided at drop-ins (Crowdy et al 2016).

Methods: All mothers who registered for an appointment during 2020 were sent an evaluation survey.

Results: The demographics of the mothers broadly reflected the local population (78 per cent identified as White British). Women sought support for similar issues in person and via video call and found BFC support to be more indepth and more consistent than other sources. In line with results from 2016, of respondents to the 2020 survey (n=323):

• 98 per cent would recommend video call support.
• 86 per cent said their confidence increased.
• 84 per cent said they breastfed for longer than without support.
• The proportion of babies receiving any breast milk at six months was 88 per cent; considerably higher than the UK average (34 per cent).

There were some differences:

• Women first attended video appointments earlier than in-person drop-ins:
– 22 per cent attended when their baby was under a week old (10 per cent at drop-ins).
– 42 per cent attended with a baby under two weeks old (20 per cent at drop-ins).
• Data were not captured for the presence of partners, but BFCs reported that they noticed more partners present for the video calls than at drop-ins.

Conclusions:

• It is the quality of support which enables excellent results, regardless of the mode of delivery. Professional breastfeeding counsellors can work just as effectively via video.
• There are practical advantages to video appointments, including greater accessibility for parents of very young babies and access for partners, so the authors will continue to use video calls alongside in-person support in the future.
• COVID-19 was a catalyst for change and has led to permanent improvements in service. (Author)

2021-08190

A standardized definition of placental infection by SARS-CoV-2, a consensus statement from the National Institutes of Health/Eunice Kennedy Shriver National Institute of Child Health and Human Development SARS-CoV-2 Placental Infection Workshop. Roberts DJ, Edlow AG, Romero RJ, et al (2021), American Journal of Obstetrics & Gynecology (AJOG) vol 225, no 6, December 2021, pp 593.e1-593.e9

Pregnant individuals infected with SARS-CoV-2 have higher rates of ICU admission, oxygen requirement, need for mechanical ventilation and death than non-pregnant individuals. Increased COVID-19 disease severity may be associated with increased risk for viremia and placental infection. Maternal SARS-CoV-2 infection is also associated with pregnancy complications such as preeclampsia and preterm birth, that can be either placentally-mediated or reflected in the placenta. Maternal viremia followed by placental infection may lead to maternal-fetal transmission (vertical), which affects 1-3% of exposed newborns. However, there is no agreed-upon or standard definition of placental infection. NIH/NICHD convened a group of experts to propose a working definition of placental infection to inform ongoing studies of SARS-CoV-2 during pregnancy. Experts recommended that placental infection be defined using techniques that allow virus detection and localization in placental tissue by one or more of the following methods: in-situ hybridization with anti-sense probe (detects replication) and/or a sense probe (detects viral genome or immunohistochemistry to detect viral nucleocapsid (N) or spike (S) proteins. If the above methods are not possible, RT-PCR detection and/or quantification of viral RNA in placental homogenates, or electron microscopy are alternative approaches. A graded classification for the likelihood of placental infection as definitive, probable, possible, and unlikely was proposed. Manuscripts reporting placental infection should describe the sampling method (location and number of samples collected), method of preservation of tissue, and detection technique. Recommendations were made for the handling of the placenta, examination, and sampling, as well as the use of validated reagents and sample protocols (included as appendices). (Author)

Full URL: https://doi.org/10.1016/j.ajog.2021.07.029

2021-08125

Detection of SARS-CoV-2-Specific IgA in the Human Milk of COVID-19 Vaccinated Lactating Health Care Workers. Valcarce V, Stewart Stafford L, Neu J, et al (2021), Breastfeeding Medicine vol 16, no 12, December 2021, pp 1004-1009

Background: In 2019, a deadly virus known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), responsible for coronavirus disease 2019 (COVID-19), emerged. In December 2020, two mRNA-based COVID-19 vaccines were approved for use in the United States, which provide immunity to those receiving the vaccine. Maternally derived antibodies are a key element of infants' immunity. Certain vaccines given to pregnant and lactating mothers provide immunity to infants through transmission across the placenta, umbilical cord (IgG), and human milk (IgA). Human milk produced by mothers with a history of COVID-19 infection contains SARS-CoV-2 IgA and IgG. The purpose of this study is to determine whether SARS-CoV-2-specific immunoglobulins are found in human milk after the COVID-19 vaccination, and to characterize the types of immunoglobulins present.

Methods: This is a prospective observational study conducted at Shands Hospital, University of Florida, from December 2020 to March 2021. Twenty-two lactating health care workers who received the SARS-CoV-2 mRNA vaccine (Pfizer/BioNTech or Moderna) made up the sample group. Plasma and human milk were collected at three time points (prevaccination, post-first vaccine dose, and post-second vaccine dose). SARS-CoV-2-specific IgA and IgG in human milk and in plasma were measured by enzyme-linked immunosorbent assay (ELISA). Maternal demographics were compiled.

Results: We found significant secretion of SARS-CoV-2-specific IgA and IgG in human milk and plasma after SARS-CoV-2 vaccination.

Conclusions: Our results show that the mRNA-based COVID-19 vaccines induce SARS-CoV-2-specific IgA and IgG secretion in human milk. Further studies are needed to determine the duration of this immune response, its capacity to neutralize the COVID-19 virus, the transfer of passive immunity to breastfeeding infants, and the potential therapeutic use of human milk IgA to combat SARS-CoV-2 infections and COVID-19. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0122

2021-07956

Impacts of Neonatal Hospitalization on Families during the 2019 Coronavirus Pandemic. Vance AJ, Malin KJ, Chen B, et al (2021), American Journal of Perinatology vol 38, no 11, September 2021, pp 1201-1208

Objective Limited data are available regarding family and financial well-being among parents whose infants were hospitalized during the 2019 coronavirus (COVID-19) pandemic. The study objective was to evaluate the family and financial well-being of parents whose infants were hospitalized in the neonatal intensive care unit (NICU) during COVID-19.

Study Design Parents were recruited for this online, cross-sectional survey via support groups on social media. Data collection was completed between May 18, 2020 and July 31, 2020. The final sample consisted of 178 parents, who had an infant hospitalized in an NICU between February 1, 2020 and July 31, 2020. The primary outcomes were impact on family life and financial stability, as measured by the Impact on Family scale, an instrument that evaluates changes to family life as a result of infant or childhood illness.

Results Of the 178 parent respondents, 173 (97%) were mothers, 107 (59.4%) were non-Hispanic White, and 127 (69.5%) of the infants were born prematurely. Parents reported significant family impact and greater financial difficulty. Extremely premature infants, lower household income, parent mental health, and lower parental confidence were predictive of greater impacts on family life.

Conclusion Parents reported significant family and financial impacts during their infant's hospitalization amid COVID-19. Further studies are needed to guide clinical practice and inform family-supportive resources that can mitigate consequences to family well-being. (Author)

2021-07931

Severity of Maternal SARS-CoV-2 Infection in Pregnancy Predicts Neonatal Outcomes. Yasa B, Memur S, Ozturk DY, et al (2021), American Journal of Perinatology 28 July 2021, online

Objective The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) outbreak had an enormous global impact. Pregnant women with SARS-CoV-2 appear to have higher morbidity and mortality. This study aimed to evaluate the effect of the severity of maternal SARS-CoV-2 infection on neonatal outcomes.

Study Design The clinical and laboratory data of 40 women and neonates evaluated retrospectively.

Results This retrospective study showed that SARS-CoV-2 infection had an adverse impact on neonatal outcomes proportionally with the maternal disease severity including increased prematurity rates, postnatal resuscitation need, prolonged hospital stay and longer ventilatory support requirement in infants born to mothers with moderate or severe disease.

Conclusion Maternal disease severity had adverse effects on neonatal outcomes. The severity of maternal disease was found to be associated with increased rates of prematurity, requirement of postnatal resuscitation, prolonged hospital stay, and longer ventilatory support. (Author)

2021-07831

Passive and active immunity in infants born to mothers with SARS-CoV-2 infection during pregnancy: prospective cohort study. Song D, Prahl M, Gaw SL, et al (2021), BMJ Open Vol 11, no 7, July 2021, e053036

Objective To investigate maternal immunoglobulins' (IgM, IgG) response to SARS-CoV-2 infection during pregnancy and IgG transplacental transfer, to characterise neonatal antibody response to SARS-CoV-2 infection, and to longitudinally follow actively and passively acquired antibodies in infants.

Design A prospective observational study.

Setting Public healthcare system in Santa Clara County (California, USA).

Participants Women with symptomatic or asymptomatic SARS-CoV-2 infection during pregnancy and their infants were enrolled between 15 April 2020 and 31 March 2021.

Outcomes SARS-CoV-2 serology analyses in the cord and maternal blood at delivery and longitudinally in infant blood between birth and 28 weeks of life.

Results Of 145 mothers who tested positive for SARS-CoV-2 during pregnancy, 86 had symptomatic infections: 78 with mild-moderate symptoms, and 8 with severe-critical symptoms. The seropositivity rates of the mothers at delivery was 65% (95% CI 0.56% to 0.73%) and the cord blood was 58% (95% CI 0.49% to 0.66%). IgG levels significantly correlated between the maternal and cord blood (Rs=0.93, p<0.0001). IgG transplacental transfer ratio was significantly higher when the first maternal positive PCR was 60–180 days before delivery compared with <60 days (1.2 vs 0.6, p<0.0001). Infant IgG seroreversion rates over follow-up periods of 1–4, 5–12, and 13–28 weeks were 8% (4 of 48), 12% (3 of 25), and 38% (5 of 13), respectively. The IgG seropositivity in the infants was positively related to IgG levels in the cord blood and persisted up to 6 months of age. Two newborns showed seroconversion at 2 weeks of age with high levels of IgM and IgG, including one premature infant with confirmed intrapartum infection.

Conclusions Maternal SARS-CoV-2 IgG is efficiently transferred across the placenta when infections occur more than 2 months before delivery. Maternally derived passive immunity may persist in infants up to 6 months of life. Neonates are capable of mounting a strong antibody response to perinatal SARS-CoV-2 infection. (Author)

Full URL: http://dx.doi.org/10.1136/bmjopen-2021-053036

2021-07752

Breastfeeding in the context of the COVID-19 pandemic: A discussion paper. Walker K, Green J, Petty J, et al (2022), Journal of Neonatal Nursing vol 28, no 1, February 2022, pp 9-15

Breastfeeding offers one of the most fundamental global health benefits for babies. Breastmilk is lifesaving, providing not only nutrition but immunologic benefits and as such is strongly supported by the World Health Organization and leading healthcare associations worldwide. When the COVID-19 pandemic started in 2020, the impact of the restrictions to prevent the spread of the disease created challenges and questions about provision of safe, quality care, including breastfeeding practices, in a new 'normal' environment. Mothers were temporarily separated from their babies where infection was present or suspected, parents were prevented from being present on neonatal units and vital breastfeeding support was prevented. This discussion paper provides an overview of essential areas of knowledge related to practice for neonatal nurses and midwives who care for breastfeeding mothers and babies, in the context of the COVID-19 pandemic and the latest global guidance. Three areas will be discussed; the protective benefits of breastfeeding, keeping breastfeeding mothers and babies together and supporting mothers to breastfeed their babies. Finally, care recommendations are presented to serve as a summary of key points for application to practice for neonatal nurses and midwives. (Author)

Full URL: https://doi.org/10.1016/j.jnn.2021.08.003

2021-07748

Predictors of breastfeeding self-efficacy during the covid-19 pandemic. Beheshti MAZ, Alimoradi Z, Bahrami N, et al (2021), Journal of Neonatal Nursing 12 August 2021, online

Background

Breastfeeding self-efficacy (BSE) is a strong predictor of the duration of breastfeeding. The aim of this study is to determine the predictors of BSE in breastfeeding mothers during the Covid-19 pandemic.

Methods

A cross-sectional study was conducted with 300 breastfeeding mothers who breastfed during the Covid-19 pandemic. Convenience sampling was used to recruit participants. A battery of online questionnaires measured sociodemographic and obstetric characteristics, breastfeeding self-efficacy, spouse postpartum social support, perceived social support, anxiety and depression, and fear of Covid-19. Data were analyzed using Pearson correlation coefficients, one-way ANOVA, and multivariable linear regression via stepwise method. The significance level in this study was $\alpha = 0.05$.

Results

The mean BSE score among participants was 58.19 ± 10.48 (out of 70). Spouse postpartum social support ($\beta = 0.732$, $p = 0.04$), intention to breastfeed ($\beta = 0.17$, $p = 0.001$), use of formula while breastfeeding ($\beta = -0.09$, $p < 0.001$), and depression ($\beta = -0.11$, $p < 0.001$) were significant predictors of BSE. However, fear of Covid-19 was not significantly correlated with BSE ($p = 0.514$).

Conclusion

The results of the present study showed that fear of Covid-19 was not a significant predictor of BSE, while spouse postpartum social support and having the intention of breastfeeding were positively associated with BSE. Depression and simultaneous use of formula in feeding the infant was negatively associated with BSE during Covid-19. Overall, breastfeeding can be encouraged through counseling to improve receiving spousal support, increasing breastfeeding intent, and reducing depression. (Author)

2021-07734

Human Milk Antibodies Against SARS-CoV-2: A Longitudinal Follow-Up Study. Juncker HG, Romijn M, Loth VN, et al (2021), Journal of Human Lactation vol 37, no 3, August 2021, pp 485-491

Background:
Human milk contains antibodies against Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) following Coronavirus Disease 2019 (COVID-19). These antibodies may serve as protection against COVID-19 in infants. However, the evolution of these human milk antibodies over time is unclear.

Research Aim:
To elucidate the evolution of immunoglobulin A (IgA) against SARS-CoV-2 in human milk after a SARS-CoV-2 infection.

Methods:
This longitudinal follow-up study included lactating mothers (N = 24) who had participated in the COVID MILK study. To assess the evolution of SARS-CoV-2 antibodies, serum and human milk samples were collected 14–143 days after the onset of clinical symptoms related to COVID-19. Enzyme-Linked ImmunoSorbent Assay was used to detect antibodies against the ectodomain of the SARS-CoV-2 spike protein.

Results:
SARS-CoV-2 antibodies remain present up to 5 months (143 days) in human milk after onset of COVID-19 symptoms. Overall, SARS-CoV-2 IgA in human milk seems to gradually decrease over time.

Conclusion:
Human milk from SARS-CoV-2 convalescent lactating mothers contains specific IgA antibodies against SARS-CoV-2 spike protein up to at least 5 months post-infection. Passive viral immunity can be transferred via human milk and may serve as protection for infants against COVID-19. Dutch Trial Register on May 1st, 2020, number: NL 8575, URL: https://www.trialregister.nl/trial/8575. (Author)

Full URL: https://doi.org/10.1177/08903344211030171

2021-07733

SARS-CoV-2 Antibodies Detected in Mother's Milk Post-Vaccination. Baird JK, Jensen SM, Urba WJ, et al (2021), Journal of Human Lactation vol 37, no 3, August 2021, pp 492-498

Background

The Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) pandemic has infected over 127 million people worldwide, with almost 2.8 million deaths at the time of writing. Since no lactating individuals were included in initial trials of vaccine safety and efficacy, research on SARS-CoV-2 vaccination in lactating women and the potential transmission of passive immunity to the infant through mother's milk is needed to guide patients, clinicians, and policy makers on whether to recommend immunization during the worldwide effort to curb the spread of this virus.

Research Aims

(1) To determine whether SARS-CoV-2 specific immunoglobins are found in human milk after vaccination, and (2) to characterize the time course and types of immunoglobulins present.

Methods

A longitudinal cohort study of lactating women (N = 7) who planned to receive both doses of the Pfizer-BioNTech or Moderna SARS-CoV-2 vaccine between December 2020 and January 2021 provided milk samples. These were collected pre-vaccination and at 11 additional timepoints, with the last sample at 14 days after the second dose of vaccine. Samples were analyzed for levels of SARS-CoV-2 specific immunoglobulins A and G (IgA and IgG).

Results

We observed significantly elevated levels of SARS-CoV-2 specific IgG and IgA antibodies in human milk beginning approximately 7 days after the initial vaccine dose, with an IgG-dominant response.

Conclusions

Maternal vaccination results in SARS-CoV-2 specific immunoglobulins in human milk that may be protective for infants. (Author)

2021-07652

Nurture in nature. Hogg S (2021), International Journal of Birth and Parent Education vol 8, no 4, July 2021, pp 34-35

Column discussing the impact of nature and green spaces on the wellbeing of pregnant women and their infants, particularly during the COVID-19 pandemic. (LDO)

2021-07619

Benign course and clinical features of COVID-19 in hospitalised febrile infants up to 60 days old. Bilavski HY, Balanson S, Shalabi RD, et al (2021), Acta Paediatrica vol 110, no 10, October 2021, pp 2790-2795

Aim

Minimal data exist regarding the severity of COVID-19 in febrile infants under 60 days old. This multicentre prospective study explored the clinical course and outcomes of this hospitalised patient population, as, to date, the best approach has not been specifically addressed.

Methods

This study focused on the clinical features, laboratory parameters and outcomes of febrile infants up to 60 days old who tested positive for the virus and were hospitalised in Israel from March 2020 to January 2021. The data were extracted from a real-time prospective surveillance network for COVID-19 that includes 20 of the country's 26 hospitals.

Results

We identified 75 febrile young infants (60% female) with COVID-19 at a median age of 28 days (range 8–56 days). Of these, 84% had an unremarkable medical history, 29% had respiratory symptoms, and 96% had a mild illness. The Rochester criteria showed that 44% were considered at high-risk for serious bacterial infections, and we found that eight infants actually had concomitant bacterial infections. Outcomes were excellent, and no complications or fatalities were reported.

Conclusion

The excellent outcomes of young febrile infants with COVID-19 closely resembled other respiratory viral aetiologies of fever in this age group, and there were no fatalities. (Author)

Full URL: https://doi.org/10.1111/apa.15993

2021-07526

Titres and neutralising capacity of SARS-CoV-2-specific antibodies in human milk: a systematic review. Gelow JM, Low YW, Zhong Y, et al (2022), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 107, no 2, March 2022, pp 174-180

Objective Synthesise evidence on production of SARS-CoV-2 antibodies in human milk of individuals who had COVID-19, and antibodies' ability to neutralise SARS-CoV-2 infectivity.

Design A systematic review of studies published from 1 December 2019 to 16 February 2021 without study design restrictions.

Setting Data were sourced from PubMed, MEDLINE, Embase, CNKI, CINAHL and WHO COVID-19 database. Search was also performed through reviewing references of selected articles, Google Scholar and preprint servers. Studies that tested human milk for antibodies to SARS-CoV-2 were included.

Patients Individuals with COVID-19 infection and human milk tested for anti-SARS-CoV-2 neutralising antibodies.

Main outcome measures The presence of neutralising antibodies in milk samples provided by individuals with COVID-19 infection.

Results Individual participant data from 161 persons (14 studies) were extracted and re-pooled. Milk from 133 (82.6%) individuals demonstrated the presence of anti-SARS-CoV-2 immunoglobulin A (IgA), IgM and/or IgG. Illness severity data were available in 146 individuals; 5 (3.4%) had severe disease, 128 (87.7%) had mild disease, while 13 (8.9%) were asymptomatic. Presence of neutralising antibodies in milk from 20 (41.7%) of 48 individuals neutralised SARS-CoV-2 infectivity in vitro. Neutralising capacity of antibodies was lost after Holder pasteurisation but preserved after high-pressure pasteurisation.

Conclusion Human milk of lactating individuals after COVID-19 infection contains anti-SARS-CoV-2-specific IgG, IgM and/or IgA, even after mild or asymptomatic infection. Current evidence demonstrates that these antibodies can neutralise SARS-CoV-2 virus in vitro. Holder pasteurisation deactivates SARS-CoV-2-specific IgA, while high-pressure pasteurisation preserves the SARS-CoV-2-specific IgA function. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2021-322156

2021-07410

Neonatal outcome following maternal infection with SARS-CoV-2 in Germany: COVID-19-Related Obstetric and Neonatal Outcome Study (CRONOS). Mand N, Iannaccone A, Longardt A-C, et al (2021), Archives of Disease in Childhood: Fetal and Neonatal Edition 19 July 2021, online

Research letter discussing the COVID-19-Related Obstetric and Neonatal Outcome Study (CRONOS) in Germany. Results demonstrate no significant difference in neonatal outcome in relation to time of maternal infection. There was no difference in the rate of caesarean section, the rate of prematurity or the rate of neonatal intensive care admission. (LDO)

Full URL: http://dx.doi.org/10.1136/archdischild-2021-322100

2021-07384

Underestimation of SARS-CoV-2 infection in placental samples. Hanna N, Lin X, Thomas K, et al (2021), American Journal of Obstetrics & Gynecology (AJOG) vol 225, no 5, November 2021, pp 572-575.e1

Research letter reporting two cases of pregnant women infected with SARS-CoV-2 where there were varying results in the detection of the virus in placental tissues using real-time reverse transcription polymerase chain reaction (RT-PCR) tests. The cases suggest that SARS-CoV-2 can infect placental tissues but the infection is not uniform in the same placenta. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2021.07.010

2021-07220

Follow-through care for high-risk infants during the COVID-19 pandemic: lessons learned from the Vermont Oxford Network. Litt JS, Mercier CE, Edwards EM, et al (2021), Journal of Perinatology vol 41, no 11, November 2021, pp 2625-2630

Objective

The COVID-19 pandemic has altered the delivery of follow-up care for high-risk infants. We performed an audit to characterize programmatic responses in a quality improvement network.

Study design

We audited 43 North American-based follow-up programs of the Vermont Oxford Network Extremely Low Birth Weight Follow-up Study Group in October, 2020. Our electronic survey included yes/no, agree/disagree, and free text response items.

Result

The response rate was 67.4%. Most programs altered capacity and the timing, frequency, or content of clinical assessments. Most perceived practice changes compromised their ability to ascertain infants' medical and developmental needs. There was a rapid uptake of telemedicine services. Despite challenges with implementation, many endorsed improved connectedness with families.

Conclusion

Programs adapted rapidly to meet the needs of high-risk infants during the pandemic. Clinical operations, assessment procedures, and quality metrics will also need to evolve. Quality improvement study group collaboratives are well-positioned to coordinate such work. (Author)

Full URL: https://doi.org/10.1038/s41372-021-01158-8

2021-07062

Point-of-care lung ultrasound in three neonates with COVID-19. Gregorio-Hernández R, Escobar-Izquierdo AB, Cobas-Pazos J, et al (2020), European Journal of Pediatrics vol 179, no 8, 2020, pp 1279-1285

Since March 2020, the world is involved in the COVID-19 pandemic, a disease caused by a novel virus called SARS-CoV-2. Some authors have described the ultrasonographic findings of COVID-19 pneumonia in adults and children, but data on neonates are lacking. Our objective was to describe the ultrasonographic lung pattern on newborns with SARS-CoV-2 infection during the COVID-19 pandemic. Newborns who tested positive for SARS-CoV-2 PCR in respiratory samples and were evaluated with point-of-care lung ultrasound (LU) from March to April 2020 were included. LU was performed bedside by a single investigator at the time of diagnosis and every 48 h during the first week following diagnosis. Six areas were studied. Three neonates were included. Infants' comorbidities included meconium aspiration syndrome, bronchopulmonary dysplasia, and Hirschsprung's disease. One required mechanical ventilation. No deaths occurred. LU showed B-lines, consolidation, and spared areas. No pneumothorax or pleural effusion was observed

Conclusions: LU could be of value when managing COVID-19 neonates. We describe the findings of lung ultrasound monitoring during the first week following diagnosis in three neonates with SARS-CoV-2 infection. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03706-4

2021-07049

SARS-COV-2 infection in children and newborns: a systematic review. Liguoro I, Pilotto C, Bonanni M, et al (2020), European Journal of Pediatrics vol 179, no 7, 2020, pp 1029-1046

A recent outbreak of a novel Coronavirus responsible for a Severe Acute Respiratory Syndrome (SARS-CoV-2) is spreading globally. The aim of this study was to systematically review main clinical characteristics and outcomes of SARS-CoV-2 infections in pediatric age. An electronic search was conducted in PubMed database. Papers published between 1 January and 1 May 2020 including children aged 0–18 years were selected. Sixty-two studies and three reviews were included, with a total sample size of 7480 children (2428/4660 males, 52.1%; weighted mean age 7.6 years). Patients showed mainly mild (608/1432, 42.5%) and moderate (567/1432, 39.6%) signs of the infection. About 2% of children were admitted to the pediatric intensive care unit. The most commonly described symptoms were fever (51.6%) and cough (47.3%). Laboratory findings were often unremarkable. Children underwent a chest CT scan in 73.9% of all cases, and 32.7% resulted normal. Overall, the estimated mortality was 0.08%. A higher proportion of newborns was severely ill (12%) and dyspnea was the most common reported sign (40%).

Conclusion: SARS-CoV-2 affects children less severely than adults. Laboratory and radiology findings are mainly nonspecific. Larger epidemiological and clinical cohort studies are needed to better understand possible implications of COVID-19 infection in children. (Author)

2021-06866

Leveraging the Massachusetts perinatal quality collaborative to address the COVID-19 pandemic among diverse populations.
Sullivan K, Belfort MB, Melvin P, et al (2021), Journal of Perinatology vol 41, no 11, November 2021, pp 2674-2683

Objective
We leveraged the Massachusetts perinatal quality collaborative (PQC) to address the COVID-19 pandemic. Our goals were to: (1) implement perinatal practices thought to reduce mother-to-infant SARS-CoV-2 transmission while limiting disruption of health-promoting practices and (2) do so without inequities attributable to race/ethnicity, language status, and social vulnerability.

Methods
Main outcomes were cesarean and preterm delivery, rooming-in, and breastfeeding. We examined changes over time overall and according to race/ethnicity, language status, and social vulnerability from 03/20-07/20 at 11 hospitals.

Results
Of 255 mothers with SARS-CoV-2, 67% were black or Hispanic and 47% were non-English speaking. Cesarean decreased (49% to 35%), while rooming-in (55% to 86%) and breastfeeding (53% to 72%) increased. These changes did not differ by race/ethnicity, language, or social vulnerability.

Conclusions
Leveraging the Massachusetts PQC led to rapid changes in perinatal care during the COVID-19 crisis in a short time, representing a novel use of statewide PQC structures. (Author)

Full URL: https://doi.org/10.1038/s41372-021-01136-0

2021-06823

Impact of COVID-19 on routine childhood immunisations: early vaccine coverage data to May 2021 in England. Public Health England (2021), Health Protection Report vol 15, no 13, 20 July 2021, pp 1-16

This series of reports presents an early assessment of the extent of COVID-19-related impact on childhood vaccinations based on vaccine coverage data for dose 1, 2 and 3 Hexavalent and dose 1 MMR vaccines extracted from ImmForm.

This is the 19th report and includes vaccine coverage data up to the end of May 2021. (Author)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003605/HPR1321_Cvd-COVER_final.pdf

---

2021-06780

A co-design of clinical virtual care pathways to engage and support families requiring neonatal intensive care in response to the COVID-19 pandemic (COVES study). Campbell-Yeo M, Dol J, Richardson B, et al (2021), Journal of Neonatal Nursing vol 27, no 6, December 2021, pp 463-470

Background
In response to the COVID-19 pandemic, family presence restrictions in neonatal intensive care units (NICU) were enacted to limit disease transmission. This has resulted in communication challenges, negatively impacting family integrated care.

Aim
To develop clinical care pathways to ensure optimal neonatal care to support families in response to parental presence restrictions imposed during the COVID-19 pandemic.

Methods
An agile, co-design process utilizing expert consensus of a large interdisciplinary team and focus groups and semi-structured interviews with families and HCPs were used to co-design clinical virtual care pathways.

Results
Three clinical virtual care pathways were co-designed: (1) building and maintaining relationships between family and healthcare providers; (2) awareness of resources; and (3) standardized COVID-19 messaging. Modifications were made to optimize uptake and utilization in the clinical areas.

Conclusion
Clinical care virtual pathways were successfully co-designed to meet these needs to ensure more equitable family centered care. (Author)

Full URL: https://doi.org/10.1016/j.jnn.2021.06.010

2021-06527

DR Congo: Measles vaccines missed because of Covid focus. Lungumbo S (2021), BBC News 10 July 2021

Reports that the disruption in medical services caused by the COVID-19 pandemic, has led to many children in the Democratic Republic of Congo missing out on vaccination against measles. This has sparked fears that there will be an outbreak of the disease in the country. The World Health Organization (WHO) estimates that 140 million measles vaccinations around the world have not been administered owing to Covid-19 disruption. (JSM)

Full URL: https://www.bbc.co.uk/news/world-africa-57657546

2021-06210

The impact of the Covid-19 pandemic on breastfeeding mothers. Menzies J (2021), Journal of Health Visiting vol 9, no 6, June 2021, pp 236-238

Since the Covid-19 pandemic began, there has been a lack of guidance to support breastfeeding mothers. Jen Menzies examines how the crisis has affected women's experiences of breastfeeding in the UK. (Author)

2021-06128

COVID-19 vaccination in pregnancy and postpartum. Brillo E, Tosto V, Gerli S, et al (2021), Journal of Maternal-Fetal and Neonatal Medicine 21 June 2021, online

Pregnant women were excluded from the initial phase 3 clinical trials of COVID-19 vaccines resulting in limited data on their efficacy and safety during pregnancy and postpartum. As a result, since December 2020, there has been conflicting advice from public health, governmental, and professional authorities on this matter. From the end of 2020 up to now, some consensus guidance has been published with a prevalent precautionary approach on the administration of vaccines in pregnant women, in breastfeeding ones, or for those who are planning a pregnancy (either spontaneously or with assisted technologies). After the first few months of vaccine administration in some countries, more permissiveness seems to prevail, although with inconsistencies. Some little indicative advice, their inconsistency around the world and their changes in a short time have probably disoriented both women and their health care providers and placed the burden of decision making upon women and their health care providers without information to assist in making an informed choice. We reviewed the COVID-19 vaccination guidance for pregnant and breastfeeding women published to date and evidence from cases of unplanned pregnancy during the course of vaccine trials, preclinical experimental and observational clinical studies, and discuss their implications. In this way, we have tried to identify the safety of COVID-19 vaccines for pregnant or breastfeeding women, and their offspring. (Author)

2021-06101

Autism: Coronavirus [written answer]. House of Commons (2021), Hansard Written question 23075, 28 June 2021

Helen Whately responds to a written question from Sir Mark Hendrick to the Secretary of State for Health and Social Care, regarding what assessment he has made of the potential effect of covid-19 lockdowns on diagnosing autism in (a) toddlers and (b) school age children. (JSM)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-06-28/23075

2021-05864

Breast Milk and Breastfeeding of Infants Born to SARS-CoV-2 Positive Mothers: A Prospective Observational Cohort Study.

Kunjumon B, Wachtel EV, Lumba R, et al (2021), American Journal of Perinatology vol 38, no 11, September 2021, pp 1209-1216

Objective There are limited published data on the transmission of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus from mothers to newborns through breastfeeding or from breast milk. The World Health Organization released guidelines encouraging mothers with suspected or confirmed COVID-19 to breastfeed as the benefits of breastfeeding outweighs the possible risk of transmission. The objective of this study was to determine if SARS-CoV-2 was present in the breast milk of lactating mothers who had a positive SARS-CoV-2 nasopharyngeal swab test prior to delivery, and the clinical outcomes for their newborns.

Study Design This was a single-center, observational, prospective cohort study. Maternal–newborn dyads that delivered at New York University Langone Hospital Brooklyn with confirmed maternal SARS-CoV-2 positive screen test at the time of admission were recruited for the study. Breast milk samples were collected during postpartum hospitalization and tested for the presence of SARS-CoV-2 genes N1 and N2 by two-step reverse transcription polymerase chain reaction. Additionally, the clinical characteristics of the maternal newborn dyad, results of nasopharyngeal SARS-CoV-2 testing, and neonatal follow-up data were collected.

Results A total of 19 mothers were included in the study and their infants who were all fed breast milk. Breast milk samples from 18 mothers tested negative for SARS-CoV-2, and 1 was positive for SARS-CoV-2 RNA. The infant who ingested the breast milk that tested positive had a negative nasopharyngeal test for SARS-CoV-2, and had a benign clinical course. There was no evidence of significant clinical infection during the hospital stay or from outpatient neonatal follow-up data for all the infants included in this study.

Conclusion In a small cohort of SARS-CoV-2 positive lactating mothers giving birth at our institution, most of their breast milk samples (95%) contained no detectable virus, and there was no evidence of COVID-19 infection in their breast milk-fed neonates. (Author)

2021-05804

Maternal and Child Symptoms Following COVID-19 Vaccination Among Breastfeeding Mothers. McLaurin-Jiang S, Garner CD, Krutsch K, et al (2021), Breastfeeding Medicine vol 16, no 9, September 2021, pp 702-709

Background: The impact of COVID-19 vaccination on breastfeeding is unknown. The primary aim of this study was to determine whether vaccine-related side effects following COVID-19 vaccination were associated with an adverse impact on breastfeeding. Secondarily, we sought to determine perceived symptoms in breastfed children and maternal opinion about COVID-19 vaccination.

Materials and Methods: We conducted a cross-sectional survey of breastfeeding mothers who underwent COVID-19 vaccination >2 days before the survey. Subjects were recruited through social media and websites. Data included sociodemographic information, vaccine history, maternal and child symptoms, and impact on lactation/breastfeeding. Bivariate statistics (chi-square, Wilcoxon rank sum, and t tests) and multivariable logistic regression models examined the association of vaccine side effects with lactation, symptoms in breastfed children, and maternal opinion on vaccination.

Results: Analysis included 4,455 breastfeeding mothers. Maternal postvaccination symptoms were more common after the second dose ($p < 0.001$). Overall, 77 (1.7%) respondents reported a negative impact on breastfeeding postvaccination, and these mothers were more likely to have experienced fatigue, headache, muscle pain, injection site pain, chills, fever, or allergic reactions. After adjusting for confounding variables, higher odds of an adverse impact on lactation were associated with lower breastfeeding intensity, dose of vaccine, and child symptoms. Even among mothers who reported an adverse impact on breastfeeding, maternal opinion about vaccination and confidence in their decision to receive the COVID-19 vaccine were high.

Conclusions: COVID-19 vaccination among breastfeeding mothers resulted in minimal disruption of lactation or adverse impact on the breastfed child. These findings may be considered in vaccination decision-making. (Author)

Full URL: https://doi.org/10.1089/bfm.2021.0079

2021-05748

Vaccine Update. Public Health England (2021), London: PHE no 323, June 2021

This edition of Vaccine Update focuses on childhood vaccination coverage in England and includes information on the impact of COVID-19 on Hexavalent and measles, mumps and rubella (MMR) vaccination uptake. (LDO)

Full URL: https://www.gov.uk/government/publications/vaccine-update-issue-323-june-2021/vaccine-update-issue-323-june-2021

2021-05746

Vaccine Update. Public Health England (2021), London: PHE no 321, May 2021

This edition of Vaccine Update focuses on parents' and guardians' experiences of accessing routine childhood vaccinations during the COVID-19 pandemic. This issue also includes information on supply of COVID-19 vaccinations and non-routine vaccinations. (LDO)

Full URL: https://www.gov.uk/government/publications/vaccine-update-issue-321-may-2021/vaccine-update-issue-321-may-2021

2021-05670

Pharyngeal sampling for PCR-testing in the investigation of SARS-COV-2 vertical transmission in pregnancy. Konstantinidou A-E, Skaltsounis P, Eleftheriades M, et al (2021), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 260, May 2021, pp 18-21

The novel COVID-19 global pandemic has raised, among many others, major concerns regarding the impact of infection during pregnancy. Current evidence suggests that vertical transmission from mother to baby, antenatally or intrapartum, does occur, but is uncommon. According to the published reports of infants born to COVID-19-affected mothers, as well as the anecdotal experience of current practices worldwide, it appears that investigations regarding the potential of SARS-COV-2 vertical transmission in pregnancy have so far been based, to a large extent, on PCR testing of neonatal pharyngeal swab samples. Given that the transplacental route of intrauterine transmission for SARS-COV-2 is less likely to immediately involve the upper respiratory tract of the newborn, contrary to what happens after birth, it would be advisable to include appropriate biological samples, such as cord blood, placenta, amniotic fluid and neonatal blood, along with the pharyngeal samples, in order to contribute significantly to such investigations. It is important to point out that negative PCR tests of neonatal pharyngeal samples do not exclude the possibility of intrauterine viral transmission, while positive pharyngeal swabs are more likely to reflect intrapartum or postpartum contaminants, rather than antenatal intrauterine transmission, in the absence of other criteria.

Revision and enhancement of the so far prevailing practices appear important, in order to facilitate the development of good clinical practice for managing neonates and ensuring safety of families and healthcare providers. (Author)

2021-05661

EBCOG position statement on COVID-19 vaccination for pregnant and breastfeeding women. Martins I, Louwen F, Ayres-de-Campos D, et al (2021), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 262, July 2021, pp 256-258

Covid 19 pandemic has led to significant mortality and long term morbidity globally. Pregnant women are at increased risk of severe illness from COVID 19 infection. There is an urgent need for all health authorities and Governments to offer vaccination to all pregnant women especially those with high risk pregnancy. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2021.05.021

2021-05639

Baby Care Units: Coronavirus [written answer]. House of Commons (2021), Hansard Written question 20488, 22 June 2021

Ms Nadine Dorries responds to a written question from David Linden to the Secretary of State for Health and Social Care, with reference to the data collected through maternity situation reports, what progress his Department has made in ensuring parents have unrestricted access to their babies on neonatal units. (Author, edited)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-06-22/20488

2021-05616

Breastfeeding and Coronavirus Disease 2019: A Study in Evolving Public Health Recommendations. Eidelman AI (2021), Breastfeeding Medicine vol 16, no 5, May 2021, pp 351-352

Short editorial discussing the evolving recommendations on how to manage breastfeeding with mothers suspected or diagnosed with COVID-19. (LDO)

Full URL: https://doi.org/10.1089/bfm.2021.29182.aie

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-05518

Complicated Monochorionic–Diamniotic Twins in a Pregnant Woman with COVID-19 in the Second Trimester. Mok T, Soria-Contreras DC, Chmait RH, et al (2021), American Journal of Perinatology vol 38, no 7, June 2021, pp 747-752

Objective A majority of studies evaluating the risk of vertical transmission and adverse outcomes in pregnancies with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) are mostly based on third-trimester infections. There is limited data available on pregnancy sequelae of maternal infection in the first or second trimester.

Study Design We present a patient with monochorionic–diamniotic twins that develops coronavirus disease 2019 infection at 15 weeks of gestation. The pregnancy is further complicated by stage II twin–twin transfusion syndrome. She undergoes laser ablation, which is complicated by development of a subchorionic hematoma. The patient then develops Escherichia coli bacteremia, resulting in septic shock and preterm labor followed by previable delivery at 21 weeks of gestation. Amniotic fluid and placenta were negative for SARS-CoV-2 by real-time polymerase chain reaction.

Conclusion This case of SARS-CoV-2 argues against transplacental transmission after a second-trimester infection but brings attention to the possible downstream complications that may arise following early infection. (Author)

2021-05517

Mother–Infant Dyads with COVID-19 at an Urban, Safety-Net Hospital: Clinical Manifestations and Birth Outcomes. Sabharwal V, Bartolome R, Al Hassan S, et al (2021), American Journal of Perinatology vol 38, no 7, June 2021, pp 741-746

Objective This study aimed to describe maternal characteristics and clinical outcomes of infants born to mothers with positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) tests during pregnancy at an urban, safety-net hospital in Boston.

Study Design We abstracted electronic chart data from 75 pregnant women with positive SARS-CoV-2 tests at any stage of gestation until 72 hours after birth who delivered consecutively between March 31 and August 6, 2020 at our center. We collected clinical data on maternal and infant characteristics, including testing, signs, and symptoms of coronavirus disease 2019 (COVID-19), delivery outcomes, newborn care practices (skin-to-skin care, location of care, and breastfeeding) and 30-day postdischarge infant emergency room visits and readmissions. We described categorical characteristics as percentages for this case series.

Results Among 75 pregnant women, 47 (63%) were Hispanic, 10 (13%) had hypertension, 23 (30%) had prepregnancy obesity, and 57 (76%) had symptomatic SARS-CoV-2 infection. Regarding birth outcomes, 32 (41%) had cesarean delivery and 14 (19%) had preterm birth. Among 75 infants, 5 (7%) had positive SARS-CoV-2 polymerase chain reaction tests in the first week of life, all of whom were born to Hispanic mothers with symptomatic SARS-CoV-2 infection and had clinical courses consistent with gestational age. Six (8%) infants visited the emergency department within 30 days of discharge; one was admitted with a non-COVID-19 diagnosis.

Conclusion At our urban, safety-net hospital among pregnant women with positive SARS-CoV-2 tests, 41% had a cesarean delivery and 19% had a preterm birth. Seven percent of infants had one or more positive SARS-CoV-2 tests and all infants had clinical courses expected for gestational age. (Author)

2021-05495

Neonates Born to COVID-19 Mother and Risk in Management within 4 Weeks of Life: A Single-Center Experience, Systematic Review, and Meta-Analysis. Falsaperla R, Giacchi V, Lombardo G, et al (2021), American Journal of Perinatology vol 38, no 10, August 2021, pp 1010-1022

Objective The new coronavirus infection from severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has been recognized as a global public health emergency, and neonates may be more vulnerable due to their immature immune system. The first aim of this study was to report our experience on the management of neonates from mothers with SARS-CoV-2 infection focusing on a 28-day follow-up since birth. The second aim is to assess how many data on neonatal outcomes of the first month of life are reported in literature, performing a systematic review and meta-analysis.

Study design We report our experience based on routine management of neonates born to mothers with SARS-CoV-2 infection and follow-up until 28 days of life.

Results In our experience at discharge, 1/48 (2.08%) of entrusted (mother refusing personal protective equipment) and none of separated presented positive nasopharyngeal swab (p = NS). All babies show good outcome at 28 days of life. The literature data show that the percentage of positive separated infants is significantly higher than the percentage of infants entrusted to positive mothers with appropriate control measures (13.63 vs. 2.4%; p = 0.0017). Meta-analysis of studies focused on follow-up showed a 2.94% higher risk of incidence of SARS-CoV-2 infection in entrusted newborns than in separated newborns (95% confidence interval: 0.39–22.25), but this was not significant (p = 0.30).

Conclusion A vertical transmission in utero cannot be totally excluded. Since in newborns, the disease is often ambiguous with mild or absent symptoms, it is important to define the most efficient joint management for infants born to COVID-19 positive mothers, being aware that the risk of horizontal transmission from a positive mother, when protective measures are applied, does not seem to increase the risk of infection or to affect the development of newborns from birth to first four weeks of life, and encourages the benefits of breastfeeding and skin-to-skin practice. (Author)

2021-05348

COVID-19 vaccine acceptance among pregnant, breastfeeding, and nonpregnant reproductive-aged women. Sutton D, D'Alton M, Zhang Y, et al (2021), American Journal of Obstetrics & Gynecology MFM vol 3, no 5, September 2021, 100403

Background

Although mass vaccination against COVID-19 may prove to be the most efficacious end to this deadly pandemic, there remains concern and indecision among the public towards vaccination. As pregnant and reproductive-aged women account for a large proportion of the population with particular concerns regarding vaccination against COVID-19, this survey aims at investigating their current attitudes and beliefs within our own institution.

Objective

To understand vaccine acceptability among pregnant, non-pregnant and breastfeeding respondents and elucidate factors associated with COVID-19 vaccine acceptance.

Methods

We administered an anonymous online survey to all women (including patients, providers and staff) at our institution assessing rates of acceptance of COVID-19 vaccination. Respondents were contacted in one of three ways: by email, advertisement flyers and distribution of QR codes at virtual townhalls regarding the COVID-19 vaccine. Based on their responses, respondents were divided into three mutually exclusive groups: (1) non-pregnant respondents (2) pregnant respondents and (3) breastfeeding respondents. The primary outcome was acceptance of vaccination. Prevalence ratios were calculated to ascertain the independent effects of multiple patient-level factors on vaccine acceptability.

Results

The survey was administered from January 7, 2021 to January 29, 2021 with 1,012 respondents of whom 466 (46.9%) identified as Non-Hispanic White, 108 (10.9%) as Non-Hispanic Black, 286 (28.8%) as Hispanic, and 82 (8.2) as Non-Hispanic Asian. The median age was 36 (IQR 25-47) years. Of all the respondents, 656 respondents (64.8%) were non-pregnant, 216 (21.3%) were pregnant and 122 (12.1%) were breastfeeding. There was no difference in chronic comorbidities when evaluated as a composite variable (Table 1). 390 respondents (39.2%) reported working in healthcare. Non-pregnant respondents were most likely to accept vaccination (457 respondents, 76.2%, $p<0.001$) with breastfeeding respondents the second most likely (55.2%). Pregnant respondents had the lowest rate of vaccine acceptance (44.3%, $p<0.001$). Prevalence ratios revealed all non-White races except for non-Hispanic Asian respondents and Spanish speaking respondents were less likely to accept vaccination(Table 3). Working in healthcare was not found to be associated with vaccine acceptance among our cohort.

Conclusions and Relevance

In this survey study of only women at a single institution, pregnant respondents of non-White or non-asian races were more likely to decline vaccination compared to non-pregnant and breast-feeding respondents. Working in healthcare was not associated with vaccine acceptance. (Author)

2021-05330

Infant delivery and maternal stress during the COVID-19 pandemic: a comparison of the well-baby versus neonatal intensive care environments. Bin-Nun A, Palmor-Haspal S, Mimouni FB, et al (2021), Journal of Perinatology vol 41, no 11, November 2021, pp 2614-2620

Objective

To describe impact of COVID-19 pandemic on stress and mood of new mothers, in particular in neonatal intensive care unit (NICU); a secondary objective was to assess whether customary social gender distancing practiced by ultra-religious Jews and Muslims offers built-in anti-stress protection.

Methods

Cross-sectional, observational survey of mothers of 52 normal newborn nursery (NNB) and 52 NICU infants. In all, 86 filled all the 6 questionnaires (Demographics, COVID-19 virus experience, Mental Health Inventory, Neonatal Satisfaction Survey, Parental Stressor Scale, and Questionnaire of Coping Strategies).

Results

Most mothers stated that COVID-19 pandemic had hurt social and family relationships, maternal role, and expressed stress and loneliness. Mothers of NICU infants had higher degree of helplessness. Religious social distancing was not protective. Background tendency to coping poorly with stress and depression most highly predicted stress.

Conclusion

COVID-19 pandemic harms psychosocial well-being of most mothers. Detection of high-risk individuals is necessary to provide appropriate support. (Author)

Full URL: https://doi.org/10.1038/s41372-021-01016-7

2021-05317

COVID-19 Vaccine Considerations during Pregnancy and Lactation. Blumberg D, Sridhar A, Lakshminrusimha S, et al (2021), American Journal of Perinatology vol 38, no 6, June 2021, pp 523-528

Editorial reviewing the published data and theoretical considerations of COVID-19 vaccination in pregnant and lactating women. Discusses the safety of mRNA and adenovirus DNA vaccines manufactured by Pfizer-BioNTech, Moderna and Janssen. (LDO)

Full URL: https://doi.org/10.1055/s-0041-1726390

2021-05276

Coronavirus disease 2019 vaccine response in pregnant and lactating women: a cohort study. Gray KJ, Bordt EA, Atyeo C, et al (2021), American Journal of Obstetrics & Gynecology (AJOG) vol 225, no 3, September 2021, pp 303.e1-303.e17

Background

Pregnant and lactating women were excluded from initial coronavirus disease 2019 vaccine trials; thus, data to guide vaccine decision making are lacking.

Objective

This study aimed to evaluate the immunogenicity and reactogenicity of coronavirus disease 2019 messenger RNA vaccination in pregnant and lactating women compared with: (1) nonpregnant controls and (2) natural coronavirus disease 2019 infection in pregnancy.

Study Design

A total of 131 reproductive-age vaccine recipients (84 pregnant, 31 lactating, and 16 nonpregnant women) were enrolled in a prospective cohort study at 2 academic medical centers. Titers of severe acute respiratory syndrome coronavirus 2 spike and receptor-binding domain immunoglobulin G, immunoglobulin A, and immunoglobulin M were quantified in participant sera (n=131) and breastmilk (n=31) at baseline, at the second vaccine dose, at 2 to 6 weeks after the second vaccine, and at delivery by Luminex. Umbilical cord sera (n=10) titers were assessed at delivery. Titers were compared with those of pregnant women 4 to 12 weeks from the natural infection (n=37) by enzyme-linked immunosorbent assay. A pseudovirus neutralization assay was used to quantify neutralizing antibody titers for the subset of women who delivered during the study period. Postvaccination symptoms were assessed via questionnaire. Kruskal-Wallis tests and a mixed-effects model, with correction for multiple comparisons, were used to assess differences among groups.

Results

Vaccine-induced antibody titers were equivalent in pregnant and lactating compared with nonpregnant women (pregnant, median, 5.59; interquartile range, 4.68–5.89; lactating, median, 5.74; interquartile range, 5.06–6.22; nonpregnant, median, 5.62; interquartile range, 4.77–5.98, P=.24). All titers were significantly higher than those induced by severe acute respiratory syndrome coronavirus 2 infection during pregnancy (P<.0001). Vaccine-generated antibodies were present in all umbilical cord blood and breastmilk samples. Neutralizing antibody titers were lower in umbilical cord than maternal sera, although this finding did not achieve statistical significance (maternal sera, median, 104.7; interquartile range, 61.2–188.2; cord sera, median, 52.3; interquartile range, 11.7–69.6; P=.05). The second vaccine dose (boost dose) increased severe acute respiratory syndrome coronavirus 2–specific immunoglobulin G, but not immunoglobulin A, in maternal blood and breastmilk. No differences were noted in reactogenicity across the groups.

Conclusion

Coronavirus disease 2019 messenger RNA vaccines generated robust humoral immunity in pregnant and lactating women, with immunogenicity and reactogenicity similar to that observed in nonpregnant women. Vaccine-induced immune responses were statistically significantly greater than the response to natural infection. Immune transfer to neonates occurred via placenta and breastmilk. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2021.03.023

2021-05252

Care strategies before entering pregnant mothers to the operating room and after birth during COVID-19. Moghadam MY, Beigi-khoozani A, Merajikhah A (2021), British Journal of Midwifery vol 29, no 6, June 2021, pp 348-351

Provides an overview of care strategies for pregnant women in the perinatal period during the COVID-19 pandemic. Discusses vaccination and testing during pregnancy, isolation of the newborn baby and hygiene while breastfeeding. (LDO)

2021-05205

COVID-19 and the NICU: #Zeroseparation. Discenza D (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 3, May/June 2021, pp 183-186

COVID-19's first wave created chaos for new NICU families as they struggled to cope with the challenge of a fragile infant along with a pandemic. Safety was paramount due to a lack of understanding around how the virus transmits, but much has been learned since then. The next wave of the virus needs to have a rethink around family separation. World leader organization European Foundation for the Care of Newborn Infants (EFCNI) provides insight into the challenges with the first wave and suggests ideas around rethinking how families interact with their baby in the subsequent waves. (Author)

2021-05183

Skin-to-Skin Contact (Kangaroo Care) During the COVID-19 Pandemic. Ludington-Hoe SM, Lotas M, D'Apolito K (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 3, May/June 2021, pp 161-174

Early recommendations to separate mothers from their newborns during the coronavirus disease 2019 (COVID-19) pandemic have created a detrimental separation practice. This article presents a review of the latest information regarding the (1) 3 modes of transmission of the virus to the neonate; (2) incidence, clinical signs, and severity of COVID-19 in the neonate; (3) factors to be considered to balance risk and benefits of separation and skin-to-skin contact (SSC) when conducting shared decision making; and (4) compendium of published SSC guidelines; and concludes with recommendations for safe practice of SSC to prevent and/or restrict COVID-19 infection in neonates. (Author)

2021-05174

A Case of Vertical Transmission of COVID-19. Vincent K (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 3, May/June 2021, pp 146-154

Coronavirus disease 2019 (COVID-19), which is caused by SARS-CoV-2, has overwhelmed health care systems in 2020, affecting millions of lives worldwide. There have, however, been few reports of the effect this virus has on the newborn population. This case study presents an infant with a vertical transmission of COVID-19, including symptoms, diagnosis, and management, to help inform care for the COVID-19-positive infant. (Author)

2021-05172

Maintaining Safe Breastfeeding Practices During the COVID-19 Pandemic: An Overview of the Evidence to Inform Clinical Guidelines. Gwartney T, Duffy A (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 3, May/June 2021, pp 140-145

The impact of the COVID-19 pandemic upon the health care landscape has prompted many organizations to revise policies in response to ever-changing guidelines and recommendations regarding safe breastfeeding practices. The application of these professional guidelines into clinical practice is fraught with barriers, inconsistencies, and often-minimal evidential support. Key concerns for health care providers and patients include antenatal versus postnatal transmission, milk transmission, and separation care versus rooming-in, including the subsequent impacts upon breastfeeding and bonding. While SARS-CoV-2 is a novel virus, the volume of literature to support best practice for couplet care continues to be developed at a rapid pace. The benefits of breastfeeding are steeped in evidence and outweigh the potential risk of transmission of COVID-19 from mother to newborn. Health care organizations must continue to seek guidance for policy revision within the ever-growing body of evidence for best practice and evaluate current practices for feasibility during and after hospitalization. (Author)

2021-05170

Effects of COVID-19 on Health Care Workers. Whalen M, Smith PC (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 3, May/June 2021, pp 134-139

COVID-19 continues to spread across the United States with a continued increase in reported infections and deaths. How this virus effects pregnancy, particularly mothers and their infants around and after delivery, is of particular concern for health care workers. Moreover, concerns for compassion fatigue in the health care worker, as they attempt to provide comprehensive care to this population, is a documented concern that could have long-term effects on workers' ability to provide care. This article will describe the current concerns for the transmission of COVID-19 from the mother to the infant and how that has affected recommendations from several national and international organizations around maternal/infant testing, isolation, breastfeeding, and the infant requiring neonatal intensive care. Effects that changing recommendations may have on health care workers and care delivery, and how these may contribute to compassion fatigue, will also be discussed. (Author)

2021-05166

COVID-19 Precautions Hamper Breastfeeding Support. Kuehn BM (2021), JAMA (Journal of the American Medical Association) vol 325, no 2, 12 January 2021, p 122

News item discussing a recent report (1) from the Centers for Disease Control and Prevention (CDC) which found that nearly one in five hospitals reduced in-person lactation support during the COVID-19 pandemic.

1. Perrine CG et al (2020). Implementation of Hospital Practices Supportive of Breastfeeding in the Context of COVID-19 — United States, July 15–August 20, 2020. Morbidity and Mortality Weekly Report (MMWR), vol 69, no 47, pp 1767-1770. http://dx.doi.org/10.15585/mmwr.mm6947a3. (LDO)

Full URL: https://doi.org/10.1001/jama.2020.25241

2021-05147

Covid-19: Baby's mother issues mottled skin warning. Jones C (2021), BBC News 7 January 2021

Reports that a young mother whose four-month-old baby son has tested positive for COVID-19 has warned other parents of young children to be aware that mottled skin and sickness are symptoms of the disease in the infant population. States that, although the officially recognised symptoms of the disease are fever, a cough, and/or a loss of sense of taste or smell, many researchers have identified diarrhoea, vomiting and abdominal cramps as signs of coronavirus in children. (JSM)

Full URL: https://www.bbc.co.uk/news/uk-england-essex-55548719

2021-05098

Supporting parents as essential care partners in neonatal units during the SARS-CoV-2 pandemic. van Veenendaal NR, Deierl A, Bacchini F, et al (2021), Acta Paediatrica vol 110, no 7, July 2021, pp 2008-2022

Aim

To review the evidence on safety of maintaining family integrated care practices and the effects of restricting parental participation in neonatal care during the SARS-CoV-2 pandemic.

Methods

MEDLINE, EMBASE, PsycINFO and CINAHL databases were searched from inception to the 14th of October 2020. Records were included if they reported scientific, empirical research (qualitative, quantitative or mixed methods) on the effects of restricting or promoting family integrated care practices for parents of hospitalised neonates during the SARS-CoV-2 pandemic. Two authors independently screened abstracts, appraised study quality and extracted study and outcome data.

Results

We retrieved 803 publications and assessed 75 full-text articles. Seven studies were included, reporting data on 854 healthcare professionals, 442 parents, 364 neonates and 26 other family members, within 286 neonatal units globally. The pandemic response resulted in significant changes in neonatal unit policies and restricting parents' access and participation in neonatal care. Breastfeeding, parental bonding, participation in caregiving, parental mental health and staff stress were negatively impacted.

Conclusion

This review highlights that SARS-CoV-2 pandemic-related hospital restrictions had adverse effects on care delivery and outcomes for neonates, families and staff. Recommendations for restoring essential family integrated care practices are discussed. (Author)

Full URL: https://doi.org/10.1111/apa.15857

2021-05097

Impact that the COVID-19 pandemic on routine childhood vaccinations and challenges ahead: A narrative review. Chiappini E, Parigi S, Galli L, et al (2021), Acta Paediatrica vol 110, no 9, September 2021, pp 2529-2535

Aim

To document the decline in vaccination coverage in the first months of 2020 as an indirect effect of the COVID-19 pandemic.

Methods

We performed a literature review in medical databases. Overall, 143 articles were initially retrieved, out of which 48 were selected and included in the review.

Results

Our review retrieved similar data in many countries worldwide, and, globally, preliminary data from the first 4 months of 2020 indicate a decline in diphtheria-tetanus-pertussis coverage, generally considered the marker of vaccination coverage across countries. World Health Organization recommends maintaining vaccination services, prioritising primary series vaccinations especially for measles-rubella or poliomyelitis, but it also lets each country decide whether to maintain the immunisation services evaluating the current epidemiology of vaccine-preventable diseases and the COVID-19 local transmission scenario. Successively, recovering of vaccinations should be planned. Moreover, during the pandemic, influenza vaccination should be promoted as a central public health measure.

Conclusion

Future challenges will be to maintain the vaccination programmes, especially in children younger than 2 years old and adolescents, to plan the recovery of vaccinations for subjects who postponed them during the lockdown, and to early identify any vaccine-preventable disease outbreak. (Author)

Full URL: https://doi.org/10.1111/apa.15949

2021-05023

Expecto Patronum! Leveraging the Positive Force of COVID-19 Vaccines for Pregnant and Lactating Individuals. Malinowski AK, Whittle W, Murphy K, et al (2021), JOGC (Journal of Obstetrics and Gynaecology Canada) vol 43, no 10, October 2021, pp 1184-1187

For over a year, the world has been gripped by the coronavirus disease 2019 (COVID-19) pandemic, which has had far-reaching effects on society. The integrity of national health care systems has also been challenged, owing to shifts in guidance and misinformation. Although initial reports suggested that pregnant people were not at increased risk of severe COVID-19, current data arising from the “third wave” paint a much more concerning picture. In addition, pregnant and lactating people were excluded from vaccine trials, which has hindered the ability of health care professionals to provide evidence-based counselling regarding the safety and efficacy of the available vaccines in these populations. This commentary reviews the current data on the safety of COVID-19 vaccines in pregnancy. The evidence is clear that the risks of hospitalization and severe maternal and potentially fetal morbidity from COVID-19 in pregnancy far outweigh the very minimal risks of COVID-19 vaccination in pregnancy. (Author)

Full URL: https://doi.org/10.1016/j.jogc.2021.04.015

2021-04966

Association of Maternal Perinatal SARS-CoV-2 Infection With Neonatal Outcomes During the COVID-19 Pandemic in Massachusetts. Angelidou A, Sullivan K, Melvin PR, et al (2021), JAMA Network Open vol 4, no 4, April 2021, e217523

Importance The incidence of mother-to-newborn SARS-CoV-2 transmission appears low and may be associated with biological and social factors. However, data are limited on the factors associated with neonatal clinical or viral testing outcomes.

Objective To ascertain the percentage of neonates who were born to mothers with positive SARS-CoV-2 test results during the birth hospitalization, the clinical and sociodemographic factors associated with neonatal test result positivity, and the clinical and virological outcomes for newborns during hospitalization and 30 days after discharge.

Design, Setting, and Participants This multicenter cohort study included 11 academic or community hospitals in Massachusetts and mother-neonate dyads whose delivery and discharge occurred between March 1, 2020, and July 31, 2020. Eligible dyads were identified at each participating hospital through local COVID-19 surveillance and infection control systems. Neonates were born to mothers with positive SARS-CoV-2 test results within 14 days before to 72 hours after delivery, and neonates were followed up for 30 days after birth hospital discharge.

Exposures Hypothesized maternal risk factors in neonatal test result positivity included maternal COVID-19 symptoms, vaginal delivery, rooming-in practice, Black race or Hispanic ethnicity, and zip code–derived social vulnerability index. Delivery indicated by worsening maternal COVID-19 symptoms was hypothesized to increase the risk of adverse neonatal health outcomes.

Main Outcomes and Measures Primary outcomes for neonates were (1) positive SARS-CoV-2 test results, (2) indicators of adverse health, and (3) clinical signs and viral testing. Test result positivity was defined as at least 1 positive result on a specimen obtained by nasopharyngeal swab using a polymerase chain reaction–based method. Clinical and testing data were obtained from electronic medical records of nonroutine health care visits within 30 days after hospital discharge.

Results The cohort included 255 neonates (mean [SD] gestational age at birth, 37.9 [2.6] weeks; 62 [24.3%] with low birth weight or preterm delivery) with 250 mothers (mean [SD] age, 30.4 [6.3] years; 121 [48.4%] were of Hispanic ethnicity). Of the 255 neonates who were born to mothers with SARS-CoV-2 infection, 225 (88.2%) were tested for SARS-CoV-2 and 5 (2.2%) had positive results during the birth hospitalization. High maternal social vulnerability was associated with higher likelihood of neonatal test result positivity (adjusted odds ratio, 4.95; 95% CI, 1.53-16.01; P = .008), adjusted for maternal COVID-19 symptoms, delivery mode, and rooming-in practice. Adverse outcomes during hospitalization were associated with preterm delivery indicated by worsening maternal COVID-19 symptoms. Of the 151 newborns with follow-up data, 28 had nonroutine clinical visits, 7 underwent SARS-CoV-2 testing, and 1 had a positive result.

Conclusions and Relevance The findings emphasize the importance of both biological and social factors in perinatal SARS-CoV-2 infection outcomes. Newborns exposed to SARS-CoV-2 were at risk for both direct and indirect adverse health outcomes, supporting efforts of ongoing surveillance of the virus and long-term follow-up. (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.7523

2021-04924

Assessment of Pediatric Admissions for Kawasaki Disease or Infectious Disease During the COVID-19 State of Emergency in Japan. Hara T, Furuno K, Yamamura K, et al (2021), JAMA Network Open vol 4, no 4, April 2021, e214475

Importance The development of Kawasaki disease (KD) has been suggested to be associated with droplet- or contact-transmitted infection; however, its triggers and transmission modes remain to be determined. Under an epidemic of SARS-CoV-2, the COVID-19 state of emergency in Japan served as a nationwide social experiment to investigate the impact of quarantine or isolation on the incidence of KD.

Objective To assess the role of droplet or contact transmission in the etiopathogenesis of KD.

Design, Setting, and Participants This multicenter, longitudinal, cross-sectional study was conducted from 2015 to 2020 at Fukuoka Children's Hospital and 5 adjacent general hospitals. The number of admissions for KD and infectious diseases were analyzed. Participants were pediatric patients admitted to the participating hospitals for KD or infectious diseases.

Exposures Quarantine and isolation owing to the COVID-19 state of emergency.

Main Outcomes and Measures The primary end points were the ratios of patients with KD to patients with respiratory tract or gastrointestinal infections admitted from April to May in 2015 to 2019 and 2020. A Poisson regression model was used to analyze them.

Results The study participants included 1649 patients with KD (median [interquartile range] age, 25 [13-43] months; 901 boys [54.6%]) and 15 586 patients with infectious disease (data on age and sex were not available for these patients). The number of admissions for KD showed no significant change between April and May in 2015 to 2019 vs the same months in 2020 (mean [SD], 24.8 [5.6] vs 18.0 [4.0] admissions per month; 27.4% decrease; adjusted incidence rate ratio [aIRR], 0.73; 95% CI, 0.48-1.10; P = .12). However, the number of admissions for droplet-transmitted or contact-transmitted respiratory tract infections (mean [SD], 157.6 [14.4] vs 39.0 [15.0] admissions per month; 75.3% decrease; aIRR, 0.25; 95% CI, 0.17-0.35; P < .001) and gastrointestinal infections (mean [SD], 43.8 [12.9] vs 6.0 [2.0] admissions per month; 86.3% decrease; aIRR, 0.14; 95% CI, 0.04-0.43; P < .001) showed significant decreases between April and May in 2015 to 2019 vs the same months in 2020 (total, 12 254 infections). Thus, the ratio of KD to droplet- or contact-transmitted respiratory tract and gastrointestinal infections incidence in April and May 2020 was significantly increased (ratio, 0.40 vs 0.12; $\chi 21 = 22.76$; P < .001).

Conclusions and Relevance In this study, the significantly increased incidence of KD compared with respiratory tract and gastrointestinal infections during the COVID-19 state of emergency suggests that contact or droplet transmission is not a major route for KD development and that KD may be associated with airborne infections in most cases. (Author)

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.4475

2021-04818

Association of Maternal SARS-CoV-2 Infection in Pregnancy With Neonatal Outcomes. Norman M, Navér L, Söderling J, et al (2021), JAMA (Journal of the American Medical Association) vol 325, no 20, 25 May 2021, pp 2076-2086

Importance The outcomes of newborn infants of women testing positive for SARS-CoV-2 in pregnancy is unclear.

Objective To evaluate neonatal outcomes in relation to maternal SARS-CoV-2 test positivity in pregnancy.

Design, Setting, and Participants Nationwide, prospective cohort study based on linkage of the Swedish Pregnancy Register, the Neonatal Quality Register, and the Register for Communicable Diseases. Ninety-two percent of all live births in Sweden between March 11, 2020, and January 31, 2021, were investigated for neonatal outcomes by March 8, 2021. Infants with malformations were excluded. Infants of women who tested positive for SARS-CoV-2 were matched, directly and using propensity scores, on maternal characteristics with up to 4 comparator infants.

Exposures Maternal test positivity for SARS-CoV-2 in pregnancy.

Main Outcomes and Measures In-hospital mortality; neonatal resuscitation; admission for neonatal care; respiratory, circulatory, neurologic, infectious, gastrointestinal, metabolic, and hematologic disorders and their treatments; length of hospital stay; breastfeeding; and infant test positivity for SARS-CoV-2.

Results Of 88 159 infants (49.0% girls), 2323 (1.6%) were delivered by mothers who tested positive for SARS-CoV-2. The mean gestational age of infants of SARS-CoV-2–positive mothers was 39.2 (SD, 2.2) weeks vs 39.6 (SD, 1.8) weeks for comparator infants, and the proportions of preterm infants (gestational age <37 weeks) were 205/2323 (8.8%) among infants of SARS-CoV-2–positive mothers and 4719/85 836 (5.5%) among comparator infants. After matching on maternal characteristics, maternal SARS-CoV-2 test positivity was significantly associated with admission for neonatal care (11.7% vs 8.4%; odds ratio [OR], 1.47; 95% CI, 1.26-1.70) and with neonatal morbidities such as respiratory distress syndrome (1.2% vs 0.5%; OR, 2.40; 95% CI, 1.50-3.84), any neonatal respiratory disorder (2.8% vs 2.0%; OR, 1.42; 95% CI, 1.07-1.90), and hyperbilirubinemia (3.6% vs 2.5%; OR, 1.47; 95% CI, 1.13-1.90). Mortality (0.30% vs 0.12%; OR, 2.55; 95% CI, 0.99-6.57), breastfeeding rates at discharge (94.4% vs 95.1%; OR, 0.84; 95% CI, 0.67-1.05), and length of stay in neonatal care (median, 6 days in both groups; difference, 0 days; 95% CI, −2 to 7 days) did not differ significantly between the groups. Twenty-one infants (0.90%) of SARS-CoV-2–positive mothers tested positive for SARS-CoV-2 in the neonatal period; 12 did not have neonatal morbidity, 9 had diagnoses with unclear relation to SARS-CoV-2, and none had congenital pneumonia.

Conclusions and Relevance In a nationwide cohort of infants in Sweden, maternal SARS-CoV-2 infection in pregnancy was significantly associated with small increases in some neonatal morbidities. Given the small numbers of events for many of the outcomes and the large number of statistical comparisons, the findings should be interpreted as exploratory. (Author)
[Erratum: JAMA, vol 326, no 10, 14 September 2021, p 978. https://doi.org/10.1001/jama.2021.13853]

Full URL: https://doi.org/10.1001/jama.2021.5775

2021-04599

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Antibodies in Neonatal Cord Blood After Vaccination in Pregnancy. Gill L, Jones CW (2021), Obstetrics & Gynecology vol 137, no 6, June 2021, pp 894-896

BACKGROUND:
Studies evaluating the safety and efficacy of currently available vaccines for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) do not include pregnant participants. No data are available to counsel on vaccine safety and potential for neonatal passive immunity.

CASE:
A 34-year-old multigravid patient working in health care received the Pfizer-BioNTech (BNT162b2) mRNA vaccine for SARS-CoV-2 in the third trimester of pregnancy. Uncomplicated spontaneous vaginal delivery of a female neonate with Apgar scores of 9 and 9 occurred at term. The patient's blood as well as neonatal cord blood were evaluated for SARS-CoV-2–specific antibodies. Both the patient and the neonate were positive for antibodies at a titer of 1:25,600.

CONCLUSION:
In this case, passage of transplacental antibodies for SARS-CoV-2 was shown after vaccination in the third trimester of pregnancy. (Author)

Full URL: https://doi.org/10.1097/AOG.0000000000004367

2021-04560

The impact of COVID-19 restrictions on women's pregnancy and postpartum experience in England: A qualitative exploration. Riley V, Ellis N, MacKay L, et al (2021), Midwifery vol 101, October 2021, 103061

Qualitative study aiming to explore the impact of COVID-19 restrictions on women's experiences of pregnancy and the postnatal period. Findings suggest that restrictions had a negative impact on the overall pregnancy journey, and participants struggled with the lack of information and isolation from friends and family. However, the majority of women reported positive birth experiences and felt reassured by the 'safety bubble' in the hospital setting. (LDO)

Full URL: https://doi.org/10.1016/j.midw.2021.103061

2021-04543

Baby Care Units [written answer]. House of Commons (2021), Hansard Written question 7881, 26 May 2021

Ms Nadine Dorries responds to a written question asked by Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding if he will publish a National Neonatal Roadmap to help neonatal units to return to full parent access. This question is asked in reference to the report by the charity Bliss entitled Locked Out: the impact of COVID-19 on neonatal care. (LDO)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-05-26/7881

2021-04455

Nasal expression of SARS-CoV-2 entry receptors in newborns. Heinonen S, Helve O, Andersson S, et al (2022), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 107, no 1, January 2022, pp 95-97

Background SARS-CoV-2 infection is typically mild in children. Lower expression of SARS-CoV-2 entry receptors in the nasal epithelia have been described in children compared with adults. However, data from newborns are lacking. We compared nasal expression of four SARS-CoV-2 entry receptors between term and preterm newborns and adults.

Methods Nasal scrape samples were obtained from 28 newborns (17 term and 11 preterm) and 10 adults. Reverse-transcription quantitative PCR was used to measure mRNA expression of ACE2, transmembrane serine protease 2 (TMPRSS2), neuropilin 1 (NRP1) and neuropilin 2 (NRP2) and insulin-like growth factor 1 receptor (IGF1R).

Results Expression levels of ACE2, TMPRSS2, NRP1 and NRP2 were lower in term and preterm newborns and IGF1R lower in term newborns compared with adults ($p<0.05$).

Conclusions Both term and preterm newborns, compared with adults, have lower expression of SARS-CoV-2 entry receptors in nasal epithelium. (Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-321334

2021-04394

Baby Care Units [written answer]. House of Commons (2021), Hansard Written question 7882, 26 May 2021

Nadine Dorries responds to a written question asked by Vicky Foxcroft to the Secretary of State for Health and Social Care, with reference to the findings of the report entitled Locked Out: the impact of COVID-19 on neonatal care, published by Bliss in May 2021 on the increased likelihood of mental health difficulties for parents with restricted access to neonatal units, regarding what support his Department is providing to NHS Trusts to help ensure that they can facilitate full parental presence on neonatal units. (MB)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-05-26/7882

2021-04205

Children: Coronavirus [written answer]. House of Commons (2021), Hansard Written question 6397, 24 May 2021

Jo Churchill responds to a written question from Sarah Olney to the Secretary of State for Health and Social Care, pursuant the Answer of 17 May 2021 to Question 822 on Children: Coronavirus, if his Department will make an assessment of the effect of the covid-19 outbreak on the development of children aged two years and under. (Author, edited)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-05-24/6397

2021-03846

The Australian Breastfeeding Association's response to emergencies in 2019 and 2020: Bushfires and the COVID-19 pandemic. Tawia S (2021), Breastfeeding Review vol 29, no 1, March 2021, pp 49-58

The Australian Breastfeeding Association (ABA) has always supported mothers and their families during emergencies. The response of ABA to the needs of pregnant women, breastfeeding mothers and their families during the bushfire emergencies 2019/20 and the COVID-19 pandemic is documented here.

It was vital during the bushfire emergencies, when infants and young children and their mothers and caregivers were being evacuated, that those supporting evacuees understood their needs and supported breastfeeding mothers to continue to breastfeed. ABA ensured that infant and young child feeding in emergencies)IYCF-E) information was available and shared widely. In response to the COVID-19 pandemic, ABA increased the provision of information and counselling services to pregnant women, mothers and their infants and young children, and partners and families. ABA also developed online alternatives to support and education services usually accessed face-to-face and developed additional online resources for mothers, ABA volunteers and health professionals. (Author)

2021-03810

Early Essential Newborn Care can still be used with mothers who have COVID-19 if effective infection control measures are applied. Tran HT, Huynh LT, Le CHM, et al (2021), Acta Paediatrica vol 110, no 7, July 2021, pp 1991-1994

We describe the first infant born to a woman with COVID-19 in Vietnam, by Caesarean section at 36 weeks and 5 days of gestation. The mother and baby remained together during their hospital stay and prolonged skin-to-skin contact and early and exclusive breastfeeding were achieved. This was in line with the World Health Organization's Early Essential Newborn Care (EENC) recommendations, the national Vietnamese standard of care since 2014. The baby remained virus-free throughout the 34-day postpartum follow-up.

Conclusion
The EENC approach can still be used with mothers who have COVID-19 if effective infection control measures are applied. (Author)

2021-03807

Bravo Breastfeeding Mother! A COVID Positive Mother and Midwifery Instinct. Jan R (2020), Journal of Asian Midwives vol 7, no 1, June 2020, pp 4-6

A midwife reflects on the advice she gave a COVID-positive mother who was concerned about the safety of breastfeeding her baby. (MB)

Full URL: https://paperity.org/p/256492246/reflections-bravo-breastfeeding-mother-a-covid-positive-mother-and-midwifery-instinct

---

2021-03763

Letter to the editor: COVID-19 Vaccines and Breastfeeding. Saus-Ortega C (2021), Journal of Human Lactation vol 37, no 2, May 2021, pp 273-274

No abstract available.

2021-03752

Antibodies Against SARS-CoV-2 in Human Milk: Milk Conversion Rates in the Netherlands. Juncker HG, Romijn M, Loth VN, et al (2021), Journal of Human Lactation vol 37, no 3, August 2021, pp 469-476

Background

It has been demonstrated that human milk from mothers who have been infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) contains antibodies against the virus, which could play an important role in protecting the recipient infant against coronavirus disease 2019 (COVID-19). Seroconversion is measured frequently around the world, but the milk conversion rate is unknown.

Research Aims

To determine (1) the prevalence and (2) the dynamics of immunoglobulin A (IgA) antibodies against SARS-CoV-2 in human milk amongst lactating mothers in the Netherlands.

Methods

In this large prospective cohort study, lactating mothers (N = 2312) were included between October 12, 2020 and February 24, 2021. Enzyme-linked immunosorbent assay was used to determine levels of IgA antibodies in human milk and immunoglobulin G (IgG) antibodies in serum against the ectodomain of the SARS-CoV-2 spike protein.

Results

A total of 691 (30.6%) participants had SARS-CoV-2 specific antibodies in human milk and/or serum. Of these participants, 524 (23.1%) had IgA antibodies against SARS-CoV-2 in human milk, and 356 (15.7%) had IgG antibodies against SARS-CoV-2 in serum. A total of 199 (8.8%) participants had antibodies in both human milk and serum. SARS-CoV-2 specific IgA antibodies in human milk remain present at least 10 months after a polymerase chain reaction confirmed infection.

Conclusion

The prevalence of IgA antibodies against SARS-CoV-2 in human milk was 23.1% in our cohort. This high prevalence of antibodies in human milk might lead to passive immunity in many breastfed infants and may serve as protection against COVID-19. (Author)

Full URL: https://doi.org/10.1177/08903344211018185

2021-03733

A call for zero separation – restrictive policies and their impact on neonatal care in light of COVID-19. Fuegenschuh S, Kostenzer J (2021), Infant vol 17, no 3, May 2021

More than one year into the pandemic and we are well aware that COVID-19 is affecting neonatal care. In many places, possibly in more ways than we initially appreciated. Recent scientific research has revealed that neonatal care in low- and middle-income countries has been affected to an extent that threatens the implementation of life-saving interventions.1 Reasons for this development are certainly plentiful, including the concerns of medical staff and parents about contracting the coronavirus – a worry that in many places had been accelerated by the immense pressure put on the health system. (Author)

2021-03707

Part 2: COVID-19 and knowledge for midwifery practice—impact and care of the baby. Green J, Jones L, Petty J, et al (2021), British Journal of Midwifery vol 29, no 5, May 2021, pp 286-293

It is well-known that newborn infants are more susceptible to infection due to their immature host defence mechanisms. However, in relation to the COVID-19 virus, it appears that the naivete of the neonatal immune system has afforded some protection against the inflammatory response experienced by adolescents and adults. That said, COVID-19 and the associated changes in practice and policies implemented in response to the pandemic, has had an impact on the care of the baby during the perinatal and neonatal period. This article is the second in a two-part series focusing on important care issues relating to the newborn baby specifically, taken from an integrative review of current literature within the maternal and neonatal field. This paper analyses the emerging themes from selected literature to add to a developing body of knowledge; namely, physiological differences between the newborn baby and adult, neonatal management including, preterm labour and delivery, newborn resuscitation, investigations, care of the newborn, the importance of human milk and breastfeeding, and the implications of COVID-19 restrictions. Finally, an overview of the World Health Organization guidance will be outlined for a global view and summary. (Author)

2021-03682

Neonatal family-centered care in a pandemic. Carter BS, Willis TA, Knackstedt A (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 1177-1179

Family-centered care (FCC) has become the normative practice in Neonatal ICUs across North America. Over the past 25 years, it has grown to impact clinician-parent collaborations broadly within children's hospitals as well as in the NICU and shaped their very culture. In the current COVID-19 pandemic, the gains made over the past decades have been challenged by "visitor" policies that have been implemented, making it difficult in many instances for more than one parent to be present and truly incorporated as members of their baby's team. Difficult access, interrupted bonding, and confusing messaging and information about what to expect for their newborn can still cause them stress. Similarly, NICU staff have experienced moral distress. In this perspective piece, we review those characteristics of FCC that have been disrupted or lost, and the many facets of rebuilding that are presently required. (Author)

Full URL: https://doi.org/10.1038/s41372-021-00976-0

2021-03670

Previous viral symptoms and individual mothers influenced the leveled duration of human milk antibodies cross-reactive to S1 and S2 subunits from SARS-CoV-2, HCoV-229E, and HCoV-OC43. Demers-Mathieu V, DaPra C, Mathijssen GB, et al (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 952-960

Objective

The influence of previous viral symptoms on the level and duration of human milk antibodies reactive to SARS-CoV-2, and common human coronaviruses (HCoVs) was investigated.

Study design

Antibodies reactive to S1 and S2 subunits from SARS-CoV-2, HCoV-OC43, and HCoV-229E were measured via ELISA in human milk samples collected from March to June 2020 in mothers with and without viral symptoms.

Results

The presence of viral symptoms influenced the levels of SARS-CoV-2 S2-reactive SIgA/IgA and tended to influence SARS-CoV-2 S1 SIgA/IgA and S2-reactive SIgM/IgM in human milk but did not relate to IgG. HCoV-229E S1 + S2-reactive SIgA/IgA and SIgM/IgM, as well as HCoV-OC43 S1 + S2-reactive IgG were related to the symptoms. The duration of antibody levels in human milk in mothers with viral symptoms varied between 3 and 4 months post maternal report of viral symptoms.

Conclusion

Previous viral symptoms and individual mothers may change the antibody cross-reactive levels to SARS-CoV-2 and HCoVs in human milk. (Author)

Full URL: https://doi.org/10.1038/s41372-021-01001-0

2021-03649

Intrauterine vertical SARS-CoV-2 infection: a case confirming transplacental transmission followed by divergence of the viral genome. Zaigham M, Holmberg A, Karlberg ML, et al (2021), BJOG: An International Journal of Obstetrics and Gynaecology vol 128, no 8, July 2021, pp 1388-1394

Case report of a 27-year-old woman with suspected SARS-CoV-2 who delivered via caesarean section at 34 weeks' gestation. The neonate required supplemental oxygen at birth and subsequently also tested positive after isolation. (LDO)

2021-03622

Impact of evolving practices on SARS-CoV-2 positive mothers and their newborns in the largest public healthcare system in America. Malhotra Y, Knight C, Patil UP, et al (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 970-980

Objective

The impact of evolving guidelines and clinical practices on SARS-CoV-2-positive dyads across New York City Health and Hospitals during the early peak of COVID-19.

Design

A retrospective cohort study of positive-positive (P/P), positive-negative (P/N), and positive-untested (P/U) dyads delivered from March 1 to May 9, 2020. Wilcoxon rank sum, Chi-squared, and Fisher exact tests were used to analyze demographics, clinical variables, and system-wide management practices.

Result

A total of 2598 mothers delivered. 23.8% (286/1198) of mothers tested for SARS-CoV-2 were positive. 89.7% (260/290) newborns of SARS-CoV-2-positive mothers were tested and 11 were positive. Positive-positive newborns were more likely to be breastfed (81%), be admitted to NICU, and have longer length of stay (7.5 days) than P/N and P/U newborns.

Conclusion

Our study shows that varied testing, feeding, and isolation practices resulted in favorable short-term outcomes for SARS-CoV-2-positive mothers and their newborns. High-risk populations can be safely and effectively treated in resource-limited environments. (Author)

2021-03590

COVID-19-related health worries compound the psychiatric distress experienced by families of high-risk infants. Liu CH, Mittal L, Erdei C (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 1191-1195

Correspondence piece presenting a study on increased depression and anxiety due to COVID-19 health worries among parents of infants in the neonatal intensive care unit. Parents reported symptoms of depression, generalised anxiety and feelings of loneliness, and this was heightened in those with infants who have been hospitalised for reasons other than prematurity. (LDO)

Full URL: https://doi.org/10.1038/s41372-021-01000-1

2021-03588

Vertical transmission of SARS-CoV-2: consider the denominator. Shook LL, Collier AY, Goldfarb IT, et al (2021), American Journal of Obstetrics & Gynecology MFM vol 3, no 4, July 2021, 100386

Research letter presenting a study on vertical transmission from a cohort of pregnant women with SARS-CoV-2 infection in the United States. Results indicate that there were zero cases of SARS-CoV-2 infection in the 369 infants born to mothers who tested positive. (LDO)

2021-03572

The relationship of neurodevelopmental impairment to concurrent early childhood outcomes of extremely preterm infants.
Rysavy MA, Colaizy TT, Bann CM, et al (2021), Journal of Perinatology vol 41, no 9, September 2021, pp 2270-2278

Objective
Determine how neurodevelopmental impairment (NDI) relates to concurrent outcomes for children born extremely preterm.

Study design
Retrospective cohort study children born 22 0/7–26 6/7 weeks' gestation at NICHD Neonatal Research Network hospitals. Outcomes were ascertained at 18–22 months' corrected age.

Result
Of 6562 children, 2618 (40%) died and 441 (7%) had no follow-up. Among the remaining 3483 children, 825 (24%), 1576 (45%), 657 (19%), and 425 (12%) had no, potential/mild, moderate, and severe NDI, respectively. Rehospitalization, respiratory medications, surgery, and medical support services were associated with greater NDI severity but affected >10% of children without NDI. Rehospitalization occurred in 40% of children with no NDI (mean (SD): 1.7 (1.3) episodes).

Conclusion
Medical, functional, and social outcomes at 18–22 months' corrected age were associated with NDI; however, many children without NDI were affected. These data should contribute to counseling families and the design of studies for childhood outcomes beyond NDI. (Author)

Full URL: https://doi.org/10.1038/s41372-021-00999-7

2021-03571

Care of hospitalized infants and their families during the COVID-19 pandemic: an international survey. Litmanovitz I, Silberstein D, Butler S, et al (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 981-987

This research study explored changes in family-centered care practices for hospitalized infants and families due to the COVID-19 pandemic. This exploratory descriptive study used a 49-item online survey, distributed to health care professionals working with hospitalized infants and families. The sample consisted of 96 participants from 22 countries. Prior to the COVID-19 pandemic, 87% of units welcomed families and 92% encouraged skin-to-skin care. During the pandemic, family presence was restricted in 83% of units, while participation in infant care was restricted in 32%. Medium-sized (20–40 beds) units applied less restriction than small (<20 beds) units ($p = 0.03$). Units with single-family rooms that did not restrict parental presence, implemented fewer restrictions regarding parents' active participation in care ($p = 0.02$). Restrictions to families were not affected by geographic infection rates or developmental care education of health care professionals. Restrictions during the pandemic increased separation between the infant and family. (Author)

Full URL: https://doi.org/10.1038/s41372-021-00960-8

2021-03378

Presumptive Neonatal Multisystem Inflammatory Syndrome in Children Associated with Coronavirus Disease 2019. Divekar AA, Patamasucon P, Benjamin JS (2021), American Journal of Perinatology vol 38, no 6, May 2021, pp 632-636

Objective The study aimed to alert the neonatal community to the possibility of multisystem inflammatory syndrome in children (MIS-C) like disease in critically ill neonates born to mothers with coronavirus disease 2019 (COVID-19).

Study Design Diagnosis of MIS-C like disease was pursued after echocardiography showed severely depressed ventricular function and pathological coronary artery dilation in the setting of medically refractory multisystem organ failure and maternal COVID-19 infection. The neonate did not respond to standard medical therapy, and there was no alternative disease that could explain the clinical course. High index of clinical suspicion coupled with low risk of intravenous immunoglobulin (IVIG) prompted us to pursue IVIG administration even though the neonate did not meet classic criteria for MIS-C.

Result Following treatment with IVIG, there was rapid clinical improvement. Ventricular function improved within 15 hours and coronary artery dilation resolved in 8 days. There was no recurrence of disease during follow-up.

Conclusion COVID-19 associated MIS-C like disease has not been well described in neonates. As typical features may be conspicuously absent, a high index of suspicion is warranted in critically ill neonates born to mothers with COVID-19. Echocardiography may provide critical diagnostic information and narrow the differential diagnosis. (Author)

Full URL: https://doi.org/10.1055/s-0041-1726318

2021-03377

Management and Early Outcomes of Neonates Born to Women with SARS-CoV-2 in 16 U.S. Hospitals. Congdon JL, Kair LR, Flaherman VJ, et al (2021), American Journal of Perinatology vol 38, no 6, May 2021, pp 622-631

Objective There is a paucity of evidence to guide the clinical care of late preterm and term neonates born to women with perinatal severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. The objective of this case series is to describe early neonatal outcomes and inpatient management in U.S. hospitals.

Study Design We solicited cases of mother–infant dyads affected by novel coronavirus disease 2019 (COVID-19) from the Better Outcomes through Research for Newborns (BORN) Network members. Using a structured case template, participating sites contributed deidentified, retrospective birth hospitalization data for neonates ≥35 weeks of gestation at birth with mothers who tested positive for SARS-CoV-2 before delivery. We describe demographic and clinical characteristics, clinical management, and neonatal outcomes.

Results Sixteen U.S. hospitals contributed 70 cases. Birth hospitalizations were uncomplicated for 66 (94%) neonates in which 4 (6%) required admission to a neonatal intensive care unit. None required evaluation or treatment for infection, and all who were tested for SARS-CoV-2 were negative (n = 57). Half of the dyads were colocated (n = 34) and 40% directly breastfed (n = 28). Outpatient follow-up data were available for 13 neonates, all of whom remained asymptomatic.

Conclusion In this multisite case series of 70 neonates born to women with SARS-CoV-2 infection, clinical outcomes were overall good, and there were no documented neonatal SARS-CoV-2 infections. Clinical management was largely inconsistent with contemporaneous U.S. COVID-19 guidelines for nursery care, suggesting concerns about the acceptability and feasibility of those recommendations. Longitudinal studies are urgently needed to assess the benefits and harms of current practices to inform evidence-based clinical care and aid shared decision-making. (Author)

Full URL: https://doi.org/10.1055/s-0041-1726036

2021-03234

Covid-19 rarely transmits via breastfeeding. Anon (2020), World of Irish Nursing & Midwifery vol 28, no 10, December 2020/January 2021, p 51

Researchers in New York (1) have found that with basic infection-control measures, newborns can be breastfed skin to skin. 1. Dumitriu D. JAMA Pediatrics, vol 175, no 2, 12 October 2020, pp 157-167. (Author, edited)

Full URL: https://online.flippingbook.com/view/669323/50/

2021-03168

SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave. Carrasco I, Muñoz-Chapuli M, Vigil-Vázquez S, et al (2021), BMC Pregnancy and Childbirth vol 21, no 326, 26 April 2021

Background

Knowledge about SARS-CoV-2 infection in pregnancy and newborns is scarce. The objective of this study is to analyse clinical and epidemiological characteristics of a cohort of women infected with SARS-CoV-2 during pregnancy and their newborns exposed to SARS-CoV-2 during gestation.

Methods

Multicentric observational study of Spanish hospitals from the GESNEO-COVD cohort, participants in RECLIP (Spanish Network of Paediatric Clinical Assays). Women with confirmed SARS-CoV-2 infection by PCR and/or serology during pregnancy, diagnosed and delivering during the period 15/03/2020–31/07/2020 were included. Epidemiological, clinical, and analytical data was collected.

Results

A total of 105 pregnant women with a median of 34.1 years old (IQR: 28.8–37.1) and 107 newborns were included. Globally, almost 65% of pregnant women had some COVID-19 symptoms and more than 43% were treated for SARS-COV-2. Overall, 30.8% of pregnant women had pneumonia and 5 (4.8%) women were admitted to the intensive care unit needing invasive mechanical ventilation. There was a rate of 36.2% of caesarean sections, which was associated with pneumonia during pregnancy (OR: 4.203, CI 95%: 1.473–11.995) and lower gestational age at delivery (OR: 0.724, CI 95%: 0.578–0.906). The prevalence of preterm birth was 20.6% and prematurity was associated with pneumonia during gestation (OR: 6.970, CI95%: 2.340–22.750) and having a positive SARS-CoV-2 PCR at delivery (OR: 6.520, CI95%: 1.840–31.790). All nasopharyngeal PCR in newborns were negative at birth and one positivized at 15 days of life. Two newborns died, one due to causes related to prematurity and another of unexpected sudden death during early skin-to-skin contact after delivery.

Conclusions

Although vertical transmission has not been reported in this cohort, the prognosis of newborns could be worsened by SARS-CoV-2 infection during pregnancy as COVID-19 pneumonia increased the risk of caesarean section deliveries and preterm births. (Author)

Full URL: https://doi.org/10.1186/s12884-021-03784-8

2021-03146

Maternal and neonatal morbidity and mortality among pregnant women with and without COVID-19 infection: The INTERCOVID Multinational Cohort Study. Villar J, Ariff S, Gunier RB, et al (2021), JAMA Pediatrics 22 April 2021, online

Importance: Detailed information about the association of COVID-19 with outcomes in pregnant individuals compared with not-infected pregnant individuals is much needed.

Objective: To evaluate the risks associated with COVID-19 in pregnancy on maternal and neonatal outcomes compared with not-infected, concomitant pregnant individuals.

Design, setting, and participants: In this cohort study that took place from March to October 2020, involving 43 institutions in 18 countries, 2 unmatched, consecutive, not-infected women were concomitantly enrolled immediately after each infected woman was identified, at any stage of pregnancy or delivery, and at the same level of care to minimize bias. Women and neonates were followed up until hospital discharge.

Exposures: COVID-19 in pregnancy determined by laboratory confirmation of COVID-19 and/or radiological pulmonary findings or 2 or more predefined COVID-19 symptoms.

Main outcomes and measures: The primary outcome measures were indices of (maternal and severe neonatal/perinatal) morbidity and mortality; the individual components of these indices were secondary outcomes. Models for these outcomes were adjusted for country, month entering study, maternal age, and history of morbidity.

Results: A total of 706 pregnant women with COVID-19 diagnosis and 1424 pregnant women without COVID-19 diagnosis were enrolled, all with broadly similar demographic characteristics (mean [SD] age, 30.2 [6.1] years). Overweight early in pregnancy occurred in 323 women (48.6%) with COVID-19 diagnosis and 554 women (40.2%) without. Women with COVID-19 diagnosis were at higher risk for preeclampsia/eclampsia (relative risk [RR], 1.76; 95% CI, 1.27-2.43), severe infections (RR, 3.38; 95% CI, 1.63-7.01), intensive care unit admission (RR, 5.04; 95% CI, 3.13-8.10), maternal mortality (RR, 22.3; 95% CI, 2.88-172), preterm birth (RR, 1.59; 95% CI, 1.30-1.94), medically indicated preterm birth (RR, 1.97; 95% CI, 1.56-2.51), severe neonatal morbidity index (RR, 2.66; 95% CI, 1.69-4.18), and severe perinatal morbidity and mortality index (RR, 2.14; 95% CI, 1.66-2.75). Fever and shortness of breath for any duration was associated with increased risk of severe maternal complications (RR, 2.56; 95% CI, 1.92-3.40) and neonatal complications (RR, 4.97; 95% CI, 2.11-11.69). Asymptomatic women with COVID-19 diagnosis remained at higher risk only for maternal morbidity (RR, 1.24; 95% CI, 1.00-1.54) and preeclampsia (RR, 1.63; 95% CI, 1.01-2.63). Among women who tested positive (98.1% by real-time polymerase chain reaction), 54 (13%) of their neonates tested positive. Cesarean delivery (RR, 2.15; 95% CI, 1.18-3.91) but not breastfeeding (RR, 1.10; 95% CI, 0.66-1.85) was associated with increased risk for neonatal test positivity.

Conclusions and relevance: In this multinational cohort study, COVID-19 in pregnancy was associated with consistent and substantial increases in severe maternal morbidity and mortality and neonatal complications when pregnant women with and without COVID-19 diagnosis were compared. The findings should alert pregnant individuals and clinicians to implement strictly all the recommended COVID-19 preventive measures. (Author)

Full URL: https://doi.org/10.1001/jamapediatrics.2021.1050

2021-02858

The Rise of Tele-Mental Health in Perinatal Settings. Geller PA, Spiecker N, Cole JCM, et al (2021), Seminars in Perinatology vol 45, no 5, August 2021, 151431

We discuss the use of tele-mental health in settings serving expectant parents in fetal care centers and parents with children receiving treatment in neonatal intensive care units within a pediatric institution. Our emphasis is on the dramatic rise of tele-mental health service delivery for this population in the wake of the onset of the COVID-19 pandemic in the U.S., including relevant practice regulations, challenges and advantages associated with the transition to tele-mental health in these perinatal settings. (Author)

2021-02856

Telemedicine use in neonatal follow-up programs – What can we do and what we can't – Lessons learned from COVID-19. DeMauro SB, Duncan AF, Hurt H (2021), Seminars in Perinatology vol 45, no 5, August 2021, 151430

Little empirical data support the use of telemedicine to provide medical and developmental follow-up care to preterm and high-risk infants after hospital discharge. Nevertheless, the COVID-19 pandemic temporarily rendered telemedicine the only means by which to provide essential follow-up care to this population. In this article we discuss our institution's experience with rapid implementation of telemedicine in a multi-site neonatal follow-up program as well as benefits and limitations of the use of telemedicine in this context. Finally, we discuss the current problems that must be solved in order to optimize telemedicine as a tool for providing comprehensive, multidisciplinary medical and developmental care to high risk infants and their families. (Author)

2021-02814

Severe acute respiratory syndrome coronavirus 2 detected in placentas of 2 coronavirus disease 2019–positive asymptomatic pregnant women—case report. Sanchez J, Vigil-De Gracia P, Guerrero E, et al (2021), AJOG Global Reports vol 1, no 1, February 2021, 100001

There is limited evidence regarding severe acute respiratory syndrome coronavirus 2 infection in the placenta of pregnant women who tested positive, and if this could be a route for vertical transmission of the virus in utero. We present the cases of 2 pregnant women in their third trimester who were admitted for delivery by cesarean delivery and who, through universal screening, tested positive for coronavirus disease 2019. The maternal and fetal sides of the placenta were sectioned from both patients for viral analysis. Real-time polymerase chain reaction analysis of the placental-extracted RNA revealed a severe acute respiratory syndrome coronavirus 2 infection on the fetal side of the placenta in both patients. The virus was isolated from the patient with the lowest cycle threshold value on the fetal side of the placenta. Whole genome sequencing showed that the virus detected in this placenta was from the B1 lineage. Immunohistochemical analysis of the placental tissue detected severe acute respiratory syndrome coronavirus 2 in the endothelial cells of chorionic villi vessels proximal to both the maternal and fetal sides, with a granular cytoplasmic pattern and perinuclear reinforcement. Histologic examination of the placenta also detected a dense infiltrate of lymphoid cells around decidual vessels and endothelial cells with cytopathic changes, especially on the maternal side. Nasopharyngeal swabs from the infants that were subjected to reverse transcription quantitative polymerase chain reaction testing were negative for severe acute respiratory syndrome coronavirus 2 at 24 hours after birth. A follow-up analysis of the infants for immunoglobin G and immunoglobin M expression, clinical manifestations, and long-term developmental abnormalities is recommended. (Author)

Full URL: https://doi.org/10.1016/j.xagr.2020.100001

2021-02757

The Baby Blind-Spot. Hogg S (2021), International Journal of Birth and Parent Education vol 8, no 3, April 2021, pp 43-44

Column from Sally Hogg on the impact of COVID-19 on parents and their babies. Discusses the negative impacts of prenatal anxiety during the pandemic. (LDO)

2021-02754

Birdie's Tree: Supporting social emotional wellbeing of babies and young children in a changing world. Baldwin A, De Young A (2021), International Journal of Birth and Parent Education vol 8, no 3, April 2021, pp 34-37

COVID-19 has highlighted the social and emotional needs of babies and young children during natural hazards and other disruptive societal events such as pandemics. Caregivers can help by providing warm and responsive caregiving, maintaining or re-establishing familiar routines, providing age-appropriate information and gently correcting misperceptions, regularly doing things outside the home when possible, and limiting children's exposure to media about the event. It's important that caregivers are supported in their own mental health and wellbeing, so they can care for children with calmness and optimism. Talking, playing and reading stories with children can help them understand what's happening and work through 'big feelings' like anger, sadness, worry, fear and loneliness. The Birdie's Tree storybooks and resources, produced by the Queensland Centre for Perinatal and Infant Mental Health, are specifically designed to help support the social emotional wellbeing of children aged 0-4 through disruptive events. These resources can be freely accessed through the Birdie's Tree website. (Author, edited)

2021-02703

Baby Care Units: Nurses [written answer]. House of Commons (2020), Hansard Written question 133067, 30 December 2020

Nadhim Zahawi responds to a written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, with reference to the findings of the National Neonatal Audit Programme, published November 2020, that 37 per cent of neonatal intensive care unit shifts met the qualified in speciality (QIS) specification for neonatal nurses in 2019, how many QIS trained neonatal nurses have been redeployed to the covid-19 vaccine programme; and what steps he plans to take to support units to backfill those specialist roles while vaccine rollout is ongoing. (Author, edited)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2020-12-30/133067

2021-02668

Intimate Partner Violence and the pandemic. Cronin L (2021), International Journal of Birth and Parent Education vol 8, no 3, April 2021, pp 16-21

Explores the increase in intimate partner violence towards women and children during the COVID-19 pandemic. Discusses the physical, emotional and social impacts of violence towards infants and young children. (LDO)

2021-02666

Understanding the needs of young children and families during the pandemic: Insights from the early stages of COVID-19. Anon (2021), International Journal of Birth and Parent Education vol 8, no 3, April 2021, pp 8-11

This article is adapted from 'A Better Start – Responding to COVID-19', published in the UK by The National Lottery Community Fund in September 2020 (1). The report refers to the five A Better Start areas in England (Blackpool, Bradford, Nottingham, Lambeth, Southend-on-Sea). These areas have increased needs, based on data on deprivation and child and maternal health outcomes. The report identified the profound impact of COVID-19 on very young children and families.

1. The National Lottery Community Fund. A Better Start - responding to COVID-19. September 2020. https://www.tnlcommunityfund.org.uk/media/insights/documents/ABS-reponding-to-covid19.pdf. (Author, edited)

2021-02662

COVID-19: A lasting legacy. Nolan M (2021), International Journal of Birth and Parent Education vol 8, no 3, April 2021, p 2

Mary Nolan, Editor, reflects on the impact of the pandemic on the education and life chances of our youngest children. (Author)

2021-02573

Multisystem inflammatory syndrome in a neonate, temporally associated with prenatal exposure to SARS-CoV-2: a case report. Kappanayil M, Balan S, Alawani S, et al (2021), The Lancet Child & Adolescent Health vol 5, no 4, April 2021, pp 304-308

Presents the case of a 24-day-old neonate admitted to the paediatric cardiac intensive care unit with severe hyperinflammatory syndrome. The baby's mother had tested positive for COVID-19 at 31 weeks' gestation. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(21)00055-9

2021-02511

SOGC Statement on the COVID-19 vaccines and rare adverse outcomes of thrombosis associated with low platelets. Society of Obstetricians and Gynaecologists of Canada (2021), Ottowa, Canada: SOGC 20 April 2021

Statement from the Society of Obstetricians and Gynaecologists of Canada (SOGC) on COVID-19 vaccination in pregnancy and rare adverse outcomes. SOGC supports the use of all available COVID-19 vaccines approved in Canada in any pregnancy trimester and during breastfeeding in accordance with regional eligibility. (LDO)

Full URL: https://sogc.org/common/Uploaded%20files/Latest%20News/EN_Statement-COVID-19_vaccines_rare_adverse_thrombosis.pdf

---

2021-02488

Maternal, neonatal and placental characteristics of SARS-CoV-2 positive mothers. Zhang P, Heyman T, Greechan M, et al (2021), Journal of Maternal-Fetal & Neonatal Medicine 28 February 2021, online

Background

COVID19 is caused by a newly identified severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) that affects pregnant women equally to the general population. How SARS-CoV2 affects the mothers, the neonates and the placental pathology remain controversial.

Objective

To explore the effects of maternal SARS-CoV2 infection on the neonates and placental pathology in comparison to those from the normal pregnancies.

Study design

Maternal, neonatal and placental pathology data were collected from medical records between March and August 2020 from New York Presbyterian- Brooklyn Methodist Hospital. The data from a total 142 neonates and 101 placentas from SARS-CoV2 positive mothers were compared with those from SARS-CoV2 negative mothers.

Results

There were 142 SARS-CoV2 positive mothers within the study group, and 43 (36%) of them showed various degrees of COVID19 related clinical symptoms including fever (13.8%), cough (5.7%), loss of taste/smell (anosmia)(5.6%), shortness of breath (2.4%), muscle ache (2.4%), headache (1.6%) and pneumonia (0.8%). A total 142 neonates were born to the SARS-CoV-2 positive mothers, and only 1 neonate tested positive for SARS-CoV2 in the first 24 h. Two additional neonates were initially tested negative in first 24 h, and later tested positive on day 7 and the 1 month visit, and all these neonates were asymptomatic and had no sequelae. There was no increase of pre-term labor and delivery or NICU admissions from SARS-CoV2 positive mothers. Examination of 101 placentas from SARS-CoV2 positive mothers and 121 placentas from SARS-CoV2 negative mothers revealed no increase of placental pathologic features. There were more vaginal deliveries and more meconium stain of fetal membranes from the SARS-CoV2 positive mothers. Previous reports of more maternal vascular malperfusion and fetal vascular malperfusion were not demonstrated in our current data.

Conclusion

Although SARS-CoV2 is a significant risk to the pregnant women (mothers) and general population, there is no increased risk for neonates. Vertical transmission is rare, and perinatal transmission can also occur. There is no increased frequency of placental abnormalities in both maternal and fetal circulation. (Author)

2021-02466

Global investment is needed so that countries can reduce neonatal mortality to below 12 deaths per 1000 live births by 2030. Persson LÅ (2021), Acta Paediatrica vol 110, no 1, January 2021, pp 14-16

Editorial discussing the Sustainable Development Goals and the strategy to reduce neonatal mortality to 12 per 1000 live births or lower by 2030. Highlights an article by Cavallin et al (1) which analyses the management of newborn babies in Ethiopia.

1. Cavallin F et al. Acta Paediatrica, vol 110, no 1, January 2021, pp 68-71. https://doi.org/10.1111/apa.15463. (LDO)

2021-02465

Aerosol generation by respiratory support of neonates may be low. Poorisrisak P, Bivolarova MP, Bekö G, et al (2021), Acta Paediatrica vol 110, no 6, June 2021, pp 1810-1811

Brief report aiming to measure average aerosol particle mass concentration and size distribution near infants receiving respiratory support in the neonatal intensive care unit. This study may be used to assess risk of aerosol transmission from infants with COVID-19 to health care staff during respiratory support. (LDO)

2021-02461

Using the COVID-19 as an excuse for unjustified devaluation of preterm infants. Haward MF, Janvier A, Lorenz JM (2021), Acta Paediatrica vol 110, no 4, April 2021, pp 1097-1099

Editorial discussing the ethics of providing care to premature infants during the COVID-19 pandemic. The authors disagree with Kaempf et al (1) and suggest that depriving care to extremely premature infants may be seen as coercive.

1. Kaempf JW et al. Acta Paediatrica, vol 110, no 4, April 2021, pp 1100-1103. (LDO)

2021-02416

SARS-CoV-2 detection in human milk: a systematic review. Kumar J, Meena J, Yadav A, et al (2021), Journal of Maternal-Fetal & Neonatal Medicine 8 February 2021, online

Purpose

To synthesize the current evidence for the presence of SARS-CoV-2 RNA in the human milk of mothers with confirmed COVID-19 and its potential role in neonatal SARS-CoV-2 infection.

Materials and methods

Using terms related to novel coronavirus 2019 and human milk, a systematic search was performed in three electronic databases (PubMed, EMBASE, and Web of Science) for studies published between December 2019 and 15 October 2020. Published peer-reviewed studies reporting the results of RT-PCR for SARS-CoV-2 RNA in human milk in mothers with confirmed COVID-19 were included. Proportion meta-analysis of case series and prospective cohort studies was performed using STATA version 14.2 (StataCorp, College Station, TX) and pooled estimate (with 95% confidence interval) of overall incidence of SARS-CoV-2 transmission was calculated.

Results

We identified 936 records, of which 34 studies (24 case-reports, 10 cohort studies) were eligible for this systematic review. A total of 116 confirmed COVID-19 lactating women (88 in cohort and 28 in case-reports) underwent RT-PCR testing in human milk, and 10 (six in case reports) were detected to have SARS-CoV-2 RNA. The overall pooled proportion (from cohort studies) for SARS-CoV-2 RNA detection in human milk was 2.16% (95% CI: 0.0–8.81%, I 2: 0%). Four studies (six patients) also reported the presence of SARS-CoV-2 specific antibodies (along with RT-PCR) in human milk.

Conclusions

The limited low-quality evidence suggests that SARS-CoV-2 RNA is detected in human milk in an extremely low proportion, however, based on current evidence no conclusion can be drawn about its infectivity and impact on the infants. In concordance with World Health Organization recommendations, exclusive breastfeeding should be considered in all cases unless any other contraindication exists. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-02363

Breastfeeding During a Pandemic: The Influence of COVID-19 on Lactation Services in the Northeastern United States.

Schindler-Ruwisch J, Phillips KE (2021), Journal of Human Lactation vol 37, no 2, May 2021, pp 260-268

Background

Pandemic-related restrictions have limited traditional models of lactation support.

Research Aims

The primary aim of this study was to determine changes to breastfeeding support services during the coronavirus-2019 pandemic according to trained lactation providers. The secondary aim was to assess strengths and limitations of telehealth services.

Methods

A prospective survey was conducted entirely online using the Qualtrics platform during June 2020. Gatekeepers at Connecticut agencies and breastfeeding networks were forwarded an anonymous survey link to distribute to eligible lactation staff.

Results

A variety of participants (N = 39) completed the survey and the majority (69.2%; n = 27) were providing only telehealth services. More than half (58.1%; n = 18) of the participants who conducting telehealth in any form, found that virtual lactation support was moderately effective compared to in-person support. Weakness of virtual support included technical and logistical difficulties, challenges assisting with latching or reading body language over the phone or online, and accurately assessing infant growth. Strengths related to virtual support included the flexibility and convenience of home-based support, expanded communication strategies, and safety from virus exposure. Further, visits with a lactation professional decreased significantly during the pandemic. Limited in-hospital and pediatrician support were also noted, particularly among groups without access to telehealth resources.

Conclusions

As a result of the pandemic and associated shifts in lactation services, breastfeeding disparities may be further exacerbated among those without equitable access to lactation support. Challenges and innovations in virtual support may influence adaptive options in the field moving forward. (Author)

Full URL: https://doi.org/10.1177/08903344211003898

2021-02344

A Case Study Supporting Lack of SARS-CoV-2 Spread to a 3-Month Old Infant Through Exclusive Breastfeeding. Liu W, Liu Y, Liu Z, et al (2021), Journal of Human Lactation vol 37, no 2, May 2021, pp 269-272

Introduction

During the Coronavirus Disease 2019 global pandemic, maternal and newborn wellbeing has received much attention. Detailed reports of infected women breastfeeding their infants are uncommon. Due to incomplete information available, full data about those infants' outcomes are lacking, and evidence of infectivity through breastfeeding has not been documented.

Main Issue

Here, we report about a mother who breastfed her infant until she was confirmed with the SARS-Cov-2 infection. After follow-up, we have confirmed that the infant, who was breastfed by the infected mother, was not infected.

Methods

A 33-year-old woman gave birth to a full-term male infant on November 8, 2019. Since birth, she had been exclusively breastfeeding the baby until she was confirmed with the SARS-Cov-2 infection on February 8, 2020. She was hospitalized, isolated from her baby, and stopped breastfeeding. Even though she remained asymptomatic, her milk was expressed using a breast pump and discarded. The mother's milk sample was collected on February 9, 2020, and the result of the nucleic acid test for COVID-19 was negative. Her infant was asymptomatic and remained virus negative. Her laboratory findings and chest Computed Tomography imaging was normal. She was treated according to the national protocol with aerosolized interferon α2β, lopinavir/ritonavir and ribavirin. Her serum SARS-CoV-2 specific antibodies(IgG and IgM) tested positive when discharged. She returned to breastfeeding after discharge.

Conclusion

Our findings suggest that breastfeeding may be less of a risk than anticipated. Additional research is needed to explore this possibility. (Author)

2021-02317

Maternal, neonatal and placental characteristics of SARS-CoV-2 positive mothers. Zhang P, Heyman T, Greechan M, et al (2021), Journal of Maternal-Fetal & Neonatal Medicine 28 February 2021, online

Background

COVID19 is caused by a newly identified severe acute respiratory syndrome coronavirus 2 (SARS-CoV2) that affects pregnant women equally to the general population. How SARS-CoV2 affects the mothers, the neonates and the placental pathology remain controversial.

Objective

To explore the effects of maternal SARS-CoV2 infection on the neonates and placental pathology in comparison to those from the normal pregnancies.

Study design

Maternal, neonatal and placental pathology data were collected from medical records between March and August 2020 from New York Presbyterian- Brooklyn Methodist Hospital. The data from a total 142 neonates and 101 placentas from SARS-CoV2 positive mothers were compared with those from SARS-CoV2 negative mothers.

Results

There were 142 SARS-CoV2 positive mothers within the study group, and 43 (36%) of them showed various degrees of COVID19 related clinical symptoms including fever (13.8%), cough (5.7%), loss of taste/smell (anosmia)(5.6%), shortness of breath (2.4%), muscle ache (2.4%), headache (1.6%) and pneumonia (0.8%). A total 142 neonates were born to the SARS-CoV-2 positive mothers, and only 1 neonate tested positive for SARS-CoV2 in the first 24 h. Two additional neonates were initially tested negative in first 24 h, and later tested positive on day 7 and the 1 month visit, and all these neonates were asymptomatic and had no sequelae. There was no increase of pre-term labor and delivery or NICU admissions from SARS-CoV2 positive mothers. Examination of 101 placentas from SARS-CoV2 positive mothers and 121 placentas from SARS-CoV2 negative mothers revealed no increase of placental pathologic features. There were more vaginal deliveries and more meconium stain of fetal membranes from the SARS-CoV2 positive mothers. Previous reports of more maternal vascular malperfusion and fetal vascular malperfusion were not demonstrated in our current data.

Conclusion

Although SARS-CoV2 is a significant risk to the pregnant women (mothers) and general population, there is no increased risk for neonates. Vertical transmission is rare, and perinatal transmission can also occur. There is no increased frequency of placental abnormalities in both maternal and fetal circulation.

2021-02255

Family-centered care management strategies for term and near-term neonates with brief hospitalization in a level III NICU in Shenzhen, China during the time of COVID-19 pandemic. Yi Y-Z, Su T, Jia Y-Z, et al (2021), Journal of Maternal-Fetal & Neonatal Medicine 22 March 2021, online

Background

Adopting the family-centered care (FCC) approach in the neonatal care has been shown to improve breastfeeding rate and parental satisfaction. To minimize the transmission of COVID-19, family visit in neonatal intensive care unit (NICU) was suspended in China. In order to maintain the benefits of FCC, the Hong Kong University-Shenzhen Hospital NICU modified FCC strategies. We evaluated the effects of new strategies and aimed to share our results and experience with other NICUs during the COVID-19 pandemic.

Methods

Using prospectively collected hospital databases, we retrospectively compared the demographic and clinical data of neonates, rates of breastfeeding at discharge, nosocomial infection and parental satisfaction one month before (open group) and after (closed group) the implementation of alternative FCC management strategies when family visit was suspended during COVID-19 pandemic.

Results

During the COVID-19 pandemic, we organized a multidisciplinary task force and adopted strategies of triage and screening, management of suspected infants, and breastfeeding promotion with effective communication. The nosocomial infection rate and parental satisfaction for open and closed groups (144 and 108 term and near-term neonates with brief hospitalization, respectively) were not different (1% vs. 0%, p = 1.00; 98.6 vs. 98.8, p = .80; respectively). Breastfeeding rate at discharge decreased but the difference was not significant (74% vs. 80%, p = .29).

Conclusions

In our experience, in term and near-term neonates with brief hospitalization, the alternative FCC strategies maintained high parental satisfaction without increased nosocomial infection rate, but strong support for breastfeeding was needed. Through multidisciplinary collaboration, the continuation of “modified” FCC in a level III NICU is feasible in the context of COVID-19 pandemic with reduced family visitation and participation in the care.

2021-02251

Assessment of Respiratory Function in Infants and Young Children Wearing Face Masks During the COVID-19 Pandemic.
Lubrano R, Bloise S, Testa A, et al (2021), JAMA Network Open vol 4, no 3, March 2021, e210414

Importance Face masks have been associated with effective prevention of diffusion of viruses via droplets. However, the use of face masks among children, especially those aged younger than 3 years, is debated, and the US Centers for Disease Control and American Academy of Physicians recommend the use of face mask only among individuals aged 3 years or older.

Objective To examine whether the use of surgical facial masks among children is associated with episodes of oxygen desaturation or respiratory distress.

Design, Setting, and Participants This cohort study was conducted from May through June 2020 in a secondary-level hospital pediatric unit in Italy. Included participants were 47 healthy children divided by age (ie, group A, aged ≤24 months, and group B, aged >24 months to ≤144 months). Data were analyzed from May through June 2020.

Interventions All participants were monitored every 15 minutes for changes in respiratory parameters for the first 30 minutes while not wearing a surgical face mask and for the next 30 minutes while wearing a face mask. Children aged 24 months and older then participated in a walking test for 12 minutes.

Main Outcomes and Measures Changes in respiratory parameters during the use of surgical masks were evaluated.

Results Among 47 children, 22 children (46.8%) were aged 24 months or younger (ie, group A), with 11 boys (50.0%) and median (interquartile range [IQR]) age 12.5 (10.0-17.5) months, and 25 children (53.2%) were aged older than 24 months to 144 months or younger, with 13 boys (52.0%) and median (IQR) age 100.0 (72.0-120.0) months. During the first 60 minutes of evaluation in the 2 groups, there was no significant change in group A in median (IQR) partial pressure of end-tidal carbon dioxide (Petco2; 33.0 [32.0-34.0] mm Hg; P for Kruskal Wallis = .59), oxygen saturation (Sao2; 98.0% [97.0%-99.0%]; P for Kruskal Wallis = .61), pulse rate (PR; 130.0 [115.0-140.0] pulsations/min; P for Kruskal Wallis = .99), or respiratory rate (RR; 30.0 [28.0-33.0] breaths/min; P for Kruskal Wallis = .69) or for group B in median (IQR) Petco2 (36.0 [34.0-38.0] mm Hg; P for Kruskal Wallis = .97), Sao2 (98.0% [97.0%-98.0%]; P for Kruskal Wallis = .52), PR (96.0 [84.0-104.5] pulsations/min; P for Kruskal Wallis test = .48), or RR (22.0 [20.0-25.0] breaths/min; P for Kruskal Wallis = .55). After the group B walking test, compared with before the walking test, there was a significant increase in median (IQR) PR (96.0 [84.0-104.5] pulsations/min vs 105.0 [100.0-115.0] pulsations/min; P < .02) and RR (22.0 [20.0-25.0] breaths/min vs 26.0 [24.0-29.0] breaths/min; P < .05).

Conclusions and Relevance This cohort study among infants and young children in Italy found that the use of facial masks was not associated with significant changes in Sao2 or Petco2, including among children aged 24 months and younger.

Full URL: https://doi.org/10.1001/jamanetworkopen.2021.0414

2021-02240

Parental access to neonatal units: inconsistency during the COVID-19 pandemic. Fonfe A, Clements D, McKechnie L (2021), Infant vol 17, no 2, March 2021

An electronic survey was conducted to determine policy changes to parental access on neonatal units during the COVID-19 pandemic in the UK. The survey found that all responding units changed their policies and in many, parents were not allowed to visit their baby together. The survey highlights potential negative effects these policy changes are having on babies, their families and neonatal staff. Allowing parents to spend time with their baby together in a safe way during this pandemic should be a priority in neonatal care and this article considers ways in which the neonatal team can support this. (Author)

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

2021-02235

Neonatal SARS-CoV-2 infection: is this a vertical transmission?. Adeniyi F, Rath S, Wey Y (2021), Infant vol 17, no 2, March 2021

Neonatal COVID-19, its manifestations and transmission, remains unclear. As the pandemic continues more evidence will emerge but so far, vertical transmission of COVID-19 is rare with just a few reports in the literature.1 We share our experience of managing a preterm newborn with COVID-19 in our neonatal intensive care unit (NICU) where the vertical route seems the most likely mode of transmission. (Author)

2021-02195

Clinical Characteristics and Disease Severity Among Infants With SARS-CoV-2 Infection in Montreal, Quebec, Canada. Panetta L, Proulx C, Drouin O, et al (2020), JAMA Network Open vol 3, no 12, December 2020, e2030470

This case series describes clinical characteristics and disease severity in infants who had SARS-CoV-2 infection in Montreal, Quebec, Canada.

Full URL: https://doi.org/10.1001/jamanetworkopen.2020.30470

2021-02187

Assessment of Maternal and Neonatal SARS-CoV-2 Viral Load, Transplacental Antibody Transfer, and Placental Pathology in Pregnancies During the COVID-19 Pandemic. Edlow AG, Li JZ, Collier A-RY, et al (2020), JAMA Network Open vol 3, no 12, December 2020, e2030455

Importance Biological data are lacking with respect to risk of vertical transmission and mechanisms of fetoplacental protection in maternal severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.

Objective To quantify SARS-CoV-2 viral load in maternal and neonatal biofluids, transplacental passage of anti–SARS-CoV-2 antibody, and incidence of fetoplacental infection.

Design, Setting, and Participants This cohort study was conducted among pregnant women presenting for care at 3 tertiary care centers in Boston, Massachusetts. Women with reverse transcription–polymerase chain reaction (RT-PCR) results positive for SARS-CoV-2 were recruited from April 2 to June 13, 2020, and follow-up occurred through July 10, 2020. Contemporaneous participants without SARS-CoV-2 infection were enrolled as a convenience sample from pregnant women with RT-PCR results negative for SARS-CoV-2.

Exposures SARS-CoV-2 infection in pregnancy, defined by nasopharyngeal swab RT-PCR.

Main Outcomes and Measures The main outcomes were SARS-CoV-2 viral load in maternal plasma or respiratory fluids and umbilical cord plasma, quantification of anti–SARS-CoV-2 antibodies in maternal and cord plasma, and presence of SARS-CoV-2 RNA in the placenta.

Results Among 127 pregnant women enrolled, 64 with RT-PCR results positive for SARS-CoV-2 (mean [SD] age, 31.6 [5.6] years) and 63 with RT-PCR results negative for SARS-CoV-2 (mean [SD] age, 33.9 [5.4] years) provided samples for analysis. Of women with SARS-CoV-2 infection, 23 (36%) were asymptomatic, 22 (34%) had mild disease, 7 (11%) had moderate disease, 10 (16%) had severe disease, and 2 (3%) had critical disease. In viral load analyses among 107 women, there was no detectable viremia in maternal or cord blood and no evidence of vertical transmission. Among 77 neonates tested in whom SARS-CoV-2 antibodies were quantified in cord blood, 1 had detectable immunoglobuilin M to nucleocapsid. Among 88 placentas tested, SARS-CoV-2 RNA was not detected in any. In antibody analyses among 37 women with SARS-CoV-2 infection, anti–receptor binding domain immunoglobin G was detected in 24 women (65%) and anti-nucleocapsid was detected in 26 women (70%). Mother-to-neonate transfer of anti–SARS-CoV-2 antibodies was significantly lower than transfer of anti-influenza hemagglutinin A antibodies (mean [SD] cord-to-maternal ratio: anti–receptor binding domain immunoglobin G, 0.72 [0.57]; anti-nucleocapsid, 0.74 [0.44]; anti-influenza, 1.44 [0.80]; $P < .001$). Nonoverlapping placental expression of SARS-CoV-2 receptors angiotensin-converting enzyme 2 and transmembrane serine protease 2 was noted.

Conclusions and Relevance In this cohort study, there was no evidence of placental infection or definitive vertical transmission of SARS-CoV-2. Transplacental transfer of anti-SARS-CoV-2 antibodies was inefficient. Lack of viremia and reduced coexpression and colocalization of placental angiotensin-converting enzyme 2 and transmembrane serine protease 2 may serve as protective mechanisms against vertical transmission.

Full URL: https://doi.org/10.1001/jamanetworkopen.2020.30455

2021-02178

High Levels of Interferon-Alpha Expressing Macrophages in Human Breast Milk During SARS-CoV-2 Infection: A Case Report.

Yu JC, Khodadadi H, Lopes Salles É, et al (2021), Breastfeeding Medicine vol 16, no 5, May 2021, pp 439-442

Introduction: In addition to hand washing and wearing masks, social distancing and reducing exposure time to <15 minutes are the most effective measures against the spread of COVID-19. Unfortunately, three of these guidelines are very difficult, if not impossible, for nursing babies: they cannot wear masks, stay six feet away from the lactating breasts, nor consistently finish within 15 minutes while nursing. We report a case of a nursing mother with SARS-CoV-2 infection, documenting changes of immune cells and cytokines in breast milk with and without the infection.

Case Description: With Institutional Review Board (IRB) approval, we obtained expressed breast milk samples from a lactating mother before and during SARS-CoV-2 infection as documented by reverse transcription-PCR. Using flow cytometry analysis, we measured the immune cell profiles and expression of cytokines such as interferon alpha (IFNα) in milk leukocytes before and during infection.

Results: There was an eightfold increase in IFNα+ milk leukocytes, from 1% before SARS-CoV-2 infection to 8% when actively infected. The milk macrophages showed the highest increase in IFNα expression. Both T and B lymphocytes showed mild increase. Innate lymphoid cells, neutrophils, and natural killer cells showed no increase in IFNα expression and the dendritic cells actually showed a reduction.

Conclusion: We document the presence and high expression of IFNα in the breast milk macrophages of a lactating mother with confirmed COVID-19, compared with her milk before the infection. (Author)

Full URL: https://doi.org/10.1089/bfm.2020.0369

2021-02164

Comparison of Severe Acute Respiratory Syndrome Coronavirus 2-Specific Antibodies' Binding Capacity Between Human Milk and Serum from Coronavirus Disease 2019-Recovered Women. Demers-Mathieu V, DaPra C, Medo E (2021), Breastfeeding Medicine vol 16, no 5, May 2021, pp 393-401

Background: Human milk from coronavirus disease 2019 (COVID-19)-recovered women may be useful as oral antibody therapy to prevent severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and provide long-term immunity to neonates and young children. As convalescent plasma is already used as antibody therapy, this study aimed to compare the binding capacity of antibodies specific to the receptor-binding domain (RBD) of SARS-CoV-2 between human milk and serum from COVID-19-recovered women.

Materials and Methods: The areas under the curve (AUCs) for IgA, IgM, and IgG specific to the SARS-CoV-2 RBD in human milk and serum samples were measured using enzyme-linked immunosorbent assay. Milk samples were collected from 12 COVID-19-recovered women, while serum samples were from 10 COVID-19-recovered women. The antibody concentrations were also determined.

Results: Our study reveals that SARS-CoV-2 RBD-specific antibody titers differed between human milk and serum samples from COVID-19-recovered women. When the AUCs were not divided by the antibody concentration, SARS-CoV-2 RBD-specific IgA, IgM, and IgG levels were higher in the serum sample group than the human milk group ($p < 0.001$). However, the titers of SARS-CoV-2 RBD-specific IgM (AUC/µg of IgM) and IgG (AUC/µg of IgG) were higher in human milk samples than serum samples ($p < 0.05$). The titer of SARS-CoV-2 RBD-specific IgA (AUC/mg of IgA) was higher in the serum sample group than the human milk group ($p < 0.01$).

Conclusions: Human milk antibodies specific to the RBD of SARS-CoV-2 must be purified to obtain comparable binding capacity observed with SARS-CoV-2 RBD-specific serum antibodies. (Author)

Full URL: https://doi.org/10.1089/bfm.2020.0381

2021-02062

Pregnancy, Postpartum Care, and COVID-19 Vaccination in 2021. Rasmussen SA, Jamieson DJ (2021), JAMA (Journal of the American Medical Association) Vol 325, no 11, 16 March 2021, pp 1099-1100

This JAMA Insights review summarizes the epidemiology of SARS-CoV-2 infection in pregnant and lactating women, its effects on perinatal outcomes, and compiles guidance from the CDC, FDA, and obstetrics-gynecology specialty organizations on the safety of coronavirus vaccines during pregnancy and while breastfeeding.

Full URL: https://doi.org/10.1001/jama.2021.1683

2021-02061

COVID-19 Vaccination in Pregnant and Lactating Women. Adhikari EH, Spong CY (2021), JAMA (Journal of the American Medical Association) Vol 325, no 11, 16 March 2021, pp 1039-1040

This Viewpoint discusses the need for shared decision-making when counseling pregnant and nursing women about the unstudied benefits and risks COVID-19 vaccination, calling for rigorously designed studies with real-time, proactive data collection to establish evidence as quickly as possible about coronavirus vaccine safety in mothers and their infants.

Full URL: https://doi.org/10.1001/jama.2021.1658

2021-02013

Why are so many babies dying of Covid-19 in Brazil?. Passarinho N, Barrucho L (2021), BBC News 15 April 2021

Reports that, despite the evidence that COVID-19 in babies is rarely fatal, in Brazil, 1300 young children have succumbed to the virus.

Figures from the Brazilian Ministry of Health show that between February 2020 and 15 March 2021, 852 children aged nine and under, including 518 who were less than 12 months old, died of COVID-19. But Dr Fatima Marinho believes the actual number is much higher than this, with the lack of COVID testing leading to underreporting of the disease.

Brazil has the second highest number of COVID cases in the world, and this has increased the likelihood of babies and young children contracting the illness.

Includes the personal experience of Jessika Ricarte, whose one-year-old son, Lucas, died from complications of coronavirus, two months after falling ill and having been refused a test for COVID, as his symptoms were not typical. (JSM)

Full URL: https://www.bbc.co.uk/news/world-latin-america-56696907

2021-01803

Could children born to mothers with COVID-19 be more prone to non-communicable diseases?. Malamitsi-Puchner A, Briana DD, Giudice L, et al (2021), Acta Paediatrica vol 110, no 4, April 2021, pp 1367-1368

Commentary on the potential increase in non-communicable diseases for infants born to mothers with COVID-19. The authors suggest that long-term follow-up studies are urgently needed. (LDO)

2021-01791

The aftermath of SARS-CoV-2 in NICU: saving or checking accounts? Projected cost-effectiveness analysis. Galderisi A, Lolli E, Cavicchiolo ME, et al (2021), European Journal of Pediatrics vol 180, no 5, May 2021, pp 1631-1635

In the aftermath of the SARS-CoV-2 pandemic, we revised the cost-effectiveness of the exploited interventions in neonatal intensive care unit, to redefine future strategies for hospital management. Costs were revised with respect to the lockdown R0 or under different R0 scenarios to estimate the cost-effectiveness of the screening program adopted. Weekly nasopharyngeal swabs for parents, neonates, and personnel were the major cost during the pandemic, although they effectively reduced the number of cases in our unit.

Conclusion: Parents and healthcare personnel testing appears to be an effective strategy due to the high number of contact they have within the hospital environment and outside, able to minimize the cases within our unit. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03884-1

2021-01786

Compassionate use of remdesivir in children with COVID-19. Méndez-Echevarría A, Pérez-Martínez A, Gonzalez del Valle L, et al (2021), European Journal of Pediatrics vol 180, no 4, April 2021, pp 1317-1322

Children represent a minority of total COVID-19 cases, but studies have reported severe disease and death in pediatric patients. Remdesivir (RDV) has recently demonstrated promising results in adults with COVID-19, but few data have been reported to date in children.

A nationwide multicenter observational study was conducted on children with confirmed SARS-CoV-2 receiving compassionate treatment with RDV in Spain. Eight patients were included in the study, four infants and four older children [median age 5 years old; IQR 4 months–11.6 years old]. Half of them had complex underlying medical conditions, and the rest were mostly infants (3/4). Six out of eight children needed Pediatric Intensive Care Unit Admission. No RDV-related adverse outcomes were observed in our patients. Seven have reached successful clinical outcome, but one patient with serious clinical status died due to complications. However, she received RDV very late after the first COVID-19 symptom.

Conclusions: In our cohort, most of the patients achieved successful clinical outcome, without observing adverse events. Clinical trials of RDV therapy for children with COVID-19 are urgently needed, to assess the safety, tolerability, efficacy, and pharmacokinetics of RDV in children, as this could be an effective treatment in severe cases. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03876-1

2021-01773

SARS-CoV-2 genome and antibodies in breastmilk: a systematic review and meta-analysis. Zhu F, Zozaya C, Zhou Q, et al (2021), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 106, no 5, September 2021, pp 514-521

Abstract

Objective To systematically review and meta-analyse the rate of SARS-CoV-2 genome identification and the presence of SARS-CoV-2 antibodies in breastmilk of mothers with COVID-19.

Design A systematic review of studies published between January 2019 and October 2020 without study design or language restrictions.

Setting Data sourced from Ovid Embase Classic+Embase, PubMed, Web of Science, Scopus, relevant bibliographies and the John Hopkins University COVID-19 database.

Patients Mothers with confirmed COVID-19 and breastmilk tested for SARS-CoV-2 by RT-PCR or for anti-SARS-CoV-2 antibodies.

Main outcome measures Presence of SARS-CoV-2 genome and antibodies in breastmilk.

Results We included 50 articles. Twelve out of 183 women from 48 studies were positive for SARS-CoV-2 genome in their breastmilk (pooled proportion 5% (95% CI 2% to 15%; I2=48%)). Six infants (50%) of these 12 mothers tested positive for SARS-CoV-2, with one requiring respiratory support. Sixty-one out of 89 women from 10 studies had anti-SARS-CoV-2 antibody in their breastmilk (pooled proportion 83% (95% CI 32% to 98%; I2=88%)). The predominant antibody detected was IgA.

Conclusions SARS-CoV-2 genome presence in breastmilk is uncommon and is associated with mild symptoms in infants. Anti-SARS-CoV-2 antibodies may be a more common finding. Considering the low proportion of SARS-CoV-2 genome detected in breastmilk and its lower virulence, mothers with COVID-19 should be supported to breastfeed.

Full URL: http://dx.doi.org/10.1136/archdischild-2020-321074

2021-01767

Perinatal COVID-19: review of current evidence and practical approach towards prevention and management. Vardhelli V, Pandita A, Pillai A, et al (2021), European Journal of Pediatrics vol 180, no 4, April 2021, pp 1009-1031

The clinical spectrum of the perinatal COVID-19 and prospective data on neonatal outcomes remains largely unexplored. Most of the existing literature is in the form of case series or single-centre experience. In this review, we aim to summarize available literature on the clinical spectrum of COVID-19 in neonates and mothers and suggest a practical approach towards management of clinical scenarios. This review explores the clinical characteristics and outcomes of COVID-19 in neonates born to mothers who were detected with the virus during the pregnancy. We conducted a comprehensive search of PubMed, Google Scholar and Cochrane Database of Systematic Review between November 2019 and June 2020 and screened articles related to perinatal COVID-19. This review included 786 mothers, among which 64% (504) were delivered by caesarian section. There were 3 still births and 107 (14%) were delivered preterm. Out of 793 neonates born, 629 neonates (79%) were tested after birth. The commonest symptom in neonates was respiratory distress. Respiratory support was needed in 60 neonates (7.6%), with 14 babies needing mechanical ventilation (1.8%), 25 needing non-invasive ventilation and 21 needing nasal oxygen. Only 35 of the 629 tested neonates (5.5%) were positive for COVID-19. Of the 35 positive neonates, 14 (40%) were symptomatic. The COVID-19 seems to have favourable neonatal outcomes. Majority of neonates are asymptomatic. Respiratory distress is the most common manifestation. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03866-3

2021-01766

What chances do children have against COVID-19? Is the answer hidden within the thymus?. Güneş H, Dinçer S, Acıpayam C, et al (2021), European Journal of Pediatrics vol 180, no 3, March 2021, pp 983-986

A new type of coronavirus named as SARS-CoV-2 pandemic has begun to threaten human health. As with other types of coronaviruses, SARS-CoV-2 affects children less frequently, and it has been observed that the disease is mild. In the pathogenesis of a standard viral infection, the pathogen's contact with the mucosa is initially followed by an innate immunity response. T cells are the primary decisive element in adaptive immunity capability. For this reason, the adaptive immune response mediated by the thymus is a process that regulates the immune response responsible for preventing invasive damage from a virus. Regulatory T cells (T-reg) are active during the early periods of life and have precise roles in immunomodulation. The thymus is highly active in the intrauterine and neonatal period; it begins to shrink after birth and continues its activity until adolescence. The loss of T-reg function by age results in difficulty with the control of the immune response, increased inflammation as shown in coronavirus disease (COVID-19) as an inflammatory storm. Also, the thymus is typically able to replace the T cells destroyed by apoptosis caused by the virus. Thymus and T cells are the key factors of pathogenesis of SARS-CoV-2 in children.

Conclusion: We speculated that thymus activity and T lymphocyte function in children protect them against the virus effects. Stimulating and preventing the inhibition of the thymus can be possible treatment components against COVID-19. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03841-y

2021-01763

A multicenter study on epidemiological and clinical characteristics of 125 newborns born to women infected with COVID-19 by Turkish Neonatal Society. Oncel MY, Akın IM, Kanburoglu MK, et al (2021), European Journal of Pediatrics vol 180, no 3, March 2021, pp 733-742

Limited data are available on pregnant women with COVID-19 and their neonates. We aimed to evaluate the epidemiological and clinical characteristics of newborns born to women infected with COVID-19. A multicenter cohort study was conducted among newborns born to mothers with COVID-19 in 34 neonatal intensive care units (NICUs) in Turkey. Pregnant women (n = 125) who had a positive RT-PCR test and their newborns were enrolled. Cesarean section, prematurity, and low-birthweight infant rates were 71.2%, 26.4%, and 12.8%, respectively. Eight of 125 mothers (6.4%) were admitted to an intensive care unit for mechanical ventilation, among whom six died (4.8%). Majority of the newborns (86.4%) were followed in isolation rooms in the NICU. Four of 120 newborns (3.3%) had a positive RT-PCR test result. Although samples taken on the first day were negative, one neonate became positive on the second day and the other two on the fifth day. Sample from deep tracheal aspirate was positive on the first day in an intubated case.

Conclusion: COVID-19 in pregnant women has important impacts on perinatal and neonatal outcomes. Maternal mortality, higher rates of preterm birth and cesarean section, suspected risk of vertical transmission, and low rate of breastfeeding show that family support should be a part of the care in the NICU.

Trial registration: ClinicalTrials.gov identifier: NCT04401540 (Author)

Full URL: https://doi.org/10.1007/s00431-020-03767-5

2021-01743

Universal screening of high-risk neonates, parents, and staff at a neonatal intensive care unit during the SARS-CoV-2 pandemic. Cavicchiolo ME, Trevisanuto D, Lolli E, et al (2020), European Journal of Pediatrics vol 179, no 12, December 2020, pp 1949-1955

Since February 21, 2020, SARS-CoV-2 has spread exponentially worldwide. Neonatal patients needing intensive care are considered a vulnerable population. To report the results of a policy based on multi-timepoint surveillance for SARS-CoV-2 of all neonates admitted to the neonatal intensive care unit (NICU), their parents, and all healthcare providers in a part of Italy with a high prevalence of the infection. Observational study conducted from 21 February to 21 April 2020. Intervention consisted of (a) parental triage on arrival at the neonatal ward; (b) universal testing with nasopharyngeal swabs and blood testing for SARS-CoV-2 IgM and IgG antibodies; (c) use of continuous personal protective equipment at the NICU by parents and staff. A total of 6726 triage procedures were performed on 114 parents, and 954 nasopharyngeal swabs were collected from 226 individuals. Five (2.2%) asymptomatic individuals (2 parents and 3 healthcare providers) tested positive on nasopharyngeal swabs and were kept isolated for 14 days. Of 75 admitted newborn, no one tested positive on nasopharyngeal swabs or antibody tests. Three parents presented with fever or flu-like symptoms at triage; they tested negative on swabs.

Conclusion: With universal screening of neonates, parents, and staff, there were no cases of SARS-CoV-2 infection among the neonates admitted to a NICU in an area with a high incidence of SARS-CoV-2. Our experience could be usefully compared with other strategies with a view to developing future evidence-based guidelines for managing high-risk neonates in case of new epidemics. (Author)

Full URL: https://doi.org/10.1007/s00431-020-03765-7

2021-01663

COVID-19 vaccination guidance. Australian Breastfeeding Association, New Zealand Breastfeeding Alliance, Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2021), Australian Breastfeeding Association 6 April 2021

Up to date information for breastfeeding mothers about compatability of the COVID-19 vaccine with breastfeeding.

The guidance, in the form of an infographic, was launched by the Australian Breastfeeding Association (ABA), the New Zealand Breastfeeding Alliance (NZBA) and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG). (Author)

Full URL: https://www.breastfeeding.asn.au/system/files/RANZCOG-ABA-NZBA%20COVID-19%20vaccination%20and%20breastfeeding%20infographic%20final.pdf

---

2021-01571

The Ripple Effect of a Pandemic on the Parent–Infant Dyad. Reyna BA (2021), Neonatal Network: the Journal of Neonatal Nursing vol 40, no 2, March/April 2021, pp 117-120

During the 2009 H1N1 pandemic, containment strategies aimed at limiting the spread of the virus were implemented but not to the extent as the current COVID-19 pandemic. Research is ongoing regarding disease symptomatology, transmission, and treatment for COVID-19. There are limited data regarding the effects of social distancing practices and restrictive hospital-visitation policies on the parent–infant dyad. The purpose of this commentary is to explore the implications of isolation practices on the parent–infant dyad during a pandemic. (Author)

2021-01434

Newborn antibodies to SARS-CoV-2 detected in cord blood after maternal vaccination – a case report. Paul G, Chad R (2021), BMC Pediatrics vol 21, no 138, 22 March 2021

Background

Maternal vaccination for Influenza and Tetanus, Diphtheria, acellular Pertussis (TDaP) have been well studied in terms of safety and efficacy for protection of the newborn by placental passage of antibodies. Similar newborn protection would be expected after maternal vaccination against severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus responsible for coronavirus disease 2019 (COVID-19). There is a significant and urgent need for research regarding safety and efficacy of vaccination against SARS-CoV-2 during pregnancy.

Case presentation

A vigorous, healthy, full-term female was born to a COVID-19 naïve mother who had received a single dose of messenger RNA (mRNA) vaccine for SARS-CoV-2 3 weeks prior to delivery. IgG cord blood antibodies were detected to SARS-CoV-2 at the time of birth.

Conclusion

Here, we report the first known case of an infant with SARS-CoV-2 IgG antibodies detectable in cord blood after maternal vaccination. (Author)

Full URL: https://doi.org/10.1186/s12887-021-02618-y

2021-01362

Infant bronchiolitis dramatically reduced during the second French COVID-19 outbreak. Guedj R, Lorrot M, Lecarpentier T, et al (2021), Acta Paediatrica vol 110, no 4, April 2021, pp 1297-1299

Brief report on rates of infant bronchiolitis during the second wave of the COVID-19 pandemic in France. Results demonstrate that the bronchiolitis burden dramatically decreased and this may be due to changes in hygiene and social distancing. (LDO)

2021-01361

It's time to change the recommendations on COVID-19 and human milk donations. Picaud J-C, Buffin R, Rigourd V, et al (2021), Acta Paediatrica vol 110, no 5, May 2021, pp 1405-1406

Discusses the impact of COVID-19 on breast milk donors and the treatment of donor milk from human milk banks. Presents a three-point action plan and recommendations on the collection of human milk during the pandemic. (LDO)

2021-01360

Should decision-making for active resuscitation consider non-communicable disease risks in periviable infants during the COVID-19 pandemic?. Malamitsi-Puchner A (2021), Acta Paediatrica vol 110, no 4, April 2021, p 1366

Short commentary on the ethical dilemmas of active resuscitation and mechanical ventilation for periviable infants during the COVID-19 pandemic. Concludes that these issues will persist until pregnant women are included in large scale vaccination programmes. (LDO)

2021-01300

A COVID 19 positive preterm mother and infant: a case report. George H, Mutema E (2021), Journal of Obstetrics and Gynaecology vol 41, no 8, 2021, pp 1262-1264

Case report of a pregnant woman at 31 weeks' gestation who presented with shortness of breath and a new cough and subsequently tested positive for SARS-CoV-2. The patient had worsening respiratory distress and a caesarean section was successfully performed on day three. The infant later tested positive for SARS-CoV-2 and was treated for respiratory distress syndrome. (LDO)

2021-01267

Vaccine Update. Public Health England (2021), London: PHE no 316, January 2021

This special edition of Vaccine Update includes information on the safety of COVID-19 vaccination for pregnant and breastfeeding women. Also includes guidance on COVID-19 vaccination for health and social care workers. (LDO)

Full URL: https://www.gov.uk/government/publications/vaccine-update-issue-316-january-2021-covid-19-special-edition/vaccine-update-issue-316-january-2021-covid-19-special-edition

---

2021-01263

Vaccine Update. Public Health England (2020), London: PHE no 315, December 2020

This special edition of Vaccine Update includes resources and leaflets on COVID-19 vaccination for pregnant or breastfeeding women. (LDO)

Full URL: https://www.gov.uk/government/publications/vaccine-update-issue-315-december-2020-covid-19-special-edition/vaccine-update-issue-315-december-2020-covid-19-special-edition

---

20210125-62*

Breastfeeding during the novel coronavirus (COVID-19) pandemic: guidelines and challenges. Dimopoulou D, Triantafylidou P, Daskalaki A, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 8 November 2020, online

COVID-19 pandemic has raised questions on pregnant women and newborns' management. Guidelines, issued by most international agencies and national bodies, recommend rooming-in and direct breastfeeding. In the early days of this pandemic, breastfeeding practices have been challenged by fear among both parents and healthcare workers occasionally resulting in mother-newborn separation. We herein review current breastfeeding guidelines and discuss remaining questions and challenges. As we are facing the second wave of this pandemic, more information is gathered, especially regarding possible virus transmissibility through breastfeeding, enabling more definite instructions about breastfeeding practices. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1838481

20210125-3*

The use of eHealth technologies to support communication with parents in the neonatal unit; an updated literature review for the COVID-19 era. Norris C, Al-Muzaffar I (2021), Journal of Neonatal Nursing vol 27, no 3, June 2021, pp 180-184

Introduction

Since the outbreak of COVID-19, there has been a drive towards digital healthcare solutions. This review provides an update as to how eHealth technologies have been used in neonatal intensive care unit settings to help communication with parents and parental education since the last reviews published.

Methods

A systematic search of MEDLINE and CINAHL via Ovid was conducted using the keywords 'eHealth', 'mHealth', 'telemedicine', 'neonatal', 'intensive care' and 'NICU'. CASP methodology was used to identify bias and limitations.

Results

Electronic searching yielded 69 and 39 papers respectively. Six papers were considered eligible for full text review. Four studies focussed on eHealth interventions post-discharge from NICU, two of which showed reduced emergency visits to hospital.

Conclusions

eHealth may benefit infants post-discharge from neonatal intensive care units and is generally well-received by parents. However, technological and organisational adaptions may be necessary for its wider application. More research is needed in the use of communication technologies during infants' admission, and to empirically test educational resources. (Author)

20210125-2*

Engaging parents of hospitalized neonates during a pandemic. Duff J, Curnen K, Reed A, et al (2021), Journal of Neonatal Nursing vol 27, no 3, June 2021, pp 185-187

Background

Engaging families through patient- and family-centered care (PFCC), the NICU nurse upholds the core concepts providing holistic care. The novel coronavirus (COVID-19) pandemic altered the daily routine of visiting parents to hospitals around the nation, particularly for pediatric and neonatal populations.

Methods

This paper describes innovative strategies implemented in a large Level IV NICU to promote the core concepts of PFCC that ensured parent-infant bonding while limiting exposure to a pandemic infection, such as COVID-19.

Discussion

Strategies discussed include virtual visits between parents and infants to promote bonding; virtual parent support groups to encourage information sharing; remote music therapy options which included take-home music kits; diaries, albums, and celebration boards to support participation; among others. Parent collaboration throughout implementation promoted partnership.

Conclusion

Utilizing a variety of unique and innovative approaches to promote PFCC strategies became a critical component of routine planning and care delivery for one large neonatal intensive care unit. (Author)

20210125-12*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 126072, 7 December 2020

Helen Whately responds to a written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding pursuant to the Answer of 3 December 2020 to Question 94484 on Baby Care Units: Coronavirus, what steps he is taking to ensure that covid-19 testing is made available to parents of babies in neonatal care. (Author, edited)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2020-12-07/126072

20210122-35*

Pregnancy and Breastfeeding During the COVID-19 Pandemic: Your Workplace Rights. American College of Nurse-Midwives (2020), Journal of Midwifery and Women's Health vol 65, no 6, November/December 2020, pp 835-836

Provides an overview of the reasonable adjustments employers should make for pregnant and breastfeeding women during the COVID-19 pandemic. (LDO)

20210122-12*

Clinical characteristics of confirmed COVID-19 in newborns: a systematic review. Karabay M, Çınar N, Suzan ÖK, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 19 November 2020, online

Objective

Aim of this systematic review is to investigate the available evidence describing neonatal outcomes in newborns who have SARS-CoV-2 infection in order to guide prevention of COVID-19 in newborns.

Methods

This is the study protocol for a systematic review. MEDLINE, Web of Science, PubMed, Science Direct, CINAHL, Scopus, Cochrane, TUBİTAK databases, and key words of 'Newborn' (neonatal OR clinical characteristics newborn OR infants less than 1 month OR infants less than 28 weeks OR Neonate) AND 'clinical presentation' (epidemiology OR symptoms OR clinical course OR features) AND 'COVID-19' (Coronavirus OR COVID-19 OR Sars-Cov2 OR coronavirus disease 2019 OR Novel Coronavirus OR 2019-nCoV) were searched for this systematic review. Randomized controlled trial, cross-sectional, case-control, and case reports, case reports examining neonatal outcomes in newborns who have SARS-CoV-2 infection were included. Studies were selected according to criteria around the population, intervention, comparator, outcome(s) of interest, and study design (PICOS framework). All citations and full-text articles were searched by independent five authors. The population that newborns with COVID-19 that confirmed within 28 d of birth are included. The interventions included in COVID-19 infection diagnosed via reverse transcription-polymerase chain reaction (RT-PCR) or serological. The primary outcomes were Neonatal clinical outcomes. The methodological quality of the studies was appraised using appropriate tools. Strength of the body of evidence was assessed according to the quality assessment tool for quantitative studies (QATQS).

Results

The electronic search identified 1051 records that were examined, after evaluating 35 of them were included in the study. Seven studies were research articles and twenty-eight were case reports. Methodological quality was medium. Most of the clinical characteristics of newborns were respiratory difficulty and secondly fever. Some newborns gastrointestinal (GIS) symptoms in the form of diarrhea and feeding intolerance and abdominal distension were present in 50%. The fatality case did not exist in any newborn due to COVID-19. Death occurred in one case due to prematurity.

Conclusıons

The most common symptoms in patients with COVID-19 infection in the neonatal period are respiratory tract symptoms and fever. It has been observed that the COVID-19 infection detected in the neonatal period is not fatal. However, data including more cases are needed. (Author)

20210121-19*

Is respiratory syncytial virus infection more dangerous than COVID 19 in the neonatal period?. Ozdemir SA, Soysal B, Calkavur S, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 22 November 2020, online

Objective

We aimed to compare the clinical features, laboratory findings and primary outcomes of the neonates with RSV and neonates with SARS-CoV-2 infections.

Materials and methods

This nested case-control study included the neonates who were administered in the neonatal intensive care unit (NICU) of the University of Health Sciences, Dr Behçet Uz Children's Hospital during the period of 01 March-30 April 2020. Respiratory PCR samples and COVID-19 samples were taken simultaneously. Only RSV positive and COVID-19 positive infants were compared. Demographic, epidemiological and clinical data were obtained from hospital electronic information system medical records. The chest radiographs at the admission were evaluated by using standard definitions for normal chest X-ray, atelectasis, bronchopenumonia, peribronchial thickening and hyperinflation in various lung volumes.

Results

A total of 30 infants were enrolled in the study and RSV was identified in 20/30 infants (66%). No significant differences were observed between the two groups in terms of general characteristics. Comparing to the infants with Covid-19 infections, infants with RSV infections had significantly higher rates of having oxygen support ($p = .03$). Total NICU duration time was 6.7 ± 1.6 days in COVID positive group and 11.1 ± 5.1 days in the RSV group ($p = .01$). Infants with COVID-19 had more normal chest X-rays. Infants with RSV-positive had a significantly higher proportion of atelectasis than those with COVID-19 infants ($p = .04$).

Discussion

This is the first study that compares RSV infection and COVID-19 infection. RSV infection can be more serious in the neonatal period. In cases with suspected COVID-19 infection, it should be kept in mind if atelectasis is seen on chest radiography. Respiratory failure may be more serious in RSV positive infants and RSV infection may be more dangerous for the neonatal period. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1849125

20210113-72*

Comparison of Clinical and Epidemiologic Characteristics of Young Febrile Infants with and without Severe Acute Respiratory Syndrome Coronavirus-2 Infection. Leibowitz J, Krief W, Barone S, et al (2021), The Journal of Pediatrics vol 229, February 2021, pp 41-47.e1

Objective
To determine features that distinguish febrile young infants with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.
Study design
Retrospective single-center study included febrile infants <57 days of age evaluated in the emergency department of Cohen Children's Medical Center of Northwell Health, New Hyde Park, New York, from March 1 to April 30 of 2018, 2019, and 2020. Sociodemographic and clinical features were compared between those seen during the 2020 coronavirus disease-2019 pandemic and previous years, as well as between infants with SARS-CoV-2 infection and infants without SARS-CoV-2 infection (SARS-CoV-2 negative or evaluated during 2018 and 2019).
Results
In all, 124 febrile infants <57 days of age were identified; 38 during the 2-month study period in 2018, 33 in 2019, and 53 in 2020. During 2020, fewer febrile infants had a serious bacterial infection or a positive respiratory viral panel than in prior years (6% vs 21% [P = .02]; 15% vs 53% [P < .001], respectively). SARS-CoV-2 was the most frequent pathogen detected in 2020; of 30 infants tested, 20 tested positive. Infants with SARS-CoV-2 were more likely to identify as Hispanic (P = .004), have public insurance or be uninsured (P = .01), exhibited lethargy (P = .02), had feeding difficulties (P = .002), and had lower white blood cell (P = .001), neutrophil (P < .001), and lymphocyte counts (P = .005) than the 81 infants without SARS-CoV-2 infection. None of the infants with SARS-CoV-2 had concurrent serious bacterial infection or detection of another virus. Overall, disease in infants with SARS-CoV-2 was mild.
Conclusions
During the peak of the pandemic, SARS-CoV-2 was the predominant pathogen among febrile infants. Socioeconomic, historical, and laboratory features differed significantly between infants infected or not infected with SARS-CoV-2. None of the 20 infants with SARS-CoV-2 infection had an identified coviral or serious bacterial infection. (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.10.002

20210113-32*

COVID-19: neonatal–perinatal perspectives. Barrero-Castillero A, Beam KS, Bernardini LB, et al (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 940-951

The coronavirus disease 2019 (COVID-19) pandemic, resulting from infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has caused severe and widespread illness in adults, including pregnant women, while rarely infecting neonates. An incomplete understanding of disease pathogenesis and viral spread has resulted in evolving guidelines to reduce transmission from infected mothers to neonates. Fortunately, the risk of neonatal infection via perinatal/postnatal transmission is low when recommended precautions are followed. However, the psychosocial implications of these practices and racial/ethnic disparities highlighted by this pandemic must also be addressed when caring for mothers and their newborns. This review provides a comprehensive overview of neonatal-perinatal perspectives of COVID-19, ranging from the basic science of infection and recommendations for care of pregnant women and neonates to important psychosocial, ethical, and racial/ethnic topics emerging as a result of both the pandemic and the response of the healthcare community to the care of infected individuals. (Author)

Full URL: https://doi.org/10.1038/s41372-020-00874-x

2021-01129

A Survey of Parental Experience Within the Neonatal Unit During the Coronavirus Pandemic. Loftus E, Smith A, Hayes B (2021), Irish Medical Journal vol 114, no 1, January 2021, P253

Letter to the editor presenting the results of a survey to identify parental experiences during the coronavirus pandemic. Findings indicate that 58% felt restrictions affected their ability to bond with their baby and 71% felt restrictions impacted on their partner's ability to bond. (LDO)

Full URL: http://imj.ie/a-survey-of-parental-experience-within-the-neonatal-unit-during-the-coronavirus-pandemic/

20210106-22*

Considerations for COVID-19 Vaccination in Lactation. Stuebe A (2021), Breastfeeding Medicine vol 16, no 1, January 2021, p 2

Statement from the Academy of Breastfeeding Medicine on the safety of the Pfizer/BioNtech and Moderna mRNA vaccines for breastfeeding women. Recommends that future research studies include pregnant and lactating participants. (LDO)

Full URL: https://doi.org/10.1089/bfm.2020.29172.abm

20210106-21*

President's Corner: Introduction to ABM's Statement on Considerations for COVID-19 Vaccination in Lactation. Stuebe A (2021), Breastfeeding Medicine vol 16, no 1, January 2021, p 1

The recent emergency use authorization of novel mRNA vaccines to prevent COVID-19 is a triumph for science. Less than a year after the SARS-CoV-2 virus was first identified, we have a 95% effective vaccine in production. There is much to celebrate, and there is also a yawning gap: phase 3 trials of these novel mRNA-based vaccines excluded pregnant and lactating women. This void is the product of decisions made >40 years ago to exclude pregnant and lactating women from research, with the goal of avoiding any risk to the fetus or nursing child. In the short term, this strategy avoided liability; in the long term, it has left providers and patients without clinical data to make informed decisions. Without clinical data, the Academy of Breastfeeding Medicine relied on biological plausibility and expert opinion to craft a statement on considerations for mRNA COVID-19 vaccines during lactation. The available information is reassuring; however, pregnant and lactating people deserve better than plausibility to guide medical decisions. Henceforward, phase 3 clinical trials should routinely include pregnant and lactating participants. It is time to protect pregnant and breastfeeding individuals through research, not from research. (Author)

20210106-20*

Social Support During COVID-19: Perspectives of Breastfeeding Mothers. Snyder K, Worlton G (2021), Breastfeeding Medicine vol 16, no 1, January 2021, pp 39-45

Introduction: Effective social support can have a critical influence on a mother's ability to initiate and continue breastfeeding. Coronavirus disease (COVID-19) has created unprecedented barriers for breastfeeding mothers to obtain various types of support: emotional, instrumental, informational, and appraisal. However, no research has evaluated the influence the pandemic has had on breastfeeding supports. The purpose of this study was to explore perceptions of social support among breastfeeding mothers during the COVID-19 pandemic.
Materials and Methods: A cross-sectional phenomenological approach was taken utilizing semistructured interviews (March-June 2020) with currently breastfeeding mothers (n = 29). Data were analyzed through a process of immersion and crystallization.
Results: Mothers are still able to obtain each type of support, however, support has been negatively influenced by the pandemic. Mothers reported experiencing increased stress and isolation and had an immense desire to receive in-person support from peers, family, childcare providers, and lactation specialists. Furthermore, mothers of multiple children felt if they did not already have breastfeeding knowledge from previous experiences they would be unsuccessful in breastfeeding due to their current lack of support. Conversely, a majority of mothers felt the pandemic had positively influenced their breastfeeding journeys due to concerns of formula shortages and extended maternity leaves. Finally, mothers were concerned about safely expressing breast milk on their return to work.
Conclusion: Mother's ability to obtain breastfeeding support has been negatively impacted by the pandemic due to the inability to engage with individuals in-person and the lack of access to childcare. First-time mothers may be at higher risk of early breastfeeding cessation due to lack of support. However, breastfeeding journeys have also been positively influenced by allowing mothers more time at home with their child. Resources are needed to support expressing breast milk in the workplace during COVID-19. (Author)

Full URL: https://doi.org/10.1089/bfm.2020.0200

20210106-18*

Best Practices for Human Milk Collection for COVID-19 Research. McGuire MK, Seppo A, Goga A, et al (2021), Breastfeeding Medicine vol 16, no 1, January 2021, pp 29-38

In addition to providing life-giving nutrients and other substances to the breastfed infant, human milk can also represent a vehicle of pathogen transfer. As such, when an infectious disease outbreak, epidemic, or pandemic occurs-particularly when it is associated with a novel pathogen-the question will naturally arise as to whether the pathogen can be transmitted through breastfeeding. Until high-quality data are generated to answer this question, abandonment of breastfeeding due to uncertainty can result. The COVID-19 pandemic, which was in full swing at the time this document was written, is an excellent example of this scenario. During these times of uncertainty, it is critical for investigators conducting research to assess the possible transmission of pathogens through milk, whether by transfer through the mammary gland or contamination from respiratory droplets, skin, breast pumps, and milk containers, and/or close contact between mother and infant. To promote the most rigorous science, it is critical to outline optimal methods for milk collection, handling, storage, and analysis in these situations, and investigators should openly share their methods in published materials. Otherwise, the risks of inconsistent test results from preanalytical and analytical variation, false positives, and false negatives are unacceptably high and the ability to provide public health guidance poor. In this study, we provide 'best practices' for collecting human milk samples for COVID-19 research with the intention that this will also be a useful guide for future pandemics. (Author)

Full URL: https://doi.org/10.1089/bfm.2020.0296

20210105-7*

Impact of COVID-19 on childhood vaccination counts to week 51, and vaccine coverage to November 2020 in England: interim analyses. Public Health England (2021), Health Protection Report vol 15, no 1, 5 January 2021; pp 1-23

This is the ninth in a series of reports which present an assessment of the extent of COVID-19-related impact on childhood vaccinations, based on both (a) aggregated vaccine counts of dose 1 Hexavalent and dose 1 MMR vaccinations delivered to infants/children and (b) vaccine coverage data for dose 1, 2 and 3 Hexavalent and dose 1 MMR vaccines extracted from ImmForm. This report includes vaccination counts data up to week 51, and vaccine coverage data up to November 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/949448/hpr0121-chldhd-vc_wk51b.pdf

---

2021-01043

Moderna begins testing Covid-19 vaccine on babies and young children. Anon (2021), BBC News 16 March 2021

The US drug company Moderna has begun studying its Covid-19 vaccine in children aged six months to 11 years old. (Author)

Full URL: https://www.bbc.co.uk/news/world-us-canada-56422415

2021-01041

Maternal and Infant Outcomes Associated with Maternity Practices Related to COVID-19: The COVID Mothers Study. Bartick MC, Valdés V, Giusti A, et al (2021), Breastfeeding Medicine vol 16, no 3, March 2021, pp 189-199

Background: Maternity care practices such as skin-to-skin care, rooming-in, and direct breastfeeding are recommended, but it is unclear if these practices increase the risk of clinically significant COVID-19 in newborns, and if disruption of these practices adversely affects breastfeeding.

Methods: We performed a retrospective cohort study of 357 mothers and their infants <12 months who had confirmed or suspected COVID-19. Subjects came from an anonymous worldwide online survey between May 4 and September 30, 2020, who were recruited through social media, support groups, and health care providers. Using multivariable logistic regression, Fisher's exact test, and summary statistics, we assessed the association of skin-to-skin care, feeding, and rooming-in with SARS-CoV-2 outcomes, breastfeeding outcomes, and maternal distress.

Results: Responses came from 31 countries. Among SARS-CoV-2+ mothers whose infection was ≤3 days of birth, 7.4% of their infants tested positive. We found a nonsignificant decrease in risk of hospitalization among neonates who roomed-in, directly breastfed, or experienced uninterrupted skin-to-skin care ($p > 0.2$ for each). Infants who did not directly breastfeed, experience skin-to-skin care, or who did not room-in within arms' reach, were significantly less likely to be exclusively breastfed in the first 3 months, adjusting for maternal symptoms ($p \leq 0.02$ for each). Nearly 60% of mothers who experienced separation reported feeling “very distressed,” and 29% who tried to breastfeed were unable. Presence of maternal symptoms predicted infant transmission or symptoms (adjusted odds ratio = 4.50, 95% confidence interval = 1.52–13.26, $p = 0.006$).

Conclusion: Disruption of evidence-based quality standards of maternity care is associated with harm and may be unnecessary. (Author)

2021-00967

Hospitals: Children [written answer]. House of Commons (2021), Hansard Written question 164356, 8 March 2021

Ms Nadine Dorries responds to a written question from Sir Mark Hendrick to the Secretary of State for Health and Social Care, regarding what guidance his Department has issued to help ensure that parents of (a) newborn babies and (b) young children in need of in-patient care are able to visit their children in hospital during the covid-19 outbreak. (MB)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-03-08/164356

2021-00959

Covid-19: Breastfeeding women can have vaccine after guidance turnaround. Rimmer A (2021), BMJ vol 372, 8 January 2021, n64

News item reporting that the Medicines and Healthcare Products Regulatory Agency (MRHA) has revised its guidance to allow pregnant and breastfeeding women to have the COVID-19 vaccine. Includes comments from the Royal College of Obstetricians and Gynaecologists. (LDO)

Full URL: https://doi.org/10.1136/bmj.n64

2021-00956

Coronavirus: Babies and Parents [written answer]. House of Commons (2021), Hansard Written question 163644, 5 March 2021

Ms Nadine Dorries responds to a written question from the Secretary of State for Health and Social Care, regarding what steps his Department has taken to ensure the health and safety of (a) newborn babies and (b) new parents who have been diagnosed with covid-19. (JSM)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-03-05/163644

2021-00944

Why were breastfeeding women in the UK denied the covid-19 vaccine?. Hare H, Womersley K (2021), BMJ vol 372, no 8274, 5 January 2021, n4

Commentary piece on the revised guidance from the Medicines and Healthcare Products Regulatory Agency (MHRA) allowing pregnant and breastfeeding women to receive the COVID-19 vaccine. Considers the reasons behind the initial blanket ban and compares the approach taken in the United Kingdom with approaches taken in the European Union, United States and Canada. (LDO)

Full URL: https://doi.org/10.1136/bmj.n4

2021-00529

Infant feeding initiation practices in the context of COVID-19 lockdown. Zanardo V, Tortora D, Guerrini P, et al (2021), Early Human Development vol 152, January 2021, 105286

Objective

Limited information is available regarding barriers to breastfeeding during the COVID-19 lockdown.

Study design

This study was designed as a non-concurrent case-control study on breastfeeding initiation practices, defined according to WHO, in women giving birth during lockdown, between March 8 and May 18, 2020, in the COVID-19 'hotspot' in Northeastern Italy (study group), with an antecedent puerperae-matched group (control group). Exclusive, complementary, and formula feeding practices were collected from maternal charts at hospital discharge, on the second day post-partum, when puerperae filled out the Edinburg Postnatal Depression Scale (EPDS).

Results

The COVID-19 study group presented significantly lower exclusive breastfeeding rates than the control group who members gave birth the previous year (−15%, p = 0.003), as a consequence of the significantly higher prevalence of complementary feeding practices in the former (+20%, p = 0.002). Conversely, the COVID-19 study group showed significantly higher EPDS scores (8.03 ± 4.88 vs. 8.03 ± 4.88, p < 0.005) and higher anhedonia (0.56 ± 0.65 vs. 0.18 ± 0.38, p < 0.001) and depression (0.62 ± 0.60 vs. 0.39 ± 0.44, <0.001) subscale scores. In the general linear model analysis, women practicing exclusive breastfeeding showed significantly lower EPDS scores in comparison with those practicing complementary (p = 0.003) and formula feedings (p = 0.001). Furthermore, the highest EPDS scores were observed in women adopting formula feeding, mainly during the COVID-19 quarantine (p = 0.019).

Conclusion

This study indicates that hospital containment measures adopted during lockdown in the 'hotspot' COVID-19 epidemic area of Northeastern Italy have a detrimental effect on maternal emotions and on breastfeeding exclusivity practices. (Author)

Full URL: https://doi.org/10.1016/j.earlhumdev.2020.105286

2021-00432

Breastfed 13 month-old infant of a mother with COVID-19 pneumonia: a case report. Yu Y, Li Y, Hu Y, et al (2020), International Breastfeeding Journal vol 15, no 68, 6 August 2020

Background: In China, mothers with confirmed or suspected COVID-19 pneumonia are recommended to stop breastfeeding. However, the evidence to support this guidance is lacking. There have been relatively few cases reported about direct breastfeeding an infant by a mother with SARS-CoV-2 pneumonia. Therefore, it is necessary to assess the safety of breastfeeding and the possible protective effects of breast milk on infants.

Case presentation: This report analyzes the case of a mother who continued breastfeeding her 13 month-old child when both were diagnosed with confirmed COVID-19 pneumonia. We describe the clinical presentation, diagnosis, treatment, and outcome. The presence of SARS-CoV-2 nucleic acid was determined in maternal serum, breast milk, nasopharyngeal (NP) swabs and feces, and in infant serum, NP swabs and feces. IgM and IgG antibodies against SARS-CoV-2 were assessed in maternal serum and breast milk and in infant serum. SARS-CoV-2 nucleic acid was not detected in the breast milk, and antibodies against SARS-CoV-2 were detected in the mother's serum and milk.

Conclusions: The present case further confirms that the possibility of mother-to-child transmission about SARS-CoV-2 via breast milk alone was very small, and breast milk is safe for direct feeding of infants. (Author)

Full URL: https://doi.org/10.1186/s13006-020-00305-9

2021-00431

A Case of COVID-19 in a 45-Day-Old Infant with Persistent Fecal Virus Shedding for More Than 12 Weeks. Cho SM, Ha GY (2020), Yonsei Medical Journal vol 61, no 10, October 2020, pp 901-903

In this report, we describe the case of a SARS-CoV-2 infection (COVID-19) in an infant with mild fever and diarrhea in the absence of respiratory distress. A 45-day-old male infant with COVID-19 was transferred to our pediatric department. He had mild fever and diarrhea at admission. Positive-to-negative nasal swab conversion occurred on the 21st day from the onset of symptoms. However, stool swab positivity persisted during the 6-week admission period and for 7 weeks during follow-up at an outpatient clinic after discharge. Negative conversion in a stool specimen occurred on the 142nd day from the onset of symptoms. This case highlights the potential of fecal virus shedding as an important feature of viral transmission in infants and young children. (Author)

Full URL: https://doi.org/10.3349/ymj.2020.61.10.901

2021-00337

Coronavirus (COVID-19) infection in pregnancy: Information for healthcare professionals [Version 13] [Superseded by Version 14, 25 August 2021]. Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Paediatrics and Child Health, et al (2021), London: RCOG 19 February 2021. 97 pages

NB: This version has now been superseded by version 14,
25 August 2021.

This document aims to provide guidance to healthcare professionals who care for pregnant women during the COVID-19 pandemic. It is not intended to replace existing clinical guidelines, but to act as a supplement with additional advice on how to implement standard practice during this time. The advice in this document is provided as a resource for UK healthcare professionals based on a combination of available evidence, good practice and expert consensus opinion. The priorities are: (i) The reduction of transmission of SARS-CoV-2 to pregnant women, their family members and healthcare workers. (ii) The provision of safe, personalised and woman-centred care during pregnancy, birth and the early postnatal period, during the COVID-19 pandemic. (iii) The provision of safe, personalised and woman-centred care to pregnant and postnatal women with suspected or confirmed COVID-19. This is very much an evolving situation requiring this guidance to be a living document that is under regular review and updated as new information and evidence emerges. (Author, edited)

2021-00272

Umbilical cord clamping and skin-to-skin contact in deliveries from women positive for SARS-CoV-2: a prospective observational study. Jiménez IM, López RS, Rosas EG, et al (2021), BJOG: An International Journal of Obstetrics and Gynaecology vol 128, no 5, April 2021, pp 908-915

Objective
To demonstrate that delayed cord clamping (DCC) is safe in mothers with confirmed SARS-CoV-2 infection.

Design, setting and participants
Prospective observational study involving epidemiological information from 403 pregnant women with SARS-CoV-2 between 1 March and 31 May 2020. Data were collected from 70 centres that participate in the Spanish Registry of COVID-19.

Methods
Patients' information was collected from their medical chart.

Main outcomes and measures
The rate of perinatal transmission of SARS-CoV-2 and development of the infection in neonates within 14 days postpartum.

Results
The early cord clamping (ECC) group consisted of 231 infants (57.3%) and the DCC group consisted of 172 infants (42.7%). Five positive newborns (1.7% of total tests performed) were identified with the nasopharyngeal PCR tests performed in the first 12 hours postpartum, two from the ECC group (1.7%) and three from the DCC group (3.6%). No significant differences between groups were found regarding neonatal tests for SARS-CoV-2. No confirmed cases of vertical transmission were detected. The percentage of mothers who made skin-to-skin contact within the first 24 hours after delivery was significantly higher in the DCC group (84.3% versus 45.9%). Breastfeeding in the immediate postpartum period was also significantly higher in the DCC group (77.3% versus 50.2%).

Conclusions
The results of our study show no differences in perinatal outcomes when performing ECC or DCC, and skin-to-skin contact, or breastfeeding.

2021-00214

Coronavirus: Babies and Parents [written answer]. House of Commons (2021), Hansard Written question 148815, 3 February 2021

Ms Nadine Dorries responds to a written question asked by Rebecca Long Bailey to the Secretary of State for Health and Social Care, regarding whether parent and baby groups are permitted to meet during the January 2021 COVID-19 lockdown restrictions; and what guidance his Department has published on such groups meeting. (LDO)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-02-03/148815

2021-00114

COVID-19 vaccine development: a pediatric perspective. Kamidani S, Rostad CA, Anderson EJ (2021), Current Opinion in Pediatrics vol 33, no 1, February 2021, pp 144-151

Purpose of review

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the novel coronavirus that causes coronavirus disease 2019 (COVID-19), has caused substantial morbidity and mortality. Operation Warp Speed aims to accelerate the development of a safe and effective vaccine by early 2021. Multiple vaccine candidates with reassuring safety and efficacy profiles have advanced to phase 3 clinical trials in adults. The purpose of this review is to describe the burden of COVID-19 in children, to update pediatricians about adult COVID-19 vaccine clinical trials, to discuss the importance of COVID-19 vaccine trials in children and to instill confidence in the established vaccine development and licensure processes.

Recent findings

Children of all ages are at risk for SARS-CoV-2 infection and severe disease manifestations. Children are also susceptible to downstream effects of COVID-19, including social isolation and interruption in education. Developing a pediatric COVID-19 vaccine could prevent disease, mitigate downstream effects and enable children to re-engage in their world.

Summary

Children could benefit both directly and indirectly from vaccination. In light of the safety and immunogenicity results from recent adult COVID-19 vaccine clinical trials, children should have the opportunity to be included in clinical trials in parallel to ongoing adult phase 3 clinical trials in a manner that is careful, methodical and transparent. (Author)

Full URL: https://journals.lww.com/co-pediatrics/Fulltext/2021/02000/COVID_19_vaccine_development__a_pediatric.20.aspx

2021-00112

Management of neonates after postpartum discharge and all children in the ambulatory setting during the coronavirus disease 2019 (COVID-19) pandemic. Harriel K, Nolt D, Moore S (2020), Current Opinion in Pediatrics vol 32, no 4, August 2020, pp 610-618

Purpose of review

The present coronavirus disease 2019 (COVID-19) pandemic has created additional challenges with an increased number of presumed healthy, full-term newborns being discharged at 24 h after delivery. Short lengths of stay raise the possibility of mother–infant dyads being less ready for discharge, defined as at least one of the three informants (i.e., mother, pediatrician, and obstetrician) believing that either the mother and/or infant should stay longer than the proposed time of discharge. This public health crisis has reduced the number of in-person well child visits, negatively impacting vaccine receipt, and anticipatory guidance.

Recent findings

Extra precautions should be taken during the transition period between postpartum discharge and follow-up in the ambulatory setting to ensure the safety of all patients and practice team members. This should include restructuring office flow by visit type and location, limiting in-person visits during well infant exams, instituting proper procedures for personal protective equipment and for cleaning of the office, expanding telehealth capabilities for care and education, and prioritizing universal vaccinations and routine well child screenings.

Summary

Based on current limited evidence, this report provides guidance for the postdischarge management of newborns born to mothers with confirmed or suspected disease in the ambulatory setting as well as prioritizing universal immunizations and routine well child screenings during the COVID-19 pandemic. (Author)

Full URL: https://journals.lww.com/co-pediatrics/Fulltext/2020/08000/Management_of_neonates_after_postpartum_discharge.24.aspx

---

2021-00108

Coronavirus: Children [written answer]. House of Commons (2021), Hansard Written question 142026, 22 January 2021

Helen Whately responds to a written question asked by Rachael Maskell to the Secretary of State for Health and Social Care, regarding the number of children aged (a) under one, (b) one, (c) two, (d) three, (e) four and (f) five years who have received a COVID-19 test; and what assessment his department has made of the effect of the sample size on significance in the data sets in identifying the prevalence of COVID-19. (LDO)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2021-01-22/142026

20201221-46

A crisis and an opportunity. Hogg S (2020), International Journal of Birth and Parent Education vol 7, no 4, July 2020, p 41

Column from Sally Hogg discussing the impact of COVID-19 on pregnancy, childbirth, infant development and parental mental health. (LDO)

20201221-20*

Clinical characteristics and outcomes of pregnant women with COVID-19 and the risk of vertical transmission: a systematic review. Chi J, Gong W, Gao Q (2021), Archives of Gynecology and Obstetrics vol 303, no 2, February 2021, pp 337-345

Purpose
This systematic review summarizes the clinical features and maternal-infant outcomes of 230 pregnant women (154 patients gave birth) infected with COVID-19 and their 156 infants, including the possibility and evidence of vertical transmission.
Methods
An electronic search of PubMed, Embase, Medline, MedRxiv, CNKI, and the Chinese Medical Journal Full Text Database following PRISMA guidelines was performed through April 18, 2020. Search terms included COVID-19, SARS-CoV-2, pregnant women, infants, and vertical transmission.
Results
A total of 230 women with COVID-19 (154 deliveries, 66 ongoing pregnancies, and 10 abortions) and 156 newborns from 20 eligible studies were included in this systematic review. A total of 34.62% of the pregnant patients had obstetric complications, and 59.05% of patients displayed fever. Lymphopenia was observed in 40.71% of patients. A total of 5.19% of women received mechanical ventilation. Seven women were critically ill. One mother and two newborns died. A total of 24.74% of newborns were premature. Five newborns' throat swab tests of SARS-CoV-2 were positive, all of which were delivered by cesarean section. For eight newborns with negative throat swab tests, three had both elevated IgM and IgG against SARS-CoV-2. Nucleic acid tests of vaginal secretions, breast milk, amniotic fluid, placental blood, and placental tissues were negative.
Conclusion
Most pregnant patients were mildly ill. The mortality of pregnant women with COVID-19 was lower than that of overall COVID-19 patients. Cesarean section was more common than vaginal delivery for pregnant women with COVID-19. Premature delivery was the main adverse event for newborns. The vertical transmission rate calculated by SARS-CoV-2 nucleic acid tests was 3.91%. Serum antibodies against SARS-CoV-2 should be tested more frequently, and multiple samples should be included in pathogenic testing. (Author)

Full URL: https://doi.org/10.1007/s00404-020-05889-5

20201221-1*

SOGC Statement on COVID-19 Vaccination in Pregnancy [Reaffirmed 3 March 2021]. Society of Obstetricians and Gynaecologists of Canada (2020), Ottowa, Canada: SOGC 18 December 2020

Consensus statement from the Society of Obstetricians and Gynaecologists of Canada (SOGC) on COVID-19 vaccination in pregnancy. Recommends that the COVID-19 vaccine should be offered as the documented risk of not getting the vaccine outweighs the theorised risk of being vaccinated during pregnancy or while breastfeeding. (LDO)

Full URL: https://www.sogc.org/common/Uploaded%20files/Latest%20News/SOGC_Statement_COVID-19_Vaccination_in_Pregnancy.pdf

---

20201218-1*

Detection of SARS-CoV-2 in placental but not fetal tissues in the second trimester. Valk JE, Chong AM, Uhlemann A-C, et al (2021), Journal of Perinatology vol 41, no 5, May 2021, pp 1184-1186

Correspondence piece discussing the presence of SARS-CoV-2 in placental and fetal tissues in two infected women who presented with miscarriage and preterm labour in the second trimester. Results show that SARS-CoV-2 was found in the placentas but not the fetal organs. (LDO)

Full URL: https://doi.org/10.1038/s41372-020-00877-8

20201217-9*

Trends in intensive neonatal care during the COVID-19 outbreak in Japan. Maeda Y, Nakamura M, Ninomiya H, et al (2021), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 106, no 3, May 2021, pp 327-329

Objective Informed consent is standard in research. International guidelines allow for research without prior consent in emergent situations, such as neonatal resuscitation. Research without prior consent was incorporated in the Vermont Oxford Network Heat Loss Prevention Trial. We evaluated whether significant differences in outcomes exist based on the consent method.
Design Subgroup analysis of infants enrolled in a randomised controlled trial conducted from 2004 to 2010.
Setting A multicentre trial with 38 participating centres.
Participants Infants born 24-27 weeks of gestation. 3048 infants assessed, 2231 excluded due to fetal congenital anomalies, failure to obtain consent or gestation less than 24 weeks. 817 randomised, 4 withdrew consent, total of 813 analysed.
Main outcome measure The difference in mortality between consent groups.
Results No significant differences were found in mortality at 36 weeks (80.2%, 77.4%, p=0.492) or 6 months corrected gestational age (80.7%, 79.7%, p=0.765). Infants enrolled after informed consent were more likely to have mothers who had received antenatal steroids (95.2%, 84.0%, p<0.0001). They also had significantly higher Apgar scores at 1 (5.0, 4.4, p=0.019), 5 (7.3, 6.7, p=0.025) and 10 min (7.5, 6.3, p=0.0003).
Conclusions and relevance Research without prior consent resulted in the inclusion of infants with different baseline characteristics than those enrolled after informed consent. There were no significant differences in mortality. Significantly higher Apgar scores in the informed consent group suggest that some of the sicker infants would have been excluded from enrolment under informed consent. Research without prior consent should be considered in neonatal resuscitation research. (Author) [Erratum: Archives of Disease in Childhood: Fetal and Neonatal Edition, vol 106, no 4, July 2021, p e3. http://dx.doi.org/10.1136/archdischild-2020-320521corr1]

Full URL: http://dx.doi.org/10.1136/archdischild-2020-320521

20201217-55*

COVID-19 vaccination and pregnancy. Royal College of Obstetricians and Gynaecologists (2020), London: RCOG 17 December 2020

Short news item reporting that the Royal College of Obstetricians and Gynaecologists is advising against the use of the new Pfizer-BioNTech COVID-19 vaccine in pregnancy and in breastfeeding women, unitl more information about it is available. (JSM)

Full URL: https://www.rcog.org.uk/en/news/covid-19-vaccination-and-pregnancy/

20201215-9*

Clinical Characteristics and Disease Severity Among Infants With SARS-CoV-2 Infection in Montreal, Quebec, Canada. Panetta L, Proulx C, Drouin O, et al (2020), JAMA Network Open vol 3, no 12, December 2020, e2030470

Research letter exploring the manifestations and severity of disease among infants with SARS-CoV-2 infection in Canada. Findings show that 25 infants had confirmed positive results and eight of those required hospitalisation. (LDO) [Erratum: JAMA Network Open, vol 4, no 2, February 2021, e210356].

Full URL: https://doi.org/10.1001/jamanetworkopen.2020.30470

20201211-15*

$20.6 billion to help women, newborns, young children and adolescents. Partnership for Maternal, Newborn and Child Health (PMNCH) (2020), Geneva: PMNCH 10 December 2020

News item reporting that various countries and foundations are making pledges of $20.6 billion to protect services for women, newborns, children and adolescents during the COVID-19 pandemic. (LDO)

20201210-3*

Extremely premature infants, scarcity and the COVID-19 pandemic. Kaempf JW, Dirksen KM, Kockler NJ (2021), Acta Paediatrica vol 110, no 4, April 2021, pp 1100-1103

Discusses scarcity and justice in the care of extremely premature infants during the COVID-19 pandemic. Highlights the cost of premature infant care, neurodevelopmental outcomes, allocation of ventilators, informed choice, trial-of-life care and pallative care. (LDO)

20201204-13*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 94484, 23 September 2020

Ms Nadine Dorries responds to a written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, pursuant to the Answer of 30 June 2020 to Question 64381 on Baby Care Units: Coronavirus, if he will make it his policy for rapid testing for parents of babies in neonatal care to be prioritised in line with the recommendations of the First Report of the Petitions Committee of Session 2019-21, entitled The impact of Covid-19 on maternity and parental leave, HC 526, published on 6 July 2020. (Author, edited)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2020-09-23/94484

20201201-2*

Hospitals: Coronavirus [written answer]. House of Commons (2020), Hansard Written answer 120764, 25 November 2020

Ms Nadine Dorries responds to a written question asked by Tim Loughton to the Secretary of State for Health and Social Care regarding what steps his Department is taking to ensure that measures to limit the transmission of covid-19 in hospitals does not lead to the separation of mothers and babies. (MB)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2020-11-25/120764

20201130-9*

Maternal and perinatal outcomes in pregnant women infected by SARS-CoV-2: A meta-analysis. Bellos I, Pandita A, Panza R (2021), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 256, January 2021, pp 194-204

Evidence concerning coronavirus disease-19 (covid-19) in pregnancy is still scarce and scattered. This meta-analysis aims to evaluate maternal and neonatal outcomes in covid-19 pregnancies and identify factors associated with perinatal viral transmission. Medline, Scopus, CENTRAL, Web of Science and Google Scholar databases were systematically searched to 3 June 2020. Overall, 16 observational studies and 44 case reports/series were included. Fever was the most frequent maternal symptom, followed by cough and shortness of breath, while about 15 % of infected were asymptomatic. Severe disease was estimated to occur in 11 % of women in case reports/series and in 7 % (95 % CI: 4 %-10 %) in observational studies. Two maternal deaths were reported. The rate of neonatal transmission did not differ between women with and without severe disease (OR: 1.94, 95 % CI: 0.50-7.60). Preterm birth occurred in 29.7 % and 16 % (95 % CI: 11 %-21 %) in data obtained from case series and observational studies, respectively. Stillbirth occurred in 3 cases and 2 neonatal deaths were observed. Vertical transmission was suspected in 4 cases. Fever was the most common neonatal symptom (40 %), followed by shortness of breath (28 %) and vomiting (24 %), while 20 % of neonates were totally asymptomatic. In conclusion, the maternal and neonatal clinical course the infection is typically mild, presenting low mortality rates. The risk of vertical transmission is suggested to be low and may not be affected by the severity of maternal disease. Further large-scale studies are needed to clarify the risk factors associated with viral transmission and severe infection in the neonatal population. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.11.038

20201130-62*

Health Visitors [written answer]. House of Commons (2020), Hansard Written question 114763, 12 November 2020

Jo Churchill responds to a written question from Tim Loughton to the Secretary of State for Health and Social Care, regarding how many and what proportion of (a) children and (b) children on child in need or child protection plans have received (i) remote and (ii) face to face contact with a health visitor for (A) antenatal, (B) new birth visit, (C) six to eight week review, (D) 12 month development review and (E) two and a half year review purposes, since 23 March 2020. (Author)

Full URL: https://questions-statements.parliament.uk/written-questions/detail/2020-11-12/114763

20201127-1*

Maternal and child healthcare in India during COVID-19 pandemic. Paul P, Mondal D (2021), Midwifery vol 92, January 2021, 102865

Editorial discussing maternal and child healthcare in India during the COVID-19 pandemic. Highlights the high rates of maternal and infant mortality prior to the pandemic and outlines strategies to minimise further adverse outcomes. (LDO)

Full URL: https://doi.org/10.1016/j.midw.2020.102865

20201123-24*

How a portable negative pressure incubator for COVID-19 was created with minor modifications. Kumar A, Kumar N, et al (2020), Acta Paediatrica vol 109, no 11, November 2020, pp 2423-2424

Discusses the creation of a portable negative pressure incubator for neonatal patients with COVID-19. The incubator allows for oxygen therapy and aerosol generating procedures while preventing aerosol dispersion. (LDO)

20201118-9

Newly qualified health visitor: Working with families to support breastfeeding. Boddy B (2020), Journal of Health Visiting vol 8, no 11, November 2020, pp 452-453

Bethany Boddy explores the barriers to breastfeeding in the UK and how practitioners can promote breastfeeding within health visitor practice. (Author)

20201116-94*

Clinical care of pregnant and postpartum women with COVID-19: Living recommendations from the National COVID-19 Clinical Evidence Taskforce. Vogel JP, Tendal B, Giles M, et al (2020), Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG) vol 60, no 6, December 2020, pp 840-851

To date, 18 living recommendations for the clinical care of pregnant and postpartum women with COVID-19 have been issued by the National COVID-19 Clinical Evidence Taskforce. This includes recommendations on mode of birth, delayed umbilical cord clamping, skin-to-skin contact, breastfeeding, rooming-in, antenatal corticosteroids, angiotensin-converting enzyme inhibitors, disease-modifying treatments (including dexamethasone, remdesivir and hydroxychloroquine), venous thromboembolism prophylaxis and advanced respiratory support interventions (prone positioning and extracorporeal membrane oxygenation). Through continuous evidence surveillance, these living recommendations are updated in near real-time to ensure clinicians in Australia have reliable, evidence-based guidelines for clinical decision-making. Please visit https://covid19evidence.net.au/ for the latest recommendation updates. (Author)

20201116-46*

Management of the mother-infant dyad with suspected or confirmed SARS-CoV-2 infection in a highly epidemic context. Pietrasanta C, Pugni L, Ronchi A, et al (2020), Journal of Neonatal-Perinatal Medicine vol 13, no 3, 2020

In the context of SARS-CoV-2 pandemic, the hospital management of mother-infant pairs poses to obstetricians and neonatologists previously unmet challenges. In Lombardy, Northern Italy, 59 maternity wards networked to organise the medical assistance of mothers and neonates with suspected or confirmed SARS-CoV-2 infection. Six 'COVID-19 maternity centres' were identified, the architecture and activity of obstetric and neonatal wards of each centre was reorganised, and common assistance protocols for the management of suspected and proven cases were formulated. Here, we present the key features of this reorganization effort, and our current management of the mother-infant dyad before and after birth, including our approach to rooming-in practice, breastfeeding and neonatal follow-up, based on the currently available scientific evidence. Considered the rapid diffusion of COVID-19 all over the world, we believe that preparedness is fundamental to assist mother-infant dyads, minimising the risk of propagation of the infection through maternity and neonatal wards. (Author)

20201116-39*

The changing landscape of SARS-CoV-2: Implications for the maternal-infant dyad. Elgin TG, Fricke EM, Hernandez Reyes ME, et al (2020), Journal of Neonatal-Perinatal Medicine vol 13, no 3, 2020

The COVID-19 pandemic represents the greatest challenge to date faced by the medical community in the 21st century. The rate of rapid dissemination, magnitude of viral contagiousness, person to person transmission at an asymptomatic phase of illness pose a unique and dangerous challenge for all patients, including neonatal and obstetric patients. Although scientific understanding of the pathophysiology of the disease, nature of transmission, and efficacy of mitigation strategies is growing, neither a cure or vaccine have been developed. While COVID-19 is primarily a disease of older patients, infection is now seen across all age demographics with reports of illness in pregnant patients and infants. Altered hormone status and predominance of Th-2 immune helper cells may result in increased predisposition to SARS-CoV-2. Case reports of pregnant patients demonstrate a clinical presentation comparable to non-pregnant adults, but evidence of vertical transmission to the fetus is controversial. Neonatal reports demonstrate an inconsistent and non-specific phenotype, and it is often difficult to separate COVID-19 from the underlying conditions of prematurity or bacterial infection. The development of international registries to enable risk profiling of COVID-19 positive pregnant mothers and/or their offspring may facilitate the development of enhanced mitigation strategies, medical treatments and effective vaccinations. (Author)

20201116-2*

Multi-centre study showed reduced compliance with the World Health Organization recommendations on exclusive breastfeeding during COVID-19. del Río R, Dip Pérez E, Marín Gabriel MÁ, et al (2021), Acta Paediatrica vol 110, no 3, March 2021, pp 935-936

Brief report exploring the impact of COVID-19 measures on the incidence of exclusive breastfeeding at the time of hospital discharge among a Spanish cohort. Results indicate that 43.5% of infants did not receive immediate skin-to-skin contact after birth and 45.9% were separated from their mothers. There was a strong negative correlation between separation after birth and exclusive breastfeeding. (LDO)

20201112-28*

Longitudinal Survey of COVID-19 Burden and Related Policies in U.S. Neonatal Intensive Care Units. Ahmad KA, Darcy-Mahoney A, Kelleher AS, et al (2021), American Journal of Perinatology vol 38, no 1, January 2021, pp 93-98

Objective This study aimed to determine the prevalence of confirmed novel coronavirus disease 2019 (COVID-19) disease or infants under investigation among a cohort of U.S. neonatal intensive care units (NICUs). Secondarily, to evaluate hospital policies regarding maternal COVID-19 screening and related to those infants born to mothers under investigation or confirmed to have COVID-19.

Study Design Serial cross-sectional surveys of MEDNAX-affiliated NICUs from March 26 to April 3, April 8 to April 19, May 4 to May 22, and July 13 to August 2, 2020. The surveys included questions regarding COVID-19 patient burden and policies regarding infant separation, feeding practices, and universal maternal screening.

Results Among 386 MEDNAX-affiliated NICUs, responses were received from 153 (42%), 160 (44%), 165 (45%), 148 (38%) across four rounds representing an active patient census of 3,465, 3,486, 3,452, and 3,442 NICU admitted patients on the day of survey completion. Confirmed COVID-19 disease in NICU admitted infants was rare, with the prevalence rising from 0.03 (1 patient) to 0.44% (15 patients) across the four survey rounds, while the prevalence of patients under investigation increased from 0.8 to 2.6%. Hospitals isolating infants from COVID-19-positive mothers fell from 46 to 20% between the second and fourth surveys, while centers permitting direct maternal breastfeeding increased 17 to 47% over the same period. Centers reporting universal severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) screening for all expectant mothers increased from 52 to 69%.

Conclusion Among a large cohort of NICU infants, the prevalence of infants under investigation or with confirmed neonatal COVID-19 disease was low. Policies regarding universal maternal screening for SARS-CoV-2, infant isolation from positive mothers, and direct maternal breastfeeding for infants born to positive mothers are rapidly evolving. As universal maternal screening for SARS-CoV-2 becomes more common, the impact of these policies requires further investigation. (Author)

Full URL: https://doi.org/10.1055/s-0040-1718944

20201111-4*

Characteristics and outcomes of neonatal SARS-CoV-2 infection in the UK: a prospective national cohort study using active surveillance. Gale C, Quigley MA, Placzek A, et al (2021), The Lancet Child & Adolescent Health vol 5, no 2, February 2021, pp 113-121

Background
Babies differ from older children with regard to their exposure to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). However, data describing the effect of SARS-CoV-2 in this group are scarce, and guidance is variable. We aimed to describe the incidence, characteristics, transmission, and outcomes of SARS-CoV-2 infection in neonates who received inpatient hospital care in the UK.
Methods
We carried out a prospective UK population-based cohort study of babies with confirmed SARS-CoV-2 infection in the first 28 days of life who received inpatient care between March 1 and April 30, 2020. Infected babies were identified through active national surveillance via the British Paediatric Surveillance Unit, with linkage to national testing, paediatric intensive care audit, and obstetric surveillance data. Outcomes included incidence (per 10 000 livebirths) of confirmed SARS-CoV-2 infection and severe disease, proportions of babies with suspected vertically and nosocomially acquired infection, and clinical outcomes.
Findings
We identified 66 babies 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 [1·6-3·4] per 10 000 livebirths). 16 (24%) of these babies were born preterm. 36 (55%) babies were from white ethnic groups (SARS-CoV-2 infection incidence 4·6 [3·2-6·4] per 10 000 livebirths), 14 (21%) were from Asian ethnic groups (15·2 [8·3-25·5] per 10 000 livebirths), eight (12%) were from Black ethnic groups (18·0 [7·8-35·5] per 10 000 livebirths), and seven (11%) were from mixed or other ethnic groups (5·6 [2·2-11·5] per 10 000 livebirths). 17 (26%) babies with confirmed infection were born to mothers with known perinatal SARS-CoV-2 infection, two (3%) were considered to have possible vertically acquired infection (SARS-CoV-2-positive sample within 12 h of birth where the mother was also positive). Eight (12%) babies had suspected nosocomially acquired infection. As of July 28, 2020, 58 (88%) babies had been discharged home, seven (11%) were still admitted, and one (2%) had died of a cause unrelated to SARS-CoV-2 infection.
Interpretation
Neonatal SARS-CoV-2 infection is uncommon in babies 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 baby. The high proportion of babies from Black, Asian, or minority ethnic groups requires investigation.
Funding
UK National Institute for Health Research Policy Research Programme. (Author)

Full URL: https://doi.org/10.1016/S2352-4642(20)30342-4

20201111-3*

Parents urged to keep childhood vaccination appointments during national COVID-19 restrictions. Public Health England (2020), London: PHE 10 November 2020

Public Health England (PHE) is reminding parents that the national COVID-19 restrictions should not stop children from receiving life-saving vaccines. (Author)

Full URL: https://www.gov.uk/government/news/parents-urged-to-keep-childhood-vaccination-appointments-during-national-covid-19-restrictions

---

20201111-2*

Impact of COVID-19 on childhood vaccination counts to week 43, and vaccine coverage to September 2020 in England: interim analyses. Public Health England (2020), Health Protection Report vol 14, no 21, 10 November 2020, pp 1-17

These reports review aggregated childhood vaccination counts (updated weekly from the electronic records of one supplier of IT services to general practices in England) as a means of assessing the impact of physical distancing measures on vaccination delivery. These data are not for the whole of England, nor do they reflect regional or local variations. This fifth report includes vaccination counts data up to week 43 and vaccine coverage data to September 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/933545/hpr2120_chldhd-vc_wk43.pdf

---

20201030-16*

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Antibodies at Delivery in Women, Partners, and Newborns. Egerup P, Fich Olsen L, Christiansen A-MH, et al (2021), Obstetrics & Gynecology vol 137, no 1, January 2021, pp 49-55

OBJECTIVE:
To investigate the frequency of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) antibodies in parturient women, their partners, and their newborns and the association of such antibodies with obstetric and neonatal outcomes.
METHODS:
From April 4 to July 3, 2020, in a single university hospital in Denmark, all parturient women and their partners were invited to participate in the study, along with their newborns. Participating women and partners had a pharyngeal swab and a blood sample taken at admission; immediately after delivery, a blood sample was drawn from the umbilical cord. The swabs were analyzed for SARS-CoV-2 RNA by polymerase chain reaction, and the blood samples were analyzed for SARS-CoV-2 antibodies. Full medical history and obstetric and neonatal information were available.
RESULTS:
A total of 1,313 parturient women (72.5.% of all women admitted for delivery at the hospital in the study period), 1,188 partners, and 1,206 newborns participated in the study. The adjusted serologic prevalence was 2.6% in women and 3.5% in partners. Seventeen newborns had SARS-CoV-2 immunoglobulin G (IgG) antibodies, and none had immunoglobulin M antibodies. No associations between SARS-CoV-2 antibodies and obstetric or neonatal complications were found (eg, preterm birth, preeclampsia, cesarean delivery, Apgar score, low birth weight, umbilical arterial pH, need for continuous positive airway pressure, or neonatal admission), but statistical power to detect such differences was low. Full serologic data from 1,051 families showed an absolute risk of maternal infection of 39% if the partner had antibodies.
CONCLUSION:
We found no association between SARS-CoV-2 infection and obstetric or neonatal complications. Sixty-seven percent of newborns delivered by mothers with antibodies had SARS-CoV-2 IgG antibodies. A limitation of our study is that we lacked statistical power to detect small but potentially meaningful differences between those with and without evidence of infection. (Author)

Full URL: https://doi.org/10.1097/AOG.0000000000004199

20201030-10*

The implications of face masks for babies and families during the COVID-19 pandemic: A discussion paper. Green J, Petty J, Staff L, et al (2021), Journal of Neonatal Nursing vol 27, no 1, February 2021, pp 21-25

COVID-19 has changed the way that newborn babies are cared for within the neonatal setting due to the introduction of social distancing and wearing of face masks to limit the spread of the infection. Potential implications exist related to the normal development of bonding and connections with others. This paper discusses the importance of face to face interactions for early attachment between babies and parents within the context of relevant underpinning developmental theory. Mask wearing can also potentially impact relational communication, requiring us to change our current ways of working. Decreasing face to face interactions and relational communication, along with key recommendations for both parents and health professionals are further highlighted to mitigate the potential negative effects of masks on long-term development related to human connection and attachment. (Author)

Full URL: https://doi.org/10.1016/j.jnn.2020.10.005

20201028-56*

Impact of physical distancing measures due to COVID-19 pandemic in England on childhood vaccination counts up to week 41, and vaccine coverage up to August 2020. Public Health England (2020), Health Protection Report vol 14, no 20, 27 October 2020, pp 1-13

These reports review aggregated childhood vaccination counts (updated weekly from the electronic records of one supplier of IT services to general practices in England) as a means of assessing the impact of physical distancing measures on vaccination delivery. These data are not for the whole of England, nor do they reflect regional or local variations. This fourth report includes vaccination counts data up to week 41 and vaccine coverage data to August 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/929754/hpr2020_chldhd-vc_wk41.pdf

---

20201028-29*

Coronavirus (COVID-19) infection in pregnancy: Information for healthcare professionals [Version 12] [Superseded by Version 13, 19 February 2021]. Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Paediatrics and Child Health, et al (2020), London: RCOG 14 October 2020. 77 pages

NB: This version has been superseded by version 13, 19 February 2021.

This document aims to provide guidance to healthcare professionals who care for pregnant women during the COVID-19 pandemic. It is not intended to replace existing clinical guidelines, but to act as a supplement with additional advice on how to implement standard practice during this time. The advice in this document is provided as a resource for UK healthcare professionals based on a combination of available evidence, good practice and expert consensus opinion. The priorities are: (i) The reduction of transmission of SARS-CoV-2 to pregnant women. (ii) The provision of safe, personalised and woman-centred care during pregnancy, birth and the early postnatal period, during the COVID-19 pandemic. (iii) The provision of safe, personalised and woman-centred care to pregnant and postnatal women with suspected/confirmed COVID-19. This is very much an evolving situation requiring this guidance to be a living document that is under regular review and updated as new information and evidence emerges. (Author, edited)

Full URL: https://www.rcm.org.uk/media/4383/2020-10-14-coronavirus-covid-19-infection-in-pregnancy-v12.pdf

---

20201026-10*

Kawasaki disease or Kawasaki-like disease: Influence of SARS-CoV-2 infections in Japan. Iio K, Uda K, Hataya H, et al (2021), Acta Paediatrica vol 110, no 2, February 2021, pp 600-601

Brief report discussing the relationship between Kawasaki disease (KD) and SARS-CoV-2 infections at Tokyo Metropolitan Children's Medical Center in Japan. Findings indicate that most patients during the COVID-19 pandemic had classical KD rather than paediatric inflammatory multisystem syndrome temporally associated with SARS-CoV-2 infection (PIMS-TS). (LDO)

20201023-21

A structured approach to facilitate the reintroduction of parents in transport during the SARS-CoV-2 pandemic. Rattigan S, Perry R, Job S (2020), Infant vol 16, no 5, September 2020, pp 186-188

In response to the COVID-19 pandemic, transport teams ceased taking parents with them on neonatal transfers except in exceptional circumstances. With the easing of lockdown, the Acute Neonatal Transfer Service of the East of England (ANTS) recognises how important it is for parents to be involved in their baby's journey and has developed a set of recommendations to mitigate the risk of horizontal transmission of SARS-CoV-2 in transport. (Author)

20201023-20

Changing referral patterns, reduced feeding-related problems and changes in breastfeeding during COVID-19. Bean AE, Skene C, Peirce E, et al (2020), Infant vol 16, no 5, September 2020, pp 190-192

Due to the current global pandemic, the maternity services at Jessop Wing, Sheffield Teaching Hospitals NHS Foundation Trust, have had to place restrictions on visitors to the hospital environment. During this time, we have seen a significant decrease in the number of term babies referred with common feeding-related problems, while also noting an increase in breastfeeding rates at discharge. We explore the possible reasons for this and what lessons may be learned. (Author)

20201023-17

COVID-19 surveillance swabbing in a tertiary NICU. Tanney K, Eaton K, Hesketh L, et al (2020), Infant vol 16, no 5, September 2020, p 178

Like other neonatal units around the world, COVID-19 raised many questions for us about personal protective equipment, parental presence, and how best to cohort babies in the neonatal intensive care unit (NICU). There is limited guidance on the use of routine swabbing to guide practice in neonatal care. However, as we were caring for a group of very vulnerable patients, it was felt that regular surveillance would provide the assurance to staff and parents that the unit remained safe and COVID-19 free. With the support of the Clinical Virology and Infection Prevention Control teams, we instituted twice weekly surveillance swabbing for those babies who were deemed high-risk, ie all of our babies who were undergoing aerosol-generating procedures. (Author)

20201021-6*

Ready, Set, BABY Live Virtual Prenatal Breastfeeding Education for COVID-19. Palmquist AEL, Parry KC, Wouk K, et al (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 614-618

Discusses the adaptation of the 'Ready, Set, BABY' antenatal breastfeeding education programme during the COVID-19 pandemic. The new digital programme 'Ready, Set, BABY Live' was launched on 15 April 2020 and is available in English and Spanish. (LDO)

Full URL: https://doi.org/10.1177/0890334420959292

20201021-5*

Telelactation: A Necessary Skill With Puppet Adjuncts During the COVID-19 Pandemic. Dhillon S, Dhillon PS (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 619-621

Sarah Dhillon shares her experience of providing telelactation services using knitted breasts and hand puppets during the COVID-19 outbreak. (LDO)

Full URL: https://doi.org/10.1177/0890334420958623

20201021-4*

Universal Screening for SARS-CoV-2 of all Human Milk Bank Samples. Salvatori G, Umberto De Rose D, Amadio P, et al (2021), Journal of Human Lactation vol 37, no 1, February 2021, pp 40-42

Correspondence piece discussing the universal screening of human milk samples and containers for SARS-CoV-2 at a milk bank at Bambino Gesù Children's Hospital in Rome, Italy. Approximately 304 L of human milk was collected and none of the samples or container swabs tested positive for SARS-CoV-2. (LDO)

Full URL: https://doi.org/10.1177/0890334420962074

20201021-31*

New-Onset Type 1 Diabetes in Children During COVID-19: Multicenter Regional Findings in the U.K. Unsworth R, Wallace S, Oliver NS, et al (2020), Diabetes Care vol 43, no 11, November 2020, pp e170-e171

Correspondence reporting the main findings of a multicenter study looking at the incidence of new-onset type 1 diabetes and diabetic ketoacidosis (DKA) in 30 children from 23 months up to the age of 16 years, during the peak of the COVID-19 pandemic, using data gathered from five inpatient units in North West London. (JSM)

Full URL: https://doi.org/10.2337/dc20-1551

20201021-3*

Operation of the First Regional Milk Bank in Poland During a SARS-CoV-2 (COVID-19) Pandemic. Sinkiewicz-Darol E, Bernatowicz-Łojko U (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 626-627

The authors share their experience of operating a human milk bank in Poland during the COVID-19 pandemic. The milk bank has maintained sufficient resources, but there has been an increase in anxiety from donors and the profile of lactation consultants has changed significantly. (LDO)

Full URL: https://doi.org/10.1177/0890334420957971

20201020-31*

Early Identification of IgA Anti-SARSCoV-2 in Milk of Mother With COVID-19 Infection. Lebrão CW, Navarro Cruz M, Henrique da Silva M, et al (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 609-613

Introduction

Human milk cannot currently be considered a major source of COVID-19 infection. On the other hand, it can contain specific antibodies that could modulate a possible newborn infection by SARS-CoV-2.

Main issue

A 32-year-old pregnant woman, gestational age 37 and 3/7 weeks, was admitted with a flu-like syndrome caused by COVID-19. The female newborn was appropriate for gestational age, with a birth weight of 2,890 g, length 48 cm, and head circumference 34 cm.

Management

The mother-infant dyad remained in the rooming-in unit during hospitalization, exclusively breastfeeding and following World Health Organization recommendations for contact and airway precautions. On the 3rd day after delivery, two mother's milk samples (3 and 5 mL) were collected by hand expression. The samples were centrifuged for 10 min twice consecutively to separate fat, which was removed, and the remaining material was transferred to another tube to determine anti-SARS-CoV-2 Immunoglobulin A and Immunoglobulin G (ELISA, Kit EUROIMMUN AG, Luebeck, Germany). Anti-SARS-CoV-2 Immunoglobulin A was detected in the two samples evaluated, whose values were 2.5 and 1.9, respectively. No anti-SARSCoV-2 immunoglobulin G was detected. The exclusively-breastfed infant remained well through 45 days of age.

Conclusion

The presence of SARS-CoV-2 Immunoglobulin A in the milk of mothers infected with COVID-19 may be related to protection against the transmission and severity of the disease in their infants. (Author)

20201019-6*

Infants Born to Mothers with COVID-19 During Pregnancy: The First Four Months of the Pandemic. Murphy C, O'Reilly D, McCallion N, et al (2020), Irish Medical Journal vol 113, no 9, October 2020, P193

Correspondence piece exploring the outcomes of infants born to women with SARS-CoV-2 detected during pregnancy at the Rotunda Hospital, Ireland. Results show that there was a high rate of prematurity but none of the infants developed suspected or confirmed COVID-19. (LDO)

Full URL: http://imj.ie/infants-born-to-mothers-with-covid-19-during-pregnancy-the-first-four-months-of-the-pandemic/

20201019-11*

Evaluation for SARS-CoV-2 in Breast Milk From 18 Infected Women. Chambers C, Krogstad P, Bertrand K, et al (2020), JAMA (Journal of the American Medical Association) vol 324, no 13, 6 October 2020, pp 1347-1348

Research letter exploring the presence of SARS-CoV-2 RNA in breast milk from 18 women in the United States. Findings revealed SARS-CoV-2 RNA in one breast milk sample, but viral RNA was not detected in samples taken 12 and 41 days later. (LDO)

Full URL: https://doi.org/10.1001/jama.2020.15580

20201016-31*

Coronavirus infection in neonates: a systematic review. Trevisanuto D, Cavallin F, Cavicchiolo ME, et al (2021), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 106, no 3, May 2021, pp 330-335

Objective To summarise currently reported neonatal cases of SARS-CoV-2 infection.

Methods A search strategy was designed to retrieve all articles published from 1 December 2019 to 12 May 2020, by combining the terms 'coronavirus' OR 'covid' OR 'SARS-CoV-2') AND ('neonat*' OR 'newborn') in the following electronic databases: MEDLINE/Pubmed, Scopus, Web of Science, MedRxiv, the Cochrane Database of Systematic Review and the WHO COVID-19 database, with no language restrictions. Quality of studies was evaluated by using a specific tool for assessment of case reports and/or case series.

Results Twenty-six observational studies (18 case reports and 8 case series) with 44 newborns with confirmed SARS-CoV-2 infection were included in the final analysis. Studies were mainly from China and Italy. Half of neonates had a documented contact with the infected mother and one out of three infected neonates was admitted from home. Median age at diagnosis was 5 days. One out of four neonates was asymptomatic, and the remaining showed mild symptoms typical of acute respiratory infections and/or gastrointestinal symptoms. The majority of neonates were left in spontaneous breathing (room air) and had good prognosis after a median duration of hospitalisation of 10 days.

Conclusions Most neonates with SARS-CoV-2 infection were asymptomatic or presented mild symptoms, generally were left in spontaneous breathing and had a good prognosis after median 10 days of hospitalisation. Large epidemiological and clinical cohort studies, as well as the implementation of collaborative networks, are needed to improve the understanding of the impact of SARS-CoV-2 infection in neonates.

(Author)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-319837

20201016-19*

Protecting newborn infants during the COVID-19 pandemic should be based on evidence and equity. Sacks E, Sripad P, Ndwiga C, et al (2020), Acta Paediatrica vol 109, no 12, December 2020, pp 2448-1450

Commentary on recommendations presented in interim guidance published in April 2020 by the American Academy of Pediatrics, which the authors claim are neither evidence-based nor equitable. (MB)

20201014-5*

Beyond the First Wave: Consequences of COVID-19 on High-Risk Infants and Families. Lemmon ME, Chapman I, Malcolm W, et al (2020), American Journal of Perinatology vol 37, no 12, October 2020, pp 1283-1288

The novel coronavirus disease 2019 (COVID-19) pandemic is affecting care for high-risk newborns in ways that will likely be sustained beyond the initial pandemic response. These novel challenges present an urgent imperative to understand how COVID-19 impacts parent, family, and infant outcomes. We highlight three areas that warrant targeted attention: (1) inpatient care: visitation policies, developmental care, and communication practices; (2) outpatient care: high-risk infant follow-up and early intervention programs; and (3) parent psychosocial distress: mental health, social support, and financial toxicity. Changes to care delivery in these areas provide an opportunity to identify and implement novel strategies to provide family-centered care during COVID-19 and beyond. (Author)

Full URL: https://doi.org/10.1055/s-0040-1715839

20201014-4*

Impact of physical distancing measures due to COVID-19 pandemic in England on childhood vaccination counts up to week 39, 2020 and vaccine coverage up to August 2020. Public Health England (2020), Health Protection Report vol 14, no 18, 14 October 2020, pp 1-12

These reports review aggregated childhood vaccination counts (updated weekly from the electronic records of one supplier of IT services to general practices in England) as a means of assessing the impact of physical distancing measures on vaccination delivery. These data are not for the whole of England, nor do they reflect regional or local variations. This report includes data up to week 39 of 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/926375/hpr1820_chldhd-VC_wk39b.pdf

---

20201007-11*

Supporting breastfeeding. Pieper-Callan B (2020), World of Irish Nursing & Midwifery vol 28, no 7, September 2020, p 49

Brenda Pieper-Callan discusses the effect that Covid-19 has had on the ability to provide breastfeeding support to new mothers. (Author)

Full URL: https://online.flippingbook.com/view/166730/48/

20201006-24*

Routine childhood immunisation during the COVID-19 pandemic in Africa: a benefit-risk analysis of health benefits versus excess risk of SARS-CoV-2 infection. Abbas K, Procter SR, van Zandvoort K, et al (2020), The Lancet Global Health vol 8, no 10, October 2020, pp E1264-E1272

Background

National immunisation programmes globally are at risk of suspension due to the severe health system constraints and physical distancing measures in place to mitigate the ongoing COVID-19 pandemic. We aimed to compare the health benefits of sustaining routine childhood immunisation in Africa with the risk of acquiring severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection through visiting routine vaccination service delivery points.

Methods

We considered a high-impact scenario and a low-impact scenario to approximate the child deaths that could be caused by immunisation coverage reductions during COVID-19 outbreaks. In the high-impact scenario, we used previously reported country-specific child mortality impact estimates of childhood immunisation for diphtheria, tetanus, pertussis, hepatitis B, Haemophilus influenzae type b, Streptococcus pneumoniae, rotavirus, measles, meningitis A, rubella, and yellow fever to approximate the future deaths averted before 5 years of age by routine childhood vaccination during a 6-month COVID-19 risk period without catch-up campaigns. In the low-impact scenario, we approximated the health benefits of sustaining routine childhood immunisation on only the child deaths averted from measles outbreaks during the COVID-19 risk period. We assumed that contact-reducing interventions flattened the outbreak curve during the COVID-19 risk period, that 60% of the population will have been infected by the end of that period, that children can be infected by either vaccinators or during transport, and that upon child infection the whole household will be infected. Country-specific household age structure estimates and age-dependent infection-fatality rates were applied to calculate the number of deaths attributable to the vaccination clinic visits. We present benefit-risk ratios for routine childhood immunisation, with 95% uncertainty intervals (UIs) from a probabilistic sensitivity analysis.

Findings

In the high-impact scenario, for every one excess COVID-19 death attributable to SARS-CoV-2 infections acquired during routine vaccination clinic visits, 84 (95% UI 14-267) deaths in children could be prevented by sustaining routine childhood immunisation in Africa. The benefit-risk ratio for the vaccinated children is 85 000 (4900-546 000), for their siblings (<20 years) is 75 000 (4400-483 000), for their parents or adult carers (aged 20-60 years) is 769 (148-2700), and for older adults (>60 years) is 96 (14-307). In the low-impact scenario that approximates the health benefits to only the child deaths averted from measles outbreaks, the benefit-risk ratio to the households of vaccinated children is 3 (0·5-10); if the risk to only the vaccinated children is considered, the benefit-risk ratio is 3000 (182-21 000).

Interpretation

The deaths prevented by sustaining routine childhood immunisation in Africa outweigh the excess risk of COVID-19 deaths associated with vaccination clinic visits, especially for the vaccinated children. Routine childhood immunisation should be sustained in Africa as much as possible, while considering other factors such as logistical constraints, staff shortages, and reallocation of resources during the COVID-19 pandemic.

Funding

Gavi, the Vaccine Alliance; Bill & Melinda Gates Foundation. (Author)

Full URL: https://doi.org/10.1016/S2214-109X(20)30308-9

20200930-16*

Building resilient societies after COVID-19: the case for investing in maternal, neonatal, and child health. Jacob CM, Briana DP, Di Renzo GP, et al (2020), The Lancet Public Health vol 5, no 11, November 2020, pp e624-e627

Resilient societies respond rapidly and effectively to health challenges and the associated economic consequences, and adapt to be more responsive to future challenges. Although it is only possible to recognise resilience retrospectively, the COVID-19 pandemic has occurred at a point in human history when, uniquely, sufficient knowledge is available on the early-life determinants of health to indicate clearly that a focus on maternal, neonatal, and child health (MNCH) will promote later resilience. This knowledge offers an unprecedented opportunity to disrupt entrenched strategies and to reinvest in MNCH in the post-COVID-19 so-called new normal. Furthermore, analysis of the short-term, medium-term, and longer-term consequences of previous socioeconomic shocks provides important insights into those domains of MNCH, such as neurocognitive development and nutrition, for which investment will generate the greatest benefit. Such considerations apply to high-income countries (HICs) and low-income and middle-income countries (LMICs). However, implementing appropriate policies in the post-COVID-19 recovery period will be challenging and requires political commitment and public engagement. (Author)

Full URL: https://doi.org/10.1016/S2468-2667(20)30200-0

20200929-45*

Difference in levels of SARS-CoV-2 S1 and S2 subunits- and nucleocapsid protein-reactive SIgM/IgM, IgG and SIgA/IgA antibodies in human milk. Demers-Mathieu V, Dung M, Mathijssen GB, et al (2021), Journal of Perinatology vol 41, no 4, April 2021, pp 850-859

Objective

This study evaluated the presence and the levels of antibodies reactive to SARS-CoV-2 S1 and S2 subunits (S1 + S2), and nucleocapsid protein.

Study design

The levels of SARS-CoV-2 S1 + S2- and nucleocapsid-reactive SIgM/IgM, IgG and SIgA/IgA were measured in human milk samples from 41 women during the COVID-19 pandemic (2020-HM) and from 16 women 2 years prior to the outbreak (2018-HM).

Results

SARS-CoV-2 S1 + S2-reactive SIgA/IgA, SIgM/IgM and IgG were detected in 97.6%, 68.3% and 58.5% in human milk whereas nucleocapsid-reactive antibodies were detected in 56.4%, 87.2% and 46.2%, respectively. S1 + S2-reactive IgG was higher in milk from women that had symptoms of viral respiratory infection(s) during the last year than in milk from women without symptom. S1 + S2- and nucleocapsid-reactive IgG were higher in the 2020-HM group compared to the 2018-HM group.

Conclusions

The presence of SARS-CoV-2-reactive antibodies in human milk could provide passive immunity to breastfed infants and protect them against COVID-19 diseases. (Author) [Erratum: Journal of Perinatology, vol 41, no 5, May 2021, p 1207. https://doi.org/10.1038/s41372-020-00816-7]

Full URL: https://doi.org/10.1038/s41372-020-00805-w

20200929-15*

Impact of restrictions on parental presence in neonatal intensive care units related to coronavirus disease 2019. Mahoney AD, White RD, Velasquez A, et al (2020), Journal of Perinatology vol 40, suppl 1, September 2020, pp 36-46

Objectives

To determine the relationship between the emergence of COVID-19 and neonatal intensive care unit (NICU) family presence as well as how NICU design affects these changes.

Study design

A cross-sectional survey from April 21 to 30, 2020. We queried sites regarding NICU demographics, NICU restrictions on parental presence, and changes in ancillary staff availability.

Results

Globally, 277 facilities responded to the survey. NICU policies preserving 24/7 parental presence decreased (83-53%, $p < 0.001$) and of preserving full parental participation in rounds fell (71-32%, $p < 0.001$). Single-family room design NICUs best preserved 24/7 parental presence after the emergence of COVID-19 (single-family room 65%, hybrid-design 57%, open bay design 45%, $p = 0.018$). In all, 120 (43%) NICUs reported reductions in therapy services, lactation medicine, and/or social work support.

Conclusions

Hospital restrictions have significantly limited parental presence for NICU admitted infants, although single-family room design may attenuate this effect. (Author)

Full URL: https://doi.org/10.1038/s41372-020-0753-7

20200928-36*

Nurturing visual social development in the NICU. Burns KH, Saunders BS, Burns SA (2021), Journal of Perinatology vol 41, no 8, August 2021, pp 2108-2109

Short correspondence piece discussing mask usage and developmental considerations when caring for infants and young children. The authors propose six interventions to be implemented in neonatal intensive care units to mitigate the impact of exclusively masked interactions. (LDO)

Full URL: https://doi.org/10.1038/s41372-020-00813-w

20200928-3*

Impact of physical distancing measures due to COVID-19 pandemic in England on childhood vaccination counts (data to week 37, 2020). Public Health England (2020), Health Protection Report vol 14, no 17, 28 September 2020, pp 1-10

This series of reports reviews aggregated childhood vaccination counts of the first hexavalent vaccinations delivered to infants younger than 6 months and of the first MMR vaccinations delivered to children aged 12 to 18 months updated weekly from The Phoenix Partnership (TPP) GP IT system supplier as the means of assessing the impact of physical distancing measures on vaccination delivery. This second report includes data up to week 37 of 2020. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/921566/hpr1720_chldhd-VC_wk37.pdf

---

20200928-2*

Impact of physical distancing measures due to COVID-19 pandemic in England on childhood vaccination counts. Public Health England (2020), Health Protection Report vol 14, no 16, 14 September 2020, pp 1-10

This report reviews aggregated childhood vaccination counts of the first hexavalent vaccinations delivered to infants younger than 6 months and of the first MMR vaccinations delivered to children aged 12 to 18 months updated weekly from The Phoenix Partnership (TPP) GP IT system supplier as the means of assessing the impact of physical distancing measures on vaccination delivery. (Author, edited)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/917224/hpr1620_chldhd-VC.pdf

---

20200928-14*

Reflections on COVID -19 and the potential impact on preterm infant feeding and speech, language and communication development. Harding C, Aloysius A, Bell N, et al (2021), Journal of Neonatal Nursing vol 27, no 3, June 2021, pp 220-222

Infants needing the support of a neonatal unit have unique, individual needs that require a Synactive approach to enable effective management of both the environment and the infant themselves (Als, 1986). Parents working in partnership with neonatal colleagues play an essential role in developing competent skills to appraise an infant's function. For parents, learning to care and interact with their infant on a neonatal unit presents unexpected complications including learning to cope and be close to their baby in an unfamiliar setting (Cardin, 2020). The current COVID -19 pandemic has challenged all aspects of neonatal work causing anxiety and stress for all involved in infant care. Neonatal teams have been working together to continue to provide excellent care, and to make adaptations in a difficult and unfamiliar situation. A major change to practice has been the need to limit parent visiting time and access to the cot -side. This is further complicated by the need for practitioner use of face - masks and personal protective equipment when treating infants on neonatal units which has inevitably altered the traditional developmental care approaches undertaken in the UK (Altimier et al., 2015). (Author)

20200923-98*

Spectrum of neonatal COVID-19 in Iran: 19 infants with SARS-CoV-2 perinatal infections with varying test results, clinical findings and outcomes. Schwartz DA, Mohagheghi P, Beigi B, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 12 August 2020, online

Background

There have been few cohorts of neonates with coronavirus disease-2019 (COVID-19) reported. As a result, there remains much to be learned about mechanisms of neonatal infection including potential vertical transmission, best methods of testing, and the spectrum of clinical findings. This communication describes the epidemiology, diagnostic test results and clinical findings of neonatal COVID-19 during the pandemic in Iran.

Materials and methods

This is a retrospective cohort study of 19 neonates infected with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) from 10 hospitals throughout Iran. We analyzed obstetrical information, familial COVID-19 status, neonatal medical findings, perinatal complications, hospital readmissions, patterns of repeated testing, and clinical outcomes.

Results

Eleven neonates had family members infected. Five mothers were negative for COVID-19 and four neonates had no identifiable family source of infection. The neonatal mortality rate from COVID-19 was 10%. Seven newborns (37%) were discharged from the hospital as healthy but required readmission for symptoms of COVID-19. There were 2 multifetal gestations - one set each of twins and triplets, each with disparate testing and clinical outcomes. Premature delivery was common, occurring in 12 of 19 infants (63%). Initial testing for COVID-19 was negative in 4 of the 19 neonates (21%) who subsequently became positive. In 2 cases, neonates tested positive at 1 and 2 h after birth which was suspicious for vertical transmission of SARS-CoV-2.

Conclusions

These cases have notable variation in the epidemiology, clinical features, results of testing and clinical outcomes among the infected newborns. Neonates initially testing negative for COVID-19 may require readmission due to infection. Two neonates were highly suspicious for intrauterine vertical transmission. Repeat testing of neonates who initially test negative for COVID-19 is recommended, without which 21% of neonatal infections would have been undiagnosed. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1797672

20200923-94*

COVID-19 and maternal, fetal and neonatal mortality: a systematic review. Hessami K, Homayoon N, Hashemi A, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 16 August 2020, online

Objective

This is the first comprehensive review to focus on currently available evidence regarding maternal, fetal and neonatal mortality cases associated with Coronavirus Disease 2019 (COVID-19) infection, up to July 2020.

Methods

We systematically searched PubMed, Scopus, Google Scholar and Web of Science databases to identify any reported cases of maternal, fetal or neonatal mortality associated with COVID-19 infection. The references of relevant studies were also hand-searched.

Results

Of 2815 studies screened, 10 studies reporting 37 maternal and 12 perinatal mortality cases (7 fetal demise and 5 neonatal death) were finally eligible for inclusion to this review. All maternal deaths were seen in women with previous co-morbidities, of which the most common were obesity, diabetes, asthma and advanced maternal age. Acute respiratory distress syndrome (ARDS) and severity of pneumonia were considered as the leading causes of all maternal mortalities, except for one case who died of thromboembolism during postpartum period. Fetal and neonatal mortalities were suggested to be a result of the severity of maternal infection or the prematurity, respectively. Interestingly, there was no evidence of vertical transmission or positive COVID-19 test result among expired neonates.

Conclusion

Current available evidence suggested that maternal mortality mostly happened among women with previous co-morbidities and neonatal mortality seems to be a result of prematurity rather than infection. However, further reports are needed so that the magnitude of the maternal and perinatal mortality could be determined more precisely. (Author)

20200923-72*

Study of amniotic fluid in pregnant women infected with SARS-CoV-2 in first and second trimester. Is there evidence of vertical transmission?. Lorente AMR, Guillen MP, Jimenez NL, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 30 August 2020, online

COVID-19 is a respiratory disease caused by Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The effects of this infection on fetal development and whether there is vertical transmission are currently unknown. We present two cases of pregnant women with COVID-19 infection during the first and second trimester of gestation in which a PCR study of SARS-CoV-2 in amniotic fluid extracted by amniocentesis is performed to try to determine if there is vertical transmission. In both cases, the PCR result was negative. This fact could support the absence of vertical transmission when the infection occurs in these quarters. It would be advisable to carry out more extensive studies to be able to make this statement safely. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

The Royal College of Midwives Trust: A company limited by guarantee. Registered No. 01345335.

20200922-60*

Community-Onset Severe Acute Respiratory Syndrome Coronavirus 2 Infection in Young Infants: A Systematic Review. Mark EG, Golden WC, Gilmore MM, et al (2021), The Journal of Pediatrics vol 228, January 2021, pp 94-100.e3

Objective

To summarize and evaluate current reports on community-onset severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in young infants.

Study design

We performed a systematic review to identify reports published from November 1, 2019, until June 15, 2020, on laboratory-confirmed community-onset SARS-CoV-2 infection in infants less than 3 months of age. We excluded studies reporting neonates with perinatal COVID exposure and diagnosis prior to hospital discharge and hospital-onset disease, as well as clinically diagnosed cases without confirmation. Two independent reviewers performed study screening, data abstraction, and risk of bias assessment. Variables of interest included patient age, exposure to COVID-19, past medical history, clinical symptoms, SARS-CoV-2 testing, laboratory findings, clinical course, and disposition.

Results

38 publications met inclusion criteria, including 23 single case reports, 14 case series, and 1 cohort study, describing 63 infants under 3 months of age with laboratory confirmed SARS-CoV-2 infection. Most cases were mild to moderate. Fever, respiratory, gastrointestinal, cardiac, and neurologic findings were reported. Laboratory abnormalities included neutropenia, lymphopenia, and elevated serum levels of inflammatory markers and aminotransferases. Fifty-eight (92%) infants were hospitalized, 13 (21%) were admitted to the intensive care unit (ICU), and 2 (3%) required mechanical ventilation. No death was reported.

Conclusions

Among young infants with laboratory-confirmed SARS-CoV-2 infection, most cases were mild to moderate and improved with supportive care. Our results demonstrate a need for a high index of suspicion for SARS-CoV-2 infection in young infants presenting with generalized symptoms such as fever or decreased feeding, even in the absence of respiratory symptoms. (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.09.008

20200922-57*

Meeting the Challenges of the COVID-19 Pandemic: Virtual Developmental Music Therapy Class for Infants in the Neonatal Intensive Care Unit. Negrete B (2020), Pediatric Nursing vol 46, no 4, July/August 2020, pp 198-201, 206

The COVID-19 pandemic has changed the way some music therapists provide developmental support in the Neonatal Intensive Care Unit (NICU). Due to safety restrictions in the NICU, adaptions have been put in place to support the developmental needs of patients and social needs of family members, through virtual developmental music therapy classes. These interactive classes provide developmental support, parent-to-parent connections, and socialization between patients. (Author)

20200917-4*

Vertical transmission of antibodies in infants born from mothers with positive serology to COVID-19 pneumonia. Vendola N, Stampini V, Amadori R, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 253, October 2020, pp 331-332

Correspondence piece discussing the vertical transmission of immunoglobulin G antibodies in pregnant women with COVID-19. The authors present two cases demonstrating the presence of antibodies in the umbilical cord and peripheral blood. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.08.023

20200915-58*

Characteristics of Newborns Born to SARS-CoV-2-Positive Mothers: A Retrospective Cohort Study. Farghaly MAA, Kupferman F, Castillo F, et al (2020), American Journal of Perinatology vol 37, no 13, November 2020, pp 1310-1316

Objective The novel virus known as severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) has led to a terrifying pandemic. The range of illness severity among children is variable. This study aims to assess the characteristics of newborns born to SARS-CoV-2-positive women compared with those mothers who tested negative.

Study Design This was a retrospective cohort study performed at Brookdale Hospital Medical Center in New York City from March to May 2020. Electronic medical records of mother-baby dyads were reviewed.

Results Seventy-nine mothers tested for SARS-CoV-2 were included, out of which 18.98% of mothers tested SARS-CoV-2 positive. We found a significant association between symptoms and SARS-CoV-2 status. We observed a significant association between newborns of SARS-CoV-2 positive and SARS-CoV-2 negative mothers regarding skin-to-skin contact ($p < 0.001$). Both groups showed significant differences regarding isolation ($p < 0.001$). Interestingly, regarding SARS-CoV-2 infection in newborns, only one newborn tested SARS-CoV-2 positive and was unstable in the neonatal intensive care unit (NICU). With the multivariable logistic regression model, babies of SARS-CoV-2 positive mothers were three times as likely to have desaturations in comparison to newborns from negative mothers. Also, newborns of SARS-CoV-2-positive mothers were four times more likely to have poor feeding, compared with newborns of SARS-CoV-2-negative mothers. Finally, babies of SARS-CoV-2-positive mothers were ten times more likely to be symptomatic at the 2-week follow-up.

Conclusion SARS-CoV-2 has caused major morbidity and mortality worldwide. Neonates born to mothers with confirmed or suspected SARS-CoV-2 are most of the time asymptomatic. However, neonatal critical illness due to SARS-CoV-2 is still a possibility; thus, isolation precautions (such as avoiding skin-to-skin contact and direct breastfeeding) and vertical transmission should be studied thoroughly. In addition, testing these newborns by nasopharyngeal swab at least at 24 hours after birth and monitoring them for the development of symptoms for 14 days after birth is needed. (Author)

Full URL: https://doi.org/10.1055/s-0040-1715862

20200915-50*

Clinical Analysis of Neonates Born to Mothers with or without COVID-19: A Retrospective Analysis of 48 Cases from Two Neonatal Intensive Care Units in Hubei Province. Liu W, Cheng H, Wang J, et al (2020), American Journal of Perinatology vol 37, no 13, November 2020, pp 1317-1323

Objective The perinatal consequences of neonates born to severe acute respiratory syndrome-associated coronavirus-2 (SARS-CoV-2) infected mothers are uncertain. This study aimed to compare the differences in clinical manifestation, laboratory results, and outcomes of neonates born to mothers with or without coronavirus disease 2019 (COVID-19).

Study Design A total of 48 neonates were admitted to Tongji Hospital and HuangShi Maternal and Child Healthcare Hospital from January 17 to March 4, 2020. The neonates were divided into three groups according to the mothers' conditions: neonates born to mothers with confirmed COVID-19, neonates born to mothers with clinically diagnosed COVID-19, and neonates born to mothers without COVID-19. The clinical data of mothers and infants in the three groups were collected, compared, and analyzed.

Results The deliveries occurred in a negative pressure isolation room, and the neonates were separated from their mothers immediately after birth for further observation and treatment. None of the neonates showed any signs of fever, cough, dyspnea, or diarrhea. SARS-CoV-2 reverse transcriptase-polymerase chain reaction of the throat swab and feces samples from the neonates in all three groups was negative. No differences were detected in the whole blood cell, lymphocytes, platelet, and liver and renal function among the three groups. All mothers and their infants showed satisfactory outcomes, including a 28-week preterm infant.

Conclusion The clinical manifestations, radiological, and biochemical results did not show any difference between the three groups. No evidence of vertical transmission was found in this study whether the pregnant women developed coronavirus infection in the third (14 cases) or second trimester (1 case). (Author)

Full URL: https://doi.org/10.1055/s-0040-1716505

20200915-42*

Breastfeeding in COVID-19: A Pragmatic Approach. Ng YPM, Low YF, Goh XL, et al (2020), American Journal of Perinatology vol 37, no 13, November 2020, pp 1377-1384

The novel coronavirus disease 2019 (COVID-19) pandemic has resulted in changes to perinatal and neonatal care, concentrating on minimizing risks of transmission to the newborn and health care staff while ensuring medical care is not compromised for both mother and infant. Current recommendations on infant care and feeding when mother has COVID-19 ranges from mother-infant separation and avoidance of human milk feeding, to initiation of early skin-to-skin contact and direct breastfeeding. Health care providers fearing risks of severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) maternal-infant transmission may veer toward restricted breastfeeding practices. We reviewed guidelines and published literature and propose three options for infant feeding depending on various scenarios. Option A involves direct breastfeeding with the infant being cared for by the mother or caregiver. In option B, the infant is cared for by another caregiver and receives mother's expressed milk. In the third option, the infant is not breastfed directly and does not receive mother's expressed milk. We recommend joint decision making by parents and the health care team. This decision is also flexible as situation changes. We also provide a framework for counseling mothers on these options using a visual aid and a corresponding structured training program for health care providers. Future research questions are also proposed. We conclude that evidence and knowledge about COVID-19 and breastfeeding are still evolving. Our options can provide a quick and flexible reference guide that can be adapted to local needs. (Author)

Full URL: https://doi.org/10.1055/s-0040-1716506

20200911-27*

Management strategy of pregnant women during COVID-19 pandemic. Suzumori N, Goto S, Sugiura-Ogasawara M (2020), Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG) vol 60, no 4, August 2020, pp E9-E10

Letter to the editor presenting a strategy in flowchart format for the management of pregnant women during the COVID-19 pandemic. The authors suggest that mode of delivery should be caesarean section in all cases of COVID-19, and neonates should be rapidly separated from mothers to prevent transmission. (LDO)

20200910-32*

Comparative nanostructure consideration on Wuhan novel coronavirus and possibility of transplacental transmission. Sriwijitalai W, Wiwanitkit V (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 223, no 6, December 2020, p 955

Short correspondence piece suggesting that plansplacental vertical transmission of SARS-CoV-2 is unlikely. The authors argue that SARS-CoV-2 infection in neonates may be due to respiratory transmission from close contact with the mother. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2020.08.061

20200910-16*

Review of guidelines and recommendations from 17 countries highlights the challenges that clinicians face caring for neonates born to mothers with COVID-19. Yeo KT, Oei JL, De Luca D, et al (2020), Acta Paediatrica vol 109, no 11, November 2020, pp 2192-2207

Aim

This review examined how applicable national and regional clinical practice guidelines and recommendations for managing neonates born to mothers with COVID-19 mothers were to the evolving pandemic.

Methods

A systematic search and review identified 20 guidelines and recommendations that had been published by May 25, 2020. We analysed documents from 17 countries: Australia, Brazil, Canada, China, France, India, Italy, Japan, Saudi Arabia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, the UK and the United States.

Results

The documents were based on expert consensus with limited evidence and were of variable, low methodological rigour. Most did not provide recommendations for delivery methods or managing symptomatic infants. None provided recommendations for post-discharge assimilation of potentially infected infants into the community. The majority encouraged keeping mothers and infants together, subject to infection control measures, but one-third recommended separation. Although breastfeeding or using breastmilk was widely encouraged, two countries specifically prohibited this.

Conclusion

The guidelines and recommendations for managing infants affected by COVID-19 were of low, variable quality and may be unsustainable. It is important that transmission risks are not increased when new information is incorporated into clinical recommendations. Practice guidelines should emphasise the extent of uncertainty and clearly define gaps in the evidence. (Author)

20200909-13*

Novel coronavirus infection (COVID-19) in children younger than one year: A systematic review of symptoms, management and outcomes. Raba AA, Abobaker A, Elgenaidi IS, et al (2020), Acta Paediatrica vol 109, no 10, October 2020, pp 1948-1955

Aim
The aim of this systematic review was to evaluate the clinical characteristics of COVID-19 in neonates and children under one year of age.
Methods
A systematic literature review of the MEDLINE, PubMed, CINAHL, Embase and EBSCO databases was carried out for studies from January 1, 2020, to April 7, 2020. We included all papers that addressed clinical manifestations, laboratory results, imaging findings and outcomes in infants and neonates.
Results
Our search identified 77 peer-reviewed papers, and 18 papers covering 160 infants were reviewed. One paper was from Vietnam, and the other 17 were from China: eight were cross-sectional studies, eight were case reports, one was a case series, and one was a prospective cohort study. The most common clinical symptoms were fever (54%) and cough (33%). Most infants were treated symptomatically, with frequent use of various empirical medications. Infants and neonates tended to have more severe COVID-19 disease than older children: 11 (7%) were admitted to intensive care and one infant died. The mortality rate was 0.006%, with favourable outcomes in most cases.
Conclusion
Infants and neonates were more vulnerable to more severe COVID-19 disease than older children, but morbidity and mortality were low. (Author)

Full URL: https://doi.org/10.1111/apa.15422

20200908-4*

Appropriate care for neonates born to mothers with COVID-19 disease. Tran HT, Nguyen PTK, Huynh LT, et al (2020), Acta Paediatrica vol 109, no 9, September 2020, pp 1713-1716

The global COVID-19 pandemic has been associated with high rates of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission, morbidity and mortality in the general population. Evidence-based guidance on caring for babies born to mothers with COVID-19 is needed. There is currently insufficient evidence to suggest vertical transmission between mothers and their newborn infants. However, transmission can happen after birth from mothers or other carers. Based on the currently available data, prolonged skin-to-skin contact and early and exclusive breastfeeding remain the best strategies to reduce the risks of morbidity and mortality for both the mother with COVID-19 and her baby. (Author)

20200908-17*

Overview of the care of mothers and newborns with COVID-19; joint position statement. National Association of Neonatal Nurses, National Perinatal Association (2020), Advances in Neonatal Care vol 20, no 4, August 2020, p 268

A joint position statement from the National Association of Neonatal Nurses (NANN), and the National Perinatal Association (NPA) on the care of the mother-infant dyad during the COVID-19 pandemic. (JSM)

Full URL: https://doi.org/10.1097/ANC.0000000000000776

20200908-13*

Spectrum of COVID-19 in children. Ranabothu S, Onteddu S, Nalleballe K, et al (2020), Acta Paediatrica vol 109, no 9, September 2020, pp 1899-1900

Brief report on the clinical characteristics of infants and children with laboratory confirmed COVID-19. Findings demonstrate that the most common symptoms were a fever and cough. (LDO)

20200907-16*

Neonatal outcome in 29 pregnant women with COVID-19: A retrospective study in Wuhan, China. Wu Y-T, Liu J, Xu J-J, et al (2020), PLoS Medicine vol 17, no 7, 28 July 2020, e1003195

Background

As of June 1, 2020, coronavirus disease 2019 (COVID-19) has caused more than 6,000,000 infected persons and 360,000 deaths globally. Previous studies revealed pregnant women with COVID-19 had similar clinical manifestations to nonpregnant women. However, little is known about the outcome of neonates born to infected women.

Methods and findings

In this retrospective study, we studied 29 pregnant women with COVID-19 infection delivered in 2 designated general hospitals in Wuhan, China between January 30 and March 10, 2020, and 30 neonates (1 set of twins). Maternal demographic characteristics, delivery course, symptoms, and laboratory tests from hospital records were extracted. Neonates were hospitalized if they had symptoms (5 cases) or their guardians agreed to a hospitalized quarantine (13 cases), whereas symptom-free neonates also could be discharged after birth and followed up through telephone (12 cases). For hospitalized neonates, laboratory test results and chest X-ray or computed tomography (CT) were extracted from hospital records. The presence of antibody of SARS-CoV-2 was assessed in the serum of 4 neonates.

Among 29 pregnant COVID-19-infected women (13 confirmed and 16 clinical diagnosed), the majority had higher education (56.6%), half were employed (51.7%), and their mean age was 29 years. Fourteen women experienced mild symptoms including fever (8), cough (9), shortness of breath (3), diarrhea (2), vomiting (1), and 15 were symptom-free. Eleven of 29 women had pregnancy complications, and 27 elected to have a cesarean section delivery.

Of 30 neonates, 18 were admitted to Wuhan Children's Hospital for quarantine and care, whereas the other 12 neonates discharged after birth without any symptoms and had normal follow-up. Five hospitalized neonates were diagnosed as COVID-19 infection (2 confirmed and 3 suspected). In addition, 12 of 13 other hospitalized neonates presented with radiological features for pneumonia through X-ray or CT screening, 1 with occasional cough and the others without associated symptoms. SARS-CoV-2 specific serum immunoglobulin M (IgM) and immunoglobulin G (IgG) were measured in 4 neonates and 2 were positive. The limited sample size limited statistical comparison between groups.

Conclusions

In this study, we observed COVID-19 or radiological features of pneumonia in some, but not all, neonates born to women with COVID-19 infection. These findings suggest that intrauterine or intrapartum transmission is possible and warrants clinical caution and further investigation.

Trial registration

Chinese Clinical Trial Registry, ChiCTR2000031954 (Maternal and Perinatal Outcomes of Women with coronavirus disease 2019 (COVID-19): a multicenter retrospective cohort study). (Author)

Full URL: https://doi.org/10.1371/journal.pmed.1003195

20200907-13*

Clinical and epidemiological characteristics of pediatric SARS-CoV-2 infections in China: A multicenter case series. Zhang C, Gu J, Chen Q, et al (2020), PLoS Medicine vol 17, no 6, 16 June 2020, e1003130

Background

As of April 18, 2020, over 2,000,000 patients had been diagnosed with coronavirus disease-2019 (COVID-19) globally, and more than 140,000 deaths had been reported. The clinical and epidemiological characteristics of adult patients have been documented recently. However, information on pediatric patients is limited. We describe the clinical and epidemiological characteristics of pediatric patients to provide valuable insight into the early diagnosis and assessment of COVID-19 in children.

Methods and findings

This retrospective, observational study involves a case series performed at 4 hospitals in West China. Thirty-four pediatric patients with COVID-19 were included from January 27 to February 23, 2020. The final follow-up visit was completed by March 16, 2020. Clinical and epidemiological characteristics were analyzed on the basis of demographic data, medical history, laboratory tests, radiological findings, and treatment information. Data analysis was performed for 34 pediatrics patients with COVID-19 aged from 1 to 144 months (median 33.00, interquartile range 10.00-94.25), among whom 14 males (41%) were included. All the patients in the current study presented mild (18%) or moderate (82%) forms of COVID-19. A total of 48% of patients were noted to be without a history of exposure to an identified source. Mixed infections of other respiratory pathogens were reported in 16 patients (47%). Comorbidities were reported in 6 patients (18%). The most common initial symptoms were fever (76%) and cough (62%). Expectoration (21%), vomiting (12%), and diarrhea (12%) were also reported in a considerable portion of cases. A substantial increase was detected in serum amyloid A for 17 patients (among 20 patients with available data; 85%) and in high-sensitivity C-reactive protein for 17 patients (among 29 patients with available data; 59%), whereas a decrease in prealbumin was noticed in 25 patients (among 32 patients with available data; 78%). In addition, significant increases in the levels of lactate dehydrogenase and α-hydroxybutyrate dehydrogenase were detected in 28 patients (among 34 patients with available data; 82%) and 25 patients (among 34 patients with available data; 74%), respectively. Patchy lesions in lobules were detected by chest computed tomographic scans in 28 patients (82%). Ground-glass opacities, which were a typical feature in adults, were rare in pediatric patients (3%). Rapid radiologic progression and a late-onset pattern of lesions in the lobules were also noticed. Lesions in lobules still existed in 24 (among 32 patients with lesions; 75%) patients that were discharged, although the main symptoms disappeared a few days after treatment. All patients were discharged, and the median duration of hospitalization was 10.00 (8.00-14.25) days. The current study was limited by the small sample size and a lack of dynamic detection of inflammatory markers.

Conclusions

Our data systemically presented the clinical and epidemiological features, as well as the outcomes, of pediatric patients with COVID-19. Stratified analysis was performed between mild and moderate cases. The findings offer new insight into early identification and intervention in pediatric patients with COVID-19. (Author)

Full URL: https://doi.org/10.1371/journal.pmed.1003130

20200902-36

Fetal Transient Skin Edema in Two Pregnant Women With Coronavirus Disease 2019 (COVID-19). Garcia-Manau P, Garcia-Ruiz I, Rodo C, et al (2020), Obstetrics & Gynecology vol 136, no 5, November 2020, pp 1016-1020

BACKGROUND:

The risk of vertical transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection remains unknown. Positive reverse-transcription polymerase chain reaction (RT-PCR) test results for SARS-CoV-2 infection in neonates and placental tissue have been reported, and immunoglobulin M antibodies have been detected in neonates born to mothers with infection.

CASES:

The first case is a woman at 22 3/7 weeks of gestation with coronavirus disease 2019 (COVID-19) who was admitted to the intensive care unit. In the second case, the patient remained at home with mild symptoms, starting at 20 weeks of gestation. In both cases, fetal skin edema was observed on ultrasound examination while maternal SARS-COV-2 RT-PCR test results were positive and resolved when maternal SARS-COV-2 RT-PCR test results became negative. The RT-PCR test result for SARS-CoV-2 in amniotic fluid was negative in both cases. The two pregnancies are ongoing and uneventful.

CONCLUSION:

Transient fetal skin edema noted in these two patients with COVID-19 in the second trimester may represent results of fetal infection or altered fetal physiology due to maternal disease or may be unrelated to the maternal illness. (Author)

20200902-31*

Ventilators: Children [written answer]. House of Commons (2020), Hansard Written question 74675, 15 July 2020

Edward Argar responds to a written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding what recent assessment he has made of the adequacy of ventilator stock for long term ventilated children. (JSM)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-07-15/74675/

20200902-29*

Ventilators: Children [written answer]. House of Commons (2020), Hansard Written question 78738, 22 July 2020

Edward Argar responds to written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding whether he will make an assessment of the potential merits of ring-fencing ventilator supply budgets to help ensure the adequacy of supplies for the treatment of children requiring long-term ventilation in the winter months of 2020-21. (JSM)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-07-22/78738/

20200902-25*

Ventilators: Children [written answer]. House of Commons (2020), Hansard Written question 74676, 15 July 2020

Edward Argar responds to a written question from Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding what steps he is taking to help ensure an adequate supply of (a) bacterial filters, (b) circuits and (c) other ventilator consumables for the treatment of children requiring ventilation. (JSM)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-07-15/74676/

20200901-27*

A review of newborn outcomes during the COVID-19 pandemic. Kyle MH, Glassman ME, Khan A, et al (2020), Seminars in Perinatology vol 44, no 7, November 2020, 151286

As the COVID-19 pandemic continues to spread worldwide, it is crucial that we determine populations that are at-risk and develop appropriate clinical care policies to protect them. While several respiratory illnesses are known to seriously impact pregnant women and newborns, preliminary data on the novel SARS-CoV-2 Coronavirus suggest that these groups are no more at-risk than the general population. Here, we review the available literature on newborns born to infected mothers and show that newborns of mothers with positive/suspected SARS-CoV-2 infection rarely acquire the disease or show adverse clinical outcomes. With this evidence in mind, it appears that strict postnatal care policies, including separating mothers and newborns, discouraging breastfeeding, and performing early bathing, may be more likely to adversely impact newborns than they are to reduce the low risk of maternal transmission of SARS-CoV-2 or the even lower risk of severe COVID-19 disease in otherwise healthy newborns. (Author)

Full URL: https://doi.org/10.1016/j.semperi.2020.151286

20200901-24*

Care of the COVID-19 exposed complex newborn infant. Krishnamurthy G, Sahni R, Leone T, et al (2020), Seminars in Perinatology vol 44, no 7, November 2020, 151282

As we confront COVID-19, the global public health emergency of our times, new knowledge is emerging that, combined with information from prior epidemics, can provide insights on how to manage this threat in specific patient populations. Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS), both caused by coronaviruses, caused serious respiratory illness in pregnant women that resulted in adverse perinatal outcomes. Thus far, COVID-19 appears to follow a mild course in the vast majority of pregnant women. A significant proportion of pregnant women appear to be asymptomatic carriers of SARS-CoV-2. However, there is limited information on how COVID-19 impacts the fetus and whether vertical transmission occurs. While these knowledge gaps are addressed, it is important to recognize the highly efficient transmission characteristics of SARS-C0V-2 and its potential for causing serious disease in vulnerable individuals, including health care workers. This review provides perspectives from a single center in New York City, the epicenter of the pandemic within the United States. It offers an overview of the preparations required for deliveries of newborns of mothers with COVID-19 and the management of neonates with particular emphasis on those born with complex issues. (Author)

Full URL: https://doi.org/10.1016/j.semperi.2020.151282

20200824-84*

Visitation restrictions: is it right and how do we support families in the NICU during COVID-19?. Murray PD, Swanson JR (2020), Journal of Perinatology vol 40, no 10, October 2020, pp 1576-1581

Although the COVID-19 pandemic has largely not clinically affected infants in neonatal intensive care units around the globe, it has affected how care is provided. Most hospitals, including their NICUs, have significantly reduced parental and family visitation privileges. From an ethical perspective, this restriction of parental visitation in settings where infectious risk is difficult to understand. No matter what the right thing to do is, NICUs are currently having to support families of their patients via different mechanisms. In this perspective, we discuss ways NICUs can support parents and families when they are home and when they are in the NICU as well as provide infants the support needed when family members are not able to visit. (Author)

Full URL: https://doi.org/10.1038/s41372-020-00781-1

20200821-42*

Promotion of Maternal-Infant Mental Health and Trauma-Informed Care During the Coronavirus Disease 2019 Pandemic.
Choi K, Records K, Low LK, et al (2020), JOGNN: Journal of Obstetric, Gynecologic and Neonatal Nursing 11 August 2020, online

The coronavirus disease 2019 pandemic has led to disruptions in health care in the perinatal period and women's childbirth experiences. Organizations that represent health care professionals have responded with general practice guidelines for pregnant women, but limited attention has been devoted to mental health in the perinatal period during a pandemic. Evidence suggests that in this context, significant psychological distress may have the potential for long-term psychological harm for mothers and infants. For infants, this risk may extend into early childhood. In this commentary, we present recommendations for practice, research, and policy related to mental health in the perinatal period. These recommendations include the use of a trauma-informed framework to promote social support and infant attachment, use of technology and telehealth, and assessment for mental health needs and experiences of violence. (Author)

20200821-4*

The downstream effects of COVID-19: a call for supporting family wellbeing in the NICU. Erdei C, Liu CH (2020), Journal of Perinatology vol 40, no 9, September 2020, pp 1283-1285

Parents of NICU infants are a vulnerable population from a psychological perspective, and often experience high levels of acute stress, depression, anxiety, and post-traumatic stress. The added burden of the current SARS CoV-2 disease (COVID-19) pandemic is likely to exacerbate these issues, with potential implications for the wellbeing of infants and families in the short- and long-term. In this paper, we propose utilizing the stress contagion framework and consider how psychosocial stress can 'spill over' into the parent-infant relationship domain, which can impact child development and family wellbeing longer term. As the effects of the pandemic will likely persist well beyond the acute stage, we offer advocacy points and general guidelines for healthcare professionals to consider in their quest to mitigate stress and build resilience in NICU families. (Author)

Full URL: https://doi.org/10.1038/s41372-020-0745-7

20200821-33*

The COVID-19 Pandemic: The Role of Childbirth Educators in Promoting and Protecting Breastfeeding. Spatz DL (2020), The Journal of Perinatal Education vol 29, no 3, Summer 2020, pp 120-122

The healthcare system is being challenged in the United States and worldwide due to the pandemic of coronavirus disease 2019 (COVID-19). However, all through this pandemic, families will continue to birth children. Childbirth educators play a particularly important role in ensuring that families receive appropriate evidence-based information about human milk and breastfeeding as a lifesaving medical intervention. In the current COVID-19 crisis, breastfeeding and the provision of human milk remains recommended by national and international organizations. (Author)

20200821-3*

Covid-19 and breastfeeding: what's the risk?. Hand IL, Noble L (2020), Journal of Perinatology vol 40, no 10, October 2020, pp 1459-1461

Short commentary on the risks and benefits of breastfeeding during the COVID-19 pandemic. Discusses vertical disease transmission and the protective qualities of antibodies in breast milk. (LDO)

Full URL: https://doi.org/10.1038/s41372-020-0738-6

20200821-2*

Newborns of COVID-19 mothers: short-term outcomes of colocating and breastfeeding from the pandemic's epicenter. Patil UP, Maru S, Krishnan P, et al (2020), Journal of Perinatology vol 40, no 10, October 2020, pp 1455-1458

Retrospective study on live births to women who tested positive for SARS-CoV-2 at a Baby Friendly Hospital in Queens, New York. 11% of well newborns were placed in isolation, 16% were admitted to neonatal intensive care units and 94% were breastfed within one hour of birth. 73% of newborns tested negative and 6.6% tested positive for SARS-CoV-2, and none were reported to have any symptoms consistent with COVID-19. (LDO)

Full URL: https://doi.org/10.1038/s41372-020-0765-3

20200820-6*

COVID-19 and pregnancy: A review of clinical characteristics, obstetric outcomes and vertical transmission. Pettirosso E, Giles M, Cole S, et al (2020), Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG) vol 60, no 5, October 2020, pp 640-659

Background
Since its emergence in December 2019, COVID-19 has spread to over 210 countries, with an estimated mortality rate of 3-4%. Little is understood about its effects during pregnancy.
Aims
To describe the current understanding of COVID-19 illness in pregnant women, to describe obstetric outcomes and to identify gaps in the existing knowledge.
Methods
Medline Ovid, EMBASE, World Health Organization COVID-19 research database and Cochrane COVID-19 in pregnancy spreadsheet were accessed on 18/4, 18/5 and 23/5 2020. Articles were screened via Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The following were excluded: reviews, opinion pieces, guidelines, articles pertaining solely to other viruses, single case reports.
Results
Sixty articles were included in this review. Some pregnant participants may have been included in multiple publications, as admission dates overlap for reports from the same hospital. However, a total of 1287 confirmed SARS-CoV-2 positive pregnant cases are reported. Where universal testing was undertaken, asymptomatic infection occurred in 43.5-92% of cases. In the cohort studies, severe and critical COVID-19 illness rates approximated those of the non-pregnant population. Eight maternal deaths, six neonatal deaths, seven stillbirths and five miscarriages were reported. Thirteen neonates were SARS-CoV-2 positive, confirmed by reverse transcription polymerase chain reaction of nasopharyngeal swabs.
Conclusions
Where universal screening was conducted, SARS-CoV-2 infection in pregnancy was often asymptomatic. Severe and critical disease rates approximate those in the general population. Vertical transmission is possible; however, it is unclear whether SARS-CoV-2 positive neonates were infected in utero, intrapartum or postpartum. Future work should assess risks of congenital syndromes and adverse perinatal outcomes where infection occurs in early and mid-pregnancy. (Author)

20200820-50*

Maternal and infant outcomes of full-term pregnancy combined with COVID-2019 in Wuhan, China: retrospective case series.

Chen Y, Bai J (2020), Archives of Gynecology and Obstetrics vol 302, no 3, September 2020, pp 545-551

Objective
To investigate the maternal and infant outcomes of full-term pregnant patients in Wuhan, China, who were infected with 2019 severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) that is responsible for coronavirus disease 2019 (COVID-2019).
Design
Retrospective case series.
Setting
The Central Hospitals of Wuhan, Tongji Medical College, Huazhong University of Science and Technology in Wuhan, China.
Participants
Twenty one full-term pregnant patients who were admitted to the Central Hospital of Wuhan, Tongji Medical College, Huazhong University of Science and Technology, confirmed SARS-CoV-2 infection and COVID-2019 with laboratorial and clinical methods, were reviewed by our medical team, and the data were collected from January 20, 2020 to February 29, 2020.
Main clinical data collection
Clinical data had been collecting using a standard case report form, such as epidemiological history, clinical manifestations, auxiliary examination of major laboratory and clinic, etc. All the information was collected and confirmed by our medical team.
Results
Twenty one full-term pregnant patients were reviewed (median age 29 years), and no patients were admitted to intensive care unit (ICU), and died during the treating progress. According to our review, all the cases were infected by human to human transmission, and the most common symptoms at onset of illness were cough in 17 (80.95%), fatigue in 10 (47.62%), fever in 7 (33.33%), expectoration in 1 (4.76%), and only one patient (4.76%) developed shortness of breath on admission. The median time from exposure to onset of illness was 10 days (interquartile range 7 -2 days), and from onset of symptoms to first hospital admission was 1 day (interquartile range 1-2 days).
Conclusions
As of February 29, 2020, all the patients who were full-term pregnancy combined with COVID-2019 were cured and delivered successfully, and all the newborns were not infected with SARS-CoV-2, and there were no evidence of mother-to-child transmission. (Author)

Full URL: https://doi.org/10.1007/s00404-020-05573-8

20200820-114*

Vertical transmission of coronavirus disease 2019: a systematic review and meta-analysis. Kotlyar A, Grechukhina O, Chen A, et al (2021), American Journal of Obstetrics & Gynecology (AJOG) vol 224, no 1, January 2021, pp 35-53.e3

Objective

We sought to conduct a systematic review of the current literature to determine estimates of vertical transmission of COVID-19 based upon early RNA detection of SARS-CoV-2 after birth from various neonatal/fetal sources and neonatal serology.

Data sources

Eligible studies published up to May 28, 2020 were retrieved from Pubmed, EMbase, MedRXiv, BioRXiv collection databases.

Study eligibility criteria

This systematic review included cohort studies, case series and case reports of pregnant women who had COVID-19 infection as confirmed by positive SARS-CoV-2 viral RNA testing, and had reported data regarding testing of neonates/fetuses for SARS-CoV-2 immediately after birth and up to within 48hrs of birth. In total, 30 eligible case reports describing 43 tested neonates, and 38 cohort/case series studies describing 936 tested neonates were included.

Study appraisal and synthesis methods

The methodological quality of all included studies was evaluated by a modified Newcastle-Ottawa scale. Quantitative synthesis was performed on cohort/case series studies according to neonatal biological specimen site to reach pooled proportions of vertical transmission.

Results

Our quantitative synthesis revealed that of 936 neonates from COVID-19 infected mothers, 27 neonates had SARS-CoV-2 viral RNA positive nasopharyngeal swab, indicating a pooled proportion of 3.2% (95% CI 2.2-4.3%) for vertical transmission. Notably, the pooled proportion of SARS-CoV-2 positivity in neonates by nasopharyngeal swab in studies from China was 2.0% (8/397) which was similar to pooled proportion of 2.7% (14/517) in studies from outside of China. SARS-CoV-2 viral RNA testing in neonatal cord blood was positive in 2.9% (1/34) of samples, 7.7% (2/26) of placenta samples, 0% (0/51) of amniotic fluid and 0% (0/17) of urine samples and 9.7% (3/31) of fecal/rectal swabs. Neonatal serology was positive in 3/82 (3.7%) (based upon the presence of IgM).

Conclusion

Vertical transmission of SARS-CoV-2 is possible and appears to occur in a minority of cases of maternal COVID-19 infection in third trimester. Rates of infection are similar to other pathogens that cause congenital infections. However, given the paucity of early trimester data, no assessment can yet be made regarding rates of vertical transmission in early pregnancy as well as potential risk for consequent fetal morbidity and mortality. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2020.07.049

20200819-64*

Protecting Breastfeeding during the COVID-19 Pandemic. Cheema R, Partridge E, Kair LR, et al (2020), American Journal of Perinatology 21 July 2020, online

The severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) pandemic has impacted all patient populations including pregnant mothers. There is an incomplete understanding of SARS-CoV-2 pathogenesis and transmission potential at this time and the resultant anxiety has led to variable breastfeeding recommendations for suspected or confirmed mothers with novel coronavirus disease 2019 (COVID-19). Due to the potential concern for transmission of infection from maternal respiratory secretions to the newborn, temporary separation of the maternal-baby dyad, allowing for expressed breast milk to be fed to the infant, was initially recommended but later revised to include breastfeeding by the American Academy of Pediatrics in contrast to international societies, which recommend direct breastfeeding. This separation can have negative health and emotional implications for both mother and baby. Only two publications have reported SARS-CoV-2 in human breast milk but the role of breast milk as a vehicle of transmission of COVID-19 to the newborns still remains unclear and may indeed be providing protective antibodies against SARS-CoV-2 infection even in infected neonates. Other modes of transmission of infection to neonates from infected mothers or any care providers cannot be overemphasized. Symptomatic mothers on hydroxychloroquine can safely breastfeed and no adverse effects were reported in a baby treated with remdesivir in another drug trial. The excretion of sarilumab in human breast milk is unknown at this time. Hence, given the overall safety of breast milk and both short-term and long- term nutritional, immunological, and developmental advantages of breast milk to newborn, breast milk should not be withheld from baby. The setting of maternal care, severity of maternal infection and availability of resources can impact the decision of breastfeeding, the role of shared decision making on breastfeeding between mother and physician needs to be emphasized. We strongly recommend direct breastfeeding with appropriate hygiene precautions unless the maternal or neonatal health condition warrants separation of this dyad. (Author)

20200819-63*

Intrauterine transfusion in COVID-19 positive mother vertical transmission risk assessment. Filimonovic D, Lackovic M, Filipovic I, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 252, September 2020, pp 617-618

Short correspondence piece discussing an intrauterine transfusion in a 33-year-old pregnant woman diagnosed with COVID-19. The premature infant was delivered at 32 weeks' gestation via caesarean section and tested negative for SARS-CoV-2. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.07.039

20200819-48*

Outcomes in COVID-19 Positive Neonates and Possibility of Viral Vertical Transmission: A Narrative Review. Sheth S, Shah N, Bhandari V (2020), American Journal of Perinatology vol 37, no 12, October 2020, pp 1208-1216

Objective Novel coronavirus disease 2019 (COVID-19) seems to affect adults and pediatric patients differently. While neonates are a special population, little is known about the neonatal outcomes. This study aimed to investigate the outcomes in COVID-19 positive neonates and incidence of vertical transmission of the virus by reviewing available literature.

Study Design This study is a narrative review of available literature on 'COVID-19 in neonates,' for which PubMed and Google Scholar were used to search the published articles.

Results We summarized the data from 39 published studies that are comprised of 326 COVID-19 positive peripartum mothers with respective neonatal outcomes. Twenty-three neonates have been reported to be COVID-19 positive. Male neonates were affected significantly more (79%) than female neonates. Approximately 3% neonates acquired infection through suspected vertical transmission. Strict infection prevention measures during the perinatal time can significantly reduce the chance of horizontal transmission of the virus. Overall, neonates were asymptomatic or mildly symptomatic regardless of gestational age at birth and required only supportive measures. There was 0% mortality in COVID-19 positive neonates.

Conclusion From available published data to date, we can conclude that the prognosis of COVID-19 positive neonates is good with no mortality. There appears to be minimal vertical transmission of the infection. (Author)

20200819-46*

Vertical Transmission of SARS-CoV-2 (COVID-19): Are Hypotheses More than Evidences?. Auriti C, De Rose DU, Tzialla C, et al (2020), American Journal of Perinatology 5 August 2020, online

In spite of the increasing, accumulating knowledge on the novel pandemic coronavirus severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2), questions on the coronavirus disease-2019 (COVID-19) infection transmission from mothers to fetuses or neonates during pregnancy and peripartum period remain pending and have not been addressed so far. SARS-CoV-2, a RNA single-stranded virus, has been detected in the amniotic fluid, in the cord blood and in the placentas of the infected women. In the light of these findings, the theoretical risk of intrauterine infection for fetuses, or of peripartum infection occurring during delivery for neonates, has a biological plausibility. The extent of this putative risk might, however, vary during the different stages of pregnancy, owing to several variables (physiological modifications of the placenta, virus receptors' expression, or delivery route). This brief review provides an overview of the current evidence in this area. Further data, based on national and international multicenter registries, are needed not only to clearly assess the extent of the risk for vertical transmission, but also to ultimately establish solid guidelines and consistent recommendations. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

20200819-39*

A Case Report to Assess Passive Immunity in a COVID Positive Pregnant Patient. Toner LE, Gelber SE, Pena JA, et al (2020), American Journal of Perinatology vol 37, no 12, October 2020, pp 1280-1282

Introduction Data regarding transplacental passage of maternal coronavirus disease 2019 (COVID-19) antibodies and potential immunity in the newborn is limited.

Case Report We present a 25-year-old multigravida with known red blood cell isoimmunization, who was found to be COVID-19 positive at 27 weeks of gestation while undergoing serial periumbilical blood sampling and intrauterine transfusions. Maternal COVID-19 antibody was detected 2 weeks after positive molecular testing. Antibodies were never detected on cord blood samples from two intrauterine fetal cord blood samples as well as neonatal cord blood at the time of delivery.

Conclusion This case demonstrates a lack of passive immunity of COVID-19 antibodies from a positive pregnant woman to her fetus, neither in utero nor at the time of birth. Further studies are needed to understand if passage of antibodies can occur and if that can confer passive immunity in the newborn.

Key Points

Passive immunity should not be assumed in COVID-19 infection in pregnancy.

Isoimmunization may impair passive immunity of certain antibodies.

Vaccination to or maternal infection of COVID-19 may not be protective for the fetus. (Author)

Full URL: https://doi.org/10.1055/s-0040-1715643

20200819-32*

Epidemiological trends in Kawasaki disease during COVID-19 in Singapore. Yung CF, Nadua KD, Oh BK, et al (2020), The Journal of Pediatrics 24 July 2020, online

To the Editor

We read with interest the clinical profile of 33 children with multisystem inflammatory syndrome in children (MIS-C) by Kaushik et al from three New York City tertiary care children's hospitals [1]. There have been similar reports of a surge in children presenting with systemic inflammation, including Kawasaki-like disease from Europe and other parts of the United States but not from Asia to date [2, 3, 4, 5]. We compared the epidemiologic trends in Kawasaki disease at the only public specialist children's hospital in Singapore pre-COVID-19 (January 1, 2017-December 31, 2019) and during COVID-19 (January 1, 2020-April 30, 2020). (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.07.063

20200819-22*

Impact of Maternal SARS-CoV-2 Detection on Breastfeeding Due to Infant Separation at Birth. Popofsky S, Noor A, Leavens-Maurer J, et al (2020), The Journal of Pediatrics vol 226, November 2020, pp 64-70

Objective
To assess the impact of separation of SARS-CoV-2 PCR-positive mother-newborn dyads on breastfeeding outcomes.
Study design
This is an observational longitudinal cohort study of SARS-CoV-2 PCR-positive mothers and their infants at three NYU Langone Health hospitals from March 25, 2020 through May 30, 2020. Mothers were surveyed by telephone regarding pre-delivery feeding plans, in-hospital feeding, and home feeding of their neonates. Any change prompted an additional question to determine whether this change was due to COVID-19.
Results
Of the 160 mother-newborn dyads, 103 mothers were reached by telephone, and 85 consented to participate. No significant difference was observed in pre-delivery feeding plan between the separated and unseparated dyads (P = .268). Higher rates of breastfeeding were observed in the unseparated dyads compared with the separated dyads in the hospital (p<0.001), and at home (p=0.012). Only two mothers in each group reported expressed breast milk as the hospital feeding source (5.6% of unseparated vs 4.1% of separated). COVID-19 was more commonly cited as the reason for change among the separated compared with the unseparated group (49.0% vs 16.7%, p<0.001). When dyads were further stratified by symptom status into four groups (asymptomatic separated, asymptomatic unseparated, symptomatic separated, and symptomatic unseparated), results remained unchanged.
Conclusion
In the setting of COVID-19, separation of mother-newborn dyads impacts breastfeeding outcomes, with lower rates of breastfeeding both during hospitalization and at home following discharge compared with unseparated mothers and infants. No evidence of vertical transmission was observed; one case of postnatal transmission occurred from an unmasked symptomatic mother who held her infant at birth. (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.08.004

20200819-163*

Management of mothers and neonates in low resources setting during covid-19 pandemia. Trevisanuto D, Weiner G, Lakshminrusimha S, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 30 June 2020, online

The coronavirus disease (COVID-19) epidemic started in the Hubei province of China, but is rapidly spreading all over the world. Much of the information and literature have been centered on the adult population while a few reports pertaining to COVID-19 and neonates have been published so far. Actual guidelines are based on expert opinion and show significant differences among the official neonatal societies around the world. Recommendations for the care of neonates born to suspected or confirmed COVD-19 positive mothers in low-resource settings are very limited. This perspective aims to provide practical support for the planning of delivery, resuscitating, stabilizing, and providing postnatal care to an infant born to a mother with suspected or confirmed COVID-19 in low-resource settings where resources for managing emergency situations are limited. (Author)

20200819-162*

Vertical transmission risk of SARS-CoV-2 infection in the third trimester: a systematic scoping review. Thomas P, Alexander PE, Ahmed U, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 1 July 2020, online

Background: Studies on COVID-19 infection in pregnancy thus far have largely focused on characterizing maternal and neonatal clinical characteristics. However, another evolving focus is assessing and mitigating the risk of vertical transmission amongst COVID-19-positive mothers. The objective of this review was to summarize the current evidence on the vertical transmission potential of COVID-19 infection in the third trimester and its effects on the neonate.

Methods: OVID MEDLINE, EMBASE, and Cochrane Central Register of Controlled Trial (CENTRAL) were searched from January 2020 to May 2020, with continuous surveillance.

Results: 18 studies met the inclusion criteria, consisting of 157 mothers and 160 neonates. The mean age of the pregnant patients was 30.8 years and the mean gestational period was 37 weeks and 1 d. Currently, there is currently no conclusive evidence to suggest that vertical transmission of SARS-CoV-2 occurs. Amongst 81 (69%) neonates who were tested for SARS-CoV-2, 5 (6%) had a positive result. However, amongst these 5 neonates, the earliest test was performed at 16 h after birth, and only 1 neonate was positive when they were later re-tested. However, this neonate initially tested negative at birth, suggesting that the SARS-CoV-2 infection was likely hospital-acquired rather than vertically transmitted. 13 (8%) neonates had complications or symptoms.

Conclusions: The findings of this rapid descriptive review based on early clinical evidence suggest that vertical transmission of SARS-CoV-2 from mother to neonate/newborn did not occur. Future studies are needed to determine the optimal management of neonates born to COVID-19-positive mothers. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1786055

20200819-147*

Pregnancy and COVID-19: a systematic review of maternal, obstetric and neonatal outcomes. Trocado V, Silvestre-Machado J, Azevedo L, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 7 July 2020, online

Background

There is limited information related to COVID-19 in pregnancy.

Objectives

Evaluate the impact of COVID-19 during pregnancy.

Search strategy: Searches were systematically carried out in PubMed, Scopus database and WHO database.

Selection criteria: Studies with information related to the effects of COVID-19 in pregnancy, concerning maternal, obstetric, and neonatal outcomes were included.

Data collection and analysis: Data were extracted for systematic review following PRISMA guidelines. CARE and STROBE were used to evaluate the quality of data.

Main Results: A total of 8 studies involving 95 pregnant women and 51 neonates were included. Overall, the quality was considered good in four studies, moderate in three and poor in one. Among pregnant women, 26% had a history of epidemiological exposure to SARS-CoV-2. The most common symptoms presented were fever (55%), cough (38%) and fatigue (11%). In 50 deliveries, 94% were cesarean sections and 35% were preterm births. Of the 51 neonates, 20% had low birth weight and 1 tested positive for Sars-CoV-2. There was 1 neonatal death, not related to the viral infection, and no cases of severe neonatal asphyxia.

Conclusions

The information compiled in this systematic review may help healthcare providers administer the best possible care. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1781809

20200819-132*

SARS-CoV-2 is not present in the vaginal fluid of pregnant women with COVID-19. Aslan MM, Yuvacı HU, Köse O, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 16 July 2020, online

Background

Data concerning the presence of SARS-CoV-2 in the female genital system is scarce; however, this information is important for understanding whether the virus can transmit sexually or from mother to child. The aim of this study was to investigate whether pregnant women with COVID-19 have virus in their lower genital tract.

Methods

In this cross-sectional study, we present an analysis of prospectively gathered data collected at a single tertiary university hospital from 19 April to 19 May 2020. We included 13 pregnant women hospitalized with suspected COVID-19. Results of laboratory tests, imaging tests, and nucleic acid tests on vaginal swabs for SARS-CoV-2 were also analyzed for pregnant women with a clinical diagnosis of COVID-19.

Results

Twelve pregnant women with confirmed COVID-19 were included in this study. Mean age was 32 ± 7.9 years. All patients had mild symptoms and were followed in the maternity ward, with none of them needing critical care unit follow-up. All lower genital tract samples were negative for SARS-CoV-2.

Conclusion

We demonstrated that SARS-CoV-2 was not present in the vaginal fluid of pregnant women. This finding may indicate that the female genital tract is not a route of SARS-CoV-2 transmission. (Author)

20200819-121*

Vertical transmission of SARS CoV-2: a systematic review. Deniz M, Tezer H (2020), The Journal of Maternal-Fetal and Neonatal Medicine 21 July 2020, online

Objective

The aim of this study is to review the current evidence on the vertical transmission of SARS CoV-2.

Methods

Combination of the following keywords; COVID-19, SARS CoV-2, placenta, vertical transmission, intrauterine infection, breast milk were searched in databases.

Results

In the 50 studies included, 17 newborns testing positive for SARS CoV-2 by RT-PCR were reported. In three neonates, SARS-CoV-2 IgG and IgM levels were elevated. Eight placental tissues testing positive for the virus were reported. Three positive RT-PCR results of test of breast milk have been reported recently. One amniotic fluid testing positive was reported.

Conclusion

Possible vertical transmission of SARS CoV-2 has been observed in some studies currently. More RT-PCR tests on amniotic fluid, placenta, breast milk and cord blood are required. (Author)

20200819-117*

Perinatal management of SARS-CoV-2 infection in a level III University Hospital. Pissarra S, Rosário M, Moucho M, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 23 July 2020, online

Over the past 4 months, SARS-CoV-2 pandemic has spread all over the world. The lack of understanding of this pandemic epidemiological characteristics, clinical implications and long term consequences have raised concern among healthcare workers. Pregnant women and newborns are a particularly worrisome population since data referring to real infection impact in these patients are scarce and management controversial. We report on the perinatal management of the first consecutive ten mother-infant dyads of SARS-CoV-2 infection complicated pregnancy. All mothers were included in newborn management planning prior to delivery and decided on separation from their newborns; nine decided on postponing breastfeeding until SARS-CoV-2 negativity while maintaining lactation stimulation. No evidence of vertical transmission was found (all NP swab and bronchial secretions SARS-CoV-2 RT-PCR were negative). No newborn developed clinical evidence of infection. In the face of current scientific uncertainty, decisions of perinatal management, such as mother-infant separation and breastfeeding, must involve parents in a process of shared decision making. (Author)

20200819-116*

Perinatal transmission with SARS-CoV-2 and route of pregnancy termination: a narrative review. Gracia PVG, Luo C, Malpassi RE (2020), The Journal of Maternal-Fetal and Neonatal Medicine 26 July 2020, online

Objective

Analyze newborns diagnosed with SARS-CoV-2 performed with RT-PCR at birth or during the first days of birth and to look for an association with the route of birth.

Methods

We conducted a comprehensive literature search for newborns diagnosed with COVID-19 using PubMed, LILACS and Google scholar until May 15, 2020, looking for published articles with pregnancy, vertical transmission, intrauterine transmission, neonates, delivery.

Results

There were found 10 articles with a total of 15 newborn infected with SARS-CoV-2 according to positive PCR at birth or in the first days of birth. Eleven newborn birth by cesarean section and 4 vaginally. Of the 11 cases with cesarean section, two presented premature rupture of the membranes. Seven newborns developed pneumonia, of which two had ruptured membranes and one was born by vaginal delivery.

Conclusion

This review shows that there is perinatal or neonatal infection with SARS-CoV-2 by finding a positive PCR in the first days of birth. In addition, that there is more possibility of neonatal infection if the birth is vaginal or if there is premature rupture of the membranes before cesarean section. Vaginal delivery and premature rupture of membranes should be considered as risk factors for perinatal infection. (Author)

20200819-102*

Novel coronavirus infection and Kawasaki disease. Bitsadze VO, Grigoreva K, Khizroeva JKH, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine 30 July 2020, online

There is a global problem of increment of the number of children with clinical features that mimic Kawasaki Disease (KD) during the ongoing Coronavirus Disease 2019 (COVID-19) pandemic. The disease was first reported by Tomisaku Kawasaki, a Japanese pediatrician, in a four-year-old child with a rash and fever at the Red Cross Hospital in Tokyo in January 1961. Now Kawasaki disease is recognized worldwide. The complexity of symptoms was defined as an «acute febrile mucocutaneous lymphnode syndrome'. At the moment, it is still unclear whether the coronavirus itself can lead to development of mucocutaneous lymph node syndrome. However, it is believed that COVID-19 virus infection worsens the course of Kawasaki disease, and in some cases, children affected by SARS-V-2 may develop a disease that has a clinical picture similar to Kawasaki disease. (Author)

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

20200817-47*

Outcome of universal screening of neonates for COVID-19 from asymptomatic mothers. McDevitt KEM, Ganjoo N, Mlangeni D, et al (2020), Journal of Infection vol 81, no 3, September 2020, pp 452-482

Correspondence reporting on the results of a universal screening programme of asymptomatic and healthy mothers together with their newborns. (MB)

Full URL: https://doi.org/10.1016/j.jinf.2020.06.037

20200817-34*

Promoting attachment between parents and neonates despite the COVID-19 pandemic. Tscherning C, Sizun J, Kuhn P (2020), Acta Paediatrica vol 109, no 10, October 2020, pp 1937-1943

Social distancing is the only option available during the COVID-19 pandemic until a vaccine is developed. However, this is having a major impact on human relationships and bonding between parents and neonates is a major concern. Separation during this health emergency could have lifelong consequences for offspring, and there are even greater concerns if newborn infants are sick or vulnerable and need intensive care. We look at how bonding can be safely supported and maintained without risking infecting neonates, by comparing the international guidelines and proposing safe actions within those frameworks. (Author)

20200817-29*

Multicentre Spanish study found no incidences of viral transmission in infants born to mothers with COVID-19. Gabriel MAM, Cuadrado I, Fernández BÁ, et al (2020), Acta Paediatrica vol 109, no 11, November 2020, pp 2302-2308

Aim

Our aim was to describe the clinical features of mothers infected with COVID-19 and examine any potential vertical mother to newborn transmission. We also assessed how effective the discharge recommendations were in preventing transmission during the first month of life.

Methods

This multicentre descriptive study involved 16 Spanish hospitals. We reviewed the medical records of 42 pregnant women diagnosed with COVID-19 from March 13, 2020, to March 29, 2020, when they were in their third trimester of pregnancy. They and their newborn infants were monitored until the infant was 1 month old.

Results

Over half (52.4%) of the women had a vaginal delivery. The initial clinical symptoms were coughing (66.6%) and fever (59.5%), and one mother died due to thrombo-embolic events. We admitted 37 newborn infants to the neonatal unit (88%), and 28 were then admitted to intermediate care for organisational virus-related reasons. No infants died, and no vertical transmission was detected during hospitalisation or follow-up. Only six were exclusively breastfed at discharge.

Conclusion

There was no evidence of COVID-19 transmission in any of the infants born to COVID-19 mothers, and the post-discharge advice seemed effective. The measures to avoid transmission appeared to reduce exclusive breastfeeding at discharge. (Author)

20200814-2*

Skin-to-Skin Contact at Birth in the COVID-19 Era: In Need of Help!. Davanzo R, Merewood A, Manzoni P (2020), American Journal of Perinatology 9 August 2020, online

Editorial on the challenges of implementing skin-to-skin care during the COVID-19 pandemic. Recommends that skin-to-skin contact should continue for all women and infants, as there is no evidence of increased risk of SARS-CoV-2 infection in the neonate and appropriate infection control measures can be followed. (LDO)

Full URL: https://doi.org/10.1055/s-0040-1714255

20200812-6*

Vaccination: Children [written answer]. House of Commons (2020), Hansard Written question 66149, 29 June 2020

Jo Churchill responds to a written question from Catherine West to the Secretary of State for Health and Social Care, regarding what recent assessment he has made of the effect of the covid-19 outbreak on the delivery of routine child vaccination programmes. (JSM)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-29/66149/

20200812-5*

Vaccination: Children [written answer]. House of Commons (2020), Hansard Written question 66150, 29 June 2020

Jo Churchill responds to a written question from Catherine West to the Secretary of State for Health and Social Care, regarding what steps he is taking to (a) ensure vulnerable children receive routine vaccinations during the covid-19 outbreak and (b) provide a catch-up programme for vulnerable children who may have missed their vaccinations. (JSM)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-29/66150/

20200812-2*

Setting realistic goals for feeding infants when their mothers have suspected or confirmed COVID-19. Mosalli R, Paes B (2020), Acta Paediatrica vol 109, no 10, October 2020, pp 1934-1936

Provides an overview of the existing evidence and guidelines on infant feeding during the COVID-19 pandemic. Explores infant feeding via breast milk, expressed breast milk, donor milk and infant formula when the mother tests positive or is awaiting results for SARS-CoV-2. Also explores infant feeding practices when the infant is separated from the mother and remains in the neonatal intensive care unit. (LDO)

20200812-10*

Detection of severe acute respiratory syndrome coronavirus 2 in placentas with pathology and vertical transmission. Zhang P, Heyman T, Salafia C, et al (2020), American Journal of Obstetrics & Gynecology MFM vol 2, no 4, suppl, November 2020, 100197

Research letter presenting a study on placental pathology and SARS-CoV-2 viral particles within the placental tissue. Findings suggest that SARS-CoV-2 viral particles are uncommon in placentas from positive mothers at late gestation. (LDO)

Full URL: https://doi.org/10.1016/j.ajogmf.2020.100197

20200811-25*

COVID-19 and Treg/Th17 imbalance: Potential relationship to pregnancy outcomes. Muyayalo KP, Huang DH, Zhao SJ, et al (2020), American Journal of Reproductive Immunology 14 July 2020, online

Caused by a novel type of virus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), coronavirus disease 2019 (COVID-19) constitutes a global public health emergency. Pregnant women are considered to have a higher risk of severe morbidity and even mortality due to their susceptibility to respiratory pathogens and their particular immunologic state. Several studies assessing SARS-CoV-2 infection during pregnancy reported adverse pregnancy outcomes in patients with severe conditions, including spontaneous abortion, preterm labor, fetal distress, cesarean section, preterm birth, neonatal asphyxia, neonatal pneumonia, stillbirth, and neonatal death. However, whether these complications are causally related to SARS-CoV-2 infection is not clear. Here, we reviewed the scientific evidence supporting the contributing role of Treg/Th17 cell imbalance in the uncontrolled systemic inflammation characterizing severe cases of COVID-19. Based on the recognized harmful effects of these CD4+ T-cell subset imbalances in pregnancy, we speculated that SARS-CoV-2 infection might lead to adverse pregnancy outcomes through the deregulation of otherwise tightly regulated Treg/Th17 ratios, and to subsequent uncontrolled systemic inflammation. Moreover, we discuss the possibility of vertical transmission of COVID-19 from infected mothers to their infants, which could also explain adverse perinatal outcomes. Rigorous monitoring of pregnancies and appropriate measures should be taken to prevent and treat early eventual maternal and perinatal complications. (Author)

20200810-24*

Breastfeeding, Human Milk Collection and Containers, and Human Milk Banking: Hot Topics During the COVID-19 Pandemic. Moro GE, Bertino E (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 604-608

Provides an overview of the practical issues related to breastfeeding, human milk collection and human milk donation during the COVID-19 pandemic. Recommends that breastfeeding should be promoted whenever possible, human milk containers should be handled in the correct way to prevent SARS-CoV-2 contamination, strict control measures should be implemented in milk banks, and donor milk should be allocated to the smallest and most at risk premature infants. (LDO)

Full URL: https://doi.org/10.1177/0890334420934391

20200810-23*

A Call to Ensure Access to Human Milk for Vulnerable Infants During the COVID-19 Epidemic. Rigourd V, Lapillonne A (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 624-625

Provides a brief overview of the challenges related to donor milk supply in France during the COVID-19 pandemic. Discusses the steps taken to overcome supply issues at a milk bank in Paris, including training collectors to safely collect donor milk at home, making the exclusion criteria for donors less restrictive, and launching a widespread awareness campaign across neonatal units and maternity wards. (LDO)

Full URL: https://doi.org/10.1177/0890334420938036

20200810-19*

Implications of the COVID-19 Pandemic Response for Breastfeeding, Maternal Caregiving Capacity and Infant Mental Health. Gribble K, Marinelli KA, Tomori C, et al (2020), Journal of Human Lactation vol 36, no 4, November 2020, pp 591-603

Provides an overview of the current evidence on SARS-CoV-2 in infants and infant feeding, summarises national and international guidelines, describes the results of policies preventing skin to skin contact and draws comparisons to the HIV pandemic. (LDO)

Full URL: https://doi.org/10.1177/0890334420949514

20200810-17*

Isolation, childcare and shortage of support: The impact of Covid-19 on young women's mental health. Mason B (2020), Institute for Employment Studies 10 August 2020

In this, one of a series of blogs from the Insitute for Employment Studies looking at how Covid-19 and lockdown has affected young women's mental health, financial stability, and access to employment, Beth Mason talks to Georgie Whiteley, Research Lead at the Young Women's Trust (YWT) concerning issues around isolation, childcare and social support. (JSM)

20200810-16*

Protecting and Supporting the WHO International Code During COVID-19. Dodgson JE (2020), Journal of Human Lactation vol 36, no 3, August 2020, pp 387-389

Editorial on upholding the International Code of Marketing Breast-milk Substitutes during the COVID-19 pandemic. The author encourages readers to be aware of the tenets of the code, intervene through advocacy efforts and make any unethical practices visible. (LDO)

Full URL: https://doi.org/10.1177/0890334420939554

20200807-8

Who is providing a safety net for babies and young children?. Morton A (2020), Journal of Health Visiting vol 8, no 7, July 2020, pp 276-278

With many health visitors in England redeployed during the early weeks of the pandemic, Alison Morton considers the consequences for children and families, as well as the health visitors intended to support them. (Author)

20200807-24

What do we know about COVID-19 in infants?. Gasibat Q (2020), Infant vol 16, no 4, July 2020, p 141

Correspondence piece providing a brief overview of current evidence on COVID-19 in infants. The author suggests that neonatal healthcare professionals should engage with up-to-date evidence as new data are constantly emerging. (LDO)

20200807-23

Minimising COVID-19 transmission risk during neonatal transport: a practical approach from ANTS. Walton S, Garnell S, Rattigan S, et al (2020), Infant vol 16, no 4, July 2020, pp 138-140

The Acute Neonatal Transfer Service of the East of England (ANTS) has been involved in the transfer of four suspected or confirmed neonatal SARS-CoV-2 (COVID-19) cases. Through this unique clinical experience and related educational activities, we have constructed additional practical recommendations aimed at minimising horizontal SARS-CoV-2 spread during neonatal transfer. Here we present these recommendations for consideration by neonatal transport teams and neonatal units managing neonatal COVID-19 transfers. (Author)

20200807-10

What will children's services look like in the future?. Hancock D (2020), Journal of Health Visiting vol 8, no 7, July 2020, pp 290-293

This year's Infant Mental Health Week coincided with the global coronavirus pandemic. This article highlights some of the themes and topics explored to try to make sense of the possible effects of COVID-19 on children's services. (Author)

20200805-61*

Babies in Lockdown: listening to parents to build back better. Executive summary. Best Beginnings, Home-Start UK, Parent-Infant Foundation (2020), London: Best Beginnings, Home-Start UK, Parent-Infant Foundation August 2020. 20 pages

Summarises the findings of a joint research report from charities Best Beginnings, Home Start UK and the Parent-Infant Foundation, drawing on the experiences of expectant and new parents, looking at the effect lockdown during the COVID-19 pandemic has had on the first months and years of their babies' development. (JSM)

Full URL: https://babiesinlockdown.files.wordpress.com/2020/08/babies_in_lockdown_executive_summary.pdf

---

20200805-46*

Babies in Lockdown: listening to parents to build back better. Best Beginnings, Home-Start UK, Parent-Infant Foundation (2020), London: Best Beginnings, Home-Start UK, and the Parent-Infant Foundation August 2020. 92 pages

Joint research report from charities Best Beginnings, Home Start UK and the Parent-Infant Foundation, drawing on the experiences of expectant and new parents, looking at the effect lockdown during the COVID-19 pandemic has had on the first months and years of their babies' development. Reveals a great deal of variation in parents experiences, with some welcoming the extra time to spend with their families, while others, already at greater risk of poorer outcomes, such as those on lower incomes or from Black, Asian and Minority Ethnic backgrounds (BAME) have been hardest hit during the crisis. Includes the experiences of those working on the frontline while pregnant. (JSM)

Full URL: https://babiesinlockdown.files.wordpress.com/2020/08/babies-in-lockdown-main-report-final-version.pdf

---

20200804-8*

After COVID-19, a future for the world's children?. The WHO-UNICEF-Lancet Commissioners (2020), The Lancet 2 July 2020, online

Discusses how COVID-19 is exacerbating many of the threats that already exist for children, such as climate change and the related crises of poverty, migration and malnutrition, but argues that recovery and adaptation to COVID-19 could result in a better world for children and future generations. (JM)

Full URL: https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31481-1/fulltext?cid=DM68466&bid=78408290&utm_campaign=OP1007&utm_medium=email&utm_dgroup=20N18184&utm_acid=7788381&dgcid=OP1007&CMX_ID=0&utm_in=DM68466&utm_delid=DM68466

20200804-6*

COVID-19 in children and young people. Felsenstein S, Hedrich CM (2020), The Lancet Rheumatology 29 June 2020, online

Discusses the evidence around the asymptomatic and symptomatic course of COVID-19 in children and young people. (JSM)

Full URL: https://doi.org/10.1016/S2665-9913(20)30212-5

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

20200804-58*

Perceptions of obstetricians and pediatricians about the risk of COVID-19 for pregnant women and newborns. Obeidat N, Saadeh R, Obeidat M, et al (2020), International Journal of Gynecology & Obstetrics vol 150, no 3, September 2020, pp 306-311

Objective
To assess the perception of obstetricians and pediatricians about risks of COVID-19 on pregnant women and possible complications in newborns.
Methods
A structured 27-item online survey was sent via social media messaging to obstetricians and pediatricians from public, academic, and private sectors in Jordan between March 23-30, 2020. Descriptive statistics were used to represent numbers and percentages of participants' responses to survey items.
Results
A total of 147 physicians participated (107 obstetricians, 40 pediatricians). Participants were well informed about the symptoms, diagnosis, modes of transmission, and methods of prevention. Participants had variable perceptions about COVID-19 risk during pregnancy, including potential vertical transmission, preferred route of delivery, and safety of breastfeeding. Most participants felt that pregnant women should be prioritized for testing and medical care provision.
Conclusion
While evidence-based strategies to reduce the risks of COVID-19 in pregnant women and newborns are evolving, healthcare providers showed excellent knowledge of the infection and were vigilant regarding its complications for mothers and newborns. To ensure safe pregnancy, physicians must keep informed of developing guidance on best and safest prenatal and perinatal health services. Implementing local hospital policies and adequate training in infection control measures is strongly encouraged. (Author)

20200804-4*

Outcomes of Maternal-Newborn Dyads After Maternal SARS-CoV-2. Verma S, Bradshaw C, Auyeung NSF, et al (2020), Pediatrics 31 July 2020, online

Background and Objectives: Infection with a novel coronavirus namely Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), has become a global pandemic. There is limited data describing the impact of SARS-CoV-2 infection on pregnant mothers and their newborns. The objective of this study is to describe characteristics and outcomes of maternalnewborn dyads with confirmed maternal SARS-CoV-2. Methods: This was a multicenter, observational, descriptive cohort study collecting data from charts of maternal-newborn dyads that delivered at four major New York City metropolitan area hospitals between March 1 and May 10, 2020 with maternal SARS-CoV-2 infection. Results: There were a total of 149 mothers with SARS-CoV-2 infection and 149 newborns analyzed (3 sets of twins; 3 stillbirths). Forty percent of these mothers were asymptomatic. Approximately 15% of symptomatic mothers required some form of respiratory support and 8% required intubation. Eighteen newborns (12%) were admitted to the intensive care unit. Fifteen (10%) were born preterm, and five (3%) required mechanical ventilation. Symptomatic mothers had more premature deliveries (16% vs 3%, P= 0.02) and their newborns were more likely to require intensive care (19% vs. 2%, P=0.001) than asymptomatic mothers. One newborn tested positive for SARS-CoV-2, which was considered a case of horizontal postnatal transmission. Conclusion: Although there was no distinct evidence of vertical transmission from mothers with SARS-CoV-2 to their newborns, we did observe perinatal morbidities among both mothers and newborns. Symptomatic mothers were more likely to experience premature delivery and their newborns to require intensive care. (Author)

Full URL: https://doi.org/10.1542/peds.2020-005637

20200804-3*

Multisystem inflammatory syndrome in children (MIS-C). Anon (2020), Elsevier Healthcare Hub 29 July 2020, online

MIS-C (multisystem inflammatory syndrome in children) is a recently described clinical syndrome in children and adolescents, first recognized in temporal association with a high local prevalence of COVID-19. Subsequently, most reported cases have had laboratory evidence of recent infection with SARS-CoV-2, the virus that causes COVID-19.

Characterized by persistent fever, laboratory markers of inflammation, and evidence of single or multiorgan dysfunction, including myocarditis. Abdominal pain (often severe) and diarrhea (which may be profuse) are common presenting symptoms. May include features suggestive of Kawasaki syndrome (conjunctival and mucosal injection, rash, swelling of hands and feet, coronary artery dilation), or toxic shock syndrome (erythroderma, renal involvement, hypotension).

Some patients develop severe shock and require fluid resuscitation and hemodynamic support.

There is no specific diagnostic test; diagnosis is based on a constellation of clinical, laboratory, echocardiographic, and epidemiologic factors. Most patients have laboratory evidence of SARS-CoV-2 (polymerase chain reaction, antigen, or antibody).

Patients with mild disease can be managed conservatively. Treat patients who have more severe disease, including those with myocarditis or who meet criteria for Kawasaki disease or toxic shock syndrome, with IV immunoglobulin. Corticosteroids and immune modulators also have been used.

Most patients have responded promptly to therapy and have done well. Owing to resemblance to Kawasaki syndrome and observation of coronary artery aneurysms in some patients with MIS-C, serial follow-up echocardiography is recommended. (Author, edited)

Full URL: https://covid-19.elsevier.health/en-US/clinical-key/multisystem-inflammatory-syndrome-in-children-mis-c?campid=20N18184&utm_campaign=ckphy_awcovid-19healthcarehub_em_20N18184&mm=cima-thornhillk®=na∏=ckphy&utm_medium=em&utm_source=database&utm_content=awcovid-19healthcarehub&cid=DM68466&bid=78408290&utm_campaign=OP1007&utm_medium=email&utm_dgroup=20N18184&utm_acid=7788381&dgcid=OP1007&CMX_ID=0&utm_in=DM68466&utm_delid=DM68466#diagnosis

---

20200803-2*

Caring for Women Who Are Planning a Pregnancy, Pregnant, or Postpartum During the COVID-19 Pandemic. Rasmussen SA, Jamieson DJ (2020), JAMA (Journal of the American Medical Association) vol 324, no 2, 14 July 2020, pp 190-191

Discusses the effects of COVID-19 on pregnancy and the risk of intrauterine transmission to the neonate. Provides an overview of guidelines from the Centers for Disease Control and Prevention (CDC) and other organisations, including the use of early epidural analgesia, adequate hygiene and face masks when breastfeeding, and the temporary separation of mothers and newborns. (LDO)

Full URL: https://doi.org/10.1001/jama.2020.8883

20200803-15

Infant feeding: the Covid effect. Entwistle F (2020), Community Practitioner vol 93, no 4, July/August 2020, pp 48-

The pandemic has caused breastfeeding support in some areas of the UK to be stripped back to the bare minimum, writes Francesca Entwistle of the Unicef UK Baby Friendly Initiative. But it's still crucial for infant health. (Author)

20200729-5*

Pregnancy, Birth, and Breastfeeding with Covid-19. Smith CK (2020), Midwifery Today no 134, Summer 2020

Provides an overview of existing guidelines on pregnancy, labour, the postpartum period and breastfeeding during the COVID-19 pandemic. Includes guidelines from the Center for Disease Control and Prevention (CDC) and the American College of Obstetricians and Gynecologists (ACOG). (LDO)

20200729-1*

COVID-19: paediatric surveillance [Last updated 4 May 2021]. Public Health England (2020), London: PHE 27 April 2020

Description and contact details of PHE paediatric surveillance programmes for COVID-19. (Publisher)

Full URL: https://www.gov.uk/guidance/covid-19-paediatric-surveillance

---

20200728-21*

Optimising maternity services and maternal and newborn outcomes in a pandemic. A rapid analytic scoping review. Conducted for the Royal College of Midwives by the RCM Professional Advisory Group [Version 4]. Renfrew MJ, Cheyne H, Hunter B, et al (2020), London: RCM 8 April 2020. 21 pages

Childbearing women and newborn infants continue to require care during the current COVID-19 pandemic. When staff and services are under extreme stress there is a real risk of increasing avoidable harm, including an increased risk of infection and reductions in the overall quality of care. Safety, quality, and avoiding harm must be key priorities in decision-making.

Review questions

Three related review questions were addressed. All considered safety, quality and minimising avoidable harm in the provision of midwifery services:

1. What is the evidence on the impact of community care vs centralisation of care during pandemics, for childbearing women, newborn infants, families, staff, and resources?

2. How to optimise availability of midwifery expertise when staffing becomes heavily affected by the midwifery workforce being off sick, self-isolating, fear of pandemic or other major unavoidable events?

3. What is the evidence on viral load of SARS-COV-2 in domestic settings and hospitals, relevant to informing the safety of community and hospital settings for health professionals? (Author)

Full URL: https://www.rcm.org.uk/media/3869/rapid-review-optimising-maternity-services-for-rcm-v4-8-april.pdf

---

20200727-9*

Histological characterization of placenta in COVID19 pregnant women. Cribiù FM, Croci GA, Del Gobbo A, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 252, September 2020, pp 619-621

Correspondence piece discussing histological alterations in placentas from pregnant women with SARS-CoV-2 infection. Distal villous hypoplasia was detectable in 22% of cases, delayed villous maturation was shown in 55% of cases and no significant T- and B-cell infiltrate was observed in any of the cases. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.06.041

20200727-71*

Novel coronavirus in a 15-day-old neonate with clinical signs of sepsis, a case report. Aghdam MK, Jafari N, Eftekhari K (2020), Infectious Diseases vol 52, no 6, June 2020, pp 427-429

Introduction: Novel coronavirus or coronavirus disease (COVID-19) can affect all age groups. The clinical course of the disease in children and infants is milder than in adults. It should be noted that, although typical symptoms may be present in children, non-specific symptoms could be noted in the neonate. The disease is rare in the neonate, so, its suspicion in this group can help to make a quick diagnose.Case report: A 15-day-old neonate was admitted with fever, lethargy, cutaneous mottling, and respiratory distress without cough. His mother had symptoms of Novel coronavirus. So Reverse-Transcription Polymerase Chain Reaction (RT-PCR) assay was done for the neonate and showed to be positive. The newborn was isolated and subjected to supportive care. Antibiotic and antiviral treatment was initiated. Eventually, the baby was discharged in good general condition.Conclusion: When a newborn presents with non-specific symptoms of infection with an added history of COVID-19 in his/her parents, it indicates the need for PCR testing for Novel coronavirus. (Author)

Full URL: https://doi.org/10.1080/23744235.2020.1747634

20200727-47*

Maternal COVID-19 infection, clinical characteristics, pregnancy, and neonatal outcome A prospective cohort study. Antoun L, Taweel NE, Ahmed I, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 252, September 2020, pp 559-562

Objective

To study the effect of COVID-19 on pregnancy and neonatal outcomes.

Study design

Prospective cohort study in a large tertiary maternity unit within a university hospital with an average annual birth of over 10,000 births. We prospectively collected and analysed data for a cohort of 23 pregnant patients including singleton and multiple pregnancies tested positive for COVID-19 between February 2020 and April 2020 inclusive to assess the effect of COVID-19 on pregnancy, and neonatal outcomes.

Results

Twenty-three pregnant patients tested positive for COVID-19, delivering 20 babies including a set of twins, with four ongoing pregnancies at the time of manuscript submission. 16/23 (70%) whom tested positive were patients from Asian (Indian sub-continent) background. The severity of the symptoms ranged from mild in 13/23 (65.2%) of the patients, moderate in 2/23 (8.7%), and severe in 8/23 (34.8%). Four out of total 23 COVID-19 pregnant patients (17.4%) developed severe adult respiratory distress syndrome complications requiring ICU support, one of whom led to maternal death 1/23 (4.3%). 11/23 (48%) of the patients had pre-existing co-morbidities, with morbid obesity 5/23 (21.7%) and diabetes 4/23 (17.4%) being the more commonly represented. Of the 23 pregnant patients 19 were in their third trimester of pregnancy and delivered; 7/19 (36.8%) had preterm birth, 3/19 (15.8%) developed adult respiratory distress syndrome before delivery, and 2/19 (10.5%) had pre-eclampsia. 16/19 (84%) of patients delivered by C-section. Out of the 20 new-borns, 18 were singletons with a set of twin.

Conclusion

COVID-19 is associated with high prevalence of preterm birth, preeclampsia, and caesarean section compared to non-COVID pregnancies. COVID-19 infection was not found in the newborns and none developed severe neonatal complications. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.07.008

20200727-46*

COVID-19 in pregnant women: A systematic review and meta-analysis. Capobianco G, Saderi L, Aliberti S, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 252, September 2020, pp 543-558

Objective

Coronavirus disease 2019 (COVID-19) is a novel infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Several reports highlighted the risk of infection and disease in pregnant women and neonates. To assess the risk of clinical complications in pregnant women and neonates infected with SARS-CoV-2 carrying out a systematic review and meta-analysis of observational studies.

Data sources

Search of the scientific evidence was performed using the engines PubMed and Scopus, including articles published from December 2019 to 15 April 2020.

Study eligibility criteria

Only observational studies focused on the assessment of clinical outcomes associated with pregnancy in COVID-19 women were selected.

Study appraisal and synthesis methods

The first screening was based on the assessment of titles and abstracts, followed by the evaluation of full-texts. Qualitative variables were summarized with frequencies, whereas quantitative variables with central and variability indicators depending on their parametric distribution. Forest plots were used to describe point estimates and in-between studies variability. Study quality assessment was performed.

Results

Thirteen studies were selected. All of them were carried out in China. The mean (SD) age and gestational age of pregnant women were 30.3 (1.5) years and 35.9 (2.9) weeks, respectively. The mean (SD) duration from the first symptoms to the hospital admission and to labour were 5.5 (2.0) and 9.5 (8.7) days, respectively. Patients mainly complained of fever and cough (pooled (95 % CI) proportions were 76.0 % (57.0 %-90.0 %) and 38.0 (28.0 %-47.0 %), respectively). Several antibiotics, antivirals, and corticosteroids were prescribed in different combinations. The pooled prevalence of maternal complications and of caesarean section were 45.0 % (95 % CI: 24.0 %-67.0 %) and 88.0 % (95 %CI: 82.0 %-94.0 %). A proportion of pregnant women less than 20 % were admitted to ICU. The pooled proportion of preterm infants was 23.0 % (95 %CI: 11.0 %-39.0 %). The most frequent neonatal complications were pneumonia and respiratory distress syndrome. The pooled percentage of infected neonates was 6.0 % (95 %CI: 2.0 %-12.0 %).

Conclusions

The present study suggests a high rate of maternal and neonatal complications in infected individuals. However, the current scientific evidence highlights a low risk of neonatal infection. Multicentre, cohort studies are needed to better elucidate the role of SARS-CoV-2 during pregnancy. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.07.006

20200727-42*

Maternal and neonatal characteristics and outcomes among COVID-19 infected women: An updated systematic review and meta-analysis. Dubey P, Reddy S, Manuel S, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 252, September 2020, pp 490-501

Objective

Coronavirus disease 2019 (COVID-19) has become a global pandemic and may adversely affect pregnancy outcomes. We estimated the adverse maternal and neonatal characteristics and outcomes among COVID-19 infected women and determined heterogeneity in the estimates and associated factors.

Study Designs

PubMed search was performed of confirmed COVID-19 pregnant cases and related outcomes were ascertained prior to July 8, 2020, in this systematic review and meta-analysis. Studies reporting premature birth, low birth weight, COVID-19 infection in neonates, or mode of delivery status were included in the study. Two investigators independently performed searches, assessed quality of eligible studies as per the Cochrane handbook recommendations, extracted and reported data according to PRISMA guidelines. Pooled proportions of maternal and neonatal outcomes were estimated using meta-analyses for studies with varying sample sizes while a systematic review with descriptive data analysis was performed for case report studies. Maternal and neonatal outcomes included C-section, premature birth, low birth weight, adverse pregnancy events and COVID transmission in neonates.

Results

A total of 790 COVID-19 positive females and 548 neonates from 61 studies were analyzed. The rates of C-section, premature birth, low birth weight, and adverse pregnancy events were estimated as 72 %, 23 %, 7 %, and 27 % respectively. In the heterogeneity analysis, the rate of C-section was substantially higher in Chinese studies (91 %) compared to the US (40 %) or European (38 %) studies. The rates of preterm birth and adverse pregnancy events were also lowest in the US studies (12 %, 15 %) compared to Chinese (17 %, 21 %), and European studies (19 %, 19 %). In case reports, the rates of C-section, preterm birth, and low birth weight were estimated as 69 %, 56 %, and 35 %, respectively. Adverse pregnancy outcomes were associated with infection acquired at early gestational ages, more symptomatic presentation, myalgia symptom at presentation, and use of oxygen support therapy.

Conclusions

Adverse pregnancy outcomes were prevalent in COVID-19 infected females and varied by location, type, and size of the studies. Regular screening and early detection of COVID-19 in pregnant women may provide more favorable outcomes. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.07.034

20200727-11*

Maternal transmission of SARS-COV-2 to the neonate, and possible routes for such transmission: a systematic review and critical analysis. Walker KF, O'Donoghue K, Grace N, et al (2020), BJOG: An International Journal of Obstetrics and Gynaecology vol 127, no 11, October 2020, pp 1324-1336

Background
Early reports of COVID-19 in pregnancy described management by caesarean, strict isolation of the neonate and formula feeding. Is this practice justified?
Objective
To estimate the risk of the neonate becoming infected with SARS-CoV-2 by mode of delivery, type of infant feeding and mother-infant interaction.
Search strategy
Two biomedical databases were searched between September 2019 and June 2020.
Selection criteria
Case reports or case series of pregnant women with confirmed COVID-19, where neonatal outcomes were reported.
Data collection and analysis
Data were extracted on mode of delivery, infant infection status, infant feeding and mother-infant interaction. For reported infant infection, a critical analysis was performed to evaluate the likelihood of vertical transmission.
Main results
Forty nine studies included information on mode of delivery and infant infection status for 655 women and 666 neonates. In all, 28/666 (4%) tested positive postnatally. Of babies born vaginally, 8/292 (2.7%) tested positivecompared with 20/374 (5.3%) born by Caesarean. Information on feeding and baby separation were often missing, but of reported breastfed babies 7/148 (4.7%) tested positive compared with 3/56 (5.3%) for reported formula fed ones. Of babies reported as nursed with their mother 4/107 (3.7%) tested positive, compared with 6/46 (13%) for those who were reported as isolated.
Conclusions
Neonatal COVID-19 infection is uncommon, rarely symptomatic, and the rate of infection is no greater when the baby is born vaginally, breastfed or remains with the mother.
Tweetable abstract
Risk of neonatal infection with COVID-19 by delivery route, infant feeding and mother-baby interaction. (Author)

20200724-4*

COVID-19: minimising contaminated aerosol spreading during CPAP treatment. Donaldsson S, Naver L, Jonsson B, et al (2020), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 105, no 6, November 2020, pp 669-671

Background The COVID-19 pandemic has raised concern for healthcare workers getting infected via aerosol from non-invasive respiratory support of infants. Attaching filters that remove viral particles in air from the expiratory limb of continuous positive airway pressure (CPAP) devices should theoretically decrease the risk. However, adding filters to the expiratory limb could add to expiratory resistance and thereby increase the imposed work of breathing (WOB).
Objective To evaluate the effects on imposed WOB when attaching filters to the expiratory limb of CPAP devices.
Methods Two filters were tested on three CPAP systems at two levels of CPAP in a mechanical lung model. Main outcome was imposed WOB.
Results There was a minor increase in imposed WOB when attaching the filters. The differences between the two filters were small.
Conclusion To minimise contaminated aerosol generation during CPAP treatment, filters can be attached to expiratory tubing with only a minimal increase in imposed WOB in a non-humidified environment. Care has to be taken to avoid filter obstruction and replace filters as recommended.

Full URL: http://dx.doi.org/10.1136/archdischild-2020-319431

20200724-2*

Neonatal management and outcomes during the COVID-19 pandemic: an observation cohort study. Salvatore CM, Han J-Y, Acker KP, et al (2020), The Lancet Child & Adolescent Health vol 4, no 10, October 2020, pp 721-727

Background

The risk of vertical and perinatal transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2, which causes COVID-19), the most appropriate management, and the neonate's risk of developing COVID-19 during the perinatal period are unknown. Therefore, we aimed to elucidate best practices regarding infection control in mother-newborn dyads, and identify potential risk factors associated with transmission.

Methods

In this observational cohort study, we identified all neonates born between March 22 and May 17, 2020, at three New York Presbyterian Hospitals in New York City (NY, USA) to mothers positive for SARS-CoV-2 at delivery. Mothers could practice skin-to-skin care and breastfeed in the delivery room, but had to wear a surgical mask when near their neonate and practice proper hand hygiene before skin-to-skin contact, breastfeeding, and routine care. Unless medically required, neonates were kept in a closed Giraffe isolette in the same room as their mothers, and were held by mothers for feeding after appropriate hand hygiene, breast cleansing, and placement of a surgical mask. Neonates were tested for SARS-CoV-2 by use of real-time PCR on nasopharyngeal swabs taken at 24 h, 5-7 days, and 14 days of life, and were clinically evaluated by telemedicine at 1 month of age. We recorded demographics, neonatal, and maternal clinical presentation, as well as infection control practices in the hospital and at home.

Findings

Of 1481 deliveries, 116 (8%) mothers tested positive for SARS-CoV-2; 120 neonates were identified. All neonates were tested at 24 h of life and none were positive for SARS-CoV-2. 82 (68%) neonates completed follow-up at day 5-7 of life. Of the 82 neonates, 68 (83%) roomed in with the mothers. All mothers were allowed to breastfeed; at 5-7 days of life, 64 (78%) were still breastfeeding. 79 (96%) of 82 neonates had a repeat PCR at 5-7 days of life, which was negative in all; 72 (88%) neonates were also tested at 14 days of life and none were positive. None of the neonates had symptoms of COVID-19.

Interpretation

Our data suggest that perinatal transmission of COVID-19 is unlikely to occur if correct hygiene precautions are undertaken, and that allowing neonates to room in with their mothers and direct breastfeeding are safe procedures when paired with effective parental education of infant protective strategies.

Funding

None. (Author)

Full URL: https://doi.org/10.1016/S2352-4642(20)30235-2

20200724-1*

Coronavirus: Mothers 'unlikely to infect newborns'. Anon (2020), BBC News 24 July 2020

Women who have COVID-19 are unlikely to pass on the infection to their babies during childbirth if precautions are in place, a small study suggests (1).

1. Salvatore CM et al. Neonatal management and outcomes during the COVID-19 pandemic: an observation cohort study. The Lancet Child & Adolescent Health, 23 July 2020, online. (Author, edited)

Full URL: https://www.bbc.co.uk/news/health-53514003

20200723-72*

Pregnancy and breastfeeding during COVID-19 pandemic: A systematic review of published pregnancy cases. Rodrigues C, Baia I, Domingues R, et al (2020), Frontiers in Public Health 23 November 2020, online

Background: The COVID-19 pandemic is an emerging concern regarding the potential adverse effects during pregnancy. This study reviews knowledge on the impact of COVID-19 on pregnancy and describes the outcome of published cases of pregnant women diagnosed with COVID-19.

Methods: Searches were conducted in PubMed®, Scopus®, Web of Science®, and MedRxiv® up to 26th June 2020, using PRISMA standards, to identify original published studies describing pregnant women at any gestational age diagnosed COVID-19. There were no date or language restrictions on the search. All identified studies were included irrespective of assumptions on study quality.

Results: We identified 161 original studies reporting 3,985 cases of pregnant women with COVID-19 (1,007 discharged while pregnant). The 2,059 published cases with pregnancy outcomes resulted in 42 abortions, 21 stillbirths, and 2,015 live births. Preterm birth occurred in 23% of cases. Around 6% of pregnant women required admission to an intensive care unit and 28 died. There were 10 neonatal deaths. From the 163 cases with amniotic fluid, placenta, and/or cord blood analyzed for the SARS-CoV-2 virus, 10 were positive. Sixty-one newborns were positive for SARS-CoV-2. Four breast milk samples from 92 cases showed evidence of SARS-CoV-2.

Conclusion: Emerging evidence suggests that vertical transmission is possible, however, there is still a limited number of reported cases with intrapartum samples. Information, counseling and adequate monitoring are essential to prevent and manage adverse effects of SARS-CoV-2 infection during pregnancy. (Author)

Full URL: https://doi.org/10.3389/fpubh.2020.558144

20200722-89*

Maintaining certainty in the most uncertain of times. Dethier D, Abernathy A (2020), Birth vol 47, no 3, September 2020, pp 257-258

Personal experience of a physician caring for a mother in the early postnatal period during the COVID-19 pandemic. Discusses the disproportionate effect of the virus on marginalised women, universal testing at admission to the labour and delivery ward, and the separation of the mother and newborn after birth. (LDO)

20200722-7*

Multisystem Inflammatory Syndrome in Children (MIS-C) Associated with COVID-19: What Do We Know?. Barron SA, Marshall HD (2020), EBSCO Health Notes 15 June 2020, online

A scary new facet of COVID-19 in children is starting to emerge. Here's what we know about multisystem inflammatory syndrome in children (MIS-C). (Author)

Full URL: https://bit.ly/3eJXloA

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

20200722-41*

Simulations of Deliveries of SARS-CoV-2 Positive Pregnant Women and Their Newborn Babies: Plan to Implement a Complex and Ever-Changing Protocol. Rastogi S (2020), American Journal of Perinatology vol 37, no 10, August 2020, pp 1061-1065

Management of severe acute respiratory Syndrome corona virus-2 (SARS-CoV-2) infected pregnant women at time of delivery presents a unique challenge. The variability in the timing and the method of delivery, ranging from normal vaginal delivery to an emergent cesarean section, adds complexity to the role of the health care providers in the medical care of the patient and in the interactions, they have with other providers. These variations are further influenced by the availability of isolation rooms in the facility and adequacy of personal protective equipment. The protocols already set in place can be further challenged when the facility reaches its capacity to manage the patients.
To fulfill the goal of providing adequate management to the SARS-CoV-2 infected pregnant women and their infants, avoid variation from suggested guidelines, and decrease risk of exposure of the health care workers, the health care provider team needs to review the variations regularly. While familiarity can be achieved by reviewing the guidelines, clinical case simulations provide a more hands-on approach.
Using case-based simulations and current guidance from the Center for Disease Control, American Academy of Pediatrics, and recent reviews, we discuss a management guideline developed at our institution to facilitate provision of care to SARS-CoV-2 infected pregnant women during delivery and to their infants, while protecting health care providers from exposure, and in keeping with the local facility logistics. (Author)

Full URL: https://doi.org/10.1055/s-0040-1713602

20200722-38*

Clinical Implications of SARS-CoV-2 Infection in the Viable Preterm Period. Gulersen M, Blitz MJ, Rochelson B, et al (2020), American Journal of Perinatology vol 37, no 11, September 2020, pp 1077-1083

Objective This study aimed to determine the rate of preterm birth (PTB) during hospitalization among women diagnosed with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) between 23 and 37 weeks of gestation and whether this rate differs by gestational age at diagnosis of infection.
Study Design Retrospective, cross-sectional study of all women diagnosed with SARS-CoV-2 infection between 23 and 37 weeks of gestation within a large integrated health system from March 13 to April 24, 2020. Cases with severe fetal structural malformations detected prior to infection were excluded. Women were stratified into two groups based on gestational age at diagnosis: early preterm (230/7 to 336/7 weeks) versus late preterm (34 to 366/7 weeks). We compared the rate of PTB during hospitalization with infection between the two groups. Statistical analysis included use of Wilcoxon rank sum and Fisher exact tests, as well as a multivariable logistic regression. Statistical significance was defined as a p-value <0.05.
Results Of the 65 patients included, 36 (53.7%) were diagnosed in the early preterm period and 29 (46.3%) were diagnosed in the late preterm period. Baseline demographics were similar between groups. The rate of PTB during hospitalization with infection was significantly lower among women diagnosed in the early preterm period compared with late preterm (7/36 [19.4%] vs. 18/29 [62%], p-value = 0.001). Of the 25 patients who delivered during hospitalization with infection, the majority were indicated deliveries (64%, 16/25). There were no deliveries <33 weeks of gestation for worsening coronavirus disease 2019 and severity of disease did not alter the likelihood of delivery during hospitalization with SARS-CoV-2 infection (adjusted odds ratio [aOR]: 0.64; 95% confidence interval [CI]: 0.24-1.59). Increased maternal age was associated with a lower likelihood of delivery during hospitalization with SARS-CoV-2 infection (aOR: 0.77; 95% CI: 0.58-0.96), while later gestational age at diagnosis of infection was associated with a higher likelihood of delivery during hospitalization (aOR: 2.9; 95% CI: 1.67-8.09).
Conclusion The likelihood of PTB during hospitalization with SARS-CoV-2 infection is significantly lower among women diagnosed in the early preterm period compared with late preterm. Most women with SARS-CoV-2 infection in the early preterm period recovered and were discharged home. The majority of PTB were indicated and not due to spontaneous preterm labor. (Author)

Full URL: https://doi.org/10.1055/s-0040-1713851

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

20200722-18*

Incidence of SARS-CoV-2 vertical transmission: a meta-analysis. Goh XL, Low YF, Ng CH, et al (2021), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 106, no 1, January 2021, pp 112-113

Short meta-analysis of the incidence of vertical transmission of SARS-CoV-2 intrauterine or during delivery. The average pooled incidence of vertical transmission was 16 per 1000 newborns. Studies from larger and diverse populations are required to provide a more accurate estimation of the incidence of neonatal infection. (LDO)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-319791

20200722-17*

The Impact of COVID-19 Infection on Labor and Delivery, Newborn Nursery, and Neonatal Intensive Care Unit: Prospective Observational Data from a Single Hospital System. Griffin I, Benarba F, Peters C, et al (2020), American Journal of Perinatology vol 37, no 10, August 2020, pp 1022-1030

Objective Since its emergence in late 2019, severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2), the novel coronavirus that causes novel coronavirus disease 2019 (COVID-19), has spread globally. Within the United States, some of the most affected regions have been New York, and Northern New Jersey. Our objective is to describe the impact of COVID-19 in a large delivery service in Northern New Jersey, including its effects on labor and delivery (L&D), the newborn nursery, and the neonatal intensive care unit (NICU).

Materials and Methods Between April 21, 2020 and May 5, 2020, a total of 78 mothers (3.6% of deliveries) were identified by screening history or examination to either be COVID-19 positive or possible positives (persons under investigation). Of the mothers who were tested after admission to L&D, 28% tested positive for SARS-CoV-2.

Discussion Isolation between mother and infant was recommended in 62 cases, either because the mother was positive for SARS-CoV-2 or because the test was still pending. Fifty-four families (87%) agreed to isolation and separation. The majority of infants, 51 (94%), were initially isolated on the newborn nursery. Six needed NICU admission. No infants had clinical evidence of symptomatic COVID-19 infection. Fourteen infants whose mothers were positive for SARS-CoV-2, and who had been separated from the mother at birth were tested for SARS-CoV-2 postnatally. All were negative.

Results COVID-19 posed a significant burden to mothers, infants, and staff over the 5-week study period. The yield from screening mothers for COVID-19 on L&D was high. Most families accepted the need for postnatal isolation and separation of mother and newborn.

Conclusion Our study suggests that the transmission of SARS-CoV-2 from mother to her fetus/newborn seems to be uncommon if appropriate separation measures are performed at birth. (Author)

Full URL: https://doi.org/10.1055/s-0040-1713416

20200721-45*

Coronavirus disease 2019 in children: surprising findings in the midst of a global pandemic. Goldman RD (2020), Canadian Family Physician vol 66, no 5, May 2020, pp 332-334

Question Coronavirus disease 2019 (COVID-19) is affecting millions of people worldwide. It seems that it affects mostly adults older than 40 years of age, and the death rate is highest for older individuals in the population. What should I tell parents worried about their children contracting the coronavirus (SARS-CoV-2) causing COVID-19, and what symptoms should I look for to determine if there is a need to test for the virus?

Answer The COVID-19 global pandemic affects all ages. Severe respiratory manifestations have been the mainstay of illness in adults, with what seems to be rapid deterioration necessitating mechanical ventilation. Only 5% of those tested and found to have COVID-19 have been younger than 19 years, possibly owing to limited testing, as the symptoms in children are usually mild. Symptoms in children include fever, dry cough, rhinorrhea, sore throat, and fatigue, and in 10% diarrhea or vomiting. Rarely dyspnea or hypoxemia were also described. Blood tests and imaging have been shown to be of little value in children and should only be ordered for those in whom you would normally order these investigations for viral-like illness. No specific therapy is available and supportive care with rest, fluids, and antipyretics for children is the recommended approach. Ibuprofen or acetaminophen for fever and pain can be given. Antiviral and immunomodulatory treatment is not recommended at this time for otherwise healthy children, and corticosteroids should also not be used. Children with immunocompromised states should be isolated and avoid contact with others. (Author)

Full URL: https://www.cfp.ca/content/66/5/332

20200720-16*

Perinatal COVID-19 Infection Prevention: Infographics for Patients and Providers. Lakshminrusimha S, Sridhar A, Herrera Guerra AA (2020), American Journal of Perinatology vol 37, no 12, October 2020, pp 1185-1188

Editorial discussing the use of simple infographics rather than text guidelines to provide information to pregnant patients during the COVID-19 pandemic. The authors present two infographics on social distancing during pregnancy and the care of infants born to mothers with COVID-19. (LDO)

Full URL: https://doi.org/10.1055/s-0040-1714387

20200715-4*

Lactoferrin is an important factor when breastfeeding and COVID-19 are considered. Peroni DG, Fanos V (2020), Acta Paediatrica vol 109, no 10, October 2020, pp 2139-2140

Brief report on the protective antiviral effects of lactoferrin in breast milk against COVID-19. Lactoferrin interacts with cell receptors to prevent viral anchoring, surface accumulation and cell entry. (LDO)

20200715-29*

Paediatric ethical issues during the COVID-19 pandemic are not just about ventilator triage. Haward MF, Moore GP, Lantos J, et al (2020), Acta Paediatrica vol 109, no 8, August 2020, pp 1519-1521

Commentary on the ethics of redistributing ventilators away from extremely premature infants to critically ill adults during the COVID-19 pandemic. The authors also discuss the moral distress faced by clinicians over the shortage of resources and personal protective equipment. (LDO)

20200715-2*

Invasive mechanical ventilation in a former preterm infant with COVID-19. Nyholm S, Edner A, Myrelid Å, et al (2020), Acta Paediatrica vol 109, no 10, October 2020, pp 2141-2143

Brief report on a set of preterm twins in Sweden with COVID-19 symptoms. The female twin tested negative and had mild respiratory symptoms whereas the male twin tested positive and required intensive care and invasive ventilatory support. Possible risk factors for severe COVID-19 in this case may have been repeated viral exposure, preterm birth, African descent and male gender. (LDO)

20200715-1*

Is the effect of COVID-19 on children underestimated in low- and middle- income countries?. Simba J, Sinha I, Mburugu P, et al (2020), Acta Paediatrica 18 June 2020, online

Discusses the impact of COVID-19 on children and infants in sub-Saharan African countries such as Kenya. Children in low- and middle-income countries are at risk of developing severe acute respiratory infections as a result of malnutrition, immunodeficiency, variable housing quality, air pollution, poor health behaviour and barriers to affordable care. Children are further affected by school closures, education inequalities and the economic impact of the pandemic. (LDO)

20200714-71*

Navigating pregnancy during the coronavirus disease (COVID-19) pandemic. An expert midwife on how to best protect yourself and your baby. UNICEF (2020), UNICEF 11 May 2020

Pregnancy is a special time full of excitement and anticipation. But for expectant mothers facing the outbreak of the coronavirus disease (COVID-19), fear, anxiety and uncertainty are clouding this otherwise happy time. To learn more about how women can protect themselves and their little one, we spoke with Franka Cadée, President of the International Confederation of Midwives. COVID-19 is a new virus and research into it is ongoing. We will update this article as new information becomes available. (Author)

Full URL: https://www.unicef.org/coronavirus/navigating-pregnancy-during-coronavirus-disease-covid-19-pandemic

---

20200714-65*

When separation is not the answer: breastfeeding mothers and infants affected by COVID-19. Tomoroi C, Gribble K, Palmquist AEL, et al (2020), Maternal and Child Nutrition 26 May 2020, online

The World Health Organisation (WHO) has provided detailed guidance on the care of infants of women who are a person under investigation (PUI) or confirmed to have COVID-19, which supports immediate postpartum mother-infant contact and breastfeeding with appropriate respiratory precautions. Although many countries have followed WHO guidance, others have implemented infection prevention and control policies (IPC) that impose varying levels of postpartum separation and discourage or prohibit breastfeeding or provision of expressed breastmilk. These policies aim to protect infants from the potential harm of infection from their mothers, yet they may fail to fully account for the impact of separation. Global COVID-19 data are suggestive of potentially lower susceptibility and a typically milder course of disease among children, although the potential for severe disease in infancy remains. Separation causes cumulative harms, including disrupting breastfeeding and limiting its protection against infectious disease, which has disproportionate impacts on vulnerable infants. Separation also presumes the replaceability of breastfeeding - a risk that is magnified in emergencies. Moreover, separation does not ensure lower viral exposure during hospitalizations and post-discharge, and contributes to the burden on overwhelmed health systems. Finally, separation magnifies maternal health consequences of insufficient breastfeeding and compounds trauma in communities who have experienced long-standing inequities and violence, including family separation. Taken together, separating PUI/confirmed SARS-CoV-2 positive mothers and their infants may lead to excess preventable illnesses and deaths among infants and women around the world. Health services must consider the short-and-long-term impacts of separating mothers and infants in their policies. (Author)

20200714-5*

Maternal-fetal vertical SARS-CoV2 transmission cannot be dismissed. European Society for Human Reproduction and Embryology (ESHRE) (2020), European Society for Human Reproduction and Embryology 36th Annual Meeting 2020, 5-8 July 2020

Summarises the results of a systematic review of 80 publications, which aimed to answer the question 'Is there vertical transmission (from woman to baby antenatally or intrapartum) after SARS-CoV-2 (COVID-19) infected pregnancy?' The findings from the review were presented at the virtual 36th Annual Meeting of the European Society for Human Reproduction and Embryology (ESHRE) held between 5-8 July 2020, and suggest that vertical transmission is possible and therefore must not be dismissed. (JSM)

Full URL: https://www.focusonreproduction.eu/article/ESHRE-News-Annual-Meeting-2020-Bahadur

---

20200714-49*

Optimising mother-baby contact and infant feeding in a pandemic [Version 2]. Renfrew MJ, Cheyne H, Dykes F, et al (2020), RCM Professional Advisory Group 24 June 2020. 47 pages

Optimising close, ongoing contact between mothers and newborn infants and enabling women to breastfeed/feed with breastmilk, or to use breastmilk substitutes as effectively and safely as possible, are key elements of maternity and neonatal care. They are especially important during the COVID-19 pandemic. Extensive evidence-based positive developments in policy and practice to promote and support mother-baby contact, attachment, and breastfeeding have been implemented across maternity and neonatal care in the UK and many other countries in the last 15-20 years, though such changes have not been universally implemented and barriers still exist in many settings. The coronavirus pandemic and the inevitable focus on reducing infection has disrupted many of these positive developments and adversely affected mother-baby contact and infant feeding in many contexts, augmenting existing barriers. Societal changes such as hygiene measures and social distancing, lockdown, isolation, fear, and food security challenges complicate the lives of women and families. Health service changes in the UK and other countries have included virtual contact between women and staff, increased separation of mothers and babies, restrictions on parental visiting in neonatal units, the use of masks and personal protective equipment, staff redeployment and shortages, and the interruption of Unicef UK Baby Friendly Initiative accreditation programmes. Taken together, these changes pose a risk to immediate, close and loving contact between the mother and newborn infant and with the other parent and the wider family, to the initiation and continuation of breastfeeding, and to future individual and family well-being and public health. Some reports are emerging about potential positive impacts of the restrictions on postnatal visiting and increased levels of virtual contact for some families in some countries. In the context of the COVID-19 pandemic and the need to prevent or reduce infection, this rapid analytic review considers: What is the evidence base and best practice on optimising mother-baby contact? What is the evidence base and best practice on optimising infant feeding? What are the implications of this knowledge for guidance for health professionals, the care of women and babies, and information for women and families? (Author)

Full URL: https://www.rcm.org.uk/media/4142/optimising-mother-baby-contact-and-infant-feeding-in-a-pandemic-version-2-final-24th-june-2020.pdf

---

20200714-40*

The clinical course of SARS-CoV-2 positive neonates. De Barnardo G, Giordano M, Zollo G, et al (2020), Journal of Perinatology vol 40, no 10, October 2020, pp 1462-1469

The COVID-19 pneumonia was firstly reported in Wuhan, China, in December 2019. The disease had a rapid spread all over the word becoming an international public health emergency. Limited data were available on COVID-19 positive neonates. We reviewed relevant literature to understand the clinical course of disease and transmission routes in affected neonates. The aim of the study was evaluating the clinical course and prognosis of SARS-CoV-2 positive neonates. Based on current literature, the hypothesis of vertical transmission of SARS-CoV-2, though conceivable, remains unproven. A research conducted on PubMed database from December 2019 to April 27, 2020 revealed that were reported 25 neonates affected by SARS-CoV-2. Main symptoms were fever, cough, or shortness of breath but often these neonates did not show other symptoms during length stay in hospital. No deaths occurred. (Author)

Full URL: https://doi.org/10.1038/s41372-020-0715-0

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

20200713-27*

Virolactia in an Asymptomatic Mother with COVID-19. Bastug A, Hanifehnezhad A, Tayman C, et al (2020), Breastfeeding Medicine vol 15, no 8, August 2020, pp 488-491

Background: Limited data are available on the perinatal and postnatal transmission of novel coronavirus disease 2019 (COVID-19). The Centers for Disease Control and Prevention (CDC) and World Health Organization (WHO) recommended breastfeeding with necessary precautions to mothers with COVID-19.

Case Presentation: A 20-year-old pregnant woman with no symptoms of COVID-19 presented to the hospital for delivery at 39 weeks of gestation. She was tested for severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) by reverse transcriptase polymerase chain reaction (RT-PCR) because her father had been diagnosed with COVID-19. A nasopharyngeal swab RT-PCR test was positive for SARS-CoV-2. Therefore, the baby and the mother were cared for separately after delivery. Breast milk obtained after first lactation was tested by real-time RT-PCR and was positive for SARS-CoV-2.

Conclusions: In this article, we aimed to report the presence of SARS-CoV-2 in breast milk. Although further studies are needed, this situation may have an impact on breastfeeding recommendations. (Author)

Full URL: https://doi.org/10.1089/bfm.2020.0161

20200713-25*

Negative Transmission of SARS-CoV-2 to Hand-Expressed Colostrum from SARS-CoV-2-Positive Mothers. Gabriel MAM, Martinez AMM, Martinez MEM, et al (2020), Breastfeeding Medicine vol 15, no 8, August 2020, pp 492-494

Aim: The objective of our study was to determine whether the SARS-CoV-2-positive mothers transmit the virus to their hand-expressed colostrum.

Methods: This is an observational prospective study that included pregnant women who tested positive for SARS-CoV-2 by PCR test on a nasopharyngeal swab at the moment of childbirth and who wanted to breastfeed their newborns. A colostrum sample was obtained from the mothers by manual self-extraction. To collect the samples, the mothers wore surgical masks, washed their hands with an 85% alcohol-based gel, and washed their breast with gauze that was saturated with soap and water.

Results: We obtained seven colostrum samples from different mothers in the first hours postdelivery. SARS-CoV-2 was not detected in any of the colostrum samples obtained in our study.

Conclusion: In our study, breast milk was not a source of SARS-CoV-2 transmission. Hand expression (assuring that a mask is used and that appropriate hygienic measures are used for the hands and the breast), when direct breastfeeding is not possible, appears to be a safe way of feeding newborns of mothers with COVID-19. (Author)

20200713-12*

COVID 19 in babies: Knowledge for neonatal care. Green J, Petty J, Bromley P, et al (2020), Journal of Neonatal Nursing vol 26, no 5, October 2020, pp 239-246

Infection is a leading cause of death worldwide in babies under one month of age who are more susceptible to sepsis due to immature host defence mechanisms. Usually, babies may become acutely unwell from infective pathogens due to specific differences in their respiratory and immune systems. However, with the Covid-19 virus, the focus of this paper, it appears that the neonatal population is not significantly affected in the same way as adults. That said, knowledge about this novel virus is rapidly emerging. Therefore, it is vital that neonatal nurses, midwives and other healthcare professionals are adequately informed and educated about the potential impact on neonatal practice. This review paper draws upon key findings and themes from a selection of recent literature to provide an overview of current knowledge on Covid-19 and the implications for care within the neonatal field. The discussion focuses on the nature of Covid-19, its pathophysiology and transmission relevant to maternal and neonatal care. This is followed by implications for practice; namely, maternal issues, the importance of human breast milk, neonatal care relating to parenting and specific management before a final review of the current World Health Organization guidance. (Author)

Full URL: https://doi.org/10.1016/j.jnn.2020.06.005

20200710-2*

The 2020 COVID-19 pandemic. Altimier L, Seiver A (2020), Journal of Neonatal Nursing vol 26, no 4, August 2020, pp 183-191

Provides an overview of the pathophysiology, diagnosis, transmission and treatment of COVID-19. The authors specifically discuss the clinical characteristics and outcomes of SARS-CoV-2 infections in newborn infants, children and pregnant women. (LDO)

Full URL: https://doi.org/10.1016/j.jnn.2020.06.002

20200710-1*

Holder pasteurization of donated human milk is effective in inactivating SARS-CoV-2. Unger S, Christie-Holmes N, Guvenc F, et al (2020), Canadian Medical Association Journal (CMAJ) vol 192, no 31, 4 August 2020, pp E871-E874

Background: Provision of pasteurized donor human milk, as a bridge to mother's own milk, is the standard of care for very low-birth-weight infants in hospital. The aim of this research was to confirm that Holder pasteurization (62.5°C for 30 min) would be sufficient to inactivate severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in donated human milk samples.

Methods: We spiked frozen milk samples from 10 donors to the Rogers Hixon Ontario Human Milk Bank with SARSCoV-2 to achieve a final concentration of 1 × 107 TCID50/mL (50% of the tissue culture infectivity dose per mL). We pasteurized samples using the Holder method or held them at room temperature for 30 minutes and plated serial dilutions on Vero E6 cells for 5 days. We included comparative controls in the study using milk samples from the same donors without addition of virus (pasteurized and unpasteurized) as well as replicates of Vero E6 cells directly inoculated with SARS-CoV-2. We reported cytopathic effects as TCID50/mL.

Results: We detected no cytopathic activity in any of the SARS-CoV-2-spiked milk samples that had been pasteurized using the Holder method. In the SARSCoV-2-spiked milk samples that were not pasteurized but were kept at room temperature for 30 minutes, we observed a reduction in infectious viral titre of about 1 log.

Interpretation: Pasteurization of human milk by the Holder method (62.5°C for 30 min) inactivates SARS-CoV-2. Thus, in the event that donated human milk contains SARS-CoV-2 by transmission through the mammary gland or by contamination, this method of pasteurization renders milk safe for consumption and handling by care providers.

Full URL: https://doi.org/10.1503/cmaj.201309

20200709-40*

Spotlight on child abuse and neglect response in the time of COVID-19. York Thomas E, Anurudran A, Robb K, et al (2020), The Lancet Public Health vol 5, no 7, July 2020, p E371

Supports the request by Chandan et al (1) for the adoption of a public health approach to the increased risk of domestic violence, child abuse and neglect during pandemics, which can lead to future problems such as mental health disorders, sexually transmitted infections, unwanted pregnancies, and substance abuse. Argues that the framework for evaluating and addressing these issues can result in public health benefits which will outlive the current coronavirus crisis. 1. Chandon JS et al. COVID-19: a public health approach to manage domestic violence is needed.

Lancet Public Health, vol 5, no 6, 2020, e309. (JSM)

Full URL: https://doi.org/10.1016/S2468-2667(20)30143-2

20200708-6*

Pregnancy and COVID-19. Elsevier Patient Education (2020), London: Elsevier 14 April 2020. 3 pages

Consumer information summarising what is known so far about COVID-19 in pregnancy. (JSM)

Full URL: https://www.elsevier.com/__data/assets/pdf_file/0008/1010312/Pregnancy-and-COVID-19_14042020.pdf?campid=20N18119&utm_campaign=ckphy_awcovid-19healthcarehub_em_20N18119&mm=cima-thornhillk®=naT=ckphy&utm_medium=&utm_source=database&utm_content=awcovid-19healthcarehub&cid=DM65132&bid=64070031&utm_campaign=OP1007&utm_medium=email&utm_dgroup=20N18119&utm_acid=7788381&dgcid=OP1007&CMX_ID=0&utm_in=DM65132&utm_delid=DM65132

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

20200708-27*

Evidence and possible mechanisms of rare maternal-fetal transmission of SARS-CoV-2. Egloff C, Vauloup-Fellous C, Picone O, et al (2020), Journal of Clinical Virology vol 128, no 104447, July 2020

While SARS-CoV-2 infection has spread rapidly worldwide, data remains scarce about the natural history of infection in pregnant women and the risk of mother-to-fetal transmission. Current data indicates that viral RNA levels in maternal blood are low and there is no evidence of placental infection with SARS-CoV-2. Published reports to date suggest that perinatal transmission of SARSCoV- 2 can occur but is rare. Among 179 newborns tested for SARS-CoV2 at birth from mothers with COVID-19, transmission was suspected in 8 cases, 5 with positive nasopharyngeal SARS-CoV-2 RT-PCR and 3 with SARS-CoV-2 IgM. However, these cases arise from maternal infection close to childbirth and there are no information about exposition during first or second trimester of pregnancy. Welldesigned prospective cohort studies with rigorous judgement criteria are needed to determine the incidence and risk factors for perinatal transmission of SARS-CoV-2. (Author)

Full URL: https://doi.org/10.1016/j.jcv.2020.104447

20200708-2*

Clinical characteristics and diagnostic challenges of pediatric COVID-19: A systematic review and meta-analysis. Chang T-S, Wu J-L, Chang L-Y (2020), Journal of the Formosan Medical Association vol 119, no 5, May 2020, pp 982-989

Background/Purpose

Current studies on pediatric coronavirus disease 2019 (COVID-19) are rare. The clinical characteristics and spectrum are still unknown. Facing this unknown and emerging pathogen, we aimed to collect current evidence about COVID-19 in children.

Methods

We performed a systematic review in PubMed and Embase to find relevant case series. Because some reports were published in Chinese journals, the journals and publications of the Chinese Medical Association related to COVID-19 were completely reviewed. A random effects model was used to pool clinical data in the meta-analysis.

Results

Nine case series were included. In the pooled data, most of patients (75%) had a household contact history. The disease severity was mainly mild to moderate (98%). Only 2 children (2%) received intensive care. Fever occurred in 59% of the patients, while cough in 46%. Gastrointestinal symptoms (12%) were uncommon. There are 26% children are asymptomatic. The most common radiographic finding was ground glass opacities (48%). Currently, there is no evidence of vertical transmission to neonates born to mothers with COVID-19. Compared with the most relevant virus, SARS-CoV, SARS-CoV-2 causes less severe disease.

Conclusion

COVID-19 has distinct features in children. The disease severity is mild. Current diagnosis is based mainly on typical ground glass opacities on chest CT, epidemiological suspicion and contact tracing. (Author)

Full URL: https://doi.org/10.1016/j.jfma.2020.04.007

20200707-11*

Coronavirus (COVID-19) infection in pregnancy: Information for healthcare professionals [Version 11] [Superseded by Version 12, 14 October 2020]. Royal College of Obstetricians and Gynaecologists, Royal College of Midwives, Royal College of Paediatrics and Child Health, et al (2020), Royal College of Obstetricians and Gynaecologists (RCOG) 24 July 2020. 68 pages

NB: This version has been superseded by Version 12, 14 October 2020]

Guidance for healthcare professionals on Coronavirus (COVID-19) infection in pregnancy, published by the RCOG, Royal College of Midwives, Royal College of Paediatrics and Child Health, Public Health England and Health Protection Scotland. The guidance, which will be updated on a regular basis, covers: epidemiology; transmission; effect of COVID-19 on pregnant women; effect of COVID-19 on the fetus; travel advice for pregnant women; advice for women who may have been exposed; diagnosis; advice for women who have been advised to self-isolate; management of pregnant women with confirmed COVID-19; postnatal management: neonatal care and infant feeding; admissions flowchart; information for women and their families. (Publisher).
[This version of the guidance has now been superseded by Version 12:
https://www.rcm.org.uk/media/4383/2020-10-14-coronavirus-covid-19-infection-in-pregnancy-v12.pdf]

Full URL: https://www.rcm.org.uk/media/4181/2020-07-24-coronavirus-covid-19-infection-in-pregnancyv11.pdf

---

20200703-27*

COVID-19 and maternal and infant health: are we getting the balance right? A rapid scoping review. Topalidou A, Thomson G, Downe S (2020), The Practising Midwife vol 23, no 7, July/August 2020, pp 36-45

Aim: The purpose of this study was to summarise the evidence of the clinical and psychological impacts of COVID-19 on perinatal women and their infants.
Methods: A rapid scoping review was conducted based on methods proposed by Arksey and O'Malley, and the World Health Organization's (WHO) practical guide for rapid reviews. We searched EMBASE, MEDLINE(R) and MIDIRS.
Results: From 1,319 hits, 26 met the inclusion criteria and were included. Most of the studies (n=22) were from China. The majority of the publications are single case studies or case reports. The findings were analysed narratively, and six broad themes emerged. These were: Vertical transmission and transmission during birth, mother-baby separation, breastmilk, likelihood of infection and clinical picture, analgesia or anaesthesia, and infants and young children. The literature search revealed that there is very little formal evidence on the impact of COVID-19 on pregnant, labouring and postnatal women, or their babies. The clinical evidence to date suggests that pregnant and childbearing women, and their babies, are not at increased risk of either getting infected, or of having severe symptoms or consequences, when compared to the population as a whole, which contrasts with outcomes for this group in other viral pandemics. There is no evidence on the short- and longer-term psychological impacts on childbearing women during COVID-19.
Conclusion: Despite this lack of evidence, many maternity services have been imposing severe restrictions on aspects of maternity care previously acknowledged as vital to optimum health (including birth companionship, breastfeeding, and contact between mother and baby). There is a critical research gap relating to the clinical and psychological consequences of both COVID-19 and of maternity service responses to the pandemic. (Author)

20200701-25*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 64106, 24 June 2020

Ms Nadine Dorries responds to a written question asked by Mrs Sharon Hodgson to the Secretary of State for Health and Social Care, regarding the assessment he has made of the effect of the COVID-19 outbreak on the level of access to neonatal units by parents of newborn babies. (LDO)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-24/64106/

20200701-21*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 64108, 24 June 2020

Ms Nadine Dorries responds to a written question asked by Mrs Sharon Hodgson to the Secretary of State for Health and Social Care, regarding the steps he has taken to ensure that parents in England are (a) encouraged and (b) financially supported to spend time with their newborn children in neonatal units during the COVID-19 outbreak. (LDO)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-24/64108/

20200701-18*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 64381, 24 June 2020

Ms Nadine Dorries responds to a written question asked by Vicky Foxcroft to the Secretary of State for Health and Social Care, regarding the steps his Department has taken to ensure that parents with babies on neonatal units have urgent access to COVID-19 testing. (LDO)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-24/64381/

20200701-15*

Baby Care Units: Coronavirus [written answer]. House of Commons (2020), Hansard Written question 64109, 24 June 2020

Ms Nadine Dorries responds to a written question asked by Mrs Sharon Hodgson to the Secretary of State for Health and Social Care, regarding the plans his Department has to expand rapid testing for COVID-19 in hospitals to the parents of newborn babies in neonatal units. (LDO)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-06-24/64109/

20200629-19*

Rates of Maternal and Perinatal Mortality and Vertical Transmission in Pregnancies Complicated by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-Co-V-2) Infection: A Systematic Review. Huntley BJ, Huntley ES, Di Mascio D, et al (2020), Obstetrics & Gynecology vol 136, no 2, August 2020, pp 303-312

OBJECTIVE:
To ascertain the frequency of maternal and neonatal complications, as well as maternal disease severity, in pregnancies affected by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.
DATA SOURCES:
MEDLINE, Ovid, ClinicalTrials.gov, MedRxiv, and Scopus were searched from their inception until April 29, 2020. The analysis was limited to reports with at least 10 pregnant patients with SARS-CoV-2 infection that reported on maternal and neonatal outcomes.
METHODS OF STUDY SELECTION:
Inclusion criteria were pregnant women with a confirmed diagnosis of SARS-CoV-2 infection. A systematic search of the selected databases was performed by implementing a strategy that included the MeSH terms, key words, and word variants for 'coronavirus,' 'SARS-CoV-2,' 'COVID-19,' and 'pregnancy.r The primary outcomes were maternal admission to the intensive care unit (ICU), critical disease, and death. Secondary outcomes included rate of preterm birth, cesarean delivery, vertical transmission, and neonatal death. Categorical variables were expressed as percentages with number of cases and 95% CIs.
TABULATION, INTEGRATION, AND RESULTS:
Of the 99 articles identified, 13 included 538 pregnancies complicated by SARS-CoV-2 infection, with reported outcomes on 435 (80.9%) deliveries. Maternal ICU admission occurred in 3.0% of cases (8/263, 95% CI 1.6-5.9) and maternal critical disease in 1.4% (3/209, 95% CI 0.5-4.1). No maternal deaths were reported (0/348, 95% CI 0.0-1.1). The preterm birth rate was 20.1% (57/284, 95% CI 15.8-25.1), the cesarean delivery rate was 84.7% (332/392, 95% CI 80.8-87.9), the vertical transmission rate was 0.0% (0/310, 95% CI 0.0-1.2), and the neonatal death rate was 0.3% (1/313, 95% CI 0.1-1.8).
CONCLUSION:
With data from early in the pandemic, it is reassuring that there are low rates of maternal and neonatal mortality and vertical transmission with SARS-CoV-2. The preterm birth rate of 20% and the cesarean delivery rate exceeding 80% seems related to geographic practice patterns.
SYSTEMATIC REVIEW REGISTRATION:
PROSPERO, CRD42020181497. (Author)

Full URL: https://doi.org/10.1097/AOG.0000000000004010

20200626-33*

Vaginal delivery in SARS-CoV-2-infected pregnant women in Northern Italy: a retrospective analysis. Ferrazzi E, Frigerio L, Savasi V, et al (2020), BJOG: An International Journal of Obstetrics and Gynaecology vol 127, no 9, August 2020, pp 1116-1121

Objective

To report mode of delivery and immediate neonatal outcome in women infected with COVID-19.

Design

Retrospective study.

Setting

Twelve hospitals in northern Italy.

Participants

Pregnant women with COVID-19-confirmed infection who delivered.

Exposure

COVID 19 infection in pregnancy.

Methods

SARS-CoV-2-infected women who were admitted and delivered from 1 to 20 March 2020 were eligible. Data were collected from the clinical records using a standardised questionnaire on maternal general characteristics, any medical or obstetric co-morbidity, course of pregnancy, clinical signs and symptoms, treatment of COVID 19 infection, mode of delivery, neonatal data and breastfeeding.

Main outcome and measures

Data on mode of delivery and neonatal outcome.

Results

In all, 42 women with COVID-19 delivered at the participating centres; 24 (57.1%, 95% CI 41.0-72.3) delivered vaginally. An elective caesarean section was performed in 18/42 (42.9%, 95% CI 27.7-59.0) cases: in eight cases the indication was unrelated to COVID-19 infection. Pneumonia was diagnosed in 19/42 (45.2%, 95% CI 29.8-61.3) cases: of these, 7/19 (36.8%, 95% CI 16.3-61.6) required oxygen support and 4/19 (21.1%, 95% CI 6.1-45.6) were admitted to a critical care unit. Two women with COVID-19 breastfed without a mask because infection was diagnosed in the postpartum period: their newborns tested positive for SARS-Cov-2 infection. In one case, a newborn had a positive test after a vaginal operative delivery.

Conclusions

Although postpartum infection cannot be excluded with 100% certainty, these findings suggest that vaginal delivery is associated with a low risk of intrapartum SARS-Cov-2 transmission to the newborn.

Tweetable abstract

This study suggests that vaginal delivery may be associated with a low risk of intrapartum SARS-Cov-2 transmission to the newborn. (Author)

20200625-32*

SARS-CoV-2 Infection in Infants Less than 90 Days Old. Mithal LB, Machut KZ, Muller WJ, et al (2020), The Journal of Pediatrics vol 224, September 2020, pp 150-152

This is a single-center US case series of 18 infants <90 days old who tested positive for SARS-CoV-2. These infants had a mild febrile illness without significant pulmonary disease. One half were hospitalized; one had bacterial urinary tract co-infection. Nasopharyngeal viral loads were notably high. Latinx ethnicity was overrepresented. (Author)

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

20200624-44*

Analysis of vaginal delivery outcomes among pregnant women in Wuhan, China during the COVID-19 pandemic. Liao J, He X, Gong Q, et al (2020), International Journal of Gynecology & Obstetrics vol 150, no 1, July 2020, pp 53-57

Objective
To study vaginal delivery outcomes and neonatal prognosis and summarize the management of vaginal delivery during the COVID-19 pandemic.
Methods
A retrospective analysis of medical records and comparison of vaginal delivery outcomes between 10 pregnant women with clinical diagnosis of COVID-19 and 53 pregnant women without COVID-19 admitted to Zhongnan Hospital of Wuhan University between January 20 and March 2, 2020. Results of laboratory tests, imaging tests, and SARS-CoV-2 nucleic acid tests were also analyzed in neonates delivered by pregnant women with clinical diagnosis of COVID-19.
Results
There were no significant differences in gestational age, postpartum hemorrhage, and perineal resection rates between the two groups. There were no significant differences in birth weight of neonates and neonatal asphyxia rates between the two groups. Neonates delivered by pregnant women with clinical diagnosis of COVID-19 tested negative for SARS-CoV-2 infection.
Conclusions
Under the premise of full evaluation of vaginal delivery conditions and strict protection measures, pregnant women with ordinary type COVID-19 can try vaginal delivery without exacerbation of COVID-19 and without increasing the risk of SARS-CoV-2 infection in neonates. (Author)

20200624-4*

Delayed umbilical cord clamping and breastfeeding after childbirth in mothers affected by COVID 19: Recommended or not?. Kohan S, Rahnemaei FA (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 250, July 2020, p 264

Short correspondence piece on early cord clamping, isolation of the newborn, lack of skin-to-skin contact and infant feeding practices to reduce the risk of COVID-19 infection in neonates. (LDO)

Full URL: https://www.ejog.org/article/S0301-2115(20)30324-9/fulltext

---

20200623-35*

Coronavirus: Newborn Mexican triplets test positive in 'unprecedented' case. Anon (2020), BBC News 23 June 2020

Newborn triplets in Mexico have tested positive for coronavirus in an 'unprecedented' case, according to local health authorities. (Author, edited)

Full URL: https://www.bbc.co.uk/news/world-latin-america-53147483

20200622-4*

Risks to children during the covid-19 pandemic: some essential epidemiology. Bhopal SS, Bagaria J, Bhopal R (2020), BMJ vol 369, no 8250, 10 June 2020, m2290

Correspondence discussing the risks to children during the covid-19 pandemic. (MB)

Full URL: https://doi.org/10.1136/bmj.m2290

20200622-3*

'Women and children last'-effects of the covid-19 pandemic on reproductive, perinatal, and paediatric health. von Dadelszen P, Khalil A, Wolfe I, et al (2020), BMJ vol 369, no 8250, 10 June 2020, m2287

Correspondence discussing the risks to children during the covid-19 pandemic. (MB)

20200622-29*

COVID-19: reflections on childbirth and neonatal care in Italy. Varsalone FF, Dermyshi E (2020), Infant vol 16, no 3, May 2020, pp 101-102

In Italy, the spread of the SARS-CoV-2 infection has hit with an uneven distribution and, fortunately, in the neonatal setting the virus affects fewer patients and with less severity. Nevertheless, the moment of childbirth has turned into a more complex event for healthcare professionals as we have to work with visors, masks and gowns. The continuously increasing number of COVID-19 cases has also given rise to the need for specific protocols to protect pregnant women and newborn babies. (Author)

20200622-27*

Response of UK milk banks to ensure the safety and supply of donor human milk in the COVID-19 pandemic and beyond. Shenker N, Hughes J, Barnett D, et al (2020), Infant vol 16, no 3, May 2020, pp 108-121

The COVID-19 pandemic is presenting several challenges to human milk banks and has highlighted a number of vulnerabilities in service provision that have been long known by those who work in the sector. In recent weeks, milk banks across the UK have worked together to understand any risks posed to infants, milk bank staff and volunteers by COVID-19, and to put in place mitigation strategies to ensure the safeguarded provision and safety of donor human milk. The authors call on policymakers to better support these essential services for vulnerable neonates during the COVID-19 pandemic and minimise the impact of future challenges through greater investment in milk bank infrastructure, research and innovation. (Author)

20200622-25*

Practical considerations for the emergency delivery of babies from mothers with confirmed or suspected COVID-19. Wells P, Taylor A, Battersby C, et al (2020), Infant vol 16, no 3, May 2020, pp 94-98

Maternity and neonatal departments must be prepared for the delivery of babies from COVID-19 positive women. We describe a guideline developed at the North Middlesex University Hospital maternity unit, for multidisciplinary team members attending an emergency caesarean section of mothers with confirmed or suspected COVID-19. Anticipated staff actions and personal protective equipment were considered to optimise staff safety and reduce transmission of SARS-CoV-2. We recommend units generate individualised guidance suitable to their settings. (Author)

20200622-22*

COVID-19: the importance of healthcare professionals in protecting human milk and breastfeeding. Spatz DL (2020), Infant vol 16, no 3, May 2020, pp 116-117

It is clear that the world will never be the same since the onset of the COVID-19 pandemic. Our daily routines and the healthcare system will be forever changed. Nonetheless, families will continue to conceive and bring new lives into the world. Now more than ever, families need access to evidence-based lactation care and support. With social distancing there are both opportunities and risks: opportunities to improve breastfeeding outcomes; risks that families may not be able to access much-needed lactation care or lactation technology. (Author)

20200622-20*

Parents are caregivers not visitors, even during a pandemic. Anderson J, Lee-Davey C (2020), Infant vol 16, no 3, May 2020, pp 103-104

While in most ways, daily life has changed drastically over the last couple of months in response to the unprecedented COVID-19 crisis, some things remain the same. Babies are still being born, and around 300 of them will continue to be admitted to neonatal care every day in the UK. Neonatal services are part of the system-wide response to COVID-19 and have had to make changes to how they operate. But now is not the time to abandon family-centred care on neonatal units - indeed it is more important than ever. (Author)

20200622-17*

National research to understand and better manage neonatal COVID-19. Gale C on behalf of The Neonatal Complications of COVID-19 Surveillance Group (2020), Infant vol 16, no 3, May 2020, pp 90-91

The novel coronavirus SARS-CoV-2 was identified in late December 2019 and causes coronavirus disease (COVID-19). This disease has been declared a pandemic by the World Health Organization and is an international public health crisis. So far there is only relatively limited information describing the incidence, clinical course, treatments or outcomes of SARS-CoV-2 infection and COVID-19 in neonates up to 28 days old. (Author)

20200619-37*

Critically ill pregnant patient with COVID-19 and neonatal death within two hours of birth. Li J, Wang Y, Zeng Y, et al (2020), International Journal of Gynecology & Obstetrics vol 150, no 1, July 2020, pp 126-128

COVID-19 may lead to a sharp decline in blood oxygen, can cause sudden changes in the fetal intrauterine environment, and could possibly result in neonatal death. (Author)

20200618-59*

Novel Coronavirus Infection in Febrile Infants Aged 60 Days and Younger. McLaren SH, Dayan PS, Fenster DB, et al (2020), Pediatrics vol 146, no 3, September 2020, e20201550

In this case series, we describe the clinical course and outcomes of 7 febrile infants aged ≤60 days with confirmed SARS-CoV-2 infection. No infant had severe outcomes, including the need for mechanical ventilation or intensive care unit level of care, during hospitalization or at 7-day follow up. Two infants had concurrent urinary tract infections which were treated with antibiotics. While a small sample, our data suggest that febrile infants with SARS-CoV-2 infection often have mild illness. (Author)

Full URL: https://doi.org/10.1542/peds.2020-1550

20200617-3*

Probable congenital SARS-CoV-2 infection in a neonate born to a woman with active SARS-CoV-2 infection. Kirtsman M, Diambomba Y, Poutanen SM, et al (2020), Canadian Medical Association Journal (CMAJ) vol 192, no 24, 15 June 2020, pp E647-E650

KEY POINTS

Neonates born to women with confirmed or suspected severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection should have testing of the nasopharynx, placenta and cord blood as soon as possible after birth, after thorough cleaning of the neonate.

Sample timing, collection methods and types of samples should be documented to help differentiate congenital, intrapartum and postpartum acquisition of SARS-CoV-2 infection in neonates. (Author)

Full URL: https://doi.org/10.1503/cmaj.200821

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

20200616-80*

Vertical Transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A Systematic Review. Yang Z, Liu Y (2020), American Journal of Perinatology vol 37, no 10, August 2020, pp 1055-1060

Objective The aim of this study is to summarize currently available evidence on vertical transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

Study Design A systematic review was conducted following the guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-analysis Statement.

Results A total of 22 studies comprising 83 neonates born to mothers diagnosed with coronavirus disease 2019 were included in the present systematic review. Among these neonates, three were confirmed with SARS-CoV-2 infection at 16, 36, and 72 hours after birth, respectively, by nasopharyngeal swab real-time polymerase chain reaction (RT-PCR) tests; another six had elevated virus-specific antibody levels in serum samples collected after birth, but negative RT-PCR test results. However, without positive RT-PCR tests of amniotic fluid, placenta, or cord blood, there is a lack of virologic evidence for intrauterine vertical transmission.

Conclusion There is currently no direct evidence to support intrauterine vertical transmission of SARS-CoV-2. Additional RT-PCR tests on amniotic fluid, placenta, and cord blood are needed to ascertain the possibility of intrauterine vertical transmission. For pregnant women infected during their first and second trimesters, further studies focusing on long-term outcomes are needed. (Author)

Full URL: https://doi.org/10.1055/s-0040-1712161

20200616-49*

Vertical Transmission of SARS-CoV-2: What is the Optimal Definition?. Blumberg DA, Underwood MA, Hedriana HL, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 769-772

Editorial discussing the different modes of vertical transmission of SARS-CoV-2 from the mother to the infant. The authors develop definitions for intrauterine transmission, intrapartum transmission and superficial exposure. (LDO)

20200616-12*

Argentine couple finally meet son born to surrogate mother. Anon (2020), BBC News 11 June 2020

In Ukraine, efforts are continuing to unite newborn babies born to surrogate mothers with their biological parents. Last month officials said that more than a hundred babies had been left stranded in Kyiv after coronavirus restrictions prevented parents from travelling from around the world to Ukraine. Reporter Jonah Fisher speaks to one couple who have finally made it to Kyiv to meet their son - ten weeks after he was born. (Author, edited)

Full URL: https://www.bbc.co.uk/news/av/world-europe-53000956/argentine-couple-finally-meet-son-born-to-surrogate-mother

---

20200615-58*

National active surveillance to understand and inform neonatal care in COVID-19. Gale C, Knight M, Ladhani S, et al (2020), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 105, no 4, July 2020, pp 346-347

Discusses vertical and horizontal transmission of SARS-CoV-2 to infants. Suggests that active population surveillance is the best way to determine true infection rates and inform optimal perinatal and neonatal care. (LDO)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-319372

20200611-24*

Serious covid-linked condition in children 'now in decline'. Discombe M (2020), Health Service Journal 11 June 2020, online

A serious coronavirus-linked illness which put up to 100 children in intensive care now appears to be in decline as the number of covid-19 cases also falls, HSJ has been told. (Author)

20200611-22*

Effects of the Global COVID-19 Pandemic on Early Childhood Development: Short- and Long-Term Risks and Mitigating Program and Policy Actions. Yoshikawa H, Wuermli AJ, Britto PR, et al (2020), The Journal of Pediatrics 19 May 2020, online

In just a matter of weeks, the COVID-19 pandemic has led to huge societal public health and economic challenges worldwide. The clinical effects of COVID-19 on young children are uncertain when compared with older age groups, with lower morbidity and mortality rates and no conclusive evidence supporting transmission during pregnancy, on the one hand, 1,2 but some emerging evidence of rising rates of child hyperinflammatory shock, on the other.3 Research on the effects of prior pandemics and disasters clearly indicates that there will be both immediate and long-term adverse consequences for many children, with particular risks faced during early childhood, when brain architecture is still rapidly developing and highly sensitive to environmental adversity4. Estimates predict a rise in maternal and child mortality in low- and middle-income countries as health services for non-COVID related issues become scarce. For example, a conservative scenario of 15% reduction in coverage of life-saving essential health interventions for 6 months in low- and middle-income countries is associated with a 9.8% increase in under-5 mortality and an 8.3% increase in maternal mortality.5 Before the pandemic, 43 % of all children under 5 years of age in the world were estimated to be at risk of not achieving their developmental potential.6 Unless there is a commitment to support coordinated, multisectoral approaches in which low-and middle-income countries governments receive international support to scale up essential interventions, a much higher percentage of children are at risk of devastating physical, socioemotional, and cognitive consequences over the entire course of their lives. We review the evidence base on short- and long-term risks for children during early childhood development (ECD, defining this from prenatal to 8 years of age). We also present evidence-based mitigating program and policy actions that may reduce these risks. (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.05.020

20200611-21*

Severe neutropenia in infants with severe acute respiratory syndrome caused by the novel coronavirus 2019 infection. Venturini E, Palmas G, Montagnani C, et al (2020), The Journal of Pediatrics vol 222, July 2020, pp 259-261

Describes the case of 23-day-old and a 39-day-old infants with mild COVID-19 and severe neutropenia. (MB)

Full URL: https://doi.org/10.1016/j.jpeds.2020.04.051

20200610-81*

COVID19 and Breastfeeding: Not That Simple. Berveiller P, Guerby P, Garabedian C (2020), Journal of Human Lactation vol 36, no 2, May 2020, pp 369-370

Correspondence reviewing the literature and arguing that it is not prudent to discourage mothers with COVID-19 from breastfeeding, given the known advantages of breast milk for the baby, and that there is no evidence to suggest the virus can be transmitted through breast milk. (JSM)

Full URL: https://doi.org/10.1177%2F0890334420917102

20200610-8*

Vertical transmission of coronavirus disease 2019: severe acute respiratory syndrome coronavirus 2 RNA on the fetal side of the placenta in pregnancies with coronavirus disease 2019-positive mothers and neonates at birth. Patanè L, Morotti D, Giunta MR, et al (2020), American Journal of Obstetrics & Gynecology MFM vol 2, no 3, suppl, August 2020, 100145

The authors present their experience with placental SARS-CoV-2 markers of infection in a series of mothers who received a diagnosis of COVID-19 in their third trimester of pregnancy. This is the first known report of positive polymerase chain reaction (PCR) results for SARS-CoV-2 in the mother, neonate and the placental tissues. (LDO)

Full URL: https://doi.org/10.1016/j.ajogmf.2020.100145

20200610-17*

How to reduce the potential risk of vertical transmission of SARS-CoV-2 during vaginal delivery?. Carosso A, Cosma S, Serafini P, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 250, July 2020, pp 246-249

The risk of vertical transmission during vaginal delivery in COVID-19 pregnant patients is currently a topic of debate. Obstetric norms on vaginal birth assistance to reduce the potential risk of perinatal infection should be promoted by ensuring that the risk of contamination from maternal anus and faecal material is reduced during vaginal delivery. (Author)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.04.065

20200609-8*

BC Perinatal and Neonatal Health Care Provider Speciality Education Guidance during COVID-19 Pandemic: Took Kit. Perinatal Services BC, Provincial Health Services Authority (2020), Perinatal Services BC June 2020, 22 pages

This tool kit has been developed to support perinatal and neonatal health care provider speciality education instructors, sites, and Health Authorities in gradually resuming perinatal and neonatal health care provider (HCP) education and training activities, while adhering to BCCDC and WorkSafeBC guidelines. The BC COVID-19 epidemiology is different from many provinces and, as such, the education strategies used in British Columbia may differ from strategies being employed in other Canadian provinces or territories. (Author)

Full URL: http://www.perinatalservicesbc.ca/Documents/Resources/Alerts/Covid19-provincial-education-guidance-tool-kit.pdf

---

20200609-38*

An outbreak of severe Kawasaki-like disease at the Italian epicentre of the SARS-CoV-2 epidemic: an observational cohort study. Verdoni L, Mazza A, Gervasoni A, et al (2020), The Lancet vol 365, no 10239, 6 June 2020, pp 1771-1778

Background
The Bergamo province, which is extensively affected by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) epidemic, is a natural observatory of virus manifestations in the general population. In the past month we recorded an outbreak of Kawasaki disease; we aimed to evaluate incidence and features of patients with Kawasaki-like disease diagnosed during the SARS-CoV-2 epidemic.
Methods
All patients diagnosed with a Kawasaki-like disease at our centre in the past 5 years were divided according to symptomatic presentation before (group 1) or after (group 2) the beginning of the SARS-CoV-2 epidemic. Kawasaki- like presentations were managed as Kawasaki disease according to the American Heart Association indications. Kawasaki disease shock syndrome (KDSS) was defined by presence of circulatory dysfunction, and macrophage activation syndrome (MAS) by the Paediatric Rheumatology International Trials Organisation criteria. Current or previous infection was sought by reverse-transcriptase quantitative PCR in nasopharyngeal and oropharyngeal swabs, and by serological qualitative test detecting SARS-CoV-2 IgM and IgG, respectively.
Findings
Group 1 comprised 19 patients (seven boys, 12 girls; aged 3·0 years [SD 2·5]) diagnosed between Jan 1, 2015, and Feb 17, 2020. Group 2 included ten patients (seven boys, three girls; aged 7·5 years [SD 3·5]) diagnosed between Feb 18 and April 20, 2020; eight of ten were positive for IgG or IgM, or both. The two groups differed in disease incidence (group 1 vs group 2, 0·3 vs ten per month), mean age (3·0 vs 7·5 years), cardiac involvement (two of 19 vs six of ten), KDSS (zero of 19 vs five of ten), MAS (zero of 19 vs five of ten), and need for adjunctive steroid treatment (three of 19 vs eight of ten; all p<0·01).
Interpretation
In the past month we found a 30-fold increased incidence of Kawasaki-like disease. Children diagnosed after the SARS-CoV-2 epidemic began showed evidence of immune response to the virus, were older, had a higher rate of cardiac involvement, and features of MAS. The SARS-CoV-2 epidemic was associated with high incidence of a severe form of Kawasaki disease. A similar outbreak of Kawasaki-like disease is expected in countries involved in the SARS-CoV-2 epidemic.
Funding
None. (Author)

Full URL: https://doi.org/10.1016/S0140-6736(20)31103-X

20200609-37*

Kawasaki-like disease: emerging complication during the COVID-19 pandemic. Viner RM, Whittaker E (2020), The Lancet vol 365, no 10239, 6 June 2020, pp 1741-1743

Comments on the clusters of cases that have been reported across the world of a Kawasaki disease-like symptoms in children testing positive for COVID-19. (MB)

Full URL: https://doi.org/10.1016/S0140-6736(20)31129-6

20200609-35*

Coronavirus: Children [written answer]. House of Lords (2020), Hansard Written question HL4696, 19 May 2020

Lord Bethell responds to a written question asked by Lord Kennedy of Southwark to Her Majesty's Government, regarding the assessment they have made of the risks posed by any emergence of a Kawasaki-like disease in children who may have been exposed to COVID-19. (LDO)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Lords/2020-05-19/HL4696/

20200608-14*

Clinical and Transmission Dynamics Characteristics of 406 Children With Coronavirus Disease 2019 in China: A Review.
Zhen-Dong Y, Gao-Jun Z, Run-Ming J, et al (2020), Journal of Infection 28 April 2020, online

Objective: Chinese pediatricians are working on the front line to fight COVID-19. They have published a great amount of first-hand clinical data. Collecting their data and forming a large sample for analysis is more conducive to the recognition, prevention and treatment of coronavirus disease 2019 in children. The epidemic prevention and control experience of Chinese pediatricians should be shared with the world.

Methods: By searching Chinese and English literature, the data of 406 children with COVID-19 in China were analyzed.

Results: It was found that the clustered incidence of children's families is a dynamic transmission feature; the incidence is low; asymptomatic infections and mild cases account for 44.8%, with only 7 cases of critical illness; laboratory examination of lymphocyte counts is not reduced, as it is for adults; chest CT findings are less severe than those for adults. These presentations are the clinical features of COVID-19 in children. Only 55 of the 406 cases were tested by anal swab for virus nucleic acid, 45 of which were positive, accounting for 81.8% of stool samples.

Conclusion: There are more children than adults with asymptomatic infections, milder conditions, faster recovery, and a better prognosis. Some concealed morbidity characteristics also bring difficulties to the early identification, prevention and control of COVID-19. COVID-19 screening is needed in the pediatric fever clinic, and respiratory and digestive tract nucleic acid tests should be performed. Efforts should be made to prevent children from becoming a hidden source of transmission in kindergartens, schools or families. Furthermore, China's experience in treating COVID-19 in children has led to faster recovery of sick children. (Author)

Full URL: https://www.journalofinfection.com/article/S0163-4453(20)30241-3/pdf

---

20200608-1*

The maternity response to COVID-19: an example from one maternity unit in Taiwan. Liao S-C, Chang Y-S, Chien L-Y, et al (2020), Midwifery vol 88, September 2020, 102756

Discusses the preventative measures introduced in Taiwan at the government and hospital level to minimise the spread of COVID-19. The authors focus on a maternity unit in Taipei city which introduced designated walkways, fever screening, visitor restrictions, negative-pressure birth rooms and personal protective equipment. (LDO)

Full URL: https://doi.org/10.1016/j.midw.2020.102756

20200605-9

The danger indoors. Astrup J (2020), Community Practitioner vol 93, no 3, May-June 2020, pp 14-17

Explores the worrying surge in domestic abuse during the Covid-19 lockdown, the concerns for children living in households where domestic violence is taking place, and what is being done to address it. (Author, edited)

20200605-4*

Kawasaki-like multisystem inflammatory syndrome in children during the covid-19 pandemic in Paris, France: prospective observational study. Toubiana J, Poirault C, Corsia A, et al (2020), BMJ vol 369, no 8250, 3 June 2020, m2094

Objectives To describe the characteristics of children and adolescents affected by an outbreak of Kawasaki-like multisystem inflammatory syndrome and to evaluate a potential temporal association with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection.
Design Prospective observational study.
Setting General paediatric department of a university hospital in Paris, France.
Participants 21 children and adolescents (aged ≤18 years) with features of Kawasaki disease who were admitted to hospital between 27 April and 11 May 2020 and followed up until discharge by 15 May 2020.
Main outcome measures The primary outcomes were clinical and biological data, imaging and echocardiographic findings, treatment, and outcomes. Nasopharyngeal swabs were prospectively tested for SARS-CoV-2 using reverse transcription-polymerase chain reaction (RT-PCR) and blood samples were tested for IgG antibodies to the virus.
Results 21 children and adolescents (median age 7.9 (range 3.7-16.6) years) were admitted with features of Kawasaki disease over a 15 day period, with 12 (57%) of African ancestry. 12 (57%) presented with Kawasaki disease shock syndrome and 16 (76%) with myocarditis. 17 (81%) required intensive care support. All 21 patients had noticeable gastrointestinal symptoms during the early stage of illness and high levels of inflammatory markers. 19 (90%) had evidence of recent SARS-CoV-2 infection (positive RT-PCR result in 8/21, positive IgG antibody detection in 19/21). All 21 patients received intravenous immunoglobulin and 10 (48%) also received corticosteroids. The clinical outcome was favourable in all patients. Moderate coronary artery dilations were detected in 5 (24%) of the patients during hospital stay. By 15 May 2020, after 8 (5-17) days of hospital stay, all patients were discharged home.
Conclusions The ongoing outbreak of Kawasaki-like multisystem inflammatory syndrome among children and adolescents in the Paris area might be related to SARS-CoV-2. In this study an unusually high proportion of the affected children and adolescents had gastrointestinal symptoms, Kawasaki disease shock syndrome, and were of African ancestry. (Author)

Full URL: https://doi.org/10.1136/bmj.m2094

20200605-21*

Wet Nurses to Donor Milk Banks and Back Again: The Continuum of Sharing Our Milk to Save Lives. Marinelli K (2020), Journal of Human Lactation vol 36, no 2, May 2020, pp 213-216

Editorial discussing the ways in which breastmilk is given to babies whose mothers are unable to feed them themselves, whether this is because of illness, separation, death or lactation insufficiency, or who chose not to. Charts the history of wet-nursing, which is seen as life-saving in circumstances when a mother cannot feed her own child, and donor milk banking. Considers infant feeding in the context of the current COVID-19 pandemic. (JSM)

Full URL: https://doi.org/10.1177%2F0890334420927329

20200604-93*

Breastfeeding Risk from Detectable Severe Acute Respiratory Syndrome Coronavirus 2 in Breastmilk. Zhu C, Liu W, Su H, et al (2020), Journal of Infection vol 81, no 3, September 2020, pp 452-482

Correspondence reporting on the clinical characteristics of COVID-19 pneumonia in perinatal women and evidence of SARS-CoV-2 shedding in their breastmilk. (MB)

Full URL: https://doi.org/10.1016/j.jinf.2020.06.001

20200604-69*

Stalled vaccine programmes 'putting children's lives at risk'. Mazumdar T (2020), BBC News 4 June 2020

Reports on disruptions to vaccination programmes as a result of coronavirus in 68 countries. It is estimated that 34.8 million babies have missed routine vaccinations in South East Asia and 22.9 million have missed vaccinations in Africa. (LDO)

Full URL: https://www.bbc.co.uk/news/health-52911972

20200603-55*

Coronavirus: Babies [written answer]. House of Commons (2020), Hansard Written question 49114, 19 March 2020

Ms Nadine Dorries responds to a written question asked by Marsha de Cordova to the Secretary of State for Health and Social Care, regarding what estimate he has made of the number of babies born with covid-19. (MB)

Full URL: https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2020-05-19/49114/

20200603-39*

Delivery in pregnant women infected with SARS -CoV-2: A fast review. Parazzini F, Bortolus R, Mauri PA, et al (2020), International Journal of Gynecology & Obstetrics vol 150, no 1, July 2020, pp 41-46

Background

Few case reports and clinical series exist on pregnant women infected with SARS -CoV-2 who delivered.

Objective

To review the available information on mode of delivery, vertical/peripartum transmission, and neonatal outcome in pregnant women infected with SARS -CoV-2.

Search strategy

Combination of the following key words: COVID -19, SARS -CoV-2, and pregnancy in Embase and PubMed databases.

Selection criteria

Papers reporting cases of women infected with SARS -CoV-2 who delivered.

Data collection and analysis

The following was extracted: author; country; number of women; study design; gestational age at delivery; selected clinical maternal data; mode of delivery; selected neonatal outcomes.

Main results

In the 13 studies included, vaginal delivery was reported in 6 cases (9.4%; 95% CI , 3.5-19.3). Indication for cesarean delivery was worsening of maternal conditions in 31 cases (48.4%; 95% CI , 35.8-61.3). Two newborns testing positive for SARS -CoV-2 by real-time RT -PCR assay were reported. In three neonates, SARS -CoV-2 IgG and IgM levels were elevated but the RT -PCR test was negative.

Conclusions

The rate of vertical or peripartum transmission of SARS -CoV-2 is low, if any, for cesarean delivery; no data are available for vaginal delivery. Low frequency of spontaneous preterm birth and general favorable immediate neonatal outcome are reassuring. (Author)

20200602-14*

Detection of SARS-CoV-2 in human breastmilk. Groß R, Conzelman C, Müller JA, et al (2020), The Lancet vol 365, no 10239, 21 May 2020, pp 1757-1758

Correspondence reporting on the results of investigations into the breast milk of two nursing mothers infected with SARS-CoV-2. (MB)

Full URL: https://doi.org/10.1016/S0140-6736(20)31181-8

20200601-1*

Ethnicity and COVID-19 in children with comorbidities. Harman K, Verma A, Zoica B, et al (2020), The Lancet Child & Adolescent Health 28 May 2020, online

Describes the effect of COVID-19 on children with underlying health conditions. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30167-X

20200528-9*

Women leaders take action for women and children during COVID-19. The Partnership for Maternal, Newborn & Child Health (2020), Geneva: The Partnership for Maternal, Newborn & Child Health 28 May 2020

Reports on the meeting of women leaders to discuss the impact of COVID-19 on women and children. The meeting highlighted access to contraception, women working as health professionals and caregivers, and children under the age of one at risk of diseases such as diptheria, measles and polio. The leaders included Princess Sarah Zeid of Jordan and Henrietta Fore, Executive Director of UNICEF. (LDO)

Full URL: https://www.who.int/pmnch/media/news/2020/women-leaders-action-on-COVID-19/en/

20200528-10*

Acute Respiratory Distress Syndrome in a Preterm Pregnant Patient With Coronavirus Disease 2019 (COVID-19). Blauvelt CA, Chiu C, Donovan AL, et al (2020), Obstetrics & Gynecology vol 136, no 1, July 2020, pp 46-51

BACKGROUND:

Data suggest that pregnant women are not at elevated risk of acquiring severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection or developing severe disease compared with nonpregnant patients. However, management of pregnant patients who are critically ill with coronavirus disease 2019 (COVID-19) infection is complicated by physiologic changes and other pregnancy considerations and requires balancing maternal and fetal well-being.

CASE:

We report the case of a patient at 28 weeks of gestation with acute respiratory distress syndrome (ARDS) from COVID-19 infection, whose deteriorating respiratory condition prompted delivery. Our patient's oxygenation and respiratory mechanics improved within hours of delivery, though she required prolonged mechanical ventilation until postpartum day 10. Neonatal swabs for SARS-CoV-2 and COVID-19 immunoglobulin (Ig) G and IgM were negative.

CONCLUSION:

We describe our multidisciplinary management of a preterm pregnant patient with ARDS from COVID-19 infection and her neonate. (Author)

Full URL: https://doi.org/10.1097/AOG.0000000000003949

20200527-52*

Women and children will pay for this pandemic - unless we act. Kaljulaid K, Clark H, Varela JA, et al (2020), Geneva: The Partnership for Maternal, Newborn & Child Health 27 May 2020

Suggests that, in the current coronavirus crisis, we should draw on the knowledge gleaned from past pandemics, such as the Ebola outbreak of 2014-15 in Sierra Leone, to ensure a better outcome for groups such as women, children, adolescents and vulnerable populations, who may have not been given access to sufficient resources and excluded from decision making in the past. (JSM)

Full URL: https://news.trust.org/item/20200526130612-rofbs

20200525-9*

The Impact of the Current SARS-CoV-2 Pandemic on Neonatal Care. Arnaez J, Montes MT, Herranz-Rubia N, et al (2020), Frontiers in Pediatrics 30 April 2020, online

Discusses the ways in which the current coronavirus pandemic is affecting care policies in neonatology units and emphasises the importance of contact between mother and newborn baby for bonding. (JSM)

Full URL: https://doi.org/10.3389/fped.2020.00247

MIDIRS is part of RCM Information Services Limited which is a company incorporated in England and Wales under company no.11914882 with registered office at 10-18 Union Street, London SE1 1SZ
RCM Information Services Limited is a subsidiary of The Royal College of Midwives

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal

20200525-8*

Dilemmas and Priorities in the Dilemmas and Priorities in the Neonatal Intensive Care Unit Neonatal Intensive Care Unit during the COVID-19 Pandemic. Breindahl M, Zachariassen G, Sønderby Christensen P, et al (2020), Danish Medical Journal vol 67, no 4, April 2020, A205021

Editorial discussing best practice in caring for families with suspected or confirmed COVID-19 in the NICU. (JSM)

Full URL: https://ugeskriftet.dk/files/scientific_article_files/2020-04/a205021_web.pdf

---

20200525-7*

Current State of Knowledge About SARS-CoV-2 and COVID-19 Disease in Pregnant Women. Gujski M, Humeniuk E, Bojar I (2020), Medical Science Monitor:International Medical Journal of Experimental and Clinical Research 9 May 2020, online

During any epidemic of infectious diseases, pregnant women constitute an extremely sensitive group due to altered physiology and immune functions, and thus altered susceptibility to infection. With regard to the management of pregnant COVID-19 patients, in addition to the treatment of the infection itself, which is not that different from generally accepted principles, it is interesting to consider which obstetric procedures should be used to minimize the adverse effects on mother and child. Questions arise concerning the continuation of pregnancy, how to terminate the pregnancy, the possibility of virus transmission through the placenta, isolation of the newborn after birth, and breastfeeding. The aim of this study was to review the current state of knowledge about SARS-CoV-2 infection and COVID-19 disease in pregnant women. Because the epidemic began in China, most of the available literature comes from studies conducted there. The studies used to prepare this review article are the first non-randomized studies containing small groups of examined women. They do not provide clear indications, but show that in an epidemic situation, special care should be taken in pregnancy management, making decisions about termination of pregnancy, and handling of the newborn baby to minimize the risk of subsequent health consequences. Further analysis is needed on the incidence of COVID-19 among pregnant women and its consequences. This will allow us to develop recommendations on how to deal with patients in the future in case of repeated epidemic emergencies. (Author)

Full URL: https://www.medscimonit.com/abstract/index/idArt/924725

20200525-5*

Are Covid-19-positive Mothers Dangerous for Their Term and Well Newborn Babies? Is There an Answer?. Stanojević M (2020), Journal of Perinatal Medicine 13 May 2020, online

Background: The pandemic caused by the new coronavirus SARS-CoV-2 (Covid-19) is quite a challenging experience for the world. At the moment of birth, the fetus is prepared to face the challenge of labor and the exposure to the outside world, meaning that labor and birth represent the first extrauterine major exposure to a complex microbiota. The vagina, which is a canal for reproduction, is by evolution separated (but not far) from the anus and urethra. Passing through the birthing canal is a mechanism for intergenerational transmission of vaginal and gut microorganisms for the vertical transmission of microbiota not only from our mothers and grandmothers but also from earlier ancestors. Methods: Many national and international instructions have been developed since the beginning of the Covid-19 outbreak in January 2020 in Wuhan in China. All of them pointed out hygiene measures, social distancing and avoidance of social contacts as the most important epidemiological preventive measures. Pregnancy and neonatal periods are considered as high risk for Covid-19 infection. Results: The instructions defined the care for pregnant women in the delivery room, during a hospital stay and after discharge. The controversial procedures in the care of Covid-19-suspected or -positive asymptomatic women in labor were: mode of delivery, companion during birth and labor, skin-to-skin contact, breastfeeding, and visits during a hospital stay. Conclusion: There is a hope that instruction on coping with the coronavirus (Covid-19) infection in pregnancy with all proposed interventions affecting mothers, babies and families, besides saving lives, are beneficial and efficient by exerting no harm. (Author)

Full URL: https://doi.org/10.1515/jpm-2020-0186

20200525-4*

Importance of Inclusion of Pregnant and Breastfeeding Women in COVID-19 Therapeutic Trials. LaCourse SM, John-Stewart G, Adams Waldorf KM (2020), Clinical Infectious Diseases 15 April 2020, online

Investigators are employing unprecedented innovation in the design of clinical trials to rapidly and rigorously assess potentially promising therapies for COVID-19; this is in stark contrast to the continued near universal regressive practice of exclusion of pregnant and breastfeeding women from these trials. The few trials which allow their inclusion focus on post-exposure prophylaxis or outpatient treatment of milder disease, limiting the options available to pregnant women with severe COVID-19 to compassionate use of remdesivir, or off-label drug use of hydroxychloroquine or other therapies. These restrictions were put in place despite experience with these drugs in pregnant women. In this Viewpoint, we call attention to the need and urgency to engage pregnant women in COVID-19 treatment trials now in order to develop data-driven recommendations regarding the risks and benefits of therapies in this unique but not uncommon population. (Author)

Full URL: https://doi.org/10.1093/cid/ciaa444

20200525-3*

Remdesivir. Anon (2020), Drugs and Lactation Database 11 May 2020

Remdesivir is an investigational antiviral drug that is being tested for use against the novel coronavirus disease, COVID-19. Remdesivir is given intravenously because it is poorly absorbed orally, so infants are not likely to absorb clinically important amounts of the drug from milk. In addition, a newborn infants have received intravenous remdesivir therapy for Ebola with no serious adverse drug reactions. Given this limited information, it does not appear that mothers receiving remdesivir need to avoid nursing, but until more data are available, remdesivir should be used with careful infant monitoring during breastfeeding. The most common adverse effects reported after intravenous infusion include elevated aminotransferase and bilirubin levels and other liver function tests. Diarrhea, rash, renal impairment and hypotension have also been reported. (Author)

Full URL: https://www.ncbi.nlm.nih.gov/books/NBK556881/

20200525-26*

Safety and Efficacy of Different Anesthetic Regimens for Parturients With COVID-19 Undergoing Cesarean Delivery: A Case Series of 17 Patients. Chen R, Zhang Y, Huang L, et al (2020), Canadian Journal of Anaesthesia vol 67, no 6, June 2020, pp 655-633

Purpose: To assess the management and safety of epidural or general anesthesia for Cesarean delivery in parturients with coronavirus disease (COVID-19) and their newborns, and to evaluate the standardized procedures for protecting medical staff.
Methods: We retrospectively reviewed the cases of parturients diagnosed with severe acute respiratory syndrome coronavirus (SARS-CoV-2) infection disease (COVID-19). Their epidemiologic history, chest computed tomography scans, laboratory measurements, and SARS-CoV-2 nucleic acid positivity were evaluated. We also recorded the patients' demographic and clinical characteristics, anesthesia and surgery-related data, maternal and neonatal complications, as well as the health status of the involved medical staff.
Results: The clinical characteristics of 17 pregnant women infected with SARS-CoV-2 were similar to those previously reported in non-pregnant adult patients. All of the 17 patients underwent Cesarean delivery with anesthesia performed according to standardized anesthesia/surgery procedures. Fourteen of the patients underwent continuous epidural anesthesia with 12 experiencing significant intraoperative hypotension. Three patients received general anesthesia with tracheal intubation because emergency surgery was needed. Three of the parturients are still recovering from their Cesarean delivery and are receiving in-hospital treatment for COVID-19. Three neonates were born prematurely. There were no deaths or serious neonatal asphyxia events. All neonatal SARS-CoV-2 nucleic acid tests were negative. No medical staff were infected throughout the patient care period.
Conclusions: Both epidural and general anesthesia were safely used for Cesarean delivery in the parturients with COVID-19. Nevertheless, the incidence of hypotension during epidural anesthesia appeared excessive. Proper patient transfer, medical staff access procedures, and effective biosafety precautions are important to protect medical staff from COVID-19. (Author)

Full URL: https://doi.org/10.1007/s12630-020-01630-7

20200525-25*

COVID-19 in Children, Pregnancy and Neonates: A Review of Epidemiologic and Clinical Features. Zimmermann P, Curtis N (2020), The Pediatric Infectious Disease Journal vol 39, no 6, June 2020, pp 469-477

The novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) pandemic has spread rapidly across the globe. In contrast to initial reports, recent studies suggest that children are just as likely as adults to become infected with the virus but have fewer symptoms and less severe disease. In this review, we summarize the epidemiologic and clinical features of children infected with SARS-CoV-2 reported in pediatric case series to date. We also summarize the perinatal outcomes of neonates born to women infected with SARS-CoV-2 in pregnancy. We found 11 case series including a total of 333 infants and children. Overall, 83% of the children had a positive contact history, mostly with family members. The incubation period varied between 2 and 25 days with a mean of 7 days. The virus could be isolated from nasopharyngeal secretions for up to 22 days and from stool for more than 30 days. Co-infections were reported in up to 79% of children (mainly mycoplasma and influenza). Up to 35% of children were asymptomatic. The most common symptoms were cough (48%; range 19%-100%), fever (42%; 11%-100%) and pharyngitis (30%; 11%-100%). Further symptoms were nasal congestion, rhinorrhea, tachypnoea, wheezing, diarrhea, vomiting, headache and fatigue. Laboratory test parameters were only minimally altered. Radiologic findings were unspecific and included unilateral or bilateral infiltrates with, in some cases, ground-glass opacities or consolidation with a surrounding halo sign. Children rarely needed admission to intensive care units (3%), and to date, only a small number of deaths have been reported in children globally. Nine case series and 2 case reports described outcomes of maternal SARS-CoV-2 infection during pregnancy in 65 women and 67 neonates. Two mothers (3%) were admitted to intensive care unit. Fetal distress was reported in 30% of pregnancies. Thirty-seven percent of women delivered preterm. Neonatal complications included respiratory distress or pneumonia (18%), disseminated intravascular coagulation (3%), asphyxia (2%) and 2 perinatal deaths. Four neonates (3 with pneumonia) have been reported to be SARS-CoV-2 positive despite strict infection control and prevention procedures during delivery and separation of mother and neonates, meaning vertical transmission could not be excluded. (Author)

Full URL: https://doi.org/10.1097/inf.0000000000002700

20200525-24*

Clinical Characteristics of 19 Neonates Born to Mothers With COVID-19. Liu W, Wang J, Li W, et al (2020), Frontiers of Medicine vol 14, no 2, April 2020, pp 193-198

The aim of this study was to investigate the clinical characteristics of neonates born to SARS-CoV-2 infected mothers and increase the current knowledge on the perinatal consequences of COVID-19. Nineteen neonates were admitted to Tongji Hospital from January 31 to February 29, 2020. Their mothers were clinically diagnosed or laboratory-confirmed with COVID-19. We prospectively collected and analyzed data of mothers and infants. There are 19 neonates included in the research. Among them, 10 mothers were confirmed COVID-19 by positive SARS-CoV-2 RT-PCR in throat swab, and 9 mothers were clinically diagnosed with COVID-19. Delivery occurred in an isolation room and neonates were immediately separated from the mothers and isolated for at least 14 days. No fetal distress was found. Gestational age of the neonates was 38.6 ± 1.5 weeks, and average birth weight was 3293 ± 425 g. SARS-CoV-2 RT-PCR in throat swab, urine, and feces of all neonates were negative. SARS-CoV-2 RT-PCR in breast milk and amniotic fluid was negative too. None of the neonates developed clinical, radiologic, hematologic, or biochemical evidence of COVID-19. No vertical transmission of SARS-CoV-2 and no perinatal complications in the third trimester were found in our study. The delivery should occur in isolation and neonates should be separated from the infected mothers and care givers. (Author)

Full URL: https://doi.org/10.1007/s11684-020-0772-y

20200525-23*

COVID-19 in Children: Clinical Approach and Management. Sankar J, Dhochak N, Kabra SK, et al (2020), Indian Journal of Pediatrics vol 87, no 6, June 2020, pp 433-442

COVID-19 pandemic caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is a major public health crisis threatening humanity at this point in time. Transmission of the infection occurs by inhalation of infected droplets or direct contact with soiled surfaces and fomites. It should be suspected in all symptomatic children who have undertaken international travel in the last 14 d, all hospitalized children with severe acute respiratory illness, and asymptomatic direct and high-risk contacts of a confirmed case. Clinical symptoms are similar to any acute respiratory viral infection with less pronounced nasal symptoms. Disease seems to be milder in children, but situation appears to be changing. Infants and young children had relatively more severe illness than older children. The case fatality rate is low in children. Diagnosis can be confirmed by Reverse transcriptase - Polymerase chain reaction (RT-PCR) on respiratory specimen (commonly nasopharyngeal and oropharyngeal swab). Rapid progress is being made to develop rapid diagnostic tests, which will help ramp up the capacity to test and also reduce the time to getting test results. Management is mainly supportive care. In severe pneumonia and critically ill children, trial of hydroxychloroquine or lopinavir/ritonavir should be considered. As per current policy, children with mild disease also need to be hospitalized; if this is not feasible, these children may be managed on ambulatory basis with strict home isolation. Pneumonia, severe disease and critical illness require admission and aggressive management for acute lung injury and shock and/or multiorgan dysfunction, if present. An early intubation is preferred over non-invasive ventilation or heated, humidified, high flow nasal cannula oxygen, as these may generate aerosols increasing the risk of infection in health care personnel. To prevent post discharge dissemination of infection, home isolation for 1-2 wk may be advised. As of now, no vaccine or specific chemotherapeutic agents are approved for children. (Author)

Full URL: https://doi.org/10.1007/s12098-020-03292-1

20200525-22*

Potential Maternal and Infant Outcomes From (Wuhan) Coronavirus 2019-nCoV Infecting Pregnant Women: Lessons From SARS, MERS, and Other Human Coronavirus Infections. Schwartz DA, Graham AL (2020), Viruses vol 12, no 2, February 2020, Article no: 194

In early December 2019 a cluster of cases of pneumonia of unknown cause was identified in Wuhan, a city of 11 million persons in the People's Republic of China. Further investigation revealed these cases to result from infection with a newly identified coronavirus, termed the 2019-nCoV. The infection moved rapidly through China, spread to Thailand and Japan, extended into adjacent countries through infected persons travelling by air, eventually reaching multiple countries and continents. Similar to such other coronaviruses as those causing the Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS), the new coronavirus was reported to spread via natural aerosols from human-to-human. In the early stages of this epidemic the case fatality rate is estimated to be approximately 2%, with the majority of deaths occurring in special populations. Unfortunately, there is limited experience with coronavirus infections during pregnancy, and it now appears certain that pregnant women have become infected during the present 2019-nCoV epidemic. In order to assess the potential of the Wuhan 2019-nCoV to cause maternal, fetal and neonatal morbidity and other poor obstetrical outcomes, this communication reviews the published data addressing the epidemiological and clinical effects of SARS, MERS, and other coronavirus infections on pregnant women and their infants. Recommendations are also made for the consideration of pregnant women in the design, clinical trials, and implementation of future 2019-nCoV vaccines. (Author)

Full URL: https://doi.org/10.3390/v12020194

20200525-21*

Psychological Status of Postpartum Women Under the COVID-19 Pandemic in Japan. Suzuki S (2022), The Journal of Maternal-Fetal and Neonatal Medicine vol 35, no 9, 2022, pp 1798-1800

Under the COVID-19 (Coronavirus Disease 2019) pandemic, limitations are known to cause some psychosocial problems. We compared the results of mental screening of the postpartum women conducted during the COVID-19 epidemic with those at the same period last year. Based on the results, the worse mother-infant bonding was suspected at 1 month after birth under the COVID-19 pandemic. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1763949

20200525-20*

Neonatal Coronavirus 2019 (COVID-19) Infection: A Case Report and Review of Literature. Dumpa V, Kamity R, Vinci AN, et al (2020), Cureus vol 12, no 5, 17 May 2020, e8165

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has led to a global pandemic affecting 213 countries as of April 26, 2020. Although this disease is affecting all age groups, infants and children seem to be at a lower risk of severe infection, for reasons unknown at this time. We report a case of neonatal infection in New York, United States, and provide a review of the published cases. A 22-day-old, previously healthy, full-term neonate was hospitalized after presenting with a one-day history of fever and poor feeding. Routine neonatal sepsis evaluation was negative. SARS-CoV-2 polymerase chain reaction (PCR) testing was obtained, given rampant community transmission, which returned positive. There were no other laboratory or radiographic abnormalities. The infant recovered completely and was discharged home in two days once his feeding improved. The family was advised to self-quarantine to prevent the transmission of COVID-19. We believe that the mode of transmission was horizontal spread from his caregivers. This case highlights the milder presentation of COVID-19 in otherwise healthy, full-term neonates. COVID-19 must be considered in the evaluation of a febrile infant. Infants and children may play an important role in the transmission of COVID-19 in the community. Hence, with an understanding of the transmission patterns, parents and caregivers would be better equipped to limit the spread of the virus and protect the more vulnerable population. (Author)

Full URL: https://doi.org/10.7759/cureus.8165

20200525-19*

Management of the Mother-Infant Dyad With Suspected or Confirmed SARS-CoV-2 Infection in a Highly Epidemic Context. Pietrasanta C, Pugni L, Ronchi A, et al (2020), Journal of Neonatal-Perinatal Medicine 20 May 2020, online

Addresses a number of aspects of the mother-infant dyad management during SARS-CoV-2 epidemic. Networking among maternity centers and anticipatory planning is essential to organise the assistance to mothers and neonates in maternity and neonatal wards. Early identification of SARS-CoV-2 infected mothers, before delivery, allows their management through dedicated protocols and minimizes the risk of contagion for other patients and healthcare providers. Vertical transmission of SARS-CoV-2 cannot be excluded at present, and should be ruled out as soon as possible after birth. Rooming in of infected mothers and neonates, provided their good clinical conditions, is not contraindicated based on current knowledge. The choice of breastfeeding should be carefully discussed with parents based on current, evolving scientific evidence. (Author)

Full URL: https://doi.org/10.3233/npm-200478

20200525-18*

Lack of viral transmission to preterm newborn from a COVID-19 positive breastfeeding mother at 11 days postpartum.
Perrone S, Giordano M, Meoli A, et al (2020), Journal of Medical Virology 21 May 2020, online

In December 2019, novel coronavirus 2019 has appeared in China. On 11 February 2020, the World Health Organization officially names the disease as COVID-19 (1). The new coronavirus is highly contagious. The rapid spread of SARS-CoV-2 lead to declare the pandemic on the 11th March 2020. On 10 May 2020 the number of infected people is 4,132,373 worldwide (2). 1. Hong H et al. Clinical characteristics of novel coronavirus disease 2019 (COVID-19) in newborns, infants and children. Pediatric Neonatology, vol 61, no 2, . pp 131-132. 2. Worldometer. Covid-19 coronavirus pandemic. Retrieved from https://www.worldometers.info/coronavirus/ (Accessed on 10 May 2020) Davanzo R. Breast feeding at the time of COVID-19: do not forget expressed mother's milk, please. Archives of Disease in Childhood: Fetal Neonatal Edition. 2020, 6 April 2020, online. (Author)

20200525-17*

Can SARS-CoV-2-infected women breastfeed after viral clearance?.. Lang GJ, Zhao H (2020), Journal of Zhejiang University.Science B vol 21, no 5, May 2020, pp 405-407

The recently emerged novel coronavirus pneumonia, named the coronavirus disease 2019 (COVID-19), shares several clinical characteristics with severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), and spread rapidly throughout China in December of 2019 (Huang et al., 2020). The pathogen 2019 novel coronavirus (2019-nCoV) is now named SARS coronavirus 2 (SARS-CoV-2) and is highly infectious. As of Apr. 9, 2020, over 80 000 confirmed cases had been reported, with an estimated mortality rate of 4.0% (Chinese Center for Disease Control and Prevention, 2020). Person-to-person transmission and familial clustering have been reported (Chan et al., 2020; Nishiura et al., 2020; Phan et al., 2020). However, there is no evidence of fetal intrauterine infection in pregnant women who have been infected with SARS-CoV-2 in their third trimester (Chen et al., 2020). It is unclear whether breastfeeding transmits the virus from previously infected and recovered mothers to their babies. Here we report the clinical course of a pregnant woman with COVID-19. In order to determine whether SARS-CoV-2 can be transmitted to newborns through breastfeeding, we measured viral RNA in the patient's breastmilk samples at different time points after delivery. (Author)

Full URL: https://doi.org/10.1631/jzus.b2000095

20200525-16*

Near-term Pregnant Women's Attitude Toward, Concern About and Knowledge of the COVID-19 Pandemic. Yassa M, Birol P, Yirmibes C, et al (2020), The Journal of Maternal-Fetal and Neonatal Medicine vol 33, no 22, 2020, pp 3827-3834

Background: COVID-19 is a novel type of the coronavirus family with an incompletely described clinical course. Little is known about the psychological aspects, particularly for vulnerable populations including pregnant women.Objectives: To understand the attitude, concerns, and knowledge of the non-infected pregnant women toward the COVID-19 outbreak in order to constitute base data for detailed counseling and to develop targeted messages.Patients and methods: This cross-sectional survey research presented analysis of prospectively collected data yielded at a single tertiary 'Coronavirus Pandemic Hospital' referral center for a ten days period following the first confirmed death due to the COVID-19 pandemic in Turkey. Non-infected women with a confirmed pregnancy over 30th gestational week were consecutively included. A patient-reported non-validated questionnaire formed by the expert committee that includes 15 specific questions was used. Non-infected, pregnant women over 30th gestational week who applied to the outpatient clinic were consecutively included. A total of 213 women were enrolled, 37 were excluded: 7 for being in the first trimester, 3 were illiterate, and 27 were Syrian refugees having difficulties in translation.Results: A total of 172 pregnant women were included. Overall, four women refused to participate to the survey (1.9%). The mean age was 27.5 ± 5.3 years. Median gestational week and parity were 35 ± 11 weeks and 1 ± 2, respectively. Pregnant women were observed to trust the authorities (65%) and the healthcare staff (92.4%), and their respect was increased (82.5%) during the outbreak. Majority of the women (87.2%) comply with the self-quarantine rules. Half of the women (52%) reported that they felt vulnerable and predominantly were concerned (80%). Approximately one-third of the women constantly keep thinking that they may get infected (35.5%) or they might get infected during/following the delivery or their baby might get infected after being born (42%). Half of the women (50%) were reported that they either had no idea about or think the breastfeeding is not safe during the outbreak. About 45% of the women were confused or had doubts about if the mode of delivery may be affected by the pandemic. Greater part of the participants does not know if COVID-19 might cause birth defects (76%) or preterm birth (64.5%). Counseling flow keys helping pregnant women to overcome misleads, regarding the COVID-19 outbreak is proposed.Conclusions: Non-infected pregnant women with a viable pregnancy at near term were observed to have positive attitude and compliance toward the COVID-19 outbreak and frontline healthcare staff; increased concern and vulnerability; and restricted knowledge about the pregnancy-related outcomes. While the clinical evidence was growing rapidly, this data may guide obstetricians and midwives to perceive what accurate information should be provided to the pregnant women. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1763947

20200525-15*

Management of Newborns Exposed to Mothers With Confirmed or Suspected COVID-19. Amatya S, Corr TE, Gandhi CK, et al (2020), Journal of Perinatology vol 40, no 7, July 2020, pp 987-996

There is limited information about newborns with confirmed or suspected COVID-19. Particularly in the hospital after delivery, clinicians have refined practices in order to prevent secondary infection. While guidance from international associations is continuously being updated, all facets of care of neonates born to women with confirmed or suspected COVID-19 are center-specific, given local customs, building infrastructure constraints, and availability of protective equipment. Based on anecdotal reports from institutions in the epicenter of the COVID-19 pandemic close to our hospital, together with our limited experience, in anticipation of increasing numbers of exposed newborns, we have developed a triage algorithm at the Penn State Hospital at Milton S. Hershey Medical Center that may be useful for other centers anticipating a similar surge. We discuss several care practices that have changed in the COVID-19 era including the use of antenatal steroids, delayed cord clamping (DCC), mother-newborn separation, and breastfeeding. Moreover, this paper provides comprehensive guidance on the most suitable respiratory support for newborns during the COVID-19 pandemic. We also present detailed recommendations about the discharge process and beyond, including providing scales and home phototherapy to families, parental teaching via telehealth and in-person education at the doors of the hospital, and telehealth newborn follow-up. (Author)

Full URL: https://doi.org/10.1038/s41372-020-0695-0

20200525-14*

Clinical Course of Coronavirus Disease-2019 in Pregnancy. Pereira A, Cruz-Melguizo S, Adrien M, et al (2020), Acta Obstetricia et Gynecologica Scandinavica vol 99, no 7, July 2020, pp 839-847

Introduction: The aim of this study is to report our clinical experience in the management of pregnant women infected with Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) during the first thirty days of the Coronavirus disease (COVID-19) pandemic.

Material and methods: We reviewed clinical data from the first 60 pregnant women with COVID-19 whose care was managed at Puerta de Hierro University Hospital, Madrid, Spain from March 14th to April 14th , 2020. Demographic data, clinical findings, laboratory test results, imaging findings, treatment received, and outcomes were collected. An analysis of variance (Kruskal-Wallis test) was performed to compare the medians of laboratory parameters. Fisher's exact test was used to evaluate categorical variables. A correspondence analysis was used to explore associations between variables.

Results: A total of 60 pregnant women were diagnosed with COVID-19. The most common symptoms were fever and cough (75.5%, each) followed by dyspnea (37.8%). Forty-one patients (68.6%) required hospital admission (18 due to disease worsening and 23 for delivery) of whom 21 patients (35%) underwent pharmacological treatment, including hydroxychloroquine, antivirals, antibiotics and tocilizumab. No renal or cardiac failures or maternal deaths were reported. Lymphopenia (50%), thrombocytopenia (25%), and elevated C-reactive protein (CRP) (59%) were observed in the early stages of the disease. Median CRP, D-dimer and the neutrophil/lymphocyte ratio were elevated. High CRP and D-dimer levels were the parameters most frequently associated with severe pneumonia. The Neutrophil/lymphocyte ratio was found to be the most sensitive marker for disease improvement (relative risk: 6.65; 95% CI: 4.1-5.9). During the study period, 18 of the women (78%) delivered vaginally. All newborns tested negative for SARS-CoV-2 and none of them were infected during breastfeeding. No SARS-CoV-2 was detected in placental tissue.

Conclusions: Most of the pregnant COVID-19 positive patients had a favorable clinical course. However, one-third of them developed pneumonia, of whom 5% presented a critical clinical status. CRP and D-dimer levels positively correlated with severe pneumonia and the neutrophil/lymphocyte ratio decreased as the patients improved clinically. Seventy-eight percent of patients had a vaginal delivery. No vertical or horizontal transmissions were diagnosed in the neonates during labor or breastfeeding. (Author)

20200525-13*

Novel Coronavirus disease (COVID-19) in newborns and infants: what we know so far. De Rose DU, Piersigilli F, Ronchetti MP, et al (2020), Italian Journal of Pediatrics vol 46, no 1, 29 April 2020, Article no: 56

Recently, an outbreak of viral pneumonitis in Wuhan, Hubei, China successively spread as a global pandemia, led to the identification of a novel betacoronavirus species, the 2019 novel coronavirus, successively designated 2019-nCoV then SARS-CoV-2). The SARS-CoV-2 causes a clinical syndrome designated coronavirus disease 2019 (COVID19) with a spectrum of manifestations ranging from mild upper respiratory tract infection to severe pneumonitis, acute respiratory distress syndrome (ARDS) and death. Few cases have been observed in children and adolescents who seem to have a more favorable clinical course than other age groups, and even fewer in newborn babies. This review provides an overview of the knowledge on SARS-CoV-2 epidemiology, transmission, the associated clinical presentation and outcomes in newborns and infants up to 6 months of life. (Author)

Full URL: https://doi.org/10.1186/s13052-020-0820-x

20200525-12*

Improving the quality of care in pregnancy and childbirth with coronavirus (COVID-19): a systematic review. Abdollahpour S, Khadivzadeh T (2022), Journal of Maternal-Fetal & Neonatal Medicine vol 35, no 8, 2022, pp 1601-1609

In the context of serious coronavirus epidemic, it is critical that pregnant women not be ignored potentially life-saving interventions. So, this study was designed to improve the quality of care by health providers through what they need to know about coronavirus during pregnancy and childbirth. We conducted a systematic review of electronic databases was performed for published in English, before 25 March 2020. Finally, 29 papers which had covered the topic more appropriately were included in the study. The results of the systematic review of the existing literature are presented in the following nine sections: Symptoms of the COVID-19 in pregnancy, Pregnancy management, Delivery Management, Mode of delivery, Recommendations for health care provider in delivery, Neonatal outcomes, Neonatal care, Vertical Transmission, Breastfeeding. In conclusion, improving quality of care in maternal health, as well as educating, training, and supporting healthcare providers in infection management to be prioritized. Sharing data can help to countries that to prevent maternal and neonatal morbidity associated with the COVID-19. (Author)

Full URL: https://doi.org/10.1080/14767058.2020.1759540

20200525-11*

Vaginal delivery in SARS-CoV-2 infected pregnant women in Northern Italy: a retrospective analysis. Ferrazzi E, Frigerio L, Savasi V, et al (2020), BJOG: An International Journal of Obstetrics and Gynaecology 27 April 2020, online

Objective: To report mode of delivery and immediate neonatal outcome in COVID-19 infected women.
Design: This is a retrospective study.
Setting: Twelve hospitals in northern Italy.
Participants: Pregnant women with COVID-19 confirmed infection who delivered.
Exposure: COVID 19 infection in pregnancy.
Methods: SARS-CoV-2 infected women who were admitted and delivered during the period 1-20 march 2020 were eligible. Data were collected from the clinical records using a standardized questionnaire on maternal general characteristics, any medical or obstetric co-morbidity, course of pregnancy, clinical signs and symptoms, treatment of COVID 19 infection, mode of delivery, neonatal data and breastfeeding MAIN OUTCOME AND MEASURE: Data on mode of delivery and neonatal outcome RESULTS: 42 women with COVID-19 delivered at the participating centres: 24(57,1%, 95% CI= 41,0-72,3) delivered vaginally. An elective cesarean section was performed in 18/42 (42,9%, 95%CI 27,7-59,0) cases: in 8 cases the indication was unrelated to COVID-19 infection. Pneumonia was diagnosed in 19/42(45,2%, 95%CI 29,8-61,3) cases: of these 7/19(36,8%,95CI 16,3-61,6) required oxygen support and 4/19(21,1%,95%CI=6,1-45,6) were admitted to a critical care unit. Two women with COVID-19 breastfed without a mask because infection was diagnosed in the post-partum period: their new-borns tested positive for SARS-Cov-2 infection. In one case a new-born had a positive test after a vaginal operative delivery.
Conclusions: Although post-partum infection cannot be excluded with 100% certainty, these findings suggest that vaginal delivery is associated with a low risk of intrapartum SARS-Cov-2 transmission to the new-born. (Author)

20200525-10*

SARS-CoV-2 Infection in Pregnancy - a Review of the Current Literature and Possible Impact on Maternal and Neonatal Outcome. Stumpfe FM, Titzmann A, Schneider MO, et al (2020), Geburtshilfe und Frauenheilkunde vol 80, no 4, 2020, pp 380-390

In December 2019, cases of pneumonia of unknown cause first started to appear in Wuhan in China; subsequently, a new coronavirus was soon identified as the cause of the illness, now known as Coronavirus Disease 2019 (COVID-19). Since then, infections have been confirmed worldwide in numerous countries, with the number of cases steadily rising. The aim of the present review is to provide an overview of the new severe acute respiratory syndrome (SARS) coronavirus 2 (SARS-CoV-2) and, in particular, to deduce from it potential risks and complications for pregnant patients. For this purpose, the available literature on cases of infection in pregnancy during the SARS epidemic of 2002/2003, the MERS (Middle East respiratory syndrome) epidemic ongoing since 2012, as well as recent publications on cases infected with SARS-CoV-2 in pregnancy are reviewed and reported. Based on the literature available at the moment, it can be assumed that the clinical course of COVID-19 disease may be complicated by pregnancy which could be associated with a higher mortality rate. It may also be assumed at the moment that transmission from mother to child in utero is unlikely. Breastfeeding is possible once infection has been excluded or the disease declared cured. (Author)

Full URL: https://www.thieme-connect.de/products/ejournals/html/10.1055/a-1134-5951?articleLanguage=en

---

20200525-1*

Favipiravir. Anon (2020), Drugs and Lactation Database 11 May 2020

Favipiravir is an investigational antiviral drug that is being tested for use against the novel coronavirus disease, COVID-19. No information is available on the use of favipiravir during breastfeeding or its excretion into breastmilk. Favipiravir is a small molecule that is about 60% protein bound in plasma, so it would be expected to appear in breastmilk and be absorbed by the infant, probably in small amounts. In clinical trials, favipiravir has been well tolerated, but has caused liver enzyme abnormalities, gastrointestinal symptoms, and serum uric acid elevations.[1-3] If favipiravir is used in a nursing mother, these parameters should be monitored in the breastfed infant. (Author)

Full URL: https://www.ncbi.nlm.nih.gov/books/NBK556878/

20200522-25*

Horizontal transmission of severe acute respiratory syndrome coronavirus 2 to a premature infant: multiple organ injury and association with markers of inflammation. Cook J, Harman K, Zoica B, et al (2020), The Lancet Child & Adolescent Health vol 4, no 7, July 2020, pp 548-551

Reports the case of an infant with severe disease caused by SARS-CoV-2 resulting in multiple organ injury. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30166-8

20200521-44*

Severe COVID-19 during Pregnancy and Possible Vertical Transmission. Alzamora MC, Paredes T, Caceres D, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 861-865

There are few cases of pregnant women with novel corona virus 2019 (COVID-19) in the literature, most of them with a mild illness course. There is limited evidence about in utero infection and early positive neonatal testing. A 41-year-old G3P2 with a history of previous cesarean deliveries and diabetes mellitus presented with a 4-day history of malaise, low-grade fever, and progressive shortness of breath. A nasopharyngeal swab was positive for COVID-19, COVID-19 serology was negative. The patient developed respiratory failure requiring mechanical ventilation on day 5 of disease onset. The patient underwent a cesarean delivery, and neonatal isolation was implemented immediately after birth, without delayed cord clamping or skin-to-skin contact. The neonatal nasopharyngeal swab, 16 hours after delivery, was positive for severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) real-time polymerase chain reaction (RT-PCR), and immunoglobulin (Ig)-M and IgG for SARS-CoV-2 were negative. Maternal IgM and IgG were positive on postpartum day 4 (day 9 after symptom onset). We report a severe presentation of COVID-19 during pregnancy. To our knowledge, this is the earliest reported positive PCR in the neonate, raising the concern for vertical transmission. We suggest pregnant women should be considered as a high-risk group and minimize exposures for these reasons. (Author)

20200521-24*

COVID-19 and Neonatal Respiratory Care: Current Evidence and Practical Approach. Shalish W, Lakshminrusimha S, Manzoni P, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 780-791

The novel coronavirus disease 2019 (COVID-19) pandemic has urged the development and implementation of guidelines and protocols on diagnosis, management, infection control strategies, and discharge planning. However, very little is currently known about neonatal COVID-19 and severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infections. Thus, many questions arise with regard to respiratory care after birth, necessary protection to health care workers (HCW) in the delivery room and neonatal intensive care unit (NICU), and safety of bag and mask ventilation, noninvasive respiratory support, deep suctioning, endotracheal intubation, and mechanical ventilation. Indeed, these questions have created tremendous confusion amongst neonatal HCW. In this manuscript, we comprehensively reviewed the current evidence regarding COVID-19 perinatal transmission, respiratory outcomes of neonates born to mothers with COVID-19 and infants with documented SARS-CoV-2 infection, and the evidence for using different respiratory support modalities and aerosol-generating procedures in this specific population. The results demonstrated that to date, neonatal COVID-19 infection is uncommon, generally acquired postnatally, and associated with favorable respiratory outcomes. The reason why infants display a milder spectrum of disease remains unclear. Nonetheless, the risk of severe or critical illness in young patients exists. Currently, the recommended respiratory approach for infants with suspected or confirmed infection is not evidence based but should include all routinely used types of support, with the addition of viral filters, proper personal protective equipment, and placement of infants in isolation rooms, ideally with negative pressure. As information is changing rapidly, clinicians should frequently watch out for updates on the subject. (Author)

20200521-1*

Skin-to-Skin Care and COVID-19. Boscia C (2020), Pediatrics vol 146, no 2, August 2020, e20201836

Examines the issues surrounding skin to skin care immediately after birth durng the COVID-19 pandemic. (MB)

Full URL: https://doi.org/10.1542/peds.2020-1836

20200520-32*

COVID-19 in Newborns and Infants-Low Risk of Severe Disease: Silver Lining or Dark Cloud?. Rawat M, Chandrasekharan P, Hicar MD, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 845-849

One hundred years after the 1918 influenza pandemic, we now face another pandemic with the severe acute respiratory syndrome-novel coronavirus-2 (SARS-CoV-2). There is considerable variability in the incidence of infection and severe disease following exposure to SARS-CoV-2. Data from China and the United States suggest a low prevalence of neonates, infants, and children, with those affected not suffering from severe disease. In this article, we speculate different theories why this novel agent is sparing neonates, infants, and young children. The low severity of SARS-CoV-2 infection in this population is associated with a high incidence of asymptomatic or mildly symptomatic infection making them efficient carriers. (Author)

20200519-8*

Corona Virus Disease 2019, a growing threat to children?. Yang P, Liu P, Li D, et al (2020), Journal of Infection vol 80, no 6, June 2020, pp 671-693

Highlights: • COVID-19 was reported in Wuhan, China and spread rapidly to nationwide and 25 other countries. • Most of children COVID-19 are familial clusters with mild clinical symptoms. • Early isolation should be performed to protect underlying diseases children. • It is necessary to isolate the newborns immediately after delivery. (Author)

Full URL: https://www.journalofinfection.com/article/S0163-4453(20)30105-5/fulltext

---

20200519-7*

Clinical and CT imaging features of the COVID-19 pneumonia: Focus on pregnant women and children. Liu H, Liu F, Li J, et al (2020), Journal of Infection vol 80, no 5, May 2020, pp E7-E13

Background

The ongoing outbreak of COVID-19 pneumonia is globally concerning. We aimed to investigate the clinical and CT features in the pregnant women and children with this disease, which have not been well reported.

Methods

Clinical and CT data of 59 patients with COVID-19 from January 27 to February 14, 2020 were retrospectively reviewed, including 14 laboratory-confirmed non-pregnant adults, 16 laboratory-confirmed and 25 clinically-diagnosed pregnant women, and 4 laboratory-confirmed children. The clinical and CT features were analyzed and compared.

Findings

Compared with the non-pregnant adults group (n = 14), initial normal body temperature (9 [56%] and 16 [64%]), leukocytosis (8 [50%] and 9 [36%]) and elevated neutrophil ratio (14 [88%] and 20 [80%]), and lymphopenia (9 [56%] and 16 [64%]) were more common in the laboratory-confirmed (n = 16) and clinically-diagnosed (n = 25) pregnant groups. Totally 614 lesions were detected with predominantly peripheral and bilateral distributions in 54 (98%) and 37 (67%) patients, respectively. Pure ground-glass opacity (GGO) was the predominant presence in 94/131 (72%) lesions for the non-pregnant adults. Mixed consolidation and complete consolidation were more common in the laboratory-confirmed (70/161 [43%]) and clinically-diagnosed (153/322 [48%]) pregnant groups than 37/131 (28%) in the non-pregnant adults (P = 0·007, P < 0·001). GGO with reticulation was less common in 9/161 (6%) and 16/322 (5%) lesions for the two pregnant groups than 24/131 (18%) for the non-pregnant adults (P = 0·001, P < 0·001). The pulmonary involvement in children with COVID-19 was mild with a focal GGO or consolidation. Twenty-three patients underwent follow-up CT, revealing progression in 9/13 (69%) at 3 days whereas improvement in 8/10 (80%) at 6-9 days after initial CT scans.

Interpretation

Atypical clinical findings of pregnant women with COVID-19 could increase the difficulty in initial identification. Consolidation was more common in the pregnant groups. The clinically-diagnosed cases were vulnerable to more pulmonary involvement. CT was the modality of choice for early detection, severity assessment, and timely therapeutic effects evaluation for the cases with epidemic and clinical features of COVID-19 with or without laboratory confirmation. The exposure history and clinical symptoms were more helpful for screening in children versus chest CT. (Author)

Full URL: https://doi.org/10.1016/j.jinf.2020.03.007

20200519-22*

Perinatal aspects on the covid-19 pandemic: a practical resource for perinatal-neonatal specialists. Mimouni F, Lakshminrusimha S, Pearlman SA, et al (2020), Journal of Perinatology vol 40, no 5, May 2020, pp 820-826

Background

Little is known about the perinatal aspects of COVID-19.

Objective

To summarize available evidence and provide perinatologists/neonatologists with tools for managing their patients.

Methods

Analysis of available literature on COVID-19 using Medline and Google scholar.

Results

From scant data: vertical transmission from maternal infection during the third trimester probably does not occur or likely it occurs very rarely. Consequences of COVID-19 infection among women during early pregnancy remain unknown. We cannot conclude if pregnancy is a risk factor for more severe disease in women with COVID-19. Little is known about disease severity in neonates, and from very few samples, the presence of SARS-CoV-2 has not been documented in human milk. Links to websites of organizations with updated COVID-19 information are provided. Infographics summarize an approach to the pregnant woman or neonate with suspected or confirmed COVID-19.

Conclusions

As the pandemic continues, more data will be available that could lead to changes in current knowledge and recommendations. (Author)

Full URL: https://doi.org/10.1038/s41372-020-0665-6

20200519-14*

Evidence of a significant secretory-IgA-dominant SARS-CoV-2 immune response in human milk following recovery from COVID-19. Fox A, Marino J, Amanat F, et al (2020), MedRxiv 8 May 2020, online

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice]

In this preliminary report, 15 milk samples obtained from donors previously-infected with SARS-CoV-2 as well as 10 negative control samples obtained prior to December 2019 were tested for reactivity to the Receptor Binding Domain (RBD) of the SARS-CoV-2 Spike protein by ELISAs measuring IgA, IgG, IgM, and secretory Ab. Eighty percent of samples obtained post-COVID-19 exhibited IgA reactivity, and all these samples were also positive for secretory Ab reactivity, suggesting the IgA is predominantly sIgA. COVID-19 group mean OD values of undiluted milk were significantly greater for IgA ($p<0.0001$), secretory-type Abs ($p<0.0001$), and IgG ($p=0.017$), but not for IgM, compared to pre-pandemic group mean values. Overall, these data indicate that there is strong sIgA-dominant SARS-CoV-2 immune response in human milk after infection in the majority of individuals, and that a comprehensive study of this response is highly warranted. (Author, edited)

Full URL: https://doi.org/10.1101/2020.05.04.20089995

20200518-11*

Antibodies in Infants Born to Mothers With COVID-19 Pneumonia. Zeng H, Xu C, Fan J, et al (2020), JAMA (Journal of the American Medical Association) vol 323, no 18, 12 May 2020, pp 1848-1849

This study describes results of IgM and IgG antibody testing from throat swabs of newborns born to mothers with COVID-19 pneumonia. (Author)

Full URL: https://doi.org/10.1001/jama.2020.4861

20200518-10*

Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn. Dong L, Tian J, He S, et al (2020), JAMA (Journal of the American Medical Association) vol 323, no 18, 12 May 2020, pp 1846-1848

This case report describes birth of an infant with elevated anti-SARS-CoV-2 IgM antibodies and cytokine levels to a mother with polymerase chain reaction-confirmed coronavirus disease 2019 (COVID-19) despite no physical contact. (Author)

Full URL: https://doi.org/10.1001/jama.2020.4621

20200515-8*

Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study. Roberton T, Carter ED, Chou VB, et al (2020), The Lancet Global Health vol 8, no 7, July 2020, pp E901-E908

Background

While the COVID-19 pandemic will increase mortality due to the virus, it is also likely to increase mortality indirectly. In this study, we estimate the additional maternal and under-5 child deaths resulting from the potential disruption of health systems and decreased access to food.

Methods

We modelled three scenarios in which the coverage of essential maternal and child health interventions is reduced by 9·8-51·9% and the prevalence of wasting is increased by 10-50%. Although our scenarios are hypothetical, we sought to reflect real-world possibilities, given emerging reports of the supply-side and demand-side effects of the pandemic. We used the Lives Saved Tool to estimate the additional maternal and under-5 child deaths under each scenario, in 118 low-income and middle-income countries. We estimated additional deaths for a single month and extrapolated for 3 months, 6 months, and 12 months.

Findings

Our least severe scenario (coverage reductions of 9·8-18·5% and wasting increase of 10%) over 6 months would result in 253 500 additional child deaths and 12 200 additional maternal deaths. Our most severe scenario (coverage reductions of 39·3-51·9% and wasting increase of 50%) over 6 months would result in 1 157 000 additional child deaths and 56 700 additional maternal deaths. These additional deaths would represent an increase of 9·8-44·7% in under-5 child deaths per month, and an 8·3-38·6% increase in maternal deaths per month, across the 118 countries. Across our three scenarios, the reduced coverage of four childbirth interventions (parenteral administration of uterotonics, antibiotics, and anticonvulsants, and clean birth environments) would account for approximately 60% of additional maternal deaths. The increase in wasting prevalence would account for 18-23% of additional child deaths and reduced coverage of antibiotics for pneumonia and neonatal sepsis and of oral rehydration solution for diarrhoea would together account for around 41% of additional child deaths.

Interpretation

Our estimates are based on tentative assumptions and represent a wide range of outcomes. Nonetheless, they show that, if routine health care is disrupted and access to food is decreased (as a result of unavoidable shocks, health system collapse, or intentional choices made in responding to the pandemic), the increase in child and maternal deaths will be devastating. We hope these numbers add context as policy makers establish guidelines and allocate resources in the days and months to come.

Funding

Bill & Melinda Gates Foundation, Global Affairs Canada. (Author)

Full URL: https://doi.org/10.1016/S2214-109X(20)30229-1

20200515-3*

Clinical Characteristics and Outcomes of Hospitalized and Critically Ill Children and Adolescents with Coronavirus Disease 2019 (COVID-19) at a Tertiary Care Medical Center in New York City. Chao JY, Derespina KM, Herold BC, et al (2020), The Journal of Pediatrics vol 223, August 2020, pp 14-19.e2

Objective

To describe the clinical profiles and risk factors for critical illness in hospitalized children and adolescents with COVID-19.

Study design

Children 1 month to 21 years with COVID-19 from a single tertiary care children's hospital between March 15-April 13, 2020 were included. Demographic and clinical data were collected.

Results

67 children tested positive for COVID-19; 21 (31.3%) were managed as outpatients. Of 46 admitted patients, 33 (72%) were admitted to the general pediatric medical unit and 13 (28%) to the pediatric intensive care unit (PICU). Obesity and asthma were highly prevalent but not significantly associated with PICU admission (p=0.99). Admission to the PICU was significantly associated with higher C-reactive protein, procalcitonin, and pro-B type natriuretic peptide levels and platelet counts (p<0.05 for all). Patients in the PICU were more likely to require high-flow nasal cannula (p=0.0001) and were more likely to have received Remdesivir through compassionate release (p<0.05). Severe sepsis and septic shock syndromes were observed in 7 (53.8%) PICU patients. Acute respiratory distress syndrome (ARDS) was observed in 10 (77%) PICU patients, 6 of whom (46.2%) required invasive mechanical ventilation for a median of 9 days. Of the 13 patients in the PICU, 8 (61.5%) were discharged home, and 4 (30.7%) patients remain hospitalized on ventilatory support at day 14. One patient died after withdrawal of life-sustaining therapy because of metastatic cancer.

Conclusions

We describe a higher than previously recognized rate of severe disease requiring PICU admission in pediatric patients admitted to the hospital with COVID-19.

The first reports of novel coronavirus disease 2019 (COVID-19) noted the infrequency of disease in children with one of the earliest studies including only 9 children under 14 years of age among 1,011 total patients (0.89%) (1,2). Since then, multiple reports have described children affected by COVID-19 with varying degrees of severity. (3, 4, 5)

Epidemiologic studies have consistently demonstrated that children are at lower risk of developing severe symptoms or critical illness compared with adults. (5,6) In a study of 2,143 pediatric patients in China with confirmed (n=731) or suspected (n=1412) COVID-19, over one-half had only mild illness, and <1% had severe or critical illness (5). In another study from China describing 36 children, no severe or critically ill case was observed. (6) The only study to describe children requiring admission to a pediatric intensive care unit (PICU) was a study from Spain of 365 children tested for COVID-19. (7) The authors found that 41 (11%) of children tested had virus detected; 25/41 (61%) required hospitalization, and 4/41 (16%) were admitted to the PICU. Details of clinical characteristics were not described.

Overall, the incidence of critical illness in children with COVID-19 is not well known, with limited data on possible associated risk factors. The objectives of this study were (1) to describe the clinical profile of critically ill children with SARS-CoV-2 infection admitted to our tertiary care facility, and (2) to study the risk factors associated with critical illness. (Author)

Full URL: https://doi.org/10.1016/j.jpeds.2020.05.006

20200515-2*

Delivery Room Preparedness and Early Neonatal Outcomes During COVID19 Pandemic in New York City. Perlman J, Oxford C, Chang C, et al (2020), Pediatrics vol 146, no 2, August 2020, e20201567

Since the initial report of a novel Coronavirus SARS-CoV-2 in Wuhan in December 2019 there has been widespread dissemination of disease worldwide. The impact on the neonatal population has been reported almost exclusively from China. The study goal is to characterize for the first time in the United States, the delivery room (DR) management and early course of infants born to COVID19 positive mothers, during three weeks at the peak of the pandemic in NYC, and to describe the challenges and approaches developed to meet these excessive needs. (Author)

Full URL: https://doi.org/10.1542/peds.2020-1567

20200515-13*

COVID-19 in a 26-week preterm neonate. Piersigilli F, Carkeek K, Hocq C, et al (2020), The Lancet Child & Adolescent Health vol 4, no 6, June 2020, pp 476-478

Reports the case of an extremely preterm infant with COVID-19. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30140-1

20200515-12*

Maintaining safety and service provision in human milk banking: a call to action in response to the COVID-19 pandemic. Shenker N on behalf of the Virtual Collaborative Network of Human Milk Banks and Associations (2020), The Lancet Child & Adolescent Health vol 4, no 7, July 2020, pp 484-485

Calls for policy makers to ensure that neonatal nutrition is an essential focus during emergencies, for increased funding into research to optimise human milk banking and for investment in innovation across all aspects of milk banking systems during the COVID-19 pandemic. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30134-6

20200515-1*

Caring for Newborns Born to Mothers with COVID-19: More Questions than Answers. Gupta M, Zupancic JAF, Pursley DM (2020), Pediatrics vol 146, no 2, August 2020, e2020001842

Comments on research [1] into outcomes for 31 newborns born to mothers with COVID-19 over a 3-week period at their center in New York City. 1. Perlman J et al. Delivery room preparedness and early neonatal outcomes during COVID-19 pandemic in New York City. Pediatrics. 2020;146(2):e20201567 (MB)

Full URL: https://doi.org/10.1542/peds.2020-001842

20200514-9*

Is there evidence of intra-uterine vertical transmission potential of COVID-19 infection in samples tested by quantitative RT-PCR?. Cheruiyot I, Henry BM, Lippi G (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 249, June 2020, pp 100-101

Systematic review of COVID-19 in pregnant women and the risk of intrauterine vertical transmission. The findings suggest that there is currently no evidence of mother-to-child transmission in the third trimester. The potential of transmission in the first and second trimesters is still unknown. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.04.034

20200514-8*

Oligohydramnion in COVID19. Aliji N, Aliu F (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 249, June 2020, p 102

Discusses the case of a 27-year-old woman at 34 weeks' gestation who presented with oligohydramnios and symptoms of COVID-19. The patient underwent a caesarean section due to fetal distress. The mother later tested positive and the premature infant tested negative for the virus. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.04.047

20200514-7*

Obstetric network reorganization during the COVID-19 pandemic: Suggestions from an Italian regional model. Giannubilo SR, Giannella L, Carpini GD, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 249, June 2020, pp 103-105

Discusses the obstetric network model used in Italy during the COVID-19 outbreak. The model includes separate hospital entrances and exits, local protocols for the triage of pregnant women with symptoms, single occupancy rooms, the use of personal protective equipment, restricted numbers of visitors, surgical masks during breastfeeding, the swabbing of all neonates born to positive or high suspicion mothers, and the discharge of asymptomatic women two days after delivery. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.04.062

20200514-65*

Coronavirus disease 2019 in pregnant women: A report based on 116 cases. Yan J, Guo J, Fan C, et al (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 223, no 1, July 2020, pp 111.e1-111.e14

Background

The coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is a global public health emergency. Data on the effect of COVID-19 in pregnancy are limited to small case series.

Objectives

To evaluate the clinical characteristics and outcomes in pregnancy and the vertical transmission potential of SARS-CoV-2 infection.

Study Desigh

Clinical records were retrospectively reviewed for 116 pregnant women with COVID-19 pneumonia from 25 hospitals in China between January 20 and March 24, 2020. Evidence of vertical transmission was assessed by testing for SARS-CoV-2 in amniotic fluid, cord blood, and neonatal pharyngeal swab samples.

Results

The median gestational age on admission was 38+0 (IQR 36+0-39+1) weeks. The most common symptoms were fever (50.9%, 59/116) and cough (28.4%, 33/116); 23.3% (27/116) patients presented without symptoms. Abnormal radiologic findings were found in 96.3% (104/108) of cases. There were eight cases (6.9%, 8/116) of severe pneumonia but no maternal deaths. One of eight patients (1/8) that presented in the first- and early-second-trimester had a missed spontaneous abortion. Twenty-one of 99 patients (21.2%, 21/99) that had delivered had preterm birth, including six with preterm premature ruptured of membranes. The rate of spontaneous preterm birth before 37 weeks was 6.1% (6/99). There was one case of severe neonatal asphyxia that resulted in neonatal death. Eighty-six of the 100 neonates that had testing for SARS-CoV-2 had negative results, of these ten neonates had paired amniotic fluid and cord blood samples that were tested negative for SARS-CoV-2.

Conclusions

SARS-CoV-2 infection during pregnancy is not associated with an increased risk of spontaneous abortion and spontaneous preterm birth. There is no evidence of vertical transmission of SARS-CoV-2 infection when the infection manifests during the third-trimester of pregnancy. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2020.04.014

20200514-60*

Evidence for and against vertical transmission for severe acute respiratory syndrome coronavirus 2. Lamouroux A, Attie-Bitach T, Martinovic J, et al (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 223, no 1, July 2020, pp 91.e1-91.e4

COVID-19 can severely affect pregnant women Furthermore, issues regarding vertical transmission of severe acute respiratory syndrome coronavirus 2 are emerging. In patients and neonates who are showing symptoms of coronavirus disease 2019, real-time polymerase chain reaction of nasal and throat swabs, sputum, and feces is performed to detect the presence of severe acute respiratory syndrome coronavirus 2. In addition, real-time polymerase chain reaction of vaginal swabs, amniotic fluid, placenta, cord blood, neonatal blood, or breast milk for the detection of severe acute respiratory syndrome coronavirus 2 did not show substantial results. Viremia was present in 1% of adult patients who were showing symptoms of coronavirus disease 2019. Here, we reviewed 12 articles published between Feb. 10, 2020, and April 4, 2020, that reported on 68 deliveries and 71 neonates with maternal infection in the third trimester of pregnancy. To determine whether infection occurred congenitally or perinatally, perinatal exposure, mode of delivery, and time interval from delivery to the diagnosis of neonatal infection were considered. Neonates with severe acute respiratory syndrome coronavirus 2 infection are usually asymptomatic. In 4 cases, a diagnostic test for severe acute respiratory syndrome coronavirus 2 infection was performed within 48 hours of life. Furthermore, detection rates of real-time polymerase chain reaction and the interpretation of immunoglobulin M and immunoglobulin G antibodies levels in cord and neonatal blood were discussed in relation with the immaturity of the fetal and neonatal immune system. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2020.04.039

20200514-6*

Re: Novel Coronavirus COVID-19 in late pregnancy: Outcomes of first nine cases in an inner city London hospital. Govind A, Essien S, Kartikeyan A, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 251, August 2020, pp 272-274

Discusses the cases of nine mothers with COVID-19 who delivered at an inner-city London hospital. Three women delivered by emergency caesarean section, six women underwent elective caesarean section and one woman delivered vaginally. Only one of the nine infants tested positive for the virus. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.05.004

20200514-5*

COVID-19 during pregnancy: Potential risk for neurodevelopmental disorders in neonates?. Martins-Filho PR, Tanajura DM, Santos Jr HP, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 250, July 2020, pp 255-256

The authors hypothesise that cytokine storms and hyperinflammation found in pregnant women with SARS-CoV-2 may increase the risk for neurodevelopmental disorders in neonates. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.05.015

20200514-36*

COVID-19 and Infant Formula Feeding: Frequently Asked Questions. Perinatal Services BC (2020), Perinatal Services BC 14 May 2020

This handout is intended to provide families who are using infant formula, or are thinking about doing so, with information on how to safely feed their baby during the COVID-19 pandemic. (Author)

Full URL: http://www.perinatalservicesbc.ca/Documents/Resources/Alerts/FAQ-Covid19-Formula-Feeding.pdf

---

20200514-2*

A Case Series of the 2019 Novel Coronavirus (SARS-CoV-2) in Three Febrile Infants in New York. Feld L, Belfer J, Kabra R, et al (2020), Pediatrics 13 May 2020, online

No abstract available

20200514-12*

COVID-19 and Breastfeeding: Frequently Asked Questions. Perinatal Services BC (2020), Perinatal Services BC 14 May 2020

This handout is intended to provide families with information about breastfeeding their baby / young child during the COVID-19 pandemic. (Author)

Full URL: http://www.perinatalservicesbc.ca/Documents/Resources/Alerts/FAQ-Covid19-Breastfeeding.PDF

20200514-10*

Coronavirus: Children affected by rare Kawasaki-like disease. Anon (2020), BBC News 14 May 2020

Reports on a rare inflammatory disease linked to coronavirus among children in the United Kingdom and United States of America. Symptoms include a rash, swollen glands in the neck and dry and cracked lips. (LDO)

Full URL: https://www.bbc.co.uk/news/health-52648557

20200514-1*

Unfavorable outcomes in pregnant patients with COVID-19 outside Wuhan, China. Huang W, Zhao Z, He Z, et al (2020), Journal of Infection vol 81, no 2, August 2020, E99-E101

Correspondence reporting on 8 cases of SARS-CoV-2 infection during late pregnancy that resulted in severe maternal and neonatal complications. (MB)

Full URL: https://doi.org/10.1016/j.jinf.2020.05.014

20200513-4*

Proposal for prevention and control of the 2019 novel coronavirus disease in newborn infants. Li F, Feng ZC, Shi Y, et al (2020), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 105, no 6, November 2020, pp 683-684

Proposal for the prevention and control of COVID-19 in newborn infants. Discusses the preparation of the delivery or operating room, clinical manifestations of infected neonates, discharge requirements, the use of personal protective equipment and psychological support for parents and medical staff. This proposal will be continuously modified based on accumulated clinical evidence. (LDO)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-318996

20200513-30*

Detection of severe acute respiratory syndrome coronavirus 2 in placental and fetal membrane samples. Penfield CA, Brubaker SG, Limaye MA, et al (2020), American Journal of Obstetrics & Gynecology MFM vol 2, no 3, suppl, August 2020, 100133

Study on the presence of SARS-CoV-2 in placental and fetal membrane samples in a series of COVID-19 positive mothers. Three out of 11 swabs tested positive for SARS-CoV-2. None of the infants tested positive or displayed symptoms of COVID-19 infection. This is the first study to demonstrate the presence of SARS-CoV-2 RNA in placental or membrane samples. (LDO)

Full URL: https://doi.org/10.1016/j.ajogmf.2020.100133

20200513-16*

Safe delivery for pregnancies affected by COVID-19. Qi H, Luo X, Zheng Y, et al (2020), BJOG: An International Journal of Obstetrics and Gynaecology vol 127, no 8, July 2020, pp 927-929

Discusses existing guidelines on the safe delivery of infants in pregnancies affected by COVID-19. Includes the timing of delivery, requirements for caesarean section, prevention of infection in the delivery room, anaesthesia and monitoring the neonate. (LDO)

20200512-3*

Hyperinflammatory shock in children during COVID-19 pandemic. Riphagen S, Gomez X, Gonzalez-Martinez C, et al (2020), The Lancet vol 395, no 10237, 23 May 2020, pp 1607-1608

Describes an unprecedented cluster of eight children with hyperinflammatory shock, which the authors suggest represent a new phenomenon affecting previously asymptomatic children with SARS-CoV-2 infection manifesting as a hyperinflammatory syndrome with multiorgan involvement similar to Kawasaki disease shock syndrome. (MB)

Full URL: https://doi.org/10.1016/S0140-6736(20)31094-1

20200512-20*

The importance of continuing breastfeeding during COVID-19: in support to the WHO statement on breastfeeding during the pandemic. Williams J, Namazova-Baranova L, Weber M, et al (2020), The Journal of Pediatrics vol 223, August 2020, pp 234-236

Aims to provide guidance on breastfeeding and related safety measures during COVID-19, particularly in situations where a mother has or may have COVID-19. (MB)

Full URL: https://doi.org/10.1016/j.jpeds.2020.05.009

20200512-11*

Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study. Knight M, Bunch K, Vousden N, et al on behalf of the UK Obstetric Surveillance System SARS-CoV-2 Infection in Pregnancy Collaborative Group (2020), BMJ vol 369, no 8251, 27 June 2020, m2107

Objectives To describe a national cohort of pregnant women admitted to hospital with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in the UK, identify factors associated with infection, and describe outcomes, including transmission of infection, for mothers and infants.

Design Prospective national population based cohort study using the UK Obstetric Surveillance System (UKOSS).

Setting All 194 obstetric units in the UK.

Participants 427 pregnant women admitted to hospital with confirmed SARS-CoV-2 infection between 1 March 2020 and 14 April 2020.

Main outcome measures Incidence of maternal hospital admission and infant infection. Rates of maternal death, level 3 critical care unit admission, fetal loss, caesarean birth, preterm birth, stillbirth, early neonatal death, and neonatal unit admission.

Results The estimated incidence of admission to hospital with confirmed SARS-CoV-2 infection in pregnancy was 4.9 (95% confidence interval 4.5 to 5.4) per 1000 maternities. 233 (56%) pregnant women admitted to hospital with SARS-CoV-2 infection in pregnancy were from black or other ethnic minority groups, 281 (69%) were overweight or obese, 175 (41%) were aged 35 or over, and 145 (34%) had pre-existing comorbidities. 266 (62%) women gave birth or had a pregnancy loss; 196 (73%) gave birth at term. Forty one (10%) women admitted to hospital needed respiratory support, and five (1%) women died. Twelve (5%) of 265 infants tested positive for SARS-CoV-2 RNA, six of them within the first 12 hours after birth.

Conclusions Most pregnant women admitted to hospital with SARS-CoV-2 infection were in the late second or third trimester, supporting guidance for continued social distancing measures in later pregnancy. Most had good outcomes, and transmission of SARS-CoV-2 to infants was uncommon. The high proportion of women from black or minority ethnic groups admitted with infection needs urgent investigation and explanation.

Study registration ISRCTN 40092247. (Author)

Full URL: https://doi.org/10.1136/bmj.m2107

20200511-55*

Coronavirus Disease 2019 (COVID-19) and pregnancy: what obstetricians need to know. Rasmussen SA, Smulian JC, Lednicky JA, et al (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 222, no 5, May 2020, pp 415-426

This expert review is aimed at practising obstetricians and highlights current research on COVID-19, SARS and MERS during pregnancy. The review includes information on infection control, diagnostic testing, in utero transmission and breastfeeding. (LDO)

Full URL: https://doi.org/10.1016/j.ajog.2020.02.017

20200507-9*

Coronavirus: Concerns for wellbeing of babies born in lockdown. Richardson H (2020), BBC News 7 May 2020

Concerns for the wellbeing of babies born in lockdown are being raised, as parents struggle to access regular support services. (Author)

Full URL: https://www.bbc.co.uk/news/education-52560388

20200506-8*

Laboratory Findings of COVID-19 Infection are Conflicting in Different Age Groups and Pregnant Women: A Literature Review. Vakili S, Savardashtaki A, Jamalnia S, et al (2020), Archives of Medical Research vol 51, no 7, October 2020, pp 603-607

Coronavirus disease 2019 (COVID-19), a new type and rapidly spread viral pneumonia, is now producing an outbreak of pandemic proportions. The clinical features and laboratory results of different age groups are different due to the general susceptibility of the disease. The laboratory findings of COVID-19 in pregnant women are also conflicting. Para-clinical investigations including laboratory tests and radiologic findings play an important role in early diagnosis and treatment monitoring of COVID-19. The majority of previous reports on the COVID-19 laboratory results were based on data from the general population and limited information is available based on age difference and pregnancy status. This review aimed to describe the COVID-19 laboratory findings in neonates, children, adults, elderly and pregnant women altogether for the first time. The most attracting and reliable markers of COVID-19 in patients were: normal C-reactive protein (CRP) and very different and conflicting laboratory results regardless of clinical symptoms in neonates, normal or temporary elevated CRP, conflicting WBC count results and procalcitonin elevation in children, lymphopenia and elevated lactate dehydrogenase (LDH) in adult patients, lymphopenia and elevated CRP and LDH in the elderly people, leukocytosis and elevated neutrophil ratio in pregnant women. (Author)

20200506-26*

Classification system and case definition for SARS-CoV-2 infection in pregnant women, fetuses, and neonates. Shah PS, Diambomba Y, Acharya G, et al (2020), Acta Obstetricia et Gynecologica Scandinavica vol 99, no 5, May 2020, pp 565-568

The authors develop a classification system and case definition for maternal-fetal-neonatal SARS-CoV-2 infections. The classification system includes five categories for the likelihood of infection: (a) confirmed, (b) probable, (c) possible, (d) unlikely, and (e) not infected. (LDO)

20200506-1*

The curious case of COVID-19 in children. Gupta S, Malhotra N, Gupta N, et al (2020), The Journal of Pediatrics vol 222, July 2020, pp 258-259

Correspondence presenting data on the epidemiological differences in childhood cases of three coronavirus diseases (SARS, MERS and COVID-19) and the H1N1 influenza pandemic (2009). (MB)

Full URL: https://doi.org/10.1016/j.jpeds.2020.04.062

20200505-9*

Women's Rights in Childbirth Must be Upheld During the Coronavirus Pandemic. International Confederation of Midwives (2020), The Hague, The Netherlands: International Confederation of Midwives 2020, 3 pages

Guidance for midwives on how to uphold the rights of women and their newborns during the COVID-19 pandemic. Includes recommendations on consent, birth partners, breastfeeding and reproductive health care. (LDO)

Full URL: https://www.internationalmidwives.org/assets/files/news-files/2020/03/icm-statement_upholding-womens-rights-during-covid19-5e83ae2ebfe59.pdf

---

20200505-4*

Atypical presentation of COVID-19 in young infants. Nathan N, Prevost B, Corvol H, et al (2020), The Lancet vol 395, no 10235, 9 May 2020, p 1481

Describes the cases of five infants diagnosed with COVID-19 who were admitted to hospital with fever but no respiratory symptoms. (MB)

Full URL: https://doi.org/10.1016/S0140-6736(20)30980-6

20200505-2*

Interim Guidance for Basic and Advanced Life Support in Children and Neonates With Suspected or Confirmed COVID-19. Topjian A, Aziz K, Kamath-Rayne BD, et al (2020), Pediatrics 4 May 2020, online

Interim guidance from the American Heart Association (AHA), produced in collaboration with the American Academy of Pediatrics, American Association for Respiratory Care, American College of Emergency Physicians, The Society of Critical Care Anesthesiologists, and American Society of Anesthesiologists, and with the support of the American Association of Critical Care Nurses and National EMS Physicians, for the treatment of victims of cardiac arrest with suspected or confirmed COVID-19. (MB)

Full URL: https://doi.org/10.1542/peds.2020-1405

20200505-1*

Early Neonatal SARS-CoV-2 Infection Manifesting With Hypoxemia Requiring Respiratory Support. Sinelli MT, Paterlini G, Citterio M, et al (2020), Pediatrics 4 May 2020, online

We describe a case of neonatal SARS-CoV-2 infection, diagnosed 3 days after birth, and manifesting with silent hypoxemia, requiring respiratory support. (Author)

Full URL: https://doi.org/10.1542/peds.2020-1121

20200504-2*

Coronavirus: Parents urged to keep up child vaccinations. Kleinman Z (2020), BBC News 2 May 2020

NHS England says it is still offering essential vaccinations and is appealing to parents not to miss appointments for their children during the pandemic. (Author)

Full URL: https://www.bbc.co.uk/news/health-52499701

20200501-5*

Coronavirus: high-risk pregnancies could be missed due to pandemic, experts warn. Cowburn A (2020), The Independent 1 May 2020

Reports that Gill Walton, CEO of the Royal College of Midwives, has warned of a potential rise in stillbirths and neonatal deaths because high-risk pregnancies may be missed owing to a reluctance among pregnant women to present themselves to maternity services during the current coronavirus pandemic..However, she added that technology has meant that follow-ups on women who missed scans and appointments has improved through virtual contact between women and midwives and maternity services. Her comments were made during a session of Westminster's health and social care committee. (JSM)

Full URL: https://www.independent.co.uk/news/uk/politics/coronavirus-concerns-raised-highrisk-pregnancies-could-be-missed-due-to-pandemic-a9493856.html

---

20200501-1*

Vaccine Update. Public Health England (2020), London: PHE no 307, April 2020, pp 1-14

A special edition of Vaccine Update to mark World Immunization Week (WIW), which this year runs from 26th-30th April, and is the World Health Organization's annual celebration of immunisation, best practice, new advances and the work of immunisers, held with the aim of promoting the use of vaccines to protect people of all ages from disease, reflected in the name of this year's theme #VaccinesWork for All. In this, The International Year of the Nurse and Midwife, WHO and Public Health England acknowledge the crucial role played by nurses and midwives as advocates of vaccination throughout the life course. Includes sections on the delivery of immunisation services during the coronavirus pandemic, and vaccinations offered during the antenatal and postnatal periods. (JSM)

Full URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/882560/PHE_11652_VU_307_April_2020.pdf

---

20200430-3*

US NICUs and donor milk banks brace for COVID-19. Furlow B (2020), The Lancet Child & Adolescent Health vol 4, no 5, May 2020, p 355

Reports on preparations being made by neonatal intensive care units (NICUs) and donor human milk programmes across the United States to continue to provide services during the coronavirus disease 2019 (COVID-19) pandemic. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30103-6

20200429-9*

Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected. Interim guidance. World Health Organization (2020), Geneva: WHO 13 March 2020

This is the second edition (version 1.2) of this document, which was originally adapted from Clinical management of severe acute respiratory infection when MERS-CoV infection is suspected (WHO, 2019). It is intended for clinicians involved in the care of adult, pregnant, and paediatric patients with or at risk for severe acute respiratory infection (SARI) when infection with the COVID-19 virus is suspected. Considerations for paediatric patients and pregnant women are highlighted throughout the text. It is not meant to replace clinical judgment or specialist consultation but rather to strengthen clinical management of these patients and to provide up-to-date guidance. Best practices for infection prevention and control (IPC), triage and optimized supportive care are included. (Author)

Full URL: https://www.who.int/

20200429-7*

Frequently asked questions: Breastfeeding and COVID-19 for health care workers. World Health Organization (2020), Geneva: World Health Organization 28 April 2020

This FAQ complements the WHO interim guidance: Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected (13 March 2020 www.who.int/publications-detail/clinical-management-of-severe-acuterespiratory-infection-when-novel-coronavirus-(ncov)-infection-is-suspected) and provides responses to questions that have arisen about the recommendations. The interim guidance and FAQ reflect: i. the available evidence regarding transmission risks of COVID-19 through breastmilk; ii. the protective effects of breastfeeding and skin-to-skin contact, and, iii. the harmful effects of inappropriate use of infant formula milk. The FAQ also draws on other WHO recommendations on Infant and Young Child Feeding and the Interagency Working Group Operational Guidance on Infant and Young Child Feeding in Emergencies. A decision tree shows how these recommendations may be implemented by health workers in maternity services and community settings, as part of daily work with mothers and families. www.who.int/news-room/q-a-detail/q-a-on-covid-19-and-breastfeeding. (Author)

Full URL: https://www.who.int/docs/default-source/maternal-health/faqs-breastfeeding-and-covid-19.pdf?sfvrsn=d839e6c0_1

20200429-5*

A call for action for COVID-19 surveillance and research during pregnancy. Buekens P, Alger J, Bréart G, et al (2020), The Lancet Global Health 22 April 2020, online

Calls for cooperation between countries in order to address the gaps in knowledge about COVID-19 and its effect on pregnant women and their babies. (MB)

Full URL: https://doi.org/10.1016/S2214-109X(20)30206-0

20200429-37*

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Vertical Transmission in Neonates Born to Mothers With Coronavirus Disease 2019 (COVID-19) Pneumonia. Hu X, Gao J, Luo X, et al (2020), Obstetrics & Gynecology vol 136, no 1, July 2020, pp 65-67

Research letter reporting on seven cases of Covid-19 during late pregnancy and subsequent neonatal outcomes. (MB)

Full URL: https://doi.org/10.1097/AOG.0000000000003926

20200428-26*

Coronavirus alert: Rare syndrome seen in UK children. Roberts M (2020), BBC News 27 April 2020

Reports on severe and unusual symptoms in children that may be linked to COVID-19. Features include a high temperature, low blood pressure, inflammation of the heart and abnormal blood test results. 20 cases in England have been noted by clinicians so far. (LDO)

Full URL: https://www.bbc.co.uk/news/health-52439005

20200428-2*

SARS-CoV-2 Infection in Children. Lu X, Zhang L, Du H, et al (2020), The New England Journal of Medicine vol 382, no 17, 23 April 2020, pp 1663-1665

Correspondence describing a spectrum of illness in 1391 children with SARS-CoV-2 infection. (MB)

Full URL: http://dx.doi.org/10.1056/NEJMc2005073

20200427-7*

Exclusive: National alert as 'coronavirus-related condition may be emerging in children'. West D (2020), Health Service Journal 27 April 2020, online

A serious coronavirus-related syndrome may be emerging in the UK, according to an 'urgent alert' issued to doctors, following a rise in cases in the last two to three weeks, HSJ has learned. (Author)

Full URL: https://www.hsj.co.uk/

20200427-4*

Managing COVID-19-Positive Maternal-Infant Dyads: An Italian Experience. Salvatori G, De Rose DU, Concato C, et al (2020), Breastfeeding Medicine vol 15, no 5, May 2020, pp 347-348

Describes the management and breastfeeding experience of 32 COVID-19 positive mothers and their newborns. (MB)

Full URL: https://doi.org/10.1089/bfm.2020.0095

20200427-37*

Neurosurgery in an infant with COVID-19. Carrabba G, Taricotti L, Guez S, et al (2020), The Lancet vol 395, no 10234, 2 May 2020, p E76

Case report of an 8-month-old baby with a complex hydrocephalus who had a shunt malfunction during the COVID-19 pandemic. (MB)

Full URL: https://doi.org/10.1016/S0140-6736(20)30927-2

20200424-8*

Novel Coronavirus Infection in Hospitalized Infants Under 1 Year of Age in China. Wei M, Yuan J, Liu Y, et al (2020), JAMA (Journal of the American Medical Association) vol 323, no 13, 7 April 2020, pp 1313-1314

This study characterizes the demographic, epidemiologic, and clinical characteristics of hospitalized infants diagnosed with coronavirus disease 2019 infection between December 8, 2019, and February 6, 2020, in China. (Author)

Full URL: https://doi.org/10.1001/jama.2020.2131

20200424-5*

Experience of Clinical Management for Pregnant Women and Newborns with Novel Coronavirus Pneumonia in Tongji Hospital, China.. Wang S, Zhou X, Lin X, et al (2020), Current Medical Science 26 March 2020, online

Based on the New Diagnosis and Treatment Scheme for Novel Coronavirus Infected Pneumonia (Trial Edition 5), combined with our current clinical treatment experience, we recently proposed a revision of the first edition of 'Guidance for maternal and fetal management during pneumonia epidemics of novel coronavirus infection in the Wuhan Tongji Hospital'. This article focused on the issues of greatest concern of pregnant women including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection diagnostic criteria, inspection precautions, drug treatment options, indications and methods of termination of pregnancy, postpartum fever, breastfeeding considerations, mode of mother-to-child transmission, neonatal isolation and advice on neonatal nursing, to provide valuable experience for better management of SARS-CoV-2 infection in pregnant women and newborns. (Author)

Full URL: https://link.springer.com/article/10.1007/s11596-020-2174-4

20200424-4*

International Perspectives Concerning Donor Milk Banking During the SARS-CoV-2 (COVID-19) Pandemic. Marinelli KA (2020), Journal of Human Lactation vol 36, no 3, August 2020, pp 492-497

Reviews current information on donor milk banking during the current COVID-19 pandemic. (JSM)

Full URL: https://doi.org/10.1177/0890334420917661

20200424-3*

Safe Handling of Containers of Expressed Human Milk in all Settings During the SARS-CoV-2 (COVID-19) Pandemic. Marinelli KA, Lawrence RM (2020), Journal of Human Lactation vol 36, no 3, August 2020, pp 498-501

Key Messages

With no evidence of virus in human milk, no guidance has been published concerning the disinfection of the outer surfaces of containers of expressed milk during the COVID-19 pandemic.

COVID-19 virus contaminates surfaces from respiratory droplet spread, persisting on some including plastic. Those expressing milk need to wear respiratory masks and practice effective pre-expression hand washing. Containers must be disinfected after milk expression with viricidal agents or appropriate bleach solutions before storage in milk banks, hospital wards, day care centers, or similar locations. (Author)

Full URL: https://doi.org/10.1177/0890334420919083

20200424-2*

Using the coronavirus pandemic as an opportunity to address the use of human milk and breastfeeding as lifesaving medical interventions. Spatz DL (2020), JOGNN: Journal of Obstetric, Gynecologic and Neonatal Nursing vol 49, no 3, May 2020, pp 225-226

Editorial aiming to provide guidance regarding breastfeeding and COVID-19 and stressing the importance of promoting and protecting the use of human milk and breastfeeding. (JSM)

Full URL: https://www.jognn.org/article/S0884-2175(20)30042-3/pdf

---

20200424-1*

COVID-19 vaginal delivery - A case report. Lowe B, Bopp B (2020), Australian and New Zealand Journal of Obstetrics and Gynaecology (ANZJOG) vol 60, no 3, June 2020, pp 465-466

The novel coronavirus termed SARS-CoV-2 is a major public health challenge. Many maternity units around the country are currently considering management protocols for these patients. We report a case from a tertiary Australian hospital describing an uncomplicated vaginal birth in a SARS-CoV-2 positive mother. To our knowledge this is also the first case described of a mother with COVID-19 not separated from her infant. Management provided supports the current Royal College of Obstetricians and Gynaecologists and World Health Organization guidelines suggesting that it is possible to consider rooming in post delivery for COVID-19 positive parents. Encouragement of breast feeding appears possible and safe when viral precautions are observed. (Author)

20200423-76*

Baby Friendly Initiative Statement on infant feeding during the COVID-19 outbreak. UNICEF UK Baby Friendly Initiative (2020), UNICEF UK Baby Friendly Initiative 17 March 2020. 2 pages

The Unicef UK Baby Friendly Initiative has received a number of queries regarding best practice for infant feeding during the Covid-19 outbreak. We suggest that all practitioners follow latest updates from the UK governments and the World Health Organization (WHO) as these could change as more information becomes available. (Author)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/03/Unicef-UK-Baby-Friendly-Initiative-statement-on-infant-feeding-during-the-Covid-19-outbreak-2.pdf

---

20200423-75*

Milk for your baby during the coronavirus pandemic. Joyce J (2020), Nottingham: La Leche League GB 26 March 2020

Gives information to parents on feeding their babies in the current COVID-19 pandemic using several diiferent methods: exclusive formula feeding; partial breastfeeding; and exclusive breastfeeding. Addresses the issue of insufficient milk supply, which may be of concern. (JSM)

Full URL: https://www.laleche.org.uk/milk-for-your-baby-during-the-coronavirus-pandemic/

20200423-74*

Breastfeeding and Coronavirus Disease-2019. Ad interim indications of the Italian Society of Neonatology endorsed by the Union of European Neonatal & Perinatal Societies. Davanzo R, Moro G, Sandri F, et al (2020), Maternal & Child Nutrition 3 April 2020

The recent COVID-19 pandemic has spread to Italy with heavy consequences on public health and economics. Besides the possible consequences of COVID-19 infection on a pregnant woman and the fetus, a major concern is related to the potential effect on neonatal outcome, the appropriate management of the mother-newborn dyad and finally the compatibility of maternal COVID-19 infection with breastfeeding. The Italian Society on Neonatology (SIN) after reviewing the limited scientific knowledge on the compatibility of breastfeeding in the COVID-19 mother and the available statements from Health Care Organizations, has issued the following indications that have been endorsed by the Union of European Neonatal & Perinatal Societies (UENPS). If a mother previously identified as COVID-19 positive or under investigation for COVID-19 is asymptomatic or paucisymptomatic at delivery, rooming-in is feasible and direct breastfeeding is advisable, under strict measures of infection control. On the contrary, when a mother with COVID-19 is too sick to care for the newborn, the neonate will be managed separately and fed fresh expressed breast milk, with no need to pasteurize it, as human milk is not believed to be a vehicle of COVID-19. We recognize that this guidance might be subject to change in the future when further knowledge will be acquired about the COVID-19 pandemic, the perinatal transmission of SARS-CoV-2 and clinical characteristics of cases of neonatal COVID-19. (Author)

20200423-73*

Update on coronavirus and breastfeeding. The Breastfeeding Network (2020), The Breasfeeding Network 22 April 2020

The information about coronavirus and breastfeeding on this page is being checked regularly and will develop in response to guidelines and evidence. This page was last updated on 22nd April 2020.
Coronavirus 2019-nCoV or COVID-19 is a new respiratory illness that has not previously been seen in humans. The first coronavirus cases have been confirmed in the UK and the rising death toll worldwide is causing alarm and concern. This can be especially worrying for all parents with new babies and young children, including those who are worried about coronavirus and breastfeeding. (Author)

Full URL: https://www.breastfeedingnetwork.org.uk/coronavirus/

20200422-43*

SOGC Committee Opinion - COVID-19 in Pregnancy. Elwood C, Boucoiran I, VanSchalkwyk J, et al (2020), JOGC [Journal of Obstetrics and Gynaecology Canada] 31 March 2020, online

Society of Obstetricians and Gynaecologists of Canada (SOGC) guidelines on COVID-19 in pregnancy. Includes recommendations on the antepartum, intrapartum and postpartum periods. Discusses appointments, protective equipment, fetal monitoring, caesarean delivery, skin-to-skin contact and breastfeeding. (LDO)

Full URL: https://doi.org/10.1016/j.jogc.2020.03.012

20200422-38*

In-Hospital Telehealth Supports Care for Neonatal Patients in Strict Isolation. Umoren RA, Gray MM, Handley S, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 857-860

The aim of this study is to determine the feasibility of 'in-hospital' inpatient telemedicine within a children's referral hospital to facilitate inpatient care activities such as interprofessional rounding and the provision of supportive services such as lactation consultations to pediatric patients in strict isolation. To test the feasibility of in-hospital video telemedicine, a dedicated telemedicine device was set up in the patient's room. This device and the accompanying Bluetooth stethoscope were used by the health care team located just outside the room for inpatient rounding and consultations from supportive services. Video telemedicine facilitated inpatient care and interactions with support services, reducing the number of health care providers with potential exposure to infection and decreasing personal protective equipment use. In the setting of strict isolation for highly infectious viral illness, telemedicine can be used for inpatient care activities such as interprofessional rounding and provision of supportive services. (Author)

Full URL: https://doi.org/10.1055/s-0040-1709687

20200422-37*

Neonatal Resuscitation and Postresuscitation Care of Infants Born to Mothers with Suspected or Confirmed SARS-CoV-2 Infection. Chandrasekharan P, Vento M, Trevisanuto D, et al (2020), American Journal of Perinatology vol 37, no 8, June 2020, pp 813-824

The first case of novel coronavirus disease of 2019 (COVID-19) caused by severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) was reported in November 2019. The rapid progression to a global pandemic of COVID-19 has had profound medical, social, and economic consequences. Pregnant women and newborns represent a vulnerable population. However, the precise impact of this novel virus on the fetus and neonate remains uncertain. Appropriate protection of health care workers and newly born infants during and after delivery by a COVID-19 mother is essential. There is some disagreement among expert organizations on an optimal approach based on resource availability, surge volume, and potential risk of transmission. The manuscript outlines the precautions and steps to be taken before, during, and after resuscitation of a newborn born to a COVID-19 mother, including three optional variations of current standards involving shared-decision making with parents for perinatal management, resuscitation of the newborn, disposition, nutrition, and postdischarge care. The availability of resources may also drive the application of these guidelines. More evidence and research are needed to assess the risk of vertical and horizontal transmission of SARS-CoV-2 and its impact on fetal and neonatal outcomes. (Author)

Full URL: https://doi.org/10.1055/s-0040-1709688

20200421-8*

Vitamin D, Covid-19 and Children. Molloy EJ, Murphy N (2020), Irish Medical Journal vol 113, no 4, April 2020, P59

Discusses the link between vitamin D deficiency and respiratory infections in children. The authors make particular reference to the benefits of vitamin D supplementation in preterm infants. (LDO)

Full URL: http://imj.ie/wp-content/uploads/2020/04/Vitamin-D-Covid-19-and-Children.pdf

---

20200421-5*

COVID-19: How is Congress Addressing the Needs of Babies and Families?. Zero to Three (2020), Zero to Three 30 March 2020

In the past two weeks, United States Congress has considered two major funding packages to begin to address the spreading economic impact of COVID-19. H.R. 6201 the Families First Coronavirus Response Act (FFCRA) was signed into law on March 18, 2020 and H.R. 748 the Coronavirus Aid, Relief, and Economic Security Act (CARES) was signed by the president on March 27, 2020. This analysis from Zero to Three highlights components of the two packages that affect early care and learning, family economic needs, basic family needs, and community supports for families under stress. (Author, edited)

Full URL: https://www.zerotothree.org/resources/3357-covid-19-how-is-congress-addressing-the-needs-of-babies-and-families

---

20200421-4*

Coronavirus (COVID-19) information. Bliss (2020), London: Bliss 20 April 2020

The latest evidence and guidance from Bliss for parents of sick or premature babies, about how changes during the coronavirus (COVID-19) pandemic may affect their baby and their stay in neonatal care. (JSM)

Full URL: https://www.bliss.org.uk/parents/support/coronavirus-covid-19-information

---

20200421-28*

The profile of peripheral blood lymphocyte subsets and serum cytokines in children with 2019 novel coronavirus pneumonia. Li H, Chen K, Liu M, et al (2020), Journal of Infection 20 April 2020, online

Objectives
The study was aimed at investigating the characteristics of peripheral blood lymphocyte subsets and serum cytokines in children with 2019 novel coronavirus (2019-nCoV) pneumonia.
Methods
Children with 2019-nCoV pneumonia or with respiratory syncytial virus (RSV) pneumonia were included. Data including lymphocyte subsets and serum cytokines were collected and analyzed.
Results
: 56 patients were included in the study, 40 children with 2019-nCoV pneumonia and 16 children with RSV pneumonia. Compared with children with RSV pneumonia, patients with 2019-nCoV pneumonia had higher count of CD3+8+ lymphocyte, higher percentages of CD3+, CD3+8+ lymphocytes and a lower percentage of CD19+ lymphocyte. The serum IL-10 level was significantly higher in children with RSV pneumonia. One 2019-nCoV pneumonia child who was with an obvious increase of IL-10 developed severe pneumonia.
Conclusions
Immune response played a very important role in the development of 2019-nCoV pneumonia. The effective CD8+ T cell response might influence the severity of 2019-nCoV pneumonia. The adaptable change in IL-10 level might contribute to the relatively mild pneumonia symptoms in children with 2019-nCoV pneumonia and bacterial co-infection might be a risk factor of severe 2019-nCoV pneumonia. (Author)

Full URL: https://doi.org/10.1016/j.jinf.2020.04.001

20200421-21*

COVID-19 - guidance for neonatal settings [Last updated 12 May 2020]. Royal College of Paediatics and Child Health (2020), London: RCPCH 9 April 2020

Provides guidance for neonatal settings during the coronavirus (COVID-19) outbreak. It has been produced with the British Association of Perinatal Medicine (BAPM). (Author, edited)

Full URL: https://www.rcpch.ac.uk/resources/covid-19-guidance-neonatal-settings#postnatal-contact-on-nnu-with-confirmed-covid-19-case

---

20200421-20*

The tiny premature baby who fought off coronavirus. Anon (2020), BBC News 21 April 2020

Reports on the case of Peyton Maguire who was born prematurely at 3lbs 5oz and was diagnosed with Covid-19 at three weeks old. (LDO)

Full URL: https://www.bbc.co.uk/news/uk-scotland-glasgow-west-52369708

20200420-27*

Breast feeding at the time of COVID-19: do not forget expressed mother's milk, please. Davanzo R (2020), Archives of Disease in Childhood: Fetal and Neonatal Edition vol 105, no 4, July 2020, p 455

This letter discusses mother to child transmission of COVID-19 and the safety of expressed mother's milk. The author recommends that breastfeeding should be promoted where possible, with basic preventive measures such as face masks and hand washing. In cases where breastfeeding is not recommended, it is suggested that expressed mother's milk should be considered due to its nutritional benefits. (LDO)

Full URL: http://dx.doi.org/10.1136/archdischild-2020-319149

20200417-9*

Novel corona virus disease (COVID-19) in pregnancy: What clinical recommendations to follow?. Liang H, Acharya G (2020), Acta Obstetricia et Gynecologica Scandinavica vol 99, no 4, April 2020, pp 439-442

This editorial discusses the prevention, diagnosis and management of COVID-19 in pregnancy. The authors also highlight the importance of mode of delivery and care of the newborn. (LDO)

20200417-8

That pesky nucleic acid molecule in a protein coat. Hanley J (2020), Journal of Health Visiting vol 8, no 4, April 2020

In March it seemed not only surreal but impossible to comprehend that the coronavirus would ever venture near our shores - and yet here it is. Jane Hanley looks at the effects of the pandemic on the emotional wellbeing of parents and professionals alike. (Author)

20200417-60*

Why is COVID-19 so mild in children?. Brodin P (2020), Acta Paediatrica 25 March 2020, online

This editorial highlights the reasons for mild COVID-19 symptoms in children and infants. The author discusses immune systems, expression of enzyme receptors and the likelihood respiratory tract infections in children. (LDO)

20200417-6

A new normal for health visiting. Forbes L (2020), Journal of Health Visiting vol 8, no 4, April 2020

In this time of focus on public health, what role will community based workers play? How will we carry on our professional duties in a time of social distancing? (Author)

20200417-55*

Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. Ludvigsson JF (2020), Acta Paediatrica vol 109, no 6, June 2020, pp 1088-1095

Aim

The coronavirus disease 2019 (COVID-19) pandemic has affected hundreds of thousands of people. Data on symptoms and prognosis in children are rare.

Methods

A systematic literature review was carried out to identify papers on COVID-19, which is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), using the MEDLINE and Embase databases between January 1 and March 18, 2020.

Results

The search identified 45 relevant scientific papers and letters. The review showed that children have so far accounted for 1%-5% of diagnosed COVID-19 cases, they often have milder disease than adults and deaths have been extremely rare. Diagnostic findings have been similar to adults, with fever and respiratory symptoms being prevalent, but fewer children seem to have developed severe pneumonia. Elevated inflammatory markers were less common in children, and lymphocytopenia seemed rare. Newborn infants have developed symptomatic COVID-19, but evidence of vertical intrauterine transmission was scarce. Suggested treatment included providing oxygen, inhalations, nutritional support and maintaining fluids and electrolyte balances.

Conclusions

The coronavirus disease 2019 has occurred in children, but they seemed to have a milder disease course and better prognosis than adults. Deaths were extremely rare. (Author)

20200417-5

Newly qualified health visitor: COVID-19 - a public health crisis. Boddy B (2020), Journal of Health Visiting vol 8, no 4, April 2020

Bethany Boddy explores the fast-changing public health emergency of COVID-19 and the health visitor response. (Author)

20200416-9*

The first case of COVID-19 infection in a 75-day-old infant in Jahrom City, south of Iran. Mogharab V, Pasha AMK, Javdani F, et al (2020), Journal of the Formosan Medical Association vol 119, no 5, May 2020, pp 995-997

Correspondence reporting the case of a 75-day-old baby referred to a pediatric emergency department with severe dry cough, noisy breathing sounds (audible through stethoscope) and had displayed a high fever seven days previously, but this was responding well to treatment. This is the first known case of COVID-19 infection in an infant in Jahrom City. Fars Province, Iran. (JSM)

Full URL: https://doi.org/10.1016/j.jfma.2020.03.015

20200416-3*

Keeping children emotionally healthy during the covid-19 pandemic. Rider EK (2020), BMJ Opinion 14 April 2020, online

We must not lose sight of children and adolescents during and after the covid-19 pandemic, says Elizabeth A Rider. (Author)

Full URL: https://blogs.bmj.com/bmj/2020/04/14/elizabeth-rider-keeping-children-emotionally-healthy-covid-19-pandemic/

20200416-13*

Pre-labor anorectal swab for SARS-CoV-2 in COVID-19 patients: is it time to think about it?. Carosso A, Cosma S, Borella F, et al (2020), European Journal of Obstetrics & Gynecology and Reproductive Biology vol 249, June 2020, pp 98-99

The authors report the first case of potential vertical transmission of SARS-CoV-2 from a pregnant woman to a newborn. Maternal and rectal stool swabs tested positive for SARS-CoV-2 which suggests the virus may enter the neonatal nasopharynx during vaginal delivery. It is suggested that pre-labour anorectal swabs should be taken from pregnant patients with COVID-19 in order to identify newborns at risk of perinatal infection. (LDO)

Full URL: https://doi.org/10.1016/j.ejogrb.2020.04.023

20200416-10*

Specialty guides for patient management during the coronavirus pandemic: Safeguarding infants during the coronavirus pandemic: the ICON programme. NHS England, NHS Improvement (2020), London: NHS England 2 April 2020. 2 pages

Joint correspondence from NHS England and NHS Improvement, to all maternity units and neonatal operational delivery networks, produced with the aim of preventing non-accidental injuries to infants during the COVID-19 pandemic. (JSM)

Full URL: https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/04/C0097-Specialty-guides-and-coronavirus_-Final-ICON-letter-for-midwives_v1-27-March.pdf

---

20200415-34*

Guidance for virtual infant feeding support and coronavirus (COVID-19). Guidance sheet 3: Postnatal conversations. UNICEF UK Baby Friendly Initiative (2020), Baby Friendly Initiative April 2020. 2 pages

Guidance from the Unicef UK Baby Friendly Initiative on holding conversations in the postnatal period, for healthcare professionals delivering Baby Friendly services during the COVID-19 pandemic. (JSM)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/04/Unicef-UK-Baby-Friendly-Initiative-Guidance-document-3-Postnatal-conversations.pdf?utm_source=Unicef_UK&utm_medium=Email&utm_campaign=bfi_AprilCovid19_uukloyalty

---

20200415-33*

Guidance for virtual infant feeding support during the COVID-19 outbreak. Guidance sheet 2: Antenatal conversations.
UNICEF UK Baby Friendly Initiative (2020), Baby Friendly Initiative April 2020. 1 page

Guidance from the Unicef UK Baby Friendly Initiative on holding antenatal conversations, for healthcare professionals delivering Baby Friendly services during the COVID-19 pandemic. (JSM)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/03/Unicef-UK-Baby-Friendly-Initiative-Guidance-Sheet-2-Antenatal-Conversations.pdf?utm_source=Unicef_UK&utm_medium=Email&utm_campaign=bfi_AprilCovid19_uukloyalty

---

20200415-32*

Guidance for virtual infant feeding support during the COVID-19 outbreak. Guidance sheet 1: Planning a virtual conversation.
UNICEF UK Baby Friendly Initiative (2020), Baby Friendly Initiative April 2020. 1 page

Guidance from the Unicef UK Baby Friendly Initiative on planning a virtual conversation, for healthcare professionals delivering Baby Friendly services during the COVID-19 pandemic. (JSM)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/03/Unicef-UK-Baby-Friendly-Guidance-Sheet-1-Planning-A-Virtual-Conversation.pdf?utm_source=Unicef_UK&utm_medium=Email&utm_campaign=bfi_AprilCovid19_uukloyalty

---

20200415-26*

Care of the Pregnant Woman with COVID-19 in Labor and Delivery: Anesthesia, Emergency cesarean delivery, Differential diagnosis in the acutely ill parturient, Care of the newborn, and Protection of the healthcare personnel. Ashokka B, Loh M-H, Tan CH, et al (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 223, no 1, July 2020, pp 66-74.e3

Coronavirus disease 2019, caused by the severe acute respiratory syndrome coronavirus 2, has been declared a pandemic by the World Health Organization. As the pandemic evolves rapidly, there are data emerging to suggest that pregnant women diagnosed as having coronavirus disease 2019 can have severe morbidities (up to 9%). This is in contrast to earlier data that showed good maternal and neonatal outcomes. Clinical manifestations of coronavirus disease 2019 include features of acute respiratory illnesses. Typical radiologic findings consists of patchy infiltrates on chest radiograph and ground glass opacities on computed tomography scan of the chest. Patients who are pregnant may present with atypical features such as the absence of fever as well as leukocytosis. Confirmation of coronavirus disease 2019 is by reverse transcriptase-polymerized chain reaction from upper airway swabs. When the reverse transcriptase-polymerized chain reaction test result is negative in suspect cases, chest imaging should be considered. A pregnant woman with coronavirus disease 2019 is at the greatest risk when she is in labor, especially if she is acutely ill. We present an algorithm of care for the acutely ill parturient and guidelines for the protection of the healthcare team who is caring for the patient. Key decisions are made based on the presence of maternal and/or fetal compromise, adequacy of maternal oxygenation (SpO2 >93%) and stability of maternal blood pressure. Although vertical transmission is unlikely, there must be measures in place to prevent neonatal infections. Routine birth processes such as delayed cord clamping and skin-to-skin bonding between mother and newborn need to be revised. Considerations can be made to allow the use of screened donated breast milk from mothers who are free of coronavirus disease 2019. We present management strategies derived from best available evidence to provide guidance in caring for the high-risk and acutely ill parturient. These include protection of the healthcare workers caring for the coronavirus disease 2019 gravida, establishing a diagnosis in symptomatic cases, deciding between reverse transcriptase-polymerized chain reaction and chest imaging, and management of the unwell parturient. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2020.04.005

20200415-24*

Baby friendly assessments during the COVID-19 outbreak. UNICEF UK Baby Friendly Initiative (2020), The Baby Friendly Initiative 30 March 2020. 2 pages

This document is intended to support Infant Feeding Leads/teams and senior staff to plan work related to Baby Friendly accreditation during the Covid-19 outbreak. (Author)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/03/Baby-Friendly-assessments-during-the-Covid-19-outbreak.pdf?utm_source=Unicef_UK&utm_medium=Email&utm_campaign=bfi_AprilCovid19_uukloyalty

---

20200415-23*

Statement on infant feeding on neonatal units during the coronavirus (COVID-19) outbreak [Last updated: 14 May 2020]. UNICEF UK Baby Friendly Initiative (2020), The Baby Friendly Initiative 2 April 2020. 3 pages

Position statement from the Unicef UK Baby Friendly Initiative on breastfeeding and bottle feeding in neonatal intensive care units, for healthcare professionals looking after mothers and their babies during the coronavirus (COVID-19) outbreak. (JSM)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/04/Unicef-UK-Baby-Friendly-Initiative-statement-on-infant-feeding-on-neonatal-units-during-the-Covid-19-outbreak.pdf

---

20200415-22*

Statement on infant feeding during the coronavirus (COVID-19) outbreak [Last updated 14 May 2020]. UNICEF UK Baby Friendly Initiative (2020), The Baby Friendly Initiative 2 April 2020. 3 pages

Position statement from the Unicef UK Baby Friendly Initiative on breastfeeding and bottle feeding, for health professionals caring for mothers and their babies during the current coronavirus (COVID-19) outbreak. (JSM)

Full URL: https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2020/04/Unicef-UK-Baby-Friendly-Initiative-statement-on-infant-feeding-during-the-Covid-19-outbreak.pdf

---

20200414-6*

Coronavirus and your maternity care. AIMS (2020), Association for Improvements in Maternity Services (AIMS) 11 April 2020

Information from the Association for Improvements in the Maternity Services (AIMS) for pregnant women concerned about their maternity care in the current coronavirus (COVID-19) pandemic. (JSM)

Full URL: https://www.aims.org.uk/information/item/coronavirus

---

20200414-2*

Should Infants Be Separated from Mothers with COVID-19? First, Do No Harm. Stuebe A (2020), Breastfeeding Medicine vol 15, no 5, May 2020, pp 351-352

Discusses the implications for breastfeeding of temporarily separating infants from mothers with suspected or confirmed COVID-19 in order to reduce the risk of transmission from mother to baby. (MB)

Full URL: https://doi.org/10.1089/bfm.2020.29153.ams

20200413-1*

Coronavirus while pregnant or giving birth: here's what you need to know. Dahlen H, Ellwood D (2020), The Conversation 16 March 2020, online

Summarises the key messages for pregnant women in the current coronavirus (COVID-19) pandemic, from trusted health sources such as the World Health Organization, the Royal College of Obstetricians and Gynaecologists etc. (JSM)

Full URL: https://theconversation.com/coronavirus-while-pregnant-or-giving-birth-heres-what-you-need-to-know-133619

20200409-10*

Epidemiology of COVID-19 Among Children in China. Dong Y, Mo X, Hu Y, et al (2020), Pediatrics 8 April 2020, online

OBJECTIVE: To identify the epidemiological characteristics and transmission patterns of pediatric patients with the 2019 novel coronavirus disease (COVID-19) in China.

METHODS: Nationwide case series of 2135 pediatric patients with COVID-19 reported to the Chinese Center for Disease Control and Prevention from January 16, 2020, to February 8, 2020, were included. The epidemic curves were constructed by key dates of disease onset and case diagnosis. Onset-to-diagnosis curves were constructed by fitting a log-normal distribution to data on both onset and diagnosis dates.

RESULTS: There were 728 (34.1%) laboratory-confirmed cases and 1407 (65.9%) suspected cases. The median age of all patients was 7 years (interquartile range: 2-13 years), and 1208 case patients (56.6%) were boys. More than 90% of all patients had asymptomatic, mild, or moderate cases. The median time from illness onset to diagnoses was 2 days (range: 0-42 days). There was a rapid increase of disease at the early stage of the epidemic, and then there was a gradual and steady decrease. The disease rapidly spread from Hubei province to surrounding provinces over time. More children were infected in Hubei province than any other province.

CONCLUSIONS: Children of all ages appeared susceptible to COVID-19, and there was no significant sex difference. Although clinical manifestations of children's COVID-19 cases were generally less severe than those of adult patients, young children, particularly infants, were vulnerable to infection. The distribution of children's COVID-19 cases varied with time and space, and most of the cases were concentrated in Hubei province and surrounding areas. Furthermore, this study provides strong evidence of human-to-human transmission. (Author)

20200407-14*

Coronavirus Disease 2019 (COVID-19) Pandemic and Pregnancy. Dashraath P, Wong JLJ, Lim MXK, et al (2020), American Journal of Obstetrics & Gynecology (AJOG) vol 222, no 6, June 2020, pp 521-531

The current coronavirus disease 2019 (COVID-19) pneumonia pandemic, caused by the severe acute respiratory syndrome 2 (SARS-CoV-2) virus, is spreading globally at an accelerated rate, with a basic reproduction number (R0) of 2 - 2.5, indicating that 2 - 3 persons will be infected from an index patient. A serious public health emergency, it is particularly deadly in vulnerable populations and communities in which healthcare providers are insufficiently prepared to manage the infection. As of March 16, 2020, there are more than 180,000 confirmed cases of COVID-19 worldwide, with over 7,000 related deaths. The SARS-CoV-2 virus has been isolated from asymptomatic individuals, and affected patients continue to be infectious two weeks after cessation of symptoms. The substantial morbidity and socioeconomic impact have necessitated drastic measures across all continents, including nationwide lockdowns and border closures.

Pregnant women and their fetuses represent a high-risk population during infectious disease outbreaks. To date, the outcomes of 55 pregnant women infected with COVID-19 and 46 neonates have been reported in the literature, with no definite evidence of vertical transmission. Physiological and mechanical changes in pregnancy increase susceptibility to infections in general, particularly when the cardiorespiratory system is affected, and encourage rapid progression to respiratory failure in the gravida. Furthermore, the pregnancy bias towards T-helper 2 (Th2) system dominance which protects the fetus, leaves the mother vulnerable to viral infections, which are more effectively contained by the Th1 system. These unique challenges mandate an integrated approach to pregnancies affected by SARS-CoV-2.

Here we present a review of COVID-19 in pregnancy, bringing together the various factors integral to the understanding of pathophysiology and susceptibility, diagnostic challenges with real-time reverse transcriptase polymerase chain reaction (RT-PCR) assays, therapeutic controversies, intrauterine transmission and maternal-fetal complications. We discuss the latest options in antiviral therapy and vaccine development, including the novel use of chloroquine in the management of COVID-19. Fetal surveillance, in view of the predisposition to growth restriction and special considerations during labor and delivery are addressed. Additionally, we focus on keeping frontline obstetric care providers safe while continuing to provide essential services. Our clinical service model is built around the principles of workplace segregation, responsible social distancing, containment of cross-infection to healthcare providers, judicious use of personal protective equipment and telemedicine. Our aim is to share a framework which can be adopted by tertiary maternity units managing pregnant women in the flux of a pandemic while maintaining the safety of the patient and healthcare provider at its core. (Author)

Full URL: https://doi.org/10.1016/j.ajog.2020.03.021

20200406-5*

Neonatal Early-Onset Infection With SARS-CoV-2 in 33 Neonates Born to Mothers With COVID-19 in Wuhan, China. Zeng L, Xia S, Yuan W, et al (2020), JAMA Pediatrics 26 March 2020, online

The coronavirus disease 2019 (COVID-19) has spread rapidly across the world. With the sharp increase in the number of infections, the number of pregnant women and children with COVID-19 is also on the rise. However, only 19 neonates born to affected mothers have been investigated, and to our knowledge, no information on early-onset infection in newborns has been published in previous studies.

Methods

In this cohort study, all neonates born to mothers with COVID-19 were recruited from Wuhan Children's Hospital, in Wuhan, Hubei Province, China. This study was approved by the local medical ethics committee. Written informed consent was obtained from the neonates' parents. The diagnosis and management of newborns with or at risk of COVID-19 were in accordance with guidelines provided by the National Health Commission and the Chinese Perinatal-Neonatal SARS-CoV-2 Committee.

Data regarding demographic, epidemiologic, and clinical features were obtained from the medical records system. In addition, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) real-time reverse transcriptase-polymerase chain reaction tests (Novel Coronavirus PCR Fluorescence Diagnostic Kit [BGI]) were conducted using nasopharyngeal and anal swab samples. Data were collected from January 2020 to February 2020. All statistical analyses were performed in Stata version 15.0 (StataCorp).

Results

Thirty-three neonates born to mothers with COVID-19, including 3 neonates with COVID-19, were identified (Table). The most common symptom was shortness of breath (4 of 33 neonates). Radiographic findings were nonspecific. No deaths were reported.

We provide details of the 3 infected neonates (Figure). Patient 1 was born at 40 weeks' gestation. The delivery was by cesarean delivery because of meconium-stained amniotic fluid and confirmed maternal COVID-19 pneumonia. On day 2 of life, the infant experienced lethargy and fever, with unremarkable physical examination results, and was moved to the neonatal intensive care unit. A chest radiographic image showed pneumonia, but other laboratory tests (except procalcitonin) were normal. Nasopharyngeal and anal swabs were positive for SARS-CoV-2 on days 2 and 4 of life and negative on day 6.

Patient 2 was born at 40 weeks' and 4 days' gestation by cesarean delivery because of confirmed maternal COVID-19 pneumonia. He presented with lethargy, vomiting, and fever. A physical examination was unremarkable. Laboratory tests showed leukocytosis, lymphocytopenia, and an elevated creatine kinase-MB fraction. A chest radiographic image showed pneumonia. Nasopharyngeal and anal swabs were positive for SARS-CoV-2 on days 2 and 4 of life and negative on day 6.

Patient 3 was born at 31 weeks' and 2 days' gestation by cesarean delivery because of fetal distress and confirmed maternal COVID-19 pneumonia. Resuscitation was required. The infant's Apgar scores were 3, 4, and 5 at 1, 5, and 10 minutes after birth. Neonatal respiratory distress syndrome and pneumonia confirmed by chest radiographic image on admission resolved on day 14 of life after treatment with noninvasive ventilation, caffeine, and antibiotics. He also had suspected sepsis, with an Enterobacter agglomerates-positive blood culture, leukocytosis, thrombocytopenia (11 cells × 103/μL; to convert to cells × 109/L, multiply by 1.0), and coagulopathy (prothrombin time, 21 seconds; activated partial thromboplastin time, 81.9 seconds), which improved with antibiotic treatment. Nasopharyngeal and anal swabs were positive for SARS-CoV-2 on days 2 and 4 of life and negative on day 7.

Discussion

Consistent with previous studies, the clinical symptoms from 33 neonates with or at risk of COVID-19 were mild and outcomes were favorable. Of the 3 neonates with symptomatic COVID-19, the most seriously ill neonate may have been symptomatic from prematurity, asphyxia, and sepsis, rather than SARS-CoV-2 infection.

In this cohort, 3 of 33 infants (9%) presented with early-onset SARS-CoV-2 infection. Because strict infection control and prevention procedures were implemented during the delivery, it is likely that the sources of SARS-CoV-2 in the neonates' upper respiratory tracts or anuses were maternal in origin. Although 2 recent studies have shown that there

were no clinical findings or investigations suggestive of COVID-19 in neonates born to affected mothers, and all samples, including amniotic fluid, cord blood, and breast milk, were negative for SARS-CoV-2, the vertical maternal-fetal transmission cannot be ruled out in the current cohort. Therefore, it is crucial to screen pregnant women and implement strict infection control measures, quarantine of infected mothers, and close monitoring of neonates at risk of COVID-19. (Author, edited)

20200403-5*

'I just had a baby - now I'm going to the frontline'. Kwon T (2020), BBC News 3 April 2020

Presents the personal experience of Tre Kwon, a nurse fighting to save lives in New York, the epicenter of the US' fight against COVID-19. She tells how, as coronavirus overwhelmed hospitals, she ended her maternity leave early and has had to forgo her plans to breastfeed her daughter for as long as she intended, in order to return to work and join her co-workers in the fight against this disease. She expresses concern about the lack of personal protective equipment (PPE) and describes her working conditions. Includes audio-visual footage. (JSM)

Full URL: https://www.bbc.co.uk/news/av/world-us-canada-52137166/i-just-had-a-baby-now-i-m-going-to-the-frontline

---

20200402-32*

Pregnancy and coronavirus: information for pregnant women and new mums. Anon (2020), Tommy's Pregnancy Hub 1 April 2020

Consumer information from Tommy's presented in a question and answer format, aimed at pregnant women and new mothers, based on the latest guidance on coronaivirus (COVID-19), from the Royal College of Obstetricians and Gynaecologists (RCOG). (JSM)

Full URL: https://www.tommys.org/pregnancy-information/im-pregnant/pregnancy-and-coronavirus-information-pregnant-women-and-new-mums

---

20200331-21*

The first infant case of COVID-19 acquired from a secondary transmission in Vietnam. Le HT, Nguyen LV, Tran DM, et al (2020), The Lancet Child & Adolescent Health vol 4, no 5, May 2020, pp 405-406

Reports the first infant case of COVID-19 acquired from a secondary transmission in Vietnam. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30091-2

20200330-2*

Anxiety, anger and hope as women face childbirth during coronavirus pandemic. Kahn M, Cristoferi C (2020), Reuters 27 March 2020, online

Pregnant women share their fears about giving birth and caring for their newborn during the coronavirus pandemic. (MB)

Full URL: https://www.reuters.com/article/us-health-coronavirus-europe-childbirth/anxiety-anger-and-hope-as-women-face-childbirth-during-coronavirus-pandemic-idUSKBN21E1O2?feedType=RSS&feedName=healthNews&utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+reuters%2FhealthNews+%28Reuters+Health+News%29

20200326-3*

Clinical and epidemiological features of 36 children with coronavirus disease 2019 (COVID-19) in Zhejiang, China: an observational cohort study. Qiu H, Wu J, Long L, et al (2020), The Lancet Infectious Diseases 25 March 2020, online

Background

Since December, 2019, an outbreak of coronavirus disease 2019 (COVID-19) has spread globally. Little is known about the epidemiological and clinical features of paediatric patients with COVID-19.

Methods

We retrospectively retrieved data for paediatric patients (aged 0-16 years) with confirmed COVID-19 from electronic medical records in three hospitals in Zhejiang, China. We recorded patients' epidemiological and clinical features.

Findings

From Jan 17 to March 1, 2020, 36 children (mean age 8·3 [SD 3·5] years) were identified to be infected with severe acute respiratory syndrome coronavirus 2. The route of transmission was by close contact with family members (32 [89%]) or a history of exposure to the epidemic area (12 [33%]); eight (22%) patients had both exposures. 19 (53%) patients had moderate clinical type with pneumonia; 17 (47%) had mild clinical type and either were asymptomatic (ten [28%]) or had acute upper respiratory symptoms (seven [19%]). Common symptoms on admission were fever (13 [36%]) and dry cough (seven [19%]). Of those with fever, four (11%) had a body temperature of 38·5°C or higher, and nine (25%) had a body temperature of 37·5-38·5°C. Typical abnormal laboratory findings were elevated creatine kinase MB (11 [31%]), decreased lymphocytes (11 [31%]), leucopenia (seven [19%]), and elevated procalcitonin (six [17%]). Besides radiographic presentations, variables that were associated significantly with severity of COVID-19 were decreased lymphocytes, elevated body temperature, and high levels of procalcitonin, D-dimer, and creatine kinase MB. All children received interferon alfa by aerosolisation twice a day, 14 (39%) received lopinavir-ritonavir syrup twice a day, and six (17%) needed oxygen inhalation. Mean time in hospital was 14 (SD 3) days. By Feb 28, 2020, all patients were cured.

Interpretation

Although all paediatric patients in our cohort had mild or moderate type of COVID-19, the large proportion of asymptomatic children indicates the difficulty in identifying paediatric patients who do not have clear epidemiological information, leading to a dangerous situation in community-acquired infections.

Funding

Ningbo Clinical Research Center for Children's Health and Diseases, Ningbo Reproductive Medicine Centre, and Key Scientific and Technological Innovation Projects of Wenzhou. (Author)

Full URL: https://doi.org/10.1016/S1473-3099(20)30198-5

20200325-3*

Clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19 in Wuhan, China: a retrospective, single-centre, descriptive study. Yu N, Li W, Kang Q, et al (2020), The Lancet Infectious Diseases vol 20, no 5, May 2020, pp 559-564

Background
In December, 2019, coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) emerged in Wuhan, China. The number of affected pregnant women is increasing, but scarce information is available about the clinical features of COVID-19 in pregnancy. This study aimed to clarify the clinical features and obstetric and neonatal outcomes of pregnant patients with COVID-19.
Methods
In this retrospective, single-centre study, we included all pregnant women with COVID-19 who were admitted to Tongji Hospital in Wuhan, China. Clinical features, treatments, and maternal and fetal outcomes were assessed.
Findings
Seven patients, admitted to Tongji Hospital from Jan 1, to Feb 8, 2020, were included in our study. The mean age of the patients was 32 years (range 29-34 years) and the mean gestational age was 39 weeks plus 1 day (range 37 weeks to 41 weeks plus 2 days). Clinical manifestations were fever (six [86%] patients), cough (one [14%] patient), shortness of breath (one [14%] patient), and diarrhoea (one [14%] patient). All the patients had caesarean section within 3 days of clinical presentation with an average gestational age of 39 weeks plus 2 days. The final date of follow-up was Feb 12, 2020. The outcomes of the pregnant women and neonates were good. Three neonates were tested for SARS-CoV-2 and one neonate was infected with SARS-CoV-2 36 h after birth.
Interpretation
The maternal, fetal, and neonatal outcomes of patients who were infected in late pregnancy appeared very good, and these outcomes were achieved with intensive, active management that might be the best practice in the absence of more robust data. The clinical characteristics of these patients with COVID-19 during pregnancy were similar to those of non-pregnant adults with COVID-19 that have been reported in the literature.

Funding
National Natural Science Foundation of China, Hubei Provincial Natural Science Foundation of China. (Author)

Full URL: https://doi.org/10.1016/S1473-3099(20)30176-6

20200324-26*

Understanding the coronavirus. Duncan D, Lyall G (2020), British Journal of Midwifery vol 28, no 3, March 2020

The death of a baby is one of the most profoundly traumatic experiences a family can experience. Chris Binnie from Beyond Bea Charity discusses why accepting support is better than being silent (Author)

20200318-5*

Infants Born to Mothers With a New Coronavirus (COVID-19). Chen Y, Peng H, Wang L, et al (2020), Frontiers in Pediatrics 16 March 2020, online

A novel viral respiratory disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is responsible for an epidemic of the coronavirus disease 2019 (COVID-19) in cases in China and worldwide. Four full-term, singleton infants were born to pregnant women who tested positive for COVID-19 in the city of Wuhan, the capital of Hubei province, China, where the disease was first identified. Of the three infants, for who consent to be diagnostically tested was provided, none tested positive for the virus. None of the infants developed serious clinical symptoms such as fever, cough, diarrhea, or abnormal radiologic or hematologic evidence, and all four infants were alive at the time of hospital discharge. Two infants had rashes of unknown etiology at birth, and one had facial ulcerations. One infant had tachypnea and was supported by non-invasive mechanical ventilation for 3 days. One had rashes at birth but was discharged without parental consent for a diagnostic test. This case report describes the clinical course of four live born infants, born to pregnant women with the COVID-19 infection. (13 references) (Author)

20200309-71*

Breastfeeding and Respiratory Antivirals: Coronavirus and Influenza. Anderson PO (2020), Breastfeeding Medicine vol 15, no 3, March 2020, p 128

Provides an overview of the options for antiviral drugs to treat influenza and coronavirus and their safety for use in women who are breastfeeding. (MB)

Full URL: https://doi.org/10.1089/bfm.2020.29149.poa

20200305-163*

'No evidence' coronavirus can be passed to child late in pregnancy. Ford S (2020), Nursing Times 17 February 2020

There is currently no evidence that the novel coronavirus disease causes severe adverse outcomes in neonates or that it can pass to the child while in the womb, according to preliminary studies. (Author)

20200210-29*

A contingency plan for the management of the 2019 novel coronavirus outbreak in neonatal intensive care units. Wang J, Qi H, Bao L, et al (2020), The Lancet Child & Adolescent Health 7 February 2020, online

The authors present a contingency plan for the 2019-nCoV outbreak in NICUs, focussing mainly on diagnostic and discharge criteria, treatment, prevention, and control strategies. (MB)

Full URL: https://doi.org/10.1016/S2352-4642(20)30040-7

20200206-32*

Coronavirus: Newborn becomes youngest person diagnosed with virus. Anon (2020), BBC News 6 February 2020

Reports that a 30-hour-old baby in China has been diagnosed with coronavirus, the youngest case recorded so far. States that the baby's mother had tested positive for the illness while still pregnant. It is not known if the baby became infected in the womb or after birth. (JSM)

Full URL: https://www.bbc.co.uk/news/world-asia-china-51395655

The Royal College of Midwives Trust
10-18 Union Street
London
SE1 1SZ

Open 24 hours a day, 7 days a week
T: 0300 303 0444
F: +44 20 7312 3536
E: info@rcm.org.uk
W: www.rcm.org.uk

Chief Executive:
Gill Walton,
MA, PGDip, BSc Hons, RM

President:
Rebeccah Davies, RM

Patron:
HRH The Princess Royal