



COVID-19 and Pregnancy

16th April 2020

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Guidance

Coronavirus (COVID-19) infection and pregnancy

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-09-coronavirus-covid-19-infection-in-pregnancy.pdf>

Guidance for antenatal and postnatal services in the evolving coronavirus (COVID-19) pandemic (COVID-19): guidance on vulnerable children and young people

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-03-30-guidance-for-antenatal-and-postnatal-services-in-the-evolving-coronavirus-covid-19-pandemic-200409.pdf>

Guidance for antenatal screening and ultrasound in pregnancy in the evolving coronavirus (COVID-19) pandemic

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-03-25-covid19-antenatal-screening.pdf>



Fetal growth surveillance during the COVID-19 pandemic.

Source: NHS England

Full Text/URL: <https://www.england.nhs.uk/mat-transformation/saving-babies/>

Guidance for maternal medicine services in the evolving coronavirus (COVID-19) pandemic

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-09-guidance-for-maternal-medicine-services-in-the-evolving-coronavirus-covid-19-pandemic.pdf>

Advice on perinatal mental health during COVID-19 pandemic

Source: Royal College of Psychiatrists

Full Text/URL: <https://www.rcpsych.ac.uk/about-us/responding-to-covid-19/responding-to-covid-19-guidance-for-clinicians/community-and-inpatient-services/covid-19-working-with-vulnerable-patients>

Corona virus infection and abortion care

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-09-coronavirus-covid-19-infection-and-abortion-care.pdf>

Early pregnancy services in the evolving coronavirus (COVID-19) pandemic

Source: Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.rcog.org.uk/globalassets/documents/guidelines/2020-04-03-guidance-for-rationalising-early-pregnancy-services-in-the-evolving-coronavirus-covid-19-pandemic.pdf>

PPE usage during COVID-19 pandemic

Source: Public Health England



Full Text/URL: <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

FSRH CEU: information to support management of individuals requesting to discontinue contraception to plan a pregnancy during the Covid-19 outbreak (26 March 2020)

Source: The Faculty of Sexual and Reproductive Healthcare of the Royal College of Obstetricians & Gynaecologists

Full Text/URL: <https://www.fsrh.org/standards-and-guidance/documents/fsrh-ceu-information-to-support-management-of-individuals/>

Management of pregnant women with known or suspected COVID-19

Source: The Faculty of Intensive Care Medicine, Intensive Care Society, Association of Anaesthetists and Royal College of Anaesthetists

Full Text/URL: <https://icmanaesthesiacovid-19.org/management-of-pregnant-women-with-known-or-suspected-covid-19>

Evidence Review

COVID-19 and pregnant patients

Source: DynaMed

Full Text/URL: <https://www.dynamed.com/condition/covid-19-and-pregnant-patients>

Cochrane Library Special Collections

- [Coronavirus \(COVID-19\): infection control and prevention measures](#)
- [Coronavirus \(COVID-19\): evidence relevant to critical care](#)

eLearning

Royal College of Obstetricians & Gynaecologists eLearning module The '[Infectious diseases](#)' tutorial includes a section dedicated to [COVID-19 and pregnancy](#).



Health Education England (HEE) has developed a [coronavirus eLearning programme](#) to help the health and care workforce respond to the COVID-19 pandemic.

American Psychiatric Association FREE webinar (need to register) - [Managing mental health effects of COVID-19](#)

[COVID-19: Tackling the Novel Coronavirus – FutureLearn](#)

[Training for COVID-19 - World Health Organization](#)

Speciality Guides

These Guides are aimed at specialists working in hospitals in England during the pandemic, there is one for Obs & Gynae.

Source: NHS England and NHS Improvement

Full Text/URL: <https://www.england.nhs.uk/coronavirus/secondary-care/other-resources/specialty-guides/#obs-gynae>

Publisher links to the various resource centres - freely available:

[Lancet – COVID -19 Resource Centre](#)

[Elsevier Resource centre](#)

[Springer Nature](#)

[Wiley](#)

[NEJM](#)

[BMJ](#)

[American Society for Microbiology](#)

[Oxford University Press](#)

Journal Articles

1. Clinical Features and Outcomes of Pregnant Women Suspected of Coronavirus Disease 2019.

Author(s): Yang H; Sun G; Tang F; Peng M; Gao Y; Peng J; Xie H; Zhao Y; Jin Z

Source: The Journal of infection; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32294503

Abstract:BACKGROUND: 2019 novel coronavirus disease (COVID-19) has become a worldwide pandemic. Under such circumstance pregnant women are also affected



significantly. **OBJECTIVE:** This study aims to observe the clinical features and outcomes of pregnant women who have been confirmed with COVID-19. **METHODS:** The research objects were 55 cases of suspected COVID-19 pregnant women who gave a birth from Jan 20th 2020 to Mar 5th 2020 in our hospital-a big birth center delivering about 30,000 babies in the last 3 years. These cases were subjected to pulmonary CT scan and routine blood test, manifested symptoms of fever, cough, chest tightness or gastrointestinal symptoms. They were admitted to an isolated suite, with clinical features and newborn babies being carefully observed. Among the 55 cases, 13 patients were assigned into the confirmed COVID-19 group for being tested positive severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) via maternal throat swab test, and the other 42 patients were assigned into the control group for being ruled out COVID-19 pneumonia based on new coronavirus pneumonia prevention and control program (the 7th edition). **RESULTS:** There were 2 fever patients during the prenatal period and 8 fever patients during the postpartum period in the confirmed COVID-19 group. In contrast, there were 11 prenatal fever patients and 20 postpartum fever patients in the control group ($p > 0.05$). Among 55 cases, only 2 cases had cough in the confirmed group. The imaging of pulmonary CT scan showed ground-glass opacity (46.2%, 6/13), patch-like shadows (38.5%, 5/13), fiber shadow (23.1%, 3/13), pleural effusion (38.5%, 5/13) and pleural thickening (7.7%, 1/13), and there was no statistical difference between the confirmed COVID-19 group and the control group ($p > 0.05$). During the prenatal and postpartum period, there was no difference in the count of WBC, Neutrophils and Lymphocyte, the ratio of Neutrophils and Lymphocyte and the level of CRP between the confirmed COVID-19 group and the control group ($p < 0.05$). 20 babies (from confirmed mother and from normal mother) were subjected to SARS-CoV-2 examination by throat swab samples in 24 hours after birth and no case was tested positive. **CONCLUSION:** The clinical symptoms and laboratory indicators are not obvious for asymptomatic and mild COVID-19 pregnant women. Pulmonary CT scan plus blood routine examination are more suitable for finding pregnancy women with asymptomatic or mild COVID-19 infection, and can be used screening COVID-19 pregnant women in the outbreak area of COVID-19 infection.

Database: PubMed

2. COVID-19 infection among asymptomatic and symptomatic pregnant women: Two weeks of confirmed presentations to an affiliated pair of New York City hospitals.

Author(s): Breslin N; Baptiste C; Gyamfi-Bannerman C; Miller R; Martinez R; Bernstein K; Ring L; Landau R; Purisch S; Friedman AM; Fuchs K; Sutton D; Andrikopoulou M; Rupley D; Sheen JJ; Aubey J; Zork N; Moroz L; Mourad M; Wapner R; Simpson LL; D'Alton ME; Goffman D

Source: American journal of obstetrics & gynecology MFM; Apr 2020 ; p. 100118

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32292903



Abstract:The novel coronavirus 2019, or COVID-19, infection has rapidly spread through the New York metropolitan area since the first reported case in the state on March 1, 2020. New York currently represents an epicenter for COVID-19 infection in the United States, with 84,735 cases reported as of April 2, 2020. We previously presented an early experience with seven COVID-positive patients in pregnancy, including two women who were diagnosed with COVID-19 following an asymptomatic initial presentation. We now describe a series of 43 test-confirmed cases of COVID-19 presenting to a pair of affiliated New York City hospitals over two weeks from March 13 to 27, 2020. Fourteen (32.6%) patients presented without any COVID-associated viral symptoms, and were identified either after developing symptoms during admission or following the implementation of universal testing for all obstetrical admissions on March 22. Of these, 10/14 (71.4%) developed symptoms or signs of COVID-19 infection over the course of their delivery admission or early after postpartum discharge. Of the other 29 (67.4%) patients who presented with symptomatic COVID-19 infection, three women ultimately required antenatal admission for viral symptoms, and an additional patient represented six days postpartum after a successful labor induction with worsening respiratory status that required oxygen supplementation. There were no confirmed cases of COVID-19 detected in neonates upon initial testing on the first day of life. Applying COVID-19 disease severity characteristics as described by Wu et al, 37 (86%) women possessed mild disease, four (9.3%) exhibited severe disease, and two (4.7%) developed critical disease; these percentages are similar to those described for non-pregnant adults with COVID-19 infections (about 80% mild, 15% severe, and 5% critical disease).

Database: PubMed

3. Outcome of Coronavirus spectrum infections (SARS, MERS, COVID 1 -19) during pregnancy: a systematic review and meta-analysis.

Author(s): Di Mascio D; Khalil A; Saccone G; Rizzo G; Buca D; Liberati M; Vecchiet J; Nappi L; Scambia G; Berghella V; D'Antonio F

Source: American journal of obstetrics & gynecology MFM; Mar 2020 ; p. 100107

Publication Date: Mar 2020

Publication Type(s): Journal Article; Review

PubMedID: 32292902

Abstract:Objective: The aim of this systematic review was to report pregnancy and perinatal outcomes of Coronavirus (CoV) spectrum infections, and particularly COVID-19 disease due to SARS-COV-2 infection during pregnancy.Data sources: Medline, Embase, Cinahl and Clinicaltrials.gov databases were searched electronically utilizing combinations of word variants for "coronavirus" or "severe acute respiratory syndrome" or "SARS" or "Middle East respiratory syndrome" or "MERS" or "COVID-19" and "pregnancy". The search and selection criteria were restricted to English language.Study eligibility criteria: Inclusion criteria were pregnant women with a confirmed Coronavirus related illness, defined as either SARS, MERS or COVID-19.Study appraisal and synthesis methods: We used meta-analyses of proportions to combine data and reported pooled proportions. The pregnancy outcomes observed included miscarriage, preterm birth, pre-eclampsia, preterm prelabor rupture of



membranes, fetal growth restriction, and mode of delivery. The perinatal outcomes observed were fetal distress, Apgar score < 7 at five minutes, neonatal asphyxia, admission to neonatal intensive care unit, perinatal death, and evidence of vertical transmission. Results: 19 studies including 79 women were eligible for this systematic review: 41 pregnancies (51.9%) affected by COVID-19, 12 (15.2%) by MERS, and 26 (32.9%) by SARS. An overt diagnosis of pneumonia was made in 91.8% and the most common symptoms were fever (82.6%), cough (57.1%) and dyspnea (27.0%). For all CoV infections, the rate of miscarriage was 39.1% (95% CI 20.2-59.8); the rate of preterm birth < 37 weeks was 24.3% (95% CI 12.5-38.6); premature prelabor rupture of membranes occurred in 20.7% (95% CI 9.5-34.9), preeclampsia in 16.2% (95% CI 4.2-34.1), and fetal growth restriction in 11.7% (95% CI 3.2-24.4); 84% were delivered by cesarean; the rate of perinatal death was 11.1% (95% CI 8.4-19.6) and 57.2% (95% CI 3.6-99.8) of newborns were admitted to the neonatal intensive care unit. When focusing on COVID-19, the most common adverse pregnancy outcome was preterm birth < 37 weeks, occurring in 41.1% (95% CI 25.6-57.6) of cases, while the rate of perinatal death was 7.0% (95% CI 1.4-16.3). None of the 41 newborns assessed showed clinical signs of vertical transmission. Conclusion: In mothers infected with coronavirus infections, including COVID-19, >90% of whom also had pneumonia, PTB is the most common adverse pregnancy outcome. Miscarriage, preeclampsia, cesarean, and perinatal death (7-11%) were also more common than in the general population. There have been no published cases of clinical evidence of vertical transmission. Evidence is accumulating rapidly, so these data may need to be updated soon. The findings from this study can guide and enhance prenatal counseling of women with COVID-19 infection occurring during pregnancy.

Database: PubMed

4. Preventive measures and management of COVID-19 in pregnancy.

Author(s): Omer S; Ali S; Babar ZUD

Source: Drugs & therapy perspectives : for rational drug selection and use; Apr 2020 ; p. 1-4

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32292265

Available at [Drugs & therapy perspectives : for rational drug selection and use](#) - from SpringerLink - Medicine

Database: PubMed

5. Mortality of a pregnant patient diagnosed with COVID-19: A case report with clinical, radiological, and histopathological findings.

Author(s): Karami P; Naghavi M; Feyzi A; Aghamohammadi M; Novin MS; Mobaien A; Qorbanisani M; Karami A; Norooznezhad AH

Source: Travel medicine and infectious disease; Apr 2020 ; p. 101665

Publication Date: Apr 2020



Publication Type(s): Journal Article

PubMedID: 32283217

Abstract: This report highlights details on a pregnant case of COVID-19 who unfortunately did not survive. This 27-year-old woman at her 30 and 3/7 weeks' gestation was referred to our center with fever, myalgia, and cough. The laboratory investigations showed leukopenia and lymphopenia as well as increased creatinine and CRP levels. The first chest X-ray (faint bilateral patchy opacities) and CT scan (some faint subpleural ground-glass opacities associated with pleural thickening) were not typical for initial COVID-19 pulmonary infection, however, the treatment for COVID-19 was started. Due to respiratory distress, she was intubated and put under mechanical ventilation. After a while, the fetus was born with Apgar score of 0 and did not react to the neonatal cardiopulmonary resuscitation protocol. Finally, due to deterioration in the clinical and imaging findings, the patient was expired as a result of multi-organ failure. Following the death, autopsy was performed and the histopathologic evaluations of the lungs showed evidence of viral pneumonia (viral cytopathic effect and a mild increase in alveolar wall thickness) and ARDS (hyaline membrane). Also, reverse transcription-polymerase chain reaction (RT-PCR) confirmed SARS-CoV-2 infection in the lungs. To our knowledge, this is the first report of maternal death with confirmed COVID-19 infection.

Database: PubMed

6. 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.

Author(s): Ashokka B; Loh MH; Tan CH; Su LL; Young BE; Lye DC; Biswas A; E Illanes S; Choolani M

Source: American journal of obstetrics and gynecology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32283073

Database: PubMed

7. Impact of COVID-19 infection on pregnancy outcomes and the risk of maternal-to-neonatal intrapartum transmission of COVID-19 during natural birth.

Author(s): Khan S; Peng L; Siddique R; Nabi G; Nawsherwan ; Xue M; Liu J; Han G

Source: Infection control and hospital epidemiology; Mar 2020 ; p. 1-3

Publication Date: Mar 2020

Publication Type(s): Journal Article

PubMedID: 32279693

Available at [Infection control and hospital epidemiology](#) - from Unpaywall

Database: PubMed



8. The novel coronavirus (2019-nCoV) in pregnancy: What we need to know.

Author(s): Saccone G; Carbone FI; Zullo F

Source: European journal of obstetrics, gynecology, and reproductive biology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Letter

PubMedID: 32278619

Available at [European journal of obstetrics, gynecology, and reproductive biology](#) - from Unpaywall

Database: PubMed

9. Protecting Labor and Delivery Personnel from COVID-19 during the Second Stage of Labor.

Author(s): Palatnik A; McIntosh JJ

Source: American journal of perinatology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32276282

Abstract: · Second stage of labor exposes providers to aerosol.. · COVID-19 risk during second stage of labor is high.. · N95 should be used during second stage of labor.. The novel coronavirus disease 2019 (COVID-19) is spreading fast and is affecting the clinical workers at much higher risk than the general population. Little is known about COVID-19 effect on pregnant women; however, the emerging evidence suggests they may be at high risk of asymptomatic disease. In light of projected shortage of personal protective equipment (PPE), there is an aggressive attempt at conservation. In obstetrics, the guidelines on PPE use are controversial and differ among hospitals, globally, as well as nationally. The centers for disease control and prevention (CDC) recommend using N95 respirators, which are respirators that offer a higher level of protection instead of a facemask for when performing or present for an aerosol-generating procedures (AGP). However, the second stage of labor is not considered an AGP. The second stage of labor can last up to 4 hours. During that time, labor and delivery personnel is in close contact to patients, who are exerting extreme effort during and frequently blow out their breath, cough, shout, and vomit, all of which put the health care team at risk, considering that COVID-19 transmission occurs through aerosol generated by coughing and sneezing. The CDC and the American College of Obstetricians and Gynecologists (ACOG) do not provide clarification on the use of N95 during the second stage. We recommend that labor and delivery personnel have the utmost caution and be granted the protection they need to protect themselves and other patients. This includes providing labor and delivery personnel full PPE including N95 for the second stage of labor. This is critical to ensure the adequate protection for health care workers and to prevent spread to other health care workers and patients.

Database: PubMed



10. Corticosteroid Guidance for Pregnancy during COVID-19 Pandemic.

Author(s): McIntosh JJ

Source: American journal of perinatology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32274772

Abstract:The novel coronavirus disease 2019 (COVID-19) pandemic is causing a necessary, rapid adjustment within the field of obstetrics. Corticosteroid use is a mainstay of therapy for those women delivering prematurely. Unfortunately, corticosteroid use has been associated with worse outcomes in COVID-19 positive patients. Given this information, it is necessary that obstetricians adjust practice to carefully weigh the fetal benefits with maternal risks. Therefore, our institution has examined the risks and benefits and altered our corticosteroid recommendations. · Corticosteroid use is an important part of prematurity treatment because it provides benefit to the fetus.. · Corticosteroid use may be related with increased morbidity and mortality in novel coronavirus disease 2019 (COVID-19).. · Therefore, during the COVID-19 pandemic, an alteration in current corticosteroid practices is necessary to uniquely weigh the maternal risks and fetal benefits..

Database: PubMed

11. Operating Room Guide for Confirmed or Suspected COVID-19 Pregnant Patients Requiring Cesarean Delivery.

Author(s): Gonzalez-Brown VM; Reno J; Lortz H; Fiorini K; Costantine MM

Source: American journal of perinatology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32274771

Abstract:We sought to provide a clinical practice protocol for our labor and delivery (L&D) unit, to care for confirmed or suspected COVID-19 patients requiring cesarean delivery. A multidisciplinary team approach guidance was designed to simplify and streamline the flow and care of patient with confirmed or suspected COVID-19 requiring cesarean delivery. A protocol was designed to improve staff readiness, minimize risks, and streamline care processes. This is a suggested protocol which may not be applicable to all health care settings but can be adapted to local resources and limitations of individual L&D units. Guidance and information are changing rapidly; therefore, we recommend continuing to update the protocol as needed. · Cesarean delivery for confirmed or suspected novel coronavirus disease 2019 (COVID-19) patients. · Team-based approach for streamline care. · Labor and delivery protocols for COVID-19 positive patients.

Database: PubMed



12. Delivery in pregnant women infected with SARS-CoV-2: A fast review.

Author(s): Parazzini F; Bortolus R; Mauri PA; Favilli A; Gerli S; Ferrazzi E

Source: International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article; Review

PubMedID: 32271947

Available at [International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics](#) - from Wiley Online Library

Abstract: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.

Database: PubMed

13. Neonatal Resuscitation and Postresuscitation Care of Infants Born to Mothers with Suspected or Confirmed SARS-CoV-2 Infection.

Author(s): Chandrasekharan P; Vento M; Trevisanuto D; Partridge E; Underwood MA; Wiedeman J; Katheria A; Lakshminrusimha S

Source: American journal of perinatology; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32268381

Abstract: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. · The risk of vertical transmission is unclear; transmission from family members/providers to neonates is possible.. · Optimal personal-protective-equipment (airborne vs. droplet/contact precautions) for providers is crucial to prevent transmission.. · Parents should be engaged in shared decision-making with options for rooming in, skin-to-skin contact, and breastfeeding..

Database: PubMed

14. COVID-19 Obstetrics Task Force, Lombardy, Italy: executive management summary and short report of outcome.

Author(s): Ferrazzi EM; Frigerio L; Cetin I; Vergani P; Spinillo A; Prefumo F; Pellegrini E; Gargantini G

Source: International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32267531

Available at [International journal of gynaecology and obstetrics: the official organ of the International Federation of Gynaecology and Obstetrics](#) - from Wiley Online Library

Abstract:From February 24, 2020, a COVID-19 obstetric task force was structured to deliver management recommendations for obstetric care. From March 1, 2020, six COVID-19 hubs and their spokes were designated. An interim analysis of cases occurring in or transferred to these hubs was performed on March 20, 2020 and recommendations were released on March 24, 2020. The vision of this strict organization was to centralize patients in high-risk maternity centers in order to concentrate human resources and personal protective equipment (PPE), dedicate protected areas of these major hospitals, and centralize clinical multidisciplinary experience with this disease. All maternity hospitals were informed to provide a protected labor and delivery room for nontransferable patients in advanced labor. A pre-triage based on temperature and 14 other items was developed in order to screen suspected patients in all hospitals to be tested with nasopharyngeal swabs. Obstetric outpatient facilities were instructed to maintain scheduled pregnancy screening as per Italian guidelines, and to provide pre-triage screening and surgical masks for personnel and patients for pre-triage-negative patients. Forty-two cases were recorded in the first 20 days of hub and spoke organization. The clinical presentation was interstitial pneumonia in 20



women. Of these, seven required respiratory support and eventually did well. Two premature labors occurred.

Database: PubMed

15. Obstetric Anesthesia During the COVID-19 Pandemic.

Author(s): Bauer M; Bernstein K; Dinges E; Delgado C; El-Sharawi N; Sultan P; Mhyre JM; Landau R

Source: Anesthesia and analgesia; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article

PubMedID: 32265365

Available at [Anesthesia and analgesia](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Abstract:With increasing numbers of Coronavirus Disease 2019 (COVID 19) cases due to efficient human-to-human transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the United States, preparation for the unpredictable setting of labor and delivery is paramount. The priorities are two-fold in the management of obstetric patients with COVID-19 infection or persons under investigation (PUI): (1) caring for the range of asymptomatic to critically ill pregnant and postpartum women; (2) protecting health care workers and beyond from exposure during the delivery hospitalization (health care providers, personnel, family members). The goal of this review is to provide evidence-based recommendations, or expert opinion when evidence is limited, for anesthesiologists caring for pregnant women during the COVID 19 pandemic, with a focus on preparedness and best clinical obstetric anesthesia practice.

Database: PubMed

16. Maternal and Perinatal Outcomes with COVID-19: a systematic review of 108 pregnancies.

Author(s): Zaigham M; Andersson O

Source: Acta obstetrica et gynecologica Scandinavica; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Journal Article; Review

PubMedID: 32259279

Available at [Acta obstetrica et gynecologica Scandinavica](#) - from Wiley Online Library

Abstract:INTRODUCTION: The pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has exposed vulnerable populations to an unprecedented global health crisis. The knowledge gained from previous human coronavirus outbreaks suggests that pregnant women and their fetuses are particularly susceptible to poor outcomes. The objective of this study was to summarize the clinical manifestations and maternal and perinatal outcomes of COVID-19 during pregnancy.MATERIAL AND METHODS: We searched



databases for all case reports and series from February 12 to April 4, 2020. Multiple terms and combinations were used including COVID-19, pregnancy, maternal mortality, maternal morbidity, complications, clinical manifestations, neonatal morbidity, intrauterine fetal death, neonatal mortality and SARS-CoV-2. Eligibility criteria included peer-reviewed publications written in English or Chinese and quantitative real-time polymerase chain reaction (PCR) or dual fluorescence PCR confirmed SARS-CoV-2 infection. Unpublished reports, unspecified date and location of the study or suspicion of duplicate reporting, cases with suspected COVID-19 that were not confirmed by a laboratory test, and unreported maternal or perinatal outcomes were excluded. Data on clinical manifestations, maternal and perinatal outcomes including vertical transmission were extracted and analyzed. RESULTS: Eighteen articles reporting data from 108 pregnancies between December 8, 2019 and April 1, 2020 were included in the current study. Most reports described women presenting in the third trimester with fever (68%) and coughing (34%). Lymphocytopenia (59%) with elevated C-reactive protein (70%) was observed and 91% were delivered by cesarean section. Three maternal intensive care unit admissions were noted but no maternal deaths. One neonatal death and one intrauterine death were also reported. CONCLUSIONS: Although the majority of mothers were discharged without any major complications, severe maternal morbidity as a result of COVID-19 and perinatal deaths were reported. Vertical transmission of the COVID-19 could not be ruled out. Careful monitoring of pregnancies with COVID-19 and measures to prevent neonatal infection are warranted.

Database: PubMed

17. COVID-19 in pregnancy with comorbidities: More liberal testing strategy is needed.

Author(s): Gidlöf S; Savchenko J; Brune T; Josefsson H

Source: Acta obstetrica et gynecologica Scandinavica; Apr 2020

Publication Date: Apr 2020

Publication Type(s): Letter

PubMedID: 32249924

Available at [Acta obstetrica et gynecologica Scandinavica](#) - from Wiley Online Library

Abstract: Despite a global pandemic, reports on pregnant women with Coronavirus disease 2019 (COVID-19) are few so far, testing strategies vary substantially and management guidelines are not uniform.

Database: PubMed

18. Breastfeeding and Coronavirus Disease-2019. Ad interim indications of the Italian Society of Neonatology endorsed by the Union of European Neonatal & Perinatal Societies.

Author(s): Davanzo R; Moro G; Sandri F; Agosti M; Moretti C; Mosca F

Source: Maternal & child nutrition; Apr 2020 ; p. e13010

Publication Date: Apr 2020

Publication Type(s): Journal Article; Review



PubMedID: 32243068

Available at [Maternal & child nutrition](#) - from Wiley Online Library

Available at [Maternal & child nutrition](#) - from Unpaywall

Abstract: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.

Database: PubMed

19. Emergency cesarean section on severe acute respiratory syndrome coronavirus 2 (SARS- CoV-2) confirmed patient.

Author(s): Lee DH; Lee J; Kim E; Woo K; Park HY; An J

Source: Korean journal of anesthesiology; Mar 2020

Publication Date: Mar 2020

Publication Type(s): Journal Article

PubMedID: 32229802

Available at [Korean journal of anesthesiology](#) - from Europe PubMed Central - Open Access

Available at [Korean journal of anesthesiology](#) - from Free Medical Journals . com

Available at [Korean journal of anesthesiology](#) - from Unpaywall

Abstract:Background: Since the first case of severe acute respiratory syndrome Coronavirus-2 (SARS-CoV-2) occurred in Wuhan in December 2019, the virus has spread globally. The World Health Organization declared the virus outbreak a pandemic on March 11, 2020. On January 19, 2020, a 35-year-old woman who returned from China was confirmed as the first SARS-CoV-2 infected case in Korea. Since then, it has spread all over Korea. Case: We report the first case of a SARS-CoV-2 positive woman delivering a baby through cesarean section at 37+6 weeks of pregnancy in the Republic of Korea. Conclusions: This case suggested that negative pressure operating room, skillful medical team, and enhanced personal protective



equipment including N95 masks, surgical cap, double gown, double gloves, shoe covers, and powered air-purifying respirator are required at the hospital for safe delivery in such a case.

Database: PubMed

20. Management of pregnant women infected with COVID-19.

Author(s): Luo Y; Yin K

Source: The Lancet. Infectious diseases; Mar 2020

Publication Date: Mar 2020

Publication Type(s): Journal Article

PubMedID: 32220285

Available at [The Lancet. Infectious diseases](#) - from Unpaywall

Database: PubMed

21. Coronavirus Disease 2019 (COVID-19) and Pregnancy: Responding to a Rapidly Evolving Situation.

Author(s): Rasmussen SA; Jamieson DJ

Source: Obstetrics and gynecology; Mar 2020

Publication Date: Mar 2020

Publication Type(s): Journal Article

PubMedID: 32213786

Available at [Obstetrics and gynecology](#) - from Ovid (LWW Total Access Collection 2019 - with Neurology)

Available at [Obstetrics and gynecology](#) - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location] : Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Available at [Obstetrics and gynecology](#) - from Unpaywall

Abstract:As the world confronts coronavirus disease 2019 (COVID-19), an illness caused by yet another emerging pathogen (severe acute respiratory syndrome coronavirus 2 [SARS-CoV-2]), obstetric care providers are asking what this means for pregnant women. The global spread has been swift, and many key questions remain. The case-fatality rate for persons cared for in the United States and whether asymptomatic persons transmit the virus are examples of questions that need to be answered to inform public health control measures. There are also unanswered questions specific to pregnant women, such as whether pregnant women are more severely affected and whether intrauterine transmission occurs. Although guidelines for pregnant women from the American College of Obstetricians and Gynecologists and the Centers for Disease Control and Prevention have been rapidly developed based on the best available evidence, additional information is critically needed to inform key decisions, such as whether pregnant health care workers should receive special consideration, whether to temporarily separate infected mothers and their



newborns, and whether it is safe for infected women to breastfeed. Some current recommendations are well supported, based largely on what we know from seasonal influenza: patients should avoid contact with ill persons, avoid touching their face, cover coughs and sneezes, wash hands frequently, disinfect contaminated surfaces, and stay home when sick. Prenatal clinics should ensure all pregnant women and their visitors are screened for fever and respiratory symptoms, and symptomatic women should be isolated from well women and required to wear a mask. As the situation with COVID-19 rapidly unfolds, it is critical that obstetricians keep up to date.

Database: PubMed

22. Covid-19: doctors in final trimester of pregnancy should avoid direct patient contact.

Author(s): Rimmer A

Source: BMJ (Clinical research ed.); Mar 2020; vol. 368 ; p. m1173

Publication Date: Mar 2020

Publication Type(s): Journal Article

PubMedID: 32205356

Available at [BMJ \(Clinical research ed.\)](#) - from BMJ Journals - NHS

Available at [BMJ \(Clinical research ed.\)](#) - from Patricia Bowen Library & Knowledge Service West Middlesex University Hospital NHS Trust (lib302631) Local Print Collection [location] : Patricia Bowen Library and Knowledge Service West Middlesex university Hospital.

Available at [BMJ \(Clinical research ed.\)](#) - from Unpaywall

Database: PubMed

[Covid-19 and pregnancy](#) – Trip search Results

[COVID-19 and Pregnancy](#) – PubMed search results

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