

Care of Parturient Women during Covid-19

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Summary

The World Health Organization has declared Coronavirus disease 2019, characterised by the severe acute respiratory syndrome as the pandemic. It evolves rapidly; the emerging data has shown that pregnant women diagnosed as having coronavirus disease 2019 can have severe morbidities (upto 9%). The management of obstetric patients infected with coronavirus disease 2019 requires quite unique considerations—from caring for critically ill pregnant and postpartum women to protecting health care workers from exposure during the delivery and hospitalisation. Nearly 50 percent of the affected mothers were asymptomatic or had mild symptoms and were diagnosed only at the time of delivery. Nearly 90 percent of the deliveries were carried out through Caesarean section. Labour presents a unique scenario in the Covid-19 pandemic, as all hospital admissions are anticipated and the timing of many admissions to the hospital are planned. Aerosolisation should in general be avoided because it increases the spread of the virus. Recent meta-analysis has demonstrated that intrapartum oxygen has no foetal benefit, rather it may cause harm.

In India, with the second largest global population, the incessant incidence of Coronavirus requires that special efforts be made to continue the essential routine Reproductive, Maternal, Newborn Child, Adolescent Health Plus Nutrition (RMNCAH+N) services. The novel coronavirus (Covid-19) is a major public health challenge. Many maternity units around the country are currently considering management protocols for these patients (Boelig et al, 2020).

During Covid-19 women have almost entirely undergone caesarean section births. They have also been separated from their infants for a minimum of 14 days and did not breastfeed or roomed in (Lowe & Bopp, 2020). There is currently no published literature on Covid-positive women who have undergone a vaginal delivery without separation from their infant (RCOG, 2020).

The biggest challenge of Covid-19, which is absence of symptoms, was found in pregnant women too. Nearly 50 percent were asymptomatic or had mild symptoms and were diagnosed only at the time of delivery. Nearly 90 percent of the deliveries were carried out through caesarean section (Bauer et al, 2020).

Intra-Natal Care during Covid-19

1. Appropriate screening, testing and preparation of pregnant women for Covid-19 before visit and/or admission to labour and delivery (L&D) (Boelig et al, 2020).

2. Screening of patients coming to L&D triage.
3. General changes to routine L&D work flow.
4. Intrapartum care.
5. Special care for the COVID-19 positive or suspected pregnant woman in L&D.

Screening, Testing and Preparation of Pregnant Women for Covid-19 before visit and/or Admission to L&D

- Labour presents a unique scenario in the Covid-19 pandemic, as all hospital admissions are anticipated and the timing of many admissions to the hospital are planned.
- For women with planned admissions for induction of labour or caesarean section, consider screening each individual and her birthing partner by phone the day before admission.

Screening of Patients coming to L&D Triage

- When women arrive for L&D, a designated staff member at the front of the unit should verbally screen each individual for upper respiratory infection (URI) symptoms.
- Any woman reporting fever, cough, or respiratory symptoms should be given a surgical mask, and evaluated by Registered nurse.
- All birthing partners should be screened; if screen-positive, they should not be permitted on L&D and should be directed to appropriate testing or medical care as indicated.

Considerations in the care of patients who screen

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positive

A. Appropriate isolation and sanitation

- All health care providers should be following personal protective equipment (PPE) recommendations until Covid-19 has been ruled out.
 - Current CDC (Centres for Disease Control and Prevention) recommendations include a surgical mask, protective eyewear, gown, and gloves. N-95 mask should be utilised if available for any women with confirmed or suspected Covid-19.
 - Aerosolisation should in general be avoided because it increases the spread of the virus. If absolutely necessary, N-95 masks should be used in setting of aerosolisation.
 - Practice vigilant hand hygiene.
- B. Management of patients who screen positive
- A special room should be reserved as space allows for patients who screen positive (e.g., URI symptoms, fever), both for triage and labour.
 - Scheduled cesarean delivery or induction of labour

General Changes to Routine L&D Work Flow

A. Respiratory Precautions and Personal Protective Equipment (PPE)

- For any patients with respiratory symptoms full droplet precautions should be utilised including gloves, gown and surgical mask with a face shield. N-95 mask should be worn for any patients with suspected or confirmed Covid, and for any patient, regardless of respiratory symptoms, during indispensable aerosolising procedures, including second stage of labour (CDC, 2021).
- As much as possible, oxygen should not be given when aerosolised. In addition, hand hygiene with alcohol-based rub after every patient contact and appropriate donning and doffing of PPE are critical (Baud et al, 2020).
- Finally, rooms that are exposed need to be wiped down as respiratory viruses may spread from surface contact (Berghell et al, 2020).

B. Visitor Policy

- Visitation should be limited to one support person, in-person. Prefer support via video, if patient agrees.
- The support person should be easily identifiable by L&D staff.
- Switching of visitors will not be permitted.

C. Patient admissions and location

- All efforts should be made to limit the movement of women from one care area to another (e.g., triage room to antepartum room to labour and delivery room).

- Admissions for delivery should remain on L&D.

Intrapartum Care

Inductions of Labour

- Inductions of labour with medical indications in asymptomatic women should not be postponed or rescheduled. This includes 39-week inductions, after patient counselling (Berghella et al, 2020).
- Induction can still be conducted as usual, with a combination of Foley 60-80 ml single balloon for 12 hours and either oral misoprostol 25 mcg initially, followed by 25 mcg every 2-4 hours, or 50 mcg every 4-6 hours (if no more than 3 contractions per 10 minutes or prior uterine surgery), or oxytocin infusion (Berghella, Bellussi et al, 2020).

First Stage of Labour

- Oral restriction of fluid or solid food in the first stage of labour is not recommended; oral water and clear fluids can be encouraged as tolerated in labour.
- Upright positions in the first stage of labour are recommended in women without regional anaesthesia; women with regional anaesthesia in the first stage can take up whatever position they find most comfortable.
- Walking should be recommended in the first stage of labour in women without regional anaesthesia, but in the delivery room. Women with regional anaesthesia may walk in the first stage.
- Continuous bladder catheterisation cannot be recommended in labour.

Oxygen therapy

- Recent meta-analysis has demonstrated that intrapartum oxygen has no foetal benefit, and may cause harm (Raghuraman et al, 2018). In the current setting where reducing risk of Covid-19 spread among healthcare providers and patient is paramount, there is even more reason to not utilise oxygen therapy for foetal resuscitation (Bai et al, 2020).
- Nitrous oxide: Eliminating nitrous oxide use during Covid-19 pandemic.

Second Stage of Labour

- Management of the second stage should not be altered.
- Pushing should not be delayed as it prolongs time to delivery, and increases chorioamnionitis and post-partum haemorrhage (Cahill et al, 2018).
- Perineal massage and warm packs are each associated with decrease in 3rd and 4th degree lacerations (Acquino et al, 2020).
- In addition, all healthcare staff attending to women in active labour need to don full personal

protective equipment.

Third Stage of Labour

- There are concerns regarding limited resources for blood transfusion due to inability to run blood drives. Care should be taken to reduce need for blood transfusion including by optimising antenatal haemoglobin prior to delivery.
- In addition to standard oxytocin, consideration should be made for prophylactic tranexamic acid and misoprostol (400 mcg buccally) (Gallos et al, 2018).

Anaesthesia Considerations

The Society for Obstetric Anesthesia and Perinatology has published interim guidelines based on expert opinion.

- Early epidural to minimise need for general anaesthesia in the event of emergent caesarean section.
- Covid-19 is not a contraindication to neuraxial anaesthesia.
- Avoid using nitrous oxide due to potential risk of aerosolisation.

Care for the Suspected or Confirmed Covid-19 Positive Pregnant Patient in L&D

Obstetric Medications

Two commonly used medications in obstetrics have been the source of study and controversy in Covid-19. Indomethacin is commonly used for tocolysis, and steroids, specifically betamethasone or dexamethasone used for foetal lung maturity. Additionally, magnesium is given in respiratory morbidity of Covid-19.

Precautions for Transmission Prevention

Respiratory Precautions Room type: Negative pressure room is not required.

- If a patient has known Covid-19 or high suspicion for it, PPE should be used as per hospital specific guidelines.
- At a minimum, N-95 mask and full droplet should be used by the providers in the room during second stage of labour.
- Minimise change in care providers.

Conclusion

The novel coronavirus disease 2019 (Covid-19) is a growing pandemic that is impacting daily life across the globe. The implications for pregnancy remain largely unknown. Early data suggest that Covid-19 may not pose increased risk in the pregnant population. Vertical transmission has not been confirmed. Social distancing is the best mechanism available to protect patients and health care workers from infection.

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