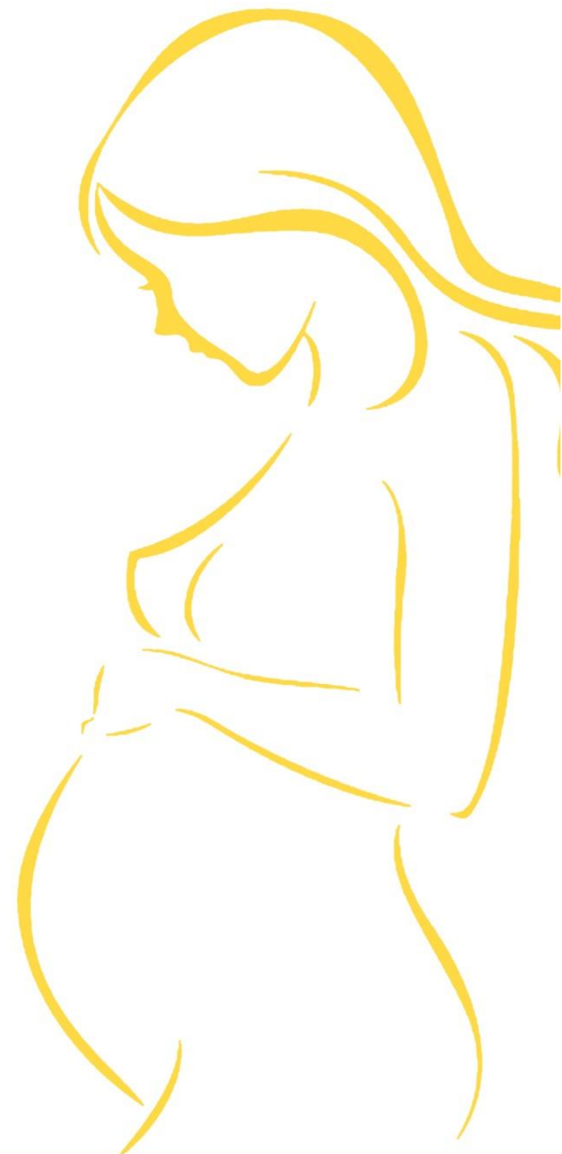
Antenatal Care

in the Ward for COVID 19 confirmed or suspected patients



Sri Lanka College of Obstetricians & Gynaecologists

Antenatal Care in the Ward for COVID 19 confirmed cases or COVID 19 suspected patients

Following admission, the patients antenatal notes should be reviewed

Careful history should be taken by a member of the Obstetric team or the Medical team

Relevant team member must communicate to the physician or obstetrician before conducting the general examination and system examinations.

The relevant consultant would decide the level of seniority of the person who should do the examination and basic assessment. (This is with the objective of minimizing the exposure of the staff and best required assessment is done by a single person)

The following members of the multi-disciplinary team should be informed: Consultant Obstetrician, Consultant Anaesthetist, Consultant Physician, Consultant Neonatologist, Sister in Charge, Matron, Neonatal unit and infection control team and the relevant specialties.

All confirmed cases are managed in the isolation area/Ward

Medical Management

1. **Asymptomatic** – Once the basic assessment is done further assessment is done when required. Patient should be given an opportunity to communicate with the staff with teleconferencing.

   If facilities available or with the mobile. (SLCOG recommends to manage these pregnant mothers at home with careful observations daily by field health care workers.)

2. **Mild, no pneumonia** – Monitoring of, temperature (QHT), pulse, respiratory rate and saturation (Minimum of twice a day or as clinically indicated)

   - Observe for evidence of deterioration.
   - High risk patients may require more frequent monitoring (Cardiovascular disease, Diabetes etc.)
   - Therapies – anti pyretic for fever, supportive therapy, Dihydro Chloroquine therapy

3. **Those with evidence of pneumonia**.
   - To be managed in the designated ward/area for COVID 19 patients/suspects

4. **Severe disease** - Pneumonia with ARDS, Sepsis/Septic Shock and multi-organ failure. Needs ICU care

Obtain blood for basic haematology, biochemistry, ECG, X-Ray chest (use portable X Ray if facilities are available)

Oxygen (maintain saturation>94%, via supplemental oxygen.) Use disposable, single use oxygen delivery devices (nasal prongs, simple nasal mask, venturi devices).

HFNO (High Flow Nasal Oxygen) – In those with respiratory failure, but unable to ventilate. Should be done with the health care personnel in PPE with N95 mask as this is an aerosol generating procedure.

NIV (Non- Invasive Ventilation) - In those with respiratory failure, but unable to ventilate. Should be done with the health care personnel in PPE with N95 mask as this is an aerosol generating procedure

Identify patient's co morbid conditions (IHD, DM, HPT) and manage accordingly.

IV fluids – use conservatively. Aggressive fluid resuscitation will worsen oxygenation.

Dual infection – Infections with another pathogen in addition to COVID 19. E.g. Dengue, Influenza. A positive COVID 19 does not rule out other infections.

There is no place for systemic corticosteroids, unless the patient has an asthma/ COPD exacerbation.

Limited evidence suggests to avoid non-steroidal anti-inflammatory drugs (NSAIDs) such as Ibuprofen in patients with COVID-19.

Obstetric Management

The management of the obstetric events should follow normal protocols.

When pregnant women are admitted to hospital with deterioration in symptoms or if it occurs while in the ward in patients with suspected/confirmed COVID-19 infection

- A multi-disciplinary discussion planning meeting ideally involving a consultant obstetrician, consultant physician, consultant obstetrician, and consultant anaesthetist should be arranged as soon as possible following admission.

The following should be discussed:

- Key priorities for medical care of the woman;
- Most appropriate location of care (e.g. intensive care unit, isolation room in infectious disease ward or other suitable isolation room) and lead specialty;
- Concerns amongst the team regarding special considerations in pregnancy, particularly the condition of the baby.

The priority for medical care should be to stabilize the woman's condition with standard supportive care therapies.

- Hourly observations, monitoring both the absolute values and the trends.
- Titrate oxygen to keep saturations >94%.
- Hourly respiratory rate looking for the rate and trends:

Young fit women can compensate for deterioration in respiratory function and are able to maintain normal oxygen saturations before they then suddenly decompensate.

So, a rise in the respiratory rate, even if the saturations are normal, may indicate a deterioration in respiratory function and should be managed by starting or increasing oxygen.

Radiographic investigations should be performed as for the non-pregnant adult; this includes chest X-ray and CT of the chest. Chest imaging, especially CT chest, should be performed when indicated, and not delayed due to fetal concerns.

Additional investigations should be performed as necessary to rule out differential diagnoses, e.g. ECG, CTPA as appropriate, echocardiogram.

Do not assume all pyrexia is due to COVID-19 and also perform full sepsis-six screening.

Consider bacterial infection if the white blood cell count is raised (lymphocytes usually normal or low with COVID-19) and commence antibiotics.

- Apply caution with IV fluid management. Try boluses in volumes of 250-500mls and then assess for fluid overload before proceeding with further fluid resuscitation.
- The frequency and suitability of fetal heart rate monitoring should be considered on an individual basis, taking into consideration the gestational age of the fetus and the maternal condition.
- If urgent delivery is indicated for fetal reasons, birth should be expedited as normal, as long as the maternal condition is stable.
- If maternal stabilization is required before delivery, this is the priority, as it is in other maternity emergencies, e.g. severe pre-eclampsia.
- An individualized assessment of the woman should be made by the multidisciplinary team to decide whether elective birth of the baby is indicated, either to assist efforts in maternal resuscitation or where there are serious concerns regarding the fetal condition.
- Individual assessment should consider: the maternal condition, the fetal condition, the potential for improvement following elective birth and the gestation of the pregnancy. The priority must always be the wellbeing of the mother.
- There is no evidence to suggest that steroids for fetal lung maturation, when they would usually be offered, cause any harm in the context of COVID-19. Steroids should therefore be given when indicated, and certainly prior to 30 weeks, where even one dose may benefit the neonate. As is always the case, urgent delivery should not be delayed for their administration. There are some reports that even after a period of improvement there can be a rapid deterioration.

Intrapartum care with current suspected/confirmed COVID-19

Should be cared in an isolation room or labour room designated for this purpose, a full maternal and fetal assessment should be conducted to include:

- All antenatal documents should be reviewed and risk factors should be identified and documented
- Assessment of the severity of COVID-19 symptoms, which should follow a multi-disciplinary team approach including the obstetrician, physician and the anaesthetist.
- The following members of the multi-disciplinary team should be informed: Consultant Obstetrician, Consultant Anaesthetist, Consultant Physician, Consultant Neonatologist, Sister in Charge, Matron, Neonatal unit and infection control team and other relevant specialties.
- The neonatal team should be informed of plans to deliver the baby of a woman affected by COVID-19, as far in advance as possible and should also be given sufficient notice at the time of birth, to allow them to attend and prepare PPE before entering the room/theatre.
- Maternal observations including temperature, respiratory rate half hourly and hourly oxygen saturations should be done
  Aim to keep oxygen saturation >94%, titrating oxygen therapy accordingly.
- Confirmation of the onset of labour should be done taking all protective measures.
- Electronic fetal monitoring using cardiotocograph (CTG) is recommended during labour.
- If the woman has signs of sepsis, investigation and treatment should be done with consultation of the multidisciplinary team according to the guidance given.
  If labour is confirmed, then care in labour should ideally continue in the same isolation room.
- Efforts should be made to minimize the number of staff members entering the room.
- There is currently no evidence to favour one mode of birth over another and therefore mode of birth should be discussed taking into consideration her preferences (E.g. VBAC) and any obstetric indications for intervention. Mode of delivery should not be influenced by the presence of COVID-19, unless the woman's respiratory condition demands urgent delivery. (At present, there are no recorded cases of vaginal secretions being tested positive for COVID-19).
- There is no evidence that epidural or spinal analgesia or anaesthesia is contraindicated in the presence of coronaviruses. Minimize general anaesthesia if urgent delivery is needed.
- In case of deterioration in the woman's symptoms, make an individual assessment regarding the risks and benefits of continuing the labour, versus preceding to emergency caesarean birth if this is likely to assist efforts to resuscitate the mother.

- An individualised decision should be made regarding shortening the length of the second stage of labour with elective instrumental birth in a symptomatic woman who is becoming exhausted or hypoxic.

- In all modes of deliveries use PPE.
  For category 1 caesarean section, wearing PPE is time consuming. This may impact on the decision to delivery interval but it must be done. Women and their families should be told about this possible delay.

- Given a lack of evidence to the contrary, delayed cord clamping is still recommended following birth, provided there are no other contraindications. The baby can be cleaned and dried as normal, while the cord is still intact.

Elective Caesarean Sections in Confirmed Covid 19 confirmed or Suspected patients

Elective caesarean section in women with suspected or confirmed COVID-19 patients should be reviewed and an individual assessment should be made to determine whether it is safe to delay the caesarean section to minimise the risk of infectious transmission to other women, healthcare workers and, postnatally, to her infant.

In cases where elective caesarean birth cannot safely be delayed, the general advice for services providing care to women admitted when affected by suspected/confirmed COVID-19 should be followed all safety precautions should be taken by all the health care staff including waring PPE. Obstetric management of elective caesarean birth should be according to usual practice.

PPE required by healthcare professionals caring for a woman with COVID-19 undergoing a caesarean birth should be determined based on the risk of requiring a general anaesthetic. Intubation for general anaesthesia (GA) is an aerosol-generating procedure (AGP). This significantly increases the risk of transmission of coronavirus to the attending staff. Regional anaesthesia (spinal, epidural or CSE) is not an AGP. For the minority of caesarean births where GA is planned from the outset, all staff in theatre should wear full PPE, including a filtering face piece level 3 (FFP3) mask. The scrub team should scrub and wear PPE before the GA is commenced.

For a non-urgent caesarean birth (Category 4 and some Category 3) where regional anaesthesia is planned, the risk of requiring GA is very small, as there is no time pressure. In this situation, all staff not required for siting of the regional anaesthetic should stay outside theatre until the block is effective. All staff in theatre should then wear PPE with a fluid-resistant surgical mask (FRSM) and eye protection (to prevent against droplet or fomite spread of the virus).

In the small proportion of cases in which regional anaesthesia cannot be successfully achieved, and GA is required, the scrub team should enter the theatre, scrub and wear full PPE, including an FFP3 mask, before the GA is commenced.

Induction of labour in confirmed/suspected Covid 19 patients

As for elective caesarean birth, an individual assessment should be made regarding the urgency of planned induction of labour for women with mild symptoms and suspected or confirmed COVID-19.

If induction of labour cannot safely be delayed, the general advice for services providing care to women admitted to hospital when affected by suspected/confirmed COVID-19 should be followed Women should be admitted into an isolation room, in which they should ideally be cared for during their entire hospital stay.

Additional considerations for women with confirmed COVID-19 and moderate/ severe symptoms. The following recommendations apply in addition to those specified for women with no/mild symptoms.

Postnatal management

Neonatal care

There are limited data to guide the postnatal management of babies of mothers who tested positive for COVID-19 in the third trimester of pregnancy. Literature from China has advised separate isolation of the infected mother and her baby for 14 days. However, routine precautionary separation of a mother and a healthy baby should not be undertaken lightly, given the potential detrimental effects on feeding and bonding.

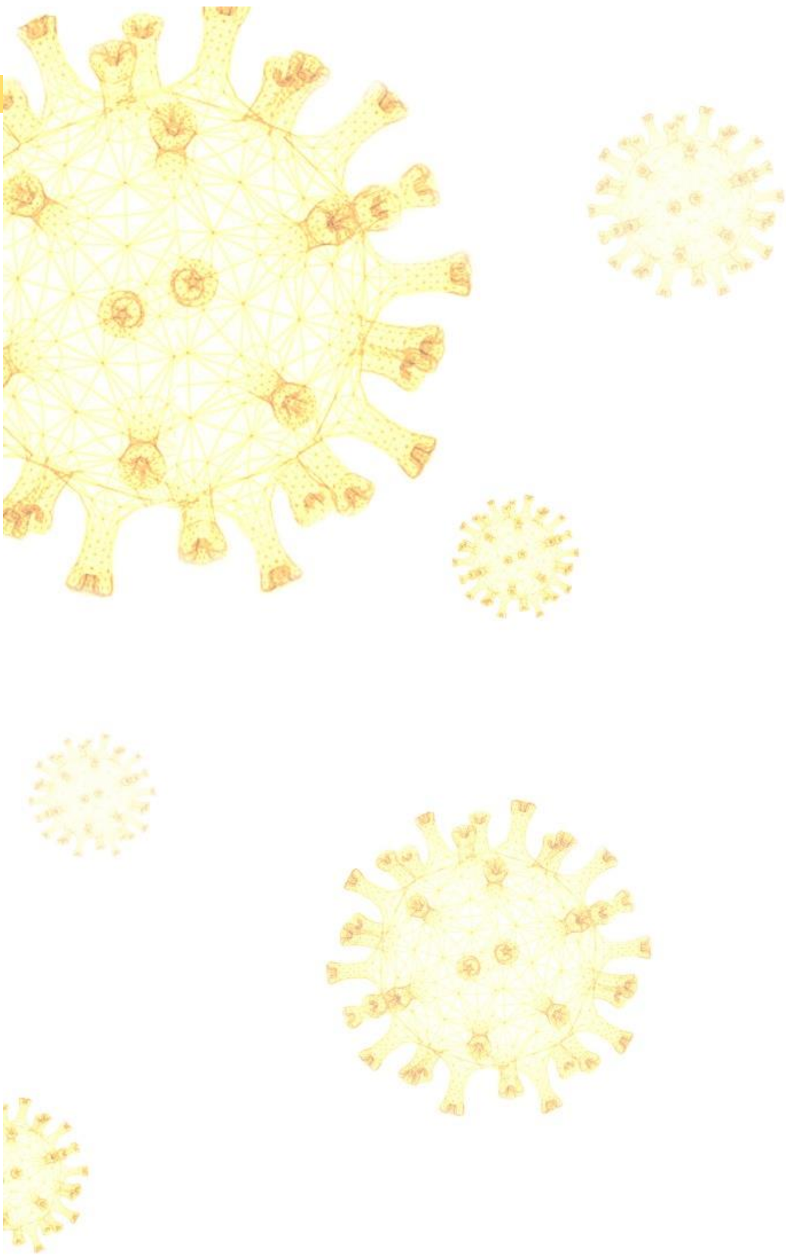
Given the current limited evidence, we advise that women and healthy infants are kept together in the immediate post-partum period.

The main risk of breastfeeding for infants is the close contact with the mother, who is likely to share infective droplets. In the light of the current evidence, it appears that the benefits of breastfeeding outweigh any potential risks of transmission of the virus through breast milk.

The following precautions should be taken to limit viral spread to the baby:

- Hand washing before touching the baby, breast pump or bottles.
- Avoiding coughing or sneezing on the baby while feeding.
- Wearing a face mask while feeding or caring for the baby.
- Where mothers are expressing breastmilk in hospital, a dedicated breast pump should be used.
- For babies who are bottle fed with formula or expressed milk, strict adherence to sterilisation guidelines is recommended.

Prepared by Sri Lanka College of Obstetricians & Gynaecologists.



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