The Royal Australian and New Zealand College of Obstetricians and Gynaecologists
Excellence in Women's Health

Coronavirus Disease (COVID-19) in Pregnancy

A guide for resource-limited environments

Updated August 2020

Contents

Disclaimer

The information in this document is based on expert consensus and the best available evidence at the time of writing. RANZCOG accepts no responsibility for the accuracy of the content.

Please regularly visit our website for the most current version of this guideline document:

ranzcog.edu.au/COVID-19-limited-resources

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Feedback on the document is encouraged and can be directed to the RANZCOG Global Health Committee: globalhealth@ranzcog.edu.au

RANZCOG acknowledges and pays respect to the Traditional Custodians of the lands, waters and communities across Australia, on which our members live and work, and to their Elders, past, present and future.

RANZCOG recognises the special status of Māori as tangata whenua in Aotearoa New Zealand and is committed to meeting its obligations as Te Tiriti o Waitangi partners.

The Royal Australian and New Zealand College of Obstetricians and Gynaecologists

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Foreward

This document provides brief guidance regarding COVID-19 in pregnancy. It has been developed by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) to assist clinicians in resource-limited settings. It is intended to complement, not replace, local and national guidelines.

The content for this guide is based on the latest guidance from various international sources. Given the COVID-19 pandemic continues to evolve, it is important that clinicians remain alert for new data and emerging knowledge. Please visit https://ranzcog.edu.au/statements-guidelines/covid-19-statement for the most current COVID-19 updates from RANZCOG.

This guide does not include information regarding the clinical management of patients with COVID-19. There are many other resources that provide this type of advice. Relevant references are included at the end of the document.

Key Messages

Pregnant women with COVID-19 do not have an increased risk of developing severe disease. In those women who do become unwell with COVID-19 and require hospital admission, about 1 in 10 will require admission to ICU for help with breathing or other organ support.

Fetal effects are largely unknown, however there is no evidence that the virus is teratogenic.

The most effective means of protecting women and staff from the virus is to practice a high standard of infection prevention and control (IPC).

This includes strict attention to hand hygiene, personal protective equipment (PPE) and physical distancing.

Focusing on COVID-19 may distract from routine obstetric care and priorities. It is important to provide continuity in maternity services, and remain focused on the usual causes of neonatal and maternal morbidity and mortality (such as postpartumhemorrhage and sepsis).

Background

COVID-19 is caused by a new strain of coronavirus (SARS-COV-2). The virus appears to have originated in Hubei Province in China towards the end of 2019.

Most cases of COVID-19 have resulted from human-to-human transmission. This virus appears to spread readily through respiratory, fomite or faecal methods. The average incubation period is estimated to be 5–6 days, but may be as long as 14 days. The virus can persist on selected surfaces up to 72 hours.

Effects on the general population

The large majority of people with COVID-19 will only experience mild or moderate flu-like symptoms, including cough, fever, nausea, myalgias (muscle aches), diarrhoea, shortness of breath and muscle pain. More severe manifestations include pneumonia, acute respiratory distress syndrome and septic shock. Thrombotic complications and cardiac dysfunction have also been reported.

Effects on the mother

Research is currently underway to investigate the impacts of COVID-19 infection on pregnant women. Data are limited, but at present there is no evidence that pregnant women are at higher risk of severe illness compared with the general population. However, international experience of COVID-19 in pregnancy has shown that women in the third trimester of pregnancy, women from Black, Asian and minority ethnic groups, those over the age of 35 and those with pre-existing medical problems, may be more at risk of becoming unwell and requiring admission to hospital. These women should be pay particular attention to following advice about social distancing to ensure they reduce the risk of infection where possible.

Regardless, due to changes in their bodies and immune systems, all pregnant women are vulnerable to the effects of respiratory infections. It is therefore important that they take precautions to protect themselves against COVID-19 and report symptoms of infection to health workers.

Effects on the fetus

For women who are trying to conceive, or who are in early pregnancy, there is no evidence to suggest an increased risk of miscarriage with COVID-19. Recent data suggest it is probable that the virus can be vertically transmitted, although the proportion of pregnancies affected and the significance to the neonate is yet to be determined. Currently, there is no compelling evidence that SARS-CoV-2 has teratogenic effects.

There are case reports of preterm birth in women with COVID-19, however these were largely due to iatrogenic early delivery.

Advice for pregnant women

General principles

Clinicians should educate all pregnant women on the symptoms of COVID-19. These include:

- Cough
- Fever
- Shortness of breath
- Sore throat
- Headache
- Diarrhoea
- Myalgias (muscle aches)

All pregnant women should be issued with general infection prevention and control (IPC) advice as per Box 1. Most importantly, they should stay home where possible and maintain a physical distance from others. This includes avoiding community meeting places such as markets and churches.

Symptomatic women

If women develop symptoms of COVID-19, they should:

- Self-isolate for 2 weeks to avoid transmitting the virus to others
- Attend the health centre or hospital only if they are concerned about their health and wellbeing or suspect they are in labour
- Continue to observe the IPC advice in Box 1
- Wear a mask whenever they might come in contact with others

Box 1. General infection prevention and control (IPC) advice for pregnant women, staff and community members

- Perform hand hygiene regularly using alcohol-based hand rub (preferred if your hands are clean) or soap and water (preferred if your hands are visibly dirty)
- Avoid touching your eyes, nose and mouth
- Maintain a physical distance – the WHO recommends to sit or stand at least 1m away from others
- Cover your mouth and nose with your elbow when sneezing or coughing
- Wear a surgical mask if directed by healthcare workers

A useful video on applying masks is available at: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/when-and-how-to-use-masks

Advice for health services

General principles

All pregnant women, including those with confirmed or suspected COVID-19 infection, have the right to high quality care before, during and after childbirth. The World Health Organization (WHO) advises that "Women's choices and rights to sexual and reproductive health care should be respected regardless of COVID-19 status, including access to contraception and safe abortion to the full extent of the law."

Similarly, healthcare workers have a right to safety and protection at work. Health services can support patients and staff by preparing as much as possible for the COVID-19 pandemic. Most importantly, this includes developing IPC processes and ensuring an adequate supply of PPE.

Hospitals and healthcare centres remain the safest places for women to give birth due to the availability of facilities and the presence of trained medical and midwifery staff.

Preparing maternity services for COVID-19

Health services can prepare maternity services for the COVID-19 pandemic by:

- Using a checklist approach to ensure that hospitals and health facilities have a comprehensive plan for the pandemic, including disease containment strategies and the development of surge capacity.
- Providing clear communication and guidance to staff regarding operational processes and IPC procedures
- Designating isolation spaces for the assessment and management of suspected and confirmed cases
- Ensuring there are sufficient supplies of relevant equipment, such as oxygen concentrators and cylinders
- Facilitating collaboration between hospital departments (e.g. emergency, medicine, anesthetics and paediatrics) to enable multi-disciplinary team-based care (MDT) and regular meetings
- Practice COVID-19 maternity simulation scenarios which are designed to assess health services workflow and requirements for managing maternity cases and emergencies.

Advice for health services

Reducing transmission in the workplace

Healthcare workers are at higher risk of becoming infected with COVID-19. This risk can be reduced by patients, staff and community members following the IPC advice in Box 1 above.

Health services can further minimise nosocomial transmission by:

- Limiting the number of women attending the hospital. This can be achieved by:
  - Increasing the time interval between antenatal appointments (if safe to do so)
  - Diverting low-risk pregnant women to other services and clinics
  - Conducting consultations for low-risk women via other means such as telephone (telehealth) or online messaging services
- Reducing the number of women sitting together at clinics
  - Increasing the time interval between antenatal appointments (if safe to do so)
  - Consider using a waitlist or ticket system
- Limiting visitor numbers in the hospital
- Ensuring there are sufficient supplies of PPE and staff are trained in its use
- Providing clear and practical guidance to staff

In addition to the advice above, healthcare workers should be instructed to:

- Wear PPE as per local and WHO guidelines
- Clean equipment and surfaces to an appropriate standard
- Avoid sharing kitchenware such as cups and mugs
- Not bring food and drink into clinical areas

Advice for clinicians

General principles

General guidance on the management of patients with COVID-19 in resource-limited settings has been published by other organisations and is not reproduced here. Testing indications, management principles and IPC requirements are the same for pregnant women as the general population. WHO advises an oxygen saturation target of ≥ 92–95% for any pregnant woman with active infection.

If COVID-19 is suspected or confirmed, health workers should take precautions to reduce risks of infection to themselves and others. Where possible, all pregnant women with suspected or confirmed COVID-19 infection should be in isolation. WHO advise that all women with suspected COVID-19 or those who must spend time in isolation should have access to woman-centred, respectful and skilled care and psychological support maintained. This applies to both the antenatal and postnatal periods.

Wherever possible, clinicians should try and maintain usual standards of care. Although there is likely to be an overwhelming number of patients with COVID-19, staff should remember to consider differential diagnoses and other care needs. It is important to provide continuity in maternity services, and remain focused on the usual causes of neonatal and maternal morbidity.

An effective way of addressing demands for care is to integrate specific COVID-19 procedures with usual processes. An example of a flow chart for the management of women with suspected COVID-19 is provided in Figure 1.

Experience to date suggests that women may be at increased risk of intimate partner violence during the COVID-19 pandemic. Clinicians should consider how they can assess and mitigate risks for pregnant women.

Antenatal

Women should attend a hospital or health centre when necessary. Routine antenatal care, including vaccinations for influenza and pertussis, should continue, but may require some modifications.

The United Nations Population Fund (UNFPA) recommends maintaining the existing standard of at least 8 antenatal appointments, but has published a revised schedule.

All women attending the clinic should undergo screening for symptoms of COVID-19. Any woman meeting case definition criteria should wear a mask and be physically isolated from other patients.

When women attend clinic, they should be advised to sit at least 1 metre away from other women (ideally in a well ventilated space, such as an outdoor area or large verandah).

Routine ultrasound assessment to assess fetal growth and wellbeing is not recommended as part of the immediate management of unwell women with COVID-19. If ultrasound is performed, the machine must be decontaminated (cleaned thoroughly) after use. The probe, cords and keypad must be wiped down using general-purpose detergent and water.

There is no evidence to suggest that steroids given for fetal lung maturation cause any harm in the setting of COVID-19. Steroids should therefore be given where indicated. As is always the case, urgent delivery should not be delayed for their administration.

Pregnant women with COVID-19 requiring admission should be managed in an isolation ward by a multidisciplinary team with obstetric input. Nurse all patients using contact plus droplet precautions, ideally in a single room. If a single room is not available, patients should be positioned at least 1 metre away from others with the curtains drawn.

Timing of birth

For patients requiring induction of labour (IOL) or an elective caesarean section, an individual assessment should be made regarding the urgency of the delivery:

- Consider delaying the elective caesarean birth or IOL for women with suspected or confirmed COVID-19. That said, the risks and benefits of delivery of the fetus need to be assessed against the mother's condition, and it may be necessary to proceed even in the setting of maternal infection.
- In cases where elective caesarean birth or IOL cannot safely be delayed, optimal management of the patient's respiratory condition should be implemented and the case discussed with the MDT.

Advice for clinicians

Intrapartum period

The pregnant woman with confirmed or suspected COVID-19 should wear a surgical mask at all times. All healthcare workers caring for the woman should wear appropriate PPE. This includes gloves, apron, gown, a fluid resistant N95 mask and a visor.

COVID-19 positive labouring women should deliver in a designated isolation area within or nearby the main birthing suite or labour ward. This is essential to ensure they have access to midwives and doctors, and continue to receive appropriate birth supervision. Progress and assessment during labour should be managed using standard processes and local guidelines.

International guidelines recommend that labouring women with confirmed or suspected COVID-19 should be offered continuous electronic fetal monitoring (via CTG). This is an appropriate strategy when CTG is available.

Given the association of COVID-19 with acute respiratory distress syndrome, the fluid balance of women with moderate-severe symptoms of COVID-19 should be closely monitored. Aim to achieve a neutral fluid balance in labour and minimise IV fluids wherever possible.

Despite the need to limit visitors to hospitals, clinicians should continue to support birth companions to accompany labouring women who are suspected or confirmed to have COVID-19. All birth companions should be screened for respiratory symptoms prior to entering clinical areas. A safe approach is to assume that birth companions are at higher risk of asymptomatic SARS-CoV-2 infection and should therefore be managed with the same IPC precautions as the pregnant woman.

Mode of birth

There is currently no evidence in favour of one mode of birth over another. For this reason, the mode of birth should not be influenced by the presence of COVID-19, unless the woman's respiratory condition demands urgent delivery. Normal vaginal delivery should be encouraged unless there are other indications otherwise.

At present, there are no recorded cases of vaginal secretions testing positive for SARS-CoV-2.

Caesarean sections

Caesarean sections should only be performed when medically justified using usual obstetric indications.

There is no evidence that spinal analgesia or anaesthesia is contraindicated in the presence of COVID-19.

General anaesthesic with intubation is an aerosol-generating procedure and puts the health staff at great risk of COVID-19 infection, so should be avoided.

Following a caesarean section, women should be provided analgesia such as paracetamol, ibuprofen and usual post-operative care; however staff must wear PPE when managing these women.

Instrumental birth

Instrumental birth may be required if the woman becomes extremely short of breath during second stage.

Analgesia

There is limited information regarding the use of nitrous oxide in labour. Concerns relate to cleaning, filtering, and potential aerosolisation in the setting of COVID-19. Given these considerations, we advise a cautious approach i.e. that nitrous oxide should not be routinely provided to women who are defined as suspected, probable or confirmed for COVID-19 infection. If nitrous oxide is used in this setting then all exposed staff should wear appropriate PPE, as determined by the local health jurisdiction. Nitrous oxide may still be offered to women at low risk of COVID-19, as deemed appropriate by the midwife.

Advice for clinicians

Postpartum period

Immediate postpartum

Delayed cord clamping

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.

Skin-to-skin

Mothers and infants should remain together and practice skin-to-skin contact. Whether or not the woman has suspected or confirmed COVID-19, rooming-in throughout the day and night should continue, especially immediately after birth during establishment of breastfeeding.

Breastfeeding

The benefits of breastfeeding outweigh any potential risks of transmission of the virus through breastmilk.

Breastfeeding women should be advised to:

- Practice respiratory hygiene, including during feeding
- Use a medical mask if they have respiratory symptoms such as being short of breath
- Wash hands thoroughly with soap or sanitiser before and after contact with baby
- Routinely clean and disinfect any surfaces

Vaccinations

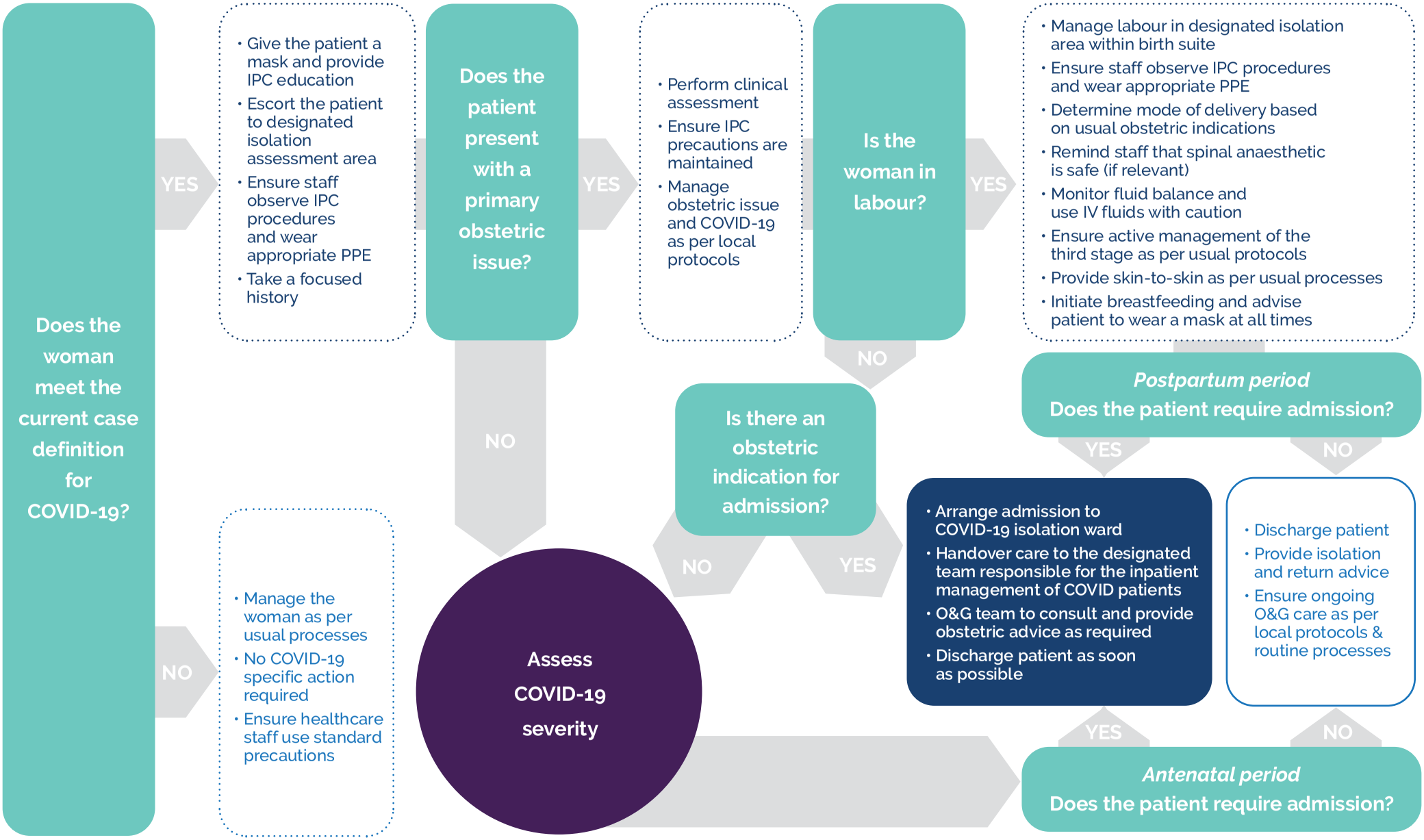
Routine neonatal vaccinations should be given as per the national guidelines.

Ongoing postpartum care

Women with confirmed or suspected COVID-19 must wear a mask at all times while caring for their baby and in the presence of others. All health care workers caring for the woman should use appropriate PPE.

Ideally, patients requiring inpatient admission should be transferred to the isolation ward along with their baby, and managed by a MDT with obstetric input.

RANZCOG assessment & management of pregnant women with suspected or confirmed COVID-19



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