Clinical Practice Guideline COVID-19 Care in Maternity
Peninsula Care Goal Safe

Target Audience

This guideline is applicable to all Administrative staff, Midwives, Nurses, General Practitioners, GP Obstetricians, Obstetrics & Gynaecology HMOs, Registrars and Consultants, Paediatricians, Anaesthetists, Theatres, Outpatient Services area

Purpose

This document is intended to provide guidance for clinicians of Peninsula Health who are caring for pregnant women during the COVID-19 pandemic. The advice is based on a review of the limited and evolving evidence regarding COVID-19 in pregnancy, current expert recommendations, and is intended as a supplement to standard practice.

The priorities are the provision of safe, patient-centred care to women during the COVID-19 pandemic, and the reduction of transmission to protect patients, families and health care staff. Information may be updated as new evidence becomes available. Staff are encouraged to review the guideline regularly for updates, which may also change dependent on community transmission.

This guidance refers to patients as 'woman' or 'mother' throughout. These terms should be taken to include people who do not identify as women, but are pregnant or have given birth.

Background

Origins and Epidemiology

Novel coronavirus (SARS-CoV-2) is the strain of coronavirus causing COVID-19, and was first identified in Wuhan City, China, in 2019. Other human coronavirus (hCoV) infections have been documented and cause a variety of symptoms ranging from mild to severe. The three most pathogenic and lethal hCoV infections are Severe Acute Respiratory Syndrome (SARS-CoV), Middle East Respiratory Syndrome (MERS-CoV), and now SARS-CoV-2 or COVID-19[i]. SARS-CoV-2 is the first hCoV to cause a global pandemic.

SARS-CoV-2 infection can be asymptomatic or symptomatic. Although often a mild infection, its ability to infect the lower respiratory tract may cause more severe illness resulting in acute lung injury, respiratory distress, septic shock, multi-organ failure and death[ii].

SARS-CoV-2 now has four documented strains or variants of concern. The delta variant, which appears to be the most transmissible, is also associated with more severe disease in both pregnant and non-pregnant adult populations[iii].

Transmission

Although some hCoV infections can be linked to animal sources, most current global cases of COVID-19 are related to direct human-to-human transmission[iii]. The most common source of transmission is respiratory droplets or secretions, though contact with contaminated surfaces, faeces and fomites (objects) may also pose a risk.

Whilst pregnant women are no more likely to be infected with SARS-CoV-2, their risk of severe illness is higher, and therefore minimising the risk of transmission is crucial.

Vertical transmission (from mother to baby antenatally or intrapartum) is rare, and does not appear to be affected by mode of birth, delayed cord clamping, skin to skin contact or method of feeding. In addition, keeping the woman and baby together (rooming in) does not increase the risk of transmission to the neonate, as long as appropriate infection control measures are followed[iv, v, vi].

Transmission of antibodies against COVID-19 across the placenta has been shown following both maternal infection and maternal vaccination. Immunoglobulin G (IgG) has been

detected in umbilical cord blood samples[vii], and appears to increase the longer the duration between infection and delivery. This suggests a degree of passive immunity to the neonate. Antibodies against SARS-CoV-2 have also been detected in cord blood of a COVID-naïve mother who received a single dose of mRNA vaccine just three weeks prior to delivery[viii]. Further data is awaited to confirm the impact on neonatal immunity.

Effects of COVID-19 on Pregnant Women

- Mild – Moderate illness

The majority of women infected with SARS-CoV-2 will be asymptomatic. Of those women who are symptomatic, most will experience only mild or moderate cold/flu-like symptoms.

The PregCOV-19 systematic review[ix] assessed 192 studies including over 65 000 pregnant women with suspected or confirmed COVID-19 infections worldwide (reported prior November 2020). The review found an overall rate of COVID-19 infection in pregnant or recently pregnant women attending or admitted to hospital for any reason of 10%. The most common symptoms included cough (41%) and fever (40%). Less frequent symptoms included dyspnoea (14%), myalgia (15%), loss of taste (11%) and diarrhoea (6%).

Similarly, a USA based cohort study[x], which is currently ongoing, the PRIORITY (Pregnancy CoRonavirus Outcomes RegisTry) study, reported the most prevalent symptoms to be cough (20%), sore throat (16%), myalgia (12%) and fever (12%). Of the 594 symptomatic pregnant women, 25% reported persistent symptoms for 8 or more weeks after onset.

It is not yet known how pregnancy will influence the persistence of symptomatic disease, or so-called 'long COVID'. NICE has produced a rapid guideline outlining the care of individuals who develop long-term effects of COVID[xi].

- Severe illness

Although the majority of COVID infections are asymptomatic or mild, pregnant women are at significantly higher risk of severe illness and associated maternal and neonatal morbidity. Whilst studies are ongoing, there is a trend toward increased ICU admissions in the pregnant population infected with COVID-19[iii]. This may relate to a lower threshold for ICU monitoring and intervention in pregnant women, but likely also reflects the additional resuscitative requirements owing to physiological changes of pregnancy[iii].

Studies in the UK and USA indicated the following risk factors for severe illness and hospital admission[iii]:

- Black, Asian or other minority ethnic (BAME) or Aboriginal and Torres Strait Islander backgrounds
- Lower socioeconomic status
- BMI of 30 or more
- Pre-pregnancy comorbidities eg. Diabetes and chronic hypertension
- Advanced maternal age of 35yrs or older
- Increased exposure risks eg. Healthcare workers, public facing roles
- Third trimester of pregnancy

Most recent hospital admission data in Victoria[xii] suggests that pregnant women infected with COVID-19 are at risk of the following:

- 5x more likely to be admitted to hospital
- 2x more likely to have a stillbirth
  1:3 require oxygen therapy
  1:7 require ICU admission
  1:2 require emergency delivery
  1:2 require caesarean section
  1:4 require preterm delivery (usually iatrogenic for benefit of maternal care)

Women with symptomatic COVID-19 are more likely to require iatrogenic preterm delivery for the purpose of optimising maternal resuscitation[viii]. Although there may not be a direct implication of the infection on the neonate, perinatal mortality and long-term morbidity risk is increased as a result. Asymptomatic infection does not increase the risk of preterm birth.

Reports also suggest that COVID-19 increases the risk of a fetus being small for gestational age[xiii], [xiv]. This supports findings of previous studies assessing pregnant women infected with SARS-CoV-2. Although neonatal intensive care unit admission and length of stay may be increased, this appears largely related to gestational age at birth. Most term neonates infected with COVID-19 have a good outcome[iii].

Although rare, COVID-19 infection in pregnancy is also associated with an increased risk of both stillbirth and maternal death[viii]. Causality for the increase in stillbirth is yet to be determined, however may be related to impaired placentation. This is supported by an increased risk of CTG abnormalities in labour in women requiring oxygen supplementation[iii]. Fetal monitoring should therefore be prioritised.

COVID Vaccination in Pregnancy

COVID-19 vaccination is considered to be safe and effective. Vaccination reduces the risk of hospitalisation and severe infection, with 98% of women admitted to hospital being non-vaccinated[iii].

Given the increased risks of COVID-19 in pregnant women, vaccination is recommended at any time of pregnancy or pregnancy planning, including during fertility treatment. It is ideal for two doses of the vaccine to be administered prior to the third trimester to mitigate the risks of maternal and neonatal morbidity.

Whilst mRNA vaccination (Pfizer or Moderna) is the current recommended vaccination in pregnancy, Astra Zeneca is also considered safe, and women who have received AZ prior to conception can complete their second dose with either the AZ vaccine or the Pfizer if they prefer.

It is imperative that women are counselled with up to date evidence of the risks v benefits of COVID vaccination relative to their personal circumstances and community transmission risk. Informed decision-making is vital regarding vaccination in pregnancy. Further information can be found here – https://www.health.gov.au/news/joint-statement-between-ranzcog-and-atagi-about-covid-19-vaccination-for-pregnant-women.

The proven benefits of vaccination include:

- Reduction in severe maternal disease and hospitalisation
- Reduction in risk of preterm birth associated with COVID-19 infection
- Reduction in transmission of COVID-19 to vulnerable household members
- Potential reduction in the risk of stillbirth associated with COVID-19
- Passive antibody transfer to the neonate to potentially protect against COVID-19

Women should be educated regarding possible risks and side effects of vaccination:

- Minor local reaction eg. pain, redness, rash or swelling at the injection site
- Mild short-lived systemic illness eg. fatigue, myalgia, headache (at similar or lower rates than non-pregnant women)[xv].
- Thrombotic adverse events (AZ) and Myocarditis (Pfizer) are extremely rare
- There is no evidence of infertility, miscarriage or fetal malformations

Vaccination is safe when breastfeeding and should be encouraged as per local guidance.

Health Service Response

The Victorian Department of Health and Human Services (DOH) has defined four risk ratings with associated Health Service responses. https://www.DoH.vic.gov.au/victorian-health-service-guidance-and-response-covid-19-risks

1. COVID Ready (Green) – low risk
2. COVID Alert (Amber) – moderate risk
3. COVID Active (Red) – high risk
4. COVID Peak (Black) – very high risk

The Women's, Children and Adolescent Health service has a COVID-Step plan for each of these risk profiles to support staff to provide care that is safe for both consumers and staff (Appendix 3).

COVID CONSIDERATIONS IN A WOMAN'S PREGNANCY JOURNEY

GENERAL ADVICE FOR STAFF

- The COVID-19 pandemic is likely to continue for some time and health care services and workers need to be prepared to care for COVID positive patients
- All staff are recommended to receive the COVID vaccination not only for their personal protection, but also to reduce the risk of transmission amongst vulnerable women and newborns
- Staff are required to complete mandatory PPE training and refresh donning and doffing procedures to maintain their proficiency. Please refer to PPE application and removal procedures Course: PPE (Personal Protective Equipment) (phcn.vic.gov.au)
- Spotters should also be used wherever possible within the WHU to minimise the risk of PPE failures
- Spotters are mandatory to support staff providing care for a COVID positive patient. In the absence of a readily available spotter, staff should escalate to the PSM, Operations and Clinical Director and if required Executive on Call.
- All staff should be fit tested for appropriate N95 masks. A fit check should be performed after donning an N95 each time.

PLANNED ANTENATAL CARE

Advice for All Women:

- Maternity care remains a priority and women should be reassured that attending the hospital for pregnancy care remains safe
- Consideration should be made to support social distancing through the use of Telehealth where clinically appropriate – see CPG Telehealth in Maternity
- Antenatal care and investigations should continue as per the above guideline
- Women and their partners should be encouraged to have a COVID-19 vaccination at any point of their pregnancy or pregnancy planning
- Women and their partners should also be encouraged to have influenza and whooping cough vaccinations as routine. This should be two weeks separate to COVID vaccination.
- At COVID Peak women and their partners will be asked to undertake weekly asymptomatic COVID swabbing from 36 weeks gestation
- At COVID Active and Peak all women and partners will be asked to undertake asymptomatic COVID swabs prior to elective induction or caesarean section or on arrival to WHU for assessment or when in labour
- Patients and staff should monitor the DOH website for community risk, restrictions

and exposure sites
- Women and their families should be encouraged to report, swab and isolate if they have any symptoms of COVID-19 as per usual DOH recommendations
- All women should be encouraged to call the Women's Health Unit (WHU) triage midwife on 9784 7959 if they have any concerns about their pregnancy or baby
- It is important to acknowledge the significant impact that the COVID-19 impact has had on maternal mental health. All women and their partners should be screened at each review for evolving mental health concerns and directed to appropriate clinical and support services as needed

<u>Advice for women with Suspected or Confirmed COVID-19:</u>
- Women who are isolating due to pending swabs, contact tracing or confirmed COVID-19 can continue to access antenatal care via Telehealth
- If a Face to Face (F2F) appointment is missed due to isolation, a catch up F2F review will be arranged once cleared following isolation, swabs and/or DOH
- Investigations eg. OGTT and ultrasound, should be delayed until DHSS clearance
- Care plans should be escalated to senior medical staff for all patients with a new diagnosis of suspected or confirmed COVID-19 as soon as they are identified.
- Women with confirmed COVID 19 to be proactive in seeking exemption for support person attendance from both DOH and Peninsula Health executive

Suspected COVID-19 precautions:
- Women who are isolating due to exposure risk and/or pending swabs and who require in person antenatal care can still access F2F assessments with appropriate PPE. This excludes women with confirmed COVID-19 (see below)
- Escalation to senior medical staff is paramount to assess risk v benefit of review:
    - Women should first call the Pregnancy Assessment Unit Triage ANUM on 9784 7959 for advice
    - The midwife should escalate to the duty obstetric team and identify whether the woman can remain at home, attend the antenatal clinic or present to the PAU (see below)
    - If an antenatal clinic F2F review is needed:
        - Women should call the clinic from their car on arrival
        - Women should be met at the doorway of the outpatient services building by a clinician in appropriate Tier PPE
        - Women should don a surgical mask
        - Women should be taken directly to an allocated outpatients isolation room and should not sit in the waiting area
        - Women should be seen as late in the day as possible to reduce exposure to other patients and facilitate deep cleaning of the assessment space and all equipment used
        - Partners should not attend the review with the patient and can listen in via Telehealth if needed

Confirmed COVID-19 precautions
- Women with confirmed COVID-19 infection must be referred to the Peninsula Health Complex Pregnancy Care (CPC) Clinic
- The CPC clinicians will provide antenatal care and if required liaise with Monash Maternal Fetal Medicine Unit
    - Patients will be also offered to consent to participate in the Coronavirus Health Outcomes in Pregnancy and Newborns (CHOPAN) Registry led by Mercy Perinatal to gather outcome data to inform ongoing healthcare
- Women who are isolating and well:

  - Antenatal care will continue via Telehealth with all planned investigations delayed until released by DOH
  - Patients will be under the surveillance and care from the Peninsula Health Covid Positive Pathways team
  - Patients will receive weekly Telehealth appts from CPC
  - F2F appointments will resume fortnightly from release from isolation – this will be maintained in CPC for the remainder of the pregnancy
  - Women may be required to obtain a home blood pressure and oxygen saturation monitor to assess their observations at home. If required this will be provided by the Peninsula Health Covid Positive Pathways team
- Women who cannot delay F2F antenatal clinic review:
  - High risk patients who cannot delay planned antenatal care must be escalated CPC consultant
  - If a woman requires regular F2F review or ultrasound for monitoring that cannot be delayed until after isolation, this will be coordinated by the CPC consultant, Peninsula Health Fetal Monitoring Service or the radiology department.

UNPLANNED OR URGENT CARE IN THE PREGNANCY ASSESSMENT UNIT

<u>Advice for All Women:</u>

- Women with no concern of suspected or confirmed COVID-19 should continue to receive standard unplanned antenatal care
- Prior to 16 weeks, women should present to the Emergency Department
- After 16 weeks, women should call the WHU Triage midwife on 9784 7959 for advice

<u>Advice for women with Suspected or Confirmed COVID-19</u>

Suspected COVID-19 precautions:

- Women who are isolating due to exposure or who are screen positive should call the WHU Triage midwife for advice prior to leaving their home
- The midwife should escalate to the AMUM and Obstetric Registrar for guidance
- Women should be advised to attend via private transport where safe
- If an ambulance is required, the emergency services call handler should be informed that the woman is currently in self-isolation for suspected COVID-19
- Women should call the WHU Triage midwife from their car on arrival to the hospital
- The midwife providing care to the patient should meet the patient at the main hospital entrance in Tier 3 PPE
- The woman and support person should be provided with a new surgical mask (not N95)
- The woman will be escorted to the maternity unit. If a lift is required, the PSM should be contacted immediately to arrange a deep clean prior to further use.
- Women should be immediately escorted to a designated isolation room in the maternity unit to be screened and assessed for care
- Only essential staff should enter the room and visitors should be kept to a minimum
- A deep clean should be completed after the woman has been assessed and discharged from the assessment space

Confirmed COVID-19 precautions:

- Women who are isolating due to confirmed COVID-19 who have concerns about themselves or their baby should call the WHU Triage midwife for advice
- The midwife must escalate to the AMUM and Obstetric Registrar for a plan
- If a F2F urgent assessment is required, the Obstetric Registrar should escalate to the consultant on call to notify them of the clinical concern

- Women should be advised to attend via private transport where safe
- If an ambulance is required, the emergency services call handler should be informed that the woman is currently in self-isolation for suspected COVID-19
- Women should call the WHU Triage midwife from their car on arrival to the hospital
- The midwife providing care to the patient should meet the patient at the main hospital entrance in Tier 3 PPE
- The woman and should be provided with a new surgical mask (not N95)
- Any support person accompanying the woman in labour who is in isolation or also COVID positive is not permitted to attend the hospital unless they have DOH exemption **and** an exemption from Peninsula Health Executive to attend WHU with the woman. If an exemption is obtained, the support person must be in Tier 3 PPE at all times.
- The woman will be escorted to the maternity unit. If a lift is required, the PSM should be contacted immediately to arrange a deep clean prior to further use.
- Women should be immediately escorted to a designated isolation room in the maternity unit to be screened and assessed for care
- Only essential staff should enter the room and visitors should be kept to a minimum
- A deep clean should be completed after the woman has been assessed and discharged from the assessment space

INPATIENT, LABOUR AND BIRTH CARE

Advice for All Women:

- Women with no concern of suspected or confirmed COVID-19 should continue to receive standard inpatient, labour and birth care
- Women and their partners / support people should be screened during triage phone call or on arrival using the hospital COVID-19 screening questionnaire
- Depending on DOH risk level, Women and their partners / support people may be asked to have a COVID swab prior to or on admission to the hospital. This relates to all unplanned admissions, planned inductions and elective caesarean sections.
- Visiting hours and regulations will vary depending on DOH risk level. Women should be directed to the Peninsula Health Website for up to date restrictions
- Any support person must wear a surgical mask during their time in the hospital.

Advice for women with Suspected or Confirmed COVID-19

Suspected COVID-19 precautions:

- If a woman or their partner is screening questionnaire positive, or is currently isolating due to exposure risk, they must be treated as suspected of COVID-19 until a negative swab is returned
- Recommendations for appropriate Tier PPE will be dependent on DOH risk level and should be reviewed regularly
- Designated isolation rooms on the WHU will be used to minimise exposure risk
- Staff exposure should be limited by having the same staff designated to providing patient care to patients with suspected COVID-19 infection.
- Support people may remain with the patient, but will need to wear appropriate PPE (surgical mask) and cannot leave the patient room
- If a patient is admitted and requires emergency obstetric care, the first priority is in isolating the patient and donning appropriate PPE. Obstetric care should then be escalated as clinically indicated, and should not be delayed to await swab results
- If a patient is planned for induction of labour or elective caesarean section and is awaiting swab results, a multidisciplinary discussion should be had regarding the option of delaying planned delivery until COVID status is known.
- There are some situations where pregnancy symptoms may overlap with symptoms

of COVID-19, leading to clinical confusion. In such cases, senior medical advice should be sought from both the Obstetric consultant and ID COVID consultant on call
- As the estimated incubation period is up to 14 days, staff should be aware of the possibility of an infected woman developing symptoms later in their admission
- In the event of new onset respiratory symptoms or unexplained fever of >/= 38 degrees, women should be treated as newly SCOVID and the same precautions taken until swab results are available. Senior medical staff must be notified.
- It is recognised that this may lead to a substantial number of women being treated as SCOVID. This should not delay the administration of therapies that would usually be given eg. IV antibiotics if clinical suspicion of bacterial infection

Confirmed COVID-19 precautions:
- Care must occur in a designated COVID-19 birth room (Room 25 or 26)
- In the event that a COVID 19 positive woman is admitted to a designated COVID ward or intensive care unit, care will be planned within a multidisciplinary team to ensure birth occurs in the right setting with the appropriate clinicians and support.
- Tier 3 PPE must be worn by all staff (N95, shield, gown and gloves)
- At minimum a designated spotter and, if possible, runner to be allocated to the COVID birth room
- Swipe cards and other personal equipment (Pens, stethoscope etc.) cannot be used to remove the risk of transmission via fomite. Staff will log on all PH systems via login and password (no touch on). Equipment such as pens, stethoscope, thermometer etc. will be designated to remain in COVID rooms.
- Paper documentation will be kept to a minimum – only the neonatal resuscitation form and theatre packs should be used in the COVID birth rooms. All other documentation will occur on K2 and Clindocs (EMR)
- Air scubbers must be used in all birth rooms with COVID positive women
- The midwife providing direct care to the COVID positive women cannot come in and out of the room to obtain medications and supplies. These must be requested and prepared by staff and passed into the room via the spotter. The midwife preparing medications will ensure that all vials remain in the kidney dish so that the administering midwife in the COVID birth room can undertake another check.
- To obtain equipment in the birth room the COVID midwife will either call the AMUM or knock on the door and wait for the Spotter to open the door to receive the request.
- Women should wear a surgical mask only if able to be tolerated
- All health care staff caring for known COVID positive patients must “COVID ready’ - defined as fully vaccinated and fit tested
- Staff should be limited to minimise exposure risk – this should include allocation at the commencement of the shift to “COVID ready” staff including a senior midwife, the Obstetrics Registrar and Obstetrics Consultant
- All staff caring for a COVID patient will need to undergo mandatory surveillance testing in line with Dept of Health guidelines which is weekly combined throat and nasopharyngeal COVID PCR test and 3 times a week saliva testing.

Escalation:
- On admission of a COVID positive woman to WHU, the following staff are to be notified:
    - The duty anaesthetic consultant.
    - Theatre ANUM
    - Paediatric registrar and Consultant
    - Special Care Nursery
    - PSM
    - IPACU

- On call COVID ID Consultant
- Early escalation to ICU liaison staff should be considered if a patient is symptomatic or deteriorating.

Support people in labour:

- Support people who are symptomatic, in isolation, or COVID-19 positive should remain at home and not attend the birth suite with the woman unless they have a DOH **and** Peninsula Health Executive exemption to attend
- Women should prepare an alternative birth support person who is asymptomatic and COVID-19 negative. Such support people must wear Tier 3 PPE and have proof of double vaccination. These support people should be advised that attendance at the birth will render them a primary close contact and they will need to notify DOH and undertake the required period of mandatory quarantine.
- All support people will be screened and swabbed on arrival, and will need to remain in the birthing room at all times and go directly home following birth.

Monitoring in labour:

- Full maternal assessment should be conducted including observations (heart rate, respiratory rate, oxygen saturation, temperature)
- Continuous electronic fetal monitoring using electrocardiograph (CTG) is recommended due to the risk of placental impairment in symptomatic women
- Continuous maternal oxygen saturation monitoring is recommended to ensure oxygen supplementation is not required. Saturations of >94% should be maintained throughout active labour
- Fetal scalp electrodes should be considered if there is any difficulty obtaining a good quality CTG recording to minimise the need for sustained close contact between the woman and midwife to adjust the ultrasound transducer.
- Fetal blood sampling can be utilised if clinically indicated as the risk of vertical transmission is low[iii]
- If the woman has signs of sepsis, this should be investigated as per the usual recommendations for sepsis in pregnancy - http://prompt.phcn.vic.gov.au/Search/download.aspx?filename=17862791\17863549\50230342.pdf

Pain relief in labour

- Women should be encouraged to consider an early epidural to avoid the use of Entonox, reduce aerosol generating behaviours and the need for a general anaesthetic in the setting of an emergency birth
- Entonox can be used if the woman is declining an early epidural– current Entonox tubing used at Peninsula Health contains an appropriate viral filter

Management of the birth

- Mode of birth should not be influenced by the COVID-19 alone
- There is a documented increased risk of caesarean births in women with COVID-19, for both maternal and fetal factors
- Water birth cannot be supported with women who have suspected or confirmed COVID 19
- In the case of maternal deterioration, the obstetric consultant on call should make an individual assessment regarding the risks v benefits of continuing with labour versus preceding to an instrumental birth or emergency LUSCS
- A shortened second stage may be considered in the setting of worsening symptoms or hypoxia
- Decisions for transfer to theatres should be made in a timely manner, given the increased time required for appropriate preparation of staff and facilities.

- If a caesarean section is required, the consultant obstetrician should perform the surgery to reduce the operative time and exposure of theatre staff
- In the event of a Code Pink or Obstetric Emergency, donning PPE takes priority over all action even if this results in a delay in care. The delay to birth and potential risks should be communicated to the woman and their support person during the consenting process
- Delayed cord clamping and skin to skin are safe and should be supported where safe

Neonatal emergency at birth

- Staff should be encouraged to consider early escalation for paediatric attendance at births or an early rapid response call to minimise delays caused by donning PPE.
- Viral filters must be fixed to the ventilation circuit in COVID positive birth rooms
- Ward neonatal trolleys should not be taken into rooms with COVID positive women where possible. Small emergency boxes should be used and consideration for additional staff to run between spotter and staff in the COVID birth suite.
- The placenta is considered infectious and should be swabbed and sent for histopathology with clear documentation of COVID-19 status
- Placental encapsulation and taking the placenta home is not recommended
- The CPC Senior Registrar and Consultant must be notified of any COVID-19 positive patients admitted or birthing at Peninsula Health
- Clinical care should be in accordance with the Treatment of COVID positive woman CPG

POSTNATAL CARE

- COVID positive woman will be allocated beds 18, 19,20, 21, 22, 23 and 24 and ideally only one woman per room unless multiple woman require admission.
- Women with suspected COVID should be allocated within this hub but not in a shared room with a known COVID positive woman.
- Documentation: all paper documentation will remain outside of the woman's room. Minimal documentation is to occur on care pathways with daily shift summary on Clindocs. All observations will remain on the MOC chart. WOWs will remain in the rooms with women and not be taken in and out of the COVID space.
- Partners and support persons are not allowed to visit while the woman remains an inpatient
- On discharge notify Midwifery Home Care and IPACU, and depending on the course of illness, Community Care for ongoing monitoring of COVID.

NEONATAL CARE

- Routine precautionary separation of mother and baby is not required, provided appropriate infection control measures are taken in the room
- Immediately post birth, the mother should perform hand hygiene, don a surgical mask and be supported to perform skin to skin contact
- Breastfeeding:
    - Breastfeeding should be encouraged if that is the mothers plan
    - When breastfeeding, women should:
        - Wash their hands before touching the baby, breast pump or bottles
        - Wear a face mask
        - Use a dedicated breast pump if pumping at the hospital
- All babies born to COVID-19 positive mothers should have appropriate close monitoring and early involvement of the paediatric team
- Diagnostic testing for COVID-19 should only be completed for babies of mothers who are confirmed COVID-19 positive if a baby is symptomatic

Admission to Special Care Nursery (SCN) – baby remains with mother

Where possible late preterm and small for gestational age babies should remain with their mother to avoid separation. Other relatively well babies who may be stable but require additional care such as IV antibiotics may also remain with the mother under the care of SCN nurses if the Paediatric consultant is satisfied that it is safe to do so. These patients will be nursed 1:1 by SCN nursing team and staff allocated to facilitate this.

Admission to Special Care Nursery (SCN)

Under certain circumstances a baby of a COVID positive mother may need to be admitted to SCN. These may include:

- Ongoing resuscitation or stabilisation following birth
- Ongoing resuscitation following birth requiring PIPER transfer to a tertiary service
- <32 weeks gestation and/or <1500g or condition requires tertiary service eg bile vomiting for investigation
- Prematurity or small for gestational age
- Unwell or unstable requiring close observation and nursing care

Other potential considerations:

- Baby of COVID positive mother in ICU
- Baby of COVID positive mother removed from maternal care eg) child protection orders

Transfer to SCN

- Minimal staff should be used to transfer baby to SCN, all wearing Tier 3 PPE, utilise a ‘clean’ spotter to open lift / doors
- If staff from birth suite / theatre are accompanying baby they will transport the baby in the same PPE and change after transfer is completed.
- Babies will be transferred from either birth suite or theatre via main front door of SCN into Isolation room to minimise risk to other patients on the ward. Equipment used to transfer baby should returned to WHU for immediate cleaning and not left in SCN
- If respiratory support is not required, baby should be transferred in closed transport isolette.
- We currently do not have equipment to transfer baby in transport isolette and receive respiratory support at the same time therefore these babies will at this stage require transfer on resuscitaire.

Care in SCN

- All babies of suspected or COVID positive mothers to be cared for in the isolation room. This room is not a negative pressure room, door must remain closed.
- All nursing / medical staff must care for baby in Tier 3 PPE with spotter allocated to outside isolation room where possible.
- There is a designated resuscitaire in the isolation room for use during stabilisation or procedures
- Dedicated cardiorespiratory monitoring, a stethoscope and thermometer will remain in room. Other equipment to be minimised and only taken into room as required.
- Ward neonatal resuscitation trolleys should not be taken into the Isolation room with babies of COVID positive women. Small emergency boxes should be used instead. Cleaning and restocking of these boxes will be undertaken by SCN nurse following use.
- In the event of an extensive resuscitation, a runner or a 'clean' member of SCN nursing team maybe be required to obtain the required equipment or drugs and handover to team in the isolation room.
- Paper documentation will be kept to a minimum – only the neonatal resuscitation form to be taken into room
- All babies are to be nursed in an isolette
- Air scrubbers should be positioned in the room
- Patient is to be nursed 1:1 to protect other patients in SCN
- Dispose of used equipment in yellow clinical waste bag and ensure appropriate cleaning of equipment is undertaken if required.

IPaCU consultation

Any baby of a suspected or confirmed COVID-19 mother admitted to SCN should be discussed with IPaCU on a case by case basis.

Visiting to SCN

If a parent / carer has suspected or confirmed COVID-19, they will be unable to visit their baby in SCN until their isolation period has been completed. Parents and caregivers who are separated from their baby are to have video access. iPads will be used to facilitate mother baby bonding. Additional psychosocial support for families may be required.

Breast milk feeding

Midwives in WHU will support mothers to express breast milk during the time of separation. A dedicated breast pump will be provided for these mothers.

Isolation and diagnostic testing

- Newborn infant born to mother who has suspected or confirmed COVID-19 and requires SCN admission due to non-COVID-19 reasons such as prematurity such be monitored for development of signs and symptoms of COVID-19. Diagnostic testing should only be performed if mother is confirmed positive **and** baby is symptomatic
- Symptoms may be non-specific and include lethargy, feed intolerance, apnoea and bradycardia, respiratory distress, tachycardia or in severe cases shock or severe respiratory distress
- Clinicians should consider if additional investigations are required to guide care such as FBE, CRP, blood cultures, other respiratory virus screening, chest / abdo x-ray, LFTs
- If COVID-19 is excluded in mother, isolation and all precautions can be ceased if mother is asymptomatic and not in a period of self-isolation. If mother is in a period of

self-isolation, precautions continue until this time is complete

- If COVID-19 is confirmed in mother, baby is classified as close contact. The baby must remain in isolation (either with mother in WHU or in SCN) with precautions for a period of 14 days or until they meet usual criteria for discharge home or transfer to Midwifery Home Care or N-HITH. Peninsula Health Community Care should be informed for continuity of COVID care in the community.
- If COVID-19 is confirmed in baby, they must remain in isolation until medically fit for discharge, isolation may need to continue at home. PH Community Care should be informed for continuity of COVID care in the community.

Escalation of care: Airway management

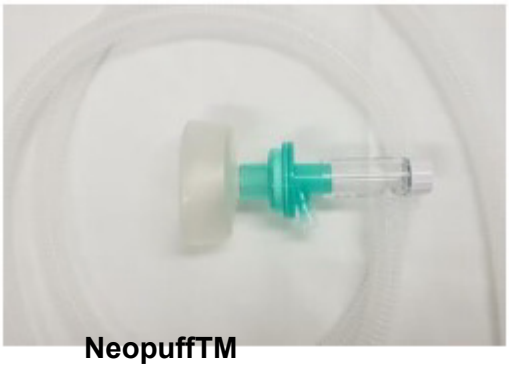
Transmission of COVID-19 is mainly though droplet spread. These droplets may cause direct transmission from close contact or contribute to surface contamination. Certain aerosol generating procedures (AGP) may result in virus containing particles being suspended in air and being inhaled increasing risk of transmission. Airway management is therefore a high risk procedure for healthcare workers and staff safety should be paramount. (add in ref Monash Health). Full Tier 3 PPE including face shield must be worn for airway management and the AGP listed below:

Aerosol generating procedures/events

- Coughing/sneezing/excessive crying/vomiting
- Non-invasive ventilation or positive pressure ventilation
- Ventilation via face mask
- Tracheal intubation / extubation
- Guedel or Laryngeal Mask Airway insertion / removal
- Cardiopulmonary resuscitation
- Oropharyngeal or tracheal suction or changing suction systems
- Minimally Invasive Surfactant Therapy (MIST)
- Nasogastric / orogastric tube insertion

Respiratory devices

The HME filter should be placed on the respiratory device for any suspected or confirmed COVID-19 case.



NeopuffTM

Bubble CPAP

Babylog 8000*Plus*

Hamilton Ventilator

PIPER transfers

In the event that a PIPER transfer is required, it must be clearly communicated to the PIPER team on the primary referral phone call that this is a baby of COVID positive or suspected COVID positive mother.

Transfer back to mother

If baby is well enough to be transferred back to mother then this should be facilitated and isolation can continue with mother if required.

Discharge home

- Once baby is medically fit they should be discharged home with either Midwifery

Home Care or N-HITH with clear communication regarding if baby/family are in isolation or if baby tested positive to COVID-19. Peninsula Health Community Care may need to be notified for continuity of COVID care in the community.

- Patient centred discharge care planning may need to be implemented to meet needs of each family should they have been separated from their baby for duration of admission

N-HITH

- Initial phone calls to obtain as much information as possible prior to visit. The N-HITH can complete the review ensuring appropriate Tier 3 PPE. Two RNs must attend the visit with one acting as a runner/spotter for donning and doffing. N-HITH nurse should spend a minimal time in the home to allow for weighing of baby, SBR, head to toe or assessment of feeding if there are weight gain or feeding issues only
- Consider utilising telehealth to minimize time in home, increasing the frequency of consults for reassurance and to ensure adequate care
- All fleet cars must be stocked with full PPE, including appropriate disposal bags and cleaning supplies. All equipment must be thoroughly cleaned after each use
- Clear communication to MCHN on discharge from N-HITH care regarding COVID-19 status of family

Discharge planning for COVID-19 positive women

- Any COVID-19 positive woman must be medically cleared prior to discharge into the community. A discharge summary must be completed prior to the patient exiting the hospital and provided to the patient.
- IPACU and the Peninsula Health Community Care must be notified of discharge to ensure continuity of COVID care in the community.
- A clear plan for MHC and MHITH visits must be included in discharge planning
- The woman's general practitioner should be contacted and forwarded the discharge summary ensure continuity of care
- The woman may be required to complete quarantine according DOH directives

Midwifery Home Care (MHC) and Maternity Hospital in the Home (MHITH) visits

- MHC and MIHTH home visits will continue for low risk women during the COVID-19 pandemic. All women should be advised to expect a phone call from the MHC or MHITH staff on the day of their proposed visit
- Midwives should check the patient's most recent swab status and complete a new screening questionnaire prior to attending a home visit
- A midwife will Telehealth the patient either by phone or video
    - If the patient is not contactable, the midwife should continue to attempt contact and document the outcome, instructing women to contact the MHC service to reschedule
- If COVID-19 is suspected or confirmed on screening:
    - The midwife should escalate to the MHC AMUM/MUM to determine if the visit can be postponed until isolation is completed or a negative result returned
    - If the visit can be postponed, or it is deemed unsafe to visit the woman, complete a Telehealth review of mother and baby and ensure the woman is safe and is aware of when to call for assistance
    - If the visit cannot be postponed (eg. SBR due, inadequate weight gain, deteriorating mental health) then the MHC midwife can complete the review ensuring appropriate Tier 3 PPE. Two midwives must attend the visit with one

acting as a runner/spotter for donning and doffing
- All MHC or fleet cars must be stocked with full PPE, including appropriate disposal bags and cleaning supplies. All equipment must be thoroughly cleaned after each use.
- If a woman is having Telehealth in replacement of face to face review, consider increasing the frequency of consults for reassurance and to ensure adequate care until a face to face visit can be completed

Key Aligned Documents

Infection Prevention and Control Program Policy

Routine Pregnancy Care

Telehealth in Pregnancy

COVID-19 CS for Suspected or Confirmed COVID-19

COVID Step Plan

Evaluation

VHIMS and feedback will be used to evaluate this CPG

Keywords

COVID-19, pregnancy, antenatal, postnatal, intrapartum, labour, birth infection

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