Queensland Clinical Guidelines

Translating evidence into best clinical practice

Maternity and Neonatal **Operational Framework**

COVID-19: Operational framework for maternity and neonatal services

Queensland Government

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Cultural acknowledgement

We acknowledge the Traditional Custodians of the land on which we work and pay our respect to the Aboriginal and Torres Strait Islander elders past, present and emerging.

Disclaimer

This guideline is intended as a guide and provided for information purposes only. The information has been prepared using a multidisciplinary approach with reference to the best information and evidence available at the time of preparation. No assurance is given that the information is entirely complete, current, or accurate in every respect.

The guideline is not a substitute for clinical judgement, knowledge and expertise, or medical advice. Variation from the guideline, taking into account individual circumstances, may be appropriate.

This guideline does not address all elements of standard practice and accepts that individual clinicians are responsible for:

- Providing care within the context of locally available resources, expertise, and scope of practice
- Supporting consumer rights and informed decision making in partnership with healthcare practitioners, including the right to decline intervention or ongoing management
- Advising consumers of their choices in an environment that is culturally appropriate and which enables comfortable and confidential discussion. This includes the use of interpreter services where necessary
- Ensuring informed consent is obtained prior to delivering care
- Meeting all legislative requirements and professional standards
- Applying standard precautions, and additional precautions as necessary, when delivering care
- Documenting all care in accordance with mandatory and local requirements

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Abbreviations

PPE	Personal protective equipment
SHECC	State Health Emergency Co-ordination Centre
SMS	Short messaging service

Definitions

COVID-19	Disease ranging from mild illness to severe pneumonia caused by the SARS-CoV-2 virus
SARS-CoV-2	A coronavirus that causes COVID-19
Isolation	Separates COVID-19 positive people who are ill from those that are healthy including other patients, healthcare workers, other family members, visitors and the community. Self-isolation at home for people with mild symptoms (and tested positive) should strictly avoid contact with other household members and must remain in their home (unless medical care is required).
Quarantine	Used to restrict the movement of a well person who may have been exposed to COVID-19 for the period when they could become unwell (duration 14 days for COVID-19), intended to prevent the spread of disease. Self-quarantine at home for well people who have been exposed to COVID-19 should avoid contact with other household members and must remain in their own home (unless medical care is required).

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1 Introduction

COVID-19 is caused by novel strain of coronavirus (SARS-CoV-2) affecting humans. Some coronaviruses can cause illness similar to the common cold, and others can cause more serious diseases such as Severe Acute Respiratory Syndrome (SARS)[1] and Middle East Respiratory Syndrome (MERS). Understanding of the behaviour of COVID-19 is still developing.

Screening and containment measures have been successful in slowing the spread of the virus and provided a small window of time for preparation of our response.

Early modelling suggests that up to 60% of the population could be impacted with the majority of cases (possibly more than 80%) mild. However, this still means potentially very large numbers of severe and critical cases based on these projections. The first wave of illness at scale is projected to come 10 weeks after person to person transmission in the community begins. For Queensland, this period will likely overlap with winter planning and flu season and is currently predicted to last 10–20 weeks. COVID-19 is moderately severe in the general population but highly transmissible.

Changes to a woman's body during pregnancy include reduced lung function, increased cardiac output, increased oxygen consumption and changes to the immune system. These changes mean that pregnant women have an increased risk of severe complications from influenza.[2] Immunosuppression of pregnancy may impact severity of symptoms caused by respiratory viruses. There are mixed reports about high fevers during the first trimester of pregnancy increasing the risk of certain birth defects.[3-6] There is no outcome data available about early pregnancy exposure, and limited evidence in women with COVID-19 during late pregnancy to provide definitive guidance.

Current evidence is based on limited case studies and should be interpreted with caution, however:

- Pregnant women with COVID-19 do not appear to become more severely unwell than the general population[2]
- There is no evidence demonstrating *in-utero* (vertical) transmission. Very few cases of vertical transmission of COVID-19 are anticipated[1,2]
- There is no evidence demonstrating transmission by breastfeeding or giving expressed breast milk. [1,2] Antibodies to coronaviruses have been identified in breastmilk

2 Framework for maternity and neonatal service

Table 1. Framework

Aspect	Consideration
Service provision	• Continue to provide clinically indicated: o Access to antenatal, intrapartum and postnatal care for women with and without COVID-19 o Access to neonatal care • Consider alternative means, for example teleconference, home visits
Consideration	• Follow local pandemic plans • Co-ordinate with hospital and health service response • Collaborate with infection control and infectious diseases specialists regarding isolation • Consultant early with intensive care specialists for women needing high dependency care
Supplies, equipment and consumables	• Be aware of supply chain problems due to the global impact of the situation Develop management strategies for the increased demand of routine consumables • Follow local protocols regarding supply and access to personal protective equipment (PPE) • Co-ordinate high dependency care resources (e.g. high flow oxygen meters, monitors) with other services within health facility
Human resources	• Plan for: o Staff being unavailable due to respiratory infection or social reasons o Staff requiring self-quarantine o Increased demand for staff with specialist skills o Casual/locum workforce depleted or not available • Education and training requirements o Provide up to date training regarding the care of COVID-19 patients o Consider skill mix of staff for usual maternity care and provide appropriate support and training
Communication	• Provide staff and patients with consistent, timely and up to date information • Promote social distancing and healthy lifestyle measures for staff and pregnant women • Provide information as becomes known • Acknowledge evolving circumstances, uncertainty and impact on staff and patients

3 Principles for maternity and neonatal care

3.1 Capacity management for maternity and gynaecological services

Table 2. Capacity management

Aspect	Consideration
High volume screening	• Commence hospital avoidance for antenatal care for low risk pregnant women • Consider requirements for high volume screening of women on presentation to hospitals including: o Direct entry to birth suites and pregnancy assessment units/obstetric review centres o Via emergency departments
Antenatal care	• Reduce hospital based outpatient services for low risk women in anticipation of medical and midwifery services focussed on high risk outpatient and inpatients • Establish pathways to redirect low risk women to community based antenatal care, (e.g. general practitioner, community midwifery)
High risk obstetrics	• Continue services and focus (potentially limited) workforce on provision of high risk services
Birthing services	• Continue services • Maximise access for privately practising midwives (credentialled) and general practitioner-obstetricians
Postnatal services	• Continue inpatient services as clinically necessary • Redirect postnatal care to community based midwifery care where possible (e.g. home visits)
Obstetric theatres	• Consider use relative to demand • Maintain emergency obstetrics capacity • Consider impact of theatre infection control procedures on theatre availability • Consider infection control requirements when operating on confirmed or suspected COVID-19 positive patients
Elective gynaecology services	• Reduce elective gynaecological services
Hospital isolation	• Establish isolation capacity for women (and their babies) with suspected or confirmed COVID-19 requiring hospital admission for maternity or other clinical care including: o Antenatal clinics o Pregnancy assessment units o Birth suites o Inpatient wards–antenatal, postnatal, gynaecology o Peri-operative suites o Neonatal units • Develop local protocols for management of women requiring inpatient or urgent outpatient care • Refer to Queensland Health coronavirus (COVID-19) guidelines[7]

3.2 Considerations for providing care

Table 3. Care provision

Aspect	Consideration
Screening and triage	• Develop local screening and triaging protocols for inpatient and outpatient care, including community based clinics • Follow current Queensland Health recommendations for screening and testing patients for COVID-19
Woman with suspected or confirmed COVID-19 risk	• If woman has a fever advise attendance at facility fever clinic • Provide separate area for triage and assessment • Follow Queensland Health recommendations[8] for managing women with COVID-19 risk requiring inpatient care and isolation o Consider urgency of care required (obstetric and non-obstetric)
General enquiries	• Prepare appropriate responses for questions, (e.g. visiting, risk to baby)
Hospital avoidance	• If clinically appropriate, avoid woman with suspected or confirmed COVID-19 coming to hospital • Triage and screen for pregnancy related concerns (e.g. by phone, short message service (SMS), telehealth) before presentation
Clinical environment	• Notify clinical area of women's anticipated presentation • Prepare for women requiring inpatient or specialist outpatient care o Consider clinical condition • Provide PPE following local protocols
Inpatient care	• Prepare for possible admissions of COVID-19 positive women requiring either medical or maternity care • If in labour admit woman directly to birth suite • If woman requires immediate emergency management (caesarean section) admit directly to obstetric theatre • Develop local communication protocols for notifying relevant teams of woman's admission, e.g. neonatal unit, neonatologist/paediatrician, operating room suite • Refer to Queensland Clinical Guideline: *Perinatal care for suspected or confirmed COVID-19 in pregnancy*[9]

3.3 Models of care

Table 4. Models of care

Aspect	Consideration
Home visiting	• Consider whether visits are necessary or can be delayed • Consider consultations using telehealth, SMS, phone • Plan home visits based on risk management for woman and personnel involved • If COVID-19 risk identified during or after home visiting patient follow Queensland Health guidelines regarding the use of PPE and other procedures (e.g. self-quarantine) to minimise the risk of transmission
Community clinics	• Consider appointment scheduling to avoid groups of patients waiting • Set up waiting room to ensure social distancing (1.5 metre distance from others) • Advise women to arrive on time (not early) for appointment • Advise women at risk or confirmed COVID-19 not to attend o Advise to phone ahead and present for care at hospital as advised by doctor or midwife
Self-quarantine and self-isolation	• Recommended where inpatient admission or other maternity care is not clinically necessary o Follow current recommendations and advice[10,11] • Postpone routine antenatal care for 2 weeks if it safe to do so

3.4 Staffing and workforce

Consider workforce management relative to surge demand and exposure risk of staff.

Table 5. Workforce

Aspect	Consideration
Absenteeism	• Additional skilled staff will be difficult to recruit, and a significant absenteeism rate can be expected • Commence any additional recruitment as soon as possible
Re-deployment of staff	• Re-deploy pregnant staff with underlying health condition, or 28 weeks gestation or more to services with low risk of exposure o If less than 28 weeks gestation avoid working in high risk areas (e.g. intensive care/high dependency unit, operating room suite)[12] o Follow human resources department guidance • For clinical staff not currently providing frontline services, consider re-introduction to frontline services and clinical skills training as required • Consider redeploying staff whose usual roles (e.g. elective surgery and some outpatients) are suspended or reduced as part of the response, to non-specialist settings • Consider redeploying non-front line clinician roles (e.g. educators, patient safety officers, project officers) to support clinically
Upskilling	• Commence upskilling of existing staff who may be required to be redeployed to meet surge demand
PPE training	• Ensure all staff attend PPE training provided by Hospital and Health Service (HHS) • Access online training provided by Queensland Health[7]
Self-quarantined staff	• If well, consider use in supporting clinical services remotely
Alternative models	• Consider capacity of public provided community based service with respect to redirecting low risk antenatal care to community sites and/or community based service providers • Alternative staffing models with reduced numbers of medical and nursing staff should be developed
Support	• Make staff aware of employee assistance provider information and contact details • Make use of available technology to check in on staff wellbeing and help maintain connection to workplace[8]

3.5 Neonatal care

Table 6. Neonatal care

Aspect	Consideration
Principles	• If baby is well co-locate with mother o If possible, provide care in mother's room (e.g. intravenous (IV) antibiotics) • Establish capacity to facilitate temporary separation of mother and baby if required • Consider relative to surge demand and individual case: o Home quarantine under care of capable relative o Isolation within neonatal nursery • Provide closed incubator to transfer baby between departments • Carry out any procedures in single room with minimal staff • Consider early discharge
Neonatal nursery	• If admission is clinically indicated, follow usual infection control and PPE guidelines • Consider baby as a contact only unless proven COVID-19 positive

3.6 Visitors to maternity and neonatal units

Table 7. Visitors

Aspect	Consideration
Protocol	• Develop local protocol for managing visitor access, including essential support persons only for women in labour (e.g. spouse, partner) • Visitors with suspected risk or confirmed COVID-19 not to visit until negative swab or completed self-quarantine period o Consider visiting for compassionate reasons on case by case basis
PPE	• Provide as required

4 Role of Statewide Maternity and Neonatal Clinical Network (SMNCN)

- Advising Queensland Health on maternity and neonatal related strategy in the COVID-19 response
- Assisting State Health Emergency Co-ordination Centre (SHECC) on request
- Communicating maternity and neonatal specific issues to Queensland Health and SMNCN members

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