Preventing Transmission of COVID-19 to neonates

Intra-uterine transmission of the SARS-CoV-2 virus from a COVID-infected woman to fetus can occur via the placenta. However, this is an uncommon event, estimated to occur in 1-3% of mothers who have COVID-19 around the time of delivery. Postnatal transmission of COVID-19 to neonates is more common, thus requiring more focused efforts to prevent COVID-19 infection in neonates.

Breastfeeding is encouraged with appropriate precautions. SARS-CoV-2 is not transmitted through breastmilk. Postnatal transmission is via respiratory droplets and close contact.

Current data (Table 11 Total Hospitalizations, ICU admissions and deaths (ever) among COVID-19 cases in Alberta by age group) suggests that the population under 1 year of age has comparable rates of severe COVID-19 (e.g., hospitalization and ICU admission) as older adult age groups. It is important that neonates are protected from infection, and that preventive strategies are employed in the hospital and in the home environment.

Guiding Principles

Preventing COVID-19 transmission to neonates is a priority. Early breastfeeding and skin-to-skin contact should be encouraged, using appropriate precautions. Each NICU environment may not be able to accommodate COVID-19 positive parents/caregivers due to lack of private rooms and the general layout of the unit. As such, site-specific accommodations may need to be used. There may be site-specific measures that need to be considered in addition to what is outlined in this provincial guidance document.

CARE OF WOMAN

### Woman has core respiratory/loss or change of smell or taste/gastrointestinal symptoms:

1. **Testing**: COVID-19 test for woman. Contact IPC if positive.
2. **Isolation precautions**: [Modified Respiratory Precautions](#)
3. **PPE for neonate providers**: [Modified Respiratory Precautions](#); if neonate is anticipated to need resuscitation, neonatal team to wear an N95 respirator

### Woman is close contact of confirmed or probable COVID-19 case with or without symptoms for COVID:

1. **Testing**: COVID-19 test for woman if symptomatic. Contact IPC if positive.
2. **Isolation precautions**: [Modified Respiratory Precautions](#); woman is considered a probable case if a close contact and is symptomatic
3. **PPE for neonate providers**: [Modified Respiratory Precautions](#); if neonate is anticipated to need resuscitation, neonatal team to wear an N95 respirator

### Woman has expanded symptoms only, no risk factors for COVID:

1. **Testing**: COVID-19 test for woman. Contact IPC if positive.
2. **Isolation precautions**: Routine Practices
3. **Neonate**: Use [Modified Respiratory Precautions](#) until COVID-19 test result for woman is available. If negative and alternative diagnosis is determined for woman’s expanded symptoms then isolation for neonate can be discontinued

### Woman associated with a facility outbreak:

Assess Risk

[Uncertain or possible risk](#) – put on [Modified Respiratory Precautions](#)
[No or low risk](#) – Routine Practices

For neonate management – see page 2
# CARE OF NEONATE

## Woman is COVID-19 negative

1. **Testing:** No need to test neonate unless symptoms develop
2. **Isolation precautions:** Routine Practices for neonate

## Woman is COVID-19 positive or pending result

1. **Testing:** Test neonate at 24 hours of life; if neonate positive, repeat COVID-19 test at 24-48 hours from initial test in case of maternal contamination: if any neonate swabs are positive, notify IPC
2. **Isolation precautions:** [Modified Respiratory Precautions](#) for neonate

## Neonate’s first 24-hour swab is POSITIVE

### If neonate is discharged

1. **Testing:** Provide close community follow-up; If neonate becomes symptomatic, assess and collect specimen(s) for Respiratory Pathogen Panel and COVID-19 and other investigations as appropriate

### If neonate remains in NICU

1. **Testing:** Repeat COVID-19 test for neonate 48 hours from initial test.
2. **Isolation precautions:** [Modified Respiratory Precautions](#) for neonate
3. **Consult:** Contact IPC for additional advice after repeat swab results are known

## Neonate’s first 24-hour swab is NEGATIVE

### If neonate is discharged

1. **Testing:** No testing required at this stage: advise family to seek care in the community if infant develops COVID-19 symptoms

### If neonate remains in NICU

1. **Testing:** Repeat COVID-19 test 48 hours from initial test to clarify COVID-19 status, or sooner if new/worsening respiratory/gastrointestinal symptoms develop
2. **Isolation precautions:** If neonate has had postnatal contact (e.g. breastfeeding, skin to skin contact/kangaroo care, irrespective of masking) with a woman/DFSP who is COVID-19 positive or probable, place neonate on [Modified Respiratory Precautions](#) for 14 days; woman is considered a probable case if a close contact and is symptomatic
3. **Consult:** Contact IPC for additional advice

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**IPC may update this guidance on a case by case basis as more clinical information becomes available**

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COVID-19 Guidance for Family Presence in the NICU for DFSPs & Visitors

Guidance is meant to ensure the safety of the baby by preventing COVID-19 transmission, however; there may be potential harm to the DFSP/Visitor and neonate by not allowing family presence. **Safe maternal presence can be supported with appropriate precautions.**

A. DFSPs & VISITORS WHO ARE ASYMPTOMATIC

1. General Assumptions/Considerations:
   1.1. Daily detailed symptom screening should ideally be taking place prior to the visit, e.g., by phone prior to visiting the hospital and prior to entering NICU.
   1.2. DFSPs/Visitors/siblings should be ASYMPTOMATIC = no symptoms - any one or more of the following: new or worsening cough, shortness of breath [SOB], sore throat, loss or altered sense of taste/smell, runny nose/nasal congestion, fever/chills, fatigue [significant and unusual], muscle ache/joint pain, headache, nausea/diarrhea are considered symptomatic.
   1.3. DFSP/Visitor/sibling could become symptomatic at any time during the visit – they should be encouraged to notify staff if symptoms develop. Refer to sections 2.7 and 2.8 below.
   1.4. Depending on surge in specific Zones or sites, there may be additional guidance for visitation that is applicable [COVID-19 Family Support & Visitation of Patients | Alberta Health Services].
   1.5. Vaccination of DFSPs/Visitors/siblings is encouraged and recommended. This IPC Guidance does not differ based on vaccination status of the DFSPs/Visitors.

2. General Guidance
   2.1. The number of adult individuals that can be accommodated at the bedside will be determined by the layout and other factors by individual NICUs, but will be limited to 2 at a time.
   2.2. Neonatologist and team should support DFSPs/Visitors/siblings at the bedside within NICU defined restrictions.
   2.3. The legal guardians/parents are the primary DFSPs for the infant. They may designate additional DFSPs to act on their behalf. Only the legal guardian/parents will determine who can visit the infant. All visitors must be accompanied by a DFSP. The total number of different DFSPs and Visitors shall be six per family, excluding siblings.
   2.4. Siblings may visit, accompanied by a DFSP but must be able to maintain the masking requirement.
   2.5. Staff are required to use appropriate PPE when supporting parents at the bedside. Currently, continuous masking is required in all intensive care settings.
   2.6. The ASYMPTOMATIC DFSP/Visitor/sibling must wear a mask at all times (no removal) during the visit, perform hand hygiene appropriately, and maintain 2 meters distancing from other patients/parents/guardians. No eating or drinking is permitted during the visit. The breastfeeding mother will need to leave the NICU area to have a drink.
   2.7. As COVID-19, can transmit during the pre-symptomatic period, DFSP is to be advised of different exposure risks to the baby depending on the interaction during the visit.
   2.8. At the earliest onset of any symptoms, DFSP/Visitor should be directed to leave the hospital by the most direct route. The DFSP/Visitor/sibling should be excluded from NICU while symptomatic.
   2.9. If the DFSP/Visitor develops symptoms or tests positive for COVID-19 within 48 hours of visiting:
      - Risk to HCW and other patients may be negligible, and therefore, may not be considered an exposure by WHS or IPC if appropriate measures are in place.
      - If there was close contact between parent/guardian and baby irrespective of masking, the baby may be considered exposed. Call site IPC to determine action.

B. BABIES WHO HAVE BEEN EXPOSED BUT NOT DFSPs (eg. Hospital Exposure)

1. IPC should be contacted to provide guidance on DFSPs visit precautions to mitigate any potential exposure risk to parents.
2. DFSP is to be advised of different exposure risks to themselves depending on the interaction during the visit (e.g. baby remaining in isolette compared with breastfeeding or kangaroo care).
3. DFSPs may be directed to use appropriate PPE when supporting their exposed babies at the bedside. The use of gowns, gloves, mask and eye protection may decrease the risk of exposure to the DFSPs during a visit. Unit staff should provide assistance and instruction with donning and doffing of PPE for the DFSPs.

C. PARENTS WHO ARE SYMPTOMATIC OR ARE POSITIVE FOR COVID-19

1. In most cases, symptomatic or COVID-19 positive DFSPs/Visitors/siblings are, to be excluded from the NICU to minimize exposure to patients, other parents and staff. There may be some circumstances where IPC would advise different arrangements.
2. DFSPs/Visitors/Siblings who are COVID-19 positive are not permitted to enter the NICU, for at least 5 days from symptom onset or positive COVID-19 test, and when symptoms have resolved, whichever is later, plus 5 days of continuous masking.
3. Please contact site IPC to provide guidance on facilitating family presence in extenuating circumstances.
4. If a baby has COVID-19 and the parent/guardian also has COVID-19, then the parent/guardian can stay with the baby, 24/7 if there is an appropriate private room and nearby dedicated washroom to support the parent stay.