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 16 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

<table>
<thead>
<tr>
<th>Woman has core respiratory/loss or change of smell or taste/gastrointestinal symptoms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Testing</strong>: COVID-19 test for woman. Contact IPC if positive.</td>
</tr>
<tr>
<td>2. <strong>Isolation precautions</strong>: Contact &amp; Droplet Precautions</td>
</tr>
<tr>
<td>3. <strong>PPE for neonate providers</strong>: Contact &amp; Droplet Precautions; if neonate is anticipated to need resuscitation requiring AGMP, neonatal team to replace surgical/procedure mask with N95 respirator.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Woman is close contact of confirmed or probable COVID-19 case with or without symptoms for COVID:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Testing</strong>: COVID-19 test for woman if symptomatic. Contact IPC if positive.</td>
</tr>
<tr>
<td>2. <strong>Isolation precautions</strong>: Contact &amp; Droplet Precautions; woman is considered a probable case if symptomatic</td>
</tr>
<tr>
<td>3. <strong>PPE for neonate providers</strong>: Contact &amp; Droplet Precautions; if neonate is anticipated to need resuscitation requiring AGMP, neonatal team to replace surgical/procedure mask with N95 respirator.</td>
</tr>
</tbody>
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<tr>
<th>Woman has expanded symptoms only, no risk factors for COVID:</th>
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<tbody>
<tr>
<td>1. <strong>Testing</strong>: COVID-19 test for woman. Contact IPC if positive.</td>
</tr>
<tr>
<td>2. <strong>Isolation precautions</strong>: Routine Practices</td>
</tr>
<tr>
<td>3. <strong>Neonate</strong>: Use Contact &amp; Droplet 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.</td>
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<th>Woman associated with outbreak in community or workplace:</th>
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</thead>
<tbody>
<tr>
<td><strong>Assess Risk</strong></td>
</tr>
<tr>
<td>Uncertain or possible risk – put on Contact &amp; Droplet Precautions</td>
</tr>
<tr>
<td>No or low risk – Routine Practices</td>
</tr>
</tbody>
</table>
CARE OF NEONATE

**Woman is negative**
- No need to test neonate unless symptoms develop
- Routine Practices for neonate

**Woman is positive or pending result**
- 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.

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

**If neonate is discharged**
- 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 is in NICU**
- Consult with IPC
- Repeat COVID-19 test 48 hours from initial test
- If neonate has had postnatal contact with COVID-19 positive woman/designate support person, place neonate on Contact & Droplet Precautions for 14 days

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

**If neonate is discharged**
- 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 is in NICU**
- Consult with IPC
- Repeat COVID-19 test 72 hours from date of exposure to clarify COVID-19 status, or sooner if new/worsening respiratory/gastrointestinal symptoms develop
- If neonate has had postnatal contact with woman, place neonate on Contact & Droplet Precautions for 14 days

**Woman is negative**
- No need to test neonate unless symptoms develop
- Routine Practices for neonate

**Woman is positive or pending result**
- 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.

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

**If neonate is discharged**
- 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 is in NICU**
- Consult with IPC
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- If neonate becomes symptomatic, assess and collect specimen(s) for Respiratory Pathogen Panel and COVID-19 and other investigations as appropriate

**If neonate is in NICU**
- Consult with IPC
- Repeat COVID-19 test 72 hours from date of exposure to clarify COVID-19 status, or sooner if new/worsening respiratory/gastrointestinal symptoms develop
- If neonate has had postnatal contact with woman, place neonate on Contact & Droplet Precautions for 14 days
Guidance for Visitation in the NICU for Parents/Guardians with COVID-19 Exposure or Illness

A. PARENTS/GUARDIANS WHO ARE ASYMPTOMATIC AND ARE KNOWN CLOSE CONTACTS OF A COVID CASE

General Assumptions/Considerations:
1. Parents/Guardians are considered Designated Support Persons (DSP) (also known as Essential Family Care Providers (EFCP)).
2. Baby has not been exposed to COVID-19 and has not tested positive for COVID-19.
3. The unit has the infrastructure/environment to support the exposed and ASYMPTOMATIC parent/guardian to visit the baby in NICU without potentially exposing other babies and families. A minimum of 2 meters distance from any other patient/parent is required.
4. Guidance is meant to ensure the safety of the baby by preventing COVID transmission however; there may be potential harm to the parent/guardian and neonate by not allowing visitation.
5. ASYMPTOMATIC = no symptoms as per the AHS Acute Care COVID-19 Expanded Testing Algorithm (https://www.albertahealthservices.ca/assets/info/ppih/if-pnih-covid-19-expanded-testing.pdf)
6. Parent/guardian could become symptomatic at any time during the visit.
7. 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
8. Vaccination of parents/guardians is encouraged and recommended. This IPC Guidance does not differ based on vaccination status of parent/guardian

Guidance
1. There is already an existing Chief Medical Officer of Health Exemption for quarantined and isolated persons who have minor children that require medical care. (COVID-19: Acute Care Guidance for Parents/Guardians Accompanying Children (albertahealthservices.ca)
2. Daily detailed symptom screening should be taking place prior to the visit, e.g., by phone prior to visiting hospital and prior to entering NICU.
3. Parents/Guardians should be escorted from the hospital entrance to the unit and back to the entrance following the visit.
4. Neonatologist and team should approve and support parent/guardian at the bedside.
5. Staff are required to use appropriate PPE when supporting parents at the bedside. Mask and eye protection is recommended.
6. The ASYMPTOMATIC parent/guardian must wear 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.
7. Parent is to be advised of different exposure risks to the baby depending on the interaction during the visit (e.g. baby remaining in isolette minimizes exposure risk compared with breastfeeding or kangaroo care).
8. At the earliest onset of any symptoms, it is recommended that the parent/guardian be excluded from NICU and get tested for COVID-19.
9. If the parent/guardian develops symptoms or tests positive for COVID-19 within 48 hours of visiting the baby: Risk to HCW and other patients is negligible, and likely would not be considered an exposure by WHS or IPC if appropriate precautions are in place.
   - If there was close contact between parent/guardian and baby, the baby may be considered exposed and may need to be placed on contact and droplet additional precautions for 14 days.
   - Strategies can be used to minimize the risk of potential exposure e.g. the baby is kept in the isolette during the visit and parents are compliant with continuous masking and hand hygiene.

B. BABIES WHO HAVE BEEN EXPOSED BUT NOT PARENTS/GUARDIANS (eg. Hospital Exposure)

1. IPC should be contacted to provide guidance on parent/guardian visit precautions to mitigate any potential exposure risk to parents.
2. Parent is to be advised of different exposure risks depending on the interaction during the visit (e.g. baby remaining in isolette compared with breastfeeding or kangaroo care).
3. Parents/Guardians 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 parent/guardian during a visit. Unit staff should provide assistance and instruction with donning and doffing of PPE for the parent/guardian.

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

1. Symptomatic or COVID-19 positive parents/guardians are, in general, to be excluded from the NICU to minimize exposure to patients, other parents and staff.
2. Parents who are COVID-19 positive are not permitted to enter the NICU, in general, at least 10 days from symptom onset or positive COVID-19 test, or when symptoms have resolved, whichever is later. In the community setting, COVID-19 positive individuals may be permitted to stop isolating after five days in the community in accordance with Alberta Health requirements (Isolation and quarantine requirements | Alberta.ca) but this does not apply to NICU.

3. Please contact site IPC to provide guidance on facilitating visitation 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 if there is an appropriate private room and nearby dedicated washroom to support the parent stay.