



## Neonatal Management for 2019 Coronavirus Infection (Covid-19)

### SYMPTOMATIC NEWBORN

Newborn born to a mother with Confirmed or Suspected (PUI) COVID-19  
Or  
Exposed to Contact with Confirmed COVID-19

**DROPLET/CONTACT PRECAUTIONS**  
Staff to don Personal Protective Equipment

**Newborn SYMPTOMATIC**

- Admit to NICU in negative pressure room when available (private room with precautions if not)
- **DROPLET/CONTACT PRECAUTIONS**
- Any COVID-19 positive or PUI family cannot visit in NICU
- Supportive Care
- Investigations:
  - CBCD, CRP
  - COVID-19 NP swab – includes respiratory panel
  - Blood Culture as necessary
  - Chest x-ray with respiratory symptoms
  - Abdominal x-ray and LFT as needed
- Discuss feeding options with parents

Mother COVID-19  
**NEGATIVE**

Mother COVID-19  
**POSITIVE**  
Consult Paediatric ID for the Newborn

Newborn COVID-19  
**NEGATIVE**

Newborn COVID-19  
**NEGATIVE**

Newborn COVID-19  
**POSITIVE**

- Supportive care as required
- Reassess Droplet/Contact Precautions based on underlying disease

- Supportive care as required
- Consult Paediatric Infectious Disease
- Droplet/Contact Precautions for a minimum 14d
- Enhanced PPE for AGMPs
- Can be discharged home if well, with precautions\*
- Arrange routine 48-72 hour postnatal visit with droplet/contact precautions
- Public Health Referral at Discharge

- Supportive care as required
- Droplet/Contact Precautions for minimum 14d if remains in hospital
- Can be discharged home if well
- Arrange routine 48-72 hour postnatal visit
- Droplet/Contact Precautions
- Public Health Referral at Discharge

## **Contact with Newborn for Mothers with Suspected or Confirmed COVID-19 Infection**

Evidence so far indicates that COVID-19 is not transmitted to newborns during pregnancy (vertical transmission). The virus can be transmitted to the newborn after birth through contact and droplet methods. While early evidence suggests that newborns are not as severely affected by COVID-19 as adults, the data is limited. Infants (birth to 1 year) are more severely affected than older children. Caution is warranted.

The most effective way to minimize exposure for the newborn is to isolate the mother and other affected individuals (partner or other potential caregivers) from the newborn until they are asymptomatic or known to be COVID-19 negative by testing (if available).

The benefits of isolation need to be weighed against the risks. Isolation has benefits of minimizing the risk of transmission of COVID-19 to the newborn but the potential to interfere with mother/newborn attachment, and the successful establishment of breastfeeding. An informed choice needs to be made by parents between the options of continued contact despite the risks and isolation to optimize the chances of COVID-19 not being transmitted to the newborn.

- With Isolation the newborn will be cared for in a separate room from the mother and should be cared for by an unaffected caregiver (partner will likely be a risk as well).
  1. Mom should pump breast milk with careful attention to hygiene and cleaning of the pump and pump kit. The breast milk can be fed to the newborn by bottle by an unaffected caregiver.
  2. Alternatively, the newborn can be fed formula by bottle by an unaffected caregiver.
  3. Any contact with a COVID-19 positive caregiver and the newborn increases the risk of transmission.
- With contact the IPAC recommendation for well neonates, not in the NICU:
  1. Rooming in, skin to skin contact and breast feeding with precautions (good hand hygiene and mask).
  2. Mom puts on a clean mask and cleans her hands with alcohol-based hand rub before each contact with baby.
  3. Bassinette is kept more than 2 meters from mom's face if feasible at other times.
- For neonates in the NICU:
  1. COVID-19 positive parents will not be admitted to the NICU.
  2. In extenuating circumstances, access to infant for mothers who are COVID-19 positive and/or at-risk caregivers will be assessed on a case by case basis, taking into account the clinical status of the infant and the parent.

## **Feeding Infants Born to Mother with Confirmed or Suspected (PUI) COVID-19 Infection**

Breast milk is the best source of nutrition for most infants. There still remains many unknowns about COVID-19. For that reason, families should participate in the decision to use breastmilk for infant feeding with the support of their healthcare providers. The virus has not been shown to be present in breastmilk. It is preferable that a well, alternate caregiver feeds the baby. A consult to the Lactation Consultant is recommended, if available, to help assess and advise on infant feeding.

- **Asymptomatic near-term or term infants rooming with their mother**

The feeding options follow and are partially dependent on whether or not mom decides to isolate from baby.

1. **Breastfeeding**

Asymptomatic mother with confirmed or suspected infection should take all possible precautions to avoid spreading the virus to her infant, including performing proper hand hygiene, donning a face mask and considering a gown, when available. If a mother and newborn do room-in and the mother wishes to feed at the breast, she should put on a facemask, practice hand hygiene and gown before each feeding.

2. **Feeding expressed breastmilk by bottle**

If expressing breast milk with a manual or electric breast pump, the mother should don a face mask and wash her hands before touching any pump or bottle parts and follow recommendations for proper pump cleaning after each use. If possible, consider having someone who is well feed the expressed breast milk to the infant.

3. **Feeding infant formula by bottle**

For mothers too unwell to breastfeed or to express breastmilk with a breast pump and for mothers who have chosen formula to feed their infant, similar recommendations apply with donning of a face mask and appropriate hand hygiene before infant contact and feeding.

- **Preterm infants or symptomatic or asymptomatic near-term or term infants separated from their mother**

The feeding options are:

1. Breastfeeding

Can be initiated or resumed when both mom and infant are assessed to be well and the clinical status permits it. Breastfeeding should be done with mother performing proper hand hygiene, donning a face mask and considering a gown, when available, before each feeding.

2. Feeding expressed breastmilk by bottle or OG/NG

If expressing breast milk with a manual or electric breast pump, the mother should don a face mask and wash her hands before touching any pump or bottle parts and follow recommendations for proper pump cleaning after each use. If possible, consider having someone who is well feed the expressed breast milk to the infant.

3. Feeding donor breastmilk

For infants who qualify for donor breastmilk as per current NICU feeding guidelines.

4. Feeding infant formula

For mothers too unwell to breastfeed or to express breastmilk with a breast pump and also for mothers who have chosen formula to feed their infant.

During temporary separation, mothers who intend to breastfeed should be encouraged to express their breast milk to establish and maintain milk supply. If possible, a dedicated breast pump should be provided and kept in the room. Prior to expressing breast milk, mothers should don a face mask and practice appropriate hand hygiene. After each pumping session, all parts that come into contact with breast milk should be thoroughly washed and the entire pump should be appropriately disinfected per the manufacturer's instructions and unit policy.

#### References

1. Interim Considerations for Infection Prevention and Control of Coronavirus Disease 2019 (COVID-19) in Inpatient Obstetric Healthcare Settings  
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/inpatient-obstetric-healthcare-guidance.html>
2. COVID-19 – Recommendations for Management of Pregnant Women and Neonates with Suspected or Confirmed COVID-19, Toronto Region COVID-19 Hospital Operations Table
3. Wang L et al. Chinese expert consensus on the perinatal and neonatal management for the prevention and control of the 2019 novel coronavirus infection (First edition). *Ann Transl Med* 2020 | [http:// dx.doi.org/10.21037/atm.2020.02.20](http://dx.doi.org/10.21037/atm.2020.02.20)
4. Updated SOGC Committee Opinion – COVID-19 in Pregnancy  
<https://www.sogc.org/en/content/featured-news/Updated-SOGC-Committee-Opinion-%20COVID-19-in-Pregnancy.aspx>