Guideline for the Management of the Newborn Born to a Mother/Individual Who is a Confirmed or Suspected Case of COVID-19

June 10, 2021

This guidance is intended for health-care providers responsible for newborn care. It is based on known evidence as of April 13, 2021.

Contents

Summary of Key Changes in This Update

Version	Date	Summary of Changes
2	March 2021	Document title changed to reflect content more accurately.
2	March 2021	Disclaimer section added to provide general context and consistency to all BCCDC documents.
2	April 2021	Definitions revised to meet clinical relevance and be consistent with other COVID-19 newborn documents.
2	Feb 2021	Hyperlinks added or updated throughout document.
2	Feb 2021	Maternal critical illness clearly defined.
2	Feb 2021	References revised and updated.

Disclaimer: This guidance is subject to change as new data becomes available and new developments arise with the SARS-CoV-2 virus. Furthermore, unique situations may require some discretion in adjusting these guidelines, which are meant to be supportive, not prescriptive.

This document is intended to meet the minimum expectations for safe practice with appropriate personal protective equipment (PPE).

Definitions

COVID-19 disease categories as used in this document:[1, 2]

- **Confirmed case:** A person or newborn with laboratory confirmation of a positive SARS-CoV-2 test result.
- **Person under clinical investigation:** Mother/individual or caregiver who meets the criteria for SARS-CoV-2 testing and is waiting to be tested or waiting for the results of a test. A pregnant mother/individual who presents during labour with a temperature above 38 degrees Celsius will be tested for SARS-CoV-2 even in the absence of exposure criteria and/or close contact with a person with a confirmed COVID-19 diagnosis or a person under clinical investigation for COVID-19.
- **Newborn under clinical investigation**: A newborn who is symptomatic and/or had close contact with a person with a confirmed COVID-19 diagnosis or a person under clinical investigation for COVID-19. They can be either waiting to be tested for SARS-CoV-2 or waiting for the results of a test.
- **Close contact**: A person or newborn who had close physical contact with, or who lived with a person with a confirmed COVID-19 diagnosis or a person under clinical investigation for COVID-19.

Parental critical illness: Pregnant person with any of the following:[3]

- Is intubated.
- SpO2 measures < 94% in room air.
- Is on supplemental oxygen due to COVID-19.
- Is receiving end-organ support.
- Is significantly immunosuppressed (e.g., HIV with CD4<200).
- And/or is deemed collectively by members of the delivery team as critically unwell.

Newborn: Infant in the first 28 days after birth.
Mother/individual-newborn dyad: Grouping of the mother/individual and the newborn in an interactional situation and the underlying philosophy of family-centered care, referred to also, as dyad.
Mother/individual: The term mother/individual is used in this guideline to be inclusive of transgender individuals who gave birth to the newborn, and in cases where the caregiver of the newborn is not the birth parent (e.g., foster parent).
Vertical transmission: Transmission of infection directly from mother/individual to embryo, fetus or newborn during the perinatal period through the placenta, through bodily fluid exposure during labour and delivery, or through human breast milk.
Horizontal transmission: Transmission of infection from one person to another through contact with bodily fluids (respiratory droplets, sputum, blood, etc.).

General Information

SARS-CoV-2 is a novel coronavirus that causes COVID-19 illness in adults, children, and newborns. The incubation period is two to 14 days, with a median of five days.[3] Studies continue to show that COVID-19 infection in newborns is uncommon and most newborns that may become infected are asymptomatic or present with mild to moderate disease.[4, 6, 7]

Clinical outcomes following COVID-19 infection during pregnancy are mostly good with spontaneous and iatrogenic preterm birth the most commonly reported adverse outcomes.[4, 5, 6] While there is currently no reported increased risk of congenital anomaly, available data is limited and, at this time, the risk of teratogenicity cannot be excluded.[4, 5]

While there is no strong evidence of vertical transmission of SARS-CoV-2, the newborn is at risk for postnatal horizontal transmission.[4 - 6, 8 – 12] The rate of infection does not vary regardless of mode of delivery, breast/chest feeding or rooming-in with the mother/individual with a probable case of COVID-19 or confirmed diagnosis of COVID-19.[10]

Clinical Manifestation of COVID-19 in Newborns

Neurological	Temperature instability, lethargy, irritability
Respiratory	Grunting, nasal flaring, tachypnea, chest retractions, central cyanosis/pallor, apnea, cough, nasal congestion
Gastrointestinal	Abdominal distension, feeding intolerance, diarrhea/watery stools, emesis
Laboratory Findings	Normal or leukopenia, lymphopenia, mild thrombocytopenia, elevated CK, ALP, ALT, AST and LDH
Radiology Findings	Chest X-ray infiltrates

Recommendations

Personal Protective Equipment and Infection Control Precautions

Refer to health authority-specific guidance and the BCCDC's resources on PPE and aerosol generating medical procedures (AGMP) for the most up-to-date information. Droplet and contact precautions are recommended for all team members involved in the direct care of a newborn that is a probable or confirmed case of COVID-19.

There is no strong evidence of vertical transmission of SARS-CoV-2. Therefore, the risk of transmission during AGMPs employed during newborn resuscitation at birth remains low and additional airborne precautions are not warranted.[5 – 10] Airborne precautions are only indicated in the case of AGMPs, such as bag-mask ventilation and intubation.

To limit the transmission of SARS-CoV-2, only essential staff should enter the mother/individual and newborn's room and visitors should be kept to a minimum. Consult local infection prevention and control (IPC) guidelines for site specific measures.

Isolation Precautions

If a newborn tests positive for SARS-CoV-2, the newborn needs to isolate until:

- At least 10 days have passed since the onset of symptoms; AND,
- Symptoms (respiratory, gastrointestinal and systemic) have improved.

If a newborn tests negative for SARS-CoV-2, isolate with the mother/individual as a close contact and monitor for symptoms suggestive of COVID-19. Continue isolation with the mother/individual for 14 days to ensure the full incubation and infectious period has passed.

The mother/individual and newborn need to continue to isolate at home after discharge until the 14-day period is complete.

Investigations for SARS-CoV-2

Routine testing for SARS-CoV-2 of newborns born to mothers/individuals who are suspect cases of COVID-19 is not recommended. Test a newborn *only* if the mother/individual's test result has come back as positive for SARS-CoV-2, **and** they are within the infectious window of testing for COVID-19 disease.

Clean a newborn's face with warm water and soap prior to nasopharyngeal swab collection. Add HOS (Hospitalized) to specimen label to prioritize testing requisition.

General Care Principles

Newborn Bathing

Several studies have found no evidence of the presence of SARS-CoV-2 in amniotic fluid.[13, 14] Another study showed no evidence of transmission of SARS-CoV-2 due to delayed bathing.[11]

To prevent complications related to cold stress, delay the first bath until the newborn is stable and transition is completed. Transition is usually completed in four to six hours after birth but can take up to 24 hours.[15,16]

Rooming-In

There is no evidence to indicate that the newborn born to a mother/individual who is a confirmed or suspect case of COVID-19 should be separated from the mother/individual. Isolating a newborn from their mother/individual is not necessary unless clinically indicated by disease severity.

The decision to practice rooming-in should be a shared decision between the mother/individual and the health-care provider. Inform the mother/individual about safe rooming-in practices:

- Limit essential visitors.
- Prior to touching, caring, feeding and skin-to-skin contact, the mother/individual should:
  - wash their hands; and,
  - put on a surgical mask.
- When not practicing skin-to-skin contact or caring for their newborn, the mother/individual should maintain a physical distance of two metres from the newborn.[4, 11, 12]

Human Milk Feeding

The SARS-CoV-2 virus has not been detected in human milk.[14] Direct breast/chest feeding, or expressed human milk feeding, provides higher protection against infection as it provides antibodies targeted towards the microbes to which the newborn is exposed.[17] There is no evidence of vertical transmission of COVID-19 to newborns through direct breast/chest feeding.[11, 12] Consult the lactation guidelines for women/individuals who are confirmed or suspect cases of COVID-19 for additional information regarding specific infection control measures to be employed to reduce the risk of horizontal transmission.

Discharge Considerations

Complete all routine screening, immunization and discharge teaching. For more information, see maternal and newborn acute care discharge planning and continued care in community settings during the COVID-19 pandemic.

The mother/individual-newborn dyad need to continue isolation at home if the newborn is discharged prior to the end of the isolation period.

The B.C. community liaison record – postpartum & newborn is an important tool to connect acute care, primary care, and public health services for discharge planning. A COVID-19 positive diagnosis should be indicated on this record.

Parent Resources

- Keep your Baby Safe: Your Baby and COVID-19
- Is my Baby Sick with COVID-19?

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