



Coronavirus Disease 2019 (COVID-19)

Evaluation and Management Considerations for Neonates At Risk for COVID-19

This guidance is intended to inform healthcare providers about the diagnosis, evaluation, infection prevention and control practices, and disposition of neonates (≤ 28 days old) with confirmed or suspected COVID-19 or known COVID-19 exposure, including birth to a mother with confirmed or [suspected](#) COVID-19.

Routes of transmission

Transmission of SARS-CoV-2, the virus that causes COVID-19, to neonates is thought to occur primarily through respiratory droplets during the postnatal period when neonates are exposed to mothers, other caregivers, visitors, or healthcare personnel with COVID-19. Limited reports have raised concern of possible intrapartum or peripartum transmission, but the extent and clinical significance of vertical transmission by these routes is unclear.

Clinical presentation and disease severity

Data suggest that infants (< 12 months of age) may be at higher risk for severe illness from COVID-19 compared with older children; however, information on clinical presentation and disease severity among neonates is limited and based on case reports and small case series.

Reported signs among neonates with SARS-CoV-2 infection include fever, lethargy, rhinorrhea, cough, tachypnea, increased work of breathing, vomiting, diarrhea, and feeding intolerance or decreased intake. The extent to which SARS-CoV-2 infection contributed to the reported signs of infection and complications is unclear, as many of these findings can also be seen commonly in term and preterm infants for other reasons (e.g., transient tachypnea of the newborn or neonatal respiratory distress syndrome). The majority of term infants (≥ 37 weeks gestational age) in these case reports had asymptomatic or mild disease and recovered without complication. However, severe disease requiring mechanical ventilation has been reported in COVID-19 positive neonates.

Testing recommendations

[Testing](#) is recommended for all neonates born to women with confirmed or suspected COVID-19, regardless of whether there are signs of infection in the neonate. For neonates presenting with signs of infection suggestive of COVID-19 as described above, providers should also consider alternative diagnoses to COVID-19.

Recommended testing

- Diagnosis should be confirmed by testing for SARS-CoV-2 RNA by reverse transcription polymerase chain reaction (RT-PCR). Detection of SARS-CoV-2 viral RNA can be collected using nasopharynx, oropharynx or nasal swab samples.
- Serologic testing is not recommended at this time to diagnose acute infection in neonates.

When to test

- Both symptomatic and asymptomatic neonates born to mothers with confirmed or suspected COVID-19, regardless of mother's symptoms, should have testing performed at approximately 24 hours of age. If initial test results are negative, or not available, testing should be repeated at 48 hours of age.
- For asymptomatic neonates expected to be discharged <48 hours of age, a single test can be performed prior to discharge, between 24-48 hours of age.

Prioritization of testing

- In areas with limited testing capacity, testing should be prioritized for neonates with signs suggestive of COVID-19 as well infants with COVID-19 exposure requiring higher levels of care or who are expected to have prolonged hospitalizations (>48-72 hours depending on type of delivery).

Limitations and interpretation of testing

- The optimal timing of testing after birth is unknown. Early testing may lead to false positives (e.g., if the neonate's nares, nasopharynx and/or oropharynx is contaminated by SARS-CoV-2 RNA in maternal fluids) or false negatives (e.g., RNA may not yet be detectable immediately after exposure following delivery).

Infection prevention and control

Given the paucity of information regarding signs of COVID-19 in neonates, all neonates born to mothers with confirmed or suspected COVID-19 should be considered as having suspected SARS-CoV-2 infection when testing results are not available.

Infants with suspected SARS-CoV-2 infection should be isolated from other healthy neonates and cared for according to the [Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 \(COVID-19\) in Healthcare Settings](#)

For healthcare personnel, recommendations for appropriate PPE are outlined in the [Interim Infection Prevention and Control Recommendations for Patients with Suspected or Confirmed Coronavirus Disease 2019 \(COVID-19\) in Healthcare Settings](#)

Mother/neonatal contact

Although it is well recognized that the ideal setting for care of a healthy term newborn while in the hospital is within the mother's room, temporary separation of the newborn from a mother with confirmed or [suspected](#) COVID-19 should be strongly considered to reduce the risk of transmission to the neonate. Efforts are under way to address the knowledge gap of transmission between mother and neonate during pregnancy, delivery and in the postpartum period, and recommendations will be updated as new information informing the risk-benefit of maternal-infant separation is available.

Temporary separation in the clinical setting can be achieved in many ways, including a separate room, maintaining a physical distance of ≥ 6 feet between the mother and neonate, and placing the neonate in a temperature-controlled isolette if the neonate remains in the mother's room. For mothers whose test results are negative, separation precautions may be discontinued.

Although temporary separation of a neonate from a mother with confirmed or [suspected](#) COVID-19 should be strongly considered in healthcare settings, it may not always be feasible. For these situations, the risks and benefits of temporary separation of the mother from her baby should be discussed with the mother by the health care team, and decisions about temporary separation should be made in accordance with the mother's wishes. Considerations include:

- Clinical conditions of the mother and neonate
 - Separation may be necessary for infants at higher risk for severe illness (e.g., preterm infants and infants with medical conditions)
- Availability of testing, staffing, space, and PPE in the healthcare facility
- Results of neonatal testing
 - If the neonate tests positive for SARS-CoV-2, separation is not necessary

If separation is not undertaken, [measures that can be taken to minimize the risk of transmission](#) from mother to neonate include:

- Mother uses cloth face covering and practices [hand hygiene](#) during all contact with the neonate. Cloth face coverings should not be placed on neonates or any children younger than 2 years of age.
- Engineering controls like physical barriers are used (e.g., placing the neonate in a temperature-controlled isolette), and the neonate is kept ≥ 6 feet away from the mother as much as possible.

Disposition

Neonates who otherwise meet [clinical criteria for discharge](#) [↗](#) do not require the results of SARS-CoV-2 testing for discharge. Results should be communicated to the family and outpatient healthcare provider. Parents and other caregivers should follow recommendations for neonates with suspected or confirmed COVID-19 described in the [Discontinuation of Isolation for Persons with COVID -19 Not in Healthcare Settings](#). Neonates with suspect or confirmed COVID-19, or ongoing exposure, require close outpatient follow-up after discharge.

For information related to disposition of patients who have recently given birth, see [Considerations for Inpatient Obstetric Healthcare Settings](#).

Breastfeeding guidance is available at: [Interim Guidance on Breastfeeding and Breast Milk Feeds in the Context of COVID-19](#). Additional information for parents and other caregivers about the importance of well childcare and information regarding feeding can be found on CDC's [Pregnancy, Breastfeeding, and Caring for Young Children](#) website. Resources are also available on [stress and coping](#) secondary to COVID-19.

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