

Guidelines for Management of Infant Born to Mother with COVID-19

The following outlines considerations for newborn care after birth to a woman with suspected or confirmed COVID-19.

Definitions

SARS-CoV-2: coronavirus that causes COVID-19

COVID-19: symptomatic respiratory illness caused by the SARS-CoV-2 coronavirus

Enhanced Droplet Precautions: patient care with use of the following:

- non-sterile gloves
- gown
- standard procedural face mask
- eye protection
 - eye protection may take the form of goggles in combination with standard procedural face mask, or use of combined face mask/eye shield
 - personal eye glasses or contact lenses are not adequate eye protection

Airborne Precautions: patient care with use of all of the elements of Enhanced Droplet Precautions in combination with Respiratory Protection:

- N95 respirator mask or personal powered air respirators (PAPR) device replaces the standard procedural face mask
- Goggles must be used with N95 respirators for eye protection.
- PAPRs provide eye protection
- See below for the use of negative air pressure isolation

Airborne Transmission: defined as respiratory pathogens transmitted by aerosolized droplets that remain suspended in the air. This type of transmission means that the pathogen can be acquired from breathing the same air as the patient; this can be the case for periods of time after the patient has left a room/area. Measles, varicella and tuberculosis are examples of respiratory infections that require Airborne Precautions which include use of respiratory protection and isolation in a room with negative air pressure.

Current evidence supports transmission of SARS-CoV-2 by respiratory droplet and *not* by airborne transmission. Despite this, when available, isolation rooms with negative air pressure should optimally be used for the care of patients with confirmed COVID-19. As such rooms may be limited or unavailable at many centers, they should be reserved for patients with COVID-19 who require respiratory procedures or supports (e.g., invasive suctioning, nebulizer treatments, CPAP, mechanical ventilation) that may result in mechanical aerosolization of respiratory secretions.

Newborn Risk

- It remains unclear if SARS-CoV-2 is vertically transmitted from mother to fetus antenatally via maternal viremia and transplacental transfer. Prior published experience with respiratory viruses would suggest this is unlikely.
- Perinatal exposure may be possible at the time of vaginal delivery based on the detection of virus in stool and urine.
- Newborns are at risk of infection from a symptomatic mother's respiratory secretions after birth, regardless of delivery mode

All infants

- Mother and infant will be separated immediately at birth
- A designated, limited set of caregivers will be assigned to the infant
- Infant should be bathed as soon as is reasonably possible after birth
- Newborns will be tested for perinatal viral acquisition as follows:
 - molecular assay testing will be done on 2 consecutive sets of nasopharyngeal, throat and stool swabs collected at least 24 hours apart
 - testing will begin at ~24 hours of age, to avoid detection of transient viral colonization and to facilitate detection of viral replication
 - newborn will be designated as uninfected if all 6 tests are negative

Delivery Room Management

- Initial stabilization/resuscitation of the newborn will take place as per center usual care
- Newborn resuscitation should not be compromised to facilitate maternal/infant separation
- If the center has a newborn resuscitation room separate from the mother's delivery room, this should be utilized
- Because of the uncertain nature of newborn resuscitation (that is, suctioning and/or tracheal intubation may be required), Airborne Precautions should be used

Admission

- Infants who are well-appearing at birth and who would otherwise be admitted to the center's well newborn area should be cared for in a designated area separate from other newborns. Centers should assess their local structures to determine where such infants should receive care.
 - Staff will use Enhanced Droplet Precautions for these infants
- Infants who require NICU care due to illness or gestational age at birth should be admitted to a single patient isolation room within the NICU
 - If the infant requires technical CPAP, HFNC as CPAP, or any form of mechanical ventilation, Airborne Precautions must be used, until infection status is determined as outlined above.

Breastfeeding

- Mother may express breast milk (after appropriate hand hygiene) and this milk may be fed to the infant by designated caregivers
- Breast pumps and components should be thoroughly cleaned in between pumping sessions using standard policies (clean pump with antiseptic wipes; clean pump attachments with hot soapy water)

Visitation

- No visitation will be allowed until the newborn's infection status is determined
 - *Exception:* the non-maternal parent (or designated equivalent) may visit the infant and participate in care if they are asymptomatic, even if they are being monitored for infection due to exposure to the mother. This person will use Enhanced Droplet Precautions during visits.
- If the newborn is uninfected but requires prolonged hospital care for any reason, the mother will not be allowed to visit the infant until she meets the CDC recommendations for suspending precautions:
 - Resolution of fever, without use of antipyretic medication
 - Improvement in illness signs and symptoms
 - Negative results of molecular assay for COVID-19 from at least two consecutive sets of paired nasopharyngeal and throat swabs specimens collected ≥ 24 hours apart (total of four negative specimens - two nasopharyngeal and two throat).

Discharge

- Considerations when infant is medically appropriate for discharge
 - Infants determined to be infected, but with no symptoms of COVID-19, may be discharged home with appropriate precautions and plans for outpatient follow-up on a case-by-case basis.
 - Infants whose infection status has determined to be negative will be optimally discharged home when otherwise medically appropriate, to a designated healthy caregiver who is not under observation for COVID-19 risk. If such a caregiver is not available, manage on a case-by-case basis.