3/27/2020

GUIDELINES FOR THE MANAGEMENT OF INFANT BORN TO MOTHER WITH CONFIRMED OR SUSPECTED COVID-19

Subject to change pending new information

PURPOSE: The purpose of these guidelines is to provide information the care of infants born to mothers with confirmed or suspected COVID-19.

DEFINITIONS:

SARS-CoV-2: corona virus that causes COVID-19

Droplet-Condition Specific Isolation precautions: PPE used to prevent transmission of infectious diseases spread by large droplets; includes gown, non-sterile gloves, isolation mask and eye protection

Eye protection: goggles, not personal glasses or contacts

Airborne precautions*:* PPE used to prevent transmission of infectious diseases by small particles that remain suspended in the air; includes gown, non-sterile gloves, N-95 respirator, eye protection

Aerosol generating procedures: medical procedures that result in the likelihood of small particles that can remain suspended in the air; includes endotracheal intubation (once patient is intubated, not considered aerosol generating), collection of respiratory specimens, non-invasive positive pressure ventilation, bronchoscopy, cardiopulmonary resuscitation, nebulizer therapy, open suctioning of airway

ANTEPARTUM MANAGEMENT OF MOTHER WITH CONFIRMED OR SUSPECTED COVID-19:

- If testing available, all mothers admitted to L&D will be screened for SARS-CoV-2
  - nasopharyngeal swab to be performed by L&D staff
  - if available, rapid NAA test with results in EPIC in 2 hours
  - if mother refuses testing and is asymptomatic, she will be treated as presumptive negative
- mother identified as suspected (PUI) or confirmed COVID-19 will be cared for in negative pressure rooms: Room 2501 and 2 triage rooms are designated and switch must be turned on High
- If < 20 weeks, does not enter Labor and Delivery and instead is cared for by OB physician on GSU
- when maternal PUI with OB concerns is identified, OB provider (MD/midwife) will consult NNP to notify on call Neo provider
- Neo provider (attending/NNP) will discuss plan for newborn with parents and document consult in EPIC
  - the initial consult prior to delivery will be by phone to limit exposures

- if delivery is imminent, asymptomatic newborn will be admitted to the NICU and the Neo MD will update the mother by phone after delivery or father at bedside
- see EPIC smartphrases for consult, problem list

- "Preventing the Spread of Cornonavirus…." Handout will be given to parents
- Neo provider discussion with parents to include:
  - CDC recommendation for temporary placement of the newborn in single isolation room or placed under isolation with droplet and contact precautions
  - newborn will be admitted to NICU under the care of LSU Neonatology for isolation and observation
  - mother's preference for feeding
  - newborn will remain in isolation until the mother results negative or until infant cleared for discharge
  - if mother tests positive, she will not be allowed to visit newborn in NICU
  - visitation policy for NICU

DELIVERY ROOM MANAGEMENT OF NEWBORN PUI:

- all staff in delivery room must use airborne precaution PPE
- number of staff in delivery room should be limited to essential staff only
- delivery room attendance:
  - resuscitation team:
    - Labor and Delivery nurse to manage full term newborns of expected routine delivery without risk factors for high risk delivery until transport to NICU
    - NNP and 1:1 assigned NICU RN ("clean") will be available outside delivery room and will be present in the room only if it's a pre-term or high risk delivery and their assistance is needed.
    - remove phones, badges, don PPE (nurse with two sets of gloves)
- as infant is stabilized, reduce staff in LDR
- If mother has worn face mask during delivery, OB may consider delayed cord clamping
- immediately after delivery, place face mask on mother and allow her to briefly view newborn from > 6 feet
- transport isolette should be placed at the doorway outside the delivery room or if room is large enough, transport isolette can be 6 feet from mother.
- transition newborn to transport isolette as soon as infant is stable
  - If transport isolette is outside of delivery room door, then the nurse will remove the first pair of gloves, then move infant wrapped in blanket from head to toe from warmer to isolette. The nurse will then use PDI or Quat wipes to wipe down outside of isolette and then doffs PPE and discard prior to leaving of room. All of this assuming that infant is not in distress.
  - If transport isolette is inside delivery room, please use the same procedure as transport isolette outside the delivery room, remembering to doff PPE and discard PPE prior to leaving the room.

- resuscitation team doffs PPE and discards prior to leaving the room
- resuscitation team will then don clean PPE in NICU and resume care of newborn for the admission
- transport isolette should be wiped down with PDI wipes or Quat then sent to decontam

NICU ADMISSION FOR NEWBORN PUI:

- newborns are at risk of infection from a symptomatic mother's respiratory secretions after birth, regardless of delivery mode
- infants born to mothers with confirmed or suspected COVID-19 will be admitted to the NICU under isolation
- if newborn will require aerosol-generating procedures, then newborn will ideally be admitted to the NICU negative pressure/airborne infection isolation room (AIIR) in the NICU and airborne precautions will be maintained
- bathe infant as soon as possible after delivery
- consult Social Services to assist with discharge planning of well newborn
- NICU staffing:
    - preferably 1:1 staffing
    - cohorting of PUI patients with the same nurse
    - consider a designated, limited number of caregivers
    - group PUI with less acute NICU patients (only in suboptimal circumstances)
- to minimize exposure to other NICU patients:
    - divide the NICU to minimize traffic in potentially contaminated areas
    - RN assigned to PUI is not responsible for assisting with care of other patients (no alarm buddy assignment)
    - cluster care
- limit pregnant staffing from PUI patient assignments
- infant will remain in isolation until testing performed at both 24 and 48 hours have resulted negative or ready for discharge
- ICD10 code: R68.89 Suspected 2019 novel corona virus infection

COVID-19 TESTING OF NEWBORNS:

- all newborns born to mother with suspected or confirmed COVID-19 will be tested for perinatal viral acquisition
- testing will begin at ~24 hours of age to avoid detection of transient viral colonization and to facilitate detection of viral replication
- testing will be done on a single swab collected at 24 and 48 hours
- areas to be swabbed include nasopharyngeal, oropharynx then rectum
    - consider additional testing of throat and rectum; in times of swab shortage, the same swab may be used for all 3 sites *(2)*

- Order is placed in EPIC by ordering provider to be sent to Quest Diagnostics
- Call the lab for test kit when needed
- Quest Diagnostics turnaround time is 2-3 days.

BREAST FEEDING NEWBORN PUI:

- it is presently unknown if mothers with COVID-19 can transmit the virus via breast milk
- mothers may be encouraged to pump with a dedicated breast pump provided by lactation
- mothers should perform strict hand hygiene prior to pumping and after pumping, use mask and disinfect all parts after use
- expressed breast milk may be fed via bottle by healthy caregiver
- have attendant outside mother's room with clean plastic bag to place milk in for transfer to NICU
- see Breast Milk Handling and Transportation, UWMC *(5)*

Recommendations
• Receive containers from mothers or boxes of donor milk with gloved hands
• Wipe down the outside surface of the individual milk containers with disinfectant ◦ suggest viricidal agents already in place at hospitals, donor milk banks, etc. ◦ alternatively use "high level disinfection" of 0.5% solution, a dilution of 1:10 diluted bleach (sodium hypochlorite [NaOCl])
• Set wiped containers in a rack or on a tray to dry (wet to dry ensures time for viricidal effect) before storing in refrigerators or freezers
• For hospital wards and neonatal intensive care units, separate bins for each infant in the same refrigerator are fine once the containers have been wiped down
• Resume usual protocol

Note. Adapted from Centers for Disease Control and Prevention (2020); Kampf et al. (2020); Ong et al. (2020); van Doremalen et al. (2020); and.

COLOCATION FOR NEWBORN PUI:

- if colocation (rooming in) of the newborn with his/her ill mother in the same hospital room is unavoidable, the asymptomatic infant will not be cared for in the nursery or NICU to limit exposures
- measures to reduce exposure of the newborn to the virus may include:
    - physical barrier (curtain) between mother and newborn
    - maintain distance of 6 feet between mother and newborn
    - mother should wear face mask with shield and practice hand hygiene before each feeding or other close contact
- if the newborn has been in the room with a mother previously unsuspected of COVID-19, and the mother subsequently develops symptoms of COVID-19, the asymptomatic newborn will remain in the mother's room and will not be transferred to the NICU to minimize risk/exposure to the NICU population
- in these situations, the newborn will be cared for by a newborn nursery nurse

INFECTION CONTROL IN NICU:

- Amanda Morse ext 6414 or Ashley Foster ext 6440.
- Train staff on PPE don/doff
- face mask is adequate unless confirmed COVID-19 requiring CPAP, HFNC, or mechanical ventilation in which case N95 is required
- when PUI is discharged, room disinfection with TruD
- all equipment to be cleaned with Quat or Purple top PDI wipes

VISITORS TO NOMC:

- all patients, visitors and employees must enter through the Main entrance Monday through Friday 7a-7p. Tower entrance everyday 6a 8p. ED entrance after hours.
- all visitors will have their temperature taken; they will not be able to enter if temp > 100.4
- screened visitors will be given arm band
- employees will self-report fever > 100.4, shortness of breath or flu-like symptoms
- mothers on L&D are allowed one support person if in active labor

VISITORS TO THE NICU:

- visitors to the NICU will be screened by nursing upon arrival to NICU
  - If coming to visit from the outside of the hospital, they'll be screened downstairs at the opened entrances.
- for unexposed newborns:
  - while mother is inpatient, one couple's visit, then other visits from 7a-7p by mother only
  - Once mother is discharged, only (1) visitor (parent or grandparent) for one visit/day will be allowed entrance to NICU during the newborn's stay in the NICU (per NICU Visitation Policy: no information to be given to grandparents)
- for exposed newborns: father of infant or grandparent if father not involved may be allowed to visit pending clearance with social worker.
  - mothers with confirmed or suspected COVID-19 will not be allowed in the NICU
  - one non-maternal parent (or designated equivalent) with a birth ID band 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 *(3)*
  - this visitor will use enhanced droplet precautions (gowns, gloves, face mask and eye protection)
  - if newborn is uninfected but requires prolonged hospital care, the mother will not be allowed to visit the infant until she meets CDC recommendations for suspending precautions: *(3)*
    - resolution of fever, without use of antipyretic medication
    - improvement in illness signs and symptoms
    - negative results for COVID-19 from at least (2) consecutive sets of nasopharyngeal swabs collected > 24 hours apart

ASYMPTOMATIC WOMEN WHO HAVE HAD CLOSE CONTACT WITH COVID-19+ PERSON OR PUI *(2)*

- close contact is defined as living in the same household or spending more than 3 hours in an enclosed room with a symptomatic COVID-19+ person
- infants born to women who have close contact with PUI or confirmed COVID-19 patients but are asymptomatic do NOT require isolation
- mother should wear surgical mask for 14 days from last close contact
- skin-to-skin contact and breast-feeding are allowed

DISCHARGE OF NEWBORN PUI:

- discharge planning:
    - CPR instruction is not necessary for caregivers of asymptomatic infants admitted to NICU for isolation
    - delay circumcision as long as possible in the hopes that infant will be out of isolation prior to discharge (to conserve PPE); Peds should be available every day to perform circumcisions
    - schedule outpatient hearing screen only if infant is COVID positive or if for some reason COVID test results are not back prior to discharge
    - schedule PCP appointment at least 1 week after discharge for PUI infants to allow test to result
    - NICU team to call peds at discharge if mother is positive and infant's test is pending
    - Fax discharge summary to peds office
    - NICU team to call peds office with test results when available
- discharge possibilities:
    - AAP discharge recommendations:
        - asymptomatic infants with positive SARs-CoV-2 test may be discharged home on a case-by-case basis with appropriate precautions and plans for frequent outpatient follow-up contacts through 14 days after birth
            - specific guidance regarding use of standard procedural masks, gloves and hand hygiene should be provided to all caretakers (see CDC links below)
        - infants with negative testing should optimally be discharged to the care of a designated healthy (non-infected) caregiver
            - if such a caregiver is not available, manage on a case-by-case basis *(3)*
            - if the mother is in the same household, she should preferably stay in a separate room or at least maintain a distance of at least 6 feet and when in closer proximity should use a mask and hand-hygiene for home newborn care until EITHER:
                - she has been afebrile for 72 hours without the use of antipyretics AND
                - at least 7 days have passed since the symptoms first occurred OR

    - she has negative results of molecular assay for SARS-C0V-2 from at least 2 consecutive NP swabs collected> 24 hours apart
  - other caregivers in the home who remain under observation for the development of COVID-19 should use standard procedural masks ad hand hygiene when within 6 feet of the newborn until their status is resolved

- if the infant is cleared for discharge and the mother remains sick, Social Services to assist designate another family member
- inpatient MD to notify outpatient pediatrician of newborn's risk for developing COVID-19
- provide discharge teaching for newborn care
  - *CDC: Preventing Spread of Coronavirus Disease 2019 (COVID-19) in Homes and Residential Communities (available in Spanish)*
  - *CDC: Caring for Someone at Home with COVID19 (discontinuation of home isolation included)*
  - *CDC: COVID19 and Breast feeding*

Care of the previously SARS-CoV-2 + mother and her newborn *(2), (7)*

- No universal policies exist at present regarding the care of a newborn born to a mother who tested positive for SAR-CoV-2 at some point in her pregnancy prior to delivery. Per Dr. Schieffelin, Infectious Disease Specialist, recommendations are extrapolated from the CDC guidelines for Healthcare Workers to return to work after having tested positive.
  - Ideally, mother will receive a negative SARS-CoV-2 test prior to delivery (if rapid test available, can test upon admit to Labor and Delivery)
  - If testing is unavailable or the results will be pending at the time labor, mother can be treated in traditional manner (ie, as if SARS-CoV-2 negative) if:
    - minimum of 14 days since onset of symptoms
    - minimum of 7 days symptom-free period
  - If the mother remains positive on repeat testing, or the above minimum requirements are not met, the mother and infant should continue to be treated with enhanced droplet and/or airborne precautions as outlined above.

Resources:

(1) CDC Interim Considerations for Infection Prevention and Control of COVID-19 in Inpatient Obstetric Healthcare Settings

(2) Guidelines for the Management of Infants Born to Mothers Confirmed or Suspected to have COVID-19 (CHNOLA, 3/23/2020)

(3) Guidelines for Management of Infant Born to Mother with COVID-19 (Puopolo, Kimberlin; 3/16/2020)

(4) Delivery of an Infant to a mother who is Confirmed or Suspected COVID-19 (Univ of Washington; 3/14/2020)

(5) Breast Milk handling and Transportation, UWMC