Riley Hospital for Children
Indiana University Health

COVID-19 Infection Prevention Guidance for OB and Newborn Care
Indiana University Health
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New cases of COVID-19 are being reported throughout the United States and Indiana. Pregnant women are at an increased of complications resulting from respiratory viral infections. COVID-19 appears to cause its greatest morbidity in older individuals. However, child-bearing aged women can be infected and severe disease has been reported. Although it would appear that perinatal transmission of COVID-19 is uncommon, there are case reports that this is a possible mode of transmission. Additionally, postnatal infections in the newborn have also been documented. Fortunately, these infections have been asymptomatic or mild.

In this document we summarize the infection prevention guidelines that will in effect at IU Health facilities where OB and newborn care is provided. The current clinical knowledge about COVID-19 is constantly changing. As new information becomes available, recommendations may change.

Definitions:

- Screen: Scripted risk questions asked on patient arrival
- AIIR: Negative Air Flow Airborne Isolation Room
- IP: Infection Prevention Team
- AGP: Aerosol Generating Procedure
- PPE: Personal Protective Equipment
- HCW: Health Care Workers

I. OB CARE

Suggest OB medical team create a standardized testing algorithm for suspected patients to provide guidance.

- Respiratory or Flu-like symptoms +/- fever with either COVID 19 confirmed exposure.

- Respiratory or flu-like illness symptoms +/- fever who are hospitalized, and
- Respiratory or flu-like symptoms +/- fever with high-risk co-morbidity such as immunocompromised status, autoimmune disease, diabetes, OR other condition per obstetrician discretion:

What to do if:

1- Patient calls the office with illness complaints:

- Patient should contact IU Health Virtual Visits for video consultation. If necessary, the patient will be sent to the Emergency Department for evaluation.
- Emergency Department must be called ahead so they can meet patient and escort safely back to isolation room.
- Limited access by personnel will be maintained during evaluation. Decision making will be based on illness and risk symptoms.

2- Patients presenting in person:

- Patients get initial screen at entry point into IU Methodist Hospital. Patients will also be screened at entry point to OB triage.
- If screen is **POSITIVE**, they will receive a mask and will be sent to the ED.

Temporary AAHC ED Triage of Pregnant Patients
For all pregnant patients (any term) who present to the ED:

The following should be triaged to the **ED** per standard care:

Respiratory complaints (cough, shortness of breath, fever)
Concern for COVID-19 exposure or disease
Hemodynamic instability

The following should be triaged to **L&D per standard of care:**

Those not meeting above criteria who present with pregnancy-related complaint or other complaint that can reasonably be addressed by OB/Gyn staff through L&D

Notes:

Patients transferred to L&D upstairs will wear masks unless instructed otherwise by L&D staff.

If a patient is triaged to L&D but then found to be at risk for COVID-19, attempts will be made to complete encounter in L&D in order to limit further movement of patient and unnecessary additional PPE usage. If patient requires ED evaluation, L&D staff will call to charge RN prior to transfer.

- If presenting directly to L&D with positive screen, patient will be placed in single, private room.
- Appropriate gowns, gloves, and face masks for droplet and contact precautions will be available in carts outside the room.
- Placement in a single patient room is appropriate with droplet contact isolation along with goggles or face shield.
- Placement in an airborne-isolation room with negative-pressure and special ventilation [AIIR] along with use of N95 respirator masks [with goggles or face shield] or PAPR is only needed if patient is undergoing an aerosol-generating procedure [AGP].
- **Infection Prevention** [IP] must be notified immediately [24/7]: Call hospital operator and page Riley Infection Preventionist on-call when patient is admitted. IP can assist in the ordering for COVID-19 testing. They can also assist in securing proper infection control measures.
- In the presence of a global COVID-19 pandemic, patients with fever, cough, shortness of breath, sore throat, vomiting, diarrhea and/or body aches may have COVID-19. These patients require isolation. Personnel should use appropriate personal protective equipment [PPE] as stated above. While a history of travel abroad and a known history of exposure to an individual with COVID-19 may be elicited, not all patients with respiratory symptoms will have such a history. However, they still require proper isolation and PPE use.
- Asymptomatic patients with a known history of exposure to COVID-19 should be placed in a single patient room, droplet-contact isolation.
- Asymptomatic mothers can be evaluated per normal in a triage room.
- Any other triage presentation: Evaluate per normal in triage room.

II. OB ADMISSION for COVID-19 SUSPECTED OR POSITIVE PATIENT

1- If the respiratory status warrants it, patients will be admitted to an ICU. The obstetric team would be secondary and provide support in ICU as needed. [**Level 3 and Level 4 facilities**].

2- If respiratory status is stable and obstetrical care is needed, patient will be placed in an AIIR, if available. Single patient room is acceptable if AIIR is not available. Appropriate PPE will be used according to policy [see below]. [**Level 2, 3 & 4 facilities based on gestational age**].

3- Patients may be transferred to a Level 4 facility if ICU needs and capacity dictate. This is achieved in coordination with adult ICU and MFM teams.

III. PPE and ISOLATION RECOMMENDATIONS

1- Droplet-Contact precautions are indicated for all **POSITIVE** and **SUSPECTED** cases for general care and non-aerosol-generating procedures [Gown, gloves, surgical mask [face mask], and face shield or goggles.
2- Airborne precautions are indicated for all aerosol-generating procedures. The use of N95 respirator mask or PAPR [powered air-purifying respirator] is the recommended PPE.
3- Traffic in the OR should be minimal.
4- Anesthesia, sterile "attendees" and circulator must use N95 respirator mask or PAPR during the intubation procedure.
5- Operating rooms must sit for 1 hours after an AGP to allow appropriate air exchanges before cleaning can be initiated. [Rationale; OR rooms are positive pressure].
6- Patient will receive recovery care in the patient's single private room.
7- **Reuse** of PPE encouraged per guidelines. Refer to COVID link on IU Health portal.

IV. AEROSOL-GENERATING PROCEDURES:

Health care workers in areas where patients are undergoing aerosol-generating procedures should be using PPE consisting of N95 respirator mask or PAPR, gown, gloves, face shield or goggles. When available the patient should be in an AIIR.

- **Indications for N95 use for <u>ALL patients</u> are reserved for the below listed aerosol generating procedures:**
    - Intubation
    - Bronchoscopy
    - ENT surgical procedures
    - Cardiopulmonary Resuscitation (CPR)
- **Indications for N95 use for SUSPECTED or CONFIRMED COVID-19 are reserved for the below listed aerosol generating procedures:**
    - Intubation
    - Extubation
    - Bronchoscopy
    - Cardiopulmonary Resuscitation (CPR)
    - Non-invasive positive pressure ventilation (BIPAP, CPAP)
    - High Frequency Oscillatory Ventilation
    - Open airway suction
    - Tracheostomy Care in non-intubated patients
    - Nebulizer therapy (Continuous not Breath Actuated Nebulizer)
    - Sputum induction
    - Laser plume

- Autopsy
- Manual ventilation BEFORE intubation
- Cesarean section (Since emergent intubation may be required and is not always anticipated)

- **Scenarios NOT considered aerosol-generating and therefore will not be done in negative pressure and will not need N95 mask use:**
  - Optiflow/Vapotherm
  - Non-rebreather
  - Oxygenation with a Mask - Venti-mask/facemask
  - Chest Physiotherapy
  - High flow O2
  - Manual ventilation AFTER intubation
  - Closed suctioning after intubation
  - Manipulation of oxygen mask
  - Defibrillation
  - Insertion of NG/OG tube
  - NP and OP swabs
  - EGD/Colonoscopy
  - TEE
  - Vaginal delivery

These procedures do not require placement of patient in an AIIR.

V. WHEN DOES A VAGINAL DELIVERY POSE A RISK OF TRANSMITTING SARS-CoV-2 TO A HEALTHCARE WORKERS?

Vaginal delivery is high-risk for COVID transmission to healthcare workers if the patient has **CONFIRMED** or **SUSPECTED COVID-19** because:

1- Prolonged exposure, close contact with patients [3 feet or less]: Second stage of labor [pushing] typically lasts 1 to 4 hours. The bedside nurse is 1-to-1 with this patient in the room for the entire time. Patient care during this time is in very close proximity. In addition to the nurse, it is common for the delivering physician to be in the room for 1 hour although the team will try to minimize exposure as much as possible.

2- Patient mask-wearing during pushing is very sub-optimal.

3- Screaming, heavy/fast breathing and repetitive Valsalva used during pushing increases intrathoracic pressure, often resulting in vomiting and coughing in COVID patient while pushing. Coughing fits will be significantly worse in symptomatic COVID patients given high incidence of pneumonia.

Healthcare workers must use appropriate personal protection equipment consisting of goggles or face shield [eye protection], surgical mask, gown, and gloves during vaginal delivery. If the patient must undergo or go through an aerosol-generating procedure or event, the patient must be placed in an AIIR, if available and the healthcare worker must use a N95 mask respirator of PAPR.

VI. CAREGIVER RESTRICTIONS:

When assigning personnel to work with patients with suspected or confirmed COVID-19, the health status of the worker may pose a risk to the person. Health care workers in the following categories can **opt-out** of caring for these patients. The HCW can do so without the fear of retribution or poor performance evaluation. HCWs who opt out will be assigned to work that will minimize risk of exposure. These categories are:

1- Pregnancy
2- Immunocompromised status, which includes individuals who receive immunosuppressive therapy and chemotherapy
3- Age ≥50 years of age with underlying cardiopulmonary disease requiring daily medications [other than hypertension].
4- Age ≥65 years of age.

Opt-out requests must be made directly to the service manager. If there are questions, Infection Prevention can be contact for consultation.

VII. OTHER OB SPECIFIC CONSIDERATIONS:

- Nitrous oxide program is suspended for the duration of the pandemic.
- Oxygen therapy should be used judiciously for fetal reasons in the COVID positive patient via nasal cannula at 4L/min with mask.
- While **post-partum tubal ligations** are elective procedures, there are overall clinical health reasons where these should not be delayed.
- Patients who already have an epidural for delivery can use the same to perform a tubal ligation. Rationale: Avoids re-exposure to the procedure and its risks.
- For patients without epidural, strong consideration should be given to delaying the tubal ligation. However, as stated, there may exist an overall clinical reason that it should not be delayed, but only if regional anesthesia can be accomplished for performance of the procedure.
- Tubal ligations can be deferred if there is a question of available resources such as PPE, staff, physicians, other procedures, etc.
- While neonatal circumcisions are elective procedures, there are overall clinical reasons for these not to be postponed. Requiring infants to return to a hospital or clinic for discharge home increases risk of exposure to infections from the

environment. Circumcisions not performed in the neonatal period require general anesthesia, increasing complication risk and having potential neurodevelopmental effects.

VIII. POST-DELIVERY CARE OF MOM/BABY COUPLET

Non-infected **asymptomatic** women who come for delivery can be managed with no specific restrictions. They are encouraged to report to their health care providers any symptoms they may have that may suggest an infection, especially respiratory symptoms such as cough, fever, sore throat and shortness of breath.

- Asymptomatic mothers require no COVID-19 testing, nor do they require isolation precautions.
- Newborns of asymptomatic mothers can be taken to the Well-Baby Nursery and/or NICU as clinically-indicated. No isolation precautions are required.
- Newborns from asymptomatic mothers can room in.

Women with **symptoms** compatible with **COVID-19** infection, consisting but not limited to, fever, cough, sore throat, nausea, diarrhea, and vomiting will be placed in a single patient room in droplet-contact isolation.

The following isolation precautions will be implemented for all **suspected or confirmed COVID-19** infected women.

- Following delivery, the newborn will be stabilized in the delivery or C-section suite as per protocol.
- Infant should be bathed as soon as possible after birth
- Newborns born [vaginal delivery or by C-section] from a suspected or confirmed COVID-19 infection mother will be considered **EXPOSED** and separation and isolation is strongly recommended.
- Newborns from a mother with suspected or confirmed COVID-19 will require droplet-contact isolation in a single patient room. If AGP is anticipated, newborn should be placed in AIIR, if available. Based on the condition of the newborn, transfer to another unit or hospital with available facilities and equipment may be required.
- Caregiver should use appropriate PPE such as gown, gloves, face mask, and face shield or goggles. HCWs caring for infants undergoing AGPs require use of N95 respiratory mask or PAPR, if available.
- Health care workers are NOT to go back and forth between mother and newborn.
- Exposed newborns should not have contact with their **COVID-19 POSITIVE** mothers.

- Despite the risk, some infected mothers may elect to have newborn **room-in** with them. In mother's room, ideally the infant should maintain 6 feet distance between mother and newborn, as well as 6 feet away from the door. When caring for the newborn, the mother should use gloves, gown, and face mask. Mother should be instructed on methods of appropriate hand hygiene.
- When infant is in isolation, they should remain in that room for the duration of their hospital stay. Routine newborn procedures (heel stick test, congenital heart disease screen, bilirubin check, and hearing screen) should be done inside the room. Circumcision, if desired, should be done in the isolation room.
- Ideally, a physical barrier [plexiglass barrier] can be used to separate mother from the newborn as a mean of reducing potential transmission.
- The risks and benefits of temporary separation of the mother from her baby should be discussed with the mother by the healthcare team.
- The decision to discontinue temporary separation of the mother from her baby should be made on a case-by-case basis in consultation with clinicians, infection prevention specialists. The decision should take into account disease severity, illness signs and symptoms, and results of laboratory testing for SARS-CoV-2. Considerations to discontinue temporary separation are the same as those to discontinue transmission-based precautions for hospitalized patients with COVID-19. Consult Interim Considerations for Disposition of Hospitalized Patients with COVID-19.

BREASTFEEDING:

- Newborns born from **ASYMPTOMATIC** mothers can breastfeed ad lib with no restrictions.
- While breast milk is not known to transmit SARS-CoV-2, pumping and bottle-feeding breast milk is preferred where mother is COVID-19 POSITIVE or SUSPECTED. This is to reduce infant contact with infectious respiratory droplets from mother.
- If refusal of separation and mother is adamant on breastfeeding, the infant can be placed at the breast to feed. If mother breastfeeds directly, she should wash torso, don facemask, and wash hands before and after feeding.

NEWBORN DISCHARGE CONSIDERATIONS:

- If refusal of separation and mother is adamant on breastfeeding, the infant can be placed at the breast to feed. If mother breastfeeds directly, she should wash torso, don facemask, and wash hands before and after feeding.
- Providers should consider monitoring infant in hospital for 48 hours prior to discharge.
- It is important that infant have close follow-up at discharge.

- For follow-up appointments, mother should stay at home until cleared to leave by her medical professional. Infant should be brought to PCP appointments by a healthy provider only. An asymptomatic infant does not require isolation in an outpatient physician office, but should be brought back for assessment soon after arrival so that healthcare personnel can assure infant is without symptoms.
- For caregivers who are in quarantine or isolation at home, they should wash hands and wear mask when caring for baby. This includes when holding, bathing, feeding, or changing diapers.

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