BACKGROUND

The COVID-19 pandemic is rapidly evolving as widespread community transmission in the United States increases, particularly in New York. This guidance is for the NYP Obstetrical Service including Labor and Delivery Areas and Antepartum and Post-partum Units as well as the NYP Neonatal ICUs and Well-Baby Nurseries. It is based on current information and resources available from the Centers for Disease Control and Prevention, New York Health Departments, and the American College of Obstetricians and Gynecologists (ACOG).

Pregnant women may be at increased risk of severe disease from COVID-19, but the precise risk is unknown. Miscarriages, still births, and preterm labor have been reported. Vertical transmission has not been described, but only a small number of newborns have been reported. SARS-CoV-1 and SARS-COV-2 have not been detected in breast milk.

Symptoms of COVID-19 can mimic symptoms observed during L&D including shortness of breath, fatigue, diarrhea, which make it critical to have a heightened index of suspicion in this population.

TESTING

- Patients suspected of having COVID-19 should be tested for SARS-CoV-2, the virus that causes COVID-19 disease by sending a nasopharyngeal swab for SARS-CoV-2. See COVID-19 Testing Instructions.

- As the symptoms of COVID-19 overlap with those of influenza, if you are evaluating a pregnant woman for COVID-19, consider influenza as well, if resources permit. For patients who are low risk with mild symptoms, if not coming in for testing, prescribing antiviral treatment for influenza over the phone is acceptable to help reduce the spread of disease in the office with a plan for telephone follow-up within 24-48 hours.

- Turnaround time for COVID-19 is variable due to current assays with long run times, a large volume of testing requests and available resources. At present, COVID-19 testing should not be performed for mildly ill, ambulatory patients and NOT performed for asymptomatic persons.
Prescreening
- Prior to arrival to L&D areas, when feasible, prescreen all patients for symptoms (subjective or measured fever, cough, shortness of breath, sore throat, fatigue, myalgia, congestion/runny nose, or diarrhea). Ask patients if they have had household or community contact with a COVID-19-positive individual and/or international travel within the past 14 days.
- Patients with symptoms should be instructed to avoid public transportation, request a surgical facemask at the security desk, self-identify immediately at presentation to L&D and placed in a single room with the door closed, if available. See below for PPE.

Screening
- Upon arrival, screen ALL patients for symptoms (subjective or measured fever, cough, shortness of breath, sore throat, fatigue, myalgia, congestion/runny nose, or diarrhea). Ask symptomatic patients if they have had contact with a COVID-19-positive individual within the past 14 days.
- Provide a surgical facemask to ALL patients in L&D, regardless of symptoms.
- All patients wear surgical face masks throughout their L&D admission.
- Place symptomatic patients immediately in a single room with the door closed. See below for PPE.

Categories of COVID-19 Risk
- At present, local epidemiology supports categorizing women into three groups:
  - Group 1- Confirmed COVID-positive
  - Group 2- COVID suspect PUI: patient positive for symptoms including fever, cough, shortness of breath, sore throat, fatigue, muscle aches, congestion/runny nose, or diarrhea OR household or community contact with confirmed COVID-19 individual
  - Group 3- Low suspicion for COVID-19: neither of the above

Do not test if COVID positive test was >14 days ago and patient no longer symptomatic

Staffing and Personal Protective Equipment (PPE)
- Limit staff caring for patients with confirmed or suspected COVID-19 to as few individuals as possible to safely care for the patient.
- Ancillary care providers such as nutrition and social work should interact with patients via telephone or other remote technology.
March 25, 2020 (replaces Interim Guidance March 17, 2020)

- N95 respirators are ONLY used during aerosol generating procedures such as intubation (See COVID Airway Guide), suctioning, or administering aerosolized medications. Metered dose inhalers should be used whenever possible. A negative pressure room is preferred, when available, but aerosol generating procedures can be done in a single room with the door closed.
- Obtaining nasopharyngeal swabs is not an aerosol producing procedure; staff should wear a surgical mask and eye protection when obtaining these tests.

### Patient categories and appropriate PPE

<table>
<thead>
<tr>
<th>Situation</th>
<th>Known COVID positive OR PUI with symptoms</th>
<th>Low suspicion</th>
</tr>
</thead>
<tbody>
<tr>
<td>During initial evaluation</td>
<td>Gowns and gloves&lt;br&gt;Surgical face mask&lt;br&gt;Eye protection¹,²</td>
<td>Surgical face mask³</td>
</tr>
<tr>
<td>When obtaining NP swab</td>
<td>As above, merge with other patient care activities to conserve PPE</td>
<td>Surgical face mask&lt;br&gt;Eye protection¹,²</td>
</tr>
<tr>
<td>During vaginal delivery</td>
<td>Gloves&lt;br&gt;Fluid resistant gown&lt;br&gt;Surgical face mask&lt;br&gt;Eye protection¹,²</td>
<td>Gloves&lt;br&gt;Fluid resistant gown&lt;br&gt;Surgical face mask&lt;br&gt;Eye protection¹,²</td>
</tr>
<tr>
<td>During Cesarean Section</td>
<td>Sterile fluid resistant gown&lt;br&gt;Sterile gloves&lt;br&gt;Eye protection¹,² N95 respirator³</td>
<td>Sterile fluid resistant gown&lt;br&gt;Sterile gloves&lt;br&gt;Surgical face mask&lt;br&gt;Eye protection¹,²</td>
</tr>
</tbody>
</table>

¹ Eye protection, e.g., goggles, face shield, or welder mask
² Disinfect face shield or goggles (with PDI wipe) to conserve PPE
³ If fever or COVID-19 symptoms develop prior to test result initiate contact and droplet precautions
⁴ Cover N95 with a surgical mask or welder mask to conserve N95 for reuse to care for multiple patients. See Updated Recommendations for Conservation and Reuse of Personal Protective Equipment (PPE) and Other Supplies

### Guidance for Operating Room
- Clear other patients and visitors from hallway outside the OR
- Limit staff in the ORs to as few individuals as possible to safely care for the patient.
- See COVID Airway Guide

### Timing to Perform Terminal Cleaning
- Regular patient room – as per standard practice at patient discharge
Interim Guidelines for Suspect and Confirmed COVID-19 for Obstetrics
(Antepartum, Labor & Delivery, Post-partum, and Ambulatory Care),
Neonatal ICUs, and Well-Baby Nurseries

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- Non-negative pressure room AND patient was on airborne isolation and/or if
  aerosol generating procedure was performed within 1 hour before patient
  discharge – wait-to-clean time 60 minutes after patient discharge
- Negative pressure room – wait-to-clean time 30 minutes after patient discharge
- Operating room – wait-to-clean time 30 minutes after patient discharge

Local teams should contact EVS to coordinate cleaning of rooms.

Transport of Patients from L&D to Operating Room or to Post-partum unit

- See Interim Guidance for Transport of Suspected or Confirmed COVID-19
  Patients, updated March 20, 2020
  https://infonet.nyp.org/EPI/Documents/InterimGuidanceforTransportofCOVID-
  19Patients.pdf#search=covid%20transport

Visitors

- No visitors, including partners, spouses, or doalas, will be permitted on L&D.

Managing mothers with suspected or confirmed COVID-19 and their newborns

Transplacental transmission of the COVID-19 virus, SARS-CoV-2, has not been
documented thus far. However, infants could become infected during labor and delivery
from contact with maternal secretions. It is unknown currently if newborns with COVID-
19 are at increased risk for severe illness. It is unknown how long infected infants can
shed virus.
Interim Guidelines for Suspect and Confirmed COVID-19 for Obstetrics (Antepartum, Labor & Delivery, Post-partum, and Ambulatory Care), Neonatal ICUs, and Well-Baby Nurseries

March 25, 2020 (replaces Interim Guidance March 17, 2020)
Algorithm for Management of Newborn Infants Born to Women with Confirmed/ Suspected COVID-19

Newborn infants born to mothers with confirmed or suspected COVID-19 are considered persons under Investigation (PUIs).

**ISOLATE INFANT:**
- Mother unable to care for newborn
- Infant requires NICU care

- Transport infant in isolette (see transport section above) to single room on contact/ droplet precautions
- Keep infant in isolette.
- Negative pressure room preferred if aerosol-generating procedures are performed, e.g., intubation, open suctioning, or CPAP.
- N95 respirators are worn during aerosol generating procedures
- Allow ONLY one asymptomatic visitor, who must wear surgical facemask throughout the facility and during visit
- Visitor cannot be close contact of mother with confirmed COVID-19 as these contacts will be on quarantine.
- Infant can be fed expressed breast milk.
- Mother cannot visit the NICU until cleared by IP&C and the following criteria are met:
  - Must wear a mask throughout her visit
  - No fever for at least 72 hours (3 full days) without taking medicines that treat fever, e.g., Tylenol or aspirin.
  - At least 7 days have passed since her symptoms started.
  - Other symptoms have improved such as cough has improved.

**INFANT ROOM-IN:**
- Mother is able to care for infant
- Infant is stable

See algorithm below for Post-partum Unit

**Testing PUI infants in the NICU for COVID-19**
- Test at DOL 1 and DOL 14 (if still hospitalized).
- Limit additional testing and only test if become symptomatic
POST-PARTUM UNITS: Mother and Infant Care

**Staffing and Personal Protective Equipment (PPE)**
- Limit staff caring for patients with confirmed or suspected COVID-19 to as few individuals as possible to safely care for the patient.
- Ancillary care providers such as nutrition and social work should interact with patients via telephone or other remote technology.
- Staff don PPE that includes gowns, gloves, a mask, and eye protection for COVID-positive patients or PUIs.
- N95 respirators are used while administering aerosolized medications. Metered dose inhalers should be used whenever possible. A negative pressure room is preferred, when available.

**Maternal Status on Admission to Post-partum Units:**

<table>
<thead>
<tr>
<th>Status</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVID-positive</td>
<td>Place mother and newborn on Droplet/ Contact Precautions in single room, if available.* Newborn considered PUI and will room in. If mother unable to care for newborn or newborn needs nursery care, place newborn in isolation room on Droplet/ Contact precautions in isolette, if available. Send COVID test on newborn DOL 1. At discharge, provide mother with Discharge Instructions for COVID-19-positive Patient.</td>
</tr>
<tr>
<td>PUI symptoms and/or known exposure</td>
<td>Place mother and newborn on Droplet/ Contact Precautions in single room. Newborn considered PUI and will room in, in an isolette. If mother unable to care for newborn or newborn needs nursery care, place in isolation room on Droplet/ Contact precautions in isolette, if available.</td>
</tr>
<tr>
<td>Low Suspicion - No PUI symptoms or known exposure</td>
<td>Transfer mother and newborn to single room, if available.* Use following precautions for mother and newborn: - Mother wears mask - Staff wears mask if within 6 feet of mother or newborn - Newborn can be in bassinette If mother unable to care for newborn, place newborn in isolation room in bassinette or in nursery &gt;6 feet from other newborns</td>
</tr>
</tbody>
</table>

*COVID-positive patients can be cohorted together in double room, if needed.

*Low suspicion patients can be cohorted together in double room. Each mother should wear mask. Each infant should remain in isolette, if available. Privacy curtain should be pulled closed throughout stay.*
Isolation precautions for mothers and newborns

- Maintain contact/ droplet precautions with confirmed COVID-19 or PUI status.
- Maintain Low Suspicion precautions (mother mask/ staff mask) for mothers NOT confirmed COVID-19 or PUI.
- Do not discontinue contact/ droplet precautions unless patients are cleared by IP&C

Visitors
- No visitors, including partners or spouses will be permitted on the Post-partum Unit.

Interim Guidance for Testing PUI infants for SARS-CoV-2 in the WBN

<table>
<thead>
<tr>
<th>Test  DOL#1</th>
<th>Symptoms during 14 day incubation period</th>
<th>Follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>None</td>
<td>PUI status cleared at DOL 14 days, if remains asymptomatic&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>Negative</td>
<td>Yes&lt;sup&gt;2&lt;/sup&gt;</td>
<td>As per usual newborn care to assess symptoms - if comes to clinic will need to implement Contact/Droplet Precautions until DOL 14 - if goes to Emergency Department please alert ED that patient is PUI so that appropriate precautions can be taken</td>
</tr>
<tr>
<td>Positive</td>
<td>None</td>
<td>Can discharge home as per usual WBN practice. Repeat testing and PUI status cleared on a case-by-case basis.</td>
</tr>
<tr>
<td>Positive</td>
<td>Yes&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Manage as per usual WBN practice Repeat testing and PUI status cleared on a case-by-case basis, in consultation with CDC and DOH.</td>
</tr>
</tbody>
</table>

<sup>1</sup> Perform testing at DOL#1 to assess if vertical transmission of SARS-CoV-2 occurred, regardless of when in pregnancy mother diagnosed with COVID-19

<sup>2</sup> Common symptoms in older children and adults include fever, cough, shortness of breath, sore throat, fatigue, myalgia, congestion/ stuffy nose, OR diarrhea. The presentation of COVID-19 in newborns is not fully described.

<sup>3</sup> Clearance for PUI status clearance in exposed asymptomatic patients has generally been the incubation period of 14 days, <i>but this is unknown for infants</i>. 
Interim Guidance for Discharging COVID-19 positive Mothers

- Patients with confirmed COVID-19 can be discharged as per routine postpartum parameters for discharge readiness, but must remain on home quarantine.
- Patients should only remain hospitalized if hospitalization is indicated for other clinical reasons such as respiratory distress.
  - See COVID-19 Discharge Instructions

- Inform COVID-19 positive mother that she cannot discontinue home quarantine and accompany the infant to well-baby care visits until the following criteria are met (these guidance are those of CDC):
  1. No fever for at least 72 hours (3 full days) without taking medicines that treat fever, e.g., Tylenol or aspirin.
  2. At least 7 days have passed since her symptoms started.
  3. Other symptoms have improved such as cough has improved.

- Caring for infants at home
  - Efforts should be made to support mother and baby in the home and reduce the risk of transmission to the infant and other family members.

See Discharge Instructions

- If the baby needs medical care within the first 14 days of life, e.g., well baby care or pediatric emergency room for urgent medical issue, the mother should call in advance and explain that her baby was exposed to COVID-19 so that appropriate isolation precautions can be arranged.

Congregate events and vendors
- These events should be canceled until further notice.
- Vendors are not be permitted in the hospital.

ANTEPARTUM UNITS

Staffing and Personal Protective Equipment (PPE)
- Limit staff caring for patients with confirmed or suspected COVID-19 to as few individuals as possible to safely care for the patient.
- When feasible, ancillary care providers such as nutrition and social work should interact with patients via telephone, if feasible.
- Staff don PPE that includes gowns, gloves, a mask, and eye protection.
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March 25, 2020 (replaces Interim Guidance March 17, 2020)

- N95 respirators are used during aerosol generating procedures such as intubation of either the mother or the newborn, open suctioning, or administering aerosolized medications. Metered dose inhalers should be used whenever possible. A negative pressure room is preferred, when available.

Transport of Patients from Antepartum Unit to L&D
- See Interim Guidance for Transport of Suspected or Confirmed COVID-19 Patients, updated March 20, 2020

Visitors
- No visitors, including partners, spouses, or dualas, will be permitted on the Antepartum Unit.

Discharge
- Patients with suspect or confirmed COVID-19 can be discharged home as per usual Obstetric practices; patients should only remain hospitalized if hospitalization is indicated for other clinical reasons.
  - See Discharge Instructions for Patients with Suspect or Confirmed COVID-19 {link}
  - See Discharge Instructions for Care Givers and Household Contacts of Patients with Suspected or Confirmed COVID-19 {link}

Congregate events and vendors
- These events should be canceled until further notice.
- Vendors are not be permitted in the hospital.

AMBULATORY CARE

See Ambulatory Care Guidance for Isolation, Testing, and Discharge

Pre-screening
- Prior to visits, patients should be screened for symptoms such as fever, cough, shortness of breath, sore throat, fatigue, or diarrhea or contact with a COVID-19 patient within past 14 days AND/OR
- Patients with symptoms who need to be seen should be instructed to self-identify immediately at presentation to their ambulatory care setting, provided a surgical facemask, and placed in a single room with the door closed, if available.
Screening upon arrival
- Upon arrival, screen ALL patients for symptoms such as fever, cough, shortness of breath, sore throat, fatigue, or diarrhea or contact with a COVID-19 patient within the past 14 days.
- Provide a surgical facemask to symptomatic patients and place them in a single room with the door closed, if available.
- As symptoms of COVID-19 overlap with those of influenza, influenza testing should be performed.

Telehealth
Telehealth capacity should be maximized, when feasible, to safely care for patients.

Discharge
- Patients with suspect or confirmed COVID-19 do not require hospitalization unless hospitalization is indicated for other clinical reasons such as respiratory distress.
  - See Discharge Instructions for Patients with Suspect or Confirmed COVID-19
  - See Discharge Instructions for Care Givers and Household Contacts of Patients with Suspected or Confirmed COVID-19

References