## Summary of Changes (including interim updates since 03/22/2020)

- As of 4/3/2020, universal masking of all employees in care setting or whose role requires close proximity to others. Limited re-use of facemask for duration of shift except if visibly soiled or damaged.
- Effective 7/22/2020, all healthcare workers (HCWs) are strongly encouraged to wear Sutter approved eye protection during patient encounters regardless of the patient’s COVID-19 status. Eye protection should be worn over prescription glasses because prescription glasses alone will not provide adequate protection.
- As of 4/30/2020, universal SARS-CoV-2 testing of all hospitalized pregnant women admitted for scheduled cesarean delivery, induction of labor, or active labor. Effective 8/7/2020, testing may be performed up to 96 hours prior to admission.
- Repeat testing of an admitted pregnant patient should be performed prior to an anticipated delivery if no testing has been performed in the preceding 4 days.
- Definition of Person Under Investigation (PUI) has been expanded.
- New algorithm for evaluation and management of asymptomatic patients without known contact with COVID positive person.
- Update on SARS-CoV-2 Testing: Available testing options as well as Specimen Collection and Timing.
- New algorithm for NICU Staff Delivery Room attendance to minimize potential exposure to COVID-19.
- Modification of the required PPE for the laboring mother and support person (SP) based on symptoms and SARS-CoV-2 testing.
- Extended Use (but not re-use) of N95 Respirator for all PUI/confirmed COVID-19 deliveries.
- Use of N95 Respirator or PAPR for second stage of labor (pushing and delivery) for ALL pregnant patients except those who are asymptomatic with no known contact with COVID positive person and document negative SARS-CoV-2 testing on admission.
- Use of HEPA air scrubber (if available) is recommended during aerosol generating procedure or treatment including during second stage of all PUI/confirmed COVID-19 deliveries.
- Use of Vyaire HMEF Mini/S filter is recommended during the administration of bag-mask CPAP or PPV.
- Clarification of workflow for transport of mother and infant after delivery to the postpartum floor.
- Revision of NICU visitation policy for infants in Postpartum and NICU.
- Discussion of Risk, Benefits, and Alternatives (RBA) with PUI/confirmed COVID-19 mother regarding infant’s location of care (colocation versus temporary separation) and infant feeding (breastfeeding, use of expressed breast milk, or formula).
- Modification of expressed breast milk handling in accordance with HMBANA guidelines.
- Hearing screen prior to discharge to be performed by Mission Bernal Campus (MBC) nurse utilizing the MBC hearing screen equipment. If staff trained to perform hearing screen is not available to perform test, an outpatient appointment will be scheduled for within one month of birth.
- Update of the discontinuation of disease-transmission precautions and discharge considerations.
- As of 8/7/2020, universal SARS-CoV-2 testing for all readmissions to the NICU.
CPMC COVID-19 Perinatal Care Management

Pregnancy Related Condition Requiring Hospitalization

Any of the following:
- PUI: Symptomatic, Close contact with confirmed COVID+ person within past 14 days, SNF resident, or Incarcerated.
- COVID+ Patient.

No

Yes

Admit to L&D Area 5C

Follow obstetrical workflow for patient arrival to hospital and admission to Area 5C.
Asymptomatic SP may accompany mother. Restrict SP to mother’s room.
SP cannot enter hospital if symptomatic or confirmed COVID-19.
Request Neonatal consultation to discuss with mother the Risk, Benefits and Alternatives (RBA) of infant’s location of care (colocation vs. temporary separation) and feeding (breastfeeding vs. expressed breast milk/bottle feeding).
Contact Engineering (extension: x77900) to obtain HEPA air scrubber for L&D room or C-section Operating Room.
- Health Care Worker (HCW): N95/PAPR & PPE
- Patient: Surgical Mask
- Support Person (SP): Surgical Mask & PPE

Vaginal or Cesarean Delivery

Limit clinicians to only essential staff.
L&D staff: Confirm HEPA air scrubber is in the room. Notify staff to clear hallways en route to C/S:
“Broadcast L&D. Please close all patient room doors. Remain in a closed room until All Clear notification.”
Neonatal Staff: Use Vyaire filter during administration of CPAP and/or PPV.
Place newborn on a clean linen if placed on mother’s abdomen during delayed chord clamping.
Mother may briefly hold newborn (<10 minutes) if able to wear surgical mask, a clean gown, and perform hand hygiene.

Mother and Newborn Transfer

Transport newborn via closed Giraffe incubator.
- HCW: N95 & PPE
- Transporter: N95
- Mother: Surgical Mask, covered with clean sheet to shoulders.
- SP: Surgical Mask

Yes

No

Symptomatic Mother?

Agrees to temporary separation?

Yes

No

Agrees to expressed breast milk or formula?

Yes

No

Bathe newborn immediately.
- HCW or asymptomatic SP provides newborn care.
- Neonatal provider documents RBA given.
- HCW: N95 & PPE
- SP: Surgical Mask & PPE

Bathe newborn as immediately.
- Mother or SP may provide newborn care.
- Except during direct care, keep newborn ≥ 6 ft away from mother in an open bassinet. Consider use of screen.
- Neonatal provider documents RBA given.
- HCW: N95 & PPE
- Mother/SP: Surgical Mask & Hand Hygiene

Bathe newborn immediately.
- Mother or SP may provide newborn care.
- Neonatal provider documents RBA given.
- HCW: N95 & PPE
- Mother/SP: Surgical Mask & Hand Hygiene

Agree to Colocation/Rooming-In with physical distancing?

Yes

No

Testing is recommended at 24 & 48 hours of age. Confirm infant was bathed after delivery.
If anticipated discharge prior to 48 hours of age: order only one test between 24-48 hours.
No testing is indicated if: mother’s COVID-19 test is negative and she is considered not infected.

Newborn Discharge

D/C with appropriate precautions and frequent outpatient follow-up through 14 days of age.
Discuss family specific guidance for home care.

Newborn Discharge

Continue mask and hand hygiene precautions until infant test result is available.

Newborn Discharge

Wear mask and hand hygiene for direct infant care until mother and SP/approved caregiver meet criteria to discontinue precautions.

Newborn Discharge

Routine well baby care.
CPMC COVID-19 Perinatal Care Management
Please refer to Checklist for Perinatal Care During COVID-19 Pandemic for more details.

Asymptomatic Patient and NO Known Contact with Confirmed COVID+ Person

Admit to OB Triage
- Health Care Worker (HCW): Surgical Mask
- Patient: Surgical Mask when HCW present
- Support Person (SP): Surgical Mask when HCW present

Asymptomatic SP may accompany mother. Restrict SP to mother’s room.
SP cannot enter hospital if symptomatic or confirmed COVID-19.

SARS-CoV-2 Test Result
Yes
Agrees to SARS-CoV-2 testing?

Negative

Positive
- HCW: Surgical Mask & PPE
  (N95 if patient unable to wear mask)
- Patient: Surgical Mask
  (No mask if difficulty breathing)
- SP: Surgical Mask

Refer to PUI/COVID+ Algorithm.

Postpartum Care
Infant is to room in with mother.
Infant may go to well baby nursery as needed.
Limit SP to mother’s room.
Mother may breastfeed/bottle feed without surgical mask.
No testing of infant is indicated if mother’s results are negative.
Refer to Inborn NICU Admission Algorithm if infant requires observation/additional care.

- HCW: Surgical Mask, Goggles/Face Shield & Gloves
- Patient: Surgical Mask when HCW present, when out of room, and upon transfer.
- SP: Surgical Mask when HCW present and upon transfer.

Pending

Pushing/Delivering
- HCW: N95 & PPE
  - Patient: Surgical Mask
  (No mask if difficulty breathing)
- SP: Surgical Mask

Postpartum Care
Contact laboratory staff to expedite mother’s pending test.
Infant is to remain in co-location within mother’s L&D room until test result is available.
Precautions during breastfeeding/bottle feeding will be based on maternal test result.
Newborn testing may be indicated depending on maternal test result.
Refer to Inborn NICU Admission Algorithm if infant requires observation/additional care.

While test is pending:
- HCW: N95 & PPE until test result available.
- Patient: Surgical Mask
- SP: Surgical Mask

Once test result is available:
Refer to positive or negative test workflow.
If mother’s test is positive:
Contact neonatal provider to discuss with mother RBA of infant location of care (colocation vs. temporary separation) and feeding (breastfeeding vs. expressed breast milk/bottle feeding.) Refer to PUI/COVID+ Algorithm.

Unknown

Pushing/Delivering
- HCW: N95 & PPE
  - Patient: Surgical Mask
  (No mask if difficulty breathing)
- SP: Surgical Mask

Obstetrical provider documents RBA of SARS-CoV-2 testing given.

Postpartum Care
Infant is to room in with mother.
Infant may not go to well baby nursery.
Restrict mother, SP, and infant to mother’s room.
Mother may breastfeed/bottle feed without surgical mask.
No testing is indicated unless infant develops symptoms.
Refer to Inborn NICU Admission Algorithm if infant requires observation/additional care.

- HCW: Surgical Mask, Goggles/Face Shield & Gloves
- Patient: Surgical Mask when HCW present and upon transfer.
- SP: Surgical Mask when HCW present and upon transfer.

Newborn Discharge
Review general COVID-19 discharge instructions and home precautions.
(Printed instruction sheets are available in English, Spanish, and Chinese.)
*Up to 20 days may be appropriate for patients that are severely immunocompromised or were hospitalized secondary to severe or critical illness from COVID.
**Newborn SARS-CoV-2 Testing**

**Specimen collection:**
- Place infant in a closed isolette with as many portholes closed as possible.
- PPE for HCW: N95, face shield, goggles, gown, and gloves.

**Testing:**
At 24 & 48 hours of age. Confirm infant was bathed after delivery.

**Exception:**
- No testing is indicated if mother’s COVID-19 test is negative and she is considered not infected.

---

**Infant Born to Asymptomatic Mother with Unknown SARS-CoV-2 Test**

**Infant Born to Asymptomatic Mother with Negative SARS-CoV-2 Test**

**Infant Born to Asymptomatic Mother with Unknown SARS-CoV-2 Test**

**Infant Born to Asymptomatic Mother with Negative SARS-CoV-2 Test**

---

**Newborn Transfer**

Transport newborn via closed Giraffe Omnibed. Upon NICU arrival, notify all NICU staff to clear hallways.

-“Broadcast NICU. Please close all patient room doors and remain in a closed room until All Clear notification.”

**HCW:** N95 & PPE

**Mother/SP:** Surgical Mask & PPE until infant meets criteria for discontinuing precautions.

---

**Admit to NICU**

Determine infant’s location of care:
- Place infant in AIIR Room 5529 or AIIR Room 5530 (preferred for infant on respiratory support or critically ill).
- Contact Engineering (extension: x77900) to turn on the negative pressure alarm in AIIR.

- If AIIR is already in use and NOT indicated: Use Room 5515 (preferred), Room 5514, or Room 5521 (if twins).
- Minimize room transfers while infant remains on isolation precautions.

Order COVID-19 Droplet/Contact Precautions in EHR.

Bathe newborn immediately.

All testing, procedures, or other interventions should be performed in infant’s room if possible.
- Place infant back into closed isolette and minimize the number of open portholes.

---

**Newborn SARS-CoV-2 Testing**

**Specimen collection:**
- Place infant in a closed isolette with as many portholes closed as possible.
- PPE for HCW: N95, face shield, goggles, gown, and gloves.

**Testing:**
At 24 & 48 hours of age. Confirm infant was bathed after delivery.

**Exception:**
- No testing is indicated if mother’s COVID-19 test is negative and she is considered not infected.

**Newborn SARS-CoV-2 Testing?**

- **Yes**
  - Continue mask and hand hygiene precautions until infant test result is available and then follow positive or negative workflow.
- **Negative**
  - Wear mask and hand hygiene for direct infant care until mother and SP/approved caregiver meet criteria to discontinue precautions.
- **Not Indicated**
  - D/C with appropriate precautions and frequent outpatient follow-up through 14 days of age. Discuss family specific guidance for home care.

---

**NICU Visitation**

- No visitors are allowed until infant’s infection status has been determined.
- Unexposed SP may visit with appropriate PPE.
- Mother and SP who are PUI/confirmed COVID-19 cannot enter NICU until their status is resolved.

If infant is uninfected but requires prolonged NICU hospitalization:
- Mother and SP/approved caregiver with confirmed COVID-19 may not visit until he/she meet criteria to discontinue precautions.
- At least 14 days* have passed since symptom onset or positive test (in case of asymptomatic mother and no known contact with COVID+ person), and
  - Afebrile for at least 24 hours without use of antipyretic medication and
  - Symptoms have improved.

*Extends to 20+ days if mother is immunocompromised or required ICU care.

Obtain Infection Control approval prior to allowing visitation.

**NICU Visitation**

While mother is on Postpartum:
- Mother and SP may visit at same time.

After mother is discharged home:
- 2 parents/legal guardians are allowed on visitor list (unless special arrangement approved by Administration).
- Only 1 entry per visitor per day.
- 1 visitor is allowed at the bedside.
- For multiple gestations: 2 visitors are allowed to visit at same time but one visitor per bedside.

---

**Newborn Discharge**

Routine care.

**Newborn SARS-CoV-2 Testing?**

- **Yes**
  - Continue mask and hand hygiene precautions until infant test result is available and then follow positive or negative workflow.
- **Negative**
  - Wear mask and hand hygiene for direct infant care until mother and SP/approved caregiver meet criteria to discontinue precautions.
- **Not Indicated**
  - D/C with appropriate precautions and frequent outpatient follow-up through 14 days of age. Discuss family specific guidance for home care.
### Neonatal Team PUI/COVID+ with Minimal Risk Factors for Neonatal Team at Delivery

**Inside Room**
- L&D nurse (PPE+N95)

**Outside Room**
- RN1 in PPE
- Neo Yellow Team available but not in PPE.
- RT1 available but not in PPE.

### Neonatal Team PUI/COVID+ with Intermediate Risk Factors for Neonatal Team at Delivery

**Escalation**
- If L&D nurse requests assistance:
  - RN1 dons N95, enters room.
- If CPAP/PPV:
- If intubation/chest compressions:
  - See High Risk Factors algorithm.
- If resuscitative medications:
  - See High Risk Factors algorithm.

**Note:** All resuscitation bags have a Vyaire filter and CO2 detectors.

### Neonatal Team PUI/COVID+ with High Risk Factors for Neonatal Team at Delivery

**Inside Room**
- L&D nurse (PPE+N95)
- RN1 (PPE+N95)
- Neo Blue Team (PPE+N95)

**Outside Room**
- RN1 in PPE
- Neo Yellow Team in PPE.
- RT1 available but not in PPE.

### Intermediate Risk Factors for Neonatal Team at Delivery

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maternal diabetes mellitus on treatment</td>
<td></td>
</tr>
<tr>
<td>Maternal hypertension, Pre-eclampsia</td>
<td></td>
</tr>
<tr>
<td>Oligohydramnios (without other risk factors)</td>
<td>Birthweight &lt; 1800 grams</td>
</tr>
<tr>
<td>Polyhydramnios (without other risk factors)</td>
<td>Multiple gestation (requires appropriate team for each fetus)</td>
</tr>
<tr>
<td>Mother with no prenatal care</td>
<td>Significant congenital anomalies</td>
</tr>
<tr>
<td>Maternal substance abuse</td>
<td>Oligohydramnios with significant pulmonary hypoplasia</td>
</tr>
<tr>
<td>Gestational age 33 0/7-35 6/7 weeks</td>
<td></td>
</tr>
<tr>
<td>Gestational age 42+ weeks</td>
<td></td>
</tr>
<tr>
<td>Birthweight 1800-2000 grams</td>
<td>Hydrops fetalis</td>
</tr>
<tr>
<td>IUGR</td>
<td>Suspected severe fetal anemia</td>
</tr>
<tr>
<td>Macrosomia</td>
<td>Severe isoimmunization or history of in utero transfusion</td>
</tr>
<tr>
<td>Maternal exposure to opiates or magnesium</td>
<td>Suspected placental abruption</td>
</tr>
<tr>
<td>Premature (pre-labor) rupture of membranes (PROM)</td>
<td>Significant intrapartum bleeding</td>
</tr>
<tr>
<td>Prolonged PROM</td>
<td>Placenta accreta, percreta, or increta</td>
</tr>
<tr>
<td>Chorioamnionitis or maternal temperature &gt; 38 °C</td>
<td>Eclampsia</td>
</tr>
<tr>
<td>Meconium stained amniotic fluid</td>
<td>Uterine rupture</td>
</tr>
<tr>
<td>Category II fetal heart tracing</td>
<td>Proloapsed umbilical cord</td>
</tr>
<tr>
<td>Non-vertex presentation</td>
<td>Mother exposed to general anesthesia</td>
</tr>
</tbody>
</table>

### High Risk Factors for Neonatal Team at Delivery

<table>
<thead>
<tr>
<th>Factor</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant/Multiple maternal illness(es)</td>
<td>Gestational age &lt; 33 weeks</td>
</tr>
<tr>
<td>Significant congenital anomalies</td>
<td>Oligohydramnios with other risk factors</td>
</tr>
<tr>
<td>Polyhydramnios with other risk factors</td>
<td>Hydrops fetalis</td>
</tr>
<tr>
<td>Suspected severe fetal anemia</td>
<td>Severe isoimmunization or history of in utero transfusion</td>
</tr>
<tr>
<td>Severe isoimmunization or history of in utero transfusion</td>
<td>Suspected placental abruption</td>
</tr>
<tr>
<td>Significant intrapartum bleeding</td>
<td>Placenta accreta, percreta, or increta</td>
</tr>
<tr>
<td>Proloapsed umbilical cord</td>
<td>Eclampsia</td>
</tr>
<tr>
<td>Mother exposed to general anesthesia</td>
<td>Uterine rupture</td>
</tr>
<tr>
<td>Category III fetal heart tracing</td>
<td></td>
</tr>
</tbody>
</table>
Table of Contents

PRE-HOSPITAL.................................................................................................................................................. 9

• ADMISSION: LABOR (REFER TO CPMC OB PERINATAL CARE ALGORITHM) ................................................. 10

AT DELIVERY AND IMMEDIATELY POST DELIVERY (REFER TO CPMC OB PERINATAL CARE ALGORITHM) ......... 13

POSTPARTUM CARE (REFER TO CPMC OB PERINATAL CARE ALGORITHM) ...................................................... 15

NICU CARE (REFER TO CPMC INBORN NICU PERINATAL CARE ALGORITHM) .................................................. 18

DETERMINATION OF INFANT’S LOCATION OF CARE ......................................................................................... 24

BREASTFEEDING .................................................................................................................................................. 29

EXPRESSED BREAST MILK (EBM) USE FOR INFANTS BORN TO PUI/CONFIRMED COVID-19 MOTHERS ........... 30

NEONATAL TESTS AND PROCEDURES IN NICU ................................................................................................. 32

QUARANTINE FOR MOTHER OR SP WHO IS A PUI ............................................................................................... 34

DURATION OF TRANSMISSION-BASED PRECAUTIONS FOR PUI/CONFIRMED COVID-19 PATIENT .................... 35

DURATION OF ISOLATION PRECAUTIONS FOR INFANT BORN TO CONFIRMED COVID-19 MOTHER .................... 36

CHECKLIST TO MINIMIZE POTENTIAL FOR COVID-19 EXPOSURE ..................................................................... 37

PERSONNEL............................................................................................................................................................ 37
PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR NICU (SEE HOSPITAL WIDE REQUIREMENTS FOR OTHER AREAS)................................................................................................................. 37
AEROSOL-GENERATING PROCEDURES.............................................................................................................. 40
EQUIPMENT CLEANING ....................................................................................................................................... 40
ENVIRONMENT CLEANING .................................................................................................................................... 40

SUMMARY VISITATION POLICY FOR PREGNANT PATIENTS AND INFANTS ............................................................ 41

INFORMATION FOR FAMILIES AT HOME AFTER HOSPITAL DISCHARGE OF INFANT ............................................. 44
COVID-19 is a severe respiratory disease caused by the novel coronavirus SARS-CoV-2 that is believed to be transmitted primarily through respiratory droplets. In neonates, transmission is thought to occur primarily through respiratory droplets during the postnatal period when neonates are exposed to mothers or other caregivers with SARS-CoV-2 infection. Limited reports have raised the concern congenital or perinatal transmission from affected pregnant women to their infants, but the extent and clinical significance of vertical transmission is unclear.

Signs and symptoms of COVID-19 in adults include fever or chills, cough, shortness of breath or difficulty breathing, muscle or body aches, headache, new loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and/or diarrhea. The incubation period for COVID-19 is thought to extend to 14 days, with a median time of 4-5 days from exposure to symptoms onset.

Pregnant women with the following medical conditions are classified as high risk for severe disease: obesity (defined as BMI ≥ 30), diabetes, hypertension, immunosuppression, and/or heart, lung or kidney disease.

Reported signs and symptoms of COVID-19 in neonates include fever, lethargy, rhinorrhea, cough, tachypnea, increased work of breathing, vomiting, diarrhea, and poor feeding. The extent to which COVID-19 infection contributed to their clinical presentation is unclear as the described findings are non-specific to SARS-CoV-2 and may be seen commonly in both term and preterm infants for other reasons.

Current evidence suggests that SARS-CoV-2 infections in neonates are uncommon with approximately 2-5% of newborns born to women with COVID-19 near the time of delivery have tested positive for the virus in the first 24-96 hours after birth. The majority of infected newborns appear to be either asymptomatic or develop mild disease (i.e., do not require respiratory support) and recover. Severe illness appears to be rare but there are published reports of infants requiring hospitalization before one month of age due to severe COVID-19 infection.

A Person Under Investigation (PUI) is defined as:
- A person with symptoms of COVID-19.
- A person with known close contact with a confirmed COVID-19 person within the past 14 days.
- A person from a skilled nursing facility (SNF).
- An incarcerated person.
- An infant born to a mother with confirmed COVID-19.

(Please refer to SHEMS COVID-19 Screening and Testing KDS for further details).

As such, the mother and her infant should be isolated according to the CDC Infection Prevention and Control Guidance for PUIs.

As of 4/30/2020, all admitted obstetric patients with an anticipated delivery will undergo universal screening for symptoms and SARS-CoV-2 testing (refer to SHEMS OB COVID Screening/Testing Algorithm) upon arrival. The Abbott ID Now point-of-care testing platform (refer to SHEMS Nasal Collection KDS) which has an expected 1-2 hour result turnaround time will be utilized for screening.

A patient with a scheduled induction of labor or cesarean delivery will optimally have her SARS-CoV-2 molecular testing performed within 96 hours prior to admission. The testing platform used for such testing will depend on where the patient undergoes testing. If her test result is known to be negative at the time of her admission, she will not be required to undergo repeat testing if she has not had interval development of symptoms nor known contact with PUI/confirmed COVID-19 persons.

The possible scenarios are:
- An asymptomatic patient with SARS-CoV-2 molecular testing that is: negative, pending, positive, or declined.
- A symptomatic patient with SARS-CoV-2 molecular testing that is: negative, pending, positive, or declined.
- An asymptomatic patient who subsequently becomes symptomatic during her hospitalization.

If the patient declines testing:
- Notify provider so he/she may discuss importance of testing with the patient.
- Provider documents refusal in the patient’s medical record if she continues to decline testing.

Note: An asymptomatic patient who declines testing is not considered PUI unless she develops symptoms.
A symptomatic patient with pending or known negative Abbott ID Now test should undergo SARS-CoV-2 confirmatory testing (specimen in viral transport medium) at the Sutter Shared Laboratory (refer to SHEMS Nasopharyngeal Collection KDS).

As of 6/23/2020, all hospitalized patients excluding routine inborn newborn admissions will undergo SARS-CoV-2 testing upon admission. Existing isolation and testing requirements remain the same for PUI/confirmed COVID-19 patients. No isolation requirements are necessary while awaiting test results for asymptomatic patients who have had no known close contact with confirmed COVID-19 person in the prior 14 days.

PRE-HOSPITAL

ALL:
□ Physician liaisons contact all patients who are scheduled for induction of labor or cesarean delivery at about 96 hours prior to expected date of admission.
   • Physician liaison confirms patient has arranged for her SARS-CoV-2 testing or assist her with the process if she has not done so already.
   • SARS-CoV-2 testing is recommended within 96 hours (ideally within 72 hours but contingent on available testing resources) prior to admission.
   • Parents are encouraged to bring in the car seat (leaving the base secured and fastened in the car) upon arrival to avoid having to leave the building to retrieve it later.
□ If a patient’s test is positive prior to admission, OB provider will notify patient of test results.
   • OB provider will contact patient to instruct her and monitor herself for COVID-19 symptoms.
   • Family members that have been in close contact with patient should be instructed to monitor themselves for COVID-19 symptoms and to discuss testing and monitoring with their primary physician.
   • OB provider will discuss plan for admission to the hospital.
□ Patient should enter the hospital through the Emergency Department (ED) entrance.
□ Screener instructs patient and her support person (SP) to wear a procedure/surgical facemask to lessen possible droplet spread.
□ HCW completes COVID-19 screen (Symptom Checklist and Temperature Screen) on patient and her SP. There are NO screening exceptions. If SP declines to be screened, he/she will NOT be cleared for hospital entry as refusal will be considered a failed screen.
   • Patient’s COVID-19 screen results:
     o PASS: Instruct patient to go to OB Triage.
     o FAIL:
       ▪ Notify L&D Charge nurse and escort to patient to L&D Area 5C.
       ▪ HCW place orange identification band.
   • SP’s COVID-19 screen results:
     o PASS: May accompany patient into the hospital.
     o FAIL:
       ▪ SP CANNOT enter hospital if symptomatic or diagnosed with COVID-19 within 10 days prior to patient’s admission.
       ▪ Exception: “Healthy” asymptomatic SP may accompany patient despite answering yes to exposure to confirmed COVID-19 pregnant patient.
         ⇒ “Do you live in the same household with, or have you had “close contact” with someone who in the past 14 days was diagnosed with COVID-19, or had a test confirming they have the virus?”

PUI OR CONFIRMED COVID-19 PATIENT:
□ OB provider should instruct his/her patient to contact him/her if she develops symptoms or diagnosed with COVID-19 prior to admission.
□ L&D notification prior to patient arrival:
   • Coming from home: Patient to notify L&D.
   • Arrival from outpatient office or clinic: OB provider to notify L&D.
   • Arrival by EMS: EMS driver to notify ED of their estimated time arrival.
Upon patient arrival from home or outpatient office/clinic:
- Patient and SP undergo COVID-19 screening at the ED entrance of CPMC.
- “Healthy” asymptomatic SP may accompany patient into the hospital even if he/she has had known close contact with patient within the past 14 days prior to admission.
- Screener instructs patient and SP to perform hand hygiene, doff their personal face covering, and don hospital provided facemasks.
- Screener/Security calls L&D to notify of patient arrival.
- L&D RN dons N95 respirator and eye protection and then meets patient and SP at ED entrance.
- L&D RN confirms that patient and SP are wearing mask properly. If patient requires a wheelchair, patient should be covered with a clean sheet up to her shoulder.
- L&D RN escorts patient and SP directly up to room in L&D Area 5C without detours. No other patients/visitors are allowed in same elevator with patient and SP. If accidental contamination of environment occurs, Housekeeping should be contacted for arrange for prompt cleaning.

- ADMISSION: LABOR (Refer to [CPMC OB Perinatal Care Algorithm](#))

ALL:
- Location of Care for Pregnant Patient:
  - OB Triage:
    - Location of care for patients who pass COVID-19 screen at ED entrance.
    - SP may accompany patient if he/she passes COVID-19 screen at ED entrance.
      - SP must be the same individual throughout the hospital stay.
      - Limit SP movement to mother’s room.
    - L&D nurse performs admission COVID-19 screen on patient.
    - If patient screens positive on Symptoms Checklist or Temperature Check:
      - Keep patient in the room with door closed.
      - Place on COVID Contact/Droplet Precautions IN EHR.
      - Mother should remain in this room until transferred to Postpartum. Minimize room transfers.
      - Restrict SP to mother’s room for entire duration of patient’s hospital stay.
    - Send SARS-CoV-2 test utilizing the Abbott ID Now COVID-19 point of care testing platform. **Testing ALL admitted inpatients will help inform patient care and protect staff as they are caring for patients.**
      - Patient declines testing:
        ⇒ Contact obstetrical provider to discuss importance of testing with patient. If patient continues to decline testing, follow the [SHEMS OB COVID Testing Refusal Algorithm](#) to document refusal in EHR.
        ⇒ Patient is NOT considered a PUI unless symptomatic or has had extended close contact with a confirmed COVID-19 person.
  - Area 5C:
    - Location of care for patients who failed COVID-19 screen ED entrance.
    - SP CANNOT enter hospital if symptomatic or confirmed COVID-19 within 10 days prior to patient’s admission.
    - “Healthy” asymptomatic SP may accompany patient even if he/she has had known close contact with patient within the past 14 days prior to admission.
      - Restrict SP movement to mother’s room for the duration of mother’s hospitalization.
      - If at any time, SP becomes symptomatic (develops symptoms or documented to have a fever on temperature screening), he/she should be instructed to leave the hospital immediately and follow-up with his/her primary care provider.
    - L&D nurse performs admission COVID-19 screen on patient.
    - Place patient in separate room with door closed.
      - Use in preferential order: **LDR 5, then LDR 6, then LDR 4, and then LDR 3.**
    - See “PUI or confirmed COVID-19 patient determined at time of admission” section below for workflow.
- RN performs temperature screen on patient and SP until infant delivery.
  - Intact membranes: screen every 4 hours
  - Ruptured membranes: screen every 2 hours
Nitrous oxide should NOT be used in L&D due to potential aerosolization.
Supplemental oxygen use:
- For fetal indications: Use ≤ 4 LPM as high flow nasal cannula or face mask oxygen may be aerosolizing.
- For maternal indications: Use nasal cannula at lowest flow rate ≤ 6 LPM to maintain maternal SpO2 ≥95%. The nasal cannula should be covered by a standard facemask.
See sections below regarding workflow based on symptoms and test results.

ASYMPTOMATIC PATIENT WITH NEGATIVE SARS-CoV-2 TEST:
- PPE for HCW: Facemask and eye protection.
- PPE for Patient and SP: Facemask when HCW present
- Anticipated Infant Care: Routine well baby care.

ASYMPTOMATIC PATIENT WITH PENDING SARS-CoV-2 TEST:
- PPE for HCW: Facemask and eye protection.
- PPE for Patient and SP: Facemask when HCW present
- Anticipated Infant Care: Depends on test results.
  - Keep infant in co-location with patient in L&D until test results available.

ASYMPTOMATIC PATIENT WHO DECLINES TESTING:
- PPE for HCW: Facemask and eye protection.
- PPE for Patient and SP: Facemask when HCW present
- Anticipated Infant Care:
  - Rooming-In with mother. Do NOT bring infant to Well Baby Nursery.
    - Whenever possible, tests, perform procedures, or other interventions in the infant’s room.
  - If infant requires observation for transitioning:
    - Contact NICU to arrange for transfer.

RECOVERED COVID-19 PATIENT DEEMED NO LONGER INFECTIOUS AT TIME OF ADMISSION:
(See SHEMS Retesting After COVID-19 Algorithm).
- Confirm that patient meets criteria for discontinuation of isolation and precautions.
  - < 90 days since COVID-19 diagnosis: Asymptomatic or symptoms improved/resolved.
  - ≥ 90 days since COVID-19 diagnosis: No longer symptomatic.
- Contact Infection Control to confirm patient is considered cleared of infection (i.e. no longer infectious).
- PPE for HCW: Facemask and Eye Protection.
- PPE for Patient and SP: Facemask when HCW present
- Anticipated Infant Care: Contact Neonatologist On-Call to coordinate care for infant as needed.
  - Rooming-In with mother. Do NOT bring infant to Well Baby Nursery.
    - Whenever possible, tests, perform procedures, or other interventions in the infant’s room.
  - If infant requires observation for transitioning:
    - Contact NICU to arrange for transfer.

RECOVERED COVID-19 PATIENT WHO IS SYMPTOMATIC AT TIME OF ADMISSION:
(See SHEMS Retesting After COVID-19 Algorithm).
- Contact Infectious Disease and Infection Control to determine patient’s infection status.
  - Symptomatic patient < 90 days since COVID-19 diagnosis:
    - Interval worsening of symptoms or
    - Symptom recurrence after > 14 days from resolution of initial symptoms.
  - Symptomatic patient ≥ 90 days since COVID-19 diagnosis and now symptomatic.
- Retesting may be warranted to determine infection status of a recovered COVID-19 patient who develops new symptoms consistent with COVID-19 during the 3 months after the date of initial symptom onset and in whom an alternative etiology cannot be identified (especially in the event symptoms develop within 14 days after close contact with an infected person).
- If patient is confirmed to be NOT infectious:
  - Follow guidelines for “Recovered COVID-19 Patient Deemed No Longer Infectious at Time of Admission.”
- If patient is confirmed to be symptomatic:
  - Follow guidelines for “PUI/Confirmed COVID-19 Patient Determined at Time of Admission.”
PUI OR CONFIRMED COVID-19 PATIENT:

- Confirm that patient does NOT meet criteria for discontinuation of isolation and precautions.
- PPE for HCW: N95 respirator or PAPR, face shield (preferred) or goggles, gown, and gloves.
- PPE for Patient and SP: Facemask to wear at ALL times except eating and drinking.
- Place patient in a separate room with door closed.
  - Use in preferential order: LDR 5, then LDR 6, then LDR 4, and then LDR 3.
  - Mother should remain in this unit until transferred to Postpartum. Minimize room transfers.
- Place isolation signs on door and cart outside of room.
- Obstetrical provider contacts Neonatologist On-Call to notify of maternal admission and coordinate infection control measures in the following scenarios:
  - Pregnant patient with pending SARS-CoV-2 testing whose delivery is anticipated prior to test result availability.
  - Pregnant patient who has declined SARS-CoV-2 testing.
  - PUI/confirmed COVID-19 pregnant patient.
- Obstetrical provider orders an antenatal neonatal consultation for all PUI/confirmed COVID-19 patients.
- If time permits, neonatal provider will perform a telephone/telehealth consultation with mother prior to delivery (use PXCOVIDPRENATALCONSULT smart phrase):
  - Discuss Risks, Benefits, and Alternatives (RBA) of infant’s location of care and feeding following birth.
  - Review neonatal visitation policy.
- Contact the house nursing supervisor (who will loop in Administrator On-Call as needed) for assistance.
- Contact Infection Control at Pager 415-232-6474 for any questions not covered in this document.
- Contact Engineering at 415-600-7900 (extension x77900) to arrange for HEPA air scrubber to be used during aerosol generating procedure or treatment including second stage of labor and during cesarean delivery.
- Between 07:00-23:00: Choose Option 2 and follow prompts to place a Support Center work order.
- Between 23:00-07:00: Choose prompts to reach Engineering.
- Make sure room is set up for managing infant following delivery.
  - If well newborn is anticipated:
    - L&D Charge Nurse or L&D Resource Nurse Responsibilities:
      - Notify Postpartum Charge Nurse of anticipated delivery.
      - Place postpartum Giraffe Incubator (which will be used to transport infant to the 8th Floor) outside of mother’s room to minimize contamination of incubator.
      - When delivery is imminent, bring postpartum Giraffe incubator back into mother’s room.
    - Postpartum Charge Nurse Responsibilities:
      - Contact Engineering at 415-600-7900 (extension x77900) to request negative pressure room alarm to be turned on in postpartum Airborne Infection Isolation Rooms (AIIRs) identified for use.
        - Between 07:00-23:00: Choose Option 2 and follow prompts to place a Support Center work order.
        - Between 23:00-07:00: Choose prompts to reach Engineering directly.
      - Confirm Panda warmer and emergency equipment (i.e. Neo-Tee) have been set up for use in:
        - Room 8168 (preferred) or Room 8372 if infant will be in colocation with mother.
        - Room 8166 (preferred) or Room 8366 if infant will be in temporary separation.
      - Contact NICU charge nurse to determine who will be assigned to admit infant to Postpartum and provide initial newborn care up to 2 hours of age (in order of preference based on staff availabilities):
        1. Secondary Nursery nurse or Postpartum Resource nurse
        2. NICU Resource (Baby) nurse or NICU Relief nurse
  - If NICU admission is anticipated:
    - Designated L&D Baby Nurse Responsibilities:
      - Notify NICU charge nurse of anticipated delivery.
      - Remove postpartum Giraffe Incubator from mother’s room.
    - NICU Resource (Baby) Nurse Responsibilities:
      - When delivery is imminent, brings NICU Giraffe OmniBed (which will be used to transport infant to the NICU) to mother’s delivery room.
- If patient requires cesarean delivery, L&D nurse notifies ALL L&D staff by Vocera to clear hallways.
  - “Broadcast L&D. [Wait for chime.] Please close all patient room doors. Remain in a closed room until All Clear notification.”
AT DELIVERY AND IMMEDIATELY POST DELIVERY (Refer to CPMC OB Perinatal Care Algorithm)

ALL:
- PPE for HCW, Patient and SP: Please see summary tables in PPE section below.
  - HCW should wear N95 respirator or PAPR, face shield (preferred) or goggles, gowns, and gloves during PUSHING and DELIVERY as the second stage of labor is considered an aerosolizing procedure and infant and/or mother may require aerosol-generating procedures (e.g., open suctioning of airways, PPV, CPAP, Intubation, CPR).
  - EXCEPTION: For an asymptomatic patient with known negative SARS-CoV-2 test, HCW wears facemask, face shield or goggles, gowns, and gloves. However, HCW may wear N95 respirator if patient is unable to wear mask.

ASYMPTOMATIC PATIENT WITH KNOWN NEGATIVE SARS-CoV-2 TEST:
- PPE for HCW: Facemask, face shield or goggles, gown, and gloves.
  - If patient unable to wear mask: N95 respirator or PAPR, face shield (preferred) or goggles, gown, and gloves.
- PPE for Mother: Facemask but may opt out if difficulty delivery.
- PPE for SP: Facemask.

ASYMPTOMATIC PATIENT WITH PENDING SARS-CoV-2 TEST:
- Contact Laboratory staff to request pending test to be EXPEDITED.
- Delayed Cord Clamping (DCC): Per usual practice.
- Skin-to-skin care: Mother and SP may do so with mask in place and meticulous hand hygiene.
- Infant should remain in colocation within mother’s L&D room while awaiting test results.
- PPE for HCW while awaiting test result:
  - N95 respirator or PAPR (used for pushing/delivery), face shield or goggles, gown, and gloves.
- PPE for Mother and SP while awaiting test result:
  - Facemask. Meticulous hand hygiene when in contact with infant.
- PPE for HCW if test is negative:
  - Facemask, eye protection, and gloves (if gloves are part of unit routine PPE for patient care).
- PPE for HCW if test is positive:
  - If test is positive: N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  - Contact neonatal provider to discuss with mother RBA of colocation versus temporary separation.
  - Infant CANNOT be cared for in Well Baby Nursery unless mother’s SARS-CoV-2 test is negative.

RECOVERED COVID-19 PATIENT DEEMED NO LONGER INFECTIOUS AT TIME OF ADMISSION:
- Confirm with Infection Control that mother meets criteria for discontinuation of isolation and precautions and that the patient is considered cleared of COVID-19 infection.
- Delayed Cord Clamping (DCC): Per usual practice.
- Skin-to-skin care: Mother and SP may do so with mask in place and meticulous hand hygiene.
- PPE for HCW: Facemask, eye protection, and gloves (if gloves are part of unit routine PPE for patient care).
- PPE for Patient and SP: Facemask.

RECOVERED COVID-19 PATIENT DEEMED NO LONGER INFECTIOUS AND Requires Cesarean Delivery: (See SHEMS Perioperative Guidelines and SHEMS Retesting After COVID-19 Algorithm).
- Confirm with Infection Control that mother meets criteria for discontinuation of isolation and precautions and that the patient is considered cleared of COVID-19 infection.
- Per SHEMS CAG Perioperative Guidelines, pre-procedural PCR testing of a patient who had prior COVID infection may be difficult to interpret but may be appropriate to facilitate risk mitigation for both patient and HCWs.”
  - Pre-procedure testing, if performed, should be obtained within 96 hours of procedure/surgery (ideally within 72 hours but contingent on available testing resources).
  - A recovered patient may continue to shed detectable SARS-CoV-2 RNA in upper respiratory specimens for up to 90 days after illness onset. However, clinically recovered persons with persistence of viral RNA do not appear to transmit SARS-CoV-2 to others. Thus, a recovered patient with a positive PCR test during the 90 days after illness onset likely represents persistent shedding of viral RNA rather than reinfection.
  - A recovered patient may become susceptible again at around 90 days after onset of infection.
• A recovered patient within 90 day of initial illness onset/diagnosis with a subsequent negative PCR test within 96 hours of procedure, is classified as Category 3: LOW RISK status for COVID-19.
  o HCWs wear STANDARD PPE (surgical mask, face shield or goggles, gown, and gloves.
• A recovered patient within 90 day of initial illness onset/diagnosis with a subsequent positive PCR test within 96 hours of procedure, is classified as Class 2: INDETERMINATE status for COVID-19.
  o HCWs wear FULL PPE: surgical N95 or PAPR, full face shield, gown, and gloves.
• A recovered patient who develops new symptoms (after recovery) within 90 days AND has no other alternative diagnosis, should undergo evaluation for SARS-CoV-2 reinfection in consultation with an infectious disease specialist.
• A recovered patient over 90 days from initial onset/diagnosis with a subsequent positive PCR test within 96 hours of procedure is classified as Class 1: COVID+/PUI status and should undergo evaluation for new infection.
  o HCWs wear FULL PPE + PAPR: PAPR with enclosed face shield/eye protection, gown, and gloves.
  o HEPA air scrubber should be used during procedure.

RECOVERED COVID-19 PATIENT WHO IS SYMPTOMATIC AT TIME OF ADMISSION:
☐ Infection Control should have been contacted during labor to determine patient’s infection status.
☐ If patient is confirmed not considered infectious:
  • Follow guidelines for “Recovered COVID-19 Patient Deemed No Longer Infectious.”
☐ If patient is confirmed to be symptomatic:
  • Follow guidelines for “PUI or Confirmed COVID-19 Patient.”

PUI OR CONFIRMED COVID-19 PATIENT:
☐ Place a HEPA air scrubber in-room for aerosol-generating procedures or treatments including second stage of labor and during cesarean delivery.
☐ Limit HCWs to essential personnel as outlined in NICU Staff Delivery Room Attendance algorithm.
☐ PPE for HCW: N95 respirator or PAPR, face shield (preferred) or goggles, gown, and gloves.
☐ PPE for Patient and SP:
  • Facemask at ALL times.
  • Cover mother with a clean sheet during transfer.
☐ If infant requires resuscitation:
  • Resuscitate infant ≥ 6 feet away from mother.
  • Use Vyaire HMEF Mini/S filter during administration of CPAP or PPV.
  • At the discretion of neonatal team, consider placing infant in open bassinet and moving him/her immediately into separate room to perform resuscitation if additional space is needed for staff and equipment, etc.
☐ Delayed Cord Clamping (DCC):
  • Continue per usual practice.
  • During DCC, obstetrical provider may:
    o Hold infant for entirety of procedure OR
    o Place a clean baby blanket on mother’s abdomen and then rest infant on mother.
☐ Mother may briefly hold newborn (< 10 minutes) if able to wear surgical mask, covered with a clean gown, and perform hand hygiene.
  • If the mother requests skin-to-skin contact with her infant, she should comply with strict preventive precautions, including the use of facemask and meticulous hand hygiene before, during, and after direct contact with her infant.
☐ Discuss RBA of infant’s location of care (colocation versus temporary separation) and feeding (breastfeeding versus bottle feeding with expressed breast milk/formula) with mother if neonatal consultation did not occur prior to delivery.
POSTPARTUM CARE (Refer to CPMC OB Perinatal Care Algorithm)

ALL:
- **PPE for HCW:**
  - Facemask, eye protection, and gloves (where gloves are part of routine PPE for patient care).
  - **Note:** Gloves are required for all patient care in NICU.
- **PPE for Mother and SP:**
  - Facemask when HCW present.
  - Mother must wear a facemask for all movements outside of her room.
- **Limit SP movement to mother’s room.**

ASYMPTOMATIC PATIENT WHO DECLINES TESTING:
- Infant should room-in with mother. **Do NOT bring infant to Well Baby Nursery.**
- If infant requires **observation for transitioning:** Contact NICU to arrange for transfer to NICU.
- No SARS-CoV-2 testing is indicated.
- Mother may breastfeed and provide skin-skin care without mask.
- Whenever possible, perform tests, procedures, or other interventions in mother’s room.
- Restrict mother, SP, and infant movement to mother’s room.
- **PPE for HCW:** Facemask, eye protection, and gloves (if gloves are part of unit routine PPE for patient care).
- **PPE for Mother and SP:** Facemask when HCW present.

RECOVERED COVID-19 PATIENT DEEMED NO LONGER INFECTIOUS AND WELL APPEARING NEWBORN (ADMITTED FOR NON-INFECTIOUS NON-RESPIRATORY DIAGNOSIS):
- Confirm with Infection Control that mother meets criteria for **discontinuation of isolation and precautions** and that the mother is considered cleared of COVID-19 infection.
- Contact Pediatric Infectious Disease consult on case-by-case basis.
- Room-in with mother. **Do NOT bring infant to Well Baby Nursery.**
- No SARS-CoV-2 testing is indicated.
- Mother may breastfeed or provide skin-skin care without mask.
- Whenever possible, perform ALL testing, procedures, or other interventions in mother’s postpartum room.
- Restrict mother, SP, and infant movement to mother’s room.
- **PPE for HCW:** Facemask, eye protection, and gloves (if gloves are part of unit routine PPE for patient care).
- **PPE for Mother and SP:** Facemask when HCW present.

RECOVERED COVID-19 PATIENT DEEMED NO LONGER INFECTIOUS AND SYMPTOMATIC NEWBORN:
- Contact NICU to arrange for transfer to NICU for **observation for transitioning.**
  - **PPE for HCW:** **N95 respirator,** face shield or goggles, gown, and gloves pending risk assessment.
  - **PPE for Patient and SP:** Facemask, face shield or goggles, gown, and gloves pending risk assessment.

RECOVERED COVID-19 PATIENT WHO WAS SYMPTOMATIC AT TIME OF ADMISSION:
- Infection Control should have been contacted during labor to determine patient’s infection status.
- If patient is confirmed not considered infectious:
  - Follow guidelines for “Recovered COVID-19 Patient Deemed No Longer Infectious.”
- If patient is confirmed to be symptomatic:
  - Follow guidelines for “PUI/Confirmed COVID-19 Patient.”

PUI OR CONFIRMED COVID-19 PATIENT:
- Transfer mother to AllIR(s) on Postpartum: **Room 8168 (preferred) or Room 8372**
  - Whenever possible, perform procedures and tests on mother in her room.
  - Mother should remain in this room until discharge. Minimize room transfers.
  - Restrict mother’s movement or transfer outside of room to medically essential purposes.
- **Confirm infant’s location of care to Postpartum has not changed.**
  - L&D Baby Nurse places infant in CLOSED postpartum Giraffe Incubator with portholes closed and then transfers infant to Postpartum.
Infant in **colocation**: Use **Room 8168** or **Room 8372**.

- The infant should **NOT** be taken to the Well Baby Nursery.
- Place infant in open bassinet in infant’s designated isolation area within mother’s postpartum room:
  - Keep the infant ≥ 6 feet away from mother except during direct newborn care.
  - Consider using a screen as a physical barrier between the mother and infant if mother or SP can maintain direct visualization of the infant at all times.
- Giraffe Incubator should be sent for cleaning after infant transfer to open bassinet or Panda warmer.
- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- **Once infant’s temperature is stable, bathe infant immediately to remove virus potentially on skin surfaces.**
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Please confirm infant has been bathed after delivery.
  - Bring a clean Giraffe Incubator back into room. Place infant back in to the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - **Specimen Source:**
    - Obtain an upper respiratory tract specimen to be sent to the Sutter Shared Laboratory.
    - Obtain a lower respiratory tract specimen (if intubated) to be sent to Public Health Department.
  - **Timing of Testing:** At 24 and 48 hours of age.
    - **Initial test:**
      - Obtain specimen at 24 hours of age to avoid detection of transient viral colonization and to facilitate detection of viral replication.
    - **Repeat tests:**
      - Obtain specimen at 48 hours of age.
      - If initial test is positive:
        - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- **Discontinuation of isolation and precautions** for infant:
  - If initial SARS-CoV-2 test is negative.
    - After two consecutive negative tests ≥ 24 hours apart.
  - If initial SARS-CoV-2 test was positive:
    - Improved symptoms and two consecutive negative tests ≥ 24 hours apart.
- All testing, procedures, or other interventions should be performed in mother’s postpartum room.
  - If potential for generation of respiratory droplets: Place infant back into Giraffe Incubator and minimize the number of open portholes.
  - See sections below for details on infant care such as breastfeeding, expressed breast milk, and testing/procedures.
- Mother or SP may provide newborn care.
  - Mother and SP should wear their facemasks at all times (except for eating and drinking) and perform meticulous hand hygiene when providing newborn care.
  - If mother chooses to breastfeed and/or provide skin-to-skin contact:
    - Instruct mother to keep facemask securely in place and perform hand hygiene (hand sanitizer or preferably soap and water for 20+ seconds) before, during, and after direct contact with her infant.
  - Instruct SP to maintain physical distancing of ≥ 6 feet from mother at all times.
  - If SP becomes symptomatic, he/she must immediately leave hospital.
  - HCW will need to provide newborn care if mother is acutely ill and there is no SP with her.
- **PPE for HCW:**
  - **N95 respirator or PAPR**, face shield (preferred) or goggles, gown, and gloves.
- **PPE for Patient and SP:**
  - Facemask at ALL times (except eating and drinking).
  - Perform meticulous hand hygiene before, during, and after direct contact with infant.
Infant in temporary separation: Use Room 8166 or Room 8366.
- The infant should NOT be taken to the Well Baby Nursery.
- Postpartum Nurse arranges for postpartum Giraffe Incubator to be sent for cleaning after infant has been transferred to open bassinet or Panda warmer.
- If NICU Resource nurse or NICU Relief nurse is reassigned to care for infant on Postpartum:
  - NICU Charge Nurse contacts Transport Nurse to assist in NICU, if available.
- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Once infant’s temperature is stable, bathe infant immediately to remove virus potentially on skin surfaces.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Please confirm infant has been bathed after delivery.
  - Bring a clean Giraffe Incubator back into room. Place infant back in to the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Obtain an upper respiratory tract specimen to be sent to the Sutter Shared Laboratory.
    - Obtain a lower respiratory tract specimen (if intubated) to be sent to the Public Health Department.
  - Timing of Testing: At 24 and 48 hours of age.
    - Initial test:
      ⇒ Obtain specimen at 24 hours of age to avoid detection of transient viral colonization and to facilitate detection of viral replication.
  - Repeat tests:
    - Obtain specimen at 48 hours of age.
    - If initial test is positive:
      ⇒ Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- Discontinuation of isolation and precautions for infant:
  - If initial SARS-CoV-2 test is negative.
    - After two consecutive negative tests ≥ 24 hours apart.
  - If initial SARS-CoV-2 test was positive:
    - Improved symptoms and two consecutive negative tests ≥ 24 hours apart.
- All testing, procedures, or other interventions should be performed in the infant’s room.
  - If potential for generation of respiratory droplets: Place infant back into Giraffe Incubator and minimize the number of open portholes.
  - See sections below for details on infant care such as expressed breast milk, breastfeeding, and testing/procedures.
- If mother chooses to breastfeed or provide skin-to-skin contact with her infant
  - Instruct mother to keep facemask securely in place and perform hand hygiene (hand sanitizer or preferably soap and water for 20+ seconds) before, during, and after direct contact with her infant.
- SP or HCW must remain in the room with the infant at ALL times.
- SP is expected to remain in infant’s room to assist in newborn care. Discourage SP from going back and forth between mother’s and infant’s rooms.
- If SP becomes symptomatic, he/she must immediately leave hospital.
- If infant requires observation for transitioning:
  - Contact NICU to arrange for NICU admission. See details in NICU care.
  - NICU Resource (Baby) Nurse uses NICU Giraffe OmniBed to transfer infant to an AIIR in the NICU.
  - Note: The Giraffe Incubator and Giraffe OmniBed can be disassembled for cleaning at the end of the infant’s hospital stay. Do NOT use the NICU AirBorne transport incubator.
- PPE for HCW: N95 respirator or PAPR, face shield (preferred) or goggles, gown, and gloves.
- PPE for Mother: Facemask at all times (except eating and drinking).
- PPE for SP: Facemask, face shield or goggles, gown, and gloves.
NICU CARE (Refer to CPMC Inborn NICU Perinatal Care Algorithm)

ALL:
- Masks MUST be worn when breastfeeding or providing skin-to-skin care to minimize risk to HCW. Hand hygiene should also be performed before doing so.
- PPE for HCW:
  - Facemask and eye protection. Additional PPE as indicated per standard precautions.
  - **Note**: Gloves are required for all patient care in NICU.
- PPE for Mother and SP:
  - Facemask when HCW present.
  - Facemask must be worn for all movements outside of mother’s postpartum room and infant’s room.
- Please see section on NICU visitation policy.

INFANT OF AN ASYMPTOMATIC MOTHER WHO DECLINES TESTING:
- Whenever possible, perform tests, procedures, or other interventions in infant’s room.
- PPE for HCW: Facemask, eye protection, and gloves.
- PPE for Mother and SP: Facemask when HCW present.

WELL-APPEARING NEWBORN (ADMITTED FOR NON-INFECTIONOUS/NON-RESPIRATORY DIAGNOSIS) OF A RECOVERED COVID-19 MOTHER DEEMED NO LONGER INFECTIOUS:
- Confirm with Infection Control that mother meets criteria for discontinuation of isolation and precautions considered cleared of COVID-19 infection. Contact Pediatric Infectious Disease consult on case-by-case basis.
- If infant no longer requires NICU care: Do NOT transfer infant to Well Baby Nursery.
- Place infant on standard precautions. No SARS-CoV-2 testing is indicated.
- Whenever possible, perform ALL testing, procedures, or other interventions in mother’s postpartum room.
- PPE for HCW: Facemask, eye protection, and gloves.
- PPE for Mother and SP: Facemask when HCW present.

SYMPTOMATIC INFANT OF A RECOVERED COVID-19 MOTHER DEEMED NO LONGER INFECTIOUS:
- Place infant in an AIIR on COVID Droplet/Contact Precautions pending risk assessment to evaluate for vertical transmission (while rare) given symptomatic newborn.
- Contact Pediatric Infectious Disease consult on case-by-case basis.
- Do NOT transfer infant to Well Baby Nursery if symptoms resolve.
- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
  - Once infant’s temperature is stable, bathe infant immediately to remove virus potentially on skin surfaces.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - **Please confirm infant has been bathed after delivery**.
  - Infant should be WITHIN the isotherm with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Initial test:
      - Obtain an upper respiratory tract specimen to be sent to the CPMC VNC Laboratory.
      - Obtain a lower respiratory tract specimen (if intubated) to be sent to the Public Health Department.
    - Repeat test (if needed):
      - Obtain an upper respiratory tract specimen to be sent to the Sutter Shared Laboratory.
  - Timing of Testing:
    - Initial test: Immediately after birth. Perform bath prior to obtaining specimen.
    - Repeat test (if initial test is positive):
      - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- **Discontinuation of isolation and precautions** for infant:
  - If initial SARS-CoV-2 test is negative.
  - If initial SARS-CoV-2 test was positive: Improved symptoms and two consecutive negative tests ≥ 24 hours apart.
- Whenever possible, perform tests, procedures, or other interventions in infant’s room.
- Mother may visit. SP may visit if NOT a PUI.
- PPE for HCW: **N95 respirator or PAPR**, face shield or goggles, gown, and gloves pending risk assessment.
- PPE for Mother and SP: Facemask, face shield or goggles, gown, and gloves pending risk assessment.
INFANT OF A RECOVERED COVID-19 MOTHER WHO WAS SYMPTOMATIC AT TIME OF ADMISSION:
- Infection Control should have been contacted during labor to determine patient’s infection status.
- If patient is confirmed not considered infectious:
  - Follow guidelines for “Recovered COVID-19 Patient Deemed No Longer Infectious.”
- If patient is confirmed to be symptomatic:
  - Follow guidelines for “PUI/Confirmed COVID-19 Patient.”

INFANT OF A PUI OR CONFIRMED COVID-19 MOTHER:
- Place infant in a closed Giraffe OmniBed. See workflow for direct NICU Admission on procedure to transport infant directly to NICU.
- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Don PPE in the anteroom of the patient’s isolation room per AIIR PPE policy.
- Once infant’s temperature is stable, bathe infant immediately to remove virus potentially on skin surfaces.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure—ideally to infant and HCW obtaining specimen.
  - Please confirm infant has been bathed after delivery.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Obtain an upper respiratory tract specimen to be sent to the Sutter Shared Laboratory.
    - Obtain a lower respiratory tract specimen (if intubated) to be sent to the Public Health Department.
  - Timing of Testing: At 24 and 48 hours of age.
    - Initial test:
      - Obtain specimen at 24 hours of age to avoid detection of transient viral colonization and to facilitate detection of viral replication.
    - Repeat tests:
      - Obtain specimen at 48 hours of age.
      - If initial test is positive:
        - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- Discontinuation of isolation and precautions for infant:
  - If initial SARS-CoV-2 test is negative.
    - After two consecutive negative tests ≥ 24 hours apart.
  - If initial SARS-CoV-2 test was positive:
    - Improved symptoms and two consecutive negative tests ≥ 24 hours apart.
- All testing, procedures, or other interventions should be performed in the infant’s room if possible.
  - Place infant back into Giraffe Incubator and minimize the number of open portholes to minimize generation of respiratory droplets.
  - See sections for details on infant care on expressed breast milk, breastfeeding, and testing/procedures.
- No visitation is allowed until infant’s infection status is determined.
  - If the newborn is uninfected but requires prolonged NICU hospitalization, mother and SP/approved caregiver will not be allowed to visit until they meet criteria for discontinuation of isolation and precautions.
- PPE for HCW:
  - N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  - Perform aerosol-generating procedures or treatments in AIIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
- PPE for Mother and SP: Facemask, face shield or goggles, gown, and gloves.
SYMPTOMATIC HOSPITALIZED INFANT (AFTER INITIAL COVID-19 ASSESSMENT AT BIRTH):
- Minimize room transfers.
- If infant requires respiratory support, transfer infant to an AIIR, if available.
- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Order upper respiratory tract specimen for SARS-CoV-2 testing at the Sutter Shared Laboratory.
    - Order lower respiratory tract specimen (if intubated) for SARS-CoV-2 testing at the Public Health Department.
  - Timing of Testing:
    - Onset of symptoms concerning for COVID-19.
    - Repeat test (if initial test is positive):
      - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- Additional work-up during RSV/Influenza season:
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.
- PPE for HCW:
  - N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  - Perform aerosol-generating procedures or treatments in an AIIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
- PPE for Mother and SP:
  - Facemask, face shield or goggles, gown, and gloves.

PROCEDURE/SURGERY CLEARANCE: ASYMPTOMATIC HOSPITALIZED INFANT WITH NO KNOWN CONTACT WITH COVID-19 PERSON:
- Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COIVD-19 person.
- Order SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Order upper respiratory tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
  - Timing of Testing:
    - Within 96 hours of procedure/surgery (ideally within 72 hours but contingent on available testing resources)
    - Repeat test (if initial test is positive):
      - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- PPE for HCW: Facemask, face shield or goggles, and gloves.
- PPE for Mother and SP: Facemask when HCW present.
PROCEDURE/SURGERY CLEARANCE: SYMPTOMATIC HOSPITALIZED INFANT:

- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - If emergency procedure/surgery:
      - Order upper respiratory tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
    - If scheduled/elective procedure or surgery and testing within 48 hours prior to procedure or surgery:
      - Order upper respiratory tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
    - If scheduled/elective procedure or surgery and testing within 96 hours prior to procedure or surgery:
      - Order upper respiratory tract specimen for SARS-CoV-2 testing at the Sutter Shared Laboratory.
    - If intubated patient:
      - Order lower respiratory tract specimen for SARS-CoV-2 testing at the Public Health Department, if time permits.
  - Timing of Testing:
    - Within 96 hours of procedure/surgery (ideally within 72 hours but contingent on available testing resources).
    - Repeat test (if initial test is positive):
      - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- Additional work-up during RSV/Influenza season on a case-by-case basis:
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.
- PPE for HCW:
  - N95 respirator or PAPR, face shield or goggles, gown, and gloves pending risk assessment.
  - Perform aerosol-generating procedures or treatments in AllIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
- PPE for Mother and SP:
  - Facemask, face shield or goggles, gown, and gloves pending risk assessment.

TRANSFER FROM ANOTHER HOSPITAL: ASYMPTOMATIC INFANT WITH NO KNOWN CONTACT WITH COVID-19 PERSON:

- Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COVID-19 person.
- Order SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Order Upper Respiratory Tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
  - Timing of Testing:
    - At admission.
    - Repeat test (if initial test is positive):
      - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- Additional work-up during RSV/Influenza season on a case-by-case basis:
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.
- PPE for HCW: Facemask, eye protection, and gloves.
- PPE for Mother and SP: Facemask when HCW present.
TRANSFER FROM ANOTHER HOSPITAL: SYMPTOMATIC INFANT
☐ If infant requires respiratory support, transfer infant to AIIR, if available.
☐ Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  • Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
☐ Obtain SARS-CoV-2 test:
  • Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  • Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  • Specimen Source:
    o Order upper respiratory tract specimen for SARS-CoV-2 testing at the Sutter Shared Laboratory.
    o Order lower respiratory tract specimen (if intubated) for SARS-CoV-2 testing at the Public Health Department.
  • Timing of Testing:
    o On admission.
    o Repeat test (if initial test is positive):
      ▪ Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
☐ Additional work-up during RSV/Influenza season:
  • Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  • Obtain specimen for RSV NAAT and Influenza A & B NAAT.
☐ PPE for HCW:
  • N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  • Perform aerosol-generating procedures or treatments in AIIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
☐ PPE for Mother and SP:
  • Facemask, face shield or goggles, gown, and gloves.

READMISSION FROM HOME: ASYMPTOMATIC INFANT WITH NO KNOWN CONTACT WITH COVID-19 PERSON
☐ Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COVID-19 person.
☐ Order SARS-CoV-2 testing.
  • Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.
☐ Obtain SARS-CoV-2 test:
  • Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  • Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  • Specimen Source:
    o Order Upper Respiratory Tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
  • Timing of Testing:
    o At admission.
    o Repeat test (if initial test is positive):
      ▪ Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
☐ Additional work-up during RSV/Influenza season:
  • Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  • Obtain specimen for RSV NAAT and Influenza A & B NAAT.
☐ PPE for HCW: Facemask, face shield or goggles, and gloves.
☐ PPE for Mother and SP: Facemask when HCW present.
READMISSION FROM HOME: SYMPTOMATIC INFANT

☐ Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  • Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.

☐ Obtain SARS-CoV-2 test:
  • Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  • Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  • Specimen Source:
    o Order upper respiratory tract specimen for SARS-CoV-2 testing at the Sutter Shared Laboratory.
    o Order lower respiratory tract specimen (if intubated) for SARS-CoV-2 testing at the Public Health Department.
  • Timing of Testing:
    o At admission.
    o Repeat test (if initial test is positive):
      • Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.

☐ Additional work-up during RSV/Influenza season:
  • Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  • Obtain specimen for RSV NAAT and Influenza A & B NAAT.

☐ PPE for HCW:
  • **N95 respirator or PAPR**, face shield or goggles, gown, and gloves pending risk assessment.

☐ PPE for Mother and SP (when cleared to visit):
  • Facemask, face shield or goggles, and gloves pending risk assessment.
DETERMINATION OF INFANT’S LOCATION OF CARE

INFANT OF AN ASYMPTOMATIC MOTHER WITH NEGATIVE TEST:
- Ideally, infant should room-in with mother.
- Infant may go to Well Baby Nursery as needed but parents are not allowed in.
- PPE for HCW: Facemask, eye protection, and gloves (where gloves are part of routine PPE for patient care).
- PPE for mother and SP: Facemask when HCW present.

INFANT OF AN ASYMPTOMATIC MOTHER WITH PENDING SARS-CoV-2 TEST:
- Contact Laboratory staff to request for EXPEDITED test.
- Infant should remain with mother on L&D until her SARS-CoV-2 test results are available.
- PPE for HCW while awaiting test result: N95 respirator or PAPR, face shield or goggles, gown, and gloves.
- PPE for Mother and SP while awaiting test result: Facemask. Hand hygiene when in contact with infant.
- Once mother’s test result is available, follow workflow for mother with negative or positive test result.

INFANT OF AN ASYMPTOMATIC MOTHER WHO DECLINES TESTING:
- Infant should co-locate with mother. Infant CANNOT be cared for in Well Baby Nursery.
- PPE for HCW: Facemask, eye protection, and gloves (where gloves are part of routine PPE for patient care).
- PPE for Mother and SP: Facemask when HCW present.

INFANT OF RECOVERED COVID-19 MOTHER DEEMED NO LONGER INFECTIOUS:
- Well appearing newborn:
  - Place on standard precautions. No additional precautions are necessary while awaiting test result.
  - Infant should room-in with mother. Do NOT bring infant to Well Baby Nursery.
  - PPE for HCW: Facemask, eye protection, and gloves (where gloves are part of routine PPE for patient care).
  - PPE for mother and SP: Facemask when HCW present.
- Symptomatic newborn:
  - Place infant in an AIIR on COVID Droplet/Contact Precautions pending risk assessment.
  - Contact Pediatric Infectious Disease consult on case-by-case basis.
  - Mother may visit. SP may visit if not PUI.
  - PPE for HCW: N95 respirator or PAPR, face shield or goggles, gown, and gloves pending risk assessment.
  - PPE for Mother and SP: Facemask, face shield or goggles, gown, and gloves pending risk assessment.

INFANT OF RECOVERED COVID-19 PATIENT WHO WAS SYMPTOMATIC AT TIME OF ADMISSION:
- Infection Control should have been contacted during labor to determine patient’s infection status.
- If patient is confirmed not considered infectious:
  - Follow guidelines for “Recovered COVID-19 Patient Deemed No Longer Infectious.”
- If patient is confirmed to be symptomatic:
  - Follow guidelines for “PUI/Confirmed COVID-19 Patient.”

INFANT OF PUI OR CONFIRMED COVID-19 MOTHER:
- Per the most recent AAP COFN update (dated 7/22/2020):
  - “… evidence to date suggests that the risk of the newborn acquiring infection during the birth hospitalization is low when precautions are taken to protect newborns from maternal infectious respiratory secretions. This risk appears to be no greater if mother and infant room-in together using infection control measures compared to physical separation of the infant in a room separate from the mother.”
  - “A mother who is acutely ill with COVID-19 may not be able to care for her infant in a safe way. In this situation, it may be appropriate to temporarily separate mother and newborn or to have the newborn cared for by non-infected caregivers in mother’s room.”
- The latest CDC update (dated 8/3/2020) supports the above AAP guidance and affirms maternal autonomy in medical decision-making regarding mother-neonate contact:
  - “Current evidence suggests the risk of a neonate acquiring SARS-CoV-2 from its mother is low. Further, data suggests that there is no difference in risk of SARS-CoV-2 infection to the neonate whether a neonate is cared for in a separate room or remains in the mother’s room.”
• “There is, however, a potential risk of SARS-CoV-2 transmission to the neonate via contact with infectious respiratory secretions from the mother, caregiver, or other person with SARS-CoV-2 infection, including just before the individual develops symptoms when viral replication may be high.”

• “ Mothers with suspected or confirmed SARS-CoV-2 infection may feel uncomfortable with this potential risk. …Healthcare providers should respect maternal autonomy in the medical decision-making process.”

• “ Mothers …may choose to temporarily separate from their neonates in effort to reduce the risk of virus transmission. However, if after discharge they will not be able to maintain separation from their neonate until they meet the criteria [for discontinuation of isolation and precautions], it is unclear whether temporary separation while in the hospital would ultimately prevent SARS-CoV-2 transmission to the neonate, given the potential for exposure from the mother after discharge.”

☐ Discuss RBA of colocation versus temporary separation with mother.

  • This discussion should ideally occur between the neonatal provider and mother prior to delivery.
  • Neonatal provider MUST document in Epic (use .PXCovidInfantCare smart phrase) that RBA given.

☐ Well appearing newborn in colocation/rooming-in with his/her mother:

  • Place mother and infant in AIIR (Room 8168 or Room 8372) on Postpartum.
  • Confirm negative pressure room alarm has been to be turned on by Engineering.
  • If an AIIR is unavailable, use another postpartum room and ensure door remains closed at all times.
  • The infant should NOT be taken to the Well Baby Nursery.
  • PPE for HCW:
    o N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  • PPE for Mother and SP:
    o Facemask at ALL times except when eating and drinking.

☐ Well appearing newborn in temporary separation in separate isolation room:

  • Place infant in a CLOSED isolette.
  • After exiting LDR, HCW should:
    o Remove (doff) gown, gloves, and face shield or goggles. Keep N95 respirator or PAPR in place.
    o Clean face shield or goggles.
    o Put on (don) new gloves. No additional PPE is required.
    o Please refer to PPE policy on Donning/Doffing.
  • Transport infant immediately to Room 8166 (preferred) or Room 8366.
  • Confirm negative pressure room alarm has been to be turned on by Engineering.
  • If an AIIR is unavailable, use another postpartum room and ensure door remains closed at all times.
  • The infant should NOT be taken to the Well Baby Nursery.
  • Outside of infant’s isolation room:
    o Don appropriate PPE per Regular Patient Isolation Room PPE policy.
  • Once within patient room with door closed:
    o Transfer infant out of the Giraffe Incubator and onto the Panda warmer.
    o Postpartum Giraffe Incubator should remain in-room for use if infant needs to be transported out of room.
  • PPE for HCW: N95 respirator or PAPR, face shield or goggles, gown, and gloves.
  • PPE for SP: Facemask, face shield or goggles, gown, and gloves.

☐ If infant requires observation for transitioning or direct NICU admission:

  • Place infant in a closed Giraffe OmniBed.
  • After exiting LDR:
    o If infant is in Giraffe OmniBed with portholes CLOSED, HCW should:
      ▪ Doff gown, gloves, and eye protection (face shield or goggles). Keep N95 respirator in place.
      ▪ Clean reusable face shield or goggles.
      ▪ Don new gloves. No additional PPE is required.
    o If infant is in Giraffe OmniBed with 1+ porthole(s) OPEN, HCW should:
      ▪ Doff gown, gloves, and eye protection (face shield or goggles). Keep N95 respirator in place.
      ▪ Clean goggles.
      ▪ Don appropriate PPE (gloves, gown, and face shield or goggles).
    o Supplies are located in the anteroom of AIIR.
    o Please refer to PPE policy and video on Donning/Doffing.
• Transfer infant immediately to the NICU.
• Upon arrival to NICU, NICU Resource (Baby) Nurse notifies ALL NICU staff by Vocera to clear hallways.
  o "Broadcast NICU. [Wait for chime.] Please close all patient room doors. Remain in a closed room until All Clear notification.
• Determine infant’s location of care:
  o Place infant in AIIR Room 5529 or Room 5530 (preferred for infant on respiratory support or critically ill).
    ▪ Contact Engineering at 415-600-7900 (extension x77900) to request negative pressure room alarm to be turned on in postpartum Airborne Infection Isolation Rooms (AIIRs) identified for use.
      ⇒ Between 07:00-23:00: Choose Option 2 and follow prompts to place a Support Center work order.
      ⇒ Between 23:00-07:00: Choose prompts to reach Engineering directly.
    ▪ Keep infant in the AIIR while he/she remains in temporary separation.
    ▪ Once in the AIIR, the infant does not need to remain in a closed isolette if not medically needed.
  o If AIIRs are already in use and NOT indicated:
    ▪ Use Room 5515 (preferred) or Room 5514.
    ▪ Use Room 5521 for twin infants.
  o If AIIR is indicated but NOT available in NICU:
    ▪ Place infant in a separate room with the door closed. Keep infant in closed Giraffe OmniBed.
    ▪ Contact On-Call Neonatologist to determine location of infant’s care.
    ▪ Consider placement in:
      ⇒ Pediatrics (1 AIIR) or PICU (1 AIIR).
      ⇒ Single NICU room with in-room HEPA air scrubber and door closed (if no AIIR available elsewhere).
  o Restrict transport and movement outside of his/her isolation room to medically essential purposes.
  o Keep infant in a closed isolette when outside of his/her isolation room (e.g., during transport).
  o **Note:** Turn on air mode (manual mode) on isolette if infant remains in isolette for ≥ 30 minutes duration.
  o Minimize room transfers unless unavoidable due to facility limitations.
• Do NOT transfer infant to Well Baby Nursery.
• PPE for HCW:
  o **N95 respirator or PAPR,** face shield or goggles, gown, and gloves.
  o Perform aerosol-generating procedures or treatments in AIIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
• PPE for Mother and SP (when cleared to visit):
  o Facemask, face shield or goggles, gown, and gloves pending risk assessment.

**SYMPTOMATIC HOSPITALIZED INFANT (AFTER INITIAL COVID-19 ASSESSMENT AT BIRTH):**
- Place infant in a closed Giraffe OmniBed with room door closed.
- Transfer infant in AIIR Room 5529 or Room 5530 (preferred for infant on respiratory support or critically ill).
  - Contact Engineering at 415-600-7900 (extension x77900) to request negative pressure room alarm to be turned on in postpartum Airborne Infection Isolation Rooms (AIIRs) identified for use.
    - Between 07:00-23:00: Choose Option 2 and follow prompts to place a Support Center work order.
    - Between 23:00-07:00: Choose prompts to reach Engineering directly.
  - Once in the AIIR, the infant does not need to remain in a closed isolette if not medically needed.
  - Restrict transport and movement outside of his/her isolation room to medically essential purposes.
  - Keep infant in a closed isolette when outside of his/her isolation room (e.g., during transport).
  - **Note:** Turn on air mode (manual mode) on isolette if infant remains in isolette for ≥ 30 minutes duration.
  - Minimize room transfers unless unavoidable due to facility limitations.
- PPE for HCW:
  - **N95 respirator or PAPR,** face shield or goggles, gown, and gloves pending risk assessment.
  - Perform aerosol-generating procedures or treatments in an AIIR (if available) or a separate patient room with HEPA air scrubber and door closed.
- PPE for Mother and SP:
  - Facemask, face shield or goggles, gown, and gloves pending risk assessment.
PROCEDURE/SURGERY CLEARANCE FOR ASYMPTOMATIC HOSPITALIZED INFANT WITH NO KNOWN CONTACT WITH COVID-19 PERSON:
- Minimize room transfer. Keep infant in his/her room for procedure if performed at bedside or transport infant to Operating Room.
- **Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COVID-19 person.**
- **PPE for HCW while awaiting test result:** facemask, eye protection, and gloves.
- **PPE for Mother and SP while awaiting test result:** Facemask. Hand hygiene when in contact with infant.
- Once mother’s test result is available, follow workflow for mother with negative or positive test result.

PROCEDURE/SURGERY CLEARANCE FOR SYMPTOMATIC HOSPITALIZED INFANT:
- Place infant in a closed Giraffe OmniBed with room door closed.
- Transfer infant to an AIIR **Room 5529** or **Room 5530** (preferred for infant on respiratory support or critically ill).
  - Contact Engineering at **415-600-7900** (extension x77900) to request negative pressure room alarm to be turned on in postpartum Airborne Infection Isolation Rooms (AIIRs) identified for use.
    - Between 07:00-23:00: Choose Option 2 and follow prompts to place a Support Center work order.
    - Between 23:00-07:00: Choose prompts to reach Engineering directly.
  - Once in the AIIR, the infant does not need to remain in a closed isolette if not medically needed.
  - Restrict transport and movement outside of his/her isolation room to medically essential purposes.
  - Keep infant in a closed isolette when outside of his/her isolation room (e.g., during transport).
  - **Note:** Turn on **air mode (manual mode)** on isolette if infant remains in isolette for ≥ 30 minutes duration.
  - Minimize room transfers unless unavoidable due to facility limitations.
- **PPE for HCW:**
  - N95 respirator or PAPR, face shield or goggles, gown, and gloves pending risk assessment.
  - Perform **aerosol-generating procedures or treatments** in an AIIR (if available) or a separate patient room with HEPA air scrubber and door closed.
- **PPE for Mother and SP:**
  - Facemask, face shield or goggles, gown, and gloves pending risk assessment.

ASYMPTOMATIC INFANT TRANSFERRED FROM ANOTHER HOSPITAL:
- **Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COVID-19 person.**
- **Order SARS-CoV-2 testing.**
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See **TESTS/PROCEDURES** below.
- **Obtain SARS-CoV-2 test:**
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - **Specimen Source:**
    - Order Upper Respiratory Tract specimen for SARS-CoV-2 testing at the **CPMC VNC Laboratory**.
  - **Timing of Testing:** At admission.
  - **Repeat test (if initial test is positive):**
    - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.
- **Additional work-up during RSV/Influenza season on a case-by-case basis:**
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.
- **PPE for HCW:** Facemask, eye protection, and gloves.
- **PPE for Mother and SP:** Facemask when HCW present.
READMISSION FROM HOME: ASYMPTOMATIC INFANT WITH NO KNOWN CONTACT WITH COVID-19 PERSON

- Patient does NOT need to be placed on COVID-19 Droplet/Contact Precautions while awaiting test result if no known contact with confirmed COIVD-19 person.

- Order SARS-CoV-2 testing:
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.

- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Order Upper Respiratory Tract specimen for SARS-CoV-2 testing at the CPMC VNC Laboratory.
  - Repeat test (if initial test is positive):
    - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.

- Additional work-up during RSV/Influenza season:
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.

- PPE for HCW: Facemask, face shield or goggles, and gloves.

- PPE for Mother and SP: Facemask when HCW present.

READMISSION FROM HOME: SYMPTOMATIC INFANT

- Order COVID-19 Droplet/Contact precautions and SARS-CoV-2 testing.
  - Use the COVID-19 TESTING LABS + ISOLATION ORDER PANEL. See TESTS/PROCEDURES below.

- Obtain SARS-CoV-2 test:
  - Limit individuals in the room during the procedure--ideally to infant and HCW obtaining specimen.
  - Infant should be WITHIN the isolette with top down and as many of the portholes closed as possible (to reduce chance of droplets spreading).
  - Specimen Source:
    - Order upper respiratory tract specimen for SARS-CoV-2 testing at the Sutter Shared Laboratory.
    - Order lower respiratory tract specimen (if intubated) for SARS-CoV-2 testing at the Public Health Department.
  - Repeat test (if initial test is positive):
    - Obtain specimen at 48-72 hour intervals until two consecutive negative tests ≥ 24 hours apart.

- Additional work-up during RSV/Influenza season:
  - Obtain a separate nasopharyngeal swab for Respiratory Pathogen Panel testing.
  - Obtain specimen for RSV NAAT and Influenza A & B NAAT.

- PPE for HCW:
  - **N95 respirator or PAPR**, face shield or goggles, gown, and gloves pending risk assessment.

- PPE for Mother and SP (when cleared to visit):
  - Facemask, face shield or goggles, and gloves pending risk assessment.
BREASTFEEDING

A mother may choose to breastfeed with appropriate precautions or alternatively manually express/pump breast milk or formula feed.

☐ Per the most recent AAP COFN update (dated 7/22/2020):
  • “The AAP strongly supports breastfeeding as the best choice for infant feeding. Several published studies have detected SARS-CoV-2 nucleic acid in breast milk. It is not yet known whether viable, infectious virus is secreted in breast milk, nor is it yet established whether protective antibody is found in breast milk. Given these uncertainties, breastfeeding is not contraindicated at this time.”
  • “Mothers should perform hand hygiene before breastfeeding and wear a mask during breastfeeding.”
  • “If an infected mother chooses not to nurse her newborn, she may express breast milk after appropriate hand hygiene, and this may be fed to the infant by other uninfected caregivers.”
  • “Mothers of NICU infants may express breast milk for their infants during any time that their infection status prohibits their presence in the NICU. Centers should make arrangements to receive this milk from mothers until they are able to enter the NICU.”

☐ The latest CDC update (dated 8/3/2020) supports the above AAP position on breastfeeding and provides additional guidance on recommended duration of infant isolation and precautions:
  • “We do not know whether mothers with COVID-19 can transmit the virus via breast milk, but the limited data available suggest this is not likely to be a source of transmission.”
  • “An infant being breastfed by a mother who is suspected or confirmed to have COVID-19 should be considered as having suspected COVID-19—when the infant’s testing results are not available—for the duration of the mother’s recommended period of home isolation and 14 days thereafter. The same approach should be taken with respect to an infant who has any other ongoing, close contact with another person who has suspected or confirmed COVID-19. Mothers should be counseled to inform their child’s healthcare provider that their child has had high-risk contact with a person suspected or confirmed to have COVID-19.”

☐ Discuss RBA of breastfeeding with mother.
  • This discussion should ideally occur between the neonatal provider and mother prior to delivery.
  • Neonatal provider MUST document in Epic (use .PXCOVIDINFANTRBA smart phrase) that RBA given.

☐ If mother chooses to breastfeed AND infant is in temporary separation on Postpartum:
  • Transfer infant in a closed isolette to infant’s isolation room (Room 8166 (preferred) or Room 8366).
  • Mother may NOT leave her room for the purpose of breastfeeding.
  • Mother must leave facemask in place for the entire duration while infant is in her room to breastfeed.
  • Before breastfeeding:
    o Instruct mother to perform hand hygiene. If possible, hand washing with soap and water for at least 20 seconds is preferred.
  • After breastfeeding:
    o Place infant back in closed postpartum Giraffe Incubator and move back to his/her room.
    o Instruct mother to perform hand hygiene. If possible, hand washing with soap and water for at least 20 seconds is preferred.

☐ If mother chooses to breastfeed AND infant is in colocation (“Rooming In”) with mother:
  • Transfer infant in a closed isolette to mother’s AIIR (Room 8168 (preferred) or Room 8372).
  • Infant’s designated isolation area within mother’s AIIR MUST be ≥ 6 feet away from the mother.
  • Mother should NOT enter infant’s designated isolation area.
    o Bring infant to his/her mother if she chooses to breastfeed.
  • Mother should leave facemask on at all times (except for eating and drinking) and especially when infant is outside his/her designated isolation area within mother’s room.
  • Before breastfeeding:
    o Instruct mother to perform hand hygiene. Hand washing with soap and water for at least 20 seconds is the preferred hand hygiene, if possible.
  • After breastfeeding:
    o Move infant immediately back into his/her designated isolation area.
    o Instruct mother to perform hand hygiene. If possible, hand washing with soap and water for 20+ seconds is preferred.
EXPRESSED BREAST MILK (EBM) USE FOR INFANTS BORN TO PUI/CONFIRMED COVID-19 MOTHERS

If mother who intends to breastfeed chooses temporary separation, she may decide to manually/pump expressed breast milk to establish and maintain milk supply.

- Provide mother with a dedicated breast pump.
- Instruct mother to wear facemask for entire duration of pumping session, including pump and EBM handling.
- Wipe pump before and after each use with disinfectant wipes according to product label instructions.
- Before each pumping session:
  - Instruct mother to perform hand hygiene, preferably hand washing with soap and water for 20+ seconds.
- After each pumping session:
  - Instruct mother to cap bottles immediately after pumping.
  - ALL parts that come into contact with breast milk should be thoroughly washed with soap and water following use. The entire pump should be disinfected per the manufacturer's instructions.
  - Keep cleaned parts in mother's room. Parts CANNOT be taken outside of room to sanitize in microwave.
  - Parts should be discarded and replaced EVERY 7 days until transmission-based precautions are discontinued or upon patient discharge, whichever occurs first.

- EBM Handling:
  - HCWs should wear appropriate PPE when handling breast milk from a PUI/Confirmed COVID-19 mother.
    - Inside isolation room: N95 respirator or PAPR, face shield or goggles, gown, and gloves.
    - In anteroom after leaving isolation room: N95 respirator may remain in place.
    - In anteroom but not entering isolation room: Facemask. Gloves as indicated.
  - Bottle Transfer Technique (modified from HMBANA Guidelines for Milk Handling for COVID-19 Positive or Suspected Mothers in the Hospital Setting):
    - Primary Nurse inside Isolation Room:
      - Wipe bottles with food surface cleaning wipes, if available.
      - Doff gloves, hand hygiene, and don new gloves.
      - Pick up the milk bottle(s). Check to make sure the cap is screwed tightly onto the bottle(s).
      - Place label(s) onto bottle(s) with date and time of pumping.
      - Request assistance from a second nurse via Vocera.
    - Secondary "Clean" Nurse:
      - Upon entry into anteroom:
        - Perform hand hygiene. Don gloves.
        - Open a clean plastic zip-seal storage bag and holds bag in one hand.
        - Open door to the isolation room with other hand.
        - Request nurse inside the isolation room to carefully drop milk bottle(s) into opened storage bag.
        - Close the isolation room door. Zip-seal the storage bag.
        - Bring sealed bag immediately to the anteroom of infant’s isolation room.
        - Don appropriate PPE: N95 respirator or PAPR, face shield or goggles, gown, and gloves.
        - Place milk bottle(s) immediately into refrigerator located INSIDE infant’s isolation room.
    - NNP/MD Responsibilities:
      - Place DIET Order for expressed breast milk for IN-ROOM storage ONLY.
        - In Diet Comments section: Insert .PXCOVIDEBM smart phrase.
      - In Postpartum: Place separate order for pre-mixed formula.
      - In NICU: Place separate order for donor breast milk OR formula from NICU Milk Room.

- EBM may be fed to the newborn by a healthy caregiver.
- Nurse may transfer expressed breast milk into new clean bottle if pre-specified volume is greater than that in the original bottle or if milk needs to be fortified.
Fortification of breastmilk (if ordered) at Bedside:
- HCW should wash hands using proper hand hygiene and wear appropriate PPE.
- Sanitize workspace used for breastmilk preparation.
  1. Wipe surfaces with Hydrogen Peroxide wipes (green top) following manufacturer’s instructions.
  2. Wipe surfaces with PDI No-rinse Multi surface Wipes (red top) or other wipe approved for food contact surfaces following manufacturer’s instructions.
  3. Wipe solution off surfaces with individual paper towels.
- Recipes for Fortified mother’s breast milk (FMBM) with Human Milk Fortifier (HMF):
  o FMBM with HMF 22 Calories per ounce: 1 packet (5 mL) per 50 mL of breast milk
  o FMBM with HMF 24 Calories per ounce: 1 packet (5 mL) per 25 mL of breast milk
- Calculate total volume of breast milk needed for 12 hours and then calculate the number of packets of HMF needed.

<table>
<thead>
<tr>
<th>Feed Frequency</th>
<th>12 hours Batch Volume (BV)</th>
<th>12 hours BV Rounded to nearest 5 mL</th>
<th>22 Calories per Ounce # HMF packets = 12 hours BV / 50 mL</th>
<th>24 Calories per Ounce # HMF packets = 12 hours BV / 25 mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every 3 hours</td>
<td>______ mL per feed x 4 = _____ mL</td>
<td>_____ mL</td>
<td>12 hours BV / 50 = _____ packets</td>
<td>12 hours BV / 25 = _____ packets</td>
</tr>
<tr>
<td>Every 2 hours</td>
<td>______ mL per feed x 6 = _____ mL</td>
<td>_____ mL</td>
<td>12 hours BV / 50 = _____ packets</td>
<td>12 hours BV / 25 = _____ packets</td>
</tr>
</tbody>
</table>

- Combine measured breastmilk and human milk fortifier in storage bottles. Swirl bottle gently to mix.
- Milk should be labeled with two patient identifiers, expiration date and if applicable:
  o Fortification with calorie/ounce and volume, preparer’s name.
  o Thaw date and time, updated expiration date and time.

- Breast milk that is not immediately fed to infant MUST be kept in refrigerator in the infant’s room.
- Do NOT place breast milk in the Postpartum Unit refrigerator or NICU Milk Room.

- Holding Time:
  - Freshly expressed breast milk from a PUI/confirmed COVID-19 mother may be stored refrigerated (1–4°C; 35-39°F) for 48 hours.
  - Thawed breast milk (frozen mother’s milk from home freezer) may be kept refrigerated (1-4°C; 35-39°F) for 24 hours.
  - Fortified breast milk may be kept refrigerated (1-4°C; 35-39°F) for 24 hours.
- If there is a surplus of pumped breast milk exceeding the IN-ROOM refrigerator capacity OR not anticipated to be consumed within 48 hours, the mother will need to arrange for the designated adult caregiver (hospital-approved visitor) to take milk home for storage or the milk should be discarded.
Upper Respiratory Tract specimen for SARS-CoV-2 Testing at Sutter Shared Laboratory:

☐ Order test using the COVID-19 TESTING LABS + ISOLATION ORDER PANEL.
  - Select Indication for ordering:
    - “Symptomatic or significant exposure requiring (close contact, SNF, prison, exposed newborn).”
  - Select “Admission or transfer (rapid, if available).”
  - Accept the automatic pop-up window for “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order.
  - Click on “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order in the right-hand panel of orders that needs to be signed.
  - A pop-up window “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order will automatically show up the screen.
    - “What is the Specimen Source”: Select “Nasopharyngeal & Oropharyngeal (in transport media).”
  - Add Comments:
    - Type and select .PXCOVIDSPECIMEN smart phrase which will insert the following text: “Please send specimen to Sutter Shared Lab for SARS-CoV-2 testing.”
  - **Note:** The order panel continues to change as additional testing platforms become available.

☐ Collect Upper Respiratory Tract Specimen.
  - Specimens sent to the Sutter Shared Laboratory MUST be placed in viral transport media.
  - Prior to collection: Confirm that infant was bathed after birth.
  - Use the GeneXpert Xpert® Nasopharyngeal Sample Collection Kit with flocked swab tip nylon swab or BD flexible minitip flocked swab with Universal Viral Transport Media (Red Top) kit.
  - Use a single swab to sample the oropharynx and then nasopharynx to maximize test sensitivity and limit use of testing resources.
    - Oropharynx (Throat): Swab posterior pharynx, avoiding tongue and gums.
    - Nasopharynx: (please refer to the SHEMS KDS on Nasopharyngeal Collection).
      - Insert a swab through the nostril parallel to the palate (not upwards) until resistance is encountered or the distance is equivalent to that from the tragus of infant’s ear to his/her nostril. Swab should reach depth equal to distance from the nostril to outer opening of the ear.
      - Gently rub and roll swab 5-6 times. Leave swab in place for 5-10 seconds to absorb secretions.
      - Slowly remove swab while rotating it.
      - Obtain specimen from the other nostril with same swab (unless minitip is saturated with fluid from first collection). Repeat procedure as described above.
      - Insert swab into viral transport media tube until it touches the bottom of the tube.
      - At the molded break point, bend to snap handle off swab. Discard handle.
      - Place top securely on the tube.
  - Contact CPMC Lab to notify them of STAT specimen and to coordinate with pick-up times for transport to Sutter Shared Lab. Walk specimen to Laboratory for direct hand off to Lab personnel.
Upper Respiratory Tract specimen for SARS-CoV-2 Testing (Abbott) at CPMC VNC Laboratory:

- Order the test using the COVID-19 TESTING LABS + ISOLATION ORDER PANEL.
  - Select Indication for ordering:
    - “Symptomatic or significant exposure requiring (close contact, SNF, prison, exposed newborn).”
  - Select “Admission or transfer (rapid, if available).”
  - Accept the automatic pop-up window for “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order.
  - Click on “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order in the right-hand panel of orders that needs to be signed.
  - A pop-up window “Coronavirus 2019 NAA/COVID-19, SARS2) STAT Once” order will automatically show up the screen.
    - “What is the Specimen Source”: Select “Nasopharyngeal dry swab (Abbott).”
  - Add Comments:
    - Type in “Nasopharyngeal & Oropharyngeal.”
  - Note: The order panel continues to change as additional testing platforms become available.
    - Anticipated 8/25/2020, “Nasopharyngeal & Oropharyngeal dry swab (Abbott)” will be an available tab listed under the section “What is the Specimen Source.”

Collect Upper Respiratory Tract Specimen:

- Abbott recommends a DRY swab specimen to be placed directly into the ID NOW instrument. **Do NOT place specimen into viral transport media.**
- Use the mini Copan FLOQ Swabs with molded break point 80 mm from tip end (Product Code in Peel Pouch 501CS01, Product Code in tube 551C).
- Use a **single swab** to sample the **oropharynx and then nasopharynx** to maximize test sensitivity and limit use of testing resources.
  - Oropharynx (Throat): Swab posterior pharynx, avoiding tongue and gums.
  - Nasopharynx: (please refer to the SHEMS KDS on Nasopharyngeal Collection except do NOT place into viral transport media).
    - Insert a swab into the nostril parallel to the palate (not upwards) until resistance is encountered or the distance is equivalent to that from the tragus of infant’s ear to his/her nostril. Swab should reach depth equal to distance from the nostril to outer opening of the ear.
    - Gently rub and roll swab 5-6 times. Leave swab in place for 5-10 seconds to absorb secretions.
    - Slowly remove swab while rotating it.
    - Obtain specimen from the other nostril with same swab (unless minitip is saturated with fluid from first collection). Repeat procedure as described above.
    - **Do NOT place swab into transport viral media.**
  - Contact CPMC Lab to notify them of STAT specimen. Walk specimen to Laboratory for direct hand off to Lab personnel.

Lower Respiratory Tract specimen for SARS-CoV-2 testing at Public Health Department:

- SFPDH will arrange specimen pick-up:
  - Monday-Friday: 08:00-17:00
  - Saturday-Sunday: 09:00-16:00
  - Expected turnaround time: 24-48 hours depending on when specimen has been received.

Order the test using the COVID-19 TESTING LABS + ISOLATION ORDER PANEL.

- Select “COVID-19- Public Health Department (External) Lab Testing” option which is expected to have the fastest result turnaround time for this type of specimen.
- Cancel automatic pop-up window for “COVID-19, Nasopharyngeal, Public Health Dept STAT Once” order.
- Deselect “COVID-19, Nasopharyngeal, Public Health Dept STAT Once.”
- Under Specimen Source: select “Tracheal Aspirate.”
- Under Indications: Select “Symptomatic or significant exposure (includes isolated admissions).”
- Then accept the order.

Collect Lower Respiratory Tract specimen from intubated patient:

- Obtain 2-3 mL of tracheal aspirate into a sterile, leak-proof, screw-cap sputum collection cup or sterile dry container.

If test result is positive: the physician must fill out a Confidential Morbidity Report (CMR) form.
Aerosol-Generating Procedures and Treatments:
- The greatest risks for exposure to SARS-CoV-2 are when AGPs are performed.
- Newborns do not generate aerosols as effectively as adults and often do not cough during procedures.
- Includes the following respiratory support and procedures:
  - Open airway suctioning
  - Sputum induction
  - Chest PT
  - Nebulized treatments
  - PPV, High Flow Nasal Cannula, CPAP, non-invasive ventilation
  - Intubation (PAPR preferred, if available)
  - Exutubation
  - Cardiopulmonary resuscitation
  
  Note: Remember to use the Vyaire HMEF Mini/S filter for administration of bag-mask CPAP or PPV.

- PPE for HCW:
  - **N95 respirator or PAPR**, face shield or goggles, gown, and gloves.
  - Contact Respiratory Therapist to obtain PAPR and undergo training for its use.
- Limit the number of HCW present during the procedure to only those essential for patient care.
- Visitors may NOT be present during procedure.
- Clean and disinfect procedure room surfaces and any reusable equipment promptly.

Routine Newborn Procedures:
- Hearing screening:
  - Perform test in the infant’s room using the Mission Bernal Campus (MBC) hearing machine.
  - Do NOT bring infant to the Well baby Nursery.
  - Test may only be performed by a MBC nurse trained in its use.
  - After use, clean equipment with disinfectant wipes per label instructions.
  - If staff NOT available to perform test:
  - Arrange for infant to have outpatient testing within 1 month of discharge.

- CCHD screening:
  - Perform test should in the infant’s room.
  - Do NOT bring infant to the Well Baby Nursery.
  - For infants in temporary isolation on Postpartum:
  - Use saturation monitor designated as the ISOLATION machine which will reside in Room 8166.

- Circumcisions:
  - Perform procedure in infant’s room.
  - Place infant on Panda (Well Baby Nursery) or Giraffe OmniBed (NICU) located INSIDE the room.

**QUARANTINE FOR MOTHER OR SP WHO IS A PUI**

CDC acknowledges that the recommendation for discontinuation of isolation and precautions for a person known to be infected with SARS-CoV-2 may, in some circumstances, appear to conflict with the recommendation for when to discontinue quarantine for persons known to have been exposed to SARS-CoV-2.

- Based on the time it takes to develop illness if infected, 14 days of quarantine is recommended after COVID-19 exposure.
- A person with confirmed COVID-19 may discontinue isolation and precautions earlier than a person who is quarantined because of the possibility they are infected.
Please note that testing guidance is subject to change as more information becomes available.

- Per CDC update as of 8/16/2020, evidence suggests:
  - "Available data indicate that persons with mild to moderate COVID-19 remain infectious no longer than 10 days after symptom onset. Persons with more severe to critical illness or severe immunocompromise likely remain infectious no longer than 20 days after symptom onset."
  - "Recovered persons can continue to shed detectable SARS-CoV-2 RNA in upper respiratory specimens for up to 3 months after illness onset, albeit at concentrations considerably lower than during illness, in ranges where replication-competent virus has not been reliably recovered and infectiousness is unlikely. The etiology of this persistently detectable SARS-CoV-2 RNA has yet to be determined. Studies have not found evidence that clinically recovered persons with persistence of viral RNA have transmitted SARS-CoV-2 to others."
  - "Reinfection with SARS-CoV-2 has not yet been definitively confirmed in any recovered persons to date. If, and if so when, persons can be reinfected with SARS-CoV-2 remains unknown and is a subject of investigation. Persons infected with related endemic human betacoronavirus appear to become susceptible again at around 90 days after onset of infection. Thus, for persons recovered from SARS-CoV-2 infection, a positive PCR during the 90 days after illness onset more likely represents persistent shedding of viral RNA than reinfection.
    - If such a person remains asymptomatic during this 90-day period, then any re-testing is unlikely to yield useful information, even if the person had close contact with an infected person.
    - If such a person becomes symptomatic during this 90-day period and an evaluation fails to identify a diagnosis other than SARS-CoV-2 infection (e.g., influenza), then the person may warrant evaluation for SARS-CoV-2 reinfection in consultation with an infectious disease or infection control expert. Isolation may be warranted during this evaluation, particularly if symptoms developed after close contact with an infected person.
  - "Correlates of immunity to SARS-CoV-2 infection have not been established. Specifically, the utility of serologic testing to establish the absence or presence of infection or reinfection remains undefined.""

- Symptom-based strategy is recommended for discontinuation of precautions for patient with confirmed COVID-19 as test-based strategy resulted in prolonged isolation of patients who continues to shed detectable SARS-CoV-2 RNA but were considered no longer infectious.

- Criteria for discontinuation of isolation and precautions using the symptom-based strategy for an immunocompetent person without severe disease:
  - At least 10 days* since the onset of symptoms (or since date of first positive test in case of asymptomatic women identified by obstetrical screening test) and
  - Afebrile for at least 24 hours without antipyretic medication and
  - Symptoms have improved.
  * Extends to at least 20 days if mother or SP is severely immunocompromised or required ICU care.
  - Severely immunocompromised persons is defined as: cancer on treatment, bone marrow, solid organ, or stem cells transplant, uncontrolled HIV, chronic steroid or immunosuppressant.
  - Obtain Infection Control approval prior to removing precautions.

- In consultation with Infection Control, the test-based strategy may be considered:
  - To discontinue precautions for severely immunocompromised patient who has been asymptomatic throughout his/her infection and at least 10 days have passed since the date of his/her first positive viral diagnostic test.
  - To discontinue precautions for severely immunocompromised patient in whom there is still concern for infection after 20 days.

- Criteria for discontinuation of isolation and precautions using the test-based strategy:
  - At least two consecutive respiratory specimens collected ≥ 24 hours apart (total of two negative specimens).

- Serologic testing should NOT be used to establish present or absence of SARS-CoV-2 infection or reinfection.
DURATION OF ISOLATION PRECAUTIONS FOR INFANT BORN TO CONFIRMED COVID-19 MOTHER

The decision to discontinue an infant’s isolation precautions should be made on a case-by-case basis. Consultation with Pediatric Infectious Disease, Infection Control, and SFDPH as needed. The decision should take into account disease severity, illness signs and symptoms, and results of laboratory testing.

☐ If infant is uninfected but requires prolonged NICU hospitalization:
  • Mother or SP with confirmed COVID-19 will not be allowed to visit her infant until he/she meets criteria for discontinuation of isolation and precautions.
  • Note: These recommendations for the in-hospital setting are more stringent than the requirements for mothers and well newborns after hospital discharge.
    o At least 14 days* since the onset of symptoms (or since date of first positive test in case of asymptomatic women identified by obstetrical screening test) and
    o Afebrile for at least 24 hours without antipyretic medication and
    o Symptoms have improved.
  * Extends to at least 20 days if mother or SP is severely immunocompromised or required ICU care.
  - Severely immunocompromised persons is defined as: cancer on treatment, bone marrow, solid organ, or stem cells transplant, uncontrolled HIV, chronic steroid or immunosuppressants.
  - Obtain Infection Control approval prior to removing precautions.

☐ If infant has positive SARS-CoV-2 molecular testing and requires prolonged NICU hospitalization:
  • Follow-up testing every 48-72 hours.
  • Infant will remain on disease-transmission precautions until:
    o At least two consecutive negative results of an FDA Emergency Use Authorized molecular assay for COVID-19 from combined specimens (oropharyngeal then nasopharyngeal) collected ≥ 24 hours apart (total of two negative specimens).

☐ Infants with NEGATIVE SARS-CoV-2 molecular testing should optimally be discharged home to the care of a healthy (non-infected) parent or caregiver if possible.
  • If the mother is in the same household:
    o She should maintain at least 6 feet for as much of the time as possible.
    o When in closer proximity to the infant, she should use a mask and appropriate hand hygiene until she has met criteria for discontinuation of isolation and precautions.
    o Other PUI caregivers in the home should use masks and hand hygiene when within 6 feet of the newborn until their status is resolved.
    o If a non-infected caregiver is not available, manage on a case-by-case basis.
    o Please see section on Information for Families at Home after Hospital Discharge of Infant.

☐ Asymptomatic infants determined to be infected by molecular testing (or whose status cannot be determined due to lack of testing due to parental refusal) but who have otherwise met discharge criteria:
  • Discharge home with appropriate precautions and plans for frequent outpatient follow-up (by telephone, telemedicine, or in-office) through 14 days after birth.
  • Contact infant’s pediatrician prior to discharge to discuss care and confirm outpatient follow-up has been scheduled.
  • Discuss with family specific guidance regarding used of masks, gloves (when indicated), and hand hygiene for all caretakers. Please see section on Information for Families at Home after Hospital Discharge of Infant.
  • Check infant’s temperature twice daily and watch for symptoms of COVID-19. If infant develops symptoms, parent will be instructed to call his/her pediatrician for medical advice.
  • If possible, uninfected individuals >60 years of age and/or those with comorbid conditions should not provide newborn care.
CHECKLIST TO MINIMIZE POTENTIAL FOR COVID-19 EXPOSURE

PERSONNEL
ALL:
☐ HCWs should use appropriate PPE based on patient’s isolation precautions.

PUI/CONFIRMED COVID-19:
☐ Sign login sheet prior to entry into the room once per shift.
☐ Minimize number of HCWs entering the room to only essential personnel.
  - 1:1 NICU nursing.
    - Time care so primary assigned nurse does most of the care.
    - Designate second NICU nurse as relief/extra help with goal to minimize need for second person to be in room if possible, to reserve resources until supply stock is robust.
  - Postpartum staffing – mom and infant may be cared for as the same couplet.
  - Assign other staff per shift (as staffing permits) to minimize HCW entering patient room.
☐ Hand Hygiene:
  - HCW should perform hand hygiene before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of PPE.
  - Use alcohol-based hand sanitizer or hand wash with soap and water for at least 20 seconds.
  - If hands are visibly soiled, use soap and water before returning to alcohol-based hand sanitizer.
☐ Environmental cleaning and disinfection procedures:
  - Bedside nurse should perform routine cleaning and disinfection procedures using hospital-grade disinfectant to frequently touched surfaces or objects for appropriate contact times per label instructions.
☐ Contact EVS by Vocera (“Call EVS lead”) to coordinate laundry and waste removal.
  - Bedside nurse will meet EVS outside the isolation room (or anteroom if in an AIIR) and place laundry and/or waste directly into the EVS cart. NO red bags are needed.
☐ Consider ways to safely minimize room entry whenever feasible – cluster care, place pumps in location where visible from the window, contact NNP/MD to discuss is laboratory test and/or procedures need to be repeated (e.g. hemolyzed specimen) or replaced (e.g. replacement of PIV if infant has a PICC).

PERSONAL PROTECTIVE EQUIPMENT (PPE) for NICU (see hospital wide requirements for other areas)
ALL:
☐ HCWs must receive training on PPE use to prevent self-contamination. Any reusable PPE must be properly cleaned, decontaminated, and maintained after and between uses.

Please refer to Sutter CDC PPE Donning and Doffing poster and video as well as Sutter COVID-19 Employee PPE Guidebook.

PUI/CONFIRMED COVID-19:
☐ Please secure hair if needed.
☐ Remove personal items except your Vocera. You do NOT need your hospital badge inside the patient room.
☐ Remember to keep hands AWAY from face.
☐ REMEMBER to perform hand hygiene between each step. Refer to PPE policy for Donning/Doffing.
☐ If still wearing original facemask or N95 respirator, avoid self-contamination when donning additional PPE.
☐ Limit surfaces touched prior to entering patient room.

Current Sutter recommendations for N95 respirator use is EXTENDED USE for PUI/Confirmed COVID-19 patients. Given current supplies, limited re-use of N95 is NOT indicated. Use of N95 respirator that you have not been fit tested to or the use of non-NIOSH approved respirators (i.e. KN95) are also NOT indicated. This could change if supply demand and availability changes, but currently both are NOT indicated.

Extended Use of N95 respirator:
☐ Wear same N95 respirator for repeated encounters with multiple patients, without removing the respirator between patient encounters (including between COVID and non-COVID patients) because it is expected to involve less touching of the respirator and therefore less risk of contact transmission.
☐ Use cleanable Face shield over N95 respirator to reduce potential surface contamination of N95 respirator.
☐ Do NOT use a procedure/surgical mask over an N95 respirator as it increases the breathing resistance and does not add any protective value while using up resources.
Perform hand hygiene with soap and water or an alcohol-based hand sanitizer before and after touching or adjusting the respirator (if necessary for comfort or to maintain fit).

The maximum length of continuous use is typically dictated by hygienic concerns or practical considerations rather than a pre-determined number of hours.

Discard/Replace N95 respirator if:
- N95 respirator is contaminated with blood, respiratory or nasal secretions, or other bodily fluid.
- N95 respirator is damaged or becomes hard to breathe through.
- Removed for HCW break (e.g. restroom or meals, etc.).

A new N95, whether it is fit tested or not, is favored over re-use of an N95 for COVID-19. The hierarchy for N95 usage below outlines the order in which you should use N95s:
1. The same make, model size of respirator that you have been fit to.
2. An expired N95 from the State stockpile that you have been fit to.
3. A new N95 that you have NOT been fit to if you are able to successfully perform a seal check.
4. An expired N95 from the state stockpile that you have NOT been fit to if you are able to successfully perform a seal check.
5. A new non-NIOSH approved respirator (e.g. K95) you have not been fit to if you are able to perform a seal check.
6. A reprocessed N95 that you have been fit to.
7. A reprocessed N95 that you have not been fit to if you are able to successfully perform a seal check.
8. A procedure/surgical mask.

Extended and Limited Re-Use of regular procedural facemask:
- HCW should extend use of Sutter issued procedure facemask to wear for duration of his/her shift. Facemask may be worn between different patients (those on COVID-10 Droplet/Contact Precautions or not) without replacing facemask.
- HCW may use N95 respirator as his/her daily facemask if N95 respirator was used for the care of asymptomatic patient whose SARS-CoV-2 test was negative.

When removing the mask for a break:
- Wash hands.
- Remove and carefully fold procedure mask for storage so that outer surface is held inward and against itself.
- Place in an individually labeled new storage bag.
- **Exception:** Discard facemask following care of non-COVID patient in droplet precautions. Obtain new mask before returning to work.

When returning from break:
- Wash hands.
- Re-don procedure mask carefully to avoid touching the inside of the mask.
- Wash hands again.
- Discard the used bag.

If mask is touched inadvertently or on purpose (to adjust the mask):
- Remove gloves, if applicable.
- Perform hand hygiene.
- Don a new pair of gloves before continuing with patient care activities.

Donning/Doffing in Regular Patient Isolation Room:
- Don PPE outside of patient’s isolation room.
- Doff gown and gloves inside the patient room prior to exit.
- Remember ALWAYS to close room door.
- Doff PAPR (if used instead of N95 respirator) face shield or goggles) outside patient room.
- Keep N95 respirator (if used instead of PAPR) in place under Extended Use policy.
- Clean reusable PPE.

Donning/Doffing in AIIR:
- Don PPE in anteroom.
  - In NICU: Donning area is located on the right side of the anteroom (same side as NICU Room 5530).
  - Doff Gown and Gloves inside the patient room prior to exiting isolation room.
  - Remember ALWAYS to close room door.
  - Doff PAPR (if used instead of N95 respirator) and eye protection (face shield or goggles) in the anteroom.
  - In NICU: Doffing area is located on the left side of the anteroom (same side as NICU Room 5529).
- Clean reusable PPE.
  - Postpartum: Leave cleaned face shield or goggles in basin located in anteroom.
  - NICU: After Doffing has been completed, bring cleaned face shield or goggles back to Doffing area for reuse.

**Patient Transport (Within Hospital):**
- Wear appropriate PPE as described above.
- Place infant into a CLOSED postpartum Giraffe Incubator or NICU Giraffe OmniBed.
- After exiting room:
  - Doff PPE as described above in PPE policy and video.
  - May ONLY leave facemask or N95 respirator in place.
  - Clean googles.
  - Don new PPE:
    - If Giraffe will remain closed during transport: Put on clean gloves.
    - If Giraffe doors are open (e.g., CPAP, PPV) during transport: Put on clean gown, gloves, and goggles.

**SUMMARY TABLE OF MASKS AND PPE FOR HCW, PATIENT, SP and TRANSPORTER**
(Modified from SHEMS KDS ON PPE)

### Asymptomatic Patient and NO Known Contact with Confirmed COVID+ Person

<table>
<thead>
<tr>
<th>Person</th>
<th>Entry Hospital/LD</th>
<th>AP</th>
<th>Early Labor</th>
<th>Pushing/Delivery</th>
<th>Transfer</th>
<th>PP</th>
<th>Newborn Care §</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>N95 *</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>None</td>
<td>None</td>
<td>X</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>Surgical</td>
<td>Surgical when HCW present</td>
<td>Surgical †</td>
<td>Surgical when HCW present</td>
<td>Surgical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Asymptomatic SP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>Surgical</td>
<td>Surgical when HCW present</td>
<td>Surgical</td>
<td>Surgical when HCW present</td>
<td>Surgical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Transporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>---</td>
<td>Surgical</td>
<td>---</td>
<td>---</td>
<td>Surgical</td>
<td>Surgical</td>
<td>---</td>
<td>Surgical</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>None</td>
<td>---</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

- Full PPE: Goggles/Face shield, Gown, and Gloves.
- HCW: Full Modified From SHEMS KDS ON PPE.
- * Patient with negative SARS-CoV-2 testing: Surgical mask for pushing/delivery if patient wears mask. N95 if patient is unable to wear mask.
- † Patients should be encouraged to keep mask in place during pushing/delivery but may opt if difficulty breathing.
- § Newborn Care: If mother declines SARS-CoV-2 testing, infant is NOT allowed in WBN.

### PUI/COVID+ Patient

<table>
<thead>
<tr>
<th>Person</th>
<th>Entry Hospital/LD</th>
<th>AP</th>
<th>Early Labor</th>
<th>Pushing/Delivery</th>
<th>Transfer</th>
<th>PP</th>
<th>Newborn Care</th>
<th>DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
<td>N95</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Patient</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>Clean Sheet</td>
<td>None</td>
<td>None</td>
<td>Clean Sheet</td>
</tr>
<tr>
<td>Asymptomatic SP</td>
<td>Discourage back and forth between mother and newborn.</td>
<td>In PP room: Remain 6 feet away from mother, wear surgical mask, and practice hand hygiene.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
<td>Surgical</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>None</td>
<td>None</td>
<td>X*</td>
<td>None</td>
</tr>
<tr>
<td>Transporter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>● Mask</td>
<td>---</td>
<td>N95</td>
<td>---</td>
<td>---</td>
<td>N95</td>
<td>N95</td>
<td>---</td>
<td>N95</td>
</tr>
<tr>
<td>● Full PPE</td>
<td>---</td>
<td>None</td>
<td>---</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>---</td>
<td>None</td>
</tr>
</tbody>
</table>

- Full PPE: Goggles/Face shield, Gown, and Gloves.
- HCW: Full Modified From SHEMS KDS ON PPE.
- * Patient with negative SARS-CoV-2 testing: Surgical mask for pushing/delivery if patient wears mask. N95 if patient is unable to wear mask.
- * Newborn Care: If infant is in temporary separation from mother in separate isolation room.
AEROSOL-GENERATING PROCEDURES
☐ Please see section under “Tests and Procedures” for details.

EQUIPMENT CLEANING
☐ Use dedicated or disposable noncritical patient-care equipment (e.g., blood pressure cuffs).
☐ Clean and disinfect all non-dedicated, non-disposable medical equipment before use on another patient.
  Clean according to manufacturer’s instructions and facility’s policies.
☐ Use closed suctioning systems in intubated patients.

ENVIRONMENT CLEANING
It is unclear how long COVID-19 remains infectious in the air but it is reasonable to apply standard practice for pathogens spread by airborne route to restrict unprotected individuals until sufficient time has elapsed for enough air changes to remove potentially infectious airborne pathogens. Please refer to the SHEMS Guidance on Cleaning Spaces Occupied by PUI/Confirmed COVID-19 Patients.

☐ Terminal Cleaning of patient room:
  • Contact and Droplet Precautions: Room cleaning may be performed immediately.
  • COVID-19 Droplet/Contact, AND Airborne Precautions: Room should remain closed for 60 minutes prior to any cleaning.
**SUMMARY VISITATION POLICY FOR PREGNANT PATIENTS AND INFANTS**

This general grid is for area specific visitors for mothers and/or infants. Check current requirements for security and command center notification.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Who may be with patient</th>
<th>Where can a visitor be within the hospital?</th>
<th>Can a visitor go in and out of the hospital?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Antepartum (NOT in Labor)</strong></td>
<td>• 1 “healthy” asymptomatic SP may be designated as visitor for the entire stay (unless special arrangement approved by Administration).</td>
<td>• Only in the patient room.</td>
<td>• SP CANNOT enter hospital if symptomatic or confirmed COVID-19. SP may remain overnight. SP may leave once per day and return the same day.</td>
</tr>
<tr>
<td><strong>L&amp;D</strong></td>
<td>• 1 “healthy” asymptomatic SP may be designated as visitor for the entire stay (unless special arrangement approved by Administration).</td>
<td>• After arrival on unit, SP must remain in patient room at all times. • SP may NOT be in public areas of hospital including not walking in L&amp;D hallway with laboring mother. • HCW must accompany mother who is up walking during labor.</td>
<td>• SP CANNOT enter hospital if symptomatic or confirmed COVID-19. SP must be same person during hospital stay. SP may remain overnight. SP may leave once per day and return the same day. <em>Exception:</em> If mother PUI/Confirmed-19, SP may not re-enter hospital after exiting.</td>
</tr>
<tr>
<td><strong>Postpartum</strong></td>
<td>• 1 “healthy” asymptomatic SP may be designated as visitor for the entire stay (unless special arrangement approved by Administration).</td>
<td>• After arrival on unit, SP must remain in patient room at all times. • SP may not be in public areas of hospital including shared nourishment area or well-baby nursery. • If baby is in the NICU: - Both parents may visit infant’s bedside at same time.</td>
<td>• SP CANNOT enter hospital if symptomatic or confirmed COVID-19. SP must be same person during hospital stay. SP may remain overnight. SP may leave once per day and return the same day. <em>Exception:</em> If mother PUI/Confirmed-19, SP may not re-enter hospital after exiting.</td>
</tr>
<tr>
<td><strong>NICU</strong></td>
<td>• 2 parents or legal guardians may be designated on their infant’s visitor list (unless special arrangement approved by Administration). All infants within a family must have the same visitor’s list for their infants.</td>
<td>• While mother is postpartum patient: - Both mother and SP may visit baby’s bedside at same time. After mother is discharged home: - 1 visitor at a bedside. - If multiple gestation: 2 visitors may visit at same time but only 1 visitor at a bedside. If driving restrictions are in place and both visitors need to come at the same time: - 1 visitor must remain outside of the hospital (request he/she waits in car).</td>
<td>• Visitor CANNOT enter NICU if he/she does not pass the Wellness and Temperature checks upon arrival. One visitor may remain overnight. 1 entry per visitor per day. Advise visitor to limit daily entry &amp; exit to going back and forth to home (sheltering in place) or to needed MD appointments.</td>
</tr>
</tbody>
</table>

In NICU:
- At each visit, NICU clerk or NICU nurse will perform wellness and temperature checks on parent or approved caregiver as described in the Sutter Health COVID-19 Screening Guidelines for Non-Patients.
- Wellness Check:
  - Are you feeling well today?
  - Have you had any runny nose, cough, sore throat, fever, chills, GI upset, or rashes in the last 72 hours?
  - Does anyone in your home have any of these symptoms?
  - Do you know exposing your intent to contagious illness can result in a serious health risk?
  - Do you have any other question or concern in regard to visitation or rooming in?
- Normal temperature range is: 97.1°F–99.9°F. If temperature is outside the normal range, repeat temperature with an oral thermometer (even if oral thermometer was used for the initial temperature check).
- Visitors are NOT allowed to visit if:
  - Answer “Yes” to any of the screening questions on the Symptom Checklist OR has a measured temperature ≤ 97°F or ≥ 100°F.
INFANT BORN BY SURROGACY:
- Document information on surrogate and legal parent(s) in EHR.
- L&D:
  - Surrogate + (1) legal parent will be allowed into the hospital for the delivery
    - Surrogate will NOT have another SP.
- Postpartum and Newborn Care:
  - Surrogate will be transferred to Postpartum Room A.
    - No visitors allowed. No visitation with legal parent.
    - No contact with infant.
  - One legal parent will room in Postpartum Room B.
    - No visitors allowed. No visitation with surrogate.
    - No in and out privileges.

ASYMPTOMATIC MOTHER WITH NO KNOWN COVID-19 EXPOSURE BUT DECLINES TESTING:
These are particularly hard situations as there are presumed asymptomatic shedders of the virus. These guidelines will likely change as incidence of COVID-19 increases and more information is available.
- If well appearing infant:
  - Standard precautions– no additional precautions recommended at this time.
  - Infants should remain in colocation with mother.
  - Do NOT bring infant into Well Baby Nursery.
  - If symptoms concerning for possible COVID-19 infection develop, transfer infant to the NICU and perform PUI work-up.
- If infant requires NICU care after birth:
  - Place infant on COVID-19 Contact/Droplet Precautions pending risk assessment.
  - PPE for HCW pending risk assessment: N95 respirator, face shield or goggles, gown, and gloves.
  - Contact Pediatric Infectious Disease specialist and Infection Control staff on a case-by-case basis.
  - Visitation by Mother and SP will be determined from above risk assessment.
- If infant requires ongoing NICU care unrelated to COVID-19:
  - Standard precautions– no additional isolation requirements are required.
  - PPE for parents: Facemask when HCW present.

WELL INFANT ON POSTPARTUM AND NO KNOWN COVID-19 EXPOSURE:
- Infant in Well Baby Nursery for Procedures or Respite Care AND Mother is still Inpatient:
  - No visitors allowed in Well Baby Nursery.
  - Nurse will bring infant from mother’s room to the nursery.
- Infant in Well Baby Nursery for Treatment (e.g., phototherapy) AFTER Mother is Discharged:
  - If Rooming-In room is available:
    - Infants should be brought to mother’s room for feeds.
    - SP for mother may stay in the room under the usual postpartum rules on grid above.
  - If Rooming-In room is NOT available:
    - Nurse completes COVID-19 screen: Symptom Checklist and temperature check.
    - If mother passes COVID-19 screen, she may feed infant in the lactation room off the nursery.
    - The other parent or approved caregiver may not be in the nursery or the lactation room. He/She should be instructed to wait in the car.
- Infant Discharged from Well Baby Nursery BUT Mother remains Inpatient:
  - Family should be counseled by the NNP/MD about the risks of the infant staying in the hospital during this pandemic. They may choose to have baby room in with mother if SP remains in the mother’s room to care for infant.
INFANT BORN TO ASYMPTOMATIC MOTHER WHO HAS KNOWN CONTACT WITH PUI:
The infant is not a PUI as the mother herself is not a PUI. These guidelines will likely change as incidence of COVID-19 increases and more information is available.

- If PUI contact is deemed to have COVID-19 infection, mother becomes a PUI.
- If well appearing infant and PUI contact’s COVID status is pending/unknown:
  - Standard precautions—no additional isolation requirements are required.
  - Discuss colocation and breastfeeding with mother as described in those sections above.
  - Do NOT bring infant into Well Baby Nursery.
  - If symptoms concerning for possible COVID-19 infection develop:
    - Transfer infant to the NICU and perform evaluation for COVID-19.
  - PPE for HCW: Facemask, eye protection, and gloves.
  - PPE for Mother and SP: Facemask when HCW present.
- If infant requires NICU care and PUI contact’s is pending/unknown:
  - Consider placing infant on COVID-19 Contact/Droplet Precautions pending risk assessment.
  - Contact Pediatric Infectious Disease specialist and Infection Control staff on a case-by-case basis.
  - Visitation by Mother and SP will be determined from above risk assessment.
  - If other parent or approved caregiver does not have same PUI exposure, he/she may be allowed to visit.
  - PPE for HCW pending risk assessment: N95 respirator, face shield or goggles, gown, and gloves.
  - PPE for Mother and SP (when cleared to visit): Facemask, face shield or goggles, gown, and gloves.

INFANT BORN TO PUI/CONFIRMED COVID-19 MOTHER:
- Well Infant in colocation with mother on Postpartum:
  - SP may provide care for infant.
  - SP CANNOT enter hospital if symptomatic or diagnosed with COIVD-19.
  - Keep 6 feet distance from mother and perform meticulous hand hygiene.
  - PPE for Mother and SP: Facemask. Meticulous hand hygiene before, during, and after direct care of infant.
- Well Infant in temporary separation on Postpartum:
  - SP is expected to remain in infant’s room to assist in newborn care.
  - Restrict SP from going back and forth between mother and infant.
  - If SP becomes symptomatic, he/she must immediately leave hospital.
    - Required PPE:
      - In mother’s room: Facemask, hand hygiene, and physical distancing ≥ 6 feet away from mother.
      - In infant’s room: Facemask, face shield or goggles, gown, and gloves.
- NICU Infant on COVID-19 Droplet/Contact Precautions:
  - No visitation is allowed until infant’s infection status is determined.
  - Once parent or approved caregiver is cleared to visit:
    - Instruct parent or approved caregiver to call NICU in advance of their arrival to NICU.
  - PPE for HCW:
    - N95 respirator or PAPR, face shield or goggles, gown, and gloves.
    - Perform aerosol-generating procedures or treatments in AIIR (if available) or a non-shared patient room with HEPA air scrubber and door closed.
  - PPE for Mother and SP when cleared to visit:
    - Facemask, face shield or goggles, gown, and gloves.
- NICU Infant deemed uninfected or with negative SARS-CoV-2 testing who requires ongoing hospitalization:
  - PUI/confirmed COVID-19 parent or approved caregiver will not be allowed to visit until he/she meets criteria for discontinuation of isolation and precautions.
- NICU Infant with positive SARS-CoV-2 molecular testing or deemed Infected with COVID-19:
  - Instruct exposed healthy parent (e.g., contact with COVID-19 mother prior to admission) to report any signs and symptoms of acute illness to their primary care physician for a period of at least 14 days after last known exposure to confirmed COVID-19 person. He/She CANNOT visit NICU until he/she meets criteria for discontinuation of isolation and precautions and cleared by Infection Control.
  - Once cleared to visit:
    - Request parent to sign login sheet.
    - Instruct parent or approved caregiver on PPE use, hand hygiene, limiting surfaces touched, and exiting hospital immediately after visit.

Sutter Health
CPMC
Effective 08/25/2020

43
How to Prepare for Taking a Baby Home during the Covid-19 Pandemic

Getting Ready:
- If you need to go to stores to get essential items, try to go during off hours when they might not be as crowded. Wash your hands before and after going out. Use online shopping with delivery or pick-up where available to limit the time you are in stores. Experts say to wipe down delivery boxes or open them outside if possible, and then wash your hands.
- Have one designated person in the family always going out to do the essential tasks such as grocery shopping. If that person gets sick, they can isolate themselves and you can stay healthy to care for the baby.
- Essential Items to have at home:
  - Food and Water - try to stock up on foods such as canned foods, rice, dried beans, peanut butter, granola bars, and things that have a long shelf life
  - Baby foods: Breast milk storage items / pump / formula if being used
  - Baby items: Diapers, water wipes, thermometer
  - Mother’s prescription medications
  - Household items – bleach, alcohol, soap, shampoo, toothpaste, disinfectant wipes if available

Prevention:
- Avoid exposing your baby to any people who may be sick.
- Wash hands often with soap and water for at least 20 seconds. If that’s not available, use hand sanitizer.
- Avoid touching your eyes, nose or mouth with unwashed hands.
- Limit the number people who are providing care for the baby. If people want to help ask them to drop off food, run errands for you so you can stay home, pick up your laundry to do it, spend time with you on the phone or on-line.
- Confirm with your baby’s health care provider what follow-up visits will be like, the schedule of visits and how to contact the office if you have questions or concerns about the baby.
- Breastfeeding provides extra protection from infections. If you or your baby are having any difficulties with breastfeeding or if you have concerns about how you or your baby are doing with breastfeeding call your health care provider. Newborn Connections provides lactation support by video, phone and at the office as needed.
- Social Distancing: Avoid leaving the house if possible, minimize all visitors to the house that are not essential, stay at least 6 feet away from anyone outside. Cover your mouth and nose when outside in public if you can (a cloth mask works best.)
- Non-caregivers in the house should practice physical distancing from caregivers and the baby as much as is practical. This is especially important if there are other young children in the home or others that leave the home frequently and could be exposed to any illness. Anyone around the baby or any items that are used with the baby should wash his/her hands before any contact.
- Clean frequently touched surfaces and objects daily (e.g., tables, countertops, light switches, doorknobs, and cabinet handles) using a regular household detergent and water or disinfectant wipes if you have them.
- Launder items frequently including washable plush toys.

Making a Plan:
- Choose a room in your home that can be used to separate sick household members from those who are healthy. Identify a separate bathroom for the sick person to use, if possible.
- Have your doctor’s numbers handy if you start to feel overwhelmed or unable to handle things.
- Get to know your neighbors. Talk with your neighbors (by phone) about emergency planning. If your neighborhood has a website (nextdoor.com) or social media page, consider joining it to maintain access to neighbors, information, and resources.
- Identify aid organizations in your community. Create a list of local organizations that you and your household can contact in the event you need access to information, health care services, support, and resources.
- Create an emergency contact list. Ensure your household has a current list of emergency contacts for family, friends, neighbors, carpool drivers, health care providers, teachers, employers, the local public health department, and other community resources.
What to do if you or someone else in your home starts to feel sick:
(Adapted from the Center for Disease Control website [https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-prevent-spread.html].)

- Call your doctor about getting tested.
- The following steps are suggestions to reduce the risk of transmission within the home:
  - Make sure that any shared spaces in the home have good air flow, (e.g., air conditioner or an opened window, weather permitting).
  - Affected household members should stay separated from the baby and the healthy parent or caregiver as much as possible, ideally in a separate bedroom and bathroom without any shared immediate space.
  - Do not allow visitors unless they have an essential need to be in the home.
  - Pets:
    - Do not handle pets or other animals while sick.
    - Other household members should care for any pets in the home.
  - Perform hand hygiene frequently. Wash your hands often with soap and water for at least 20 seconds or use an alcohol-based hand sanitizer that contains 60 to 95% alcohol, covering all surfaces of your hands and rubbing them together until they feel dry. Use soap and water if hands are visibly dirty.
  - Avoid touching your eyes, nose, and mouth with unwashed hands.
  - Facemasks:
    - Wear a facemask if you are in the same room as your infant.
    - Ask you baby’s doctor if you need to wear gloves when in contact with blood, stool, or body fluids, such as saliva, sputum, nasal mucus, vomit, or urine.
    - If possible use disposable masks and gloves and throw out after use.
  - Personal Protective Equipment (PPE):
    - When removing PPE, first remove and dispose your gloves. Then, immediately clean your hands with soap and water or alcohol-based hand sanitizer. Next, remove and dispose of facemask, and immediately clean your hands again with soap and water or alcohol-based hand sanitizer.
  - Avoid sharing household items. Do NOT share dishes, drinking glasses, cups, eating utensils, towels, bedding, or other items. Wash items thoroughly.
  - Clean all “high-touch” surfaces daily (e.g., counter tabletops, doorknobs, bathroom fixtures, toilets, phones, keyboards, tablets, and bedside tables). Also, clean any surfaces that may have blood, stool, or body fluids on them.
    - Use a household cleaning spray or wipe, according to the label instructions. Labels contain instructions for safe and effective use of the cleaning product including precautions you should take when applying the product, such as wearing gloves and making sure you have good ventilation during use of the product.
  - Wash laundry thoroughly.
    - Immediately remove and wash clothes or bedding that have blood, stool, or body fluids on them.
    - Wear disposable gloves while handling soiled items and keep soiled items away from your body. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after removing your gloves.
    - Read and follow directions on labels of laundry or clothing items and detergent. In general, using a normal laundry detergent according to washing machine instructions and dry thoroughly using the warmest temperatures recommended on the clothing label.
  - Place ALL used disposable gloves, facemasks, and other contaminated items in a lined container before disposing them with other household waste. Clean your hands (with soap and water or an alcohol-based hand sanitizer) immediately after handling these items. Soap and water should be used preferentially if hands are visibly dirty.
  - Discuss any additional questions with your state or local health department or healthcare provider.