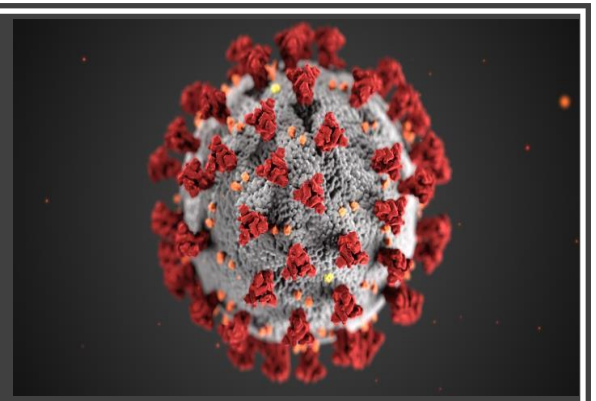
Obstetric COVID Guidelines

v.12.21.23

Table of Contents

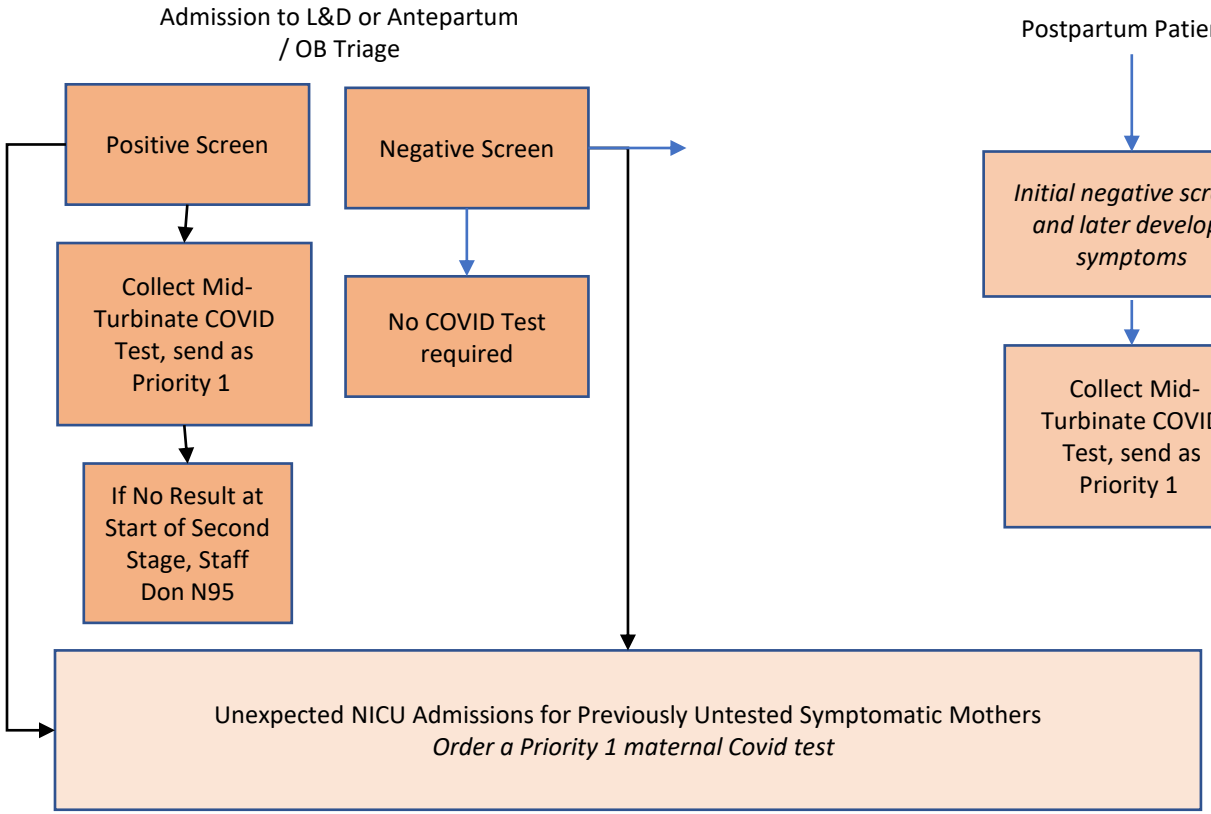


COVID Testing: Obstetric Patient Population
Outpatient OB/Gyn, CNM, Family Medicine Clinics
Inpatient Antepartum/L&D/OB Triage and Mother Baby Units

v. 2.1.23

CESAREAN/TRIAGE/ANTEPARTUM/INTRAPARTUM/POSTPARTUM:

Perform COVID-19 Screen



Retesting Previously Positive Patients

If patient had positive PCR test, resulted in EPIC, within 90 days of delivery it is not necessary to schedule the patient for a COVID test prior to delivery.

** **Obstetric Provider** **

If positive COVID test is received prior to discharge, OB must notify newborn's primary care provider via the Problem List in Epic. If the result is received post discharge the OB provider should notify the newborn's primary care provider via **telephone**

Maternal/Newborn PUI Status

Newborn Nursery: No PUI status, baby may stay with mother or cohort in nursery but may not go back-and-forth
NICU: Maternal status Positive or Symptomatic admit as PUI

**Patient Refusal to Test Should be Documented. Follow Status Unknown PPE Guideline.*

SLHS Women' Services Intrapartum/Postpartum Guidelines Confirmed COVID Positive or PUI

v.9.13.23

Confirmed COVID positive or PUI Patient Presents in Labor or For Delivery

Place patient in Negative Pressure or pre-designated room

Test symptomatic patient

Anticipated Vaginal Delivery (Active Labor): See general treatment and evaluation guideline, see slide 6

Cesarean Delivery

Pain Management

Epidural: Recommend early epidural analgesia
Nitrous: May be used, regardless of COVID status

Intrauterine Resuscitation

May use oxygen, as appropriate, for intrauterine resuscitation in unknown, PUI or covid positive patients.

Identify Neo Resuscitation Location

Identify and prepare location for neo resuscitation outside the patient room for known covid positive (turn warmer on and have resuscitation equipment tested and available)

Post Delivery Care

Maternal/Newborn contact per Newborn Isolation Guidelines (see slide 12). Moms who desire contact with the newborn should perform hand hygiene prior to contact and wear a mask at all times with her newborn.

Transfer to Mother/Baby

- Mom should wear mask during transport
- Infant should transport in bassinet
- Consider maternal discharge at 48 hours

Operating Room Considerations

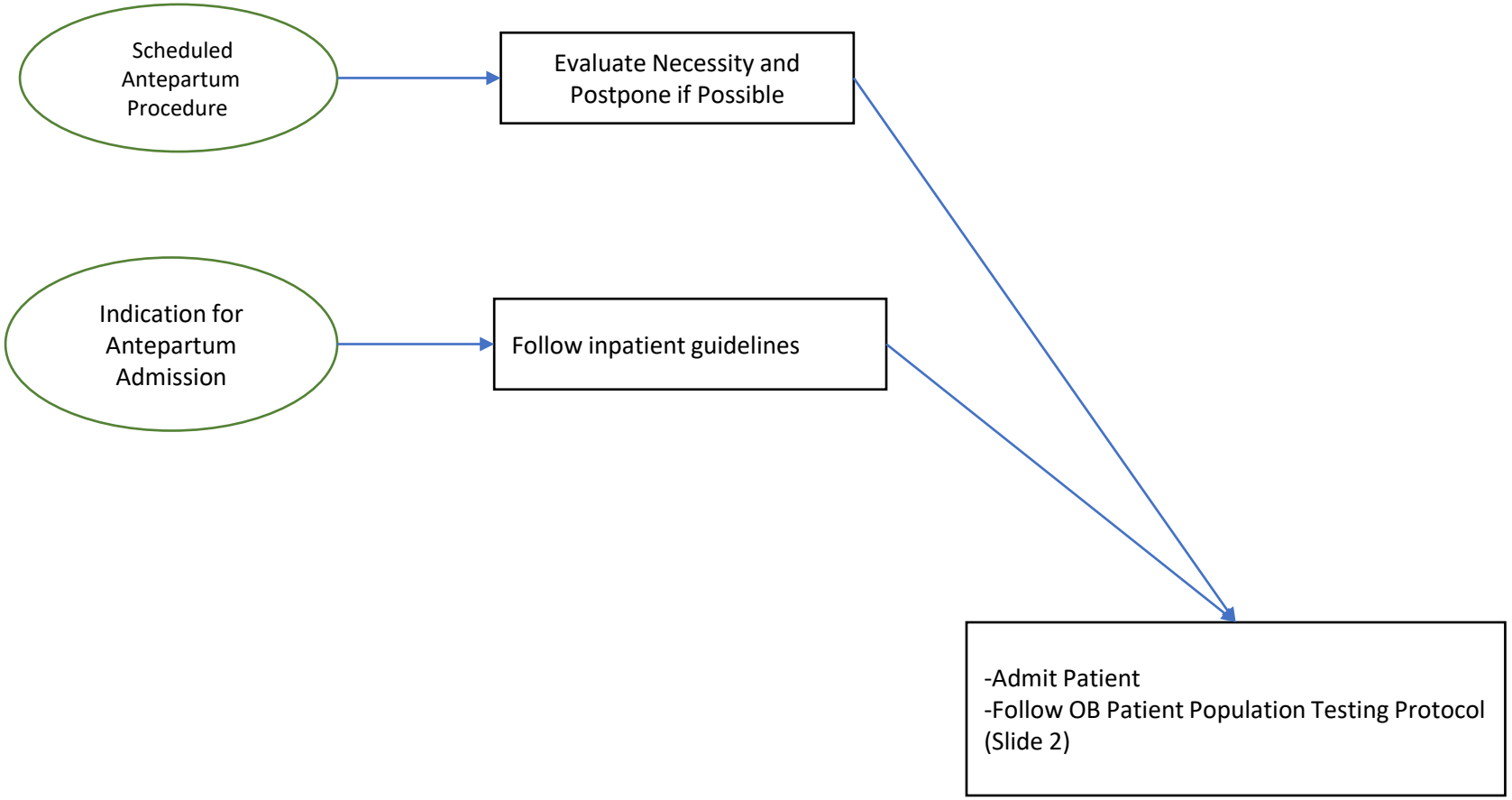
- Schedule at a time that best accommodates unit operations
- Avoid having multiple surgeries occur at one time, if possible
- After case OR should be closed for 35 minutes before it is cleaned
- Traffic should be limited in and out of the room (unless moving out for neo resuscitation)

If General Anesthesia is indicated:

- Use video laryngoscope
- All Staff: wear N95 or PAPR
- Use double gloves, remove one pair immediate after intubation
- Avoid High Flow Oxygen, BiPAP, CPAP
- Put a surgical mask on the patient
- Pt will remain in OR until extubated and stable, then remainder of recovery in the LDR

SLHS Women' Services
Inpatient Antepartum Guidelines
Confirmed for COVID-19 or PUI

v 10.25.22



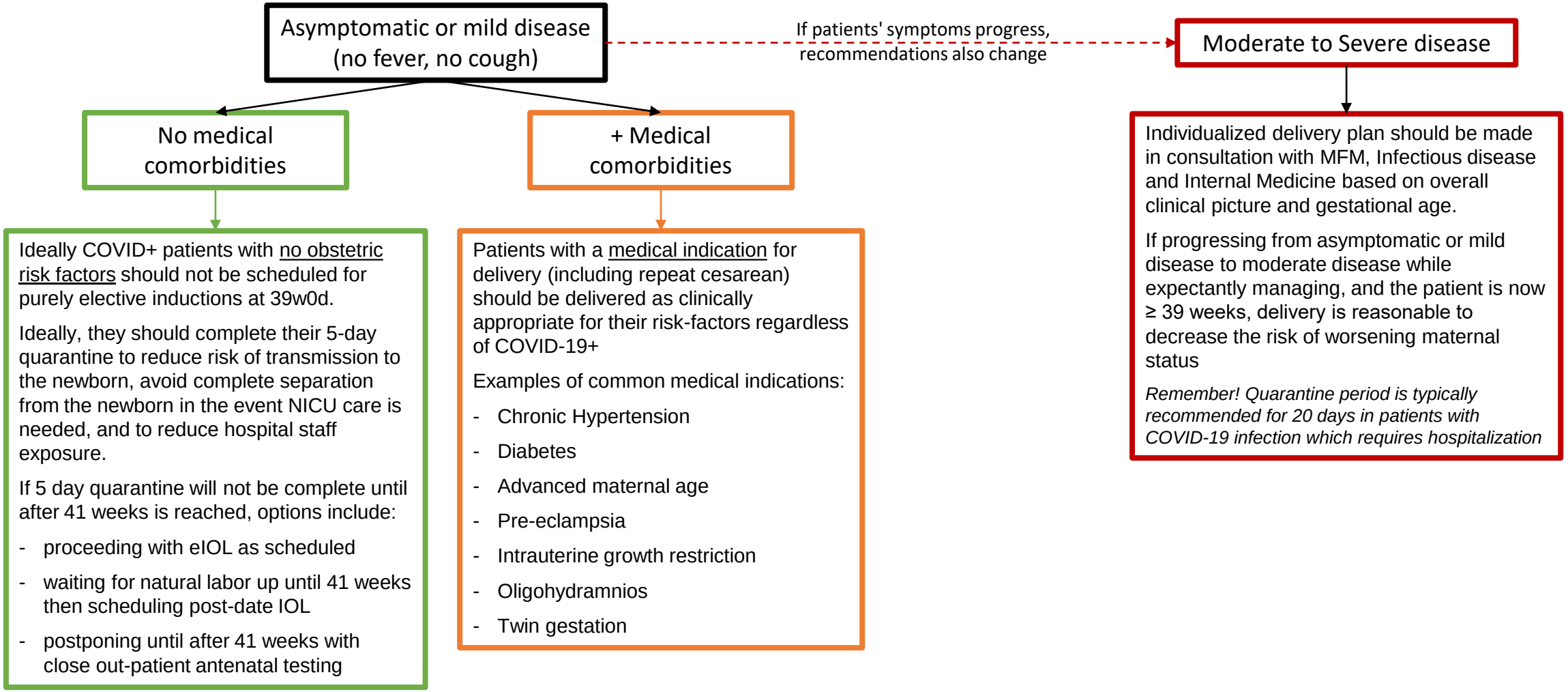
Antenatal Steroids:

High Suspicion of COVID-19:
Administer ≤ 36 6/7 weeks gestation

Confirmed COVID-19:
Administer < 34 weeks gestation

SLHS Women' Services
Confirmed COVID Positive or PUI
Delivery Timing Recommendations

v.1.31.23



SLHS Women's Services COVID Evaluation and Treatment Guideline

v.10.25.22

Admission likely warranted if:

- Severe dyspnea (at rest, interfering w/ ability to talk)
- O2 Saturation ≤90% on Room Air
- Resp. Rate >30bpm
- Lung infiltrates >50%
- PaO2/FiO2 <300mmhg
- Concerning alterations in mentation
- Complicating comorbidities

Initial Admission Lab Assessments:

- CBC w/ Diff
- CMP
- C-Reactive Protein
- CPK
- LDH
- PT/PTT/Fibrinogen
- D-Dimer*
- Ferritin
- Procalcitonin

(if concern for secondary bacterial infection; can be elevated in COVID-19 w/o superimposed infection when late in the course)

Severe disease *associated* with: (prognostic value uncertain)

- Absol. Lymphocyte count <800/microL
- CRP >100 mg/L (normal range: <8.0 mg/L)
- CPK >2× the upper limit normal (normal: 40 to 150 units/L)
- LDH >245 units/L (normal: 110 to 210 units/L)
- PT/PTT/Fibrinogen
- D-Dimer >1000 ng/mL (normal non-preg / 1st tri: <500 ng/ml; 2nd tri 140-750; 3rd tri 160-1,300ng/ml*)

* Pregnancy specific D-Dimer references are highly variable and a threshold for abnormal in the context of COVID-19 in pregnancy has not been established

Moderate Disease:
Dyspnea w/o Hypoxia (oxygen saturation >94 % on room air)

Treatment: (discuss treatment plan with MFM)

- Supportive care; Tylenol (can consider 48 our course ibuprofen for persistent fever if <32 wks gestation)
- Remdesivir (may improve time to recovery)

Prophylactic Anticoagulation

Severe Disease:
Hypoxia (oxygen saturation ≤94 % on room air)
Need for additional oxygenation support (high flow, bipap, etc) or ventilatory support

Treatment: (discuss treatment plan with MFM)

- Remdesivir (Subgroup analysis of trial data suggests that remdesivir improves mortality in patients who are on low-flow supplemental oxygen; less clear in patients who need higher levels of care)
- Dexamethasone - 6 mg daily for 10 days or until discharge (improves mortality in patients who are on noninvasive oxygen supplementation)
- Toclizumab (Anti-IL-6) – Single Dose 8 mg/kg (do not use if co-existent bacterial infection present)
  - ✓ On low-flow supplemental O2 but have significantly elevated inflammatory markers (eg, CRP level ≥75 mg/L) and escalating O2 requirements despite initiation of dexamethasone)
  - ✓ Or Pts who are within 24 - 48 hours of admission to an ICU or receipt of ICU-level care

Other considerations:

- Peak time point for symptom severity and progression to respiratory failure is 5-10 days after first symptom onset
- Hypoxia is defined as O2 sat ≤94% on room air – Pregnancy goal is to always have O2 sat. at 95% or higher; PaO_2 greater than 70 mmHg is desirable
- Permissive hypercapnia: Not contraindicated in pregnancy. Mild hypercapnia (PaCO2 50–60 mm Hg) is generally acceptable, but PaCO2 levels greater than 60 mm Hg may decrease uterine blood flow

SLHS Women's Services COVID Outpatient Treatment Guideline

v.10.25.22

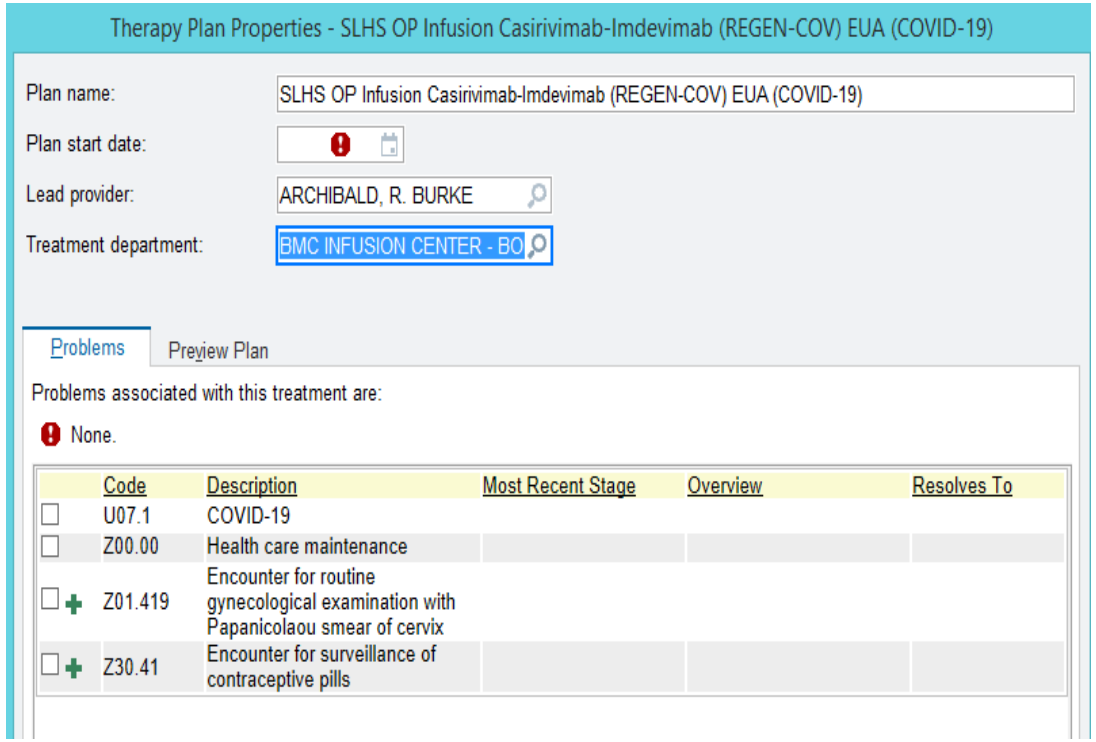
If patient **does not** meet in-patient criteria **and** symptoms onset was within the last **7 days**

→ Tx w/ **Monoclonal Antibody Therapy (Emergency Use Authorization), if available, based on the currently circulating COVID variant.**

→ **Nirmatrelvir-Ritonivar, generic Paxlovid,(antiviral, emergency use authorization)**

Consider telehealth visits on days 4, 7, and 10 (following the onset of clinical illness) to assess symptoms

Ordering in Epic



Other considerations:

- Patients can continue to take low dose aspirin for Pre-E Risk reduction with any/all COVID-19 treatments
- If receiving Monoclonal Antibody Tx, patient should wait 30 days before receiving a COVID-19 Vaccine Booster

SLHS Women's Services

Remote Patient Monitoring*

v.9.1.21

Eligibility Criteria

To be eligible for Remote Patient Management (RPM), patients must meet the following criteria:

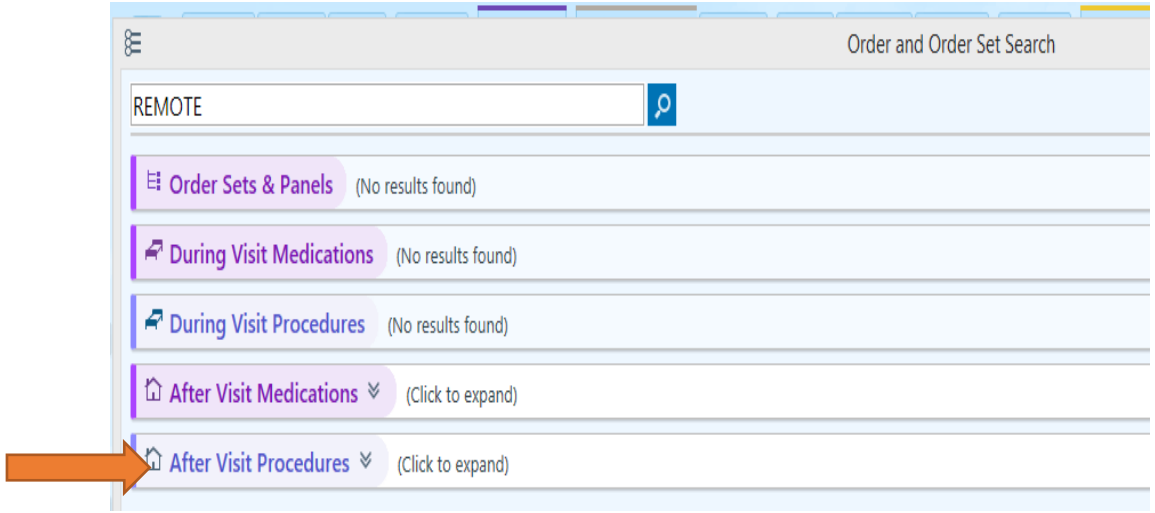
1. RPM is for previously admitted patients only

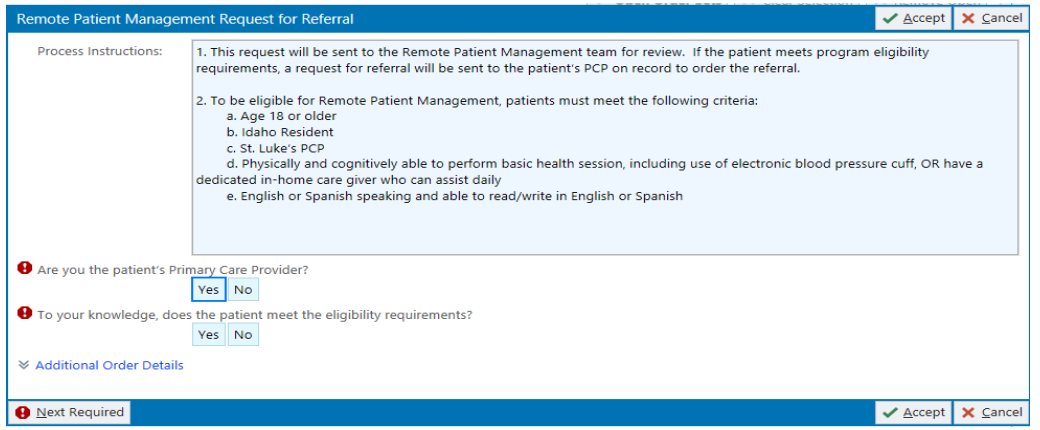
    a. Age 18 or older
    b. Idaho Resident
    c. St. Luke's PCP
    d. Physically and cognitively able to:
        - perform basic health session, including use of electronic BP cuff,
        - OR have a dedicated in-home care giver who can assist daily
    e. English or Spanish speaking and able to read/write in English or Spanish

**MFM will be consulted on all pregnant or postpartum patients accepted for RPM*

How to Order in Epic

- Order Set Search:
    - After Visit Procedures
        - Choose Remote Patient Management Request for Referral





SLHS Women's Services
L&D PPE Requirements

v.2.1.23

Asymptomatic/Negative Screening/Confirmed Negative Test

- Standard precautions for all phases of care

-do not retest patients with positive PCR test within 90 days (documented in Epic)

Non-PUI / Unknown or Pending Result & Asymptomatic

In the LDR: 2nd Stage Labor & episodes of deep respiratory efforts

- **Utilization of normal L&D PPE is still required, per SLHS policy** (i.e. eye wear)
- ***In addition,*** *all caregivers have the* ***option*** *to wear enhanced precautions, including N95 / PAPR*

In the OR:

- **Standard Precautions, per usual SLHS policy** (procedural mask with eye shield)
- **In addition,** all caregivers have the **option** to **wear N95 (covered with procedural mask)**

COVID+ / PUI Patients:

In the LDR: 2nd stage labor & episodes of deep respiratory efforts

- **Enhanced Droplet and Contact Precautions** *(gown, gloves, mask, eye shield), plus N95/PAPR*

In the OR:

Neuraxial anesthesia planned:

- **Enhanced Droplet and Contact Precautions** *(gown, gloves, mask, eye shield), plus N95/PAPR*

General anesthesia is planned:

- **Enhanced Droplet and Contacts Precautions** *(gown, gloves, mask, eye shield), plus N95/PAPR*
- **C/S is exempt from having to wait 20 minutes post intubation**

Neonatal resuscitation occurs out of the OR

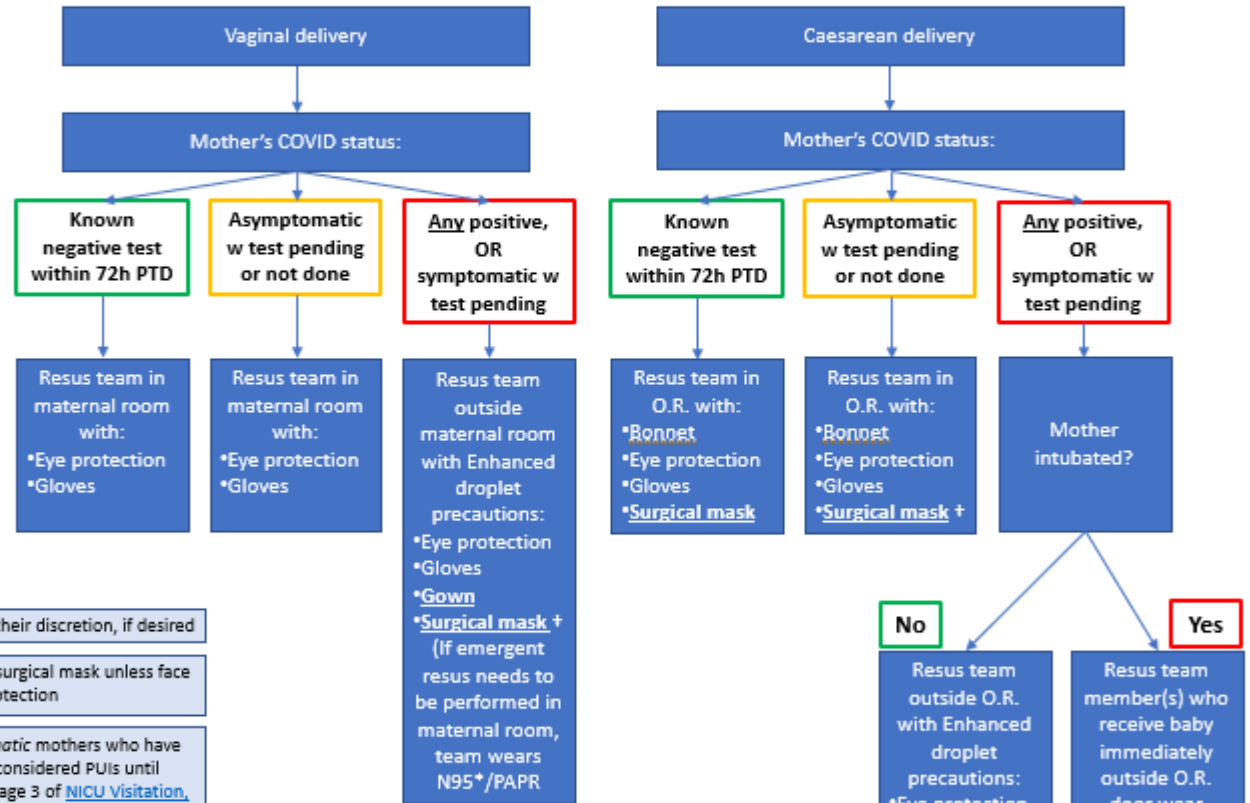
- **Ensure double doors to OR suite & room door are not opened at same time**

*The second stage of labor is not considered an AGP, however, during that time, labor and delivery personnel are in close contact to patients, who are exerting extreme effort during and frequently blow out their breath, cough, shout, and vomit, all of which put the health care team at risk, considering that COVID-19 transmission occurs through aerosol generated by coughing and sneezing. We recommend that labor and delivery personnel have the utmost caution and be granted the protection they need to protect themselves and other patients. This includes providing labor and delivery personnel full PPE including N95 for the second stage of labor. This is critical to ensure the adequate protection for health care workers and to prevent spread to other health care workers and patients.
American Journal of Perinatology (2020)

NICU Resus Team PPE Requirements in L&D

v.12-21-23

Goal is for all resuscitations performed by NICU Team for infants born to COVID+ and/or symptomatic mothers to take place **outside the maternal room** whenever clinically possible. There is no option for family refusal if NICU Team is required to attend in this situation. Ideally, we would resus outside maternal room for all test-pending cases, but this will likely not be possible due to room availability limitations.



† Staff may choose to wear N95/PAPR at their discretion, if desired

*N95 should be covered with secondary surgical mask unless face shield is used for eye protection

Note that NICU infants born to *symptomatic* mothers who have test pending or are not tested** are considered PUIs until maternal test results are known, or per Page 3 of NICU Visitation, Isolation, Testing, DC Procedure document

Note that unless indicated elsewhere in this algo, staff do not routinely need N95 during resus or initial admission process, as active pulmonary infection is unlikely at birth. For infants remaining on NIV or Invasive ventilation beyond 1h of age, follow NICU Visitation, Isolation, Testing, DC Procedure document

**Mothers who have recovered from confirmed COVID-19 may not warrant retesting as per Maternal and Infant Testing/Isolation Following Recovery from COVID-19

St Luke's Children's Hospital

Newborn Isolation Algorithm

In NICU and Newborn Nursery

v.10.25.23

Symptomatic Patient Delivers
COVID status positive/Symptomatic (test pending)

NICU Admission

Single patient room, as available or other site-specific location.
Isolation status: PUI

Newborn Nursery Admission

Healthcare team recommendation
(based on maternal symptom severity):

Room separation of Mother and Newborn only necessary if the mother is too ill to provide care without secondary care giver available.

Isolation Status: PUI

Co-rooming

- Mothers and newborn infants may room-in according to usual center practice.
- Mother should maintain a reasonable distance from the infant when possible and wear a face mask. When a mother provides hands-on care to the infant, the mother should wear a mask and perform hand hygiene.
- If noninfected partners or other family members are present during the birth hospitalization, they should use face masks and hand hygiene when providing hands-on care to the infant.
- Health care workers should use transmission-based precautions when caring for well infants when this care is provided in the same room as a mother with COVID-19. Health care workers may choose to use transmission-based precautions at all times when caring for well infants at risk for SARS-CoV-2 infection.

Isolation Status: PUI

FAQs: Management of Infants Born to Mothers with Suspected or Confirmed COVID-19 (aap.org), July 2022