Progressive Planning - OB
Guidelines for COVID-19 and Pregnancy Care

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BACKGROUND:
On March 11, 2020 the WHO declared the coronavirus (COVID-19) outbreak a pandemic and it subsequently became a national emergency in the United States.

PURPOSE:
To provide information for the care of pregnant women during the COVID-19 pandemic

COVID-19 Obstetrical Guidelines for UW and UPH-Meriter

Scope:
- Part 1 of this document will cover obstetrical care guidelines for outpatient (UWHealth clinics) providing low risk OB care and the Center for Perinatal Care at UPH-Meriter providing management of high-risk pregnancy.
- Part 2 will cover all inpatient care done at UPH-Meriter
Contents

• Progressive planning
• OB provider lists
  – Gyn providers to be credentialled for OB
• Delivery volume for planning
• Facility – available rooms
• Rounding teams
• Accommodations for providers
## Perinatal Services Progressive Planning (Surge)

### Perinatal Services Progressive Planning for COVID – 19+/PUI Mothers & Infants

<table>
<thead>
<tr>
<th></th>
<th>Scheduled Cesarean</th>
<th>Antepartum</th>
<th>NICU</th>
<th>Postpartum</th>
<th>Breastfeeding support</th>
<th>L&amp;D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger</td>
<td>20% workforce reduction</td>
<td>Census of 10</td>
<td>Census of 28/ Mendota Bay needed for non-PUI NICU babies</td>
<td>Census of 32</td>
<td>Current work in progress</td>
<td>Phase III visitor</td>
</tr>
<tr>
<td>Action</td>
<td>Initiate conversation with main OR to move cases to OR for designated time period</td>
<td>Consider discharging appropriate patients with telemedicine follow up</td>
<td>Partner with AFCH for appropriate transfers (PUI NICU patient to AFCH) Place mothers &amp; infants in separate rooms on 6N if census allows</td>
<td>Initiate planning to co-locate mothers in designated 6 N rooms maintaining 6-ft separation and infant in isolette Consider early discharge for healthy dyads: 12 hours vaginal 36 hours cesarean</td>
<td>F/u phone calls from LC – day 2 for 1st time breastfeeding mother Implement telemedicine visits for breastfeeding consults</td>
<td>TBD whether we would consider no visitors @ some point in time</td>
</tr>
</tbody>
</table>
Visitor Phasing

Critical visitor exceptions:
- Ante/L&D/Postpartum: Patient with developmental delays – one support person
- Pregnant pediatric patient (<17 y.o.) – one legal guardian
- Gestational carrier/intended parent – one intended parent to care for newborn
- Readmission: Postpartum mother, exclusively breastfeeding – newborn + one healthy support person
Provider lists

See attached excel spreadsheet for contact information:

– Providers with OB privileges
– Gyn providers with OB credentials
Delivery by practice – projections*

<table>
<thead>
<tr>
<th>Practice</th>
<th>% of total</th>
<th>Projected by Group</th>
<th>Del/mo</th>
<th>Del/wk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associated</td>
<td>5.64%</td>
<td>272</td>
<td>23</td>
<td>5</td>
</tr>
<tr>
<td>GHC</td>
<td>5.45%</td>
<td>263</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>PFW MW</td>
<td>1.81%</td>
<td>87</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>PFW OB</td>
<td>4.24%</td>
<td>205</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>MWH</td>
<td>11.31%</td>
<td>546</td>
<td>46</td>
<td>11</td>
</tr>
<tr>
<td>UW FM</td>
<td>8.05%</td>
<td>389</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>UW MFM</td>
<td>1.30%</td>
<td>63</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>UW OB</td>
<td>50.59%</td>
<td>2443</td>
<td>204</td>
<td>47</td>
</tr>
<tr>
<td>UW CNM</td>
<td>10.62%</td>
<td>513</td>
<td>43</td>
<td>10</td>
</tr>
<tr>
<td>Wildwood</td>
<td>1%</td>
<td>48</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

2019

cesarean delivery rate = 27.7%
Births = 4724
Deliveries = 4830
Avg/day = ~13

*Calculated by 2019 actual projected by group with % of volume by practice from 2018
2019 Preterm Deliveries

12.1% of all deliveries are <37 weeks (~584)
  – 48.6% cesarean delivery
  – 51.4% vaginal/assisted vaginal delivery
  *If we deliver at last year’s rate this is about 11/week*

5.4% of deliveries are <34 weeks (~261; subset of total preterm #)
  – 55.4% cesarean delivery
  – 45.6% vaginal/assisted vaginal delivery
  *If we deliver at last year’s rate that is about 5/week*
Deliveries/month by GA
STEP BY STEP
Appendix 2: UW OB Screening Process

- **Phone screen for potential COVID-19 illness (Box 1 and 2) for EVERY patient that calls service**
  - If patient reports symptom concerning for COVID-19 -> Assess for
    - (1) severity of respiratory illness and
    - (2) necessity for in person evaluation
  - **Category 1: If COVID-19 Sx screen is positive and respiratory Sx appear life threatening (See Severity Assessment in Box 1):**
    - Instruct patient to call 911 and go to ER/L&D
    - ER to page OB for consultation on arrival
  - **Category 2: If COVID-19 Sx screen is positive and respiratory symptoms are not life threatening AND patient needs to be seen urgently for Obstetrical Care (consider gestational age):**
    - Gestational age < 20 weeks \(\rightarrow\) Category 1 \(\rightarrow\) To ED (as above)
    - Gestational age ≥ 20 weeks:
      - Direct patient to come to OB triage
      - Inform patient of restricted visitor policy
      - Patient to be masked upon arrival, placed in a private room, keep door closed
      - All staff interacting with the patient should don PPE (Contact + Droplet Isolation + eye protection (N95 and negative pressure room not needed unless aerosol generating procedure))
      - Determine if testing is appropriate for patient
  - **Category 3: If COVID-19 Sx screen is positive and respiratory symptoms are not life threatening AND patient does not need to be seen urgently for Obstetrical Care (consider medical co-morbidities):**
    - Assess for medical co-morbidities (Box 2)
    - If POSITIVE medical co-morbidities \(\rightarrow\) Category 2 (to ED or L+D as above)
    - If NEGATIVE medical co-morbidities:
      - Advise patients to stay at home, quarantine, hydrate, anti-pyretic
      - Be advised: Some patients not meeting criteria for testing may be instructed to self-isolate. If need for COVID testing the patient will be contacted and instructed where and when to go to get tested
**Box 1: Symptom Severity Assessment: Any positive answers require emergency care**

Does she have difficulty breathing or shortness of breath?
Does she have difficulty completing a sentence without gasping for air or needing to stop to catch breath frequently when walking across the room?
Does patient cough more than 1 teaspoon of blood?
Does she have new pain or pressure in the chest other than pain with coughing?
Is she unable to keep liquids down?
Does she show signs of dehydration such as dizziness when standing?
Is she less responsive than normal or does she become confused when talking to her?


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**Box 2: Medical Co-morbidities – recommend an in-person evaluation**

- Hypertension
- Diabetes
- Asthma
- HIV
- Chronic heart disease
- Chronic liver disease
- Chronic lung disease
- Chronic kidney disease
- Blood dyscrasia
- People on immunosuppressive medications
- Inability to care for self or arrange follow-up if necessary

Triage to Labor & Delivery Workflow

If the patient is screened in triage or received in triage from ED as a PUI or COVID +, a healthcare worker will mask the patient; call the OB triage RN to escort the patient to Triage 1-4 or Room 9 or 10.

**Implementation:**
- **Routine triage care and PPE**
- **Implement isolation and follow testing criteria algorithm as needed**
- **HUC will mask patient; call OB Triage RN to escort patient to Triage 1-4 or Room 9 or 10**

**Decision Points:**
- **YES** Patient will bypass triage and be directly admitted to Labor Room 483–486
- **NO** Implement isolation and follow testing criteria algorithm as needed

**Questions:**
- **Labor?**
- **Induction?**
- **Cesarean Delivery?**

**Massive surge options**
1. Use triage for labor and delivery
2. Use CPC for triage and/or labor & delivery overflow
3. Use labor room(s) as ORs
4. Use main OR for all cesarean deliveries

**Transport**
- **YES**: Patient will bypass triage and be directly admitted to Labor Room 483–486
- **NO**: Transport from OB triage to OB OR #3
COVID + /PUI Admission to discharge Workflow

Pregnant Patient Presents for Admission

Screens Positive for Symptoms or Exposure to COVID – 19 & Tested

DIRECT ADMISSION

OB TRIAGE
Evaluated in Triage Rooms 1-4 or 9-10 if needed

ADMIT

DISCHARGE to home

ANTEPARTUM
Room 391-393
- PPE per Meriter guidelines (see Hub)
- Consult Neonatal Team/Newborn hospitalist for discussion: M-B separation & breastfeeding after delivery
- Late preterm steroids for fetal lung maturity not recommended
- Daily FHR
- Monitor O2 saturation; notify provider if unable to maintain SPO2 > 94
- US Fetal Surveillance – Growth/doppler/2 weeks

LABOR & DELIVERY
INDUCTION OR LABOR
Rooms 483-486
- PPE per Meriter guidelines (see Hub)
- Consult Neonatal team/Newborn hospitalist for discussion: M-B separation & breastfeeding after delivery
- Late preterm steroids not recommended
- Consider delivery with rapidly deteriorating respiratory status
- Follow severe failure criteria
- Prioritize vaginal delivery when possible (consider operative vaginal delivery)
- Consider prophylactic management of PPH with misonidazole 400mg

POSTPARTUM (Rooms 670-682)
- Early bathing of newborn
- Maternal-newborn separation recommended: Newborn surveillance in NICU; feed expressed breastmilk
- Alternative if mother refuses separation: newborn co-located in mother’s room; mother may breastfeed wearing mask and gloves and hand hygiene. If mother is too sick, expressed breastmilk may be fed by staff or non-PUI support person

DISCHARGE to home instructions

Baby
PUI neonatal testing @48 hours; if positive isolate x 14 days

Mother
Symptomatic: Home isolation can stop if no fever for 72 hours without antipyretics and symptoms improved and 7 days have passed since symptoms first appeared
Asymptomatic: Home isolation may stop when at least 7 days have passed since date of 1st positive COVID-19 test and no subsequent illness. For 3 days following discontinuation of isolation – limit contact (6 ft) and use barrier mask when in settings where others are present

CESAREAN DELIVERY
Use OR #3
SCHEDULED: Pre-op in Triage
UNSCHEDULED: Pre-op in patient room
- PPE: Surgical gown, gloves, N95 + face shield, PAPR
- SEE Cesarean Delivery for COVID-19/PUI Patient Checklist
- PACU CARE
  - Regional anesthesia: Rooms 670-682
  - General anesthesia: Rooms 483-486

SEVERE FAILURE CRITERIA (Consider cesarean delivery)
SEPTIC SHOCK
ACUTE ORGAN FAILURE
FETAL DISTRESS

NOTIFY ICU for ADMISSION - OB modified quick SOFA (sequential organ failure assessment score)
OB patient with more than 1 of the following criteria:
- Systolic BP < 90mmHg
- RR > 25
- Patient not alert
  - Unable to maintain SPO2 > 94
Cesarean Delivery for COVID-19+/PUI Patient

START
1. For scheduled cesarean delivery admit to triage for pre-op care
2. For unscheduled cesarean delivery, call for help to prepare patient for delivery.
3. Ensure HUC, Anesthesiologist, NICU team and post-partum charge nurse knows patient is COVID +/PUI
4. OR team/OB Tech ensure OR#3 is set up for cesarean delivery. If time allows and OR#3 not available, use main OR as back up
5. Limit team members as much as possible: resident, OB-GYN, circulating nurse and baby nurse, OB tech, NICU team (up to 3)
6. Place surgical mask on patient, cover patient with clean linen
7. DOFF contaminated PPE (#1) and use standard precautions for hall transport (#2)
8. Move patient to OR #3
9. Direct care providers/transporters are to DON clean PPE to handle patient upon arrival to OR (#3)
10. Prepare patient for anesthesia. OB team may stay in room throughout case with proper PPE for aerosolizing procedure
11. Perform cesarean delivery
12. Move patient to PACU cart, cover with clean linen
13. Move patient out of OR and DOFF PPE (#4)
   - FIRST: Resident/surgeon DOFF PPE in ante-room & leave ante-room
   - SECOND: Anesthesia and RN move patient through ante-room to OR corridor, close ante-room door and DOFF PPE
14. Team moves out of OR corridor for transport and will DON PPE for hall transport - see (#2) Transport to PACU room (#5).
15. OR #3 cleaning: leave room empty 28 min; then 1 hour deep clean prior to re-using.

1. DOFFING in LDR or triage before moving to OR
   - Gloves
   - Gown
   - Hand hygiene

2. STANDARD PRECAUTIONS FOR HALL TRANSPORT
   Hand Hygiene—Gloves—Surgical mask/face shield

3. DONNING by OB Team (upon arrival to OR)
4. DOFFING inside OR prior to going to PP
   - Hand hygiene
   - Surgical Gown
   - Gloves
   - N95 + face shield or PAPR
   - Gloves
   - Gown
   - Hand hygiene

5. PACU Care
   Regional anesthesia: 6 North 670—682
   General Anesthesia: 4 North 483—486

UnityPoint Health Meriter
PARTNER OF UWHealth

4-14.2020
### OB OR COVID Status C/Section Guidelines

<table>
<thead>
<tr>
<th>COVID STATUS</th>
<th>OB OR</th>
<th>REGIONAL ANESTHESIA</th>
<th>GENERAL ANESTHESIA: Intubation and Extubation</th>
<th>PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive or PUI (test result pending)</td>
<td>OR #3</td>
<td>Staff stay in OR</td>
<td>Staff may stay in OR – if wearing N95 mask + face shield or PAPR</td>
<td>OR team wear N95 + face shield or PAPR</td>
</tr>
<tr>
<td>Negative test</td>
<td>OR #1 or #2</td>
<td>Staff stay in OR</td>
<td>Staff stay in OR</td>
<td>OR team wear surgical mask + face shield</td>
</tr>
<tr>
<td>Status unknown – not tested *</td>
<td>OR #1 or #2</td>
<td>Staff stay in OR</td>
<td>Intubation team stay in OR (Anesthesiologist and RN)</td>
<td>N95 + face shield or PAPR</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Non- Emergent – able to pause surgery: Surgical team steps out of OR Emergent:** Surgical team stays in OR move 6ft from head of patient</td>
<td>OR team wear surgical mask + face shield</td>
</tr>
</tbody>
</table>

Per Infection Prevention:

*Majority of OB patients will be untested, unless symptomatic and meets criteria for testing or if having a scheduled C-section with planned GA

**If surgical team must stay in OR during intubation, team moves 6 feet or more from head of patient e.g.:

- Emergent c-section due to risk of life for mother or fetus
- Manage ongoing hemorrhage and intubation is required
- Case start with regional must convert to GA - no time for team to step out
- OB OR #3 Room cleaning time:
  - PUI/COVID+ and GA – 1.5-hour turnover = 28 minutes rest time then one-hour deep cleaning time
  - PUI/COVID+ and RA – standard OR turnover

4.14.2020
Management of the Infant born to COVID + /PUI Mother

**CDC recommends separation of mother and infant**

- **Parents agrees to recommendations**
  - NICU rooms 18-23 with PPE & isolation requirements (Newborn Hospitalist Service)
  - Expressed breast milk
  - Mother may not visit until negative test*; healthy adult support person may visit & must wear clean mask and gloves

- **Room precautions**

- **Feeding**
  - Expressed breast milk or breastfeeding with PPE

- **Visitation**
  - Healthy adult support person wears mask and stays in room to provide newborn cares

- **Parents declines recommendations or Separate rooms not available**
  - 6N rooms 670-682; infant in open crib (or isolette) > 6ft from mom PPE & isolation requirements
  - Expressed breast milk or breastfeeding with PPE

*If mother has negative test, asymptomatic infant may be transferred from NICU to Newborn and return to mothers room and resume couplet care*
## Hospital Facilities – room availability

### Inpatient  
\textit{(COVID+ designated)}

- OB triage – 10 beds \((1-4 + 9 & 10)\)
- 3 North – 10 beds \((392, 393)\)
- 4 North – 17 beds \((483 – 486)\)
- 5 North – 24 beds
- 6 North – 24 beds \((670-682)\)
- NICU – 42 beds \((18 – 23)\)

### Outpatient  
\textit{(potential triage or L&D space)}

- CPC – 8 clinic rooms
- Ultrasound – 9 US rooms

All exam tables have stirrups
Provider accommodations

- 5 Center & 3 East – 1 call room/practice group
  + 2 call rooms/UW Ob-Gyn
General considerations

• Bypass triage for active labor patients
• Discharge ASAP
  – Vaginal birth within 24 hours
  – Cesarean birth within 36 hours
• COVID + moms and baby will be separated after birth; if not able to do so due to space or staffing, cohort mom & baby together; baby 6-feet apart
COVID – 19 Team

**Tier 1: Low risk**

Resident + one of the following:
Family Medicine
Midwife

**Tier 2: High risk**

Resident + one of the following:
OB-GYN
Fellow
MFM
Universal Screening for SARS-CoV-2 in Women Admitted for Delivery

April 13, 2020
DOI: 10.1056/NEJMc2009316
Metrics
COVID+/PUI Admission to discharge Workflow

**Pregnant Patient Presents for Admission**

- Screens Positive for Symptoms or Exposure to COVID-19 & Tested

**DIRECT ADMISSION**

**ANTEPARTUM**
- Room 391-393
- PPE per Meriter guidelines (SEE HUB)
- Consult Neonatal team/Newborn hospitalist for discussion re: M-B separation & breastfeeding after delivery
- Late preterm steroids for fetal lung maturity not recommended
- Daily FHR
- Monitor O2 saturation; notify provider if unable to maintain SPO2 ≥ 94
- US Fetal Surveillance – Growth/ doppler/2 weeks

**L&R DELIVERY INDUCTION OR LABOR**
- Rooms 483-486
- PPE per Meriter guidelines (SEE HUB)
- Consult Neonatal team/Newborn hospitalist for discussion re: M-B separation & breastfeeding after delivery
- Late preterm steroids not recommended
- Consider delivery with rapidly deteriorating respiratory status
- Follow severe failure criteria
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**CESAREAN DELIVERY**
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**DISCHARGE**

- Baby
  - PUI neonatal testing @48 hours; if positive isolate x 14 days
- Mother
  - Symptomatic: Home isolation can stop if no fever for 72 hours without antibiotics and symptoms improved and 7 days have passed since symptoms first appeared
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**SEVERE FAILURE CRITERIA (Consider cesarean delivery)**
- Septic shock
- Acute Organ failure
- Fetal distress

**NOTIFY ICU for ADMISSION – OB modified quick SOFA** (sequential organ failure assessment score)
- OB patient with more than 1 of the following criteria:
  - Systolic BP < 90 mm Hg
  - RR > 25
  - Patient not alert
  - Unable to maintain SPO2 ≥ 94
Everyone is just trying to make it.