

COVID-19 Antepartum Care Guidelines for PUI or Confirmed Positive – May 14, 2020 1600

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Admit/Transfer

- Admit > 20 weeks gestation
- **Grand Rapids** - Admit to the OB service on antepartum floor with MFM consult. Consult ID if indicated.
- **Regions** – Admit to either the OB service with medicine consult or medicine with OB consult (varies by location).
- Admit < 20 weeks gestation – Admit to medicine service with OB consult
- **Grand Rapids:** Provider sends message to *SHMG Infectious Disease* through PerfectServe notifying ID about any Covid positive patient admitted. Notify charge nurse.
- **Regions:** Provider sends message to *Infectious Disease (ID)* and *Maternal-Fetal Medicine Primary (MFM)* through PerfectServe notifying ID and MFM about any COVID-19 positive patient admitted. Notify charge nurse.

General Admission Criteria for non-obstetrical related admission

1. Any Modified Early Warning Score ([MEWS](#)) triggers or sepsis ([qSOFA](#) score >1) – find both on MDcalc (see tables below)
2. Unable to tolerate PO
3. Symptoms of respiratory distress, including hypoxia and cyanosis
4. Hemoptysis and/or chest pain
5. Altered mental status, seizures, drowsiness, confusion, or coma
6. Inability to comply with treatment or follow up or inability to self-isolate (e.g. group setting or treatment facility)
7. Pneumonia on CXR or CT scan
8. Any of the signs or symptoms of moderate or severe illness (below).

Severity of Illness

Asymptomatic with + COVID-19 test / Mild Illness

- **Signs:** Vital signs not meeting MEWS criteria ([MEWs criteria calculator](#)) or sepsis criteria ([qSOFA](#) score >1). Patient can tolerate PO and care for themselves.
- **Symptoms:** fever, cough, nausea, vomiting, diarrhea, muscle aches, fatigue, conjunctivitis, headache, loss of smell, sore throat, bruising, joint pain.
- **Admission:** Admit patient for normal obstetrical indications to your unit. Otherwise discharge home. Normal care with severe respiratory precautions if admit. Transfer to Grand Rapids for current obstetrical indications. Patient with positive COVID-19 result and no to mild sx's is not transferred to Grand Rapids.

Moderate Illness

- **Signs:** Tachypnea > 24, Saturations <92% and/or hemodynamic instability
- **Symptoms:** SOB (unable to walk across the room, speak full sentences), hemoptysis, chest pain, dehydration, decreased level of consciousness
- **Findings:** CXR or CT Chest consistent with pneumonia (ground glass opacities)
- **Admission:** These patients are admitted and can usually be admitted to your antepartum unit. Transfer to Grand Rapids for current obstetrical indications, gestational age \geq 36 weeks, or progresses from mild to moderate/severe illness.

Severe Illness

- **Signs:** Tachypnea >30 bpm, saturations <90% or using >3L O2 and/or has hemodynamic instability
- **Symptoms:** Worsening clinical status
- **Admission:** These patients are admitted and usually require ICU level care.
 - **Grand Rapids** - Consult the MICU team to discuss if admission/transfer to MICU is appropriate.
 - **Regions** – Consult hospitalist team to discuss if admission/transfer to ICU is appropriate. Transfer to Grand Rapids for current obstetrical indications or gestational age \geq 36 weeks. If transfer to Grand Rapids is appropriate, MICU accepts transfer with an MFM consult.

MEWS Criteria

Calculate on Mdcalc.com using this link - [MEWS link](#)

MEWS (Modified Early Warning System)							
	3	2	1	0	1	2	3
Respiratory Rate per minute		Less than 8		9-14	15-20	21-29	More than 30
Heart Rate per minute		Less than 40	40-50	51-100	101-110	111-129	More than 129
Systolic Blood Pressure	Less than 70	71-80	81-100	101-199		More than 200	
Conscious level (AVPU)	Unresponsive	Responds to Pain	Responds to Voice	Alert	New agitation Confusion		
Temperature (°C)		Less than 35.0	35.1-36	36.1-38	38.1-38.5	More than 38.6	
Hourly Urine For 2 hours	Less than 10mls / hr	Less than 30mls / hr	Less than 45mls / hr				

EARLY WARNING SCORING SYSTEM FOR DETECTING ADULT PATIENTS WHO HAVE OR ARE DEVELOPING CRITICAL ILLNESS
 IS THE SCORE FOR YOUR PATIENT 1-2? PERFORM 2 HOURLY OBSERVATIONS AND INFORM NURSE IN CHARGE
 IS THE SCORE FOR YOUR PATIENT 3? PERFORM 1-2 HOURLY OBSERVATIONS AND INFORM NURSE IN CHARGE
 IF THE MEWS SCORE IS DETERIORATING : THE WARD S.H.O. OR DUTY DOCTOR MUST ATTEND
 IS THE SCORE FOR YOUR PATIENT 4 OR MORE? PERFORM OBSERVATIONS AT LEAST 1/2 HOURLY. ENSURE MEDICAL
 ADVICE IS SOUGHT AND CONTACT OUTREACH TEAM (see below)

Table 2 Quick Sequential Organ Failure Assessment (SOFA) score

qSOFA (Quick SOFA) Criteria	Points
Respiratory rate \geq 22/min	1
Change in mental status	1
Systolic blood pressure \leq 100 mmHg	1

You can add the SOFA (not qSOFA) score to your patient list as a column.

Grand Rapids OB/Gyn 11 Patients					
Room ▲	Patient Name	Age/Gender/DOB	SOFA Score Column	MRN	Pi
2407			0.1		D di
2408			0.2		U (F P
2CPACU			5		B a H P

Symptoms present: Admit patient to Obstetrics \geq 20 weeks or medicine if $<$ 20 weeks if moderate or severe illness. (Do not follow for asymptomatic, COVID-19 + patients)



Baseline: CMP, CBC (w/diff), CMP, CRP, D-dimer, ferritin, fibrinogen, LDH, triglycerides (.covid19 order), Mg/Phos, ABG, coags, G6PD, BNP and CXR;

If sepsis suspected add procalcitonin, lactate and BCx/UCx/VagCx

Baseline and daily: EKG

Continuous O2 via nasal cannula; titrate to SpO2 \geq 95% (surgical mask over nasal cannula)

Every 12 hours: CBC (w/diff), CMP, and Mg/Phos

-Trend ABG if RR $>$ 24 or SpO2 $<$ 93%

-Trend lactate if sepsis suspected



- Start azithromycin if evidence of pulmonary infiltrates or SIRS criteria; add ceftriaxone to azithromycin if evidence of pneumonia
- Evaluate for:
 - Compassionate use Remdesivir (200mgx1, 100mgx9)
vs
 - Tocilizumab or anakinra (discuss with ID); risk vs benefits in pregnant population
- Use hydroxychloroquine (600mg BID x1 day, 400mg daily x 4 days) on a case by case basis
- Start prophylactic Lovenox or heparin for VTE prophylaxis. Continue for 10 days postpartum.
- No maintenance IV fluids; no boluses unless clear evidence of septic shock
- Consider dose of Lasix for patient that is normotensive and requires oxygen
- BMZ course if $<$ 34 weeks; caution if worsening maternal status
- Consider using Magnesium sulfate regimen for neuroprotection if $<$ 32 weeks
- Use normal postpartum pain management regimen (NSAIDs are okay to use)



If using $>$ 3L O2 or progressed to severe illness, see "admission" notes above under Severe Illness



Discharge criteria:

- Patient on room air, has mild symptoms
- If pregnant, reassuring fetal well being
- See full [Discharge Readiness Criteria](#)