COVID-19 Ambulatory Antepartum and Postpartum Care Guidelines – Spectrum Health Contact: Sue West or Charmaine Kyle

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**History** of COVID-19 in the current pregnancy: We recommend aspirin 162mg daily in everyone and only recommend anticoagulation if > 20 weeks at time of infection (see below for anticoagulation recommendations). Do NOT consider as a single risk factor when completing the VTE assessment postpartum.

**Currently Positive** for COVID-19 and > 20 weeks (or within 6 weeks of delivery):

For patients who are **asymptomatic**:
- Antenatal: aspirin 162mg until delivery; no anticoagulation
- Postpartum: d/c aspirin; consider COVID as a single risk factor when completing the VTE Assessment postpartum.

For patients who are **mild or moderate**:
- Antenatal: aspirin 162mg until delivery; prophylactic Lovenox 40 mg daily for 10 days or heparin if > 36 weeks (10,000 U BID SQ) if not delivering
- Postpartum: d/c aspirin; consider COVID as a single risk factor when completing the VTE Assessment postpartum.

For patients who were **severe or critical** upon discharge from hospital:
- Antenatal: aspirin 162mg until delivery; prophylactic Lovenox 40 mg daily for 6 weeks; switch to heparin at 36 weeks (10,000 U BID SQ) if not delivering
- Postpartum: d/c aspirin; resume prophylactic Lovenox 40 mg daily for 6 weeks

**Outpatient Antenatal Surveillance after COVID in Pregnancy**

Assess fetal growth - consider doing fetal growth ultrasound around 32-34 weeks once following criteria are met:
- Once symptoms have resolved (date of positive test if asymptomatic)
- AND it has been at least 21 days since last fetal growth ultrasound
- AND patient is in the third trimester

Pregnant patients hospitalized with mod/severe/critical COVID: Start biweekly NSTs or weekly modified BPP or weekly BPP/NST at 34 weeks (if beyond 34 weeks at time of infection, commence at that time)

Must use diagnosis code **COVID-19 affecting pregnancy, antepartum O98.519/U07.1** when order NST and ultrasounds.

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**Classification of Disease Severity by NIH (note: severe/critical merit hospital admission)**

- **Asymptomatic**: SARS-CoV-2 test (+) with no symptoms
- **Mild**: usual signs or symptoms **without** SOB, dyspnea, or abnormal chest imaging
- **Moderate**: added e/o lower respiratory dx (clinically or by imaging) but SaO2≥94% on RA
- **Severe**: RR >30 bpm, SaO2<94% on RA, Pa/FiO2 <300 or lung infiltrates >50%
- **Critical**: respiratory failure, septic shock and/or multiple organ dysfunction
Placenta to pathology – Only send placenta to pathology for history of COVID-19 in the pregnancy if patient was hospitalized.

Timing of Delivery
In general, maternal COVID-19 infection itself is not an indication for delivery. Timing of delivery, in most cases, should not be dictated by maternal COVID-19 infection. For individuals infected early in pregnancy who recover, no alteration to the usual delivery timing is necessary. For individuals infected at or near term, the timing of delivery should be individualized but consideration for 39 weeks can be made.

Postpartum management after COVID in Pregnancy
If anyone tests newly positive for COVID within 6 weeks of delivery, we recommend the following anticoagulation regimen: no anticoagulation if asymptomatic, lovenox 40 mg daily for 10 days if they meet criteria for mild or moderate and lovenox 40 mg daily for duration of inpatient stay and up to 6 weeks postpartum for severe or critical disease.

Outpatient Treatment Modalities (NB: limited by availability)
There are currently 4 available outpatient treatments for confirmed COVID-19 infection. Based on the current evidence, oral Paxlovid and intravenous Remdesivir are the first line treatments, while oral Molnupiravir and intravenous Bebtelovimab (a monoclonal antibody) are the second line treatments. Both oral medications must be started within 5 days of COVID-19 symptoms onset, while IV medications must be given within 7 days from the symptom onset.

- Molnupiravir (Merck): oral nucleoside analog that is only recommended in pregnancy beyond the first trimester when Paxlovid is otherwise unavailable, and patient is at high risk of severe disease progression. Discussion with the patient about animal studies which have shown fetal toxicity (no human pregnancy reports) need to be reviewed and documented in the chart.
- Paxlovid (Pfizer): An anti-viral oral med that was granted Emergency Use Authorization (EUA) by the FDA and OBs can prescribe (very specific standard work that must be followed to do this). It is recommended for the treatment of outpatients with mild to moderate COVID-19 infection with a positive COVID test and who are at high risk of clinical progression. Pregnancy is included among the conditions that put individuals at high risk for clinical progression. This makes pregnant patients, including those with pregnancy as their only risk factor, eligible to receive outpatient oral treatment with Paxlovid. SMFM and ACOG support its use for pregnancy and lactation. Clinicians should weight the available data against the individual risks of COVID-19 infection in pregnancy.

Paxlovid includes nirmatrelvir and ritonavir. There are no available human data on the use of nirmatrelvir during pregnancy to evaluate for a drug-associated risk of major birth defects, miscarriage, or adverse maternal or fetal outcomes. Published observational studies on ritonavir use in pregnant patients have not identified an increased risk of birth defects and this medication has been used extensively during pregnancy in people living with HIV, suggesting it has an acceptable safety profile in pregnancy.
**Instructions for Use**: Treatment should be initiated orally as soon as possible after diagnosis of COVID-19 and within 5 days of symptom onset. PAXLOVID should be administered orally with or without food.

Routine dosing: (normal renal function) 300 mg of nirmatrelvir (two 150 mg tablets) with 100 mg of ritonavir (one 100 mg tablet), with all three tablets taken together twice daily for 5 days.

Moderate renal dysfunction: (eGFR 30-59 mL/min) 150mg of nirmatrelvir (one 150mg tablet) with ritonavir 100mg (one tablet) twice daily for 5 days. Obtain labs prior to medication if patient has not had labs in the past 3 months.

Severe renal dysfunction: (GFR < 30mL/min) Do not prescribe Paxlovid

**Eligible patients**: Pregnant patients with a confirmed positive COVID test with mild to moderate symptoms that started within the last 5 days. **Paxlovid is the first line treatment for pregnant patients**. We encourage ALL OB providers to prescribe Paxlovid for their patients. Patients ineligible to receive paxlovid should be referred to the Community Response to be evaluated for IV treatments.

.COVIDCOMMRESP – System level smart phrase that can be used to refer patients to Community Response for treatment evaluation. Do not give patients medications prior to calling the team. Treatment recommendations are fluid and change. The Community Response team will offer patient education that supports the current treatment guidelines.

**References**:

Fact Sheet Link: [https://www.fda.gov/media/155050/download](https://www.fda.gov/media/155050/download)


Therapies | COVID-19 Treatment Guidelines (nih.gov)


CDC. Transcript from Senior Medical Officer US FDA Stephanie Troy, MD. Presented 1-12-22.

MDHHS. Covid-19 vaccines FAQs. Last update 1-10-22.