Jefferson Maternal Fetal Medicine
COVID19 PREPAREDNESS

VERSION 2.0 - MARCH 17, 2020 11:00AM

Developed by Thomas Jefferson University Division of Maternal Fetal Medicine (Philadelphia, PA)
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1. Objective

This document addresses the current COVID 19 pandemic. The goals the changes put forth here are two fold- First to reduce patient risk through healthcare exposure, understanding that health systems/healthcare providers may become the most common vector for transmission, and second to reduce the public health burden of COVID transmission throughout the general population.
2. General Guidelines

- Prevention of spread should be #1 priority
- Social distancing of at least 6 feet; if unfeasible, extended dividers, masks, other precautions
- Anything elective or not-urgent should be postponed
- Each patient should be called to decide on need for next visit and/or test
- Any visit that can be done by telehealth should be done that way; enroll all patients as feasible in mychart/telehealth
- Limit one person – preferably none - to accompany patient for any visit
- Symptomatic patients are best triaged via telehealth in order to assess their need for inpatient support or supplemental testing; they in general should be presumed infected, and self-isolate for 14 days
- Drive-thru testing is becoming available just outside the ED on 10th and Sansom Streets
- Symptomatic patients who nonetheless arrive to hospital or office should be managed as if they are COVID-19 positive; so immediately properly isolated in designated areas, with appropriate (e.g. N-95) mask on
- Designated separate areas should be created in each unit for suspected COVID-19 patients: e.g. a separate L&D unit; a separate office area; etc.
- Increase sanitization; Hand sanitizer available at front desk, throughout waiting area; Wipe down seats in waiting area morning, lunch, and after hours
- Meetings should all be virtual/audio/video
- Keep some providers at home, as feasible with clinical duties. Examples: all medical students; fellows on research rotations; staff and providers with only administrative duties.
- Pregnancy alone in the setting of new-flu like symptoms with negative influenza is sufficient to warrant COVID-19 testing; test especially if additional risk factors (e.g. older, immunocompromised, advanced HIV, homeless, hemodialysis etc.).
- Practitioners should be leaders in their unit. COVID-19 leaders should be designated for each area (e.g. L&D, outpatient; ultrasound). Use this and other guidance (SMFM; ISUOG; etc), and adapt to your specific situation. No guideline can cover every scenario. Use this guidance and clinical judgement to avoid any contact as much as feasible.
- Please stay tuned as guidance will continue to change frequently.
3. Antenatal Visits

3.1 Obstetric Visit Timing for IN PERSON encounters

- Up to 20 weeks
  - Q 8 weeks in person visit (coincide with ultrasound, 12 wk dating/NT, 20wk anatomy/visit)

- Gestational 28 to 34 weeks:
  - Q 4 week in person visits (schedule with NST and ultrasound to limit multiple encounters)

- Gestational age 36 weeks until delivery:
  - Weekly visit

3.2 TeleHealth

General Principles
Every patient on registration for any appointment needs to be enrolled in MyChart and Telehealth. All effort should be made to convert any follow up visit to a telehealth visit, anything that does not require an in-person examination should be Telehealth. Reducing need for in-person evaluation is facilitated through provision of blood pressure cuffs to all pregnant patients. This includes follow up of diabetes, hypertension, nausea/vomiting, mood disorder, and all routine care (kick counts, anticipatory guidance etc).

MFM Consultations
In general MFM consultations can be done via telehealth as well. In person consult scheduling should be reviewed with physician or NP prior to scheduling. All preconception consults should be done via telehealth. Any consultation for a pregnant patient seen in the office by another provider in past 4 weeks should be telehealth.

Post Partum Visits
All post partum visits should be via telehealth unless there is an acute issue requiring in person evaluation (ie wound dehiscence). As a reminder, telehealth video capabilities may be used to physically see a wound as well and this may be done prior to having a patient come in.
4. Antenatal Testing Unit Policies and Procedures

General principles are offered below, antenatal surveillance should be tailored to individual patient/provider concerns and risk factors. Table 1 highlights indication specific recommendations. These changes are made with the understanding that coming for an office visit at this time incurs potentially significant both personal and public health risks such that risk/benefit of surveillance needs to be reevaluated and surveillance timing streamlined.

4.1 Scheduling of Obstetric Ultrasound

- **Dating ultrasound:**
  - Combine dating/NT to one ultrasound based on LMP
  - For patients with unknown LMP or EGA>14 weeks may schedule as next available

- **Anatomy ultrasound (20-24 weeks):**
  - Attending review for any suboptimal anatomy, consider follow up views in 4-6 weeks rather than 1-2 weeks
  - Consider stopping serial CL after anatomy u/s if CL>35mm, prior PTB>34 weeks
  - BMI>40: schedule at 22 weeks

- **Growth ultrasounds:**
  - All single third trimester growth at 32 weeks
  - Follow up previa/low lying at 34-36 weeks
  - Begin serial growth at 28 weeks (not 24 weeks) with rare exception
  - Consider q 6 week rather than q4 week follow up for most patients
### Table 1: Suggested timing/frequency of growth ultrasounds in pregnancy

<table>
<thead>
<tr>
<th>Indication</th>
<th>Gestational Age</th>
<th>Frequency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregest DM</td>
<td>24w 32w 36w</td>
<td>Once q4w  q6w</td>
<td>X</td>
</tr>
<tr>
<td>Chronic HTN on medications</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Current preeclampsia/ghtn</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>History of severe pre-eclampsia</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>History of IUGR or SGA</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Current IUGR</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Sickle cell disease</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>CKD</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Multiples - Mono/Di</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Multiples -Mono/Mono</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Multiples -Di/Di</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gestational diabetes A2</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lupus, no renal dysfunction</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Prior unexplained IUFD</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Organ Transplant</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Maternal Cardiac Disease</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Uncontrolled Thyroid Disease</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Current tobacco or substance use</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>AMA (≥ 35 years old)</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Gestational diabetes A1</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Chronic HTN off medications</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Abnormal placentation</td>
<td></td>
<td>X</td>
<td>At 34-36 weeks</td>
</tr>
<tr>
<td>Uterine fibroids &gt;5cm</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
4.2 Scheduling of Non Stress Tests

- Table 2 highlights our specific practice changes
- Twice weekly NST only for IUGR abnormal Doppler
  - This means DM, preeclampsia/gestational hypertension, IUGR normal Doppler with weekly visit
  - If concurrent ultrasound visit → BPP and no NST
- In general, avoid initiating NSTs prior to 32 weeks
- For patients with gestational hypertension/preeclampsia: weekly visit in office with daily blood pressure checks at home. Weekly visit will include NST, blood pressure check and labwork drawn in the office
- Consider kick counts only for AMA or BMI>40 or other lower risk indication (see Table 2)
  - Discuss with patient/provider risk/benefit of coming to office
Table 2: Summary of common indications for antenatal surveillance and our adjusted NST recommendations in setting of COVID19 pandemic.

<table>
<thead>
<tr>
<th>INDICATION FOR NST</th>
<th>Gestational Age to begin 1x/wk</th>
<th>Gestational age to begin 2x/wk</th>
<th>COMMENTS</th>
<th>COVID 19</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMA</td>
<td>36</td>
<td></td>
<td></td>
<td>Fetal kick counts instead of NST</td>
</tr>
<tr>
<td>CHOLESTASIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DECREASED FETAL MOVEMENT</td>
<td></td>
<td></td>
<td></td>
<td>One time only</td>
</tr>
<tr>
<td>PREGEST DIABETES</td>
<td>32</td>
<td>36</td>
<td></td>
<td>Weekly only</td>
</tr>
<tr>
<td>GDMA2</td>
<td>32</td>
<td>36</td>
<td></td>
<td>Weekly only</td>
</tr>
<tr>
<td>CHTN</td>
<td>32</td>
<td></td>
<td>36 weeks if no med</td>
<td></td>
</tr>
<tr>
<td>GHTN</td>
<td></td>
<td></td>
<td></td>
<td>Weekly with home BP monitoring</td>
</tr>
<tr>
<td>PRE-ECLAMPSIA</td>
<td></td>
<td></td>
<td></td>
<td>Weekly with home BP monitoring</td>
</tr>
<tr>
<td>CKD</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IUGR</td>
<td></td>
<td></td>
<td></td>
<td>Weekly with Doppler. Sub BPP when possible</td>
</tr>
<tr>
<td>ELEVATED DOPPLERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLE</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FETAL ARRHYTHMIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MONO/DI TWINS</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DI/DI TWINS</td>
<td></td>
<td></td>
<td>Only if additional indication</td>
<td></td>
</tr>
<tr>
<td>OBESITY/BMI&lt;40</td>
<td>32</td>
<td></td>
<td></td>
<td>Fetal kick counts instead of NST</td>
</tr>
<tr>
<td>OLIGOHYDRAMNIOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POLYHYDRAMNIOS</td>
<td></td>
<td></td>
<td></td>
<td>Diagnosis or at 32 weeks if &lt;32wk diagnosis. Only for AFI&gt;30</td>
</tr>
<tr>
<td>POST TERM</td>
<td>40</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRIOR IUFD</td>
<td>32</td>
<td></td>
<td>1wk prior to IUFD</td>
<td></td>
</tr>
<tr>
<td>SICKLE CELL DISEASE</td>
<td>32</td>
<td></td>
<td></td>
<td>Kick counts if well controlled</td>
</tr>
<tr>
<td>SINGLE UMBILICAL ARTERY</td>
<td></td>
<td></td>
<td></td>
<td>Fetal kick counts if normal growth, normal microarray</td>
</tr>
</tbody>
</table>
4.3 Workflow

- **Check-in:**
  - **Receptionists:**
    - Complete required COVID-19 screening – Screening should be completed for patient AND guests
    - Positive screens managed per office protocol
    - Mask required → Contact MFM provider (attending or fellow) to determine if ultrasound can be rescheduled
    - Notify patients that they will only be allowed one guest in the ultrasound room
    - “In order to protect other patients and staff during the COVID-19 outbreak, our current policy does not allow for guests in the ultrasound room.”
    - Exceptions: Patients who present with their children and no adult to watch them in the waiting room during the ultrasound
    - Explain that in the future they should not have guests, or an adult to supervise the children outside of the ultrasound unit should be present
    - If any patients or guests are upset about this rule, please notify the providers (attending or fellow). We will explain the purpose. If still upset, we will consider an exception for this visit only with the understanding that no guests will be allowed at future visits.
    - Any guests who answer “Yes” to a screening question will not be allowed in the ultrasound unit
    - Remind patients to enroll in MyChart and Telehealth – Provide the appropriate information to register
    - Explain that ultrasound reports are uploaded to MyChart
    - (Ideally we should have a sign with the new rules posted in the waiting room)
  - **Nursing staff (Marangelly, Cyndia, Alexa etc):**
    - Create daily list of required labs for anatomy scan visits:
    - Second part of sequential screen
    - MSAFP (for patients who have completed NIPT)
    - No genetics done (In order to offer quad screen, NIPT etc)
    - Provide list to sonographers and MFM providers
  - **Sonographers:**
    - When bringing back a patient to the ultrasound unit, if more than one guest is present, please remind patients of the current policy
    - If there are any issues, please notify the providers (MFM attending or fellow)
    - For anatomy scans, please review the list of required labs and notify the patient to complete their labs before leaving
      - This is limited to second part of the sequential and MSAFP
    - If no genetic screening was done, the MFM provider will review the chart.
      - If there was documentation in the first trimester that screening and testing was declined, nothing needs to be done.
• If there was no documentation that screening/testing was declined, the provider will review options (i.e. quad screen, NIPT, genetic testing) directly with the patient

• Counseling
  o Patients with findings warranting face to face counseling
    ▪ First trimester genetic screening
    ▪ Any major anomaly
    ▪ Placenta accrete spectrum
    ▪ Vasa previa
    ▪ Short cervix
    ▪ Declined cervical length screening
    ▪ New diagnosis of growth restriction or abnormal Dopplers
    ▪ Fetal echocardiograms in the setting of a known fetal anomaly
      ▪ Screening echocardiograms for IVF, diabetes, family history, SSA/SSB antibodies can be counseled via telephone
    ▪ No genetic screening or testing yet done
      ▪ Excludes patients with documentation of declining screening or testing at their first trimester ultrasound or in prenatal notes
      ▪ Health District patients complete their screening through the Health Centers
    ▪ Any patient who requests to speak with a provider regarding ultrasound or genetics
      ▪ Medical questions should be referred to their primary OB
      ▪ Exception: MFM primary patient
  o Patients with findings to follow-up by telephone
    ▪ Dating discrepancy
    ▪ Low lying or placenta previa
    ▪ Cord abnormalities (marginal cord or velamentous cord insertion)
    ▪ Normal anatomy
    ▪ Screening echocardiograms (i.e. IVF, diabetes, family history, SSA/SSB antibodies)
  o Patients to be sent without counseling – Findings can be reviewed with OB provider
    ▪ Normal dating ultrasound
    ▪ Normal growth ultrasound
    ▪ Normal hydrops checks
      ▪ A plan must be in place for follow up before the patient is sent home
      ▪ Excludes: Patient being followed for rising antibodies or other evolving pregnancy complication
5. Visitor Policy for Obstetric Outpatient Office  
 INCLUDING ANTEANAL VISIT AND ANTENATAL TESTING UNIT

5.1 General Policy
- All patients are suggested to bring ZERO family/friend/partner to their appointments
- All patients will be informed there is a maximum of 1 support person allowed in patient care area with them
- Patients asked NOT to bring children
- Visitor with symptoms at front desk check in WILL NOT be allowed in patient care areas and will be asked to return home.

5.2 Special Circumstances
- Antenatal Testing Unit (NST and Ultrasound): Given tight quarters in the antenatal testing unit, no visitors/support people allowed into NST or ultrasound rooms. We will allow FaceTime or cell phone use during ultrasound in lieu of having a support person there.
- Special Needs: Patients with special needs will be allowed to have their support person there to help per discretion of provider.
- Children: Because children are frequently vectors of transmission, children will not be allowed in antenatal testing unit. If there is another adult, they will be asked to remain in waiting area with children. If children are symptomatic, patient will be asked to reschedule. It is strongly recommended that children not be brought to any outpatient office visit.
- Symptoms present: Patients may be asked to reschedule non-urgent care if they or support person are symptomatic.
6. Trainees

- All students from any school (nursing, medicine, PA, sonography) will be asked to remain home
- Any observership (whether in ultrasound or outpatient office) will be asked to remain home
- Limit in person oversight of outpatient visits (resident/fellow/attending all going into a room)
7. Sanitization Measures

- **Waiting Rooms**:
  - Purell/sanitizer available throughout
  - Surgical masks for anyone symptomatic
  - Waiting area chairs/check in screen wiped down in morning, lunch, and after hours
  - Hand sanitizer or wipes available immediately next to check in screens, with sign to use prior to touching screen

- **Check In Desk**
  - Purell available for both registrar and patient side of desk
  - Gloves for registrars to use
  - Position chairs/computer to maintain 4-6 feet distance between patient and registrar
  - Wipes at desk for registrar to wipe area frequently, and at least in morning, lunch, and after hours

- **Patient Rooms**
  - Bed, chair, computer, door handle wiped down with a sanitizing wipe or spray after each patient visit
  - DESIGNATE PATIENT ROOMS FOR FLU/COVID SCREENING
    - At 833 Chestnut Street this is rooms 11 and 12
8. Screening, Triage, and Evaluation for COVID 19

8.1 Phone Triage

**SCREENING QUESTIONS**

**QUESTION 1:** Do you have a fever and/or respiratory symptoms (cough, shortness of breath)?

**AND**

**QUESTION 2:** Have you traveled to China, Iran, Italy, Japan and South Korea within the last 14 days or had contact with any person returning from Mainland China or with a suspected or confirmed case of

1. Patient calls to schedule a visit, ask two Screening Questions.

**Scenario #1** Patient answers "YES" to both questions:

a. Direct patient remain at home. Based on their symptoms and travel history, an Infection Prevention Nurse will contact them shortly to review travel history and symptoms and determine next steps.

b. Call Center City Infection Control at 215-955-7186

   When you call Infection Prevention, make sure you have:
   - Patient’s Full Name
   - DOB
   - Travel locations
   - Symptoms
   - Phone contact information

**Scenario #2** Patient answers "YES" to travel question only. They have NO symptoms of illness:

a. Patient can schedule visit as planned, no restriction for patient. May come to office.

b. Call Center City Infection Control at 215-955-7186 after you complete patient scheduling. The CDC and DOH are collecting information on people that have travelled to Mainland China within the past 14 days, even if they are asymptomatic.

   When you call Infection Prevention, make sure you have:
   - Patient’s Full Name
   - DOB
   - Travel locations
   - Dates of travel
   - Phone contact information

*Figure 1: Phone triage per Jefferson Outpatient clinical practice guideline*
Figure 2: Suggested phone triage algorithm for obstetrics. Adapted from University of Washington

- Maternal comorbidities include:
  o Hypertension on medication
  o Insulin dependent diabetes
  o Immuncomprised/suppression (medically or due to medical condition as HIV)
  o BMI > 40
  o Baseline cardiac or renal disease
  o Moderate to severe Asthma

- Start Tamiflu as per ACOG guidelines regarding empiric Tamiflu in pregnancy
  o Fever > 100.4 and any of the following: URI symptoms, myalgia, fatigue, head/body aches.
  o No fever but abrupt onset of symptoms suggestive of influenza, also proceed with Tamiflu
  o Treatment: oseltamivir 75mg BID x 5 days
8.2 Office Triage

**SCREENING QUESTIONS**

**QUESTION 1:** Do you have a fever and/or respiratory symptoms (cough, shortness of breath)?

**AND**

**QUESTION 2:** Have you traveled to China, Iran, Italy, Japan and South Korea within the last 14 days or had contact with any person returning from Mainland China or with a suspected or confirmed case of

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**Patient On-Site/In Physician Practice**

Receptionist asks two screening questions.

**Scenario #1: Patient answers “YES” to both questions:**
- Give patient a regular surgical mask. Mask any companions with the patient.
- Place patient in an exam room immediately and close the door.
- Make provider and MA aware.
  a. Before entering the exam room with the patient: Contact Infection Control at 215-955-7186 to discuss next steps.
  b. Infection Prevention will discuss JeffConnect telehealth as the resource for patient if able. Patient can be given an iPad (if available) or utilize their phone/laptop to connect.
  c. If JeffConnect is not an option: Provider will put on a fluid resistant gown, N95 respirator mask, eye protection and gloves to evaluate patient in room (if MA is present with provider, should also follow these PPE guidelines).
  d. If patient is moderate to severe ill, they should be instructed by provider to go to the ED.
  e. Direct patient to TJUH Emergency Department for further evaluation and testing as needed. Remind patient to wear a mask upon entering the Emergency Department.
  f. Infection Prevention staff will notify the Emergency Department of inbound patient requiring isolation.
  g. Patient must wear surgical mask to the Emergency Department and upon entering the ED.

**Scenario #2:** Patient answers “YES” to travel question only. They have **NO** symptoms of illness:
- Patient can schedule visit as planned, no restriction for patient. May come to office.
- Call Center City Infection Control at 215-955-7186 after you complete patient scheduling. The CDC and DOH are collecting information on people that have travelled to Mainland China within the past 14 days, even if they are asymptomatic.

When you call Infection Control, make sure you have:
- Patient’s Full Name
- DOB
- Travel locations
- Dates of travel
- Phone contact information

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*Figure 3: Jefferson outpatient clinical practice general guidelines*
For patients presenting in person who screen positive in office visit:

Figure 4: Flow diagram for triaging obstetric patients who present in person for care. Adapted from University of Washington
10. Version Updates

Summary of major changes:

- 3/17/20 Version 2.0:
  - Table 1 of indications/timing/frequency of growth ultrasound
  - Table 2 detailing changes to antenatal surveillance and adjusted NST recommendations based on indication
  - Visitor policy adjusted