

# Jefferson Maternal Fetal Medicine COVID19 PREPAREDNESS

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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 mask for both patient and providers
- 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.
- See Jefferson guidance on myJeffHub COVID Preparedness for most up to date policies and procedures and also below:  
[https://www.jeffersonhealth.org/coronavirus-covid-19.html?utm\\_source=cv19banner](https://www.jeffersonhealth.org/coronavirus-covid-19.html?utm_source=cv19banner)  
<https://www.jefferson.edu/life-at-jefferson/coronavirus.html>

## 3. Antenatal Visits

### 3.1 Obstetric Visit Timing

General principle is to minimize in office visits. We have put forth recommendations for the general (+/- 1-2 weeks) timing of IN PERSON visit. In between these visits, additional telehealth encounters should be scheduled as appropriate for follow up of medical comorbidity etc.

- **OB Intake: Telehealth**
- **12 weeks:** In person OB visit
  - Dating/NT ultrasound
- **20 weeks:** In person OB visit
  - Anatomy ultrasound
- **28 weeks:** In person OB visit
  - Tdap, Rhogam
  - Labwork ordered
  - Kick counts hand out
- **32 weeks:** In person OB visit
  - Blood pressure cuff
    - See Appendix 1 re ordering cuff
    - For others- need to buy independently
    - Provide handout on appropriate blood pressure technique
  - Kick counts hand out
  - CS scheduling
  - *Low risk patient may not need an in-person 32 week visit (telehealth)*
- **36 weeks:** In person OB visit
  - GBS/HIV
  - Follow up if patient has BP cuff at home
  - Kick counts hand out
  - IOL/CS scheduling as appropriate. Counsel on 39 week induction
  - *Offer weekly telehealth visit until delivery. In person visit at 38 weeks only if no bp cuff possible.*
- **Post partum: Telehealth**
  - Encourage LARC placement or Depo administered postpartum in hospital to avoid need for additional 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 (11-14 weeks):
  - 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 4-8 weeks rather than 1-2 weeks
  - BMI>40: schedule at 22 weeks
  - Cervical length screening:
    - No prior PTB: No additional follow up cervical length screening
      - If >25mm no further ultrasounds or therapy
      - If ≤25mm rx vaginal progesterone and offer COLORS trial
    - Prior PTB:
      - Serial CL 16-24 weeks: if prior PTB 16-34 weeks/hx of cervical insufficiency/prior cerclage
      - CL with anatomy u/s: if PTB 34-36 weeks
- Growth ultrasounds
  - All single third trimester growth at 32 weeks
  - Follow up previa/low lying at 34 weeks
  - Begin serial growth at 28 weeks (not 24 weeks) with rare exception
  - Consider q 8 week rather than q4 week follow up for most patients
- Fetal Echo
  - Continue doing echos but if normal anatomy/heart views space out to coincide with another visit (ie growth u/s or OB visit)
  - Continue doing echo at 22 week for those at higher risk of anomaly (ie elevated A1c)
  - No fetal echo for indication of IVF pregnancy if normal heart views

Table 1: Suggested timing/frequency of growth ultrasounds in pregnancy

Indication	Gestational Age			Frequency			Comments
	28w	32w	36w	Once	q4w	q8w	
Current preeclampsia/ghtn					X		
Current IUGR					X		
Prior unexplained IUFD					X		
Multiples - Mono/Di					X		
Multiples -Mono/Mono					X		Q2w TTTS per protocol
Multiples -Di/Di					X		
Pregest DM						X	
Chronic HTN on medications						X	Once if no meds
Gestational diabetes A2						X	
Lupus, no renal dysfunction						X	
Sickle cell disease						X	
CKD						X	
Organ Transplant						X	
Maternal Cardiac Disease						X	
History of IUGR or SGA						X	
History of severe preeclampsia<34wk				X			
Uncontrolled Thyroid Disease				X			
Current tobacco or substance use				X			
AMA (≥ 35 years old)				X			
Gestational diabetes A1				X			
Chronic HTN off medications				X			
Abnormal placentation				X			At 34 weeks
Uterine fibroids >5cm				X			



## 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.

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

## 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**
  - **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
  - **Patients with findings to follow-up by telephone**
    - Dating discrepancy
    - Low lying or placenta previa
    - Cord abnormalities (marginal cord or velamentous cord insertion)
    - Screening echocardiograms (i.e. IVF, diabetes, family history, SSA/SSB antibodies)
  - **Patients to be sent without counseling – Findings can be reviewed with OB provider**
    - Normal dating ultrasound
    - Normal anatomy
    - 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

*(Includes antenatal 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
  - There are NO additional support people allowed for ultrasound or NST appointment (see below)
- 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. Support person may be present when patient taken for counseling for significant anomaly etc.
- **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

Consider the following flow diagram (Figure 1) for phone triage of pregnant patients

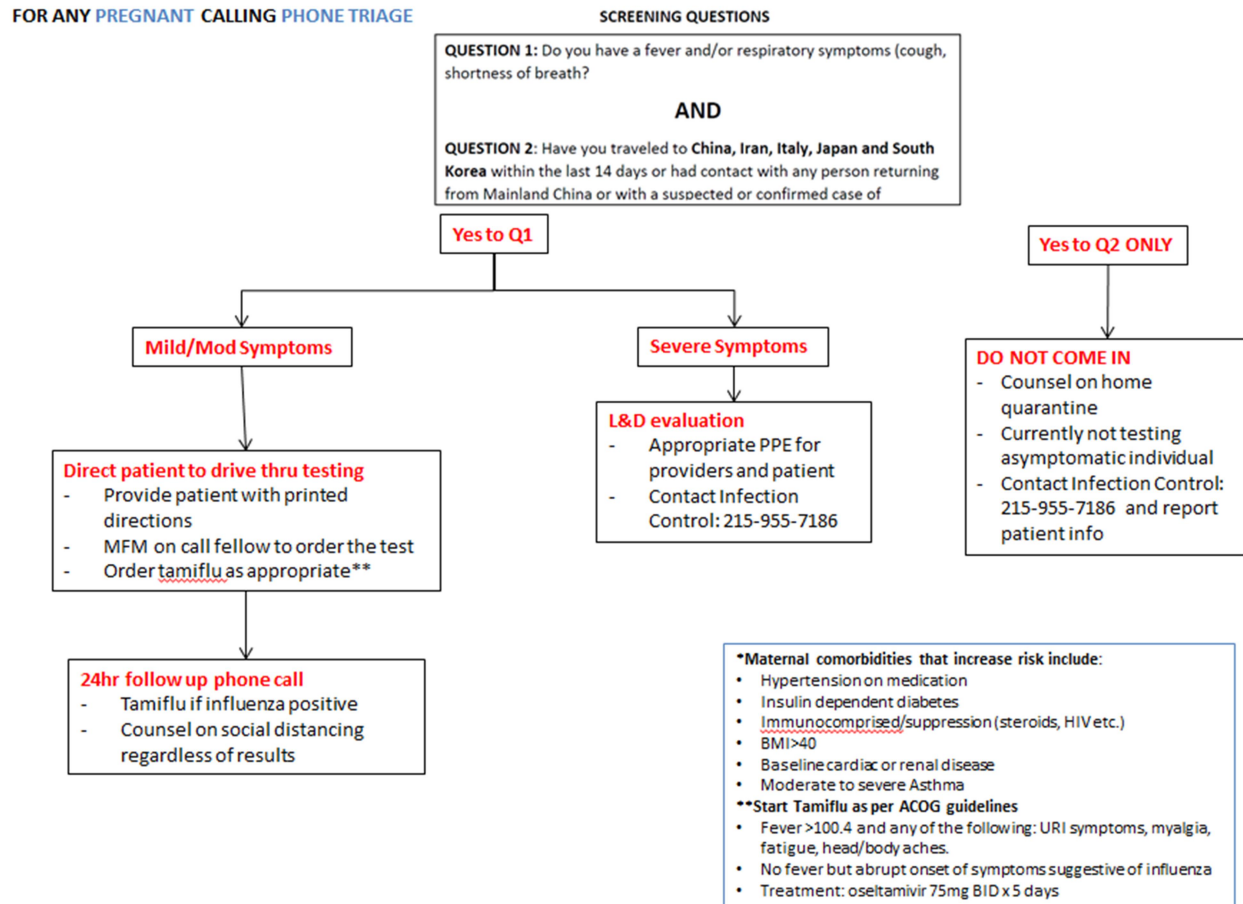


Figure 1: Example of phone triage algorithm for obstetrics.

- Maternal comorbidities that increase risk of COVID severity include:
  - Hypertension on medication
  - Insulin dependent diabetes
  - Immuncomprise/suppression (medically or due to medical condition as HIV)
  - BMI>40
  - Baseline cardiac or renal disease
  - Moderate to severe Asthma
- Start Tamiflu as per ACOG guidelines regarding empiric Tamiflu in pregnancy
  - Fever >100.4 and any of the following: URI symptoms, myalgia, fatigue, head/body aches.
  - No fever but abrupt onset of symptoms suggestive of influenza, proceed with Tamiflu
  - Treatment: oseltamivir 75mg BID x 5 days



## 8.2 Office Triage

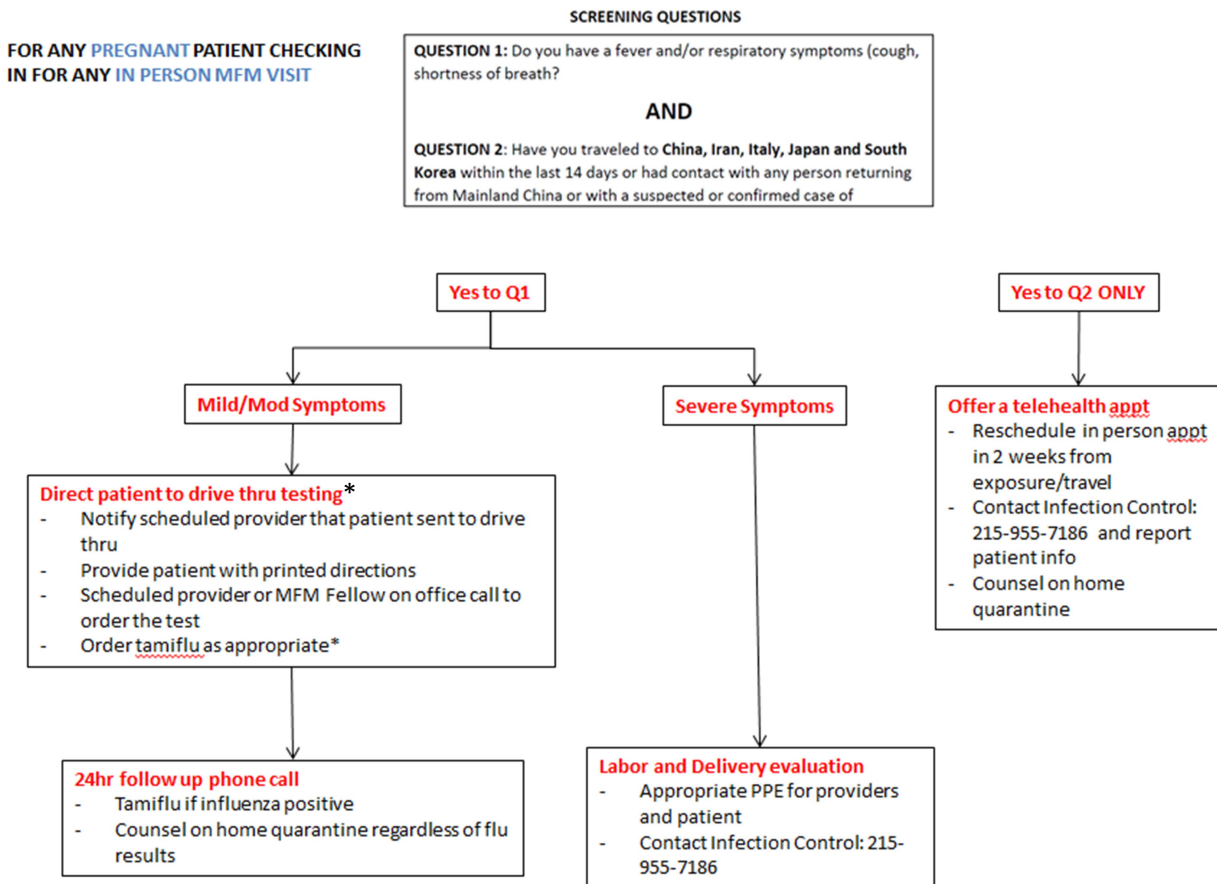


Figure 2: Suggested flow for screening of pregnant patients presenting in MFM office. \*Currently at 833 Chestnut Street offices, there is Room 11 and 12 set aside for provider triage of screen positive patients

## 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
- 3/19/20 Version 2.1
  - Updates to ultrasound
    - Updated growth ultrasound table
    - Update to cervical length screening/timing
    - Fetal echo indication/timing edited
  - Update to MFM office and phone triage:
    - Any positive screen for pregnant patient sent to drive thru
  - Update to antenatal visits:
    - Significant adjustments to in person visit timing (12, 20, 28, 36w) with use of telehealth and home bp cuff in between

## Appendix 1: Ordering blood pressure cuff

From Amanda St. Lewis:

Home BP cuffs and any other supplies (carpal tunnel splints, peak flow meters abdominal binders etc) for Keystone first, Aetna Better Health, Health Partners, Medicare and any other state insurance is covered and sent to a DME (Durable Medical Equipment Supplier) that is covered by each insurance. The provider's request and a copy of the patient's insurance card or financial summary is faxed to the DME. The BP cuff or other supplies will be delivered to the patient's home after it is approved by insurance and the patient speaks to the DME company to verify their address. Most private insurances don't cover most of these supplies. Usually they can get a BP cuff for a nominal price at Walmart, Rite Aid, CVS or Walgreens. If there are any other questions, please don't hesitate to ask.

From Kerri Sendek:

Keystone First patients can now get a BP cuff at our 833 Jefferson Pharmacy. **Simply place an order for blood pressure device in Epic to 833 pharmacy.** The manager, Bonnie, informed me that she currently only has a few stocked, but will place an order for dozens more if we plan to utilize them. The cuff is 9-15 inches (should fit most women, but women who require a forearm pressure in the office will not fit). This makes sense for patients who are in the office already. Patients for whom we are trying to arrange delivery of a cuff should go through Amanda.

1. Private insurances, as far as I know, do not cover a cuff unless you are using a medical savings account. For these women, there are many options, including this one which is PREFERRED by Cardiologist and blue tooth enabled, so patients can easily send their readings. Price point is \$39. Cheaper options available and listed in attachment.  
[https://www.amazon.com/iHealth-Wireless-Bluetooth-Compatible-Automatic/dp/B01C5QS1T8/ref=sr\\_1\\_fkmr1\\_1?keywords=andon+ihealth+track&qid=1584553212&sr=8-1-fkmr1](https://www.amazon.com/iHealth-Wireless-Bluetooth-Compatible-Automatic/dp/B01C5QS1T8/ref=sr_1_fkmr1_1?keywords=andon+ihealth+track&qid=1584553212&sr=8-1-fkmr1)
2. I would like to use these instructions that I found, written by SMFM. [https://www.babycenter.com/0\\_monitoring-your-blood-pressure-at-home\\_10415175.bc](https://www.babycenter.com/0_monitoring-your-blood-pressure-at-home_10415175.bc)



### [Monitoring your blood pressure at home | BabyCenter](https://www.babycenter.com/0_monitoring-your-blood-pressure-at-home_10415175.bc)

How is blood pressure measured? Blood pressure is measured by wrapping an inflatable cuff around your upper arm and pumping air into it. The cuff squeezes

the artery in your arm, and the gauge on the blood pressure monitor measures the pressure as air is released from the cuff. A blood pressure ...

[www.babycenter.com](http://www.babycenter.com)