These guidelines were prepared by Intermountain Healthcare’s Women and Newborns Clinical Program and the Emergency Department (ED) Operations team. When a pregnant woman arrives at the hospital ED, there are two patients to care for, the mother and fetus. To ensure good care, a systematic approach is needed to assess and monitor both patients, provide appropriate care, and facilitate accurate communication between the ED and obstetric providers. This care process model (CPM) outlines the recommended approach.

## Key Points

- **All pregnant patients at ≥ 20 weeks of gestation require a Labor and Delivery (L&D) consultation** to determine appropriate location and care, regardless of the severity of their condition.

- **ED provider should initiate the OB CONSULT PROCESS within 30 minutes** for pregnant patients (≥ 20 weeks gestation) who are high risk, unstable, or critically ill. This will connect the ED physician with the obstetrician, laborist, or maternal-fetal medicine physician on call.

- Pregnant patients (≥ 20 weeks gestation) presenting with abdominal pain, bleeding, leaking of fluid, or hypertension should be strongly considered for transfer to L&D, provided that urgent care or ED-specific services are not required.

- **Pregnant patients < 20 weeks gestation can be treated in the ED.**

- **ED care for pregnant patients should include fetal heart rate (FHR) assessment or monitoring** conducted by either ED or L&D staff. See algorithm on page 2.

## Guidance for Select Circumstances

- **Postpartum patients.** Postpartum patients can be evaluated and treated in the ED. If there is a concern for postpartum preeclampsia, initiate an OB CONSULTATION. Patient may require admission.

- **Patients seeking Labor and Delivery care.** The charge nurse should briefly assess the patient to determine if safe transfer to L&D is possible.
  - If safe transfer is possible, have ED staff member transport patient to L&D in a wheelchair.
  - If there are concerns about transferring patient, notify L&D and treat patient in the ED.

- **Fetal demise.** In the case of fetal demise, consult with L&D charge nurse to identify appropriate patient care processes and resources.

- **Methotrexate.** Methotrexate must be ordered by a qualified OB provider and administered by specifically trained staff. See the Intermountain care process model Non-surgical Management of Ectopic Pregnancy.
**TRIAGE OF PREGNANT AND POSTPARTUM PATIENTS IN THE EMERGENCY DEPARTMENT (ED) AND LABOR AND DELIVERY (L&D)**

**Pregnant or postpartum patient presents to the ED**

Is the patient exhibiting ANY of the following?

- Critical status
- Hemodynamic instability
- Cardiovascular instability
- Respiratory distress
- Traumatic injury (level 1,2)
- Altered mental status

**Gestational age or Postpartum**

< 20 weeks

≥ 20 weeks

Postpartum

**ED CARE FOR CRITICAL, UNSTABLE, OR TRAUMA (level 1,2)**

**ED Provider**

- CONDUCT medical screening exam (MSE)
- INITIATE the OB consultation process with MFM or OB/GYN in-house or on-call in < 30 min.
- If severe HTN; SBP ≥ 160 or DBP ≥ 110, INITIATE OB Emergency Checklist for Severe Hypertension (next page)

**ED Nurse**

NOTIFY L&D charge nurse who will contact MFM or OB/GYN (in-house or on-call)

**Patients < 20 weeks**

- DOCUMENT presence of FHR by Doppler on admit and prior to discharge
- CONSULT with L&D charge nurse and MFM or OB/GYN in-house or on-call as needed

**PATIENTS ≥ 20 weeks**

- Have L&D nurse come to ED to help perform continuous FHR monitoring and provide patient care as needed

**ED REGULAR CARE < 20 WEEKS**

- CONDUCT MSE
- DOCUMENT presence of FHR by Doppler on admit and prior to discharge
- If HTN ≥ 149/90, BEGIN OB consult process for evaluation of preeclampsia
- If severe HTN; SBP ≥160 or DBP ≥ 110, INITIATE OB Emergency Checklist for Severe Hypertension (next page)
- CONSIDER communication with primary OB/GYN on-call provider prior to patient discharge
- REFER to OB for discharge follow-up

**ED REGULAR CARE ≥ 20 WEEKS**

- CONDUCT MSE
- DOCUMENT presence of FHR by continuous FHR (NST) monitoring for 20 minutes
- CONTACT L&D staff for review of FHR monitor
- EVALUATE and TREAT as indicated
- CONSIDER communication with primary OB/GYN on-call provider prior to patient discharge
- CALL/CONSULT L&D charge nurse
- ED Provider CONSULT with MFM or OB/GYN in-house or on-call
- If severe HTN; SBP ≥ 160 or DBP ≥ 110, INITIATE OB Emergency Checklist for Severe Hypertension (next page)
- TRANSFER to L&D if appropriate after provider assessment

**ED HIGH RISK CARE ≥ 20 WEEKS**

- CONDUCT MSE
- EVALUATE and TREAT as appropriate
- If HTN ≥ 149/90, BEGIN OB consult process for evaluation of preeclampsia
- If severe HTN; SBP ≥160 or DBP ≥110, INITIATE OB Emergency Checklist for Severe Hypertension (next page)
- CONSIDER communication with primary OB/GYN on-call provider prior to patient discharge

**ED POSTPARTUM CARE**

- CONDUCT MSE
- ASSUME patient care, monitoring and follow-up

**Abbreviations:**

- BP - blood pressure
- DBP - diastolic blood pressure
- FHR - fetal heart rate
- HTN - hypertension
- MFM - maternal fetal medicine
- MSE - medical screening exam
- NST - non-stress test
- OB - obstetrics
- OB/GYN - obstetrician-gynecologist
- SBP - systolic blood pressure

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OB EMERGENCY CHECKLIST FOR SEVERE HYPERTENSION

AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS (ACOG)

- Confirm severe-range BP by re-testing BP in 10–15 minutes using correct BP assessment techniques. Notify physician ASAP if SBP measurement is ≥ 160 mm Hg or if DBP measurement is ≥ 110 mm Hg.
- Institute fetal surveillance if undelivered and fetus is viable.
- Administer intravenous antihypertensive therapy as EITHER labetalol OR hydralazine (Apresoline) OR nifedipine (see table below). Administer one of these medications within 60 minutes of confirmed severe range BP.
- Administer IV magnesium sulfate 4 gm bolus then 2 gm / hr. If the patient is in the Emergency Department, consult with an L&D RN to assist with administration.
- Administer betamethasone 12 mg IM Q24 hrs x 2 doses if gestational age is between 24 0/7 and 34 0/7 weeks.
- If either BP threshold is still exceeded after treatment, obtain emergency consultation from maternal-fetal medicine. Call 801-321-BABY (2229) to be connected with the MFM on call for your area.
- Give additional antihypertensive medication per specific order.
- *Once the aforementioned BP thresholds are achieved, repeat BP measurement every 10 minutes for 1 hour, then every 15 minutes for 1 hour, then every 30 minutes for 1 hour, and then every hour. Continue every hour until further orders received.
- Institute additional BP timing per specific order.
- If severe range BP initially responds to treatment for a period of time, but then re-elevates to a severe range, contact the provider for orders. Consider an MFM consult at this time.

<table>
<thead>
<tr>
<th>LABETALOL</th>
<th>HYDRAZINE</th>
<th>NIFEDIPINE (Immediate release only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>If severe BP elevations persist for 15 minutes or more, administer labetalol (20 mg intravenously [IV] over 2 minutes).</td>
<td>If severe BP elevations persist for 15 minutes or more, administer hydralazine (5 mg or 10 mg intravenously [IV] over 2 minutes).</td>
<td>If severe BP elevations persist for 15 minutes or more, administer nifedipine (10 mg orally).</td>
</tr>
<tr>
<td>Repeat BP measurements in 10 minutes and record results.</td>
<td>Repeat BP measurement in 20 minutes and record results.</td>
<td>Repeat BP measurement in 20 minutes and record results.</td>
</tr>
<tr>
<td>If either BP threshold is still exceeded, administer labetalol (40 mg IV over 2 minutes). If BP is below threshold, continue to monitor BP closely*.</td>
<td>If either BP threshold is still exceeded, administer hydralazine (10 mg IV over 2 minutes). If BP is below threshold, continue to monitor BP closely*.</td>
<td>If either BP threshold is still exceeded, administer nifedipine capsules (20 mg orally). If BP is below threshold, continue to monitor BP closely*.</td>
</tr>
<tr>
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</tr>
<tr>
<td>If either BP threshold is still exceeded, administer labetalol (80 mg IV over 2 minutes). If BP is below threshold, continue to monitor BP closely*.</td>
<td>If either BP threshold is still exceeded, administer labetalol (20 mg IV over 2 minutes). If BP is below threshold, continue to monitor BP closely*.</td>
<td>Repeat BP measurement in 20 minutes and record results.</td>
</tr>
<tr>
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</tr>
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</tbody>
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This document is intended as a guideline. It should be used as the default mode of practice for this procedure in the absence of a specific provider order to the contrary. Clinical situations exist in which alternative approaches to care are in the patient’s best interest.

Reference: ACOG Technical Bulletin Committee Opinion No. 623
Reference: ACOG Technical Bulletin Committee Opinion No. 767
Approved by OB Division Team November 2020 and ED Trauma Operations Team December 2020
This CPM presents a model of best care based on the best available scientific evidence at the time of publication. It is not a prescription for every physician or every patient, nor does it replace clinical judgment. All statements, protocols, and recommendations herein are viewed as transitory and iterative. Although physicians are encouraged to follow the CPM to help focus on and measure quality, deviations are a means for discovering improvements in patient care and expanding the knowledge base. Send feedback to Nancy Nelson, Intermountain Healthcare, Operations Manager for ED / Trauma (Nancy.Nelson@imail.org).

REFERENCES


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RESOURCES AND REFERENCES

Patient resources

Clinicians can order Intermountain patient education booklets, fact sheets, and trackers for their patients from Print It. Intermountain’s Design and Print Center for one-stop access and ordering of Intermountain-approved education.

Patient Information:

An array of booklets, trackers, and fact sheets to help, including:

- Preeclampsia fact sheet in English and Spanish
- High Blood Pressure fact sheet in English and Spanish
- Methotrexate to Treat Ectopic Pregnancy fact sheet in English and Spanish
- Fetal Testing: Non-stress test, amniotic fluid assessment, and biophysical profile fact sheet in English and Spanish

Provider resources

To find this CPM, go to intermountainphysician.org, under the Tools and Resources tab, select Care Process Models.