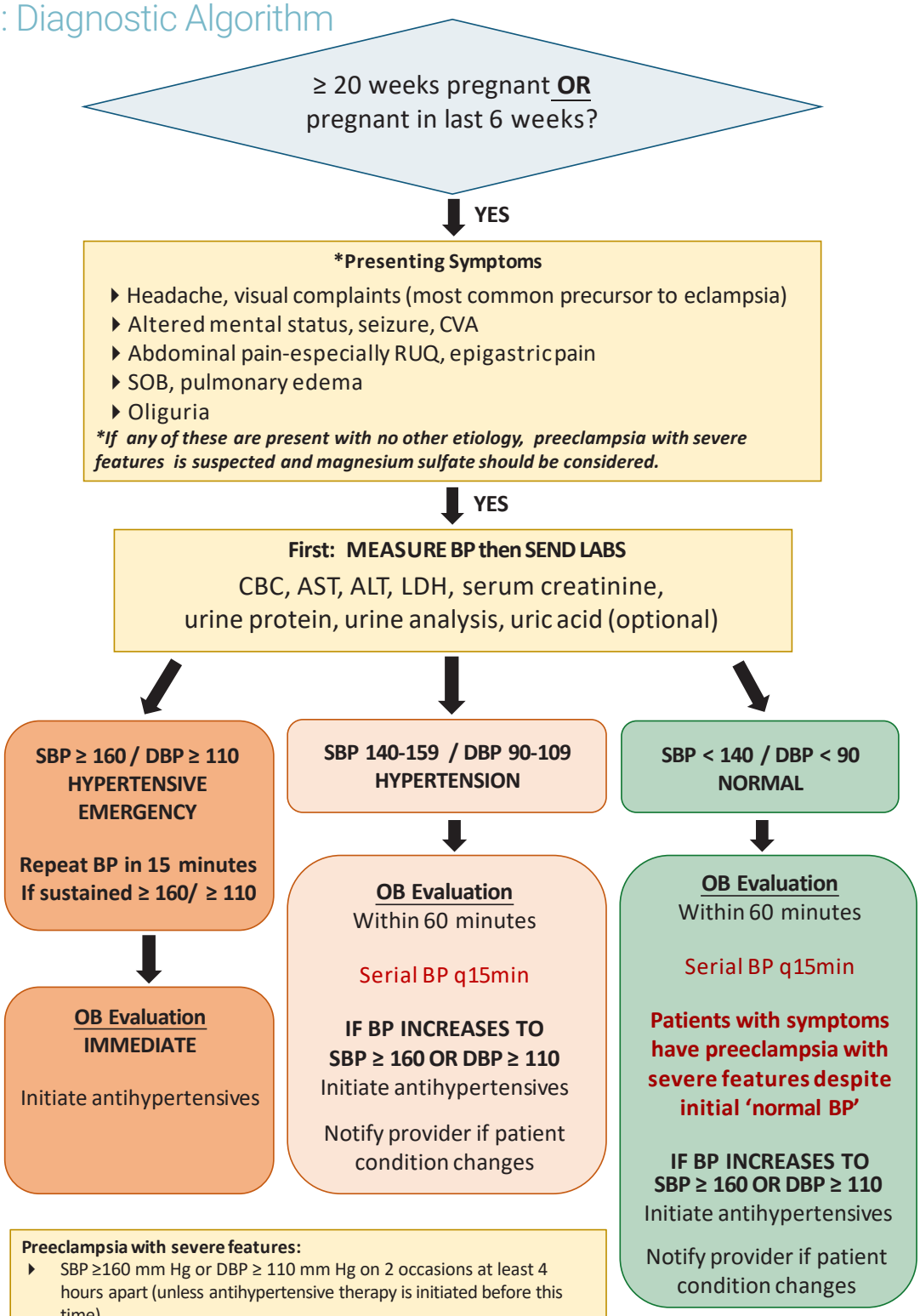
Appendix E: Acute Treatment Algorithm

Part 1: Diagnostic Algorithm



ACOG Practice Bulletin 222, 2020

This figure was adapted from the Improving Health Care Response to Preeclampsia: A California Quality Improvement Toolkit, funded by the California Department of Public Health, 2014; supported by Title V funds.

Part 2: Antihypertensive Treatment Algorithm for Hypertensive Emergencies

Treatment Recommendations for Sustained Systolic BP ≥ 160 mm Hg or Diastolic BP ≥ 110 mm Hg

*Antihypertensive treatment and magnesium sulfate should be administered simultaneously. If concurrent administration is not possible, antihypertensive treatment should be 1st priority.

*Labetalol IV as Primary Antihypertensive

- Initial dose 20 mg labetalol IV
- Repeat BP in 10 minutes
- SBP ≥ 160 and DBP ≥ 110 Give 40 mg labetalol IV
- Repeat BP in 10 minutes
- SBP ≥ 160 and DBP ≥ 110 Give 80 mg labetalol IV
- Repeat BP in 10 minutes
- SBP ≥ 160 and DBP ≥ 110 Give hydralazine 10 mg IV
- Repeat BP in 20 minutes
- SBP ≥ 160 and DBP ≥ 110

  Give hydralazine 10 mg IV ***and obtain emergent consultation*** from maternal-fetal medicine, anesthesia, internal medicine, or critical care for transfer of care or continuous IV infusion

*Hydralazine IV as Primary Antihypertensive

- Initial dose: 5 - 10 mg hydralazine IV
- Repeat BP in 20 minutes
- SBP ≥ 160 and DBP ≥ 110 Give hydralazine 10 mg IV
- Repeat BP in 20 minutes
- If SBP ≥ 160 or DBP ≥ 110

  Convert to labetalol pathway Give labetalol 20 mg IV per algorithm
- Repeat BP in 10 minutes
- SBP ≥ 160 or DBP ≥ 110

  Give labetalol 40 mg IV ***and obtain emergent consultation*** from maternal-fetal medicine, anesthesia, internal medicine, or critical care for transfer of care or continuous IV infusion

Nifedipine PO as Primary Antihypertensive

- Initial dose: nifedipine 10 mg PO immediate release
- Repeat BP in 20 minutes
- SBP ≥ 160 or DBP ≥ 110 Give nifedipine 20 mg PO
- Repeat BP in 20 minutes
- SBP ≥ 160 or DBP ≥ 110 Give nifedipine 20 mg PO
- Repeat BP in 20 minutes
- SBP ≥ 160 or DBP ≥ 110

  Convert to labetalol 20 mg IV pathway ***and obtain emergent consultation*** from maternal-fetal medicine, internal medicine, anesthesia or critical care for transfer of care or continuous IV infusion

ACOG Practice Bulletin 203, 2019

Target BP: 130-150/80-100 mm Hg

Once BP threshold is achieved:

- Q10 min for 1 hr
- Q15 min for 1 hr
- Q30 min for 1 hr
- Q1hr for 4 hrs

*Intravenous hydralazine or labetalol should be given over 2 minutes. In the presence of sinus bradycardia or a history of asthma, hydralazine or nifedipine are preferred as initial agents. If maternal HR > 110, labetalol is preferred.

This figure was adapted from the Improving Health Care Response to Preeclampsia: A California Quality Improvement Toolkit, funded by the California Department of Public Health, 2014; supported by Title V funds.

Part 3: Magnesium Dosing and Treatment Algorithm for Refractory Seizures

Magnesium: Initial Treatment

1. Loading Dose: 4-6 gm over 20-30 minutes (6 gm for BMI > 35)
2. Maintenance Dose: 1-2 gm per hour
3. Close observation for signs of toxicity
   - Disappearance of deep tendon reflexes
   - Decreased RR, shallow respirations, shortness of breath
   - Heart block, chest pain
   - Pulmonary edema
4. Calcium gluconate or calcium chloride should be readily available for treatment of toxicity

For recurrent seizures while on magnesium

1. Secure airway and maintain oxygenation
2. Give 2nd loading dose of 2-4 gm Magnesium over 5 minutes
3. If patient still seizing 20 minutes after 2nd magnesium bolus, consider one of the following:
   - Midazolam 1-2 mg IV; may repeat in 5-10 min
     OR
   - Diazepam 5-10 mg IV slowly; may repeat q15 min to max of 30 mg
     OR
   - Phenytoin 1,250 mg IV at a rate of 50 mg/min
   - Other medications have been used with the assistance of anesthesia providers such as:
     - Sodium thiopental
     - Sodium amobarbital
     - Propofol
4. Notify anesthesia
5. Notify neurology and consider head imaging

Seizures Resolve

1. Maintain airway and oxygenation
2. Monitor vital signs, cardiac rhythm/EKG for signs of medication toxicity
3. Consider brain imaging for:
   - Head trauma
   - Focal seizure
   - Focal neurologic findings
   - Other suspected neurologic diagnosis
4. Reassure patient with information, support
5. Debrief with team before shift end

This figure was adapted from the Improving Health Care Response to Preeclampsia: A California Quality Improvement Toolkit, funded by the California Department of Public Health, 2014; supported by Title V funds.