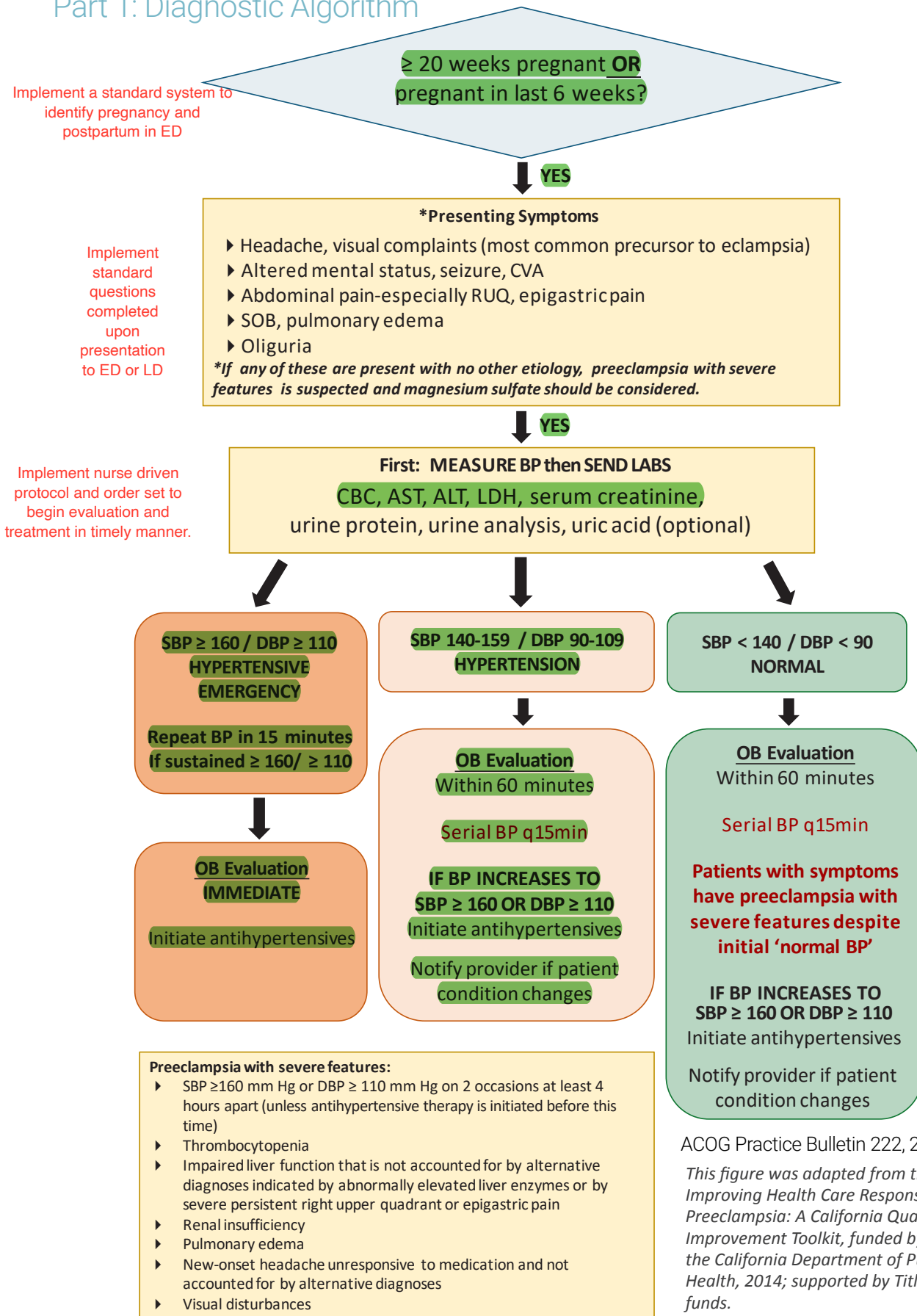


Appendix E: Acute Treatment Algorithm

Part 1: Diagnostic Algorithm

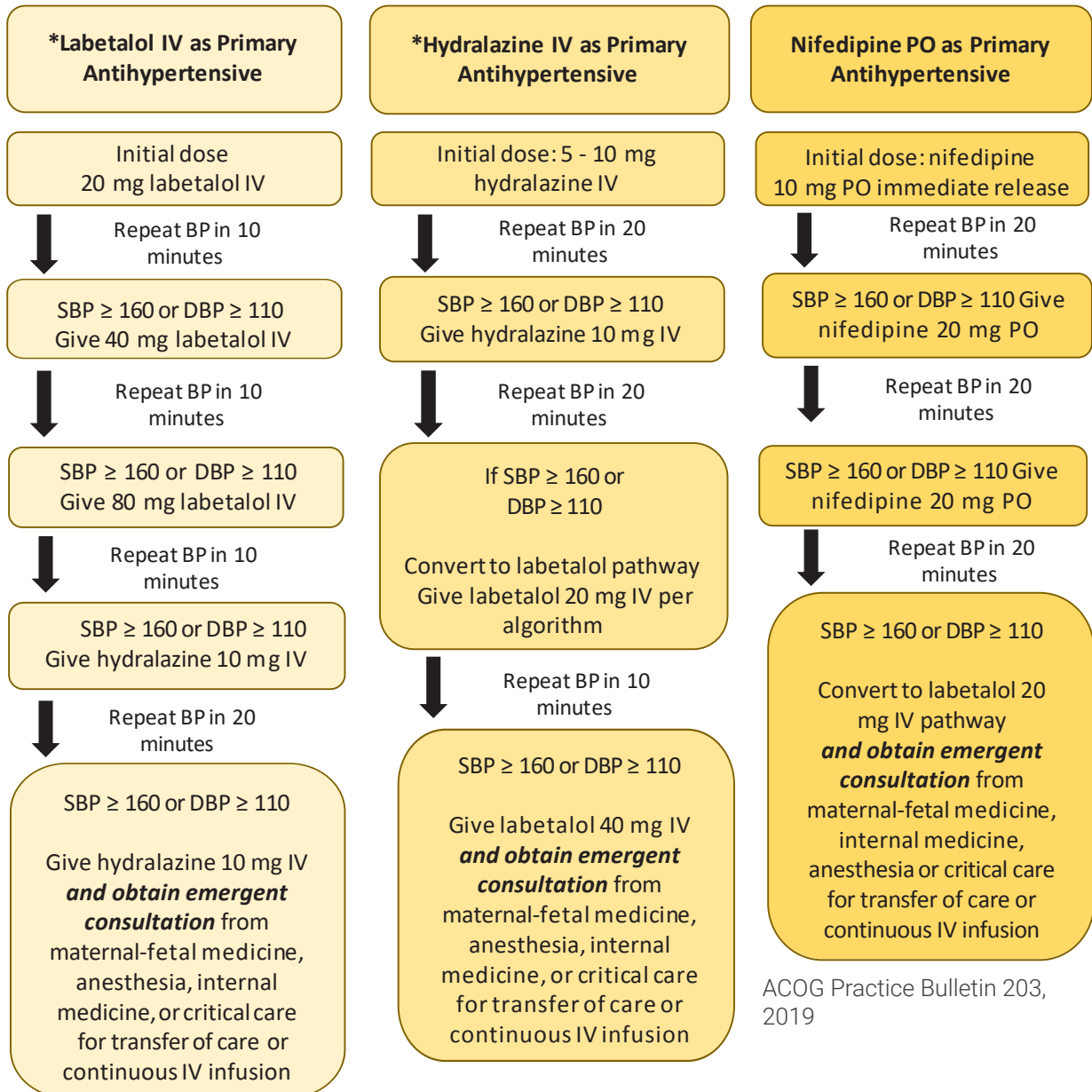


Part 2: Antihypertensive Treatment Algorithm for Hypertensive Emergencies

Work with pharmacy to develop order sets for treatment and ensure ready access to medications

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.



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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

Educate ED and LD Providers on proper magnesium dosing and monitoring

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