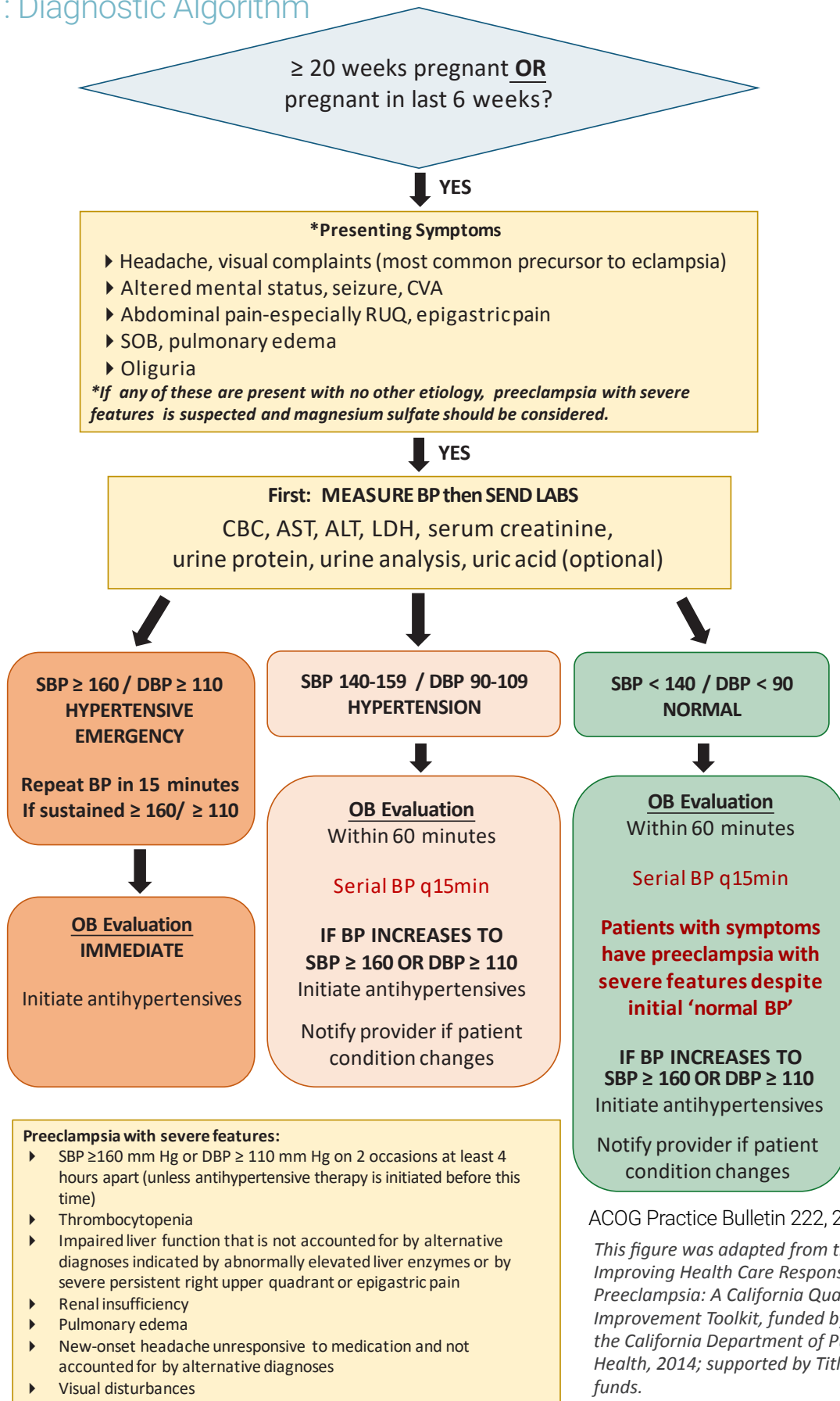


# Appendix E: Acute Treatment Algorithm

## Part 1: Diagnostic Algorithm



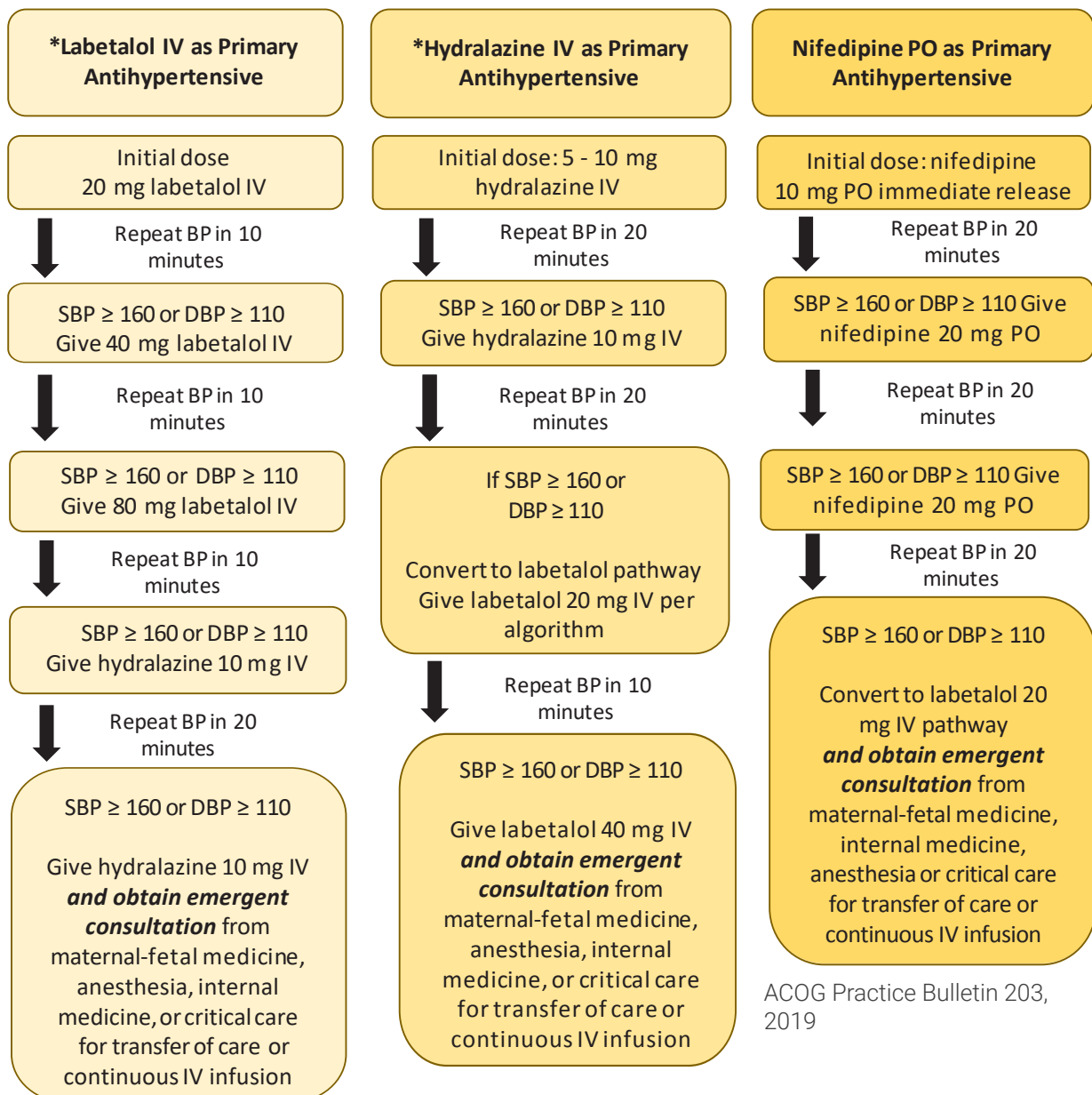
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This figure was adapted from the Improving Health Care Response to Preeclampsia: A California Quality Improvement Toolkit, funded by the California Department of Public Health, 2014; supported by Title V funds.

## Part 2: Antihypertensive Treatment Algorithm for Hypertensive Emergencies

### Treatment Recommendations for Sustained Systolic BP $\geq$ 160 mm Hg or Diastolic BP $\geq$ 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

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