New York State Department of Health • Antepartum and Postpartum Preeclampsia and Eclampsia Management in the Emergency Department (ED)

Evaluation and Diagnosis

Female age 15-50 years presents to ED Triage

Is the patient pregnant?

Delivered in last 6 weeks?

Is the patient pregnant?

Yes <20 weeks

ED Treatment with OB consultation as needed for vaginal bleeding, hypertension, etc.

Yes ≥20 weeks

L&D Transfer Protocol?

Transfer to L&D and Communicate:
1. Suspicions of Preeclampsia
2. Symptoms
3. VS including BP
4. Any pertinent prenatal and past history

Consult OB for OB Medical Screening Exam in ED; initiate transfer to higher level of care as needed

Measure BP

SBP ≥160 OR DBP ≥110 HYPERTENSIVE EMERGENCY

Yes

SBP 140-159 OR DBP 90-109 HYPERTENSION

SBP <140 AND DBP <90 NORMAL BP

Immediate OB Consult

Labs: CBC with platelets, AST, ALT, creatinine; urine dip for protein, UA, LDH & uric acid
- Initiate anti-hypertensives and magnesium immediately per treatment guidelines

OB Consult <60 min

Labs: CBC with platelets, AST, ALT, urine dip for protein, UA, LDH & uric acid
- Serial BP q1hr unless significant change in patient condition
- If patient’s BP increases to SBP ≥160 or DBP ≥110 then initiate anti-hypertensives and magnesium and notify OB if not already present of change in condition

Immediate OB Consult (<30 min) for:
- Labs: CBC with platelets, AST, ALT, creatinine; urine dip for protein, UA, LDH & uric acid
- Headache, visual complaints, altered mental status, CVA, seizure
- SOB, pulmonary edema
- Hypertensive emergency: SBP ≥160 or DBP ≥110
- Major trauma

OB Consult <60 min

Labs: CBC with platelets, AST, ALT, creatinine; urine dip for protein, UA, LDH & uric acid
- Serial BP q1hr unless significant change in patient condition
- Abdominal pain—especially RUQ, epigastric pain
- Persistent nausea, vomiting
- If patient’s BP increases to SBP ≥160 or DBP ≥110 then initiate anti-hypertensives and magnesium and notify OB of change in condition if not already present

OB Consult <60 min

Labs: CBC with platelets, AST, ALT, creatinine; urine dip for protein, UA, LDH & uric acid
- Serial BP q1hr unless significant change in patient condition
- Abdominal pain—especially RUQ, epigastric pain
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## Treatment

### 1st Line Anti-Hypertensive Treatment: Labetalol & Hydralazine*

**Target BP:** 140-160/90-100 (BP<140/90 = decreased fetal perfusion)

#### LABETALOL as Primary Anti-Hypertensive

1. Administer labetalol 20 mg IV over 2 min
2. Repeat BP in 10 min
   - If BP threshold is still exceeded, administer labetalol 40 mg IV
   - If SBP<160 and DBP<100, continue to monitor closely
3. Repeat BP in 10 min
   - If BP threshold is still exceeded, administer labetalol 80 mg IV
   - If SBP<160 and DBP<100, continue to monitor closely
4. Repeat BP in 10 min
   - If BP threshold is still exceeded, administer hydralazine 10 mg IV over 2 min
   - If SBP<160 and DBP<100, continue to monitor closely
5. Repeat BP in 20 min; if BP threshold is still exceeded, obtain emergent consultation from maternal-fetal medicine, internal medicine, anesthesiology, or critical care
6. Once target BP achieved, monitor BP q10 min for 1 hour, q15 min for 2nd hour, q30 min for 3rd hour

#### HYDRAZINE as Primary Anti-Hypertensive

1. Administer hydralazine 5 or 10 mg IV
2. Repeat BP in 20 min
   - If BP threshold is still exceeded, administer hydralazine 10 mg IV
   - If SBP<160 and DBP<100, continue to monitor closely
3. Repeat BP in 20 min
   - If BP threshold is still exceeded, administer labetalol 20 mg IV
   - If SBP<160 and DBP<100, continue to monitor closely
4. Repeat BP in 10 min
   - If BP threshold is still exceeded, administer hydralazine 10 mg IV and obtain emergent consultation from maternal-fetal medicine, internal medicine, anesthesiology, or critical care
   - If SBP<160 and DBP<100, continue to monitor closely
5. Once target BP achieved, monitor BP q10 min for 1 hour, q15 min for 2nd hour, q30 min for 3rd hour

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### Magnesium

#### Initial Treatment

1. Loading Dose: 4-6 gm over 15-20 min
2. Maintenance 1-2 gm/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

#### If Patient Seizes While on Magnesium:

1. Secure airway and maintain oxygenation
2. Give 2nd loading dose of 2 gm magnesium over 5 min
3. If patient seizes after 2nd magnesium bolus, consider one of the following:
   - Midazolam 1-2 mg IV; may repeat in 5-10 min
   - Lorazepam 2 mg IV; may repeat
   - Diazepam 5-10 mg IV; may repeat q15 min to max of 30 mg
   - Phenytoin 1g IV over 20 min

#### Seizures Resolve

1. Maintain airway and oxygenation
2. Monitor VS, cardiac rhythm/ECG for signs of medication toxicity
3. Consider brain imaging for:
   - Head trauma
   - Focal seizure
   - Focal neurologic findings
   - Other neurologic diagnosis is suspected

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Citation: Maurice L. Druzin, MD, Laurence E. Shields, MD, Nancy L. Peterson, RNC, PNAP, MSN, Kathryn Melsop, MS, Valerie Cape, BS, BA, Preeclampsia Toolkit: Improving Health Care Response to Preeclampsia (California Maternal Quality Care Collaborative Toolkit to Transform Maternity Care) Developed under contract #11-10006 with the California Department of Public Health; Maternal Child, and Adolescent Health Division; Published by the California Maternal Quality Care Collaborative, August 2013.

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