APEC Guidelines
Preeclampsia

Definitions

	BP	Proteinuria	Other
Preeclampsia	SBP ≥ 140 mm Hg or DBP ≥ 90 mm Hg after 20 weeks GA on 2 occasions 4hrs apart in women with a previously normal BP **OR** SBP ≥160 mm HG or DBP ≥110 mm Hg confirmed within a short interval to facilitate timely antihypertensive therapy	≥ 300mg/24hr. **Or** P/C ratio ≥ 0.3 mg/dL Dipstick ≥ 1+ (use only if other quantitative methods not avaiable)	**Or in the absence of proteinuria, new-onset HTN with new-onset of any of the following:** • Thrombocytopenia: Platelet ct < 100,000/µL • Renal insufficiency: serum creatinine >1.1 mg/dL or a doubling • Impaired liver function: Liver transaminases 2x normal • Pulmonary edema • Cerebral or visual symptoms
Severe PreE	SBP ≥ 160 mm Hg or DBP ≥ 110 mm Hg on 2 occasions at least 4 hrs apart on bed rest	Not required	• Thrombocytopenia: Platelet ct < 100,000/µL • Renal insufficiency: serum creatinine >1.1 mg/dL or a doubling • Impaired liver function: Liver transaminases 2x normal, severe right upper quadrant or epigastric pain • Pulmonary edema • New onset cerebral or visual symptoms
Eclampsia	SBP ≥ 140 mm Hg or DBP ≥ 90mm Hg	Not required	• New-onset grand mal seizures
HELLP	SBP ≥ 140 mm Hg or DBP ≥ 90mm Hg	Not required	• LDH >600 IU/L • Bilirubin > 1.2mg/dL • AST > 70 IU/L • Platelets <100,000/µg

Preeclampsia Management

Gestational hypertension or preeclampsia without severe features at or beyond 37 weeks GA:

- **Delivery** rather than continued observation.
- Once delivery planned, MgSO4 for seizure prophylaxis.

Women with preeclampsia prior to 37 weeks GA:

- Hospitalization with daily assessment: HA, visual disturbances, epigastric pain, wt, intake and output, fetal movement.
- Blood pressure readings every 4-8 hrs or more often as needed.
- Baseline labs: AST, CBC with plt count, serum creatinine; repeat weekly or sooner if disease progression is suspected.
- 24 hr urine for protein.
- US for growth every 3 weeks.
- Weekly NST or BPP; twice weekly for suspected fetal growth restriction or olighydramnios.
- Weekly assessment for amniotic fluid (modified BPP).
- One course of betamethasone for < 34 weeks GA.

Severe Preeclampsia Management

- **At or beyond 34 weeks GA: delivery** as soon as maternal status is stabilized.
- Vaginal delivery unless otherwise contraindicated (Preeclampsia is not an indication for cesarean section).
- Severe preeclampsia **before 34 weeks GA**: **stabilized** maternal and fetal condition, **transfer** to a tertiary care facility and **consult** with MFM specialist.
- Control HTN: antihypertensive therapy SBP ≥160-165 mm Hg (goal <155) or DBP ≥105-110 mm Hg (goal: <100-105).
- Limit fluids to 150cc/hr.
- MgSO4 for seizure prophylaxis.
- < 34 weeks GA: administer a course of betamethasone.

Quality Indicators/Benchmarks
- Antenatal corticosteroids < 34 wks GA
- Delivery at appropriate facility

Postpartum

- Monitor in the hospital 48-72 hrs pp and again 7-10 days (or earlier) after delivery.
- Continue MgSO4 through the first 24 hrs pp for seizure prevention.
- Hydralazine 20mg IM or standard IV dose for SBP >150-155 mm Hg or DBP >90-100 mm Hg.
- Maintain BP with oral nifedipine or labetalol.
- Consider TTP and HUS in pts with continued S&S of preeclampsia after delivery.

Table 1: MgSO4 Seizure Prophylaxis

Renal Function	MgSO4 Loading Dose	Constant infusion rate	Monitoring	Toxicity treatment
Normal, no evidence of pulmonary edema	4-6 grams/20 min	2 grams/hour Continue 24 hours postpartum	Magnesium levels not indicated unless signs of toxicity Monitor for evidence of toxicity: • deep tendon reflex • lethargy • respirations	Check magnesium level Discontinue infusion If respiratory or EKG changed are noted: administer calcium gluconate (1 ampule=4.64 mEq IV x 1 dose)
Mild renal insufficiency	4 grams/20 min	1 gram/hour Continue 24 hours postpartum	Serial magnesium levels every 6 hours, target range 5-7 Monitor for evidence of toxicity: • deep tendon reflex • lethargy • respirations	Check magnesium level Discontinue infusion If respiratory or EKG changed are noted: administer calcium gluconate (1 ampule=4.64 mEq IV x 1 dose)
Significant renal impairment	4 grams/20 min	Individualize, may not be needed	Serial magnesium levels every 6 hours, target range 5-7 Monitor for evidence of toxicity: • deep tendon reflex • lethargy • respirations	Check magnesium level Discontinue infusion If respiratory or EKG changed are noted: administer calcium gluconate (1 ampule=4.64 mEq IV x 1 dose)

Table 2: Antihypertensive Drugs

Drug	Dosage	Repeat	Precautions
Hydralazine	5-10 mg IV over 2 min	May repeat every 20 min	• If after 30-40mg have been administered and the BP remains above the target range, switch to Labetalol. • If maternal heart rate >120 bpm, discontinue hydralazine.
Labetalol	10 mg IV every 10-15 min in a dose-escalating fashion: 10mg followed by 20mg, then 40mg, then 80mg	Repeat every 10-15 min to a maximum total dose of 220mg for initial response	• IM administration should be avoided with a viable IUP due to an inability to titrate dosing effectively. • Once an initial response has been achieved (even if 40 or 80mg were required), subsequent doses should be no greater than 20mg to avoid hypotension.