ECLAMPSIA

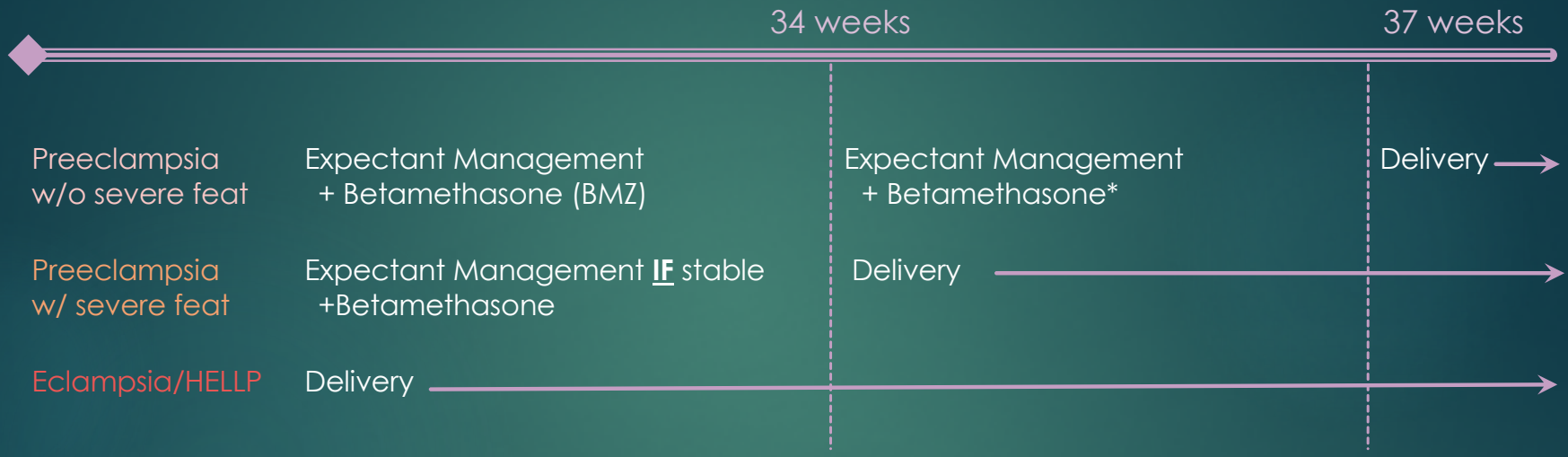
FLAME LECTURE: 106

STELLER 11.25.17

LEARNING OBJECTIVES

- Recognize the signs and symptoms to diagnose eclampsia
- Explain the management of a patient with eclampsia
- Describe the maternal and fetal complications of eclampsia
- See also:
  - FLAME 27 – Chronic HTN in Pregnancy
  - FLAME 104 – Diagnosis of Preeclampsia
  - FLAME 105 – Management of Preeclampsia

QUICK OVERVIEW OF TREATMENT



- Preeclampsia management involves balancing the benefits of continuing the pregnancy for fetal development versus taking on risks of continued HTN and endothelial dysfunction to maternal/fetal health

*Should be offered if no contraindications to BMZ (Gyamfi-Bannerman 2016)

DEFINITIONS

- Grand mal seizure in patient with preeclampsia
  - Seizures cannot be attributed to another cause; usually last 2-4 minutes
- Patients with preeclampsia with severe features are at higher risk
  - *However, **ANYONE** with preeclampsia can progress to eclampsia, regardless of severity*
  - Recall preeclampsia diagnostic criteria *does NOT* require proteinuria, so a high index of suspicion is always warranted for seizures in pregnancy
- Complications:
  - Intracranial hemorrhage
  - Aspiration pneumonia
  - Stroke or hypoxic encephalopathy
  - Thromboembolic events

EPIDEMIOLOGY

- Eclampsia occurs in:
  - 0 – 0.6% of women with mild preeclampsia
  - 2-3% of women with severe preeclampsia (without seizure prophylaxis)
    - 1.6-10 cases per 10,000 deliveries in developed countries
    - 6-157 cases per 10,000 deliveries in developing countries
- When does it occur:
  - Antepartum (38-55%)
  - Intrapartum (36%)
  - Postpartum
    - <48 hours = 5-39%
    - >48 hours = 5-17%

RISK FACTORS FOR PRE-E AND ECLAMPSIA

- Previous history of pre- eclampsia (RR 7.19)
- Antiphospholipid antibodies (RR 9.72)
- Pre-existing diabetes (RR 3.56)
- Twin pregnancy (RR 2.93)
- Nulliparity (RR 2.91)
- Family history of preeclampsia (RR 2.90)
- Obesity (RR 2.47)
- Maternal age ≥ 40 (RR 1.96)
- Chronic hypertension (RR 1.38)

ECLAMPSIA MANAGEMENT

- Clearly communicate diagnosis to team members and call for additional assistance
- Positioning patient
  - Left lateral decubitus
  - Raise bed rails/keep patient in safe position
- Maternal Care
  - Provide O_2 by facemask
  - Ensure good IV access
  - Don't neglect treating severe hypertension (>160/110) with IV medications
- Fetal Care
  - Continuous toco/FHRT
- Magnesium Sulfate
  - 6 grams IV over 15-20 minutes OR 10 grams IM (5 gram in each buttock)
  - If already on magnesium, give 2g bolus

ECLAMPSIA MANAGEMENT CONT'D

- The FHRT will demonstrate significant decelerations during the seizure
- **Delivery**
  - Fetal heart tracings may show decelerations in response to seizure. If decelerations resolve with stabilization of mother, can induce vaginal delivery
  - Continue to monitor and consider urgent delivery if no resolution of fetal bradycardia at approximately 10 minutes
- Continuing treatment with magnesium sulfate prevents recurrent seizures and decreases maternal mortality
- Treat hypertension aggressively as 15-20% of death from eclampsia is related to strokes

FUTURE CONSIDERATIONS

- With future pregnancies
  - Recommend preconception counseling and assessment for all women with a history of eclampsia
  - For women with a history of early-onset pre-e/eclampsia <34 weeks, or pre-e at any gestation in more than one pregnancy, recommend starting 81mg ASA in late first trimester
- Future surveillance
  - In women who have had pre-e/eclampsia <37 weeks or recurrent pre-e, recommend annual BP checks, lipids, fasting blood glucose, and BMI

REFERENCES & RESOURCES

- Hypertension in Pregnancy: Report of the American College of Obstetricians and Gynecologists' Task Force on Hypertension in Pregnancy. Obstet Gynecol, Nov 2013; 122(5):1122-1131.
- UpToDate:
  - Preeclampsia: Management and Prognosis
  - Eclampsia
  - Management of hypertension in pregnant and postpartum women
- Duckitt K, Harrnington D. Risk factors for pre-eclampsia at antenatal booking: systematic review of controlled studies. BMJ 2005;330:565.