Obstetrical Emergency

History
- Past medical history
- Hypertension meds
- Prenatal care
- Prior pregnancies / births
- Gravida / Para

Signs and Symptoms
- Vaginal bleeding
- Abdominal pain
- Seizures
- Hypertension
- Severe headache
- Visual changes
- Edema of hands and face

Differential
- Pre-eclampsia / Eclampsia
- Placenta previa
- Placenta abruptio
- Spontaneous abortion

Known or Suspected Pregnancy Missed Period Vaginal Bleeding Abdominal Pain

YES

- Left lateral recumbant position
- Blood Glucose Analysis Procedure
- IV or IO Access Protocol UP 6
- P — Cardiac Monior
- Abdominal Pain Vomiting and Diarrhea Protocol UP 3 ***if indicated***
- Diabetic Protocol AM 2/ PM 2 ***if indicated***
- Hypotension/ Shock Protocol AM 5/ PM 3 ***if indicated***

NO

Exit to Appropriate Protocol(s)

TXA / Blood Product Indicators:

Adult:
SBP ≤ 90 mmHg

Age ≥ 65
SBP < 100 mmHg + HR > 100

Peds:
SBP < {70 + 2(Age)}

Uncontrolled vaginal hemorrhage with signs of shock

YES

P — **TXA 2 gm IV / IO**
Peds: 20 mg/kg IV / IO
Infuse over 10 minutes
Maximum 2 g
See Pearls

NO

Seizure Activity

YES

NO

P — **Midazolam 10 mg IM**
Do Not Delay IM dose while trying to obtain IV / IO access

If IV / IO access available:
Midazolam 2 - 2.5 mg IV / IO
May repeat every 2 – 3 minutes
Maximum 20 mg

Peds: 0.2 mg/kg IM
Maximum single dose 10 mg

If IV / IO access available
Midazolam 0.2 mg IV / IO
May repeat every 2 – 3 minutes
May repeat every 3 to 5 minutes as needed
Maximum 10 mg

Magnesium Sulfate 2 g IV / IO
Over 2 – 3 minutes
May repeat x 1

- Childbirth/ Labor Protocol AO 1 **if indicated**
- Monitor and Reassess

Notify Destination or Contact Medical Control

Adult Obstetric Protocol Section

Obstetrical Emergency

Abruptio Placentae:

Abruptio Placentae is the premature separation of the placenta from the uterus. During second half of pregnancy < 5 % of patients will have vaginal bleeding.

About 30 % of vaginal bleeding during this period may result from Abruptio Placenta. Bleeding during this period may result in fetal distress and is considered an emergency.

Risk Factors:

Trauma, preeclampsia, maternal hypertension, women < 20 years of age, advanced maternal age (>35), smoking, prior Abruptio Placenta, multiparity or cocaine use.

Patients with vaginal bleeding, contractions, uterin / abdominal tenderness and decreased or no fetal movement may have this condition.

Placenta Previa:

Placenta Previa occurs when the placenta implants over the cervical os (opening.) This is a leading cause of vaginal bleeding in the second half of pregnancy. Bleeding is usually bright and painless though about 20 % will have some uterine irritability.

Advanced maternal age (>35), multiparity, smoking and prior C-section are risk factors for this condition.

Uterine Rupture:

Often occurs with onset of labor though more commonly after trauma.

This is usually signaled with severe abdominal pain and shock.

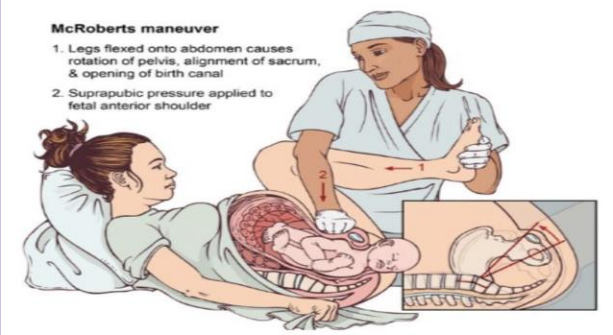
Active Seizure with no IV access:

Midazolam is preferred agent, give IM.

Very important to administer Magnesium Sulfate as the patient most likely has eclampsia, but give **Midazolam IM first** while you are trying to establish IV access.

FMC: Mothers ≥ 14 weeks gestation go to L&D.A

AHWFB: Mothers ≥ 12 weeks gestation go to L&D.



Pearls

- **Recommended Exam: Mental Status, Abdomen, Heart, Lungs, Neuro**
- **Midazolam 5 – 10 mg IM is effective in termination of seizures. Do not delay IM administration with difficult or no IV or IO access. With active seizure activity, benzodiazepine is a priority over magnesium sulfate.**
- **Magnesium Sulfate should be administered as quickly as possible. May cause hypotension and decreased respiratory drive, but more likely in doses higher than 6 gm.**
- **Any pregnant patient involved in a MVC should be seen immediately by a physician for evaluation. Greater than 20 weeks generally require 4 to 6 hours of fetal monitoring. DO NOT suggest the patient needs an ultrasound but emphasize patient needs 4 to 6 hours of fetal monitoring.**
- **Tranexamic Acid (TXA):**
  - **Postpartum hemorrhage: NOT indicated and should NOT be administered where birth occurred > 3 hours prior to EMS arrival.**
  - **Vaginal hemorrhage (not associated with pregnancy): May give with uncontrolled hemorrhage and/ or signs of shock.**
- **Ectopic pregnancy:**
  - Implantation of fertilized egg outside the uterus, commonly in or on the fallopian tube. As fetus grows, rupture may occur. Vaginal bleeding may or may not be present. Many women with ectopic pregnancy do not know they are pregnant. Usually occurs within 5 to 10 weeks of implantation. Maintain high index of suspicion with women of childbearing age experiencing abdominal pain.
- **Preeclampsia:**
  - Occurs in about 6% of pregnancies. Defined by hypertension and protein in the urine. RUQ pain, epigastric pain, N/V, visual disturbances, headache, and hyperreflexia are common symptoms.
  - In the setting of pregnancy, hypertension is defined as a BP > 140 systolic or > 90 diastolic mmHg, or a relative increase of 30 systolic and 20 diastolic from the patient's normal (pre-pregnancy) blood pressure.
  - Risk factors: < 20 years of age, first pregnancy, multi-gestational pregnancy, gestational diabetes, obesity, personal or family history of gestational hypertension.
- **Eclampsia:**
  - Seizures occurring in the context of preeclampsia. Remember, women may not have been diagnosed with preeclampsia.
- Maintain patient in a left lateral position, right side up 10 - 20° to minimize risk of supine hypotensive syndrome.
- Ask patient to quantify bleeding - number of pads used per hour.