Obstetric Emergencies

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Normal Pregnancy

Placenta
- Gas exchange
- Excretion

Umbilical Cord
- Contains fetal blood
- 2 arteries (deoxygenated)
- 1 vein (oxygenated)
Normal Pregnancy

- Increasing size of uterus
- Vena cava compression
- BP decreases
- HR increases
- Plasma volume increases
- Soft tissue changes
Obstetric Emergencies

• Normal Delivery
• Shoulder Dystocia
• Breech Delivery
• Umbilical Cord Prolapse
• Hemorrhage
• Eclampsia
Normal Delivery
Normal Delivery

First Stage  
*Dilation*

Second Stage  
*Delivery*

Third Stage  
*Placenta*
Imminent Delivery

- Crowning
- Urge to push
- Rectal/pelvic pressure
- Contractions every 2 minutes
Normal Delivery

• Position patient
• Towels
• Emergency delivery pack
• Coach through pushing
Step 1: Deliver Head

- Support
- Place hand on perineum
- Check for cord
Step 2: Delivery the Shoulders

- Face down (Occiput Anterior)
- Rotation
- Place hands
- Gentle downward and then upward
Step 3: Deliver the Body

- Usually comes out easily
- Slippery
- Stimulation
- Suction Mouth and Nose
Step 4: Stimulate Neonate

- Stimulation
- Warming
- Suction of Mouth/Nares
- Clamp/Cut Cord
Step 5: Placenta

- No traction
- Gently guide
- OK to keep in place
Breech Delivery
Breech Delivery

• Guide
• Do NOT pull
• Assist
• Keep head flexed
Breech Delivery
Umbilical Cord Prolapse
Umbilical Cord Prolapse

• Elevate presenting part away from cord
• Keep pressure off of cord
• Try not to palpate or hold cord
Umbilical Cord Prolapse

- Trendelenburg
- Consider knee-chest
- Keep presenting part elevated
- Oxygen
- Backfill bladder 500 cc
- Avoid upright/standing
Eclampsia
Eclampsia

- Preeclampsia
  - Hypertension
  - Proteinuria
  - Edema

- Top 3 causes of maternal death
- Fetal hypoxia or death
- Placental abruption
- Ultimate treatment is delivery
Eclampsia

- Nulliparity
- Maternal age $\geq 35$ years
- Obesity
- African American race
- Multifetal gestations
- Hx preeclampsia in previous pregnancy
Eclamptic seizure

• 1/1000 to 1/2000 deliveries
• Most common in the last trimester
• Usually within 24 hours of delivery
• Can be seen up to 10 days post partum
Eclamptic Seizure

• Maintain airway
• Padded tongue blade
• Suction airway, lateral position
• Control convulsions; MgS0₄
Magnesium Sulfate

- 4-6 g IV loading dose (not to exceed 1 g/min)
- 10 g IM (5 g each buttocks)
- 1-3 g IV per hour
- Monitor patellar reflexes
- Monitor urine output
- Mg levels 4-6 mEq/liter
Magnesium Sulfate

- Diminishing Reflexes
- Respiratory Depression
- Mental Status Changes
- Calcium gluconate can reverse
Blood Pressure Control

- Treat BP > 160/110
- Labetalol
- Hydralazine
- Ideally keep BP 140-150 / 90 - 100
- Avoid hypotension
Obstetric Hemorrhage
Obstetric Hemorrhage

- Miscarriage
- Ectopic Pregnancy
- Placenta Previa
- Placental Abruption
- Uterine Atony (after delivery)
Hemorrhage

- Uterine blood flow is 20% of cardiac output at term
- Acute blood loss causes hypovolemia
- Can occur anytime during pregnancy or puerperium
- Can threaten both mother and fetus
- Common cause of maternal death
Hemorrhage

- Two large bore IVs
- Fluid
- Blood products
- Bladder catheter
- Airway support
- $O_2$
Hemorrhage
Hemorrhage
Uterine Atony

- Boggy uterus
- Profuse bleeding
- Most common cause after delivery
Hemorrhage

- IV access
- Fluids!
- Mechanical compression and massage
- Place catheter
- Adequate personnel; call for blood
- Examine for retained placenta
Uterine atony

- Oxytocin (20-60 u) in 1000 cc LR or NS at 150-200 ml/hr
- Methylergonovine (Methergine) 0.2 mg IM (contraindicated with hypertension)
- Hemabate (carboprost thiomethamine) 250 mcg IM
- Misoprostol 800-1000mcg rectal
Shoulder Dystocia
Shoulder Dystocia

- Shoulder lodged behind pubic bone
- Downward traction does not deliver shoulder
Shoulder Dystocia

- Downward traction
- Flexion at hips (McRobert’s maneuver)
- Suprapubic pressure
- Turn to all 4s (Gaskin maneuver)
- Rotational maneuvers
- Delivery of posterior arm
Shoulder Dystocia
Shoulder Dystocia
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