Genitourinary, Gynecology, Obstetrical Tasks (10 items)

A. Genitourinary
   • Assess for urethral injury
   • Assess for flank tenderness and ecchymoses
   • Inspect genitals for inflammation, swelling, or injury
   • Manage urinary catheters
   • Identify signs and symptoms related to genitourinary emergencies
   • Apply physiologic principles when caring for patients with genitourinary emergencies
   • Administer genitourinary pharmacologic agents

B. Gynecology
   • Prepare vaginal or cervical specimens
   • Assess characteristics of vaginal discharge/bleeding
   • Interview victim of sexual assault
   • Collect forensic evidence from sexual assault victims
   • Identify signs and symptoms related to gynecological emergencies
   • Apply physiologic principles when caring for patients with gynecological emergencies
   • Administer gynecological pharmacologic agents

C. Obstetrical
   • Perform neonatal resuscitation following emergency delivery
   • Position a patient in labor with a prolapsed cord
   • Assist with emergency delivery of fetus
   • Assess for presence of fetal heart tones
   • Identify signs and symptoms related to obstetrical emergencies
   • Apply physiologic principles when caring for patients with obstetrical emergencies
   • Administer obstetrical pharmacologic agents
Primary Disease States include:
- abortion (i.e., vaginal bleeding in early pregnancy),
- assault (i.e., sexual; including evidence collection), bartholin's cyst, bleeding/dysfunction (vaginal)
- discharge (e.g., vaginal; monilia, gardnerella, yeast), ectopic pregnancy, emergency delivery, epididymitis
- foreign bodies, genital trauma, hemorrhage (postpartum), hyperemesis gravidarum, kidney trauma, newborn resuscitation
- other genitourinary (e.g., prostatitis, benign prostatic hypertrophy
- orchitis, urinary retention, phimosis)
- ovarian cyst, PID (Pelvic inflammatory disease), preeclampsia, eclampsia,
- HELLP syndrome, placenta previa and abruptio (i.e., vaginal bleeding in late pregnancy), preterm labor
- pyelonephritis, renal calculi, ruptured bladder, testicular torsion, trauma in pregnancy, and UTI (urinary tract infection).
Obstetric Emergencies

- Vaginal Bleeding
  - Spontaneous abortion
  - Placenta Previa
  - Abruptio Placenta
- Ectopic Pregnancy
- Trauma in Pregnancy
- PID
- Sexual Assault
Vaginal Bleeding in Pregnancy

- Spontaneous Abortion
  - The natural loss of pregnancy before 20 weeks of gestation
  - Fetal chromosomal anomalies account for 50% of miscarriages before 8 weeks of gestation
- Other causes
  - Endocrine abnormalities, maternal infection, uterine fibroids, endometriosis
- Approximately 10-15% of all pregnancies end as a result of spontaneous
- Should be considered in any woman of childbearing age who presents to the ED with vaginal bleeding
Spontaneous Abortion

- Classification of Spontaneous Abortion
  - Threatened Abortion
    - Slight vaginal bleeding and mild uterine cramping with a closed cervical os
  - Inevitable
    - Moderate vaginal bleeding and moderate uterine cramping with an open cervical os and gross rupture of membranes
  - Incomplete
    - Heavy vaginal bleeding, severe uterine cramping with an open cervical os and tissue in the cervix, incomplete expulsion of the products of conception
  - Complete
    - Slight vaginal bleeding, mild uterine contractions with a closed cervical os/complete expulsion of the products of conception
  - Missed
    - Slight vaginal bleeding and no uterine contractions with a closed cervical os, prolonged retention of dead products of conception
  - Septic
    - Malodorous vaginal bleeding/discharge and absent uterine contractions with a closed cervical os, fever, intrauterine infection
Diagnostic Procedures

- Serum and/or urine pregnancy test (include Quantitative)
- CBC with differential
- Type and Cross match
- Urinalysis
- STD screening
- Pelvic Sonography
  - Rule Ectopic Pregnancy
  - Assess viability of fetus and gestational age
  - Diagnose retained products of conception
What do we do?

• RhoGAM to ALL Rh-negative women
• Pitocin or Methergine
• Non-narcotic analgesics
• Antibiotics
• Education
  • Threatened abortion
    • Bed rest, pelvic rest, no tampons
    • Return to ED if bleeding or pain increases
    • Save clots or tissue
    • Follow-up
  • Complete abortion
    • Mild abdominal pain/cramping is experienced for several days
    • Avoid tampons
    • Temperature four times a day
    • Pelvic rest
    • Medications: Methergine, non-narcotic analgesics, NSAIDS, antibiotics
    • Follow-up
    • Activity as tolerated
    • Return to the ED if temperature higher than 100.6 or bleeding, pain, or foul-smelling discharge occurs or increases

Placenta Previa

- Placenta is abnormally implanted in lower uterine segment and partially or completely obstructs the internal cervical os
- Occurs in early pregnancy 45% of the time, but resolves by delivery in all but 1%
- No pelvic examinations unless you are sure this is not a previa
- Placenta previa and abruptio placentae are the most serious causes of vaginal bleeding in the second and third trimesters of pregnancy

http://www.ghi.com/WebMD/topics/placentaprevia.jpg
Placenta Previa

- Sudden onset of bright red vaginal bleeding; may be profuse
- Usually pain is absent
- If it remains near the cervix as due date nears, which happens in about one in 200 pregnancies, woman at risk for bleeding, especially during labor as the cervix thins (effaces) and opens (dilates).
- This can cause major blood loss
- For this reason, women with a placenta previa are usually delivered by cesarean section.
Abruptio Placentae

- Emergent OB condition
- Related to 15% of all perinatal deaths
- Damage to the vascular placental bed can cause a significant amount of blood loss, resulting in maternal hypotension and hypovolemic shock
- The loss of this circulation causes fetal distress or demise
- DIC may occur
- Hallmark of abruption is vaginal bleeding with uterine tenderness or pain
- Bleeding may be concealed
- Bed rest for several weeks in the hospital
- Emergent C-Section
- Emergent Hysterectomy
Ectopic Pregnancy

- The implantation of the fertilized ovum outside the normal uterine cavity
- About 95% of EPs are implanted in the fallopian tube (usually the right tube)
- When the EP invades the tubal wall too deeply or grows to large, it can rupture the tube
- The ruptured tube leads to severe pain, intraperitoneal hemorrhage, and hemorrhage shock

Ectopic Pregnancy

- If there is a rupture, surgery (laparotomy) is done to stop blood loss. Surgery is also done to:
  - **Confirm an ectopic pregnancy**
  - **Remove the abnormal pregnancy**
  - **Repair any tissue damage**
  - Methotrexate may be given to shrink the ectopic
Pregnancy Induced Hypertension

- PIH is synonymous with preeclampsia-eclampsia
  - Preeclampsia
    - Hypertension
    - Proteinuria
    - Nondependent edema
    - Occur after the 20th week of pregnancy
  - Eclampsia
    - Extension of preeclampsia
    - Convulsions
    - Coma
    - Both
    - Occurs during pregnancy but also in the early postpartum period
- HELLP syndrome
  - Severe, life-threatening variant of pre-eclampsia
    - Hemolysis
    - Elevated liver enzymes
    - Low platelets
A 23-year old woman who is 38 weeks pregnant comes to triage with onset of spontaneous, bright red, painless vaginal bleeding. The most likely cause of bleeding is:

a. Placenta abruption
b. Placenta previa
c. Ruptured uterus
d. Vaginal tears
A. Placenta abruption

B. Placenta previa is a condition in which the placenta is abnormally implanted in the lower uterine segment. It may partially or completely cover the cervical os. As the cervix starts to dialate, the placenta may be torn and bleeding will be bright red as opposed to the darker blood often associated with an abruption. Early dilation may not be felt by the mother; therefore, there is no pain associated with early bleeding of a previa.

C. Ruptured uterus

D. Vaginal tears
Question #2

Which of the following would be the best indicator of a viable fetus?

a. Four “kicks” over the course of an hour in a term fetus
b. Fetal heart rate greater than 160 beats/minute
c. Fundal height of 26 centimeters (cm) or more above the symphysis pubis
d. Maternal report of contractions every three minutes
Answer and rational:

- A. Four kicks over the course of an hour in a term fetus
- B. Fetal heart rate greater than 160 beats/minute
- C. **Fundal height measured 26 cm above the symphysis pubis is indicative of a 26-week-old fetus, which is considered viable.**
- D. Maternal report of contractions every three minutes
Question #3:

Pregnancy-induced hypertension (PIH) may be manifested by all of the following subjective signs EXCEPT:

a. visual changes
b. right-sided abdominal pain
c. increased urine output
d. headache
Answer and rational:

A. visual changes.

B. right-sided abdominal pain.

C. Subjective signs of PIH may include visual changes, headache, right-sided upper abdominal pain, and decreased urination, all related to hypertension and vasospasm.

D. headache.
Question #4:

A patient who is pregnant with her third child comes to the emergency department complaining of a headache, swelling of her ankles, and a blood pressure of 150/90 mmHg. The nurse notices a fine red rash on the patient’s abdomen. A priority lab test for this patient would be:

a. urinalysis
b. complete blood count (CBC)
c. liver enzymes
d. basic chemistry panel
The patient is exhibiting hallmark signs of HELLP (Hemolysis, Elevated Liver Enzymes, Low Platelets), and a liver enzyme blood test would be beneficial in diagnosing this problem.
Question #5:

An abnormal finding in a patient in the third trimester of pregnancy would be:

A. Hypertension
B. Increased heart rate
C. Decreased arterial pressure of carbon dioxide
D. anemia
Answer and rational:

- **A. Hypertension:**
  - Blood pressure should not change during any part of a normal pregnancy.

- **B.** Heart rate normally increases during pregnancy.

- **C.** Respiratory rate normally increases during pregnancy, leading to hyperventilation, which drives the PaCO$_2$ down.

- **D.** Anemia develops because of increased iron requirements by mother and fetus, as well as hemodilution from increased plasma volume.