N432 Focus Sheet 1 - Fall 2019

Ricci, Kyle & Carman Ch (3) 4,5, 10, 11, & 12

ATI Ch 1-6 & 8

R,K, & C Ch 3—While this Chapter is technically not on the Exam, you must know these topics as the basis for other processes about which you will learn.

1. Provide a brief description of the external female reproductive organs.

a. Mons pubis: fatty tissue lying over the joint of the pubic bones

b. Labia majora: folds of tissue that extend down from the mons pubis and surround the vaginal and urethral orifices. Contain fat, pubic hair, sweat, and oil glands

c. Labia minora: cutaneous folds between labia majora and extend form the clitoris anteriorly

d. Clitoris: lies anterior of the two labias

e. Perineum: support the urogenital and gastrointestinal system, important roles in micturition, defecation, sexual intercourse, and childbirth

2. Provide a brief description of the internal reproductive organs.

a. Ovary - organ found in the female reproductive that produces an ovum during ovulation and also produce the reproductive hormones estrogen and progesterone, there is a right and left ovary

b. Fallopian tube - tube in which eggs travel from the ovaries to the uterus, there is a right and left fallopian tube

c. Uterus - hollow, muscular organ in which the fertilized ovum normally becomes embedded and develops into a growing fetus

d. Fundus of uterus - broad, curved upper area of the uterus in which the fallopian tubes are attached

e. Cervix - the lower, narrower portion of the uterus, the cervix forms a canal that opens into the vagina

f. Vagina - muscular canal that extends from the cervix to the outside of the body, lined with mucous membrane

3. Menstrual Cycle hormones

Hormone	Purpose
Estrogen	During puberty, estrogen aids in the development of secondary sex characteristics. After puberty, it regulates the menstrual cycle by controlling the growth of the uterine lining during the first portion of the cycle
Progesterone	Aids in thickening the lining of the uterus each month, regulating the

	menstrual cycle - also plays a role in sexual desire
Prostaglandins	Trigger uterine muscle contractions, higher levels of prostaglandins are associated with more severe menstrual cramps

R,K & C Ch 4; ATI Ch 1,2

1. Define infertility. How can you as the nurse educate a couple on infertility causes and treatments?

-The inability to conceive a child after one year of sexual intercourse unprotected by contraception.

-Risk factors include being under/overweight, hormonal imbalance, uterine fibroids, decreased oocyte, STI, smoking , and alcohol intake.

-Treatments include fertility drugs, artificial insemination, IVF, and surrogacy.

2. What is IVF?

-In vitro-fertilization. Oocytes are fertilized in the lab and transferred to the uterus.

-Indicated for tubal obstruction, endometriosis, pelvic adhesions, and decreased sperm counts.

4. Birth Control options (9)

Type	**action**	**Side effect**	**Pro/con**	**Contraindications/ Risks**	**Important Patient Teaching**
1. Coitus interruptus	Withdrawal of penis from vagina prior to ejaculation.	Pregnancy, Premature ejaculation	PRO: Can be spontaneous CON: Only works if the partner is VERY in-tuned with the body- not reliable and will not always work.	Risks: Influenced by male partner's control; Leakage of fluid that contains sperm prior to ejaculation can be deposited in vagina; Risk of pregnancy.	-Be aware of fluids leaking from the penis. -High likelihood of getting pregnant -Unlikely to work
2. Lactational amenorrhea method (LAM)	Planning intercourse around lactation and ovulation cycles	Unplanned pregnancy	PRO: No hormones or implantations are used. Considered a very "natural"	Women who are separated from their baby for long intervals or more than 4-6 hrs at a time	-Can be initiated any time during the first 6 mos postpartum -Breastfeed freq.,both day and

			method. CON: Unplanned preggo is VERY likely		night. -Expressing breast milk may not be as effective as baby suckling at the breast in suppressing ovulation, decreases the level of contraceptive protection. -A chance of an unplanned preggo is likely esp. if no other BC methods are used.
3. Condom	Physical barrier method of birth control	Rip or tear is a possibility	PRO: protect against some STIs; involves male in the BC method; no adverse effects; readily accessible. CON: Needs education.; non-compliance; reduces spontaneity; penis needs to be erect; high cost new one every time.	-Allergic to latex	-Use a new condom every time d/t friction with use -Leave space at the top ~ ½ inch -Open just before use -Sizes vary, choose one that fits. -Only use with H2O-soluble lube to avoid breakage.
4. Diaphragm	Place inside vagina and stays in place	Can cause Toxic Shock Syndrome (TSS), esp. if pt. has history of TSS	PRO: Gives the woman more control over contraception; can be inserted 6 hr before sex. CON: Needs to be washed and kept	Toxic Shock Syndrome (TSS)	-Needs to be refitted ever 1-2 yr **OR** w/ 10 lb weight loss, 20% change in body weight **OR** has baby **OR** after abdominal or pelvic surgery. -Place 6 hr before sex and leave in 6 hr after. DO NOT

			clean; needs replacing		LEAVE IN LONGER THAN 24 hrs!
5. Oral contraceptives (combination & progestin only)	Hormonal birth control	Increases risk of migraines, breast cancer, DVT, stroke, HTN, gallbladder disease; liver tumor.	PRO: Less invasive; decreases menstrual cramps and risk of osteoporosis CON: Increased risk of breast cancer and migraines. Antibiotics make less effective.	-History of thrombolytic disorders such as stroke, HA, CAD, gallbladder disease, cirrhosis, HA w focal neuro sx, DM, preggo, lactating, less than 6 wk postpartum -Smokers over the age of 35 y/o -Meds that affect liver enzymes such as: anticonvulsants and some antibiotics.	-Take all pills including placebo -If a dosage is missed, take one ASAP and use alternative forms until reg. Dose is resumed. -Meds req. a prescription and follow-up with doc. -Observe for s/sx of adverse side effects such as: chest pain, SOB, leg pain from possible clot, HA, eye problems from a stroke, HTN.
6. Natural Family Planning (Fertility Awareness-based methods)	Natural birth control by calendar method (Avoid sex during ovulation period, occurs ~ 14 days before the onset of next menstrual cycle)	Pregnancy is likely to occur	PRO: Inexpensive CON: invasive looks at cervical mucus; No STI protection; accurate record keeping	-Unpredictable menstrual cycles	-Record number of days in each cycle counting from the first day of menses for a period of at least six cycles. -The start of fertile period is figured by subtracting 18 days from the number of days in the woman's shortest cycle. -The end of the fertile period is est. by subtracting 11 days from the number of days of the longest cycle. -Need to have regular periods -Need period of absence before and after ovulation
7. Intrauterine	Hormonal	Increased risk of	PRO: Easy to	Active pelvic	-Most effective

devices (IUD)	birth control	ectopic pregnancy	remove with pull strings--fertility immediately regained. Most effective*** control outside of abstinence; 3-5 yrs. CON: Risk of inflammatory pelvic disease; irregular menstrual bleeding; ectopic pregnancy; uterine perforation; painful.	infection, abnormal uterine bleeding, severe uterine distortion. Copper IUD: Wilson's disease and/or copper allergy.	outside of abstinence. -Failure rate is 1/100 -Use a tenaculum and "set" to determine where to place. -Pt NEEDS to check strings MONTHLY to ensure IUD is in the correct spot and has not migrated.
8. **Methoxyprogesterone "Depo"**	Hormonal birth control IM and SubQ injection q 11-13 wks	Weight gain	PRO: not a daily med; get inj. every 11-13 wks CON: Painful IM shot; weight gain; unpredictable menses schedule	-Breast cancer, evidence of cardiovascular disease, abnormal liver function, liver tumors, and unexplained vag. bleeding.	-IM injection every 11-13 wks, start first 5 days of pt.'s menstrual cycle or 5 days following delivery. -Period may or may not be present after 6 months -Maintain adequate calcium and Vit. D intake.
9. Subdermal implant	Hormonal birth control containing etonogestrel that is subdermally implanted on the inner side of the upper aspect of the arm.	-Efficacy declines w/ use of anticonvulsants and antibiotics	PRO: No daily maintenance; less weight gain than depo--releases hormones slowly; can leave in for 3 yrs for easy compliance. CON: Can migrate; need	Unexplained vaginal bleeding; lupus; severe cirrhosis; liver tumors; breast cancer	**-**Fertility restored immediately after removal -Efficacy declines w/ use of anticonvulsants and antibiotics -Avoid trauma to the area of implantation

			to put in/take out by professional; irregular menstrual bleeding; No STI protection; can cause mood changes, HA, acne, depression, decreased bone density, and wt. gain.		

5. What does PAINS stand for?

Complications of an IUD.

- Periods
- Abdominal Pain
- Infection exposure
- Not feeling well
- Strings (Long, short, or missing)

6. Name the three forms of sterilization and provide a description for each.

1. **Bilateral Tubal Ligation (female sterilization):** A surgical procedure consisting of severance and/or burning or blocking the fallopian tubes to prevent fertilization.
2. **Transcervical Sterilization:** Insertion of small flexible agents through the vagina and cervix into the fallopian tubes. This results in the development of scar tissue in the tubes preventing contraception. Follow-up exam in 3 mos to confirm blockage in the fallopian tubes.
3. **Vasectomy (male sterilization):** A surgical procedure consisting of ligation and severance of the vas deferens.

7. Discuss the differences between surgical and medical abortion.

- Surgical abortion is done by using suction to empty the uterus, the cervix is numbed and dialted and a tube is placed inside the uterus where suction is used to remove its contents. It can be done 6-14 weeks since the first day of the last menstrual period. Women are asked to wait until six weeks of pregnancy to decrease the possibility of leaving all or part of the pregnancy behind after the surgical procedure.
- Medical abortion uses a combination of drugs to cause the uterine lining to shed. The first medication causes the pregnancy to discontinue development. 1-3 days after administration of the first medication, a second medication is inserted vaginally causing uterine contractions, cramping and bleeding, after this the patient will return for an exam to ensure the effectiveness of the abortion. It can be done 4-9 weeks since the last menstrual period. Medical abortion can be performed as soon as a woman knows she is pregnant.

Infections RKC Ch 5 & Ch 20 pp 760 -771 ; ATI Ch 8

1. What are the TORCH infections which negatively affect a woman who is pregnant?

- Toxoplasmosis
- Other Infections (Hepatitis)
- Rubella Virus
- Cytomegalovirus
- Herpes Simplex Virus

These infections can cross the placenta and have teratogenic effects on the fetus.

2. What is the treatment for Chlamydia?

- Antibiotics. Azithromycin 1 gm PO once

  OR

- Doxycycline 100 mg PO BID for 7 days

3. What is the treatment for Gonorrhea?

- Antibiotics. 250 mg of Ceftriaxone OR
- 1 gm PO Azithromycin

4. Which pregnant women should be screened for Syphilis?

- All pregnant women should be screened at the first prenatal visit, and rescreened in the third trimester if at high risk.
  - If left untreated, may result in pre term/still birth, miscarriage or low birth weight.
  - Can become life threatening and can be passed to baby aka “congenital syphilis” which causes blindness, death, deformed bones, severe anemia, jaundice, meningitis.

When should they be screened?

- The first trimester, then third if at high risk (Multiple partners, unprotected sexual practices)
  - If positive, during 6, 12, and 24 wks thereafter

What are the names of the tests used for screening?

- Serology tests: (Will determine positive serology even in latency of the infection)
  - Nontreponemal (VDRL and rapid plasma reagin (RPR))
  - Treponemal (Enzyme immunoassay, immunoassays)

5. Why are pregnant women at higher risk for Candidiasis infection?

- This is due to changes in the immune system, increased production of glycogen, and higher estrogen levels during pregnancy.

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7. If a pregnant woman is diagnosed with HIV infection, what treatment would you anticipate for the mother and the infant?

- Antiviral prophylaxis
- Triple-medication antiviral
- Highly active antiretroviral therapy as prescribed.
- Retrovir should be administered at 14 weeks gestation, throughout the pregnancy, and before the onset of labor or cesarean birth.

8. Why are genital herpes a problem for a pregnant woman? What is the treatment?

- If lesions are present, they may not be able to have a vaginal birth.
    - Possible IF there are NO lesions present AND Pt. is taking antivirals.
- Herpes crosses the placenta and has teratogenic effects on the fetus.
- No cure, treatment methods:
    - Acyclovir
    - Other antiviral medications (Valtrex @ 37 wks to suppress episode)

9. Discuss each of the following for cytomegalovirus:

Pathophysiology	A common virus that typically causes no harm in healthy individuals, but can be harmful during pregnancy to a developing fetus - can cause hearing loss, intellectual disability, vision problems, seizures, lack of coordination, weakness and other musculoskeletal problems
Nursing Assessment	Babies born with CMV: premature birth, low birth weight, jaundice, purple skin splotches/rash, microcephaly, enlarged spleen, pneumonia, seizures
Testing	Blood screening is done to detect the virus in the mother, if detected an amniocentesis is done to determine if the infection has been passed to the fetus, if suspected the baby is infected testing should be done in the first 3 weeks of life
Management	Treatment is dependent on severity of symptoms but is typically treated with antiviral medications
Patient education needs	Health promotion to avoid contracting the virus, it is spread through contact with infected bodily fluids (droplet precaution). Encourage proper hand hygiene and to avoid contact with sick individuals

10. Discuss each of the following for Group B streptococcus:

Pathophysiology	Gram-positive bacteria which colonizes in the GI and GU tracts; can be passed to a fetus during labor and delivery

Nursing Assessment	Premature rupture of membranes, preterm labor and delivery, chorioamnionitis, infections of the urinary tract, maternal sepsis
Testing	Vaginal and rectal cultures are performed at 35-37 weeks
Management	Penicillin G or ampicillin are most commonly prescribed IV
Patient education needs	Instruct the client to notify the labor and delivery nurse of GBS status

11. Discuss each of the following for Hepatitis B: p. 198

Pathophysiology	Serious infection of the liver caused by hepatitis B virus (HBV), can develop into a chronic condition
Nursing Assessment	Abdominal pain, dark urine, fever, joint pain, loss of appetite, nausea and vomiting, weakness/fatigue, jaundice
Testing	Can be detected through blood screening, liver ultrasound, and liver biopsy
Management	Acute forms of hepatitis B can often resolve on their own, if the infection becomes chronic (lasting longer than 6 mos.) antiviral medications, interferon injections, and possibly a liver transplant can be treatment options
Patient education needs	Encourage patient to receive vaccine. Educate patient on how the disease is transmitted and how to prevent it. Practice safe sex, don't use illicit drugs.

R,K,& C Ch 10

1. **Briefly define the difference between pre embryonic, embryonic, and fetal stages of development.**

- The pre embryonic stage is also called conception and begins with fertilization. A zygote is formed and implantation after conception in the endometrium.
- In the embryonic stage basic structures of all major body organs and the main external features are completed.
- During the fetal stage growth of all organ systems.

2. List 5 functions of the placenta. See RKC Chapter 10 pp 342-3

- The placenta is the interface between the mother and the developing fetus
- it makes hormones that control the physiology of the mother
- it protects the fetus from immune attack
- removes waste products from the fetus
- induces the mother to bring more food to the placenta.

R,K,& C Ch 11; ATI Ch 3, 4, 5

1. Braxton hicks contractions-False contractions that are painless, irregular, and usually relieved by walking

Hegar's sign-Softening of the lower uterine segment or isthmus

Goodell's sign-Softening of the cervix

Chadwick's sign-Deepened violet-bluish color of cervix and vaginal mucosa

Ballotment-Rebound of unengaged fetus

2. What is hCG? Why is it so important to watch during pregnancy?

- Human Chorionic Gonadotropin
    - It is the hormone that is detected on home (urine) and blood pregnancy tests. Test in AM
    - Supports the corpus luteum which maintains pregnancy until the placenta takes over
    - Higher levels can indicate multifetal pregnancy, ectopic pregnancy, hydatidiform mole, or a genetic abnormality, such as Down syndrome.
    - Low levels might suggest a miscarriage or ectopic pregnancy.

3. What causes a supine hypotensive syndrome in a pregnant woman? How can we educate her to prevent this?

- Blood pressure appears low due to weight and pressure of the uterus on the vena cava, this decreases blood flow to the heart.
- Pt. Education
    - Position on the left lateral side, semi fowlers or with a wedge placed under one hip in supine to alleviate pressure to the vena cava

4. In your own words, *BRIEFLY* summarize the expected changes a woman will see in each of the following: p. 377

- Uterus- Increases in size and changes shape and position
- Cervix-Becomes a purple/blue color and softens
- Vagina- Labia majora and minora can increase in size. The skin of both may also darken.
- Ovaries-Ovulation stops.
- Breasts-Grow larger and areolas darken

Gastrointestinal system nausea and vomiting, hormonal changes, constipation might occur, leading to hemorrhoids (instruct your pt. to increase fiber intake and use stool softener)

Cardiovascular system- if your pt. has had previous heart issues, watch for this, cardiac output increases 30%-40%, blood volume increases 30%-45%, HR increases (10-15/minute during pregnancy beginning around week 5 and reaches a peak at 32 weeks)

Respiratory system - lung capacity will decrease, during the LAST trimester the size of the chest might enlarge, allowing for lung expansion as the uterus pushes upward

Renal/urinary system- filtration rate increased, increased blood volume and metabolic demands, amount of urine produced remains the same, urinary frequency is common

musculoskeletal system- weight increases, pelvic joints relax, increased risk of falls during pregnancy

Integumentary system- Chloasma: increase of pigmentation on the face, Linea nigra: dark line of pigmentation from the umbilicus extending to the pubic area, Striae gravidarum: stretch marks most noticeably found on the abdomen and thighs. Melasma “mask of pregnancy” - blotches of pigmentation

Vascular related changes- Diastolic pressure decreases 10-15 mmHg mid-preg then back up by term. Fibrin and plasma fibrinogen levels increase making preggo a hypercoagulable state and puts mom at risk for developing blood clots.

Endocrine system- controls the integrity and duration of gestation by maintaining the corpus luteum via hCG secretion; production of estrogen, progesterone, hPL., and other hormones and growth factors via the placenta; release oxytocin (posterior PIT), prolactin (anterior PIT), and relaxin (by the ovary, uterus, and placenta).

Thyroid- enlarges and becomes more active

Pituitary- Releases oxytocin (posterior PIT) and prolactin (anterior PIT)

Pancreas- more insulin is secreted

Adrenal glands- renal pelvis becomes dilated. GFR increases 40-60%.

Prostaglandin secretion- Oxytocin stimulates uterine muscles to contract

Placental secretion- Promotes mammary gland growth in preparation for lactation.

Immune system- General enhancement of innate immunity (inflamm. Response and phagocytosis) and suppression of adaptive immunity (protective response to specific antigens) during pregnancy. These alterations help prevent the mother’s immune system from rejecting the fetus (foreign body), increase her r/o developing certain infections, and influence the course of chronic disorders such as autoimmune dX.

5. Why are pregnant women often diagnosed with anemia?

- Hemodilution
    - There is a greater expansion of plasma volume compared to the increase in red cell volume, iron deficiency is the most common.
    - Fetus acquiring RBC’s and depletes storage from mom

6. What important roles does each of the following placental hormones play in pregnancy? P. 376

- **hCG (human chorionic gonadotropin)**
    - build at implantation, peaks at 60-70 days, declines until 100-130 days into pregnancy. Will then gradually rise until term (begin rising at conception, peak at 60-70 days, gradually decrease until 130 days then gradually increases again). If pt. Is higher risk, a bleeder, or has abnormal scans, pt. Will be monitored.
    - Lower levels of hCG or not doubling is a sign that something is wrong with the pregnancy.
    - Supports corpus luteum which maintains pregnancy until the placenta takes over

        - Once the placenta takes over it will release estrogen and progestin, removes waste, gives baby the required nutrients and O2 needed to grow via umbilical cord attached to the placenta and baby, and protect the baby from immune attacks from the mom.
- **hPL (human placental lactogen)**
    - Perpetration of mammary glands for lactation and involved in the process of making glucose available for fetal growth by altering the maternal carbohydrate, fat, protein metabolism. Antagonist of insulin - decreasing tissue sensitivity to insulin and causes glucose to rise.
- **Relaxin**
    - A hormone secreted by the placenta and corpus luteum that causes the cervix to dilate and prepares the uterus for the action of oxytocin during labor. Acts synergistically with progesterone to maintain pregnancy. Increases the flexibility in the pubic symphysis, permitting the pelvis to expand during delivery. Aids in dilation of the cervix making it easier for the fetus to enter the vaginal canal which is thought to suppress the release of oxytocin, delaying the onset of labor contractions.

- **Progesterone**
    - “Hormone” of pregnancy because of the critical role in supporting the endometrium in preparation for birth. Made by the corpus luteum in the first weeks, then by the placenta until term. Causes the thickening of the uterine lining in anticipation of implantation of fertilized egg. Maintains endometrium, inhibiting uterine contractility and assists in the development of breast/lactation.
- **Estrogen**
    - Promote enlargement of genitals, uterus, breast and increases vascularity causing vasodilation. Relaxation of pelvic ligaments and joints. Associated with hyperpigmentation, vascular change to skin, increased activity of salivary glands, hyperemia of gums and nasal mucosa. Aids in the development of ductal system of the breasts in preparation for lactation.

7. Why are folic acid, iron and prenatal vitamins important for pregnant women?

- Folic Acid
    - Needed for fetal neurological development and fetal neural tube development (spine), abdominal development, and spine. Also, reduces birth defect risks like spina bifida and anencephaly. If pt. Cannot tolerate pill form of folic acid, they should get it from food sources
        - Dark leafy greens, dried peas/beans, seeds, orange juices, breads, cereals, grains that are fortified with folic acid
        - Women not preg. But of childbearing age require 400 mcg
        - Women preggo require 800 mcg
- Iron
    - Needed to combat anemia and increase maternal RBC mass. Delivers O2 to baby. May prevent the baby from being born early or being too small. May cause constipation so pt. Advised to increase fiber, fluids, and exercise. Take in between meals is ideal but will

likely cause GI upset. Best to take with a glass of OJ because it contains both folic acid and calcium as well.
    - Food sources: beef liver, red meats, dry beans/peas, fortified cereals or breads.
    - Req 18-30 g/day
- Prenatal vitamins (Main: Folic acid, Fe, Calcium)
    - Adequate nutritional intake during pregnancy is essential to promoting fetal and maternal health, hard to get recommended doses from food alone.
        - Calcium recommendation 1000 mg/day
        - Food sources for Ca: Milk, fortified soy milk, dark leafy greens, nuts, legumes.

What are some good sources for folic acid and iron that you can educate pregnant women to consume?

- **Folic Acid:** Dark leafy greens, dried peas/beans, seeds, orange juices, breads, cereals, grains that are fortified with folic acid
- **Iron:** Beef liver, red meats, dry beans/peas, fortified cereals or breads.

8. After reading over the general guidelines on p 378 and the MyPlate guidelines on p 379, please write out a daily food plan in the table below:

Breakfast	snack	Lunch	snack	Supper	snack
1 cup milk	1 apple	2 oz chicken breast	1 cup of strawberries	3 oz salmon	8 oz yogurt
½ cup cereal	1 cup carrots	1 cup cooked broccoli	0.5 oz of nuts	1 baked potato	
1 slice of bread w/...		2 oz processed cheese		½ cup cooked pasta	
1 tablespoon of peanut butter		2 slice bread		1 cup cooked black beans	
1 banana				1 cup tomato juice	

9. What would you tell a pregnant woman who asks you what she should avoid eating during her pregnancy? What if she asks how much weight she should gain?

No! --

- Alcohol
    - Can cause fetal alcohol syndrome and malformations
- Tobacco
    - Can cause low birth weight
- Fish (exceptions: salmon, wild cod)

    - High mercury content, example: Tuna
    - Raw: No sushi
- Lunch meat (cold)
    - Risk of infection of listeria

Moderation --

- Caffeine
    - Limit to less than 200 mg/day (500-700 mL coffee/day) d/t risk of spontaneous abortion or fetal intrauterine growth restriction and children could have learning disabilites later such as ADHD

Weight Gain --

- BMI/Weight = (18.5-24.9) Healthy, 25-35 lbs
    - 1st trimester: 2.2-4.4 lbs total
    - 2 & 3rd trimester: 1 lb/wk
- BMI: less than 18.5 (underweight), 28-40 lbs
    - 1st trimester: 5 lbs total
    - 2 & 3rd trimester: 1 lb/wk
- BMI greater than 25 (overweight), 15-25 lbs

10. Why is pica? What often precedes the identification of pica?

- Intense craving/impulsive ingestion of substances which are not food and have no nutritional value. Common are: clay, soil, laundry starch. Can mean nutrient deficiencies, not due to anemia but may be the result of anemia.
    - Ice cravings is not pica, but can mean pt. Has anemia
    - History for pica in family, more common in African American women and those from rural areas.

11. In your own words explain what each of the following mean in reference to a pregnant woman. P. 386

- Ambivalence
    - Realizing that pregnancy can lead to up and down responses.
- Introversion
    - Focused on self
- Acceptance
    - Reality sets in during 2nd trimester d/t growing belly and physical changes
- Mood swings
    - Emotional outbursts throughout pregnancy d/t increased hormones.

12. How can pregnancy change the mother's image of herself? Her sexuality? Her relationship with her partner?

- During the second trimester, physiological changes are rapid due to the enlargement of the abdomen and breasts. Stretch marks appear and hyperpigmentation, this can alter a women's

mobility causing her to lose balance. These may lead to negative body image causing self confidence issues with partner, and isolation.

R, K, & C CH 12; ATI Ch 4,5, & 6

1. Why is preconception care important?

- It promotes a safe pregnancy and fosters positive feelings during the experience. Prenatal care dramatically reduces infant and maternal morbidity and mortality rates by early detection and treatment.
- Care prior to becoming pregnant allows us to look at pt. Health and assist them in making beneficial changes
    - Ex: Elevated BP, may need to alter meds during pregnancy
- Establish trust, detection of potential problems, comprehensive history and physical exams can be obtained to establish baseline.

2. What types of information should be obtained at the first prenatal appointment?

- Determine estimated date of birth based on last menstrual cycle,
- obtain medical and nursing history to include social supports and rvre of systems,
- perform a physical assessment to include a client's baseline weight, vitals, and pelvic exam,
- obtain lab tests
    - including hemoglobin, hematocrit, WBC, blood type, and Rh, rubella titer, urinalysis, renal function tests, pap test, cervical cultures, HIV antibody, hepatitis B surface antigen, toxoplasmosis, and RPR or VDRL.

3. What are the thresholds for diagnosis of overt diabetes during pregnancy?

- Fasting plasma glucose: 126 mg/dL
- Hg A1c: At least 6.5%
- Random plasma glucose: 200 mg/dL
    - Pt. needs 2 elevated readings in order to diagnose
- One hour glucose done at the initial visit for at-risk clients and at 24-28 weeks of gestation for all pregnant women.
- Greater than 140 mg/dL requires follow up.
- Three hour glucose tolerance used in clients who have elevated 1 hour glucose tests.

4. Calculate the following estimated due dates using Nagele's Rule:

a. Last menstrual period (LMP) 7/9/99

- - 3 months: 4/9/99
- + 7 days: 4/16/99
- + 1 yr = 4/16/00

b. Last menstrual period (LMP) 12/24/96

- - 3 months: 9/24/96
- + 7 days: 10/01/96
- + 1 yr = 10/01/97

Naegele's formula is simple arithmetic method for calculating the EDD (estimated date of delivery) based on LMP (last menstrual period). Menstrual Cycle - 3 mos + 7 days + 1 yr = EDD

5. State what words GTPAL stand for and what each means.

- G: Gravida = **# of times a pt. Has been preggo**, including the current pregnancy

    - Count abortions and IFD - T/P/A add up to G
- T: Term = # of preggo that have reached term
    - All preg that have **completed 37 wks (38 wk +)**
- P: Preterm = # of deliveries **before term but after 20 wks**
    - 20-37 wk deliveries
- A: Abortions = # of pregnancies that end **prior to 20 wk**
- L: Living = # of living, live births

6. So what is meant by the term para?

- Pregnancies that have lasted more than 20 wks
    - A woman who has produced one or more viable offspring carrying them in a pregnancy to 20 wks or more
    - Parity: Number of pregnancy that reached 20 wks
    - PrimaPara/ Primips: Pt. has completed (1) pregnancy
    - Nullipara: None of the pregnancies have reached viability (20 wks)
    - Multipara: Been pregnant at least 2 x's (2+)

7. What is linea nigra? How does fundal height correlate with gestation?

- Dark line of pigmentation from the umbilicus extending to the pubic region. Goes away after birth
- Fundal height increases as pregnancy progresses. ***Fundal height = gestational age***
    - Wk 12 - 15: Belly pops out
    - Wk 20: uterus is at belly button
        - Checked each visit with measuring tape in cm, supine position
        - +/- within 2 wks is within normal range

8. Fill in the following table: p. 409

Test	When are these done in the pregnancy?	Evaluation/meaning of results
CBC	Beginning of pregnancy and again a couple more times during 2nd and 3rd trimester.	Evaluates Hg (12-14 g) and Hct (42% +/- 5) levels and RBC count (4.2-5.4 mil) to detect the presence of anemia; identifies WBC (5-10k) which if elevated may indicate an infection; determines platelet count (150k-450k) to assess clotting ability.
Blood typing & Rh	Rh-neg mother would likely receive RhoGAM at 28 wk gestation and again within 72 hr after childbirth, if she is Rh sensitive.	Determines a woman's blood type and Rh status to rule out any blood incompatibility issues early
Rubella titer	If titer is 1:8 or less, the woman is not immune and requires immunization after birth. Advised to avoid people with undiagnosed rashes.	Detects antibodies for the virus that causes German measles

Hepatitis B	First prenatal visit	Determines if mother has Hep B by detecting the presence of hep antibody surface antigen (HbsAg) in her blood.
HIV	Initial visit and again during 3rd trimester	Detects HIV antibodies and if positive requires more specific testing, counseling, and treatment during pregnancy with antiretroviral meds to prevent transmission to fetus.
STI screening: Venereal Disease Research Lab (VDRL) or rapid plasma reagin (RPR) serologic tests or by cervical smears, cultures, or visual ID of suspicious lesions.	Swab at 35-37 wks (vagina to anus)	Detects STIs such as syphilis, herpes, HPV, gonorrhea, so that treatment can be initiated early to prevent transmission to fetus.
Cervical smears (G/C and group B strep)	GBS swabs at 35-37 wks	Used to screen cervical cancer, gonorrhea, chlamydia, or group B streptococcus so that treatment can be initiated if positive.

9. How often are follow up visits and what things are assessed?

- Q 4 wks until 28 wks (7 mo)
- Q 2 wks from 29- 36 wks
- Q wk after 36 wks to birth

Assessments

- Fundal height measurement to assess fetal growth
- UA for glucose/protein to catch potential problems like UTI or gestational diabetes
- Fetal heart tones (with doppler) s/b 110 to 160 BPM
- Weight and BP, which are compared with baseline values
- Assessment for quickening/fetal movement to determine fetal well-being

10. What danger signs are associated with the...

First trimester? (5)

- Burning with urination (UTI)
- Severe and persistent vomiting/diarrhea (infection/hyperemic gravida), dehydration
- Abdominal cramping, dizziness and shoulder pain (rupture ectopic pregnancy)
- Fever greater than 100 F/37.7 C and chills which indicate infection
- Vaginal bleeding (misscarriage/ectopic pregnancy)

Second Trimester? (4)

- Regular uterine contractions (preterm labor)
- Pain in calf, increased by foot flexion (DVT)
- Gush of fluid from vagina
    - Prior to 37 wks, premature rupture of membrane/ amniotic fluid)
- Absence of fetal movement for 12 hr (fetal distress/demise)

Third? (6)

- Sudden weight gain
- periorbital/ hand edema
- severe abdominal pain
- headache
- visual changes (gestational HTN or preeclampsia)
- Decrease in fetal movements

11. How is fetal well being assessed?

- **Ultrasonography**
    - Real-time scanners that produce a continuous picture of the fetus on a monitor screen. A transducer that emits high-frequency sound waves is placed on the mother's abdomen and moved to visualize the fetus.
    - Fetal heartbeat and any malformations in the fetus can be assessed and measurements can be made accurately from the picture on the monitor screen.
- **Doppler Flow Studies**
    - Ultrasound evaluation of the fetus using 2D, color Doppler, and pulse-wave Doppler techniques forms the foundation of prenatal diagnosis of structural anomalies, rhythm abnormalities, and altered fetal circulation.
    - Measures the velocity of blood flow via ultrasound. Can detect fetal compromise in high-risk pregnancies
- **Alpha-fetoprotein (AFP)**
    - AFP: A glycoprotein produced initially by the yolk sac and fetal gut, and later predominantly by the fetal liver.
    - AFP is present in amniotic fluid in low concentrations between 10 - 14 wks of gestation and can be detected in maternal serum beginning at approx. 12-14 wks of gestation
    - If developmental defect is present, such as failure of the neural tube to close, more AFP escapes into amniotic fluid from the fetus. AFP then enters the maternal circulation by crossing the placenta, and maternal serum can be measured.
- **Marker Screening Tests**
    - Using maternal serum is effective, noninvasive method for identifying fetal risk for aneuploidy and neural tube defects.
    - Abnormalities in maternal serum marker levels and fetal measurements obtained during the first trimester screening can be markers for not only certain chromosomal disorders and anomalies in the fetus, but also for specific pregnancy complications.
- **Nuchal Translucency Screening**
    - Used to ID an increase in nuchal translucency d/t fluid behind the fetal neck.
    - An ultrasound done in the 1st trimester between 11-14 wks

    - Allows for early detection and diagnosis of some fetal chromosomal and structural abnormalities.
- **Amniocentesis**
    - Transabdominal puncture of the amniotic sac to obtain a sample of amniotic fluid for analysis.
    - Performed 2nd trimester between 15 - 18 wk gestation, but can be done at any trimester
- **Chorionic Villus Sampling (CVS)**
    - Invasive procedure w/ 18G needle stick through the abdomen through a suction catheter through the cervix under ultrasound guidance.
    - Chorionic villi from the placenta for prenatal evaluation of chromosomal disorders such as down syndrome or cystic fibrosis, enzyme deficiencies, and fetal gender determination and to ID sex-linked disorders such as hemophilia, sickle cell anemia, and Tay-Sachs disease.

12. Discuss the following amniotic fluid findings and their implications to the fetus. p. 416

a. Color = Clear to colorless.
- If mom is dehydrated = less amniotic fluid d/t decrease of waste made by baby resulting in fluid to become darker

b. Bilirubin = Bright yellow
- Baby's liver needs to be tested

c. Meconium = Dark Green
- Baby's first stool is sticky/ black, tarry. Can see in times of fetal distress or baby that is term/post term. Risk of meconium aspiration syndrome.

d. Lecithin to sphingomyelin ratio (L/S ration) = Lung surfactant
- Lecithin is a major lung surfactant, betamethasone helps with lung functioning.
- 2:1 or 2:0 is indicative of lung maturity. Can induce women.

e. Alpha-fetoprotein (MSAF) = Screen for deficits
- Used to screen for abdominal defects/spina bifida (high), and down syndrome (low).

f. Bacteria = s/b NONE
- Presence is abnormal and may indicate chorioamnionitis

g. Acetylcholinesterase = s/b NONE
- Presence is abnormal and may indicate neural tube defects, exophthalmos, or other serious malformations.

13. Describe the procedure and expected results for a nonstress test and biophysical profile (BPP).

- Biophysical profile: uses a real-time ultrasound to visualize physical characteristics of the fetus and observe for a fetal biophysical responses to stimuli. Combines with FHR monitoring and fetal ultrasound. Measures 5 variables with a score of 2 for each normal finding and 0 for abnormal.
    - Components of a Biophysical Profile (BPP) (Non-stress test + fetal ultrasound) 34-36 wks

    - 1. Fetal HR (via non stress test portion)
    - 2. Breathing movements
    - 3. Gross body movements
    - 4. Muscle tone (extension/flexion, open/closing of hand)
    - 5. Amniotic fluid pockets (number and size)

  Scores: 8-10 = Normal, 4-6 = abnormal, less than 4 = indicative of chronic fetal asphyxia

- Nonstress test; most widely used technique for antepartum evaluation in third trimester. Noninvasive that monitors response of the FHR to fetal movement. A Doppler transducer and a tocotransducer are attached externally to a client's abdomen to obtain tracing strips. The client pushes a button attached to the monitor whenever she feels fetal movement, which is then noted on the tracing. The nurse can assess the relationship

14. Choose one of the ten discomforts of pregnancy listed on p 420. Write out a teaching plan that you could use for a mother who is experiencing this discomfort.

- Nausea and Vomiting
    - Avoid an empty stomach at all times
    - Eat dry crackers/toast in bed before arising
    - Eat several small meals throughout the day
    - Avoid brushing teeth immediately after eating to avoid gag reflex
    - Acupressure wrist bands can be worn daily
    - Drink fluids between meals rather than with meals
    - Avoid greasy, fried foods or ones with a strong odor such as cabbage or brussel sprouts.

15. What are the common discomforts experienced in the third trimester? How can you as the nurse educate women to successfully handle these discomforts?

- Nausea and vomiting
- Breast tenderness
- Urinary frequency
- Urinary Tract Infections
- Fatigue
- Heartburn
- Constipation
- Hemorrhoids
- Backaches
- Shortness of breath – this is not always a problem during pregnancy
- Leg cramps
- Varicose veins & lower extremity edema
- Gingivitis, nasal stiffness & epistaxis (nose bleed)
- Braxton Hicks contractions
- Supine Hypotension

16. Should pregnant women receive vaccines, if so, which ones & why?

- Yes, to protect mom and baby against serious diseases.
    - Hepatitis B d/T transmission, inactivated flu, TDaP to prevent whooping cough, Rabies
- No,
    - MMR, live/attenuated flu vaccines, BCG (TB), Varicella, Typhoid

17. Discuss in med class in class

18. Briefly explain in your own words the value of prenatal/childbirth education classes.

- Classes help guide parents through the pregnancy and delivery process. It helps them practice and prepare for possible scenarios with other people who will be going through or have already gone through it. It provides a place of education and support, as well as teaches interventions on how to relax through breathing and massage techniques.