

XV. MATERNITY NURSING

A. First trimester (Week 1 through Week 13):

1. Assessment:

a. Presumptive Signs of Pregnancy:

- Amenorrhea – what is the name of the hormone that causes this?

- N/V
- Urinary frequency – can be one of the first signs.
- Breast Tenderness – excess hormones

b. Probable Signs of Pregnancy:

- A positive pregnancy test – since it is based on the presence of hCG levels.
- There are other conditions that can ↑ hCG levels: hydatidiform mole; drugs.
- Goodell's sign (softening of _____; second month)
- Chadwick's sign (bluish color of vaginal mucosa and cervix; week _____)
- Hegar's sign (softening of the lower uterine segment; 2nd/3rd month)
- Uterine enlargement
- Braxton Hicks contractions (throughout pregnancy; move blood through the placenta).
- Pigmentation/changes of skin:
 - Linea nigra
 - Abdominal striae
 - Facial chloasma (mask of pregnancy)
 - Darkening of the areola (around the nipple)

c. Positive Signs of Pregnancy:

- Fetal heartbeat: Doppler → _____ - _____ weeks
- Fetoscope → _____ - _____ weeks
- Fetal movement
- Ultrasound

d. Miscellaneous Information:

- 1) **Gravidity:** # of times someone has been pregnant
- 2) **Parity:** # of pregnancies in which the fetus reaches _____.
- 3) **Viability** _____ weeks = Infant has the ability to live outside the uterus.
 - A 20 week baby is NOT considered _____.
- 4) **TPAL:** acronym that gives you further information on parity
 - T= term
 - P= preterm
 - A= abortion – this includes spontaneous and elective abortions
 - L= living children
- 5) **Naegele's Rule for the Due Date Estimation:**
 - Find the first day of the LMP
 - Add _____ days
 - Subtract _____ months
 - Add _____ year

2. Client Education/Teaching:**a. Nutrition:**

- 4 food groups
- Increase calories by _____ per day after the first trimester
Adolescent: ↑ calories by _____ after first trimester
- Increase protein to _____ grams per day

b. Weight Gain:

- Expect to gain _____ pounds in the first trimester

c. Prenatal vitamin supplements:

- Why don't women like to take iron? It causes _____.
- Take iron with vitamin _____ to enhance absorption.
- Folic acid prevents? _____ defects
- Daily dose? _____ mcg/day

d. Exercise Rules:

- No high impact; _____ and swimming are best.
- No heavy or unaccustomed exercise program.
- No overheating (no hot tubs or electric blanket either☺)
- Why? _____ = birth defects

Exercise Rule: Don't let your heart rate get above 140.

- If the heart rate goes over 140bpm = _____ and uterine perfusion will drop.

e. Danger Signs:

Sudden gush of vaginal fluid
 Bleeding
 Persistent vomiting
 Severe headache
 Abdominal pain
 Increased temps
 Edema
 No fetal movement

f. Common Discomforts:

N/V	Nasal stuffiness
Breast Tenderness	Varicose veins
Urinary frequency	Ankle edema
Tender gums	Hemorrhoids
Fatigue	Constipation
Heartburn	Backache
Increased vaginal secretions	Leg cramps

g. Medications:

- What are you going to tell the pregnant person about taking medications?

h. Smoking:

- What are you going to tell them? _____

i. Physician visits:

How often should a pregnant client visit the physician?

- First 28 weeks: _____
- 28-36 weeks: _____
- 36 weeks: weekly until delivery

j. Ultrasounds:

- Before an ultrasound, what will you ask the client to do? _____

To distend the bladder → pushes _____ to abdominal surface.

What about an ultrasound prior to a procedure? _____

B. Second Trimester (Week 14 through Week 26):

S/S:

1. Weight Gain:

- Expected weight gain per week? _____

2. Should the client still be experiencing?

- Nausea and vomiting _____
- Breast tenderness _____
- Urinary frequency _____

3. Quickening:

What is it? _____

4. Fetal Heart Rate:

What should the fetal heart rate be during the second trimester? _____

TESTING STRATEGY

*120 to 160: normal

*110 to 120: worried and watching

*Less than 110: panic

5. Miscellaneous Information:

- **Kegel Exercise:**

Exercise to strengthen the pubococcygeal muscles. These muscles help stop urine flow help prevent uterine prolapse.

- Pregnancy is considered term if it advances to _____ to _____ weeks.

C. Third Trimester (Week 27 through Week 40):

1. Assessment:

a. Expected weight gain per week _____

b. Monitor BP and report any _____ from the baseline.

c. Fetal Heart Rate: _____

d. How is fetal position/presentation determined? _____

- What should you have the client do first? _____
- If the client is having contractions, should these maneuvers be done during or between contractions? _____

2. Client Education/Teaching:

a. Signs of labor:

1) Lightening:

- Usually occurs _____ before term.
- When the presenting part of the fetus (usually the head) descends into the pelvis.
- The client will feel less _____, and breathe easier, but urinary _____ is a problem (again).

2) Engagement:

- The largest presenting part is in the pelvic inlet.
- Hopefully, the fetal head is presenting first.

3) **Fetal stations:** measured in cm; measures the relationship of the presenting part of the fetus to the ischial spines of the mother.

4) Signs of labor (cont.):

- Braxton Hicks contractions: More frequent and stronger
- Softening of the _____
- Bloody show
- Sudden burst of _____, called _____
- Diarrhea
- Rupture of the _____

b. When should the client go to the hospital?

- When the contractions are _____ minutes apart or when the membranes _____
- What are we worried about when membranes rupture? _____

D. Diagnostic Tests:**1. Non-stress test (NST):**

- a. Want to see two or more accelerations of _____ beats/minute (or more) with fetal movement.
 - **Acceleration** is when the fetal heart rate has an abrupt increase from the baseline. This is visualized on the fetal heart monitor. The increase is ≥ 15 beats/min. above the baseline and lasts at least 15 seconds, but the heart rate should come back to baseline within 2 min.
- b. Each increase should last for _____ seconds and recorded for _____ min.
- c. Do you want this test to be reactive or non-reactive?

2. Biophysical Profile Test (BPP):

- a. Done in the _____ trimester, but can be done at 32-34 weeks in high risk pregnancy.
 - High risk pregnancy may have a BPP every week or twice a week in 3rd trimester.
- b. Measurements are done by ultrasound; each parameter counts _____ points.
 - 10/10 is great

c. BPP measurement:**1) Heart rate** – was Non-Stress Test (NST) reactive?**2) Muscle tone**

- Does baby have at least 1 flexion – extension movement in 30 minutes?

3) Movement

- Does the baby move at least 3 times in 30 minutes?

4) Breathing

- Does the baby have breathing movements at least once in 30 minutes?

5) Amniotic fluid

- Is there enough fluid around the baby?

d. Observation time is 30 minutes.**e. Results are evaluated:**

8-10 good 6 worrisome <4 ominous

3. Contraction Stress Test (CST): Oxytocin Challenge Test:**a.** Done when the NST is _____.**b.** Performed on high risk pregnancies: preeclampsia, maternal diabetes, and any condition in which placental insufficiency is suspected.**c.** This determines if the baby can handle the stress of a _____.**d.** Uterine contractions decrease blood flow to the uterus and to the placenta.**e.** If blood flow decreases enough to cause hypoxia in the fetus, the fetal heart rate will decrease from the baseline HR.

- This is called _____

f. Do not want to see _____ decelerations.

- This means uteroplacental insufficiency.

g. Do you want a positive or negative test? _____**h.** This test is rarely performed before how many weeks? _____**Results are good for one week**

3 Types of Decelerations

1. Early decelerations: (not bad) benign – caused by physiological hypoxia from fetal head compression (HC)
2. Late decelerations: (bad) – caused by uteroplacental insufficiency (UPI)
3. Variable decelerations: (bad) – caused by umbilical cord compression (CC)

E. Labor and Delivery:

1. True labor:

- a. Contractions? Regular or irregular
- b. Contractions? Increase or decrease in frequency and duration
- c. Discomfort in back and radiates to abdomen
- d. What happens to the pain level with a change in activity? _____

2. False labor

- a. Contractions? _____
- b. Where is the discomfort? _____
- c. What happens to the pain with a change in activity? _____

3. Miscellaneous Information:

Epidural Anesthesia:

- Position: Lie on left side, legs flexed, not as arched as with lumbar puncture
- Given in stage 1 at 3-4 cm dilation
- Usually no headache
- Major complication? _____
Monitor BP
- IVFs: Bolus with 1000mL of NS or LR to fight _____
- Positioning: Put in semi-fowlers on side to prevent vena cava compression.
If the vena cava is compressed...it will _____ venous return, reduce cardiac output and blood pressure, and _____ placental perfusion.
- Alternate position from side to side _____.

4. The Client Receiving Oxytocin (Pitocin®):

Nursing Considerations:

a. Need one-on-one care

b. Be alert for complications:

Hypertonic labor

Fetal distress

Uterine rupture

- **Complete Uterine Rupture:** through the uterine wall into the peritoneal cavity (there is a direct communication between the inside of the uterus and the peritoneal cavity)

S/S: sudden, sharp, shooting pain (“something gave away”); if in labor the contractions may stop and the pain will be relieved; signs of hypovolemic shock due to hemorrhage; if the placenta separates, the fetal heart tones will be absent.

- **Incomplete Uterine Rupture:** through the uterine wall but stops in the peritoneum. The peritoneal cavity is still intact.

S/S: internal bleeding, pain may not be present, fetus may or may not have late decels, client may vomit, faint, have hypotonic uterine contractions and lack of progress, and fetal heart tones may be lost.

Vaginal Birth After C-Section (VBAC)

Clients are at a high risk for uterine rupture. The scar from the c-section is prone to open when under stress. Those at highest risk are those that are receiving Oxytocin (Pitocin®).

- 3) Want a contraction rate of 1 every 2-3 minutes, with each lasting 60 seconds.
- 4) Discontinue the Oxytocin (Pitocin®), if:
 - The contractions are too _____.
 - The contractions last too long.
 - Fetal _____
- 5) Oxytocin (Pitocin®) is piggy backed into a main IV fluid, so when you discontinue the Oxytocin (Pitocin®), make sure you do not turn off your main IV fluid.
- 6) What position should the client receiving Oxytocin (Pitocin®) be placed?
 - Any position except _____ on their back.
 - Now, if the client has any unreassuring fetal heart tones (like fetal bradycardia), then we will put the client on her left side to enhance uterine perfusion.
- 7) What should be done with the infusion if late decelerations occur?

F. Emergency Delivery:

- a.** Tell client to pant/blow to decrease urge to push.
 - The client should not push between contractions. The mother should only push during contractions.
- b.** Wash hands.
- c.** Elevate HOB.
- d.** Place something clean under buttocks.
- e.** Minimize touching of vaginal area.
- f.** As head crowns, the tear amniotic sac.
 - You will only have to tear the amniotic sac if it has not already ruptured.
- g.** Place hand on fetal head and apply gentle pressure.
 - This will prevent the baby from coming out too fast.
- h.** When the head is out, feel for cord around neck.
- i.** Ease each shoulder out – do not pull on the baby.
- j.** The rest will deliver fast.
- k.** Keep baby's head down.
- l.** Dry baby.
- m.** Keep baby at level of uterus.
- n.** Place on mother's abdomen.
- o.** Cover baby.
- p.** Wait for placenta to separate/deliver.
- q.** Can push to deliver placenta
- r.** Inspect placenta for intactness.
- s.** Tie the cord off with a piece of cloth or shoestring.
 - Place one knot about 4 inches from the baby's navel and the second knot about 8 inches from the baby's navel.
- t.** Check firmness of uterus.

G. Normal Post-Partal Period:

1. Assessment:

a. Vital signs:

- T→ may increase to _____ during 1st 4 hours
- BP→ stable
- HR→ 50-70 common for _____ days

TACHYCARDIA + POSTPARTUM.....THINK **HEMORRHAGE**

b. Breasts:

- Soft for _____ to _____ days, then engorgement.

c. Abdomen:

- Soft/loose; diastasis recti

d. GI:

- Is hunger common? _____

e. Uterus:

- Immediately after birth, the fundus is midline ____ to ____ finger breadths below umbilicus.
- A few hours after birth, it rises to level of umbilicus or one FB above.
- Want fundus to be _____
- What is the first thing you do if the fundus is boggy?
_____ the fundus until it is firm and then check for
_____ distention.

Bladder distention is suspected when the uterus is above the expected level or is not in the midline.
(Usually moved to the right)

A distended bladder will not allow the uterus to contract normally which increases the chance of hemorrhage.

- Fundal height will descend one FB/day.
- What is the proper term used when the fundus descends and the uterus returns to its pre-pregnancy size? _____
- Afterpains are common for the first 2-3 days and will continue to be common if the mother chooses to what? _____

f. Lochia:

- Rubra: 3-4 days: Color: _____
- Serosa: 4-10 days: Color: _____
- Alba: 10-28 days (can be as long as 6 weeks): Color: _____
- Clots are okay as long as they are no larger than a _____

g. Urine output:

- _____ should begin 24 hours after delivery.
- Is dehydration possible? _____
- Why should the legs be inspected closely? _____

2. Tx:**a. Perineal Care:**

- Ice packs intermittently for first 6 -12 _____ to decrease _____

- Warm water rinses

- Sitz baths 2-4 times per day

- Anesthetic sprays

- Change pads frequently

} These are indicated if the client has an episiotomy, laceration, or hemorrhoids.

Peripad Rule: We do not want the client to saturate more than _____ peripad/hr.

- Teach to report foul smell.

- Report lochia _____

b. Bonding:

- Bonding between mother and baby and father and baby develops trust.
- In the infant, trust is not only an emotional need but a _____ need.
- How does the newborn benefit physiologically from bonding?
 - Stabilize HR
 - Improves O₂ sats
 - Regulates the infant _____.
 - Conserves calories
 - Breasts can change in temperature to warm or cool the infant.
 - This is called kangaroo care: mom or dad places baby “skin to skin” on their chest. The baby is wrapped inside the parent’s shirt or covers and held for 1 hour at least 4 times a week.

c. Breast Care:

1) Breast feeding mothers:

- Cleanse with _____ water after each feeding; let air dry
- Support _____
- Ointment for soreness or express some colostrum and let it _____
- Breast pads – absorb _____
- Mother needs to initiate breast feeding ASAP after _____
- If breast feeding interrupted: mom can _____
- Increase caloric intake by _____ calories
- Fluid/milk intake:
Eight to ten--- eight ounce glasses of fluid a day

2) Non-Breast Feeding Mothers:

- Ice packs, breast _____, chilled cabbage leaves
- Chilled cabbage leaves _____ inflammation and decrease engorgement
- No stimulation of the breast

3. Complications:

a. Postpartum infection:

- Infection within _____ days after birth; E. Coli/Beta hemolytic strep
- Teach proper hygiene (front and back cleansing) and hand washing.
- Usually get cultures and antibiotics

b. Postpartum hemorrhage:

1) Definition:

- **Early-** more than _____ blood lost in first 24 hours **AND** a 10% drop from admission hematocrit.

You must have both to be true!
- **Late-**after 24 hours, up to 6 weeks postpartum

2) **Causes:** uterine atony, lacerations, retained fragments, and forceps delivery

Medications used to halt excessive postpartum hemorrhage:
Oxytocin (Pitocin®)
Methylergonovine Maleate (Methergine®)
Carboprost Tromethamine (Hemabate®)

c. Mastitis:

- Staphylococcus
- Usually occurs around 2-4 _____

Treatment:

- Bed rest
- Support _____
- Binding can cause more stagnation. } Only use if breastfeeding is discontinued permanently.
- Chilled cabbage leaves }
- If mom is going to continue to breastfeed, she needs to initiate breast feeding frequently or _____.
- PCN (ok with breastfeeding)
- Pain medication
- Heat
- Feed baby _____

Always offer the affected breast _____

H. Newborn Care:

1. Immediate Care:

- a.** Suction
- b.** _____ and _____ the cord
- c.** Maintain body temperature.

- d. Apgar: Done at _____ and _____ minutes
 - Looks at HR, R, muscle tone, reflex irritability, color
 - Want at least _____.
- e. Erythromycin (gtts or ointment) for eye prophylaxis for *Neisseria gonococcus*
 - Erythromycin will also kill the most rapidly growing STD: Chlamydia.
- f. Phytonadione (Aquamephyton®) promotes formation of clotting factors.

2. Cord Care:

- a. Dries, and falls off in _____ to _____ days
- b. Cleanse with each diaper change using _____ or _____
- c. Fold diaper _____ cord
- d. No immersion until cord falls off; watch for _____.

3. Complications:

a. Hypoglycemia:

- Why do babies sometimes experience hypoglycemia after birth?
Because they are not getting glucose from _____.
- Babies at greatest risk for hypoglycemia include those that are large for gestational age, small for gestational age, preterm, and babies of diabetic moms.

b. Pathologic Jaundice:

- When does pathologic jaundice occur? _____
Usually means Rh/ABO incompatibility

c. Physiological Jaundice:

- When does physiological jaundice (hyperbilirubinemia) occur?

- Due to normal hemolysis of excess RBCs releasing bilirubin, or liver immaturity.

d. Rh Sensitization or Rh factor:

- **Occurs when you have an Rh– mother with an Rh+ fetus**

1) First Pregnancy:

- Rh+ blood from baby comes in contact with mother's Rh– blood.
- Mom's blood is most likely to come in contact with the baby's blood when the placenta separates at birth.
- It can also happen during a miscarriage, amniocentesis, or when there is trauma to mom's abdomen.
- Mother's body looks at the Rh+ blood as a foreign body, (an antigen).
- Mother produces antibodies against the baby's Rh+ blood.
- The first offspring is not affected by the antibodies

2) Second Pregnancy:

- An Rh– sensitized mom gets pregnant again: She's got these antibodies waiting for the Rh+ blood to come around so she can attack it.
- The chances of an Rh– mom having antibodies to Rh+ blood increases with each pregnancy and each exposure to Rh+ blood because once you have these antibodies they never go away.
- The antibodies the mother has made enters the baby thru the placenta→ Hemolysis
- Erythroblastosis fetalis (the increase of immature RBCs in the fetal circulation) will result in:
 - *Hyperbilirubinemia
 - *Anemia
 - *Hypoxia
 - *HF (heart failure)
 - *Neurologic damage
 - *Hydrops fetalis (severe form of erythroblastosis fetalis)

3) Dx/Tx:

- Indirect Coombs: done on _____; measures # of antibodies in blood
- Direct Coombs: done on _____; tells you if there are any antibodies stuck to the RBCs
- What do you do if you have a Rh+ fetus and a sensitized mother?
 1. _____
 2. _____
- When is Rho(D) immune globulin (RhoGAM®) given?
- Rho(D) immune globulin (RhoGAM®) is given with any bleeding episode.

4) How RhoGAM works.

Destroys fetal cells that got in mother's blood; it has to do this before antibodies can be formed

Rho (D) immune globulin (RhoGAM®) Rule:
Once antibodies are formed, the woman has them for life.
In NCLEX® world: Rho(D) immune globulin (RhoGAM®) must be given before the antibodies form.
In the real world: a titer will be drawn to see the number of antibodies the woman has developed.

NCLEX® Critical Thinking Exercise:

An obstetrician already has three clients on the Labor unit receiving Oxytocin (Pitocin®) for induction of labor. All of the women are 38 weeks gestation. This labor unit has 6 beds and four nurses are on duty: 3 RN staff members and 1 RN nurse manager. The primary healthcare provider calls from the office to inform the nurse manager that a fourth client is en-route to the labor unit with orders to start an Oxytocin (Pitocin®) induction. Which next action by the nurse manager is priority?

1. Assign yourself to monitor one client receiving Oxytocin (Pitocin®)
2. Request for delay of induction until one client delivers.
3. Call nursing supervisor, requesting float nurse from another floor.
4. Report the primary healthcare provider to the PRO review committee for indiscriminate inductions.