N432 Focus Sheet #2 2020

Ricci, Kyle, & Carman Ch 13, 14, 21; ATI Ch 11, 12, 13, 14, 15,16 and online Fetal Monitoring program

1. Fill in the following table with associated s/s of each

	TRUE LABOR	**FALSE LABOR**
Uterine Contractions (Braxton Hicks)	- Felt in the lower back - regular	Braxton Hicks -Tightening or pulling sensation of the top of the uterus, occur in abdomen & groin, gradually spread down before relaxing. -contractions are irregular→ decreased w/ walking, voiding, eating, increasing fluid intake, changing position
Cervical Dilation & Effacement	cervical softening and dilation with descent into the pelvis	Cervix remains unchanged
Bloody show	-mucus plug is expelled as the cervix softens and pressure increases	No significant bloody show
Fetus: Engagement	Rupturing of amniotic sac	Presenting part not engaged in pelvis

2. Define lightening.

This occurs when the fetal presenting part starts to come down into the true pelvis. The uterus lowers and moves into a position that is more anterior. The abdomen changes, and women usually note their breathing to be much easier and that there is a decrease in gastric reflux. Increased pelvic pressure, dependent edema in the lower legs, leg cramping, and low back discomfort may be complained more.

Vaginal discharge may be increased along with urinary frequency. In primiparas: lightening can happen 2 weeks or more before labor begins. In multiparas: may not occur until the start of labor.

3. Describe the Bishop score and the indications for doing it.

Used to determine maternal readiness for labor by assessing whether the cervix is favorable by the following rating:

- Cervical dilation
- Cervical effacement
- Cervical consistency (firm, medium, or soft)
- Cervical position (posterior, midposition, or anterior)
- Station of presenting part

The five factors get a score of 0-3 and the total scores are calculated.

4. What are Leopold's maneuvers (make sure to understand all 4 maneuvers) and what 4 questions do each maneuver answer?

- Method for determining the presentation, position, and lie of the fetus through 4 steps
- Maneuver 1: What fetal part is located in the fundus?
    - Have mom lie supine, face her head, place both hands on the abdomen to determine fetal position
    - Feel for the buttocks, which will feel soft and irregular, feel for the head which will feel hard, smooth & round
- Maneuver 2: On which maternal side is the fetal back located?
    - Move hands down lateral side of the abdomen to palpate which side feet are located(feels hard & smooth)
    - Continue to palpate to determine on which side the limbs are located(irregular nodules w/ kicking movement)
- Maneuver 3: What is the presenting part?
    - Move hands downside of abdomen to grasp the lower uterine segment & palpate the area just above the symphysis pubis
    - Place thumb & fingers of one hand apart & grasp the presenting part by bringing fingers together
    - Feel for the presenting part. If it's the head→ will feel round, firm and ballottable, if the butt→ soft & irregular
- Maneuver 4: Is the fetal head flexed & engaged in the pelvis?
    - Turn to face mom's feet, use tips of 1st 3 fingers of each hand to palpate abdomen
    - Move fingers toward each other while applying pressure in the direction of the symphysis pubis
    - If you palpate hard on the side of the baby's back, they are in flexion→ you have palpated the chin
    - If the hard area is on the same side as the back, baby is in extension→ occiput

5. List the "preprocedures" done on admission to labor and delivery.

- Leopold maneuvers
- External electronic monitoring (tocotransducer)
- External fetal monitoring(EFM)
- Group B strep
- Urinalysis
- Blood tests → CBC, ABO typing and Rh factor

6. State the 5 “P’s” of the labor progress and what each P is composed of.
    1. Passageway (birth canal)
    2. Passenger (fetus & placenta)
    3. Powers (contractions)
    4. Position (maternal)
    5. Psychological response

7. Define fetal lie and fetal attitude.

    Fetal attitude - flexion / extension - the relationship of fetal body parts to itself

    Fetal Lie - Spine to spine positioning of baby to mother (Direction the baby is laying)

        longitudinal lie vertical presentation (cephalic first)

        Longitudinal lie breech position (bottom first)

        Transverse lie shoulder presentation (horizontal - side-to-side)

8. What role do the fetal skull suture lines and fontanelles play in identifying fetal position?
    - Sutures help identify the fetal head position during vaginal exam, and degree of rotation that has occurred
    - Fontanelles allow for molding
    - Anterior fontanelle is the “soft spot”
        - Diamond-shaped
        - Remains open for 12-18 mos after birth to allow for brain growth
    - Posterior fontanelle is triangular
        - Closes within 8-12 weeks
    - Suboccipitobregmatic (9.5 cm at term) and biparietal (9.25 cm at term) diameters are the two most important diameters that affect the birthing process
    - Suboccipitobregmatic is measured from the base of the occiput to the center of anterior fontanelle: identifies the smallest anteroposterior diameter of the fetal skull
    - Biparietal measure the largest transverse diabetes of the fetal skull-- distance between the 2 parietal bones
    - In cephalic: flexed position with chin resting on the chest-- the optimal/smallest fetal skull dimensions
    - Fetal head not fully flexed: anteroposterior diameter increases-- might prevent fetal skull from entering the maternal pelvis

9. Define the various fetal presentations (RKC p 462-464 & ATI p 74).
    - Cephalic (head first): presenting part is occipital portion of the head
        - Referred to as vertex presentation: variations include military, brow, and facial presentations

- Breech (pelvis first): fetal buttocks or feet enter the maternal pelvis first, and fetal skull last
    - Fetal skull may become “hung up”/stuck in the pelvis
    - Umbilical cord can become compressed between the maternal pelvis and fetal skull
    - Buttocks are soft, therefore not as effective as a cervical dilator than hard fetal skull
    - Possibility of trauma to the head
    - Frank breech: buttocks first with legs extended up toward the face-- can result in vaginal birth
    - full/complete breech: fetus sits cross-legged above the cervix
    - footling/incomplete breech: one or both legs are presenting
    - Associated with prematurity, placenta previa, multiparity, uterine abnormalities, and some congenital anomalies (hydrocephalus)
- Shoulder (scapula first)
    - Fetal shoulders present first with head tucked inside
    - “Turtle sign”-- woman is pushing, head slowly extends and emerges over the perineum, but then retracts into the vagina
    - Transverse lie
    - Conditions associated:
        - Placenta previa, prematurity, high parity, premature membrane rupture, multiple gestation, fetal anomalies
    - C-section usually necessary

10. What do each of the 3 letters associated with fetal positioning stand for?
- First letter: defines whether the presenting part is tilted toward the left of right side of the maternal pelvis
- Second letter: particular presenting part of the fetus
    - O: occiput
    - S: sacrum
    - M: mentum (chin)
    - A: acromion process
    - D: dorsal when indicating the fetal position in shoulder presentation
- Third letter: location of the presenting part in relation to the anterior (A) portion of the maternal pelvis or posterior (P)
    - If presenting part is directed to the side of maternal pelvis→ fetal presentation is designated as transverse (T)

11. Fetal station is assessed in relation to what?

Measurement of fetal descent in cm. w/ station 0 being at the level of an imaginary line at the level ischial spines, minus station superior to the ischeal spines, and plus station inferior to the ischeal spines

12. Outline the rationale for and the pros and cons of external cephalic version.

Pros- used for pt. who has breech or transverse presentation, ultrasound guided, hands-on
Cons- Placental abruption, umbilical cord compression, may need an emergency C-section

13. Describe methods of cervical ripening and the indications for their use?
    - The cervix becomes soft (opens) and is partially effaced, and can begin to dilate
    - Indications- conditions in which augmentation or indication of labor is indicated
        - Failure of cervix to dilate, failure of labor to progress
            - Physical/Mechanical
                - Insert balloon catheter into intracervical canal to dilate cervix
                - Perform Membrane stripping and amniotomy
                - Hygroscopic dilator insertion to absorb fluid from surrounding tissues and then enlarge
                    - Laminaria tents- made from desiccated seaweed
                    - Synthetic dilators contain magnesium sulfate
            - Chemical Agents - based on prostaglandins are used to soften and thin the cervix
                - can be oral or vaginal suppository
                    - misoprostol: Prostaglandin E1
                    - Dinoprostone: Prostaglandin E2

14. Use this chart to summarize the Stages & phases of labor. Write it so that it makes sense to you.

Stage of Labor	***What is happening during this Stage/Phase?***	***Expected effacement & dilation of cervix***	***Expected Frequency of Contractions***	***Expected duration of contractions***	***Anticipated Nursing assessments & interventions***
First Stage 1. Latent 2. Active 3. Transition	Onset of Labor Complete dilation Urge to push Feeling out of control Most difficult part of labor	Latent: 0-3 cm Active: 4-7 cm Transition: 8-10 cm	Latent: 5-30 min Active: 3-5 min Transition: 2-3 min	Latent: 30-45 seconds Active: 40-70 seconds Transition: 45- 90 seconds	Leopold maneuver, vaginal exam if indicated, Maternal vital signs, FHR, prep for delivery, bladder palpation, meds
Second Stage	Pushing results in birth of fetus	Full dilation Full effacement	Intense contractions q1-2 min		BP, pulse, rr Q5-30min, UC, pushing efforts by pt, increase in bloody show,

					shaking of extremities, FHR q15 & immediately following birth, perineal lacerations
Third Stage	Delivery of neonate Separation of placenta				BP, pulse, rr Q15, Apgars, clinical findings of placenta separation
Fourth Stage	Delivery of placenta Maternal stabilization of VS				Maternal VS, fundus & lochia Q15, urinary output, baby-friendly activities

15. How can we confirm rupture of membranes?
    - By vaginal exam→ an intact membrane will feel like a bulge

What is our priority nursing intervention after confirmation of rupture of membranes?
- Assessing fetal heart rate→ want to identify a deceleration which might indicate a cord compression secondary to cord prolapse

What information do we want to gather from the mother about rupture of membranes if we did not witness it?
- When the rupture occurred→ increased risk for infection if it has been ruptured awhile

16. Describe when an induction might be warranted and the difference between induction and augmentation?
    - Induction is warranted

    - During spontaneous rupture of membranes and when labor does not start
    - Large-size fetus not expected to navigate the maternal pelvis
    - Fetal growth restriction where external intervention is needed
    - A pregnancy of more than 42 weeks' gestation
    - Maternal hypertension, diabetes, or lung disease
    - A uterine infection
- Induction is an initiation of uterine contractions to stimulate labor before spontaneous onset
- Augmentation is a stimulation of contractions once labor has started

17. Describe what an amniotomy is, the indications for it to be done, and the considerations.
    - The artificial rupture of the amniotic membrane (AROM) by the provider using a hook, clamp, or another sharp instrument
    - Indications
        - labor progression is too slow & augmentation or induction of labor is indicated
        - Amnioinfusion is indicated for cord compression
    - Considerations
        - Ensure presenting part of fetus is engaged before an amniotomy to prevent cord prolapse
        - Monitor fetal heart rate before & immediately after AROM to assess cord prolapse
        - Assess & document- characteristics of amniotic fluid color, odor, and consistency

18. **Medications:** *What is each medication used for? What does it do? Nursing indications/interventions?*

Oxytocin	Used to start labor, stop bleeding after abortion, or end a pregnancy. Monitor for signs of allergic reaction, high blood pressure, bleeding, and slow heartbeat
Misoprostol	To prevent NSAID-induced gastric ulcers, pregnancy test needs done before starting medication
Penicillin G	To treat systemic infections caused by gram-positive organisms and to treat congenital syphilis. Do a culture and sensitivity before starting therapy
Methylergonovine	Affects smooth muscle of the uterus, improving muscle tone and strengthening contractions. Do not use during pregnancy, do not breastfeed with 12 hours of taking

Betamethasone	Topical corticosteroid used to treat skin conditions that cause inflammation and itchiness. Only prescribed during pregnancy if the benefits outweigh the risks
Terbutaline Sulfate	Used for relief of bronchospasm during labor, only if benefits outweigh the risks!
Methotrexate	Treat severe psoriasis unresponsive to other therapies, contraindicated in pregnancy and breastfeeding, increase fluid intake
Indomethacin	Treats hemodynamically significant patent ductus arteriosus in premature infants, monitor weight and blood pressure, monitor for GI effects
Magnesium Sulfate	Prevent and control seizures in preeclampsia or eclampsia. Frequently assess cardiac status
Naloxone	Opioid antagonist → treat opioid overdose or opioid induced respiratory depression. Excessive dose can lead to agitation due to reversal of analgesia
Calcium Gluconate	To replace calcium in hypocalcemia due to rapid growth during pregnancy, act as antacid to relieve indigestion Store at room temperature and administer at room temperature
Narcan	Opioid agonist→ given to baby to reverse CNS depression

19. List procedures done during labor (“intra partum”).
    - Assess maternal vital signs

- Assess FHR
- Assess uterine labor contraction characteristics
    - Frequency, duration, intensity, resting tone of uterine contractions
- Intrauterine pressure catheter
- Vaginal exam
- Mechanisms of labor
    - Engagement
    - Descent
    - Flexion
    - Internal rotation
    - Extension
    - External rotation
    - Birth by expulsion

20. Define each of the 6 cardinal movements of labor (Mechanisms of labor).
    - Engagement- occurs when the greatest transverse diameter of the head in vertex passes through the pelvic inlet
    - Descent- is the downward movement of the fetal head until it is within the pelvic inlet
    - Flexion- occurs as the vertex meets resistance from the cervix
    - Internal Rotation-as the head descends, the lower portion of the head meets resistance from one side of the pelvic floor. As a result, the head rotates about 45 degrees anteriorly to the midline under the symphysis
    - Extension- resistance from the pelvic floor causes the fetal head to extend so that it can pass under the pubic arch. The head emerges through extension under the symphysis pubis along with the shoulders.
    - External rotation- it untwists causing the occiput to move about 45 degrees back to its original left or right position. It allows the fetal head to allow the shoulders to rotate internally to fit the maternal pelvis
    - Expulsion- The rest of the body being removed from the vagina

21. Describe the benefits for a woman to change position while in labor. Include what suggestions the nurse can give the laboring woman about position changes?

    Benefits
    - Reduce the length of the first and second stage of labor
    - Reduce the number of assisted deliveries
    - Reduce episiotomies and perineal tears
    - Contribute to fewer abnormal fetal heart rate patterns
    - Increase comfort/ reduce requests for pain medication
    - Enhance a sense of control by the mother
    - After the shape and size of the pelvis, which assists in descent
    - Assist gravity to move the fetus downward

    Suggestions about position changes

- Changing position and walking affect the pelvis joints, which may facilitate fetal descent and rotation
- Squatting enlarges the pelvic inlet and outlet diameters
- Where as kneeling removes pressure on the maternal vena cava and helps to rotate the fetus from a posterior position to an anterior one to facilitate birth

22. What are the 4 techniques used to assess ongoing data during labor and birth?
    - Maternal vital signs
    - Review prenatal record to identify risk factors
    - Monitor cervical dilation periodically to track progress
    - Monitor maternal pain and effectiveness of pain management strategies

23. What is a vaginal exam (SVE-sterile vaginal exam)? How often should it be done according to WHO (World Health Organization)?
    - Purpose: assess the amount of cervical dilation, the percentage of cervical effacement, and the fetal membrane status and to gather information on presentation, position, station, degree of fetal head flexion, and presence of fetal skull swelling or molding.
    - Initial vaginal exam is to check for membrane status, and water is used as a lubricant.
    - The cervix is palpated to assess dilation, effacement and position.
    - Cervix open → fetal part, position, station, and presence of molding can be assessed
    - Membranes are evaluated and described as intact, bulging, or ruptured.
    - When the exam is complete, the woman and her partner are brought up to date about the labor progress.
    - WHO recommends them to be done at intervals of 4 hours for routine assessment and identification of a delay in active labor.

24. Why is important to assess frequency, duration and intensity of contractions?
    - They are important because frequency help you know how often contractions occur and they are measured from the beginning of one contraction to the beginning of the next
    - Duration is important because is shows you how long a contraction lasts an is measure from the beginning of one contraction to the end of that same contraction
    - Intensity is important it tells you the strength of contractions
    - Also by measuring all three of them will help you decide what stage of labor the client is in

25. What 2 ways can you assess uterine contractions?
    - They can be monitored through palpation and by electrical monitoring
    - Effacement- the gradual thinning, shortening, and drawing up of the cervix which is measured from 0-100%
    - Dilation- the gradual opening of the cervix measured in centimeter 0-10 cms

26. To palpate uterine contraction intensity, a mild contraction feels like your __tip of the nose__ , a moderate contraction feels like your __chin__, and strong contraction feels like your __forehead_____.

27. List the sources of pain during labor.
- First Stage - internal visceral pain felt in back and legs
    - Dilation, effacement, stretching of cervix
    - Distension of lower segment of the uterus
    - Contraction ofs of the uterus w/ resultant uterine ischemia
- Second Stage - pain that is somatic & occurs w/ fetal descent and expulsion
    - Pressure & distention of the vagina and perineum described by client as burning, splitting, and tearing
    - Pressure & pulling on pelvic structures (ligaments, fallopian tubes, ovaries, bladder,and peritoneum)
    - Lacerations of soft tissues (cervix, vagina, and perineum)
- Third Stage - pain w/ expulsion of the placenta- similar to pain experienced during the 1st stage
    - Uterine contractions
    - Pressure and pulling of pelvic structures
- Fourth Stage - pain caused by distention and stretching of the vagina and perineum incurred during the 2nd stage w/ splitting, burning, and tearing sensation.

28. List how pain assessment is done during labor.
- Assess using observation and not just with verbal questions
- Assess for anxiety and fear
- Assess beliefs and expectations related to discomfort, pain relief, birth plans regarding pain relief methods
- Assess level, quality, frequency, duration, intensity and location of pain through verbal and nonverbal cues
- Use appropriate pain scale (0-10)
- Evaluate response to pain relief methods used(verbal report or if they appear relaxed)

29. What should the nurse consider prior to administration of opioid pain medication during labor?
- Opioids cross the placental barrier but do not affect labor in active phase
- They can cause newborn respiratory depression, decreased alertness, inhibited sucking, a delay in effective feeding, and a decrease in FHR
- Respiratory depression can occur in the mother also
- Other systemic side effects include nausea, vomiting, pruritus, delayed gastric emptying, drowsiness, hypoventilation, and newborn depression
- To reduce the incidence of newborn depression, birth should occur within 1 hour or after 4 hours of administration to prevent the fetus from receiving the peak concentration

30. Describe the gate-control theory of pain control. Give examples.
- Based on the concept that the sensory nerve pathways that pain sensations use to travel to the brain will allow only a limited number of sensations to travel at any given time.

- Alternate signals → pain signals are blocked from ascending the neurologic pathway → inhibit the brain's perception and sensation of pain.
- Helps in understanding how nonpharmacological pain techniques can work to relieve pain.
- Examples: sensory stimulation strategies and cutaneous stimulation strategies

31. List 3 non pharmacologic pain intervention methods.
    - Cognitive strategies
        - Childbirth education
        - Prep methods - Lamaze, patterned breathing exercises
        - Hypnosis
        - biofeedback
    - Sensory stimulation strategies - gate-control theory based→ promote relaxation & pain relief
        - Aromatherapy
        - Breathing techniques
        - Imagery
        - Music
        - Use of focal points
        - Subdued lighting
    - Cutaneous stimulation strategies -gate-control theory based→ promote relaxation & pain relief
        - Therapeutic touch & massage- back rubs, massage
        - Walking
        - Rocking
        - Effleurage - light gentle circular stroking of client's abdomen w/ fingertips in rhythm w/ breathing during contractions
        - Sacral couterpressure - consistent pressure is applied by the support person using the heel of hand or fist against the client's sacral area to counteract pain in lower back
        - Application of heat/cold
        - Transcutaneous electrical nerve stim (TENS unit)
        - Hydrotherapy (whirlpool/ shower) increases maternal endorphin levels
        - Acupressure
        - Maternal position changes to promote relaxation
            - Semi-squat
            - Squatting
            - Kneeling
            - Kneeling w/ rocking back-and-forth

- Injection of a local anesthetic and an opioid analgesic agent into the lumbar epidural space
- A catheter is passed through the needle to provide continuous access throughout labor and birth
- To relieve pain throughout the labor and birth
- A spinal epidural gives the medication into the subarachnoid space and also only gives an opioid, not with a local anesthetic

33. What added considerations are there for the nurse caring for a woman who has undergone general anesthesia?
    - General anesthesia can cause fetal depression, along with with uterine relaxation and potential maternal vomiting and aspiration
    - The complications are usually due to maternal aspiration ot the inability to intubate the women
    - Make sure the women is not taken anything by mouth and has patent intravenous line
    - Administer a nonparticulate oral antacid or a proton pump inhibitor as order to reduce gastric acidity
    - Assist with the placement of a wedge under the woman's right hip to displace the gravid uterus and to prevent vena cava compression in the supine position

COMPLETE Q32 & Q33 after you review R,K,C p 492-498 and ATI p86-89 for understanding of fetal monitoring and you complete the Online Fetal monitoring program

34. Where in the contraction do the increment, acme and decrement happen?
    - Increment is the the build up of the contraction
    - Acme peak or highest intensity of a contraction
    - Decrement- is the descent or relaxation of the uterine muscle fibers

35. Briefly describe what Category I, Category II and Category III fetal heart rate tracings look like.
    - Category I- Normal
        - Baseline rate of 110-160, baseline variability moderate, present or absent accelerations, present or absent early decelerations, no late or variable decelerations
    - Category II- Indeterminate
        - Fetal tachycardia >160, bradycardia <110 not accompanied by absent baseline variability, absent baseline variability not accompanied by recurrent decelerations, minimal or marked variability, recurrent late decelerations with moderate baseline variability, Recurrent variable decelerations accompanied by minimal or moderate baseline variability, overshoots, or shoulders, prolonged decelerations >2 min but <10 min
    - Category III- Abnormal
        - Fetal bradycardia <110, Recurrent late decelerations, Recurrent variable decelerations-declining or absent, Sinusoidal pattern

36. Why is support vital for laboring women? What is a doula? What is a CNM?
    - Women who have support have greater chance of spontaneous vaginal delivery, decrease in length of labor, required less analgesia, increased satisfaction with their birthing experience
    - doula= non-medical birth companion who provides continuous emotional, physical, amd educational support to the woman and family during childbirth
    - CNM= certified nurse midwife

37. What is “crowning”?
    - Baby’s head becomes visible in birth canal

38. List a summary of assessments during second , third and fourth stages of labor.
    - Second
        - BP, pulse, respirations Q5-Q30 min
        - UC
        - Pushing efforts by the patient
        - Increase in bloody show
        - Shaking of extremities
        - FHR q15 min & immediately following birth
        - Perineal lacerations
    - Third
        - Bp, pulse and respirations Q15
        - Apgars
        - Clinical findings of placenta separation
    - Fourth
        - Maternal vital signs
        - Fundus & lochia
            - Q15
        - Urinary output
        - Baby-friendly activities

39. What are the signs of placental separation and how long can it take for the placenta to be expelled?
    - Placental Separation signs
        - The uterus rises upward
        - The umbilical cord lengthens
        - A sudden trickle of blood is released from the vagonal opening
        - The uterus changes its shape to globular
    - After separation→ expelled within 2-30 minutes

40. What is the difference between a laceration and an episiotomy?
    - An episiotomy is a surgical cut that is made at the opening of the vagina during child birth to aid in delivery and prevent rupture of the tissues
    - A laceration is when the perineum tears during birth

41. What are the normal blood loss amounts for a vaginal and a cesarean delivery?
    - Vaginal: 500 mL
    - Cesarean: 1000 mL

- Blood loss over 1000mL is considered severe

42. List “post procedures” done during the fourth stage of labor.
    - BP & pulse Q15 for 1st 2 hours, temperature q4 for the 1st 8 hrs
    - Assess fundus and lochia q15 for 1st hr and then according to protocol
    - Massage fundus and/or admin oxytocin to maintain uterine tone and prevent hemorrhage
    - Assess client’s perineum, provide comfort measures as indicated
    - Encourage voiding to prevent bladder distension
    - Promote an opportunity for maternal/newborn bonding
    - Offer assistance w/ breast feeding and provide reassurance

43. What are important interventions for the newborn at birth? Why is skin to skin time with mom so important?
    - Wrap in warmed blanket
    - Place under a radiant warmer
    - Place on the mother’s abdomen for warmth and closeness
    - Skin to skin→ bonding purposes, strengthens the uterine contractions to help the placenta separate from the uterus, prevents hypoglycemia in the baby

44. What important assessments as the nurse are you continuing to make, in relation to mom, during the third stage of labor?
    - BP, Pulse, respirations Q15
    - Clinical findings of placenta separation
    - Assessing for perineal trauma
    - Check fundus
    - Inspect for bleeding