Labor & Delivery Worksheet

This worksheet is due in the drop box by 2359 CST the night before your assigned labor and delivery clinical day.
Name: Tirae Littles
Date: 10/4/24
Complete the following: (30 points)
Submit in-text citations in APA format

1st Stage of Labor	Characteristics that could be seen	Expected Interventions
Latent phase Dilation: 0 to 5 cm (Durham et al., 2022, p.262) Length of stage: "The latent phase, first described by Friedman,[6] precedes active labor by a variable duration (1–20 hours)" (Thornton & Ramphul, 2023, p.1). **Contractions** Duration: 30-45 seconds (Durham et al., 2022, p.262) Frequency: 5-30 minutes (Durham et al., 2022, p.262) Strength: mild to moderate (Durham et al., 2022, p.262)	The client is talkative and eager during this stage because contractions are less intense (Durham et al., 2022, p.258). Blood-tinged mucus is present, also known as bloody show. This occurs as the cervix begins to dilate and efface (Durham et al., 2022, p.258). The patients' contractions become stronger, more frequent, and regular overtime (Durham et al., 2022, p.258). Cervical changes are occurring, the patients' cervix will begin to soften and thin out (Durham et al., 2022, p.258).	Interventions during the latent phase are important as it ensures the patients' comfortability. The nurse should "assist with positioning; encourage movement, monitor fetal response to position changes, implement pain control strategies, and respond to changes in maternal status" (Durham et al., 2022, p.258) Ensuring hydration, nutrition, and emotional support are also important interventions when caring for a laboring patient.

Active phase Dilation: 6 to 10 cm (Durham et al., 2022, p.267) Length of stage: "The average duration of first-stage labor in nulliparas is 8 hours and in multiparas 5 hours" (Thornton & Ramphul, 2023,	During the active phase the patient will experience feelings of anxiety, hopelessness, fatigue, and decreased energy. (Durham et al., 2022, p.258). The patient will also experience contractions that become more intense causing the patient more discomfort.	During the active phase the nurse should assist the patient with positioning, avoiding the supine position. The nurse should evaluate FHR, maternal vital signs, and contraction pattern (Durham et al., 2022, p.258). Pain management and education regarding proper breathing

p.1). **Contractions** Duration: contractions lasts 45-60 seconds (Durham et al., 2022, p.267) Frequency: contractions occur 2-5 minutes (Durham et al., 2022, p.267) Strength: Contractions are more severe (Durham et al., 2022, p.267)	The patient will experience an Increase in blood-tinged mucus along with increased pressure in the pelvis. (Durham et al., 2022, p.258). As the patient moves closer to being 10 centimeters dilated the patient may experience nausea and vomiting, backache, diaphoresis, and they may have a strong urge to push (Durham et al., 2022, p.258).	techniques are also important interventions during this phase.

2nd Stage of Labor	Characteristics that could be seen	Expected Interventions
Length of stage: "This phase is limited to 2 h in nullipara women, and 1 h in multiparous women" (Thornton & Ramphul, 2023, p.1). **Contractions** Duration: contractions lasts 60-90 seconds (Durham et al., 2022, p.269) Frequency: contractions occur every 2-3 minutes (Durham et al., 2022, p.269) Strength: Contractions are intense (Durham et al., 2022, p.269)	The patient will begin to experience feelings of Irritability, restlessness, and a strong urge to push. Bloody mucus membranes are usually ruptured, and the baby's head is now crowning (Durham et al., 2022, p.269). "The perineum flattens and the rectum and vagina bulge" (Durham et al., 2022, p.269).	Interventions during the second stage of labor include: guidance on effective pushing techniques, continuous monitoring of FHR every 5-15 minutes, emotional support, and pain relief options, such as analgesics or epidurals (Durham et al., 2022). Providing reassurance and empathy to the patient while pushing may take the stress off the patient and reduce anxiety. Emotional support is crucial as it increases the patients' confidence and sense of control.

3rd Stage of Labor	Characteristics that could be seen	Expected Interventions
Length of stage: "Mean length: 5 mins, 90% will deliver the placenta within	Characteristics that are seen during the 3rd stage of labor includes: Gush of blood	The nurse should perform fundal massage, assess bleeding amount, blood loss,

13–15 minutes" (Durham et al., 2022, p.274). The birth of the baby to expulsion of placenta occurs during this stage.	before placental delivery, the patients' umbilical cord lengthens, the uterus rises upward, and the placenta changes its shape to globular (Durham et al., 2022).	and assess the patient for signs of infection." Uterotonics are also used as pharmacological agents to induce contractions and to increase tonicity of the uterus. The use of uterotonics during the third stage of labor and in the immediate postpartum period for the prevention of PPH "(Durham et al., 2022, p.274).

Reference (1):

Durham, R. F., Chapman, L., & Miller, C. (2022). *Davis advantage for maternal-newborn nursing: critical components of nursing*. F.A. Davis Company.

Thornton, J., & Ramphul, M. (2023). *Labor Stage 2 - an overview | ScienceDirect Topics*. Www.sciencedirect.com. https://www.sciencedirect.com/topics/medicine-and-dentistry/labor-stage-2

Complete the Following: (10 points)
Submit in-text citations in APA format

Diagnostic Test	**Description and Rationale**	**Clinical findings**
Non-stress test (NST)	"A nonstress test monitors an unborn baby's heart rate for 20 to 30 minutes to see if it changes as the fetus moves and during contractions. It is called "nonstress" because doing it places no stress on the fetus". (Kidshealth, 2022, p.1). Non-stress tests also assist with ensuring the fetus	"A technician monitors the fetal heart rate during each movement on a screen while your contractions are recorded on paper. If there's no movement during the test, the baby may be asleep, and the technician may use a buzzer to wake the baby. You also may be asked

	is active, monitoring of the fetal heart rate which ensure the fetus is getting adequate amounts of oxygen.	to drink or eat to try to stimulate the baby more" (Kidshealth, 2022, p.1). The non-stress test assesses accelerations and decelerations. Accelerations should be 15bpm for at least 15 seconds in a 20–25-minute period. This indicates good fetal oxygenation.
Biophysical profile (BPP)	A biophysical profile is also done "which includes an ultrasound and an NST. A BPP examines a baby's breathing, movement, amount of amniotic fluid, and tone, in addition to the heart rate response" (Kidshealth, 2022, p.1). BPP evaluates the baby's health and overall, well-being. Assessing FHR, movement, tone, breathing, and amniotic fluid indicates the fetus is receiving adequate nutrients and O2.	A BPP should show the baby's "heart rate, breathing, movement, muscle tone, and the amount of amniotic fluid surrounding the fetus in the uterus" (Kidshealth, 2022, p.1). The BPP should show a consistent normal fetal heart rate pattern, normal fetal activity, flexion, breathing movements that last at least 30 seconds, and a normal amount of amniotic fluid.
Ultrasound (US) • 1st Trimester • 2nd Trimester	"Ultrasound (also called sonogram) is a [prenatal test]() offered to most pregnant women. It uses sound waves to show a picture of your baby in the uterus (womb). Ultrasound helps your health care provider check on your baby's health and development" (Marchofdimes, 2024, p.1). "Most women get an ultrasound in their second trimester at 18 to 20 weeks of pregnancy. Some also get a first-trimester ultrasound (also called an early ultrasound) before 14 weeks of pregnancy. The number of	Clinical findings include: "ensuring the patient is pregnant, assessment of the baby's age and growth, baby's heartbeat, muscle tone, and overall development" (Marchofdimes, 2024, p.1). The first trimester should show the presence of gestational sac confirms an intrauterine pregnancy, the fetal heartbeat is an indication of viability. The amount of amniotic fluid surrounding the fetus should also be evaluated to ensure the fluid is WNL (Marchofdimes, 2024, p.1). Throughout the

	ultrasounds and timing may be different for women with certain health conditions like as asthma and obesity" (Marchofdimes, 2024). Ultrasound in the first trimester is beneficial as it confirms pregnancy and determines gestational age. The first trimester ultrasound monitors the early stages of pregnancy and ensures the fetus, and the mothers health is on the right track (Marchofdimes, 2024). In the second trimester a fetal ultrasound is done to view the positioning and size of the fetus. The 2nd trimester ultrasound is also done to "Find major birth defects, such as heart problems or problems with the brain and spinal cord (neural tube defects). But the test may not be able to find many minor defects and some major birth defects" (MyHealth.Alberta.ca, 2024, p.1).	second trimester the ultrasound should show the development of the fetal organs, measurements, and the position of the placenta. Evaluating these things ensure the health of the fetus and the patient (Marchofdimes, 2024, p.1).

Reference (1):

Kidshealth. (2022). *Prenatal Test: Nonstress Test (for Parents) - Nemours KidsHealth*. Kidshealth.org. https://kidshealth.org/en/parents/prenatal-nonstress.html

Marchofdimes. (2024). *Ultrasound during pregnancy*. Www.marchofdimes.org. https://www.marchofdimes.org/find-support/topics/pregnancy/ultrasound-during-pregnancy

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MyHealth.Alberta.ca. (2024). *Second-Trimester Fetal Ultrasound: About This Test*.

Myhealth.alberta.ca.

https://myhealth.alberta.ca/health/AfterCareInformation/pages/conditions.aspx?

HwId=abk7279

For the remainder of this assignment, submit in-text citations in APA format. Attach Reference page.

1. What is cervical dilation and effacement? How are each of these measured? **(5 points)**

"Cervical effacement (or ripening) is when the cervix softens, thins, and shortens. It happens late in pregnancy as your body prepares for labor and delivery, your cervix will eventually thin out and open (dilate) enough for your baby to pass through your vagina" (ClevelandClinic, 2022, p.1). Cervical effacement is measured as a percentage ranging from 0-100%. Cervical dilation occurs when the cervix is beginning to open during labor, which means the baby is preparing to travel through the birth canal. Cervical dilation is measured in centimeters ranging from 0-10 cm.

2. List five non-pharmacological methods that can relieve pain during labor. **(5 points)**
Non-pharmacological methods that can relieve pain during labor would be effleurage, hydrotherapy, position changes, breathing techniques, and a quiet environment with dim lights.

3. What is variability in fetal monitoring? **(2 points)**
"Variability is measured from the peak to the trough of the FHR fluctuations and is quantified in bpm. Variability is classified as follows: absent—amplitude range undetectable. minimal—amplitude range detectable but ≤ 5 bpm" (Kauffmann & Silberman, 2023). Variability refers to the fluctuation in the FHR. This is a good indicator for fetal well-being. Moderate variability indicates the fetus is doing well.

4. How can GBS influence care in labor and delivery? When and how is this tested? What treatments/ interventions are completed? **(5 points)**

- GBS can influence care in labor and delivery as "group B streptococcus, or *Streptococcus agalactiae*, is a gram-positive bacterium commonly found in the genital and gastrointestinal tracts of humans and less frequently in the upper respiratory tracts of children and adults, which poses significant health risks, particularly to neonates, young infants, pregnant women, and those with certain medical conditions. Group B streptococcus can colonize the gastrointestinal and vaginal tracts of up to one-third of pregnant individuals and can cause various infections, including asymptomatic bacteriuria, urinary tract infections, chorioamnionitis, postpartum endometritis, pneumonia, puerperal sepsis, and bacteremia" (Morgan & Cooper, 2023). The patient is tested for GBS between 35 and 37 weeks of pregnancy, this is done by swabbing the vagina, Antibiotics will be taken if the mother tests positive. If the patient is positive for GBS nurses should provide the patient with prophylaxis antibiotics such as ampicillin, continuous monitoring of the fetus and mother for signs of infection, and the nurse should inform the mother about what GBS is and what to expect during labor and delivery. After the delivery the healthcare team should monitor the newborn for signs of GBS infection. Signs of GBS infection include being fussy, sleepy, fast breathing with grunting noises which are (signs of pneumonia), a change in blood pressure and convulsions.

5. What labs are completed on every woman on admission to labor and delivery? What assessment would be completed? **(2 points)**
"All prenatal laboratory tests, including CBC, blood type, Rh status, HBsAg, rapid plasma regain (RPR), rubella, results of the glucose tolerance test, HIV, group B streptococci (GBS), and other tests that may have been done to check for complications, such as preeclampsia (Durham et al., 2022, p.57) Assessments that are completed on every woman during admission include: fetal heart rate monitoring, Contraction pattern, cervical exam, medical history review, and maternal vital signs (Durham et al., 2022).

6. How is duration and frequency of contractions measured? **(5 points)**
"Timing your contractions will help you and your health care provider track what is happening. You will need to know how long your contractions last (duration) and how close together they are (frequency)" (Alinahealth, 2021). "Duration is timed from when you first feel a contraction until it is over, this time is usually measured in seconds" (Alinahealth, 2021). "Frequency is timed from the start of one contraction to the start of the next. It includes the contraction as well as the rest period until the next contraction begins. This time is measured in minutes" (Alinahealth, 2021). Electronic fetal monitoring is used by the healthcare team, as it helps to keep track of duration and frequency. Monitoring duration and frequency assists the healthcare with monitoring the progression of labor.

7. Define an early deceleration, identify causes and interventions? **(2 points)**
Early decelerations occurs when there is "a symmetrical decrease and return of fetal heart rate (FHR) that is associated with a uterine contraction" (Choe et al., 2021, p.1). Early decelerations are caused by head compression. The nurse should provide comfort measures, continuous monitoring of the patient and fetus, assess for contractions, and provide the patient with reassurance.

8. Define a late deceleration, identify causes and interventions? **(2 points)**
"A late deceleration occurs when a visually apparent, gradual decrease (onset to nadir 30 seconds or more) in FHR w/ return to baseline Nadir of the decel occurs after peak of the late contraction" (Durham et al., 2022). Late decelerations are caused by uteroplacental insufficiency. The healthcare team should assist the patient with changing her position, provide supplemental oxygen, and increase 0.9 NS.

9. Define variable decelerations, identify causes and interventions? **(2 points)**

Variable decelerations occur when there is “an abrupt decrease (onset to nadir less than 30 seconds) in the FHR below the baseline and is caused by cord compression” (Durham et al., 2022). The nurse should change the maternal position and increase maternal hydration.

10. Oxytocin: what is this medication used for in labor and delivery? Identify side effects, nursing assessments, and interventions. **(10 points)**
A pharmacological method for labor induction is administration of oxytocin, “the most common induction agent used worldwide. It has been used alone, in combination with amniotomy, or after cervical ripening with other pharmacological or nonpharmacological methods” (Durham et al., 2022, p.274). “Before the introduction of prostaglandin agents, oxytocin was used as a cervical ripening agent as well” (Durham et al., 2022, p.274). The nurse should assess maternal vital signs, fetal heart rate, contraction pattern, cervical status, and pain level before and after administration. “Side effects of oxytocin use are primarily dose related; tachysystole and subsequent FHR decelerations are common side effects” (Durham et al., 2022, p.274). The nurse should also be sure to give the correct dosage of oxytocin. Oxytocin toxicity can occur, which can lead to hyperstimulation of the uterus, cardiovascular effects, and fetal distress. These complications can harm both the fetus and the mother. If oxytocin toxicity occurs; “discontinue oxytocin, change maternal position to left lateral position. Initiate IV hydration of at least 500 mL lactated Ringer’s. Administer O2 by nonrebreather mask at 10 L/min. Consider terbutaline if no response. Notify provider, observe, and reevaluate” (Durham et al., 2022, p.274).

11. Magnesium Sulfate: What is this medication used for in labor and delivery? Identify side effects, nursing interventions, and nursing assessments. **(10 points)**
“Magnesium sulfate can be used as a tocolytic but is primarily used for fetal neuroprotection. Relaxes smooth muscle. “Side effects include lethargy, drowsiness, flushing, diaphoresis, nausea, vomiting, headache, pulmonary edema, loss of DTRs, respiratory depression, chest pain, pulmonary edema, hypotension, and cardiac arrest; suppresses heart rate, contractility, and left ventricular systolic pressure when used with calcium channel blockers; and produces neuromuscular blockade when used with calcium-channel blockers” (Durham et al., 2022, p.160). “Nursing interventions include Remaining at bedside for loading dose, assessing vital signs, oxygen saturation, and DTRs” (Durham et al., 2022, p.160). Magnesium sulfate toxicity can occur which is why it is essential for the nurse to monitor the patients' cardiac system, LOC, respiratory system, and neuromuscular. Monitoring serum magnesium levels are crucial as it can prevent toxicity and ensure the patients' health is not at risk.

12. What are 3 nursing diagnoses that can be identified in labor and delivery? **(10 points)**

1. Risk for infection related to frequent vaginal checks as evidenced by yellow, green, or gray vaginal discharge, and odor.

2. Risks for hemorrhage related to vaginal bleeding as evidenced by losing 1000mL of blood.

3. Acute pain related to perineal trauma while delivering as evidenced by episiotomy, swollen labia and ice applied to perineum.

4. Anxiety related to delivery as evidenced by expressing feelings of fear and episodes of tachypnea.

Attach References

Alinahealth. (2021). *Timing contractions*. Www.allinahealth.org. https://www.allinahealth.org/health-conditions-and-treatments/health-library/patient-education/beginnings/giving-birth/timing-contractions

CedarsSinai. (2019). *Group B Streptococcus Infection in Babies | Cedars-Sinai*. Cedars-Sinai.org. https://www.cedars-sinai.org/health-library/diseases-and-conditions---pediatrics/g/group-b-streptococcus-infection-in-newborns.html

Choe, J., Shanks, A. L., & De Jesus, O. (2021). *Early Decelerations*. PubMed; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK557393/

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Morgan, J. A., & Cooper, D. B. (2023, July 24). *Group B Streptococcus And Pregnancy*. Nih.gov; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK482443/

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