Labor & Delivery Worksheet

This worksheet is due in the drop box by 2359 CST the night before your assigned labor and delivery clinical day.

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Date: 05/29/24

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 Length of stage: Hours to days (First time mother mean duration of 11.8 to 30 hours) **Contractions** Duration: 60 to 90 seconds Frequency: 5 to 20 minutes Strength: Mild, become stronger over time (Durham et al., 2023)	The patient may notice blood-tinged mucous in vaginal discharge, cramps, and backache (Durham et al., 2023). Cervical dilation is slow, with contractions beginning to become stronger and more frequent over time (Durham et al., 2023). In this stage many patients show their excitement and can be very talkative and capable of staying calm while contractions are taking place (Durham et al., 2023).	The nurse should perform a complete patient assessment, obtain a medical/prenatal history, and access labor status/vital signs every 30 minutes (Durham et al., 2023). Laboratory tests should be obtained, fetal monitoring in place, pain control managed, education, and nutritional status addressed (Durham et al., 2023).

Active phase Dilation: 6 to 10 cm Length of stage: 4 to 8 hours **Contractions** Duration: 45 to 60 seconds Frequency: 2 to 5 minutes Strength: Strong	The patient may become more worried or panicked, see increased vaginal discharge containing blood-tinged mucous, and an increase in pain (Durham et al., 2023). The water bag typically has broken in this stage, cardiac output increases, and gastrointestinal motility decreases (Durham et al., 2023).	Pain assessment every 30 minutes continued monitoring of fetal heart rate, and continued education throughout the laboring process (Durham et al., 2023). Both pharmacological and non-pharmacological methods of pain control should be discussed, in addition to implementing comfort measures.

(Durham et al., 2023)		
Transition Phase Dilation: 8 to 10 cm Length of stage: 15 to 60 minutes **Contractions** Duration: 60 to 90 seconds Frequency: 2 to 3 minutes Strength: Intense (Durham et al., 2023)	The patient may experience increased pressure in their lower back, perineum, and rectum (Durham et al., 2023). Other characteristics may include an urge to push, sweating, fatigue, and increased discomfort (Durham et al., 2023).	The nurse should prepare for assistance in contractions by applying counterpressure on the sacrum (Durham et al., 2023). Fetal heart rate, vital signs, pain level, and comfort measures should all be continued and assessed frequently (Durham et al., 2023).

2nd Stage of Labor	**Characteristics that could be seen**	**Expected Interventions**
Length of stage: 30 minutes to 2 hours **Contractions** Duration: 60 to 90 seconds Frequency: 2 to 3 minutes Strength: Intense (Durham et al., 2023)	The patient will be completely dilated, will have an intense urge to push, increased bloody discharge, and experience increased contractions (Durham et al., 2023). This stage ends at the delivery of the fetus.	The nurse should educate and instruct patient on bearing down in preparation for delivery (Durham et al., 2023). Interventions may also include education on breathing exercises with/between contractions, keeping the patient comfortable by pharmacological and non-pharmacological methods, and checking fetal heart rate every 5 minutes (Durham, et al., 2023).

3rd Stage of Labor	**Characteristics that could be seen**	**Expected Interventions**
	Post-delivery, the placenta is	The nurse should be prepared

Length of stage: 5 to 15 minutes (Durham et al., 2023)	separated from the uterine wall (Durham et al., 2023). Upon delivery of the placenta, there may be a sudden gush of blood, lengthening of the umbilical cord, or elevation of the uterus into the shape of a ball (Durham et al., 2023).	for a blood transfusion in case of hemorrhage. Uterotonics should be administered by provider order post-delivery (Durham et al., 2023). The mother and baby should be allowed to interact. Pain level and vital signs should continue to be monitored.

Reference (1):

Durham, R., Chapman, L., & Miller, C. (2023). *Davis advantage for maternal-newborn nursing: Critical components of nursing care* (4th ed.). F.A. Davis.

Complete the Following: (10 points)

Submit in-text citations in APA format

Diagnostic Test	**Description and Rationale**	**Clinical findings**
Non-stress test (NST)	A screening tool to indicate well-being of the fetus using fetal heart rate pattern and accelerations (Durham et al., 2023). The purpose is to screen closely for fetal status, especially in high-risk pregnancies (Durham et al., 2023).	Clinically this is a very safe, noninvasive, and reliable screening method. “When the fetal heart rate increases 15 beats above baseline for 15 seconds twice or more in 20 minutes it is considered reactive” (Durham et al., 2023, p. 148).
Biophysical profile (BPP)	An ultrasound assessment of fetal status in correlation with NST consisting of fetal movement, fetal tone, fetal breathing movement, and amniotic fluid (Durham et al., 2023).	A score of 2 or 0 are given for each of the five components of the BPP, 2 meaning present and 0 meaning absent (Durham et al., 2023). A total score of 8/10 is expected, a score of 6/10 is undetermined, a score of 4/10 is concerning, and a score of 2/10 or lower requires immediate delivery (Durham et al., 2023).
Ultrasound (US) • 1st Trimester	Ultrasound is the use of high-frequency sound waves to provide imaging of organs	In the 1st trimester, pregnancy is confirmed, fetal heart rate verified, gestational age

• 2nd Trimester	and tissues (Durham et al., 2023). This diagnostic test is done primarily in both confirming a pregnancy and in estimating gestational age (Durham et al., 2023).	estimated, uterine structures analyzed, vaginal bleeding evaluated, and missed abortion/abnormalities detected (Durham et al., 2023, p. 138). In the 2nd trimester, gestational age and due dates are confirmed, placenta confirmed, fetal weight and size confirmed, and fetal defects confirmed (Durham et al., 2023, p. 138).

Reference (1):

Durham, R., Chapman, L., & Miller, C. (2023). *Davis advantage for maternal-newborn nursing: Critical components of nursing care* (4th ed.). F.A. Davis.

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 dilation is the widening or opening of the cervical os, in which the cervix can dilate from closed to 10 cm (Durham et al., 2023). Effacement is referred to as the thinning or softening of the cervix (Durham et al., 2023). Both cervical dilation and effacement are measured by a healthcare professional during a pelvic examination.

2. List five non-pharmacological methods that can relieve pain during labor. **(5 points)**

Non-pharmacological methods to relieve pain during labor may include relaxation and breathing techniques, massages, applying counterpressure to the sacrum during contraction, using warm/cold packs, and patient positioning for comfortability (Durham et al., 2023). It should be noted that warm/cold packs should not be used for women who have had an epidural due to potential harm with loss of temperature sensation (Durham et al., 2023).

3. What is variability in fetal monitoring? **(2 points)**

Variability is described as the back-and-forth movement of the fetal heart rate around its baseline (Durham et al., 2023). Recorded on electronic fetal monitoring paper (EFM), it is measured in beats per minute.

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

Group B streptococcus (GBS) can be very severe with long-term effects on the newborn if not screened for and treated promptly prior to delivery. GBS vaginal and rectal swabs are collected around 35 to 37 weeks gestation (Durham et al., 2023). Treatment and interventions include preparation and administration of intrapartum antibiotics to prevent neonatal transmission (Durham et al., 2023).

5. What labs are completed on every woman on admission to labor and delivery? What assessment would be completed? **(2 points)**

Typically, every woman on admission to labor and delivery would have their blood drawn for a complete blood count (CBC), type-and-screen to confirm blood type, urinalysis, glucose check, and a potential drug screening (Durham et al., 2023). A complete review of the patient's prenatal record as well as a fetal status assessment must be completed on admission to a labor and delivery (Durham et al., 2023).

6. How is duration and frequency of contractions measured? **(5 points)**

The duration of a contraction is measured in seconds from the beginning of one contraction to the end of the same contraction (Durham et al., 2023). Frequency is measured in minutes and is the period from the beginning of one contraction to the beginning of the next contraction (Durham et al., 2023). It is important to note that when measuring frequency, the contraction and the rest period in between must both be considered into the time.

7. Define an early deceleration, identify causes and interventions? **(2 points)**

An early deceleration of fetal heart rate (FHR) is a gradual decrease in the FHR in a uniform shape that returns to normal during a contraction (Durham et al., 2023). The nadir or lowest point of the deceleration is seen right at the peak of this contraction (Durham et al., 2023). Early deceleration is caused by increased intracranial pressure during a contraction by which the fetal head stimulates the vagal nerve decreasing blood flow (Durham et al., 2023). There are no medical interventions needed.

8. Define a late deceleration, identify causes and interventions? **(2 points)**

Late deceleration is a gradual decrease in FHR in a uniform shape following a contraction (Durham et al., 2023). The nadir in this case is seen to occur after the contraction's peak (Durham et al., 2023). Cause of late deceleration may include a decrease in blood flow to the placenta, resulting in oxygen insufficiency (Durham et al., 2023). Interventions include changing maternal position, assessing hydration, providing oxygen, use of tocolytic drugs to suppress uterine contractions, and preparation for potential early delivery (Durham et al., 2023).

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

Unlike early and late decelerations, variable decelerations are not a uniform shape and are sudden variable decreases in the FHR (Durham et al., 2023). Variable decelerations are caused due to the umbilical cord being obstructed or compressed that slows the FHR and perfusion (Durham et al., 2023). Potential interventions include consideration for an amnioinfusion, tocolytics, early delivery, changing maternal position, or providing oxygen (Durham et al., 2023).

10. Oxytocin: what is this medication used for in labor and delivery? Identify side effects, nursing assessments, and interventions. **(10 points)**

Oxytocin is a medication used for speeding up labor, starting labor induction, and in softening and opening the cervix known as cervical ripening (Durham et al., 2023). Side effects of use may include risk of FHR decelerations, postpartum hemorrhage, nausea, vomiting, headache, allergic reaction, shortness of breath, or irregular heartbeat (Durham et al., 2023). The nurse's role is to review the prenatal record, obtain informed consent, assess both the mother and the fetus with administration of oxytocin, and focus on heart rate and water retention. When titrating for oxytocin infusion, the nurse should make sure to decrease the infusion rate or discontinue when fetal status is abnormal or contraction frequency is too quick (Durham et al., 2023). On the other hand, the nurse should also be prepared to increase the amount of oxytocin in cases where uterine activity is too slow and no progress in labor is occurring. Oxytocin is to be discontinued by the nurse once the patient is in active labor (Durham et al., 2023).

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 is used for fetal neuroprotection and as a tocolytic agent, lowering calcium in the uterine muscles to encourage muscle relaxation (Durham et al., 2023). This helps to slow contractions and potentially delay premature birth. Side effects of magnesium sulfate can cause nausea, vomiting, edema, chest pain, shortness of breath, lethargy, diaphoresis, loss of deep tendon reflexes, and in extreme cases maternal death (Durham et al., 2023, p. 162). Fetal or newborn side effects include risk for neonatal depression (Durham et al., 2023). The nurse

should monitor serum magnesium levels, check for deep tendon reflexes frequently, assess respiratory function and vital signs, monitor strict intake and output, and have the antidote calcium gluconate readily available (Durham et al., 2023, p. 162). Magnesium sulfate should be discontinued immediately if there are signs of respiratory rate suppression or low oxygen saturation.

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

1. Risk for acute pain related to muscle contractions as evidenced by crying, restlessness, grimacing, and increased heart rate.

2. Risk for anxiety related to pain and fear as evidenced by ambivalence, restlessness, and increased heart rate

3. Risk for imbalanced fluid volume related to bleeding as evidenced by hypotension, increased heart rate, and inadequate fluid intake

(Phelps, 2023)

Attach References

References

Durham, R., Chapman, L., & Miller, C. (2023). *Davis advantage for maternal-newborn nursing: Critical components of nursing care* (4th ed.). F.A. Davis.

Phelps, L.L. (2023). *Nursing diagnosis reference manual* (12th ed.). Wolters Kluwer.