Labor & Delivery Worksheet

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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: 11.8 hours for primiparas, and 9.3 hours for multiparas. **Contractions** Duration: 30-45 seconds Frequency: Every 5-20 minutes Strength: Mild to moderate in strength. They become stronger, more regular, and increase in frequency. (Durham et al., 2023)	The laboring patient may be talkative and able to relax with contractions, and show feelings of excitement and apprehension. Due to the length of the latent phase, the laboring patient may feel distressed and lose confidence in themselves. Back pain and cramps are common during this stage. Prenatal records, including laboratory tests, should be reviewed during this period (Durham et al., 2023).	Monitoring the laboring patient's vital signs, fetal heart monitoring, chart review of prenatal testing, inserting a saline lock IV, and providing pain control management are expected interventions during the latent phase. Completing a labor and delivery admission record, reviewing the birth plan, and discussing the laboring patient's expectations are common during this stage (Durham et al., 2023).

Active phase	This is characterized by regular contractions with significant effacement (80%	The fetal status should be monitored as ordered. A pain assessment should be

Dilation: 6 to 10 cm Length of stage: 4-8 hours for primiparas, and can vary and be more rapid for multiparas. **Contractions** Duration: 45-90 seconds Frequency: Every 2-3 minutes, no more than 5 in a 10-minute period Strength: Regular - Moderate (Durham et al., 2023)	or more) and greater than 5 cm dilation with ongoing cervical changes. The cervix typically dilates at a rate of 1.2-1.5 cm per hour, and multiparas tend to demonstrate even more rapid dilation. The laboring patient may exhibit decreased energy and experience fatigue. They typically become more serious and turn their attention to internal sensations. As the patient moves closer to 10 cm dilation, they may experience increased bloody show, nausea and vomiting, backache, trembling, and diaphoresis (Durham et al., 2023).	completed per unit policy, along with frequent vital signs of the laboring patient. Intrapartal vaginal exams should be performed to assess cervical changes and fetal descent. Administering analgesia as ordered and monitoring the effectiveness of their pain management and epidural (if performed) should be assessed. Promoting comfort measures, offering clear explanations and updates of progress, and encouraging relaxation methods are also common during the active phase of labor (Durham et al., 2023).

2nd Stage of Labor	**Characteristics that could be seen**	**Expected Interventions**
Length of stage: Latent: 0-2 hours, depending on patient status Active: Within 3 hours of pushing **Contractions** Duration: 60-90 seconds Frequency: Every 2-3	The cervix is completely dilated at 10 cm and can have the laboring patient pushing or waiting to push. Whether the patient feels the need to push when fully dilated depends on whether they have an epidural, the station of the fetus, and the individual. The laboring patient often describes rectal pressure when the urge to push is felt.	Assessing the laboring patient is important during this stage, including vital signs, pain control, and active listening to the patient's needs. Preparing for delivery is important, and providing reassurance to the laboring patient helps ensure comfort and safety. Instructing the laboring patient to bear down with the urge to push helps move delivery along. Assessing the fetal response to pushing (by checking FHR

minutes Strength: Moderate-Strong with an urge to bear down (Durham et al., 2023)		every 5-15 minutes after every contraction) ensures proper fetal safety. Providing comfort measures is important during this stage, as well as providing reassurance, empathy, and encouragement (Durham et al., 2023).†

3rd Stage of Labor	**Characteristics that could be seen**	**Expected Interventions**
Length of stage: 5 minutes (90% of patients will deliver the placenta within 13-15 minutes) (Durham et al., 2023)	Rising of the uterus into a ball shape can be seen and palpated. There is a lengthening of the umbilical cord at the introitus. There is often a sudden gush of blood from the vagina (Durham et al., 2023).	Prophylactic uterotonic drugs may be delivered, and uterine massage may be performed. The neonate is often placed skin-to-skin on the patient's chest, and an assessment of the respiratory status is immediately performed. Prolonged third stages can put the patient at an increased risk for hemorrhage and infection, so administering pain medications and uterotonics is important if necessary (Durham et al., 2023).

Reference (1):

Durham, R. F., Chapman, L. & Miller, C. (2023). *Davis Advantage for Maternal-Newborn Nursing: Critical Components of Nursing Care* (4th ed., p. 243-295). F. A. Davis Company.

Complete the Following: (10 points)

Submit in-text citations in APA format

Diagnostic Test	**Description and Rationale**	**Clinical findings**

Non-stress test (NST)	The non-stress test is a screening tool that uses FHR patterns and accelerations as an indicator of fetal well-being. The NST records accelerations in the FHR in relation to fetal activity and is the most widely accepted method of evaluating fetal status, particularly for high-risk pregnant patients with complications (Durham et al., 2023).	When the FHR increases 15 beats above baseline for 15 seconds twice or more in 20 minutes, the NST is considered reactive. Nonreactive NST is one without sufficient FHR accelerations in 40 minutes and should be followed up with further testing (Durham et al., 2023).
Biophysical profile (BPP)	The biophysical profile is an ultrasound assessment along with an NST. This profile uses five indicators: FHR reactivity, fetal breathing movements, fetal movement, fetal tone, and measurement of amniotic fluid (Durham et al., 2023).	A score of 2 (present) or 0 (absent) is assigned to each of the five components. A total score of 8/10 is reassuring; 6/10 may indicate possible fetal asphyxia; 4/10 is nonreassuring and indicates possible fetal asphyxia and warrants further evaluation; 2/10 indicates almost certain fetal asphyxia, which prompts immediate delivery. Fetal activities that appear earliest in pregnancy are usually last to cease (tone and movement), and those that are last to develop are usually the first to be diminished (FHR variability) (Durham et al., 2023).
Ultrasound (US) ● 1st Trimester ● 2nd Trimester	An ultrasound uses high-frequency sound waves to produce an image of an organ or tissue. This imaging technique is used throughout the pregnancy to provide status and updates on the fetus.	1st Trimester: Confirmed pregnancy location and viability by determining the number of gestational sacs, the cardiac activity of the fetus, and differentiating between an intrauterine pregnancy and ectopic

	1st Trimester: An ultrasound is performed to confirm pregnancy and calculate gestational age. 2nd/3rd Trimester: An ultrasound is performed during the 2nd and 3rd trimesters to obtain vital information as the fetus is developing in utero. (Durham et al., 2023)	pregnancy. 2nd Trimester: The fetal presentation, quantification of amniotic fluid volume, documentation of the presence or absence of cardiac activity, placental position in relationship to the cervix, appropriate fetal biometric measurements, and determination of fetal number are all assessed on this ultrasound.

Reference (1):

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 measurement that estimates the dilation of the cervical opening. Dilation is measured by sweeping the examining finger from the margin of the cervical opening on one side to that on the other (Durham et al., 2023).
- Cervical effacement is a measurement that estimates the shortening of the cervix from 2 cm to paper-thin. Effacement is measured by palpation of the cervical length with the fingertips (Durham et al., 2023).

2. List five possible non-pharmacological interventions assisting in relieving pain during labor. **(5 points)**

- Relaxation and breathing techniques are non-pharmacological interventions focusing on breathing patterns that promote relaxation. Massage and effleurage use a light stroking technique in a circular motion can help reduce pain and provide a greater sense of control. Counter Pressure on the sacral area offers pain relief in the hip area, where they may feel a lot of pressure. Hydrotherapy, such as warm baths or showers, offers pain relief through the perception of heat by nerve receptors on the skin. Changing position is a commonly used non-pharmacological intervention that is used to help progress labor and also offer pain relief (Durham et al., 2023).

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

- Fetal heart rate variability in fetal monitoring is the fluctuation of the fetal heart rate from the baseline, and is considered marked variability when the amplitude is greater than 25 beats per minute (Durham et al., 2023).

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

- If the birthing individual is GBS positive, intrapartum IV antibiotic prophylaxis will be started, since there is a high risk of newborn infection. GBS should be tested within the previous 5 weeks leading up to labor and delivery, and is tested by completing a urine culture at around 35-37 weeks gestation (or any trimester of the pregnancy if ordered). The birthing parent is treated prophylactically with antibiotics if they are GBS positive to prevent early-onset disease in the newborn. Typically, penicillin and ampicillin are used to treat GBS, but if they have an allergy to those drugs, cefazolin, clindamycin, and vancomycin may be used (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)**

- Upon admission to labor and delivery, Rh status (type-and-screen), complete blood count, possible urine drug screen, and a urine dipstick or urinalysis including protein and glucose are completed. Many assessments should be completed upon admission, including maternal vital signs, fetal heart rate, uterine contractions, cervical dilation and effacement (via vaginal assessment), and the status of membranes (Durham et al., 2023).

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

- The frequency of contractions is measured in minutes using the time from the beginning of the contraction to the beginning of another. The duration is measured in seconds by using the time from the beginning of a contraction to the end of the contraction. These are documented in the electronic health record by including the duration, frequency, and strength of the contractions (Durham et al., 2023).

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

- An early deceleration is a visually apparent gradual decrease in the fetal heart rate from baseline to nadir, taking more than 30 seconds. These do not occur early or before the contractions, and may be caused when the fetal head is subjected to pressure that stimulates the vagus nerve, or there is some type of fetal head compression resulting in increased intracranial pressure. Early decelerations are benign, and no intervention is needed (Durham et al., 2023).

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

- A late deceleration is a symmetrical, gradual decrease of the fetal heart rate associated with contractions. The onset, nadir, and recovery of the deceleration occur after the respective onset, peak, and end of the uterine contraction. A common cause of this is uteroplacental insufficiency, where there is a decrease in the availability of oxygen to the fetus. Changes in position may help as an intervention for late decelerations, stopping oxytocin infusions can reduce uterine activity, giving a bolus of IV fluids can promote fetal oxygenation, and fetal scalp stimulation may be performed to assess fetal status (Durham et al., 2023).

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

- A variable deceleration is an abrupt decrease of the fetal heart rate of less than 30 seconds from baseline to nadir. They are the most common decelerations seen in labor. Umbilical cord occlusion and compression cause variable decelerations. Common interventions include changes in the position of the maternal patient to promote fetal oxygenation, sterile vaginal examinations can be performed to evaluate the cord and labor progress, and amnioinfusion can be performed if ordered to alleviate umbilical cord compression (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 to promote uterine contraction. It is used in labor and delivery to ripen the cervix and promote labor induction. Common side effects include tachysystole leading to indeterminate or abnormal fetal heart rate patterns, failed induction of labor, FHR decelerations, and water intoxication. Nursing assessments include intermittent auscultation for labor management of FHR, monitoring the strength/frequency/duration of contractions, evaluating uterine tone by palpation, and assessing labor progress by monitoring for cervical changes. Some interventions include administering oxytocin per order, stopping the infusion if side effects are serious, and maintaining a strict intake and output record is common to monitor for fluid overload (Durham et al., 2023).

11. Magnesium Sulfate: What is this medication used for in labor and delivery? (For Mom and Baby) Identify side effects, nursing interventions, and nursing assessments. **(10 points)**

- For the mother, magnesium sulfate is used for the prevention and treatment of seizures in preeclampsia/eclampsia. It can also be used to slow or stop preterm labor. For the baby, it is used as a neuroprotectant to protect the neural tube and prevent complications. Common side effects include loss of deep tendon reflexes, flushing, respiratory depression, muscle weakness, and pulmonary edema. Some nursing interventions include administration of the medication into a patent IV, monitoring for toxicity, monitoring intake and output, and educating the laboring patient on what to expect. Common nursing assessments with magnesium sulfate include assessing deep tendon reflexes, monitoring maternal vital signs,

monitoring FHR, and observing the newborn's respiratory status, tone, and ability to feed post-delivery (Durham et al., 2023).

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

1. Risk for impaired fetal gas exchange related to uteroplacental insufficiency as evidenced by late decelerations on the fetal heart monitor (Phelps, 2023).
2. Anxiety related to an unfamiliar environment, labor process, and outcome of delivery as evidenced by verbal expressions of concern and restlessness (Phelps, 2023).
3. Acute Pain related to uterine contractions and cervical dilation as evidenced by verbal reports of pain and facial grimacing (Phelps, 2023).

References

Durham, R. F., Chapman, L. & Miller, C. (2023). *Davis Advantage for Maternal-Newborn Nursing: Critical Components of Nursing Care* (4th ed., p. 243-295). F. A. Davis Company.

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