

Labor & Delivery Worksheet

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Complete the following: (30 points)

Submit in-text citations in APA format

1 st Stage of Labor	Characteristics that could be seen	Expected Interventions
<p>Latent phase</p> <p>Dilation: 0 to 5 cm</p> <p>Length of stage: 11.8 hours completed by 30 hours for primiparas, and 9.3 hours completed by 24.5 hours for multiparas</p> <p>Contractions</p> <p>Duration: 30-45 seconds</p> <p>Frequency: Irregular, every 5-30 minutes</p> <p>Strength: Mild – Moderate</p> <p>(Durham et al., 2023).</p>	<p>During this phase, the patient is typically talkative and eager (Durham et al., 2023). The cervix will be dilated 0-5 cm (Durham et al., 2023). There may be slightly bloody mucus discharge, and the membranes could be ruptured or intact (Durham et al., 2023).</p>	<p>The nurse should monitor the dilation and effacement of the cervix (Durham et al., 2023). The mother and baby should be continuously monitored (Durham et al., 2023). Leopold maneuvers can be used to assess fetal position (Durham et al., 2023). Pain management should also be provided (Durham et al., 2023). The patient should be educated on what to expect as labor progresses and review the birth plan (Durham et al., 2023).</p>

<p>Active phase</p> <p>Dilation: 6 to 10 cm</p> <p>Length of stage: Usually 4-8 hours</p> <p>Contractions</p> <p>Duration: 45-90 seconds</p> <p>Frequency: Every 2-3 minutes</p>	<p>The patient will become more anxious and feel like “they cannot do this” (Durham et al., 2023). The cervix will be dilated to 6-10 cm and effaced 80-100% (Durham et al., 2023). The contractions will be more frequent and stronger (Durham et al., 2023). There will be slightly bloody discharge, and membranes will rupture if they haven’t (Durham et al.,</p>	<p>The nurse should provide pain management and continuously monitor the mother and baby (Durham et al., 2023). The nurse should also educate the patient on what will happen once she becomes fully dilated and effaced and begins pushing (Durham et al., 2023).</p>
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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)	The non-stress test (NST) is a non-invasive screening tool for checking fetal status (Durham et al., 2023). It uses fetal heart rate patterns and accelerations in heart rate (Durham et al., 2023). The NST is the most common and accepted screening tool for monitoring the fetus, especially in high-risk pregnancies (Durham et al., 2023).	The non-stress test can be reactive or nonreactive (Durham et al., 2023). If the fetal heart rate increases 15 beats above the baseline for 15 seconds two times or more in 20 minutes, then it is a reactive NST (Durham et al., 2023). If the fetus is less than 32 weeks, then a reactive NST would be one where two accelerations in the fetal heart rate are at least 10 beats above the baseline and last 10 seconds in 20 minutes (Durham et al., 2023). If the fetal heart rate does not have accelerations in 40 minutes, it is a nonreactive NST (Durham et al., 2023). A nonreactive NST requires further testing with an ultrasound (Durham et al., 2023).
Biophysical profile (BPP)	A biophysical profile is an ultrasound assessment of the fetus's status (Durham et al., 2023). It measures fetal movement, tone, breathing pattern, and amniotic fluid (Durham et al., 2023). The profile also includes the results of the nonstress test. The ultrasound lasts 30 minutes to correctly measure the factors (Durham et al.,	Each factor is scored a 2 for present or 0 for absent (Durham et al., 2023). An 8/10 is considered reassuring, a 6/10 is uncertain and needs more testing, a 4/10 is nonreassuring and can indicate possible asphyxia, and a 2/10 or lower indicates asphyxia and requires immediate delivery. (Durham et al., 2023)

	2023).	<p>Fetal movement needs at least three episodes of movement to score a 2. If there are fewer than three, the score is 0 (Durham et al., 2023).</p> <p>Fetal tone needs at least one episode of active extension and flexion of the limbs or hands. If there is no flexion/extension or it is slow, it is scored a 0 (Durham et al., 2023).</p> <p>The breathing pattern needs at least one breathing episode lasting at least 30 seconds to score a 2. If it is absent or less than 30 seconds, it is scored a 0 (Durham et al., 2023).</p> <p>Amniotic fluid should show at least one pocket that is at least 2cm to score a 2. If there are no pockets of fluid, then it is scored a 0 (Durham et al., 2023).</p> <p>The nonstress test results should be reactive to be scored a 2; if they are nonreactive, they are scored a 0 (Durham et al., 2023).</p>
<p>Ultrasound (US)</p> <ul style="list-style-type: none"> • 1st Trimester • 2nd Trimester 	<p>An ultrasound uses ultrasonic waves to produce an image of the fetus (Durham et al., 2023). It monitors and assesses the fetus and placenta (Durham et al., 2023).</p>	<p>During the first trimester, an ultrasound confirms pregnancy, identifies the number of gestational sacs, and confirms fetal cardiac activity (Durham et al., 2023). It also helps calculate gestational age and detect tubal/ectopic pregnancies (Durham et al., 2023). During the second trimester, an ultrasound monitors fetal</p>

		presentation, cardiac activity, and placental location (Durham et al., 2023). It also determines fetal age, weight, and due date and identifies abnormalities (Durham et al., 2023).
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Reference (1):

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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 occurs when the cervix begins to open (Durham et al., 2023). It is measured in centimeters from zero to ten. The nurse or provider will perform an exam using their fingers to estimate the width (Durham et al., 2023). The patient will be fully dilated once they reach 10 cm and are ready to deliver (Durham et al., 2023). Effacement occurs when the cervix begins to thin and become soft (Durham et al., 2023). It is measured in percentage, from zero to 100. (Durham et al., 2023). The nurse or provider will assess this as they do the exam for dilation, feeling the thickness of the cervix (Durham et al., 2023). The patient will be fully effaced at 100% when their cervix feels like a few sheets of paper in thickness (Durham et al., 2023).

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

The nurse should try to relieve the patient's pain using non-pharmacological methods, as these are less invasive and can help promote a sense of control (Durham et al., 2023). Deep breathing or Lamaze breathing techniques are common non-pharmacological methods to relieve pain (Durham et al., 2023). Another method is assisting the patient with a warm bath or shower, which can help relax the sympathetic nervous system (Durham et al., 2023). Massage or therapeutic touch can also help to provide relief (Durham et al., 2023). Assisting the patient in different positions and using a birth ball can also help pain control (Durham et al., 2023). Lastly, counterpressure can be applied using an open hand or fist to press downward on the patient's sacrum or squeezing the patient's hips during a contraction (Durham et al., 2023).

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

Variability in fetal heart rate monitoring is when there is an irregular fluctuation in the baseline (Durham et al., 2023). It can provide important information on fetal oxygenation status (Durham et al., 2023). Absent variability is when there is no amplitude range and can indicate fetal hypoxia (Durham et al., 2023). Minimal variability is when the amplitude range is less than five beats per minute (bpm) and can also indicate hypoxia (Durham et al., 2023). Moderate variability is when the amplitude range is 6 to 25 bpm and is considered normal (Durham et al., 2023). Marked variability is when the amplitude range exceeds 25 bpm (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)**

Group B streptococcus (GBS) is found in the female genital tract and the rectum (Durham et al., 2023). It can be transmitted to the baby during delivery and can cause pneumonia, sepsis, and meningitis (Durham et al., 2023). GBS is tested when the patient is 36-37 weeks gestation (Durham et al., 2023). A rectal and vaginal culture is obtained, and if the culture results are positive, the patient is started on intravenous antibiotics during their labor (Durham et al., 2023). If the patient has a history of GBS, the antibiotics will be started prophylactically (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)**

The labs completed on every woman are CBC, type and screen, Rh status, HBsAg, rapid plasma regain, rubella, glucose tolerance test results, HIV, group B streptococci, and urinalysis with protein and glucose (Durham et al., 2023). If indicated, drug screening may be done (Durham et al., 2023). Some possible ones may be done to check for complications such as preeclampsia (Durham et al., 2023). Vital signs and fetal monitoring will be done, and contractions will be monitored (Durham et al., 2023). Dilation and effacement will also be monitored to ensure the labor progresses (Durham et al., 2023). Assessments that would be done include cardiac, respiratory, peripheral vascular, neuro, and pain (Durham et al., 2023).

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

The duration of a contraction is measured in seconds by timing the start of one contraction until the end of the same contraction (Durham et al., 2023). The duration will indicate how long the contractions last (Durham et al., 2023). The frequency of a contraction is measured in minutes by timing the start of one contraction to the beginning of the next contraction (Durham et al., 2023). The frequency will indicate how often the contractions occur (Durham et al., 2023).

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

An early deceleration is a decrease in the fetal heart rate (Durham et al., 2023). It is symmetrical and begins with the start of the contraction, and the lowest point aligns with the peak of the contraction (Durham et al., 2023). Early decelerations can occur due to the uterus contracting and compressing the head of the fetus (Durham et al., 2023). No interventions are needed as these are harmless (Durham et al., 2023).

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

A late deceleration is a decrease in the fetal heart rate that begins after the end of a contraction (Durham et al., 2023). They are uniformly shaped, occur gradually, and then return to baseline (Durham et al., 2023). Late decelerations can occur due to uteroplacental insufficiency (Durham et al., 2023). Nursing interventions that can be done are changing the patient to a side-lying position, providing intravenous fluids, providing oxygen, and discontinuing oxytocin (Durham et al., 2023). If the late decelerations continue despite these interventions, the nurse may need to prepare for delivery (Durham et al., 2023).

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

A variable deceleration is a decrease in fetal heart rate and can have a U, V, M, or W shape (Durham et al., 2023). Variable decelerations vary in timing, depth, and duration (Durham et al., 2023). Variable decelerations occur due to cord compression (Durham et al., 2023). Nursing interventions that can be done include changing the patient to a side-lying position, providing oxygen, and discontinuing/decreasing oxytocin (Durham et al., 2023). If variable decelerations continue, the nurse may need to prepare for delivery (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 that is used to induce labor (Durham et al., 2023). Oxytocin is also produced naturally by the body and stimulates uterine contractions, which is why it is used to induce labor (Durham et al., 2023). Some side effects of oxytocin administration are tachysystole and fetal heart rate decelerations (Durham et al., 2023). The nurse should monitor contractions' strength, frequency, and duration to ensure the oxytocin is working (Durham et al., 2023). The nurse should also monitor fetal heart rate, dilation and effacement, and the patient's vitals (Durham et al., 2023). The nurse should also carefully titrate oxytocin to the maternal-fetal response (Durham et al., 2023). The nurse should educate the patient on the drug, its effects, and possible side effects (Durham et al., 2023). If complications occur, the nurse should discontinue the medication, administer oxygen, and notify the provider (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 a medication to delay/stop uterine contractions to prevent preterm labor and provide fetal neuroprotection (Durham et al., 2023). It is also used to prevent seizures in patients diagnosed with preeclampsia (Durham et al., 2023). Some side effects include drowsiness/lethargy, nausea/vomiting, pulmonary edema, respiratory depression, hypotension, chest pain, cardiac arrest, and loss of deep tendon reflexes (Durham et al., 2023). It can also cause neonatal depression (Durham et al., 2023). The nurse should assess vital signs, intake/output, and deep tendon reflexes (Durham et al., 2023). The nurse should perform respiratory and cardiac assessments (Durham et al., 2023). Magnesium levels should also be monitored (Durham et al., 2023). The nurse should educate the patient on the side effects to monitor for and ensure calcium gluconate is available if toxicity occurs (Durham et al., 2023).

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

1. Anxiety related to fear of delivery as evidenced by restlessness and verbal expression of concerns (Phelps, 2023).

2. Risk for hemorrhage related to uterine atony (Phelps, 2023).

3. Labor pain related to contractions as evidenced by facial and verbal expression of pain and tachycardia/tachypnea (Phelps, 2023).

References

Durham, R. F., Chapman, L. L., & Miller, C. S. (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.