

## N432 Labor and Delivery Concept map template

### Medications

Sublimaze (fentanyl citrate) 2 mg  
Pharmacologic class: Opioid; Therapeutic class: Opioid analgesic  
Reason: Pain management during labor is considerably reduced during the active phase of labor.  
Assessment: Allergy, assess heart rate, respiratory rate, blood pressure, and monitor oxygen saturation.

Pepcid (famotidine) 20mg IV every 12 hours  
Pharmacologic class: Histamine-2 blocker; Therapeutic class: Antilucer agent  
Reason: To prevent heartburn and indigestion.  
Assessment: Allergy, renal function with CBC labs, and urine output.

Zofran (ondansetron) 4mg-PRN  
Pharmacologic class: Selective serotonin (5-HT<sub>3</sub>) receptor antagonist;  
Therapeutic class: Antiemetic  
Reason: To prevent nausea and vomiting during labor.  
Assessment: Allergy, heart rate, EKG to monitor heart rhythm, shortness of breath, and dizziness.

Oxytocin (Pitocin) in NS premix 30 units/500 mL, 1-20 million units/min, 0.001-0.02 units/min, 1-20 mL/hr., IV PRN  
Pharmacologic class: Oxytocin agent; Therapeutic class: Oxytocin agent  
Reason: Uterine contractions to help induce labor  
Assessment: Be alert for seizures of decreased consciousness.

Epinephrine EpiPen  
Pharmacologic class: Sympathomimetic; Therapeutic class: Antianaphylactic,  
Reason: PT is taking this to treat anaphylaxis due to allergies to narco.  
Assessment: monitor patient's blood pressure frequently.

### Demographic Data

**Admitting diagnosis: Induction of Labor**

**Secondary diagnosis: N/A**

**Age of client: 25**

**Weight in kgs: 113.2 kg**

**Allergies: Narco**

**Date of admission: 5/31/2023**

**Support person present: Yes, her husband.**

### Presentation to Labor and Delivery

The patient is a 25-year-old female admitted at 0530 with complaints of abdominal pain that started a few hours before admission. The patient is 39 weeks and 0 days and is a G2P0T0A0L1. The patient came to L&D with her spouse and is currently in stable condition. The patient states she's here for induction of labor. The patient's abdominal pain is intermittent and not consistent. The patient describes the pain as "Achy" related to the abdomen, and the pain doesn't radiate. The patient reports taking aspirin and acetaminophen-caff-butalbital for pain, which helps.

**Electronic Fetal Heart Monitoring: (At the beginning and the end of shift.)**

**Baseline EFH: Beginning: 145 End: 140**  
**Variability: Beginning: Moderate End: Moderate**

**Accelerations: Beginning: Present End: Present**

**Decelerations: Beginning: Non-present**  
**End: Non-present**

**Contractions:**

**-frequency: Starting: 9-9.5 minutes**  
**End: 8.5-9 minutes**

**-length: Starting: 85-95 seconds**  
**End: 90-100 seconds**

**-strength: Starting: Moderate**  
**End: Moderate**

**Moderate**

**-patient's response: Patient reports she is feeling okay. She is not nauseated anymore. PT reports pain 6/10.**

## N432 Labor and Delivery Concept map template

### **Prenatal & Current Lab Values/Diagnostics**

Chloride – 108; Normal – 99 – 106. PT has a low albumin due to dehydration.  
Albumin – 2.6; Normal – 3.4 - 5.4 g/dL PT has a low albumin due to malnutrition.  
Phosphatase – 172; Normal – 34-104. It is usually elevated during pregnancy. However, there is a possibility of placental insufficiency (Pagana & Pagana, 2018).  
HGB – 10.7; Normal – 11.0 – 16.0 g/dL. It is common in pregnancy that hemoglobin is low due to a deficiency in iron and other vitamins.  
HCT – 33.7; Normal – 34.0 – 47.0%. Abnormal: Due to blood plasma volume increase in pregnancy women experience anemia which means a consistent supply of iron and vitamins is needed to maintain favorable levels in the blood.

### **Medical History**

**Prenatal History: G2, T1, P0, A0, L1.**

**Previous Medical History: Asthma, Anxiety, and cervical cancer screening and Hypertension.**

**Surgical History: Cholecystectomy (9/21/2020)**

**Family History: Congenital Heart Defect, Hypertension, and Cervical/Ovarian Cancer.**

**Social History: The patient denies using any drugs, tobacco, or alcohol.**

### **Active Orders**

**NPO – To avoid aspiration.**

**Epidural infusion – It provides anesthesia that creates a band of numbness from the bellybutton to upper legs.**

**CBC – To recheck PT's HGB & HCT.**

**Avoid supine position – Laying flat can restrict blood flow.**

**Reposition side to side – To provides the best circulation for PT and the baby.**

**IV access – For emergency access to administer medication.**

## N432 Labor and Delivery Concept map template

### Stages of Labor

#### Stage 1

According to HealthPartners (n.d.), the first stage of labor is usually the longest as the body gets ready for delivery.

The latent and active phase of labor occurs in the first stage of labor. Contractions or tightening, a show when the mucus plug from the cervix comes away, backache, a want to use the restroom, and the breaking of the water are a few signs and symptoms of the first stage of labor. The latent phase occurs from 0-6 cm of cervical dilation. The cervical effacement is from 0% to 40% at this time. The patient was 4 cm dilated upon witnessed uterine examination shortly after arriving for induction and 7% effaced. This phase can last up to 14 hours in multipara moms. The patient is G2T0POAOL1. Contraction frequency is generally every 5-10 minutes, with a 30-45 second duration in this phase. The patient's contractions are 9 - 9.5 minutes apart, lasting about 90 - 100 seconds. Contraction intensity in this phase is mild to palpation. The patient's contractions are mild. Blood pressure may increase as discomfort increases, white blood cell count will increase, LDL will increase, and so will triglycerides. Standing, walking, rocking in a chair, squatting, and sitting upright are interventions used in this stage. The patient would advance to the active phase once the cervix is dilated between 6-10 cm. Cervical effacement would reach 40-100%. This stage would last about 4 hours for this multipara patient. According to Ricci et al. (2021), expect contraction frequency every 2-5 minutes, contraction duration 45-60 seconds, and contraction intensity moderate to palpation during this phase. The patient is currently lying on her side, covered with a blanket. The patient received pain medication, and she is resting her eyes.

#### Stage 2

This nursing student's patient did not experience this stage of labor.

The second stage of labor is pushing. The fetus's passage through the birth canal occurs during the second stage of labor. After the cervix is fully dilated, the second stage of labor starts. The second stage is complete once the delivery of the fetus occurs. The pregnant mom can experience severe pressure during contractions that feel like the urge to urinate or have a bowel movement. The contractions force the baby down the birth canal. A few factors, such as parity, long pushing, the use of epidural analgesia, maternal BMI, birthweight, OP position, and fetal station at complete dilatation, all impact how long this second stage of labor lasts.

## N432 Labor and Delivery Concept map template

### Stage 3

This nursing student's patient did not experience this stage of labor.

The third stage of labor is the delivery of the placenta. The third stage of labor is the shortest and the easiest. Although the placenta delivery usually takes 30 minutes, it sometimes takes an hour. There will still be frequent, mild, and less uncomfortable contractions. The placenta is aided in entering the delivery canal by contractions. To deliver the placenta, the patient is instructed to push gently once more. As the placenta separates from the uterus after delivery, the patient will experience some blood loss. It is typical. The body is equipped to tolerate this blood loss because the amount of blood increases by 50% throughout pregnancy. Before or after the placenta is delivered, the patient might be given medication to promote uterine contractions and reduce bleeding. The doctor will inspect the placenta to ensure it is whole. To avoid bleeding and infection, any fragments that are still inside the uterus must be taken out.

<p style="text-align: center;"><b>Nursing Diagnosis 1</b></p> <p>Acute pain related to increasing uterine contractions secondary to labor and delivery as evidenced by increased pressure in back and verbalization of pain 6 out of 10.</p>	<p style="text-align: center;"><b>Nursing Diagnosis 2</b></p> <p>Decreased cardiac output related to increased systemic vascular resistance as evidenced by changes in blood pressure.</p>	<p style="text-align: center;"><b>Nursing Diagnosis 3</b></p> <p>Risk of aspiration related to treatment regimen as evidenced by Pitocin hourly increment increases.</p>
<p style="text-align: center;"><b>Rationale for the Nursing Diagnosis</b></p> <p>Rationale for the Nursing Diagnosis This patient is experiencing pain that is increasing from a 4 to a 6. She also verbalizes pain in her lower back.</p>	<p style="text-align: center;"><b>Rationale for the Nursing Diagnosis</b></p> <p>The patient is experiencing high blood pressure that started during the first stage of pregnancy. The patient states she wants to lower her blood pressure.</p>	<p style="text-align: center;"><b>Rationale for the Nursing Diagnosis</b></p> <p>Aspiration can occur during childbirth because of loosened stomach muscles brought on by high progesterone levels. Moreover, the uterus may rub up against the stomach, increasing the possibility of aspiration.</p>
<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> Elevate patient's head 30 degrees, then vary positions by shifting side to side and hip rolling.</p>	<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> Provide frequent rest periods with bed rest and restrict activity rather than complete bed rest. <b>Rationale:</b> Bed rest is important. Bed rest lessens the</p>	<p style="text-align: center;"><b>Interventions</b></p> <p><b>Intervention 1:</b> Explain treatment to patient and family.</p>

N432 Labor and Delivery Concept map template

<p><b>Rationale:</b> Respiratory depression is prevented when head of bed is elevated. Position adjustments helps the fetus adjust and form to the client's pelvis and increase comfort (Ricci et al., 2021).</p> <p><b>Intervention 2:</b> Instruct and support with proper beathing, relaxation, and abdominal lifting techniques.</p> <p><b>Rationale:</b> Breathing and relaxation strategies may help with the labor process and help with blocking pain impulses (Ricci et al., 2021).</p>	<p>pain from contractions (Ricci et al., 2021).</p> <p><b>Intervention 2:</b> Monitor the client's blood pressure and instruct monitoring blood pressure at home.</p> <p><b>Rationale:</b> Monitoring blood pressure is essential to help keep track of improvement. Rising blood pressure levels can indicate worsening preeclampsia (Ricci et al., 2021).</p>	<p><b>Rationale:</b> Encourage compliance (Phelps, 2020).</p> <p><b>Intervention 2:</b> Assess need for antiemetic drugs.</p> <p><b>Rationale:</b> To reduce nausea and vomiting (Phelps, 2020).</p>
<p><b>Evaluation of Interventions</b></p> <p>The patient was very intrigued in learning how to decrease pain using pharmacologic measures such as breathing, head elevation, and relaxation. The patient stated their pain decreased after these nonpharmacologic measures.</p>	<p><b>Evaluation of Interventions</b></p> <p>The patient was very supportive of the interventions that would help improve their diagnosis. The patient agreed to incorporate frequent rest periods. The patient was also monitoring their own pressure and understood the importance of keeping their blood pressure lower.</p>	<p><b>Evaluation of Interventions</b></p> <p>Discussed NPO status necessary to prevent aspiration as labor progresses.</p>

N432 Labor and Delivery Concept map template

**References (3):**

HealthPartners (n.d.). *The stages of labor and delivery: What happens, how long each takes and more.* <https://www.healthpartners.com/blog/stages-of-labor-and-delivery/>

Jones & Bartlett Learning. (2022). *2022 Nurse's drug handbook* (19<sup>th</sup> ed.). Jones & Bartlett Learning.

Phelps, L. L. (2020). *Sparks & Taylor's nursing diagnosis reference manual* (11th ed.). Wolters Kluwer.

Ricci, S. S., Kyle, T., & Carman, S. (2021). *Maternity and pediatric nursing* (4th ed.). Wolters Kluwer.