

## N432 Labor and Delivery Concept map template

### Medications

**Misoprostol (Cytotec)** quarter tablet of 25 mcg posterior vaginal fornix/cervical every 4 hours, and 100 mcg, rectal, PRN postpartum  
Pharmacological class: Prostaglandins analogues  
Therapeutic class: Gastrointestinal agent  
Use: To prevent ulcers from medications such as aspirin.  
Nursing considerations: If administering misoprostol, have terbutaline readily available.

**Methylergonovine (methergine)** 200 mcg, IM, every 2 hours PRN for bleeding  
Pharmacological class: Ergot alkaloids  
Therapeutic class: Oxytocic  
Use: To prevent hemorrhage from happening from childbirth.  
Nursing considerations: Monitor heart rate, blood pressure, uterine tones, and for vaginal bleeding.

**Penicillin G potassium** 5 million units in 0.9% NaCl, 100 mL, IVPB set at 200 mL/hr once  
Pharmacological class: Penicillin  
Therapeutic class: Antibiotics  
Use: Patient is taking to prevent bacterial infection due to being positive for strep.  
Nursing considerations: Monitor signs of allergic reactions and anaphylaxis, including pulmonary and skin reactions.

**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  
Use: Uterine contractions to help induce labor  
Nursing considerations: Be alert for seizures of decreased consciousness.

No other medications given at this time.

### Demographic Data

**Admitting diagnosis: High risk pregnancy- third trimester**

**Secondary diagnosis: N/a**

**Age of client: 26**

**Weight in kgs: 95.3 kg**

**Allergies: No known allergies**

**Date of admission: 9/19/22**

**Support person present: Boyfriend**

### Presentation to Labor and Delivery

Patient is a 26-year-old female admitted at 530 with complaints of abdominal pain that started a couple hours prior to admission (9/19). Patient is 39 weeks and 5 days and is a G1P0T0A0L0. Patient came to L&D via ambulation accompanied by spouse and is currently in stable condition. Patient states she's here for induction of labor. Patient's abdominal pain is intermittent and not consistent. Describes pain as achy related to the abdomen and pain doesn't radiate. Patient has been 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: Nonpresent**

**End: Nonpresent**

**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**

**-patient's response: Patient had a grimace on her face the whole time. She was in pain and**

**Stages of Labor**

**Stage 1**

The first stage of labor is always the longest stage. Cervical dilation of the cervix is measured in cm. Once cervical dilation is 10 cm, labor is considered to be complete. Labor can be spontaneous or it can be induced. During this stage, the fetus is in the head-down position.

Onset of labor is determined from assessment. The duration of labor can be regular or irregular. Labor can be spontaneous or it can be induced. During this stage, the fetus is in the head-down position.

**Prenatal & Current Lab Values/Diagnostics**

- Leukocytes: Trace (Negative) → Can be caused by inflammation or urinary tract infection during pregnancy (Pagana & Pagana, 2018).
- UR, Protein: Trace (Negative) → Proteins in the urine, especially in the presence of high blood pressure can indicate pre-eclampsia (Pagana & Pagana, 2018).
- UR, Ketones: Small (Negative) → During pregnancy, ketones in the diet can mean poor diet, fasting, or an illness (Pagana & Pagana, 2018).
- Alkaline phosphate: 188 (34-104) → Is usually elevated during pregnancy. However, there is a possibility of placental insufficiency (Pagana & Pagana, 2018).

**Medical History**

- Prenatal History:** Patient has a prenatal history of pelvic pain, ovarian cyst during 1<sup>st</sup> trimester, dysmenorrhea, and menorrhagia with regular cycle. Patient also has hypertension and is monitoring her blood pressure daily. Patient is logging her blood pressure readings.
- Previous Medical History:** Patient has a medical history of anxiety, COVID-19, dysmenorrhea, and menorrhagia with a regular cycle.
- Surgical History:** N/a
- Family History:** History of diabetes in paternal grandmother
- Social History:**
  - Drug use: Yes
  - Types: Marijuana
  - Frequency: 3x per week

**Active Orders**

- Diet NPO except for ice chips
  - NPO helps decrease risks of aspiration while under anesthesia.
- Bedrest with bathroom privileges
  - Bedrest to help decrease stress related to the patient's high blood pressure.
- Monitor uterine contractions and fetal heart tones
  - Monitoring these are very important because uterine contractions can inhibit adequate blood flow to get to the placenta, reducing the oxygen supply to the baby.
- Strict intake and output
  - Adequate fluid intake and output is essential to keep the baby and mother hydrated.

As the baby's head moves through the vagina, the mother also may experience a bloody show during this phase. Patient may experience nausea, vomiting, stretching, and burning feelings inside the vagina. The second stage ends with complete cervix dilation.

N432 Labor and Delivery Concept map template

**Stage 3**

The third stage of labor begins with the birth of the newborn and ends with the separation and birth of the placenta. Skin-to-skin contact is very important immediately following birth. The delivery of the placenta typically takes place within 30 minutes of giving birth. Placental separation and placental expulsion also take place. Placental separation happens from contractions that cause the placenta to pull away from the uterine wall. Blood is expelled from the vaginal opening during this. After separation of the placenta from the uterine wall, continuous uterine contractions cause the placenta to be expelled. The nurses make sure to massage the abdomen after delivery of the placenta to help prevent the possibility of hemorrhage.

<p><b>Nursing Diagnosis 1</b> Decreased cardiac output related to increased systemic vascular resistance as evidenced by changes in blood pressure.</p>	<p><b>Nursing Diagnosis 2</b> Knowledge deficit related to first pregnancy as evidenced by verbalization of labor misconceptions.</p>	<p><b>Nursing Diagnosis 3</b> 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><b>Rationale for the Nursing Diagnosis</b> 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><b>Rationale for the Nursing Diagnosis</b> This is the patient's first pregnancy, so this is a new experience for her. She displays a knowledge deficit when it came to the size of her dilations. She wasn't sure why she was only dilated 2 cm and not increasing in dilation quickly.</p>	<p><b>Rationale for the Nursing Diagnosis</b> This patient is experiencing pain that is increasing from a 4 to a 6. She also verbalizes pain in her lower back.</p>
<p><b>Interventions</b> Intervention 1: Provide frequent rest periods with bed rest and restrict activity rather than complete bed rest.</p>	<p><b>Interventions</b> Intervention 1: Include the patient in creating the teaching plan, beginning with establishing objectives and goals for learning.</p>	<p><b>Interventions</b> Intervention 1: Elevate patient's head 30 degrees, then vary positions by shifting side to side and hip rolling.</p>

N432 Labor and Delivery Concept map template

<p><b>Rationale:</b> Bed rest is important. Bed rest lessens the pain from contractions (Ricci et al., 2021).  <b>Intervention 2:</b> Monitor the client's blood pressure and instruct monitoring blood pressure at home.  <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> Goal setting allows the patient to know what will be discussed and expended during each session (Ricci et al., 2021).  <b>Intervention 2:</b> Focus teaching sessions on a single concept or idea.  <b>Rationale:</b> Focusing on a single concept or idea helps the patient focus on the material and understand the material being discussed (Ricci et al., 2021).</p>	<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).  <b>Intervention 2:</b> Instruct and support with proper beathing, relaxation, and abdominal lifting techniques.  <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><b>Evaluation of Interventions</b>  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>  The patient was very eager to learn more about what is expected for dilation in each stage and how rates of dilation vary from person to person. The patient agrees with the idea of focusing on a single topic to help gain a better understanding.</p>	<p><b>Evaluation of Interventions</b>  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>

**References (3):**

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

Pagana, K. D. & Pagana, T. J. (2018). *Mosby's diagnostic and laboratory test reference* (6th ed.). Mosby.

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