N432 Labor and Delivery Concept map template

Medications

Ondansetron hydrochloride	Fentanyl	Ephedrine sulfate	Lactated ringers	Ropivacaine
Pharmacological: selective serotonin (5-HT3) receptor antagonist (Jones & Bartlett, 2022). Therapeutic: Antiemetic (Jones & Bartlett, 2022).	Pharmacological: Opioid (Jones & Bartlett, 2023). Therapeutic: Opioid analgesic-controlled substance schedule II (Jones & Bartlett, 2023).	Pharmacological: Alpha/Beta-adrenergic agonists (Oja, 2023). Therapeutic: Sympathomimetic (Oja, 2023).	Pharmacological: Isotonic solution (Capriotti, 2020). Therapeutic: Isotonic solution (Capriotti, 2020).	Pharmacological: Amino amide (Ricci et al., 2021). Therapeutic: Local anesthetic (Ricci et al., 2021).
The patient is taking medication for nausea (Jones & Bartlett, 2022).	The patient is taking medication for pain relief (Jones & Bartlett, 2022).	The patient is taking medication for hypotension (Oja, 2023).	This is used to prevent dehydration (Capriotti, 2020).	This is used for the epidural/nerve block (Ricci et al., 2021).
Key nursing assessments: Push slowly over 30 seconds IV push (Jones & Bartlett, 2022). Monitor serum potassium and magnesium before administration (Jones & Bartlett, 2022).	Key nursing assessments: Monitor vital signs (heart rate, blood pressure, and respiration) (Jones & Bartlett, 2022). Monitor pain assessments (Jones & Bartlett, 2022). Administer over 1-2 minutes IV push (Jones & Bartlett, 2023).	Key nursing assessments: Monitor blood pressure (Oja, 2023).	Key nursing assessments: Ensure IV site is patent (Capriotti, 2020).	Key nursing assessments: Monitor vital signs (Blood pressure, heart rate, and oxygen) (Ricci et al., 2021).

Demographic Data

Admitting diagnosis: Frequent contractions

Secondary diagnosis: Advanced maternal age

Age of client: 42 years old

Weight in kgs: 89.3 kgs

Allergies: No known allergies

Date of admission: 9/7/23

Support person present: Husband

Presentation to Labor and Delivery

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

Baseline EFH: 145 bpm 120 bpm

Variability: Moderate Moderate

Accelerations: Present Present

Decelerations: None None

Contractions:

-frequency: 3-4 mins 3-4 mins

-length 80-120 seconds 40-50 seconds

-strength Strong Mild

-patient's response:

"Pressure and pain around abdomen" pt. stated with grimacing.

"Shooting pain on the sides of the abdomen but feel relieved due to epidural" pt. stated while smiling.

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The patient presented to labor and delivery for frequent contractions every three to five minutes. The patient described the pain as "10 out of 10" and felt "sharp shooting pains throughout her abdomen." The patient said she started having contractions at "2:30 a.m." and "contractions began to get more frequent and painful." The patient states, "Nothing makes the pain better, and standing makes the pain worse." The patient states she had "Braxton hicks throughout pregnancy, but nothing compares to the pain she was experiencing." The patient was admitted to the hospital for induction. The patient was 40 weeks and one day upon arrival. The patient got pregnant through in vitro fertilization. Pregnancy complications included advanced maternal age and anxiety regarding pregnancy due to prior miscarriage.

Prenatal & Current Lab Values/Diagnostics

- Rubella- Immune
- Hepatitis B- Immune
- MCH- 33.3 → Normal: 26.0 to 33.0 (Carle Foundation Hospital, 2023).
  - ➔ MCH is elevated due to bigger red blood cells carrying more hemoglobin. It can be a sign of macrocytic anemia (Capriotti, 2020).
- MCHC- 36.3 →Normal: 31.0 to 35.0 (Carle Foundation Hospital, 2023).
  - ➔ MCHC is elevated due to higher hemoglobin concentration in red blood cells (Capriotti, 2020).

Medical History

Prenatal History: G2**-T**0**-P**0**-A**1**-L**0

The patient had in vitro fertilization to get pregnant. Began prenatal care once pregnant at six weeks—concern for advanced maternal age and prior medical history of anemia**.**

Previous Medical History: Anemia

Surgical History: N/A

Family History: Father- Hypertension

Social History: The patient denies the use of tobacco, marijuana, and other substances. The patient reports that before pregnancy, she would occasionally drink a mixed drink or a glass of wine once or twice a week, and she has done this for 15+ years.

Active Orders

- Strict intake/output →due to the risk of pulmonary edema (Ricci et al., 2021).
- Continuous fetal monitor→ this is to monitor the baby (Ricci et al., 2021).
- NPO → due to the chance of cesarean section (Ricci et al., 2021).
- Q4 vital signs → monitor vital signs to ensure vital signs stay within normal range (Ricci et al., 2021).
- Check leg strength and sensation hourly → due to the epidural the patient received (Ricci et al., 2021).
- Complete OB hemorrhage risk score → due to the risk for hemorrhage (Ricci et al., 2021).
- Avoid supine at all times → due to the risk of hypotension (Ricci et al., 2021).
- Reposition side to side → due to continuous monitoring of fetal strip placement and to help with dilation (Ricci et al., 2021).
- Blood bank hold tube → in case the patient needs a blood transfusion after giving birth (Ricci et al., 2021).

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Stages of Labor
Stage 1 During the first stage of labor is the dilation of the cervix (Ricci et al., 2021). Dilation is checked by vaginal examination and is noted in centimeters (Ricci et al., 2021). The cervix dilates to pass the fetus from the uterus to the vagina and continues until it reaches ten centimeters. The fetal membranes also rupture during this stage of labor but can remain in place until the baby's birth (Ricci et al., 2021). Signs in this stage include uterine contractions and abdominal cramping due to the dilation of the cervix (Ricci et al., 2021). This stage of labor can last for various amounts of time. This patient had been in labor for about 10 hours, and at 1230, the patient was dilated to 8 centimeters. The patient states, "Contractions began on 09/7 at 0230 with sharp shooting pains around the abdomen." The patient stated that this was happening every three to five minutes. The patient also stated that "her water had not broken yet" upon presentation to the hospital. This stage consists of two phases- latent and active phases. The latent phase starts with consistent contractions and will end with rapid cervical dilation (Ricci et al.,2021). Contractions will last around thirty to forty-five seconds every five minutes (Ricci et al., 2021). The active phase occurs after the rate and cervical dilation increases to ten centimeters. Contractions will become more frequent, lasting every two to five minutes and increasing to about forty-five to sixty seconds (Ricci et al., 2021). The mother will start to limit interactions with people in the room and begin to use breathing techniques to cope with contractions (Ricci et al., 2021). During this stage, the patient also received an epidural to ease pain when she was at four centimeters. After the epidural, the patient got a Foley catheter and began to rest as she progressed in dilation. The patient switched positions every hour to increase cervical dilation.
Stage 2 The second stage of labor starts with ten centimeters of dilation and complete effacement and then proceeds to the birth of the newborn (Ricci et al., 2021). This stage includes the passage of the fetus through the birth canal and out of the mother's body (Ricci et al., 2021). Contractions will last sixty to ninety seconds every two to three minutes (Ricci et al., 2021). Once it is time to push, the mother will feel less agitated as she focuses all her energy on pushing (Ricci et al., 2021). There will be an increase in abdominal pressure during this stage, which will cause the urge to push in mothers (Ricci et al., 2021). As the perineum bulges, there will be an increase in the bloody show, and the baby's head will begin to be seen in the vaginal opening, which is then called crowning (Ricci et al., 2021). This patient had not progressed into stage 2 labor yet.

Stage 3

The third stage begins with the newborn exiting the birth canal. Once the baby is born, it is best to place the baby on the mother's abdomen to initiate skin-to-skin contact and provide a transition to life outside the uterus (Ricci et al., 2021). The third stage of labor has two phases: placental separation and placental expulsion (Ricci et al., 2021). In placental separation, the uterus will contract strongly and begin to retract once the baby exits (Ricci et al., 2021). When this occurs, the uterus will rise upward, the umbilical cord will lengthen, blood will trickle from the vaginal open, and the uterus will assume a globular shape (Ricci et al., 2021). During the placental expulsion, the contractions will aid in the birth of the placenta, which can take two to thirty minutes (Ricci et al., 2021). Once the placenta is delivered, the physician or midwife will massage the uterus until it is firm so that blood vessels contract and reduce the possibility of hemorrhage (Ricci et al., 2021). The provider will also inspect the placenta to ensure all the sections are intact (Ricci et al., 2021). This patient had not made it into stage 3 labor yet.

Nursing Diagnosis 1 Acute pain related to contractions as evidenced by verbal reports of the patient stating, “I feel sharp shooting pain throughout my abdomen,” with a numeric pain rating of 10 out of 10, and the patient was crying, moaning, and complaining of feeling “restless.”	**Nursing Diagnosis 2** Risk of falls related to receiving an epidural as evidenced by the patient verbalizing, “My lower body and legs feel numb.”	**Nursing Diagnosis 3** Risk of anxiety related to lack of understanding of physiological changes during childbirth as evidenced by patient verbalizing, “I feel so anxious, I do not know what to expect through all of this.”
Rationale for the Nursing Diagnosis The patient was in a lot of pain due to having contractions and verbalized the pain she was feeling.	**Rationale for the Nursing Diagnosis** The patient received an epidural and is now at risk of falls because she cannot feel anything on the lower part of her body.	**Rationale for the Nursing Diagnosis** The patient was getting anxious because she was worried about the process and what to expect next throughout the different stages of childbirth.
Interventions **Intervention 1:** Discuss pain relief options with the	**Interventions** **Intervention 1:** Check leg strength and sensation	**Interventions** **Intervention 1:** Educate the patient on the next

patient (Phelps, 2020). **Rationale:** This will educate the patient on her options to help reduce the pain (Phelps, 2020). **Intervention 2:** Instruct the patient on breathing techniques to help with the pain (Phelps, 2020). **Rationale:** This will help the patient breathe through the pain and help her focus through the contractions (Phelps, 2020).	hourly (Carle Foundation Hospital, 2023). **Rationale:** This will let the nurse and provider know what the patient can feel and how much the patient can move her lower body (Carle Foundation Hospital, 2023). **Intervention 2:** Keep personal items and call light within reach (Phelps, 2020). **Rationale:** This prevents the patient from having to reach or try moving to get something she needs (Phelps, 2020).	steps on what to expect during her progression of labor (Phelps, 2020). **Rationale:** This will help ease the patient's anxiety and guide her through childbirth (Phelps, 2020). **Intervention 2:** Instruct the patient through relaxation techniques to help reduce feelings of anxiety (Phelps, 2020). **Rationale:** Providing her relaxation techniques can help her calm down and prepare for what to expect next through her laboring process (Phelps, 2020).
Evaluation of Interventions The patient utilized breathing techniques to help her through contractions. After the patient was educated on different pain relief options, the patient decided to receive an epidural.	**Evaluation of Interventions** The patient was okay with these interventions and understood the risks of falling with an epidural.	**Evaluation of Interventions** The patient was feeling overwhelmed as this was her first baby. Educating her on what to expect through the next few hours helped settle her down. The patient was going to try to watch television and nap so that she was not as worried and could process what was potentially going to happen next.

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