Medications

misoprostol (Cytotec) 25 mcg cervical Q4H

- Pharmacological Class: Prostaglandin
- Therapeutic Class: Antisecretory
- The patient is taking this medication to induce contractions. It may also reduce postpartum hemorrhage.
- Assess contractions and fetal heart tones.

methylergonovine (Methergine) 200 mcg IM Q2H

- Pharmacological Class: Ergot alkaloid
- Therapeutic Class: Oxytocic agent, uterine stimulant
- The patient is prescribed this medication to produce sustained contractions to shorten the 3rd stage of labor and reduce blood loss, which is especially important since they are anemic.
- Assess blood pressure, pulse, and serum calcium level. Check for any signs of bleeding.

butorphanol (Stadol) 1 mg IV Q2H prn

- Pharmacological Class: Opioid agonist
- Therapeutic Class: Opioid analgesic
- The patient is taking this medication to relieve pain during labor.
- Monitor for respiratory status and blood pressure because this drug is a CNS depressant that can cause respiratory depression or hypotension.

oxytocin (Pitocin) 0.001-0.02 units/min IV prn

- Pharmacological Class: Uterine smooth muscle stimulant
- Therapeutic Class: Oxytocic agent
- The patient is given this medication for the induction of labor.
- Assess baselines for vital signs and the fetal heart rate. Also assess the frequency, strength, and duration of contractions

ondansetron (Zofran-ODT) 4 mg oral Q12H prn

- Pharmacological Class: Selective serotonin receptor antagonist
- Therapeutic Class: Antiemetic
- This medication is used to manage nausea for the patient.
- The electrolytes of the patient should be assessed for hypokalemia or hypomagnesemia because it raises the risk of a QT-interval prolongation.

Demographic Data

Admitting diagnosis: Induction of labor

Secondary diagnosis: High risk pregnancy related to anemia

Age of client: 20 years old

Weight in kgs: 68

Allergies: NKA

Date of admission: 9/22/22

Support person present: Partner (father of the child)

Presentation to Labor and Delivery

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

Baseline EFH: 125 -> 130

Variability: moderate -> moderate

Accelerations: yes -> yes

Decelerations: none -> none

Contractions:

   -frequency: (7-7.5/min) -> (~13/min)

   -length: (70-90 sec) -> (40 sec)

   -strength: mild -> mild

   -patient's response: comfortable in left side lying position -> comfortable supine on cellphone

N432 Labor and Delivery Concept map template

The patient was admitted to a room in the L&D unit for induction of labor on 9/22/22 at 0630. The patient did not report any vaginal bleeding, changes in discharge, or pain. The patient is at 39 weeks of gestation and is in stable condition with vital signs showing a heart rate of 65 and blood pressure at 115/58. A cervical exam was performed and shows that the patient is 2.5 cm dilated and effacement is 50%. A fetal heart monitor was placed on the patient and fetal heart rate was 152.

Stages of Labor

Stage 1

The first stage of labor is the longest and is div[...] **he cervix as it begins to thin and soften, or ripen and dilate to allow the passage of the fe**[...] **very unit with a dilation of 2.5 cm upon cervical examination and 50% effacement. Thi**[...] **lation reaches up to 6 cm and mild contractions occur every 5-10 minutes and last**[...]

Prenatal & Current Lab Values/Diagnostics

Lab/Diagnostic Value	Normal Range	Prenatal/Current Values
WBC	5-10	10.1
RBC	4.7-6.1	3.67
Hgb	14-18	9.2
Hct	42-52	28.3
Platelets	150-400	419
Neutrophil Count	55-70	61.1
Lymphocyte Count	20-40	25.1
Monocyte Count	2-8	7.2
Eosinophil Count	1-4	0.6
TSH	0.5-5.0	0.981
Fetal Heart Rate	110-160	152

The patient's RBC, Hgb, and Hct indicate that they are anemic. This could be explained due to iron deficiency as the medical history shows that there was insufficient prenatal care in the 3rd trimester. During pregnancy, a woman needs to increase their iron intake because of the increase in blood volume in their body for tissue perfusion of the mother and the fetus (Ricci et al., 2021). Platelet count is increased, and this is also related to iron deficiency (Pagana, 2020). WBC is slightly elevated, which is associated with the final month of pregnancy and labor because of physiological stress on the mother's body (Pagana, 2020). Eosinophils are associated with allergic reactions, so a slightly less than expected value is normal (Pagana, 2020).

Medical History

Prenatal History: pyelonephritis, low maternal weight, vaginitis, insufficient prenatal care in 3rd trimester, UTI, normal 1st pregnancy (2020)

Previous Medical History: anemia, scoliosis, herpes simplex type I

Surgical History: None

Family History: Unspecified cancer (maternal grandfather), diabetes mellitus (maternal grandfather), hypertension (maternal grandfather), skin cancer (mother), deep vein thrombosis (maternal grandfather)

Social History: no reported history of tobacco, alcohol, or drug use (positive urine test for cannabinoids)

Active Orders

- Vital signs per unit routine to assess for abnormal findings that may require interventions
- Strict I & O to assess hydration status and reduce the risk of aspiration
- Cervical exam Q2H unless contraindicated to assess the progression of labor and cervical changes
- Monitor fetal heart tones to assess fetal heart rate during contractions and any changes in heart rate that may require interventions
- Monitor uterine contractions to assess the progression of labor
- Insert and maintain IV line for administration of medications and fluids as prescribed
- Ice pack to perineum immediately postpartum to provide pain relief
- Place SCD until discontinued for DVT prophylaxis
- Protocol for tachysystole management to reposition the mother on their left side, provide fluids and oxygen, decrease oxytocin, and notify the provider

Stage 3
During the third stage of labor, the placenta separates and is delivered after the birth of the infant. Signs of the placenta separating in preparation to be delivered include lengthening of the umbilical cord, a change to a globular shape in the uterus, and a sudden release of blood. It can take up to 30 minutes after the birth of the newborn for the placenta to be expelled from the mother's body. Average blood loss is about 500 mL in a vaginal birth. The nurse should assess that the placenta is completely present because there is a possibility it can be attached to the uterine wall and lead to postpartum hemorrhage (Ricci et al., 2021).

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Risk for deficient fluid volume related to anemia as evidenced by Hgb level of 9.2 and RBC of 3.67	**Risk for acute confusion and bleeding related to the administration of Pitocin as evidenced by potential side effects**	**Deficient knowledge related to induction of labor as evidenced by first birth through induction**
Rationale for the Nursing Diagnosis **The patient is at risk for a fluid volume deficit because of their low red blood cell count and hemoglobin. This is important because hemorrhage could occur and would require immediate interventions to avoid harm to the patient.**	**Rationale for the Nursing Diagnosis** **The patient is currently being administered oxytocin for induction of labor and it is significant to know the potential side effects to prevent risks that may occur during the labor process.**	**Rationale for the Nursing Diagnosis** **The patient had a natural, spontaneous birth for their first child, and it is their first time being induced with this pregnancy. Because of this, the patient should be educated to reduce anxiety and build a trusting relationship with the nurse.**
Interventions **Intervention 1: Monitor and record vital signs** **Rationale: Vital signs should be assessed and**	**Interventions** **Intervention 1: Assess the patient's level of consciousness and changes in behavior to provide**	**Interventions** **Intervention 1: Educate the patient on the process that is the induction of labor along with**

monitored for signs that are synonymous with hypovolemia like fever, tachycardia, dyspnea, and hypotension (Phelps, 2020). **Intervention 2: Establish and maintain IV access** **Rationale: Parental fluids may need to be administered as prescribed to replace fluid losses (Phelps, 2020).**	a baseline for comparison with future assessments. **Rationale: It is important to monitor neurological status on a regular basis to detect a decline in a patient's neurological function, especially after the administration of a medication with a known adverse side effect (Phelps, 2020).** **Intervention 2: Implement evidence-based interventions or follow facility protocols for risk of bleeding.** **Rationale: Prepared interventions will stabilize the patient's physiological condition and assist in recovery (Phelps, 2020). This applies as the provider recently made an active order to have a hemorrhage kit available in the patient's room.**	the methods and reasons for induction. **Rationale: Educating the patient encourage follow-through of care plan goals and helps to reduce fear involving treatment (Phelps, 2020).** **Intervention 2: Provide written information about the induction of labor with methods and reasonings.** **Rationale: Printed information will reinforce teachings to a patient and will prevent information overload (Phelps, 2020).**
Evaluation of Interventions **The vital signs of the patient will remain stable.**	**Evaluation of Interventions** **The neurological status of the patient will remain stable. The patient's heart rate, blood pressure, and tissue perfusion will be within normal parameters.**	**Evaluation of Interventions** **The patient verbalizes an understanding about induction of labor and the plan of care.**

References (3):

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