

CASE STUDY - INDUCTION OF LABOR

A G3, P2 patient at 41 weeks gestation is admitted for induction of labor. Assessment data reveals: cervix dilated 2 cm, 40% effaced, -2 station, cervix firm, and membranes intact. The patient's last baby was delivered at 40 weeks and weighed 9 pounds. The physician has ordered Prostaglandin administration the evening before Oxytocin in the morning.

1. What is the indication for induction of labor?
 - Indications for labor to be induced would be if the intrauterine environment is hostile to the fetal's well-being. Another indication could be SROM at or near term without any onset of labor which is also called premature rupture of the membranes. Another indication inducing for labor would be postterm pregnancy, hypertension associated with pregnancy, and placental abruption. There are more indications which could be based on maternal medical conditions that worsen with how pregnancy continues.

2. Why did the physician order prostaglandins the evening before the induction?
 - He ordered prostaglandins to cause cervical ripening since she is dilated at 2cm and effaced at 40%. This is a preparation that may be given as intravaginal gel, intracervical gel, or timed-release vaginal insert.

3. What tests or evaluation should be performed prior to the induction?
 - A cervical assessment should be done to estimate whether the cervix is favorable for induction. Another evaluation that could be used would be the bishop scoring system to estimate cervical readiness for labor that has five factors which are cervical dilation, effacement, consistency, position, and fetal station.

4. What are the nursing considerations when administering an Oxytocin infusion?
 - We want to assess the FHR for at least 20 minutes before inducing to indicate the fetal's well-being and throughout administration. Monitor signs of fetal distress or any decrease/absent fetal movements. We also want to always observe the mother's response just like the fetal heart rate. We need to stop oxytocin if tachysystole occurs and do the 4 "turns". We want to report any seizures or coma-like responses as well to the physician.

CASE STUDY - Diabetes in Pregnancy

A 30-year-old, G2, P1, is in her 10th week of pregnancy. Her first baby was stillborn at 32 weeks, so she is very worried about this pregnancy. Initial lab work obtained two weeks ago included testing for diabetes, due to the patient's history a stillborn. The physician explains during the first prenatal visit there is a concern for diabetes due to an elevated glucose level. The nurse realizes patient education regarding diabetes, the effects of diabetes on both the patient and baby and how to manage diabetes it is essential.

1. Discuss maternal risks associated with diabetes and pregnancy.
 - Maternal risks that can occur would be hypertension, preeclampsia, UTI's, ketoacidosis, labor dystocia, cesarean birth, uterine atony with hemorrhage after birth, and birth injury to maternal tissues. The probable causes related to this would be increased bacteria growth, uncontrolled hyperglycemia, infection, or fetal macrosomia causing difficult birth.
2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.
 - Fetal neonatal risks that can occur would be congenital anomalies, perinatal death, macrosomia, intrauterine growth restriction, preterm labor, premature rupture of membranes, birth injury, hypoglycemia, polycythemia, hyperbilirubinemia, hypocalcemia, and respiratory distress syndrome. The probable causes related to this would be maternal hyperglycemia during organ formation in 1st trimester. Another cause could be poor placental perfusion, fetal hyperglycemia, maternal vascular impairment, overdistention of uterus, large fetal size, and fetal hypoxemia.
3. What educational topics should be covered to assist the patient in managing her diabetes?
 - Some topics would be how to maintain normal blood glucose levels, healthy diets to keep weight gain moderate, exercise, blood glucose monitoring, and pharmacologic treatment. Another good topic would be insulin therapy to maintain good control of maternal metabolism during pregnancy.
4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
 - LGA: I think the baby will be this classification since the mother is diabetic but I'm hoping she'll learn how to maintain her blood glucose levels and that way

things could change. The baby could even be a AGA but since regularly diabetic mothers have LGA baby's I'm most likely classifying the baby as LGA.

CASE STUDY - Pregnancy Induced Hypertension

A single 17-year-old patient Gr 1 Pr 0 at 34 weeks gestation comes to the physician's office for her regular prenatal visit. The patient's assessment reveals BP 160/110, DTR's are 3+ with 2 beats clonus, weight gain of 5 pounds, 3+ pitting edema, facial edema, severe headache, blurred vision, and 3 + proteinuria.

Patient's history – single, lives with her parents, attending high school, works at local grocery store in the evenings as a cashier, began prenatal care at 18 weeks, has missed two of her regularly scheduled appointments for prenatal care, never eats breakfast, snacks for lunch and eats dinner after she gets off work at 10:00 pm.

1. What disease process is this patient exhibiting? What in the assessment supports your concern?
 - Severe Preeclampsia would be the disease process the patient is exhibiting. I think what supports my concern would be that she has blood pressure equal to 160/ 100, has visual disturbances which is blurred vision, proteinuria, and edema.

2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension?
 - The risk factors that put her in risk is her hypertension blood pressure that is 160/110, she doesn't rest she is always at work or school, and she hardly eats breakfast which is an important meal of the day. She eats late for dinner and started prenatal care late.

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested.
 - **Vascular Bed:** endothelial dysfunction presents before clinical signs of the disease, altered coagulation, which is increased thrombus formation, altered response to vasoactive substances which have vasoconstriction
 - **Cardiovascular & Pulmonary:** increased blood pressure, increased vascular resistance, hyperdynamic cardiac activity, increased cardiac output & stroke volume, decreased colloid osmotic pressure
 - **Renal:** proteinuria, altered function
 - **Hepatic:** hepatic dysfunction, rupture

- **Hematologic:** thrombocytopenia, altered platelet function, hemolysis
- **CNS:** hyperreflexia

4. What will the patient's treatment consist of?

- Their treatment will consist of activity restriction, monitor their blood pressure, antepartum management, bed rest and fetal monitoring. Another treatment measure would be antihypertensive medications, and anticonvulsant medications.

5. What is the drug of choice for this condition? What other medication(s) might be ordered for this patient?

- The drug choice would be magnesium sulfate for this condition. Other medications would be labetalol, hydralazine, and nifedipine.

6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines).

- Nursing considerations would be right action of administering the medication. We will check the serum magnesium level prior to administering to patient. We would have to monitor the blood pressure closely during administration. Assess the patient's respiratory rate for above 12 breaths per minute. Placing a resuscitation equipment in the room in case if an emergency.
- Side effects would be headaches, dry mouth, nausea, blurred vision, and flushing.
- Medication administration guidelines would be to monitor for signs of magnesium toxicity and how to respond to the signs. Another guideline would be for 2 nurses to check the orders & pump settings to ensure the correct order of grams per hour of magnesium being infused. As well as having the correct IV fluid volume and that it is correct.