

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?

The indication for induction of labor is that the patient has been carrying for 41 weeks now, so this is a full-term pregnancy. Keeping the baby in the uterus for too long could be dangerous, as function of the placenta will begin to decline and there can be dangers for the mom and baby.

2. Why did the physician order prostaglandins the evening before the induction?

The physician wants the cervix to start dilating to prepare for delivery of the baby. Prostaglandins are the medications that will promote the cervix to start dilating to a favorable size.

3. What tests or evaluation should be performed prior to the induction?

Placement of the placenta and umbilical cord should be evaluated. The fetal presentation and station and the cervical status should also be assessed. We must also make sure there are no contraindications for the baby to be delivered vaginally.

4. What are the nursing considerations when administering an Oxytocin infusion?

The nurse should monitor any signs of fetal distress after administration. Will also monitor patient fluids, blood pressure, frequency of uterine contractions, and the baby's heart rate. The fetal heart rate and contractions must be monitored for baseline and variability twenty minutes prior to administering.

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.

Diabetes in pregnancy could increase the risk of the mother having preeclampsia, hydramnios, ketoacidosis, hypoglycemia, hyperglycemia, and infections. It could also make them more likely to need a c-section delivery. This also raises their chances of getting diabetes during a future pregnancy and type 2 diabetes as they get older.

2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.

The baby may be at increased risk of excessive birth weight, preterm birth, breathing difficulties, hypoglycemia, cardiomyopathy, cardiac anomaly, psychiatric disorders, hyperbilirubinemia, obesity, type 2 diabetes later in life, and stillbirth.

3. What educational topics should be covered to assist the patient in managing her diabetes?

The patient should be educated on staying active and eating healthy foods. She should also be taught about blood glucose monitoring for four to eight times per day and administering insulin. She should be taught about hypoglycemia, urine ketones, delivery plans, and prenatal care plans.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.

The patient's baby is most likely to be classified as LGA. Diabetes during pregnancy causes the mother's increased blood glucose to circulate to the baby. In response, the baby's body makes insulin. All the extra sugar and the extra insulin production can lead to excessive growth and deposits of fat in the baby.

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?

This patient is presenting with preeclampsia. Her preeclampsia looks to be severe due to the blood pressure of 160/110, proteinuria of 3+, severe headache and visual disturbances, edema, and hyperreflexia with clonus.

2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension?

Being a very young mother and this being her first pregnancy places this patient at risk for pregnancy-induced hypertension.

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested.

Kidneys: serum creatinine greater than 1.1

Liver: elevated blood concentrations of liver transaminases

Lung: pulmonary edema

Heart: risk of heart disease and high blood pressure

Eyes: visual disturbances

Brain: headaches, dizziness, impaired consciousness, seizures

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

Reduce activity and possibly bed rest, blood pressure monitoring, follow-ups, fetal activity checks, medication administration and a delivery plan.

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

Magnesium sulfate is the drug of choice. Labetalol is another medication that might be considered. Oxytocin could be prescribed to stimulate uterine contractions.

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

Always deliver via pump, resuscitation equipment at bedside, monitor for magnesium toxicity, ensure calcium gluconate is readily available. Magnesium toxicity signs: respiratory depression, chest pain, mental confusion, slurred speech, decreased deep tendon reflexes, flushing, sweating, lethargy, hypotension.