

## **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 patient is post term pregnancy which is the indication for induction.

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

This medication will help induce labor and cause cervical ripening.

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

Perform Leopold's maneuver and a vaginal exam to verify the fetal position and presentation. Also need to assess fetal heart rate for at least 20 minutes before starting induction.

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

Oxytocin must be given through an IV pump and administered as a piggyback. The tubing needs to be connected into the IV line closest to the vein. The infusion needs to be started slowly and then gradually increased. Maternal uterine activity, fetal heart rate, and heart patterns need to be monitored before induction to determine a baseline. These all need to be monitored when starting the oxytocin and throughout the labor.

## **CASE STUDY - Diabetes in Pregnancy**

A 30-year-old, G2, P1, is in her 10<sup>th</sup> 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.

Some risks include hydramnios, macrosomia, and shoulder dystocia. Urinary tract infections are also more common. In the first trimester, hypoglycemia, hyperglycemia, and ketosis can lead to a spontaneous abortion or fetal malformation. Hypertension is also a possibility.

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

Some risks include congenital malformations, variations in size, hypocalcemia, hypoglycemia, respiratory distress syndrome, and hyperbilirubinemia.

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

Educate the patient on a healthy diet, preconception and prenatal care, also the importance of monitoring blood glucose and insulin.

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

Since the patient is a diabetic mother, the baby will most likely be an LGA. The high blood glucose levels in the mother and high insulin levels in the fetus will result in large deposits of fat which will cause the fetus to grow larger.

## **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?

Since the patient's systolic blood pressure is 160 and the diastolic is 110, the patient is experiencing pregnancy induced hypertension. The patient also has 3+ proteinuria.

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

The patient began prenatal care at 18 weeks which is late. She has also missed two of her appointments so far. She is also not eating a healthy diet and only eats one full meal a day.

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

Pulmonary- pulmonary edema, hypoxemia

Renal- oliguria, acute renal failure, impaired drug metabolism

Cardiac- CHF, possible future cardiac disease

Neuro- seizures, cerebral edema, stroke

Hematologic- hemolysis, coagulation defects

Uteroplacental- abruption and decreased perfusion

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

The only way to cure pregnancy induced hypertension is to deliver the baby. Her treatment may include activity restrictions, blood pressure monitoring, daily weights, UA, and fetal assessments.

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

Magnesium sulfate. They may also give labetalol, hydralazine, or nifedipine.

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

Use the medication with caution as it can cause hypotension. Side effects can include sweating, flushing, hypotension, depressed DTR's and central nervous depression.