

## 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?

She is at risk for placental degeneration and is 41 weeks, which is considered post-term.

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

This helps ripen the cervix in order to allow induction of uterine contractions.

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

Tests and evaluations that will be performed prior to induction is a vaginal exam, bishop score, Leopold's maneuver, and fetal heart monitoring.

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

Want to monitor for toxicity, and tachysystole in Cat. II or III, monitor fetal heart rate baseline prior to admission, monitor maternal blood pressure. This is a high risk drug and so you want to remain with the patient.

## **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.

Increased risk for stillborn birth, and post-partum hemorrhage. Also, there is a slower recovery time due to the poor wound healing associated with diabetes. Risk for miscarriage, premature rupture of membranes, polyhydramnios, increased risk for UTIs, and risk for complications post-delivery.

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

Risk for fetal demise in such of a still birth, low birth weight infant, and possible hyperbilirubinemia in newborn. At risk for neural tube defects, underdeveloped lungs, and lower extremities potentially don't develop properly, hypoglycemia in the newborn, and intrauterine growth restriction. Type 1 diabetes can result in smaller baby in size.

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

Topics to educate on are diet, exercise, and proper medication administration as needed. Also want to include glucose monitoring, resources for supplies, and kick counts. May need to have consult for an endocrinologist.

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

LGA is due to the excess blood glucose from mom to fetus during pregnancy. This causes the baby to secrete an increased amount of insulin which results in increased tissue/fat deposits.

## **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?

The patient is exhibiting pregnancy induced hypertension and protein in the urine. Blood pressure 160/110 and all the classic signs of HTN.

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

The patient's age, lifestyle, stress, and this is her first pregnancy.

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

There's an increase resistance of blood flow that is causing an decreased in vascularity to the other organs. This leads to poor perfusion, cerebral edema, placental degeneration, not carrying O<sub>2</sub> well and low iron. Low platelet which increases risk for bleeding and elevated liver enzymes.

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

Bed rest and hospitalization, magnesium sulfate, diet and exercise. Also, safe blood pressure medications in pregnancy.

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

Magnesium sulfate prevents seizures, labetalol, nitrendipine, methyldopa. Also, steroids to help the baby's lungs develop. Also, hypertensives and diuretics.

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

Want to monitor heart and lung sounds and continue edema assessments. Monitor to see how the baby reacts to it. Some side effects that can occur are blurred vision, chills, confusion, dyspnea, and shortness of breath. This is contraindicated use in the first trimester of pregnancy.