

## 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?

Postterm pregnancy

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

The drug cause cervical ripening which softens the cervix. When the cervix is softer it makes it more likely to dilate. This was done the evening before so it can work over night which allows the birthing process the next day to be a little easier.

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

Bishop Scoring system, fetal heart monitor, vital signs, and vaginal exam.

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

Know it's given as a piggyback in a primary tube. It has to be on a pump and it needs to be to the most proximal port to the venipuncture site if possible. Uterine activity, fetal heart patterns, and fetal heart monitor are checked prior and during. The drug is started slowly and given gradually. Monitor the mother for any bleeding.

## **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.

Hypertension: preeclampsia, UTI, ketoacidosis, Cesarean birth, uterine atony with hemorrhage after birth, birth injury to maternal tissues.

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

3.

Congenital anomalies, perinatal death, macrosomia, intrauterine fetal growth restrictions, preterm labor, birth injury, hypoglycemia, hyperbilirubinemia, hypocalcemia, and RDS.

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

5.

Preconception care, diet, self-monitoring of blood glucose, and insulin therapy.

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

I was thinking LGA but textbook says SGA and it makes sense. Due to the vascular impairment that could be caused by complications of diabetes like vasoconstriction. This impairs the placental perfusion and in turn slows the amount of oxygen and glucose delivered to the fetus.

## **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?

Preclampsia. G1P0, after 34 wk blood pressure of 160/110, weight gain 5lb, 3+ pitting edema, facial edema, severe headache, blurred vision, 3+ proteinuria.

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

Began prenatal care at 18wks, missed prenatal care appointments, never eats breakfast, snacks for lunch, and eats dinner late.

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

Cardiovascular: Increased BP, decreased cardiac output, and decreased plasma volume

Brain: Rupture of small capillaries, resulting in small hemorrhages = HA, hyperreflexia, and convulsions.

Kidneys: Damage to glomeruli, proteinuria, fluid shift = edema, high hematocrit/angiotensin II/ BUN/ creatinine/ uric acid.

Liver: impaired function = hepatic edema, increased enzymes, and epigastric pain.

Placenta: Decreased placenta perfusion = fetal hypoxemia, acidosis, and perinatal death or intrauterine growth restrictions.

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

Home care, activity restrictions, monitor blood pressure, consistent weight checking, urinalysis, fetal assessment, and change diet.

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

Hydralazine- antihypertensive medication and anticonvulsant medications to prevent seizures (magnesium sulfate)

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

It can cause: flushing, headache, n/v, fast heart rate, and chest pain. Be careful if using magnesium sulfate too because it can cause hypotension which can result in reducing placental perfusion.