

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?

If there is a hostile intrauterine environment, SROM at or near term without labor, post term pregnancy, chorioamnionitis, gestational HTN, placental abruptions that are small, maternal medical conditions, or fetal demise.

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

Prostaglandin causes cervical ripening.

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

Before induction, uterine activity and fetal heart rate patterns should be monitored for normal baseline and variability for 20 minutes.

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

Mom is considered a high risk patient when oxytocin is infusing. Continuous fetal monitoring is required. Oxytocin must be decreased or stopped for tachysystole or abnormal fetal heart rate patterns. If category II, reposition mom, give an IV fluid bolus of at least 500 mL of LR, can administer oxygen by non-rebreather, and decrease rate of oxytocin by at least half if no response from above and discontinue if patterns persist. Terbutaline might be given to relax the uterus.

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.

Can lead to an increased risk of spontaneous abortions due to hypoglycemia, hyperglycemia, and ketosis, HTN is more likely to develop, UTIs are more common, hydramnios, macrosomia, shoulder dystocia, injury to the birth canal, and an increased risk of a c-section and post-partum hemorrhage due to a large baby.

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

Neural tube defects, caudal regression syndrome, macrosomia, hypoglycemia, hypocalcemia, hyperbilirubinemia, prematurity, and respiratory distress syndrome are all risks associated with diabetes and pregnancy.

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

Patient should be checking blood glucose levels 4-8 times per day, monitoring urine ketones, recording blood glucose levels, food intake, activity and insulin, exercising 3 times a week for 20 minutes unless contraindicated, know s/s of hypoglycemia (always have a fast-acting carb), and performing daily kick counts.

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

AGA due to the fact we do not know if the mom has gestational diabetes yet. She does not have any vascular impairment that we know of so the baby should not be small.

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?

She is exhibiting severe preeclampsia. She has a blood pressure of 160/110, hyperreflexia with 2 beats clonus is present, she has visual disturbances, and 3+ proteinuria.

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

She started prenatal care late at 18 weeks and has missed two of her regularly scheduled appointments. Her diet is also not sufficient in nutrients. This is her first pregnancy which is also a risk factor.

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

Cardiovascular system

- Decreased intravascular volume, severe HTN, pulmonary edema, CHF, and future cardiac disease

Pulmonary system

- Pulmonary edema and hypoxemia

Renal system

- Oliguria, acute renal failure, impaired drug metabolism and excretion

Hematologic system

- Hemolysis, decreased oxygen carrying capacity, thrombocytopenia, DIC, anemia

Neurologic system

- Seizures, cerebral edema, intracerebral hemorrhage, stroke

Hepatic system

- Hepatocellular dysfunction, hepatic rupture, hypoglycemia, coagulation defects, impaired drug metabolism and excretion

Uteroplacental

- Abruptio, decreased uteroplacental perfusion

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

Do not restrict salt in diet – stay on pregnancy diet, if delivery can be delayed for 48 hours give corticosteroids to mature fetal lungs. She will be required to stay in the hospital on bed rest and fetal monitoring will be necessary.

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

Labetalol, Hydralazine, and Nifedipine are prescribed for hypertension. Magnesium sulfate could be prescribed to prevent seizures.

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

Signs of magnesium toxicity are respiratory difficulty/depression, chest pain, mental confusion, slurred speech, depressed deep tendon reflexes, flushing, sweating, lethargy, and hypotension. Some guidelines to follow when administering this drug are it is always delivered via pump; piggyback into mainline IV infusion to the most proximal port.