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?

   A hostile environment for fetal well-being, SROM/PROM at or near term without onset of labor, hypertension associated with reduced placental blood flow, Placental abruption, maternal medical conditions that worsen with continuation of the pregnancy, or fetal demise.

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

   For cervical ripening and help the cervix to dilate with the forces of labor since she is late term.

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

   UA, FHR, contraction pattern and Fetal heart patterns and ensure fetal well-being are monitored before induction for a baseline.

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

   The nurse observes the woman and fetus for complications and takes corrective actions if abnormalities are noted. The nurse has a responsibility when administering uterine stimulants to a pregnant woman. The nurse decides when to start, change and stop oxytocin infusion using the facilities protocol and orders.

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.
   During the first trimester- hypoglycemia, hyperglycemia, and ketosis may lead to spontaneous abortion or major fetal malformations. Hypertension, especially preeclampsia, is more likely if a mom has preexisting diabetes. Ketoacidosis is a threat to a woman with type 1 diabetes. Other effects include hydramnios. Problems may arise at childbirth if the fetus has macrosomia may include a difficult labor, shoulder dystocia. Large fetal size also increases the chances or a cesarean birth.

2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.
   Fetal risks- Congenital Malformations, Variations in fetal size

Most common major congenital malformations associated with preexisting diabetes are neural tube defects, caudal regression syndrome and cardiac arrest.

Neonatal risks- Hypoglycemia, Hypocalcemia, Hyperbilirubinemia, Respiratory Distress Syndrome

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

Maintaining Diet recommendations, self-monitoring blood glucose, Insulin therapy, and treating hyper/hypoglycemia. Being aware of signs and symptoms of abnormal glucose levels and how to correct abnormalities.

4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
   LGA- there is a concern for diabetes due to an elevated glucose level, this is an excess amount of sugar constantly going to the baby which is setting the baby up for a high birth weight

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?

   Severe Preeclampsia/Hypertensive Disorder of Pregnancy

   Hypertension-systolic BP of 140mm Hg or greater or a diastolic BP or 90mm Hg or greater.

   Preeclampsia- a systolic blood pressure of > or equal to 160mm Hg or higher or a diastolic blood pressure of > or equal to 100mm Hg or greater on two occasions at least 6 hours apart.

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

   Her BP a sudden increase in BP, visual changes, Renal insufficiency

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

   Cardiovascular-decreased volume, hypertension/crisis, pulmonary edema, congestive HF

   Pulmonary-Pulmonary edema, hypoxia

   Renal-Oliguria, acute renal failure, impair drug metabolism

   Hematologic-Hemolysis, dec. oxygen carrying capacity, thrombocytopenia, congenital defects

   Neurologic- Seizures, cerebral edema, hemorrhage stroke, visual disturbance

Hepatic- Hepatic dysfunction, congenital defects, hypoglycemia

Uteroplacental-Decreased placental perfusion

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

   Improving fetal oxygenation and improving placental blood flow(ultrasound). Bed rest in lateral position and quiet environment and Fetal monitoring. Also Antihypertensive medications to decrease chances of stroke or CHF. And assess kick counts

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

   Drug of choice- Magnesium Sulfate

   Other drugs include: Hydralazine and Nifedipine and Labetol

   Anticonvulsants for seizures due to high BP: Magnesium Sulfate most commonly

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

   Must have two nurses, loading dose and continuous infusion using controlled pump. Loading dose of 4 to 6g admined over 15-30 minutes. 1 to 2 g/hr

   Monitor blood pressure closely during administration. Assess respirations, Urinary output, have resuscitation equipment available.

   Side effects may include: Respiratory difficulty, lethargy, confusion, poor reflexes, slurred speech, visual disturbances, sweating