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?

Post term pregnancy

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

Softens the Cervix and induces labor. Involved in the initiation of labor

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

   History of C-sections

   The nurse should review the patient's prenatal records for confirmation of gestational age if induction is elective

   The nurse should also review the patient's medical records for any contraindications to induction

   If preliminary assessments are negative, consent may be obtained for the induction

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

   Patient teaching should precede administration, the infusion is started low (0.5-1mu/min) and increased by 1 to 2 mu/min every 15 to 30 minutes until adequate uterine contractions are achieved. Every 3 minutes in frequency last from 40-60 seconds are 25-75 mm Hg in intensity or moderate to strong palpation. A uterine

resting tone of 20mm Hg should last for at least 1 minute between contractions. Pitocin must always be administered via infusion pump. Pitocin must be connected to the mainline tubing port that is closest to the iv-insertion site.   Titration is based on maternal and fetal response. Continuous fetal monitoring. The FHR tracing should be assessed and interpreted every 30 minutes for low-risk patients and 15 for high risk patients. During the 2nd stage of labor monitoring frequency should increase to every 5 minutes. In the presence of tachysystole the nurse should discontinue Pitocin or reduce the infusion rate by half. Fetal baseline heart rate, degree of variability, and the presence or absence of accelerations or decelerations. Monitor V/S per protocol usually at least every 2 hours, assess pain management success every 30 minutes, assess color of amniotic fluid and amount of bloody show, assess for output that matches input.

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.

Hydramnios can occur as the result of excessive urination by the fetus because of fetal hyperglycemia which is going to put the mother at risk for premature rupture and preterm labor
Pre-eclampsia occurs more often in women with gestational diabetes.
Hyperglycemia, due to insufficient amounts of insulin and causing an increase in serum glucose.
Cesarean delivery due to large for gestational age infant
Monilial vaginitis and UTI's because of increased glycosuria, which contributes to a favorable environment for bacterial growth.

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

Macrosomia, when an infant is considerably larger than normal. All of the nutrients the fetus receives come directly from the mother's blood.
Shoulder dystocia
Hypoglycemia
Congenital anomalies
Respiratory distress syndrome
Polycythemia
Hyperbilirubinemia
Intrauterine growth restriction

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

Nutrition therapy, exercise, and glucose monitoring Provide enough calories for appropriate maternal weight gain, maintain normoglycemia, and avoid ketosis. Distribute carbs throughout the day and eat three small to moderate sixed meals and three snacks per day. The nighttime snack is important to prevent nighttime hypoglycemia and should consist of protein and complex carbs.
Start or continue moderate exercising. Insulin therapy is usually ordered when nutritional therapy fails to maintain blood glucose levels at the recommended ranges.

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

LGA , because if the maternal blood has too much glucose the fetus's pancreas senses the high glucose levels and produces more insulin in an attempt to use this glucose. The fetus converts the extra glucose to fat. Even when the mother has gestational diabetes, the fetus is able to produce all the insulin it needs. The combination of high blood glucose levels from the mother and high insulin levels in the fetus results in large deposits of fat, which cause the fetus to grow excessively large.

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?

    Pre-eclampsia, The elevated blood pressure, the proteinuria 3+, Peripheral edema,

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

Age, younger than 19 and older than 40

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

    Immune, cardiac, and renal. It is characterized by placental insufficiency during early pregnancy, vasculat dysfunction, and vasospasm. Fetal risk include IUGR, prematurity and death. HELLP Hemolysis, elevated liver enzymes and low platelet levels.

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

Importatant to keep all appointments, and notify healthcare provider if she has, Increase in BP, so take it at home every day, visual changes, epigastric pain, Nausea and vomiting, bleeding gums, headaches, increased edema of the hands and face, decreased urinary output, decreased fetal movement, weight taken daily , instructed to call if gains 3 pounds in 1 day or 4 over 3 days.

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

Magnesium Sulfate, Methyldopa, labetalol, hydralazine, and nifedipine

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

    Should be used cautiously with any degree of renal insufficiency because magnesium sulfate is excreted by the kidneys.

SE include drowsiness, decreased respiration, bradycardia, hypotension, diarrhea, muscle weakness, flushing, sweating, and hypothermia. Administered intravenously by secondary fusion on volumetric infusion pump, initial loading dose of 4 to 6 grams infused over 15 to 30 minutes followed by a maintenance dose of 2 grams/hr Patient should be assessed frequently to identify toxicity. Therapeutic serum magnesium level of 4 to 7 mEq/L. Signs of magnesium toxicity are lethargy muscle weakness, decreased or absent deep tendon reflexes decreased respirations double vision and slurred speech. The nurse must monitor Pulse. BP and respirations every 15 to 30 minutes, continuously monitor fetal heart rate and contraction pattern. Monitor neurological status before and throughout therapy. Patellar reflex should be assessed every hour,