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?

The patient is one week post due date and the patient has a history of large babies. Inducing labor will ensure the baby doesn't get much bigger therefore decreasing risks for mom and baby.

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

To help prepare the uterus for the oxytocin to cause it to contract

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

   Evaluate for placenta previa or vasa previa, check to make sure there is no umbilical cord prolapse, make sure the fetus is not in breech or transverse position, check for active genital herpes or HIV, and make sure the mother has not had a classical or more than one other low transverse c-sections. Biship score of 6 or less indicates unfavorable cervix so cervical ripening is needed

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

- Always use a pump
- Start slowly
- Monitor FHR for baseline for 20 minutes prior to starting
- Continuous fetal heart monitoring required
- Administer as close as possible to IV site, most proximal
- Diluted as secondary but inserted as primary IV line
- Titrate based on maternal and fetal response
- If category II or tachysystole
  - Reposition mom to left lateral
  - IV fluid bolus 500 ml LR
  - Stop oxytocin, Oxygen at 10L/min non-rebreather
- If tachysystole AND category II or III
  - Stop oxytocin
  - IUR

- Terbutaline

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.

Infection, preeclampsia, hydramnios, ketoacidosis, hypoglycemia, hyperglycemia

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

Death, LGA, IUGR, RDA, hyperbilirubinemia, hypoglycemia, prematurity, cardiac anomalies, congenital defects, psychiatric disorders

3. What educational topics should be covered to assist the patient in managing her diabetes?
   - Check blood glucose 4-8 times a day
   - Self-monitor ketones
   - Explain prenatal care
   - Inform patient about following a diet
   - Encourage exercise 3 times a week
   - Inform patient of signs of hypo and hyperglycemia and what to do
   - Instruct patient the importace of kick counts
   - Inform patient that different amounts/needs for insulin will happen at different times in the pregnancy

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

This baby will probably be LGA which means they will be a large baby due to the large amounts of sugar being passed through the placenta but no insulin being passed through. The baby's body is working double to produce insulin for all of the glucose from himself and mom

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 is suggested by knowing that they have 3+ proteinuria, a blood pressure of 160/110 but another blood pressure should be taken after 4 hours, headaches, edema, blurred vision, 3+ DTR's with clonus

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

   Low maternal age

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

   Hypertension can cause excess work on the heart causing the edema. This Can cause pulmonary edema affecting the lungs and the moms ease of breathing. Protein in the urine can be caused by kidney damage from the high blood pressure injuring the filter of protein. This can also cause HELLP which means that the liver enzymes are up and platelets are low causing the blood to not clot.

4. What will the patient's treatment consist of?
   - High protein diet
   - Manage symptoms
   - Reduce activity
   - Monitor blood pressure
   - Daily weight
   - Urine protein tests
   - I/O monitoring
   - DTRs

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

   Magnesium sulfate is to prevent seizures and give neuroprotection (calcium gluconate as an antidote)
   Antihypertensives may also be ordered to lower blood pressure

6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines)
    - Monitor for CNS depression
    - Give in most proximal port over IV pump
    - Monitor for magnesium toxicity
        - Respiratory depression
        - Chest pain
        - Confusion/slurred speech
        - Depressed deep tendon reflexes
        - Flushing/sweating
        - Lethargy
        - Hypotension
        - FHR decelerations

    - Make sure to have O2 and suction at bedside
    - Stop magnesium if
        - <12 respirations/min
        - Absent dtrs
        - < 30 ml/hr urine output
        - Magnesium > 8 mg/dl

    - Have calcium gluconate ordered for antidote but must have cardiac monitor on.