

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?

Some indications of labor induction for this patient would include: 1.) the baby is in term, but the water has not broken with the fetal station not ready for labor, 2.) at 42 weeks, the amniotic fluid begins to decrease, and 3.) the last baby delivered weighed 9 pounds, making her at risk for delivering a big baby.

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

Prostaglandins help cause the cervix to dilate and contractions to occur. This will help work with the Oxytocin, which should be given at least 4 hours after the prostaglandins.

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

With induction of labor being an invasive procedure, the risk of hemorrhage is high. We need to make sure that type and crossmatch has been performed and there is blood ready in case of hemorrhage. GBS must also be negative. Similarly, we need to make sure that the patient does not have Vasa previa or any cord prolapse. Important things to be considered are the Bishop Score, parity, and fetal station and positioning.

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

We need to have a fetal heart monitor attached to continuously assess the baby. Make sure that the patient has maintenance fluid running while the oxytocin is run with a pump and inserted to the port nearest to the insertion site. Titration should be done according to client and fetal response.

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 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.
Diabetes is a huge concern since this increases the risk of birth defects, preterm birth, and stillbirth. For the mother, this increases the risk of pre-eclampsia. This also may result in an induction of birth, cesarean delivery, and complications due to the baby's size. This will also cause an increase in instance of gestational diabetes and type 2 diabetes in postpartum.
2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.
For the fetus, this increases the risk of prematurity. Diabetes also inactivates the baby's surfactant, causing the baby to have respiratory distress, among others. The baby also will have high chances of being obese or having a metabolic syndrome. Type 1 or 2 diabetes will also be possible.
3. What educational topics should be covered to assist the patient in managing her diabetes?
As nurses, we need to reiterate how important it is to keep blood glucose to a manageable level. Remind them to eat healthy foods and vegetables and to avoid sweet desserts and beverages. Also remind them to not skip meals or snacks. Teach them how to measure and monitor blood glucose and use the appropriate measures (including insulin). Exercise also helps control blood glucose.
4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.
Infants of diabetic mothers will be LGA. The combination of glucose levels of mother and high insulin levels in the fetus results in large deposits of fat, which makes 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?

The patient is exhibiting typical signs and symptoms of pre-eclampsia. Pre-eclampsia symptoms would include a high blood pressure (over 140 sys, over 90 dia) and 3+ proteinuria. Pitting edema, 2 beats clonus, and blurred vision can also be traced to preeclampsia.

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

The patient being an adolescent (17 years old) makes her at a high risk for Pregnancy Induced Hypertension.

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

Hypertension causes blood to travel with more force. This will cause several organs to get injured; eyesight gets blurry, arrhythmias are felt, chest pains can occur more, the heart pumping harder causes edema and subsequently heart failure, kidneys filter blood faster, causing protein to spill.

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

The patient's lifestyle is very active. The best measure for her would be bedrest, magnesium sulfate, and some antihypertensive medication. Fetal monitoring is also recommended.

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

The drug of choice in this situation would be Magnesium Sulfate.

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

We need to monitor blood pressure closely during administration. Assess the woman for respiratory rate above 15 breaths per minute, presence of DTR, and urinary output greater than 30 mL/hr before giving. Ensure that calcium gluconate is available as an antidote.

Medication should be given IV, loading dose of 4-6 g of Magnesium Sulfate over 15-20 mins. The continuing infusion should maintain 1 to 2 grams/hr and is individualized as needed. Deep IM can also be given but painful.

Side effects would include flushing, sweating, hypotension, depressed DTRs, and central nervous system depression, including respiratory depression,