

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?

Patient is full term and is beginning labor as evidenced by dilated cervix and cervical effacement has begun.

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

Prostaglandin was given to soften/ripen the cervix.

Cervical ripening, performed by taking medicine orally or by inserting a medicine (prostaglandin analogs) into the vagina is used to stretch, soften, and expand the cervix.

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

Review patient's prenatal record for confirmation of gestational age.

Review of any contraindication for induction (e.g. CPD, previa, fetal malpresentation, previous vertical/ transfundal scar etc.)

Consent must be obtained.

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

Patient teaching must precede Oxytocin administration. The infusion is started low (0.5 to 1 mu/min) and increased by 1 to 2 mu/min q15-30 mins until adequate contraction is achieved.

Oxytocin should be administered via infusion pump and should be connected to the tubing closest to the IV insertion site to ensure it will stop infusing quickly if the medication needs to be discontinued.

Titration is based on maternal 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 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.

Diabetes in pregnancy will put the patient at risk for high blood pressure and preeclampsia. Preeclampsia is a serious complication of pregnancy that causes high blood pressure and other symptoms that can threaten the lives of both mother and baby.

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

Macrosomia is a common complication associated with diabetes in pregnancy. Babies of mothers who have gestational diabetes have a higher risk of developing obesity and Type 2 diabetes later in life. Stillbirth can also occur. Untreated gestational diabetes can result in a baby's death either before or shortly after birth.

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

The patient should seek a dietitian to help her with her food choices of a healthy pregnancy diet. Eating three small-sized meals and three to four healthy snacks is good and eating every two to three hours to space food evenly throughout your day is advisable. Patient should not skip meals or snacks. Avoid desserts and sweet beverages. She should eat a balance diet with low carbohydrate content and high protein. Choose fruits and vegetable that are low in sugar content.

Regular monitoring of blood glucose level should also be done.

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

This baby will most likely be an LGA baby. Maternal blood level is proportional to that of the fetus. You are more likely to have a large baby if your blood sugar levels are higher than normal during pregnancy. Giving birth to a large baby (weighing more than 9.0 lbs or 4.1 kg) can increase the risk of injury to the mother or baby during delivery and increase the chance of needing a cesarean section. Large babies born to mothers with gestational diabetes can be at increased risk of diabetes and obesity during their lifetime.

CASE STUDY - Pregnancy Induced Hypertension

A single 17-year-old patient G1 P0 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 physical findings reveal BP 160/110, DTR's are 3+ with 2 beats clonus, weight gain of 5 pounds, 3+ pitting edema, and facial edema. Symptoms of severe headache and blurred vision were noted and she has a 3 + proteinuria.

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

Her age is a risk factor.

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

With high blood pressure, there is an increase in the resistance of blood vessels. This may hinder blood flow in many different organ systems in the expectant mother including the liver, kidneys, brain, uterus, and placenta. Extremely high blood pressure in the mother can cause bleeding in the brain

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

Medications such as antihypertensives, anticonvulsant and steroids will be used for this patient.

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

Magnesium sulfate is the drug of choice for the prevention and treatment of preeclampsia.

Antihypertensives such as Methyldopa can be used to lower your blood pressure if it's dangerously high.

Corticosteroids can be beneficial if you have severe preeclampsia or HELLP syndrome because these medications can temporarily improve liver and platelet function to help prolong your pregnancy. Corticosteroids can also help your baby's lungs become more mature.

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

The nurse should be aware of drug interactions and drug incompatibilities.

The nurse should check serum magnesium level prior to administration.

Cardiac monitor should be used on patients receiving MgSO₄ intravenously.

An injectable form of calcium gluconate available to reverse paralyzing effects of magnesium sulfate should be on standby.

Give MgSO₄ slowly. Blood pressure may drop if MgSO₄ is administered too rapidly.

Monitor blood pressure and pulse every 10-15 minutes during therapy.