

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?

Score of 3 on bishop scale indicating successful vaginal delivery less likely and cervix is less favorable. May want to induce to encourage cervical ripening.

Possible indications include: Hostile intrauterine environment, SROM at or near term without labor (PROM), Post term pregnancy, Chorioamnionitis, Gestational hypertension, Placental abruptions that are small, Maternal medical conditions, Fetal demise (IUFD).

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

Prostaglandins prepare uterus for oxytocin stimulation. Prostaglandins also help cervical ripening.

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

Bishop scoring, Fetal monitoring, Leopold's maneuver, vagina;/ cervical exam and assessment, ultrasound

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

Start slowly and titrate, always use pump, monitor FHR patterns continuously, monitor for tachysystole, maternal repositioning, initiate fetal resuscitation for category 2 FHR pattern, with category 2 and tachysystole stop medication immediately.

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.

Larger gestational size of infant indicates c-section birth, high blood pressure, preeclampsia, Infections, Hydramnios, Ketoacidosis, Hypoglycemia, Hyperglycemia

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

Fetal death, Macrosomia-LGA, IUGR if mother Type 1 with vascular changes, Respiratory Distress Syndrome, Hyperbilirubinemia, Hypoglycemia, Prematurity, Cardiomyopathy or cardiac anomaly, Congenital Defects

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

Check blood glucose levels 4-8 times per day

Self-monitor of urine ketones

Record blood glucose levels, food intake, activity and insulin

Provide expected plan of prenatal care, tests, and fetal surveillance

Diet is individualized

Provide an expected plan for labor and delivery

Urine dipstick for glucose and protein each office visit

Exercise 3 times/week for at least 20 minutes unless contraindicated

Know symptoms of hypoglycemia: Always have fast-acting carbohydrate

Daily kick counts

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

The baby is more likely to be LGA or large for gestational age. This is due to increased sugar being passed to the baby while in utero from the mother. The infant in response to the excess sugar produces insulin. All of the extra sugar and insulin production leads to excessive growth and deposits of fat, in turn increasing the size of the infant.

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?

Preeclampsia due to 3+ proteinuria which excludes gestational hypertension, facial edema and severe headache. Blurred vision is indicative of hypertension. The patient's blood pressure is 160/110, the systolic is hypertensive. DTR are hyperexcitable as well as clonus being present.

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

First pregnancy, young maternal age

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

Hypertension affects each organ due to the vasoconstrictive effects on each organ's blood supply. Without the proper blood supply, organs cannot perfuse and receive oxygen and appropriate nutrients leading to cell death and complications.

Associated with placental abruption

kidney failure

hepatic rupture

preterm birth and fetal and maternal death

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

Do not restrict salt, stay on pregnancy diet. Severe preeclampsia will require in-patient hospitalization. Bed rest and fetal monitoring. Reduction of activity, blood pressure monitoring, kick counts, antihypertensive medications

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

Magnesium Sulfate is the medication of choice. It controls and prevents seizures and offers neuro protection to the fetus. Antihypertensive medications might also be ordered for this patient.

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

IV Loading Dose is 4 to 6 g administered over 15 to 20 min

Continuous infusion to maintain control is 1 to 2 g/hr

ALWAYS deliver via pump

Ensure that calcium gluconate is readily available

Stop magnesium sulfate if toxicity is present

Monitor blood pressure closely

Assess the woman for respiratory rate-if less than 12 stop the magnesium

Assess DTRs-if absent stop the magnesium

Assess urine output hourly-if less than 30 ml/hr-stop the magnesium

Therapeutic serum level is 5 to 8 mg/dl

Watch for signs/ symptoms of magnesium toxicity:

Respiratory difficulty/depression

Chest pain

Mental confusion; Slurred speech

Depressed deep tendon reflexes

Flushing, sweating, lethargy

Hypotension

