

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?

Postdated pregnancy, multiple pregnancy, cervix dilated 2 cm, 40% effaced, and -2 station.

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

Patient cervical score is unfavorable for vaginal delivery and require cervical ripening. Thus, giving prostaglandin open the cervix and prepare for labor.

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

Bishop's preinduction cervical scoring system, assessing mom and fetal heart rate and uterine activity, and Leopold's maneuver.

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

- Uterine activity, fetal heart rate patterns are monitored for normal baseline and variability for 20 minutes before starting oxytocin
- oxytocin IV line must insert to close venipuncture site
- Must decrease or stop infusion for tachysystole or abnormal fetal heart rate patterns
- Always administer via infusion pump, start slowly, and titrate gradually
- Continuous fetal monitoring is required

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.

Maternal risks could be infections, preeclampsia, hydramnios, ketoacidosis, hypoglycemia, and hyperglycemia.

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

Fetus will be at risk for hyperbilirubinemia, prematurity, cardiomyopathy, congenital defects, hypoglycemia, respiratory distress syndrome, macrosomia, psychiatric disorders, and fetal death.

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
- Exercise 3 times per week for at least 20 minutes unless contraindicated
- Know symptoms of hypoglycemia and have fast-acting carbohydrate
- Daily kick counts
- 1st trimester: decreased need for insulin
- 2nd and 3rd trimester: require more insulin
- Post-partum: decreased need for insulin, breastfeeding helps lower amount of insulin needed

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

The baby will be large for gestational age. The high amount of blood glucose from mom passes through the placenta into the fetal circulation. In response, the fetus makes its own insulin and all the extra glucose and insulin lead to fast growth and deposit fat.

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 showing signs of severe preeclampsia. The patient is 17 years old and have 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.

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

The patient age, late prenatal care at 18 weeks, missed prenatal care appointments, and lack of proper nutrients for pregnancy.

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

Hypertension causes an increase in the resistance of blood vessels. As a results, it hinders blood flow in many different organ systems damaging kidneys, liver, lung, heart, eyes, and may cause a stroke or other brain injury. Also, it affects the development of the placenta, causing the nutrient and oxygen supply to the baby to be limited. Thus, lead to an early delivery, low birth weight, placenta abruption, and complications for the baby.

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

The patient's treatment will be consisted of intrapartum care and postpartum care:

- The patient and fetus will be monitored continuously, kept in lateral position and less stimulating environment.
- Large bore IV access with 2 lines.
- Monitoring B/Ps q 15 to 30 min, urine protein and output, I&O, visual disturbances.
- Careful assessment of blood loss and signs of shock

- Administration of magnesium sulfate for 24 hours after delivery
- Monitor signs of recovery include decreased protein in urine, return of normal B/P, diuresis, and resolution of abnormal labs

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

Based on patient condition, drug of choice would be Magnesium sulfate. Antihypertensive medications such as Hydralazine, Labetalol, and Nifedipine might be ordered for this patient.

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

- Checking the blood pressure, testing the deep tendon reflexes, and monitoring urine output are all appropriate assessments in a client receiving this medication.
- Monitoring the respiratory rate is the priority
- Deliver via pump and insert IV line to most proximal port
- Stop the infusion if respiratory rate is less than 12, absent DTRs, urine output less than 30 ml/hr., and magnesium serum level above 8mg/dl.
- Ensure that calcium gluconate is readily available.