

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?

Indication for induction of labor is pregnancy is at 41 weeks gestation.

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

Prostaglandins promote cervical ripening and encourage the onset of labor.

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

Bishop score, uterine activity, fetal heart rate patterns.

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

Dilute in isotonic solution as secondary infusion, inserted in most proximal port, start slowly and titrate gradually, continuous fetal monitoring is required, must decrease or stop infusion for tachysystole or abnormal fetal heart rate patterns.

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.

- Infections
- Preeclampsia
- Hydramnios
- Ketoacidosis
- Hypoglycemia
- Hyperglycemia

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

- Fetal death
- Macrosomia-LGA
- IUGR if mother us type 1 with vascular changes
- Respiratory distress syndrome
- Hyperbilirubinemia
- Hypoglycemia
- Prematurity
- Cardiomyopathy or cardiac anomaly
- Congenital defects
- Psychiatric disorders

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
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
Exercise 3 times/week
Know symptoms of hypoglycemia
Daily kick counts

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

LGA- this is due to the high blood glucose levels and high insulin levels in the fetus results in large deposits of fat which causes 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?

Severe preeclampsia; BP-160/110, DTR's 3+ with clonus, severe headache, blurred vision, 3+ proteinuria, edema.

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

Begin prenatal care at 18 weeks, has missed two of her scheduled appointments for prenatal care, never eats breakfast, snacks for lunch.

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

Kidney- reduced blood flow causes a reduced glomerular filtration rate which causes a rise of BUN

Liver- reduced perfusion decreases liver function, hepatic edema and subscapular hemorrhage occur

Brain- vasoconstriction leads to pressure-induced rupture of small capillaries, resulting in small cerebral hemorrhages. Headaches and visual disturbances can occur

Lungs- Reduced oncotic pressure can result in pulmonary edema.

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

Do not restrict salt

Only cure is delivery of baby and placenta

Delay delivery if less than 34 weeks gestation, administer corticosteroids

Bed rest and fetal monitoring

Antihypertensive medications

Magnesium sulfate

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. Other medications could be hydralazine, labetalol, nifedipine.

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

IV loading dose is 4-6 g over 15-20 min, continuous infusion to maintain control is 1-2 g/hr. Always deliver via pump, piggyback. Monitor for magnesium toxicity: stop administration if respiratory rate less than 12, absent DTRs, hourly output less than 30 ml/hr, magnesium level above 8 mg/dl.