

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?

- The pt is nearing post term

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

- It is effective at ripening the cervix and cause dilation

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

- Not given to those who had a previous cesarean (prostaglandins or oxytocin)
- Baseline FHR (20 minutes)
- Perform Leopold's Maneuvers or vaginal exam to determine fetal presentation
- Check for other contraindications

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

- Baseline FHR, monitoring during infusion, observe for tachycardia, decrease variability, decelerations
- Observe for effective UA (frequency every 2-3 minutes, 40-90 seconds)
- Observe for excessive UA (less than 2 minutes apart, less than 60 second rest, longer than 2 minutes long, >25 mmHg)
- Reduce UA by stopping infusion to stop tachysystole

- Record BP, pulse and RR every 30-60 minutes

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.
 - Hypertension, preeclampsia
 - UTI's
 - Ketoacidosis
 - Labor dystocia, cesarean birth, uterine atony, hemorrhages PP
 - Birth injury

2. Discuss fetal-neonatal risks associated with diabetes and pregnancy.
 - Congenital anomalies
 - Perinatal death (low placental perfusion)
 - Macrosomia
 - Intrauterine growth restriction
 - Preterm labor, PROM
 - Hypoglycemia
 - Polycythemia
 - Hyperbilirubinemia
 - RDS

3. What educational topics should be covered to assist the patient in managing her diabetes?
 - Demonstrations and teach back
 - Self-monitoring of BG level
 - Insulin administration
 - Dietary management
 - Signs of hypoglycemia/hyperglycemia
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4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer.

- It will likely be LGA: fetal hyperglycemia stimulates production of insulin, excess nutrients passed to the fetus

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: BP 160/110, 3+ pitting edema, facial edema, severe headache, blurry vision, proteinuria

2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension?
 - 17 years old, missing prenatal appointments, eating dinner late, stress with work and school

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested.
 - Vascular bed: Increase release of fibronectin, growth factors and peptides
 - Cardiovascular: Arteriole narrowing, increase sympathetic activity, increase vascular resistance, increase cardiac output and stroke volume
 - Renal: Proteinuria, altered function
 - Hepatic: dysfunction and/or rupture
 - Hematologic: Thrombocytopenia, hemolysis
 - CNS: hyperreflexia

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

- Prenatal monitoring: early and regular prenatal care (BP, urinary protein/glucose)
- Blood pressure monitoring at home (teaching)
- Daily weights
- Urinalysis
- Fetal assessment
- High protein, low sodium diet
- Bed rest
- Antihypertensive medications
- Anticonvulsant medication (magnesium sulfate)

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

- Labetalol: less maternal tachycardia and other AE
- Hydralazine
- Nifedipine
- Magnesium Sulfate

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

- Contraindicated in females with myocardial damage, renal problems, myasthenia gravis
- Side effects: flushing, sweating, hypotension, depressed DTR's, CNS depression
- Monitor BP closely, assess RR's, Monitor I/O's
- Have resuscitation equipment in the room
- Ensure calcium gluconate (Magnesium sulfate antidote) is available

