

## **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 patient is post term and is not in a physical state, with the amount she is dilated, effaced and stationed to deliver the baby safely.

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

Prostaglandins help the uterus get prepared for oxytocin stimulation and will ripen the cervix.

3. What tests or evaluation should be performed prior to the induction? A CBC, HBsAG, blood type, HIV test, FHM, SVE, Leopold maneuver, fetal station, and positioning

4. What are the nursing considerations when administering an Oxytocin infusion? Give as a secondary infusion and always on a pump. Must be connected to the most proximal port. Infusion starts slowly and is gradually elevated. Must have good variability in FHR pattern. Must be on continuous FHM to monitor for tachysystole.

## **CASE STUDY - Diabetes in Pregnancy**

A 30-year-old, G2, P1, is in her 10<sup>th</sup> 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. Hydraminos- increase in volume of amniotic fluid, Pre-eclampsia- Hypertension in pregnant women, Hyperglycemia- elevated BG, Increase risk for a Cesarean delivery, UTIs.
2. Discuss fetal-neonatal risks associated with diabetes and pregnancy. Macrosomia, Hypoglycemia, Congenital anomalies, RDS, Polycythemia- excessive number of red blood cells, Hyperbilirubinemia, Intrauterine growth restriction
3. What educational topics should be covered to assist the patient in managing her diabetes?  
Initial therapy begins with nutrition therapy, exercise, and glucose monitoring. The goal of nutrition therapy is to provide adequate nutrition for the mother and fetus, provide sufficient calories for appropriate maternal weight gain, maintain normal glycemic levels and avoid ketosis.
4. What classification (SGA, AGA, LGA) will this patient's baby most likely be classified as? Discuss your answer. LGA: most babies born from diabetic mothers fall under this category due to the increase sugar in the blood making the baby more big than usual.



## **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? Pre-eclampsia: high blood pressure with pitting edema, proteinuria, and blurred vision. The 2 beats of clonus are a concern since a normal beat of clonus is 0.
2. What in the patient's history places her at risk for Pregnancy-Induced Hypertension?

Being only 19 years old as it is more prevalent in younger mothers, and it is also her first pregnancy.

3. Describe how Pregnancy-Induced Hypertension affects each organ and how these effects are manifested. It involves multiple systems, including immune, cardiac, and renal. It is characterized by placenta insufficiency during early pregnancy, vascular dysfunction, and vasospasm.
4. What will the patient's treatment consist of? Weekly or biweekly nonstress may be required. Weight taken daily at the same time to identify edema. Client should be instructed to call the provider if she gains 3 pounds in 1 day or 4 pounds over the course of 3 days.

5. What is the drug of choice for this condition? What other medication(s) might be ordered for this patient? Magnesium sulfate- a central nervous system depressant. Mag sulfate is the main drug used for this problem but can also be methyldopa, labetalol, hydralazine, and nifedipine.
  
6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines) S/S: drowsiness, decreased respirations, bradycardia, hypotension, diarrhea, muscle weakness, flushing, sweating and hypothermia. Administered IV as a secondary infusion on a pump connected to the most proximal port. Loading dose of 4-6 g over 15-30 mins followed by a maintenance dose of 2 g/Hr. Assess for toxicity (Range is 4-7 mEq/L) if toxicity has been achieved give calcium gluconate, PO or IV, 10 mL (1 mL/min)