# 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?

**Induction of labor may be medically necessary for an obstetric, fetal, or other medical indication or it may be elective. (ie. Intrauterine environment is hostile to fetal wellbeing, SROM near term with out onset of labor, post term, chorioamnionitis, HTN, placental abruption, maternal medical conditions, or fetal demise.**

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

**To help with cervical ripening, with a dilation of 2cm, they would want to see it move closer to 3-4cm, even up to 5-6cm, before the begin the labor process, this allows for a safer and easier way for the baby to exit out of the cervix**.

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

   **Confirmation of gestational age, prenatal testing, FHR/ Uterine contraction monitoring (NO D CELLS) , maternal VS, any allergies known.**

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

**Signs of Excessive uterine activity (>5 in 10 min, avg over 30 min), category II FHR patterns, try maternal repositioning, IVF Bolus 500 mL, o2 10L/min, decrease rate of oxytocin in half, if no help= stop oxytocin, consider IUR and terbutaline. Oxytocin IVPB is diluted isotonic (LR, NS, D5W), always on pump, as close as possible to venipuncture site, start slowly, titrate gradually, continuous fetal monitoring required.**

# <u>CASE STUDY - Diabetes in Pregnancy</u>

A 30-year-old, G2, P1, is in her $10^{th}$ 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.

Abnormal metabolic environment, such as hypoglycemia, hyperglycemia, and ketosis may lead to increased incidence of spontaneous abortion or major fetal malformations. HTN especially (Preeclampsia), is more likely to form is she had preexisting DM before.

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

Hydramnios, cause is from hyperglycemia and may cause PROM= overextension of uterus.
Macrosomia, baby weight more than 8.8 IBS, risk for shoulder dystocia.
Neural Tube defects, "caudal regression syndrome" = failure of sacrum, lumbar spine, or lower extremities to develop. Risk of Hypoglycemia after birth, hypocalcemia, hyperbilirubinemia, RDS, etc.

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

Preconception care, establishing best time to have a baby based on normal maternal blood glucose levels, teach how to monitor BS levels, eat a healthy diet (avoid fatty foods, simple sugars, and consume more protein, carbs, fibers, etc), also how to admin insulin correctly, and the importance of $2^{nd}$ and $3^{rd}$ trimester may require more insulin here as well, whereas the first and end of labor will be a decrease need for insulin. Also the importance of small exercise, such as walking for 20min a day for 3 day of the week is good as well.

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

Although   this is not always the case, LGA "Large for Gestational Age" will more likely be    due to the infants risk of  metabolic complications due to DM.

# 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, bc of the BP >= 160/110, 3+ proteinuria, DTR w/ clonus, severe HA, 3+ edmea, blurred vision, all really red flags.

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

    First pregnancy, mal nutrition, weight gain.

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

    Vascular (altered coagulation, endothelial dysfunction)= increase thrombus formation, cardiovascular/ pulmonary (increase vascular resistance, increase CO/stroke)= HTN, Renal (proteinuria, altered function), Hepatic (dysfunction, rupture)= elevated liver tests, Hematologic (Thrombocytopenia, altered PLT Function, Hemolysis)= <100,000 PLT or more, CNS (Hyperreflexia)= HA, dizziness, blurred vision, tachycardia, LOC changes, cerebral edema.

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

    Only cure is delivery of placenta and baby, but can include, decrease stimulation, control pain, admin Mg+ for 24 HRs after delivery or last seizure.

5. What is the drug of choice for this condition? What other medication(s) might be ordered for this patient? Anti HTN= Labatelol and maybe Mg+ to prevent seizures as well.

6. What are the Nursing considerations when administering the drug of choice? (Side effects & medication administration guidelines) avoid in asthma and CHF pts***, monitor for

HYPO/HYPERTENSION, if giving Mg+ = watch for < 12 RR, depressed DTR, <30 mL/HR Urine, serum levels above 8),