

Pregnancy Complicated By Medical Conditions

- Diabetes Mellitus
 - Preexisting diabetes mellitus – insulin and noninsulin dependent. Occurs prior to pregnancy.
 - Gestational diabetes mellitus – occurs only during pregnancy.
 - Diabete is a disorder where there is an inadequate amt of insulin to move glucose from blood into body cells.
 - Pancreas produces no insulin or insufficient insulin or the cells resist the effects of insulin.

Pregnancy Complicated By Medical Conditions

- Effects on pregnancy (Diabetes Mellitus)
 - Estrogen, progesterone, insulinase, and increased prolactin levels will
 - Increase resistance of cells to insulin.
 - Increase speed of insulin breakdown.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Resolves quickly after birth.
 - Factors
 - Maternal obesity
 - Larger infant
 - Older than 25
 - Previous unexplained stillbirth or infant with congenital abnormalities.
 - History DM
 - Fasting glucose over 135.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Routine testing done at 24 and 28 wks gestation.
 - Drink oral glucose and blood drwn in 1 hr.
 - If glucose is higher than 140, than a 3 hr glucose tolerance test is done.
- Diet
 - Avoid large single meals with a lot of simple CHO.
 - Three small meals and two snacks throughout day to maintain glucose level.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Glucose Levels
 - Fasting not under 70.
 - Premeal 70 to 95.
 - 1 hr postmeal under 130 after 1 hr and under 120 after 2 hrs.
 - Should monitor glucose several times a day.
 - Glycosylated hemoglobin AC – long term 4 to 6 wk glucose control.

Pregnancy Complicate By Medical Conditions

- Gestational Diabetes Mellitus
 - Ketone monitoring
 - Important because she may be metabolizing fat and protein to produce glucose which results in ketoacidosis.
 - Ketones – checked to identify need for more CHO.
 - Insulin
 - Gluburide – oral hypoglycemic agent that can be used after first trimester.
 - Insulin – drug of choice – DOES NOT CROSS PLACENTA.
 - 2nd trimester there is an increase of placental hormones which increases insulin resistance resulting in ore insulin.
 - Insulin pump controls blood sugars of pregnant and nonpregnant woman.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Exercise
 - Helps control blood glucose levels and minimize need for insulin.
 - Should exercise after a meal so doesn't become hypoglycemic.
 - Careful not to exercise when insulin is at peak because she will have a hypoglycemic attack.
 - Blood glucose monitored before, during, and after exercise.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Fetal Assessment
 - US – in utero growth restrictions, macrosomia, excess amniotic fluid or decrease in amniotic fluid.
 - Nonstress and contraction stress test – tells how placenta is functioning.

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Nursing care
 - Self – care
 - Check blood glucose
 - Administer insulin
 - Proper diet
 - Know signs of hypo and hyperglycemia

Pregnancy Complicated By Medical Conditions

- Gestational Diabetes Mellitus
 - Emotional support
 - Anxiety
 - Needs to express frustrations and fears.
 - Give praise.
 - Breastfeeding
 - Babies have a lower incidence of developing diabetes as an adult.
 - Monitor glucose levels for 24 hrs after born.
 - Breastfeeding uses glucose reserve from mom so she has to be monitored.

Pregnancy Complicated By Medical Conditions

- Heart Disease
 - Small percentage of woman during pregnancy.
 - Increased levels of clotting factors predispose her to thrombosis, which can cause CHF, and in turn fetus suffers from reduced placenta blood flow.
 - There is an excessive amt of interstitial fluid that returns to circulation after birth, setting up for circulatory overload in postpartum period.

Pregnancy Complicated By Medical Conditions

- Heart Disease
 - Need to be seen by cardiologist and OB.
 - Excessive wt gain has to be avoided.
 - Preventing anemia will prevent heart rate to increase.
 - Limit physical activity.
 - Frequent rest periods.
 - May be on strict bedrest.
 - Watch for thrombosis with bedrest.
 - Heparin – drug of choice.
 - Vaginal birth over C section due to less chance of infection or resp complications.
 - May use forceps or vacuum extractor to decrease need for pushing.

Pregnancy Complicated By Medical Conditions

- Anemia
 - Iron - Deficiency Anemia
 - RBC's small and pale.
 - Needs more iron for her own increased blood volume to transfer to fetus.
 - Prevention
 - Iron supplements
 - Vit C enhances absorption of iron.
 - Should be taken with milk or antacids to calcium impairs absorption.
 - Treatment
 - Oral doses of iron. (taken for 3 months).

Pregnancy Complicated By Medical Conditions

– Folic Acid – Deficiency Anemia

- Large immature RBC's.
- Goes along with iron deficiency.

– Prevention

- Folic acid def has been associated with neural tube defects in newborn.
- Need 400 ug each day for adequate intake.
- Recommended for any woman in childbearing yrs.

• Treatment

- Folic acid supplement 1mg/day.

Pregnancy Complicated By Medical Conditions

- Genetic Anemia's
 - Sickle Cell Disease – abnormal hemoglobin that causes erythrocyte to become distorted in sickle shape during episodes of hypoxia or acidosis.
 - Autosomal recessive disorder.
 - Person receives an abnormal gene from each parent.
 - With pregnancy, there may be a sickle cell crisis with massive erythrocyte destruction and occlusion of blood vessels.
 - Risk to fetus is occlusion of vessels that supply placenta, leading to preterm birth, growth retardation, and fetal death.

Pregnancy Complicated By Medical Conditions

- **Thalassemia**
 - Abnormality in one of two chains of hemoglobin, the alpha or beta chain.
 - Person can inherit an abnormal gene from each parent causing B – thalassemia major, or Cooley's anemia.
 - Only one gene is obtained from one parent, the person will have B – thalassemia minor. Fewer problems.
 - Iron supplements may cause iron overload because body absorbs and stores iron higher than usual amount.

Pregnancy Complicated By Medical Conditions

- **Thalassemia**

- **Nursing care**

- Teach which foods are high in iron and folic acid.
 - Take supplements if needed.
 - Do not take milk with iron because iron will not be absorbed.
 - Vit C may enhance absorption.
 - Stool may be dark green to black.
 - May have GI distress.
 - Should not take antacids with iron.

Pregnancy Complicated By Medical Conditions

- Viral
 - Cytomegalovirus
 - Occurs during childbearing yrs that can be asymptomatic.
 - Infected infant can become mentally retarded, have seizures, blindness, deafness, dental abnormalities, and petechiae.
 - Treatment
 - None.

Pregnancy Complicated By Medical Conditions

- Rubella
 - Low fever and rash.
 - Early in pregnancy – disrupt formation fo major body systems.
 - Later in pregnancy – damage organs already formed.
 - Some effects – mental retardation, congenital cataracts, deafness, cardiac defects, and intrauterine growth retardation.
 - Treatment
 - Immunization against rubella infections.
 - Should not get pregnant for a least 3 months after immunizations.
 - Vaccine is offered to nonimmune women at postpartum period.

Pregnancy Complicated By Medical Conditions

- Herpesvirus
 - Type 1 – fever blisters and cold sores.
 - Type 2 – genital herpes.
 - Infection during the 1st half of pregnancy can cause spontaneous abortion, IUGR, and preterm labor.
 - Infant is infected by
 - Virus ascends into uterus after membranes rupture.
 - Direct contact with vaginal delivery.
- Treatment
 - Avoid contact with lesion.
 - C section to avoid contact
 - Can breastfeed if there aren't any lesions on breast.

Pregnancy Complicated By Medical Conditions

- Hepatitis B
 - Transmitted by blood, saliva, vaginal secretions, semen, and breast milk.
 - Can cross placenta.
 - Infant may become chronic carrier and continuing source of infection.
 - Treatment
 - Infant receives single dose of immune globulin followed by hepatitis B vaccine.

Pregnancy Complicate By Medical Conditions

- HIV
 - Causative organism for acquired immunodeficiency syndrome (AIDS).
 - Infant can become infected by maternal secretions, transplacentally, and breast milk.
 - Infect mother has 20 to 40 % chance of transmitting virus to her virus perinatally.
 - Need 3 to 6 months to see if infant is really infected.
 - Nursing care
 - Counseling
 - Testing for HIV in all prenatal pts.
 - Pregnant woman with AIDS are more susceptible to infection and fetus may develop an impaired immune system.
 - Breastfeeding may be contraindicated in mothers who are actively HIV positive.
 - Infant may receive drug therapy up to 6 wks of life.

Pregnancy Complicated By Medical Conditions

- Nonviral Infections
 - Toxoplasmosis – parasite that may be acquired by contact with cat feces or raw meat and transmitted through placenta.
 - See – low birth wt, enlarged liver and spleen, jaundice, anemia, inflammation of eye structures, and neurological damage.
 - Treatment – cook meat, wash hands when touch raw meat, do not touch mucous membranes of eye or mouth when touching raw meat, do not eat raw eggs or unpasteurized milk, wash fruit and vegs, and do not touch material contaminated with cat feces.

Pregnancy Complicated By Medical Conditions

- Tuberculosis
 - If positive, CXR is done with a shield over abd.
 - Symptoms – weakness, loss of appetite, wt loss, fever, and night sweats.
 - Infant acquires it from mom not treated.
 - Treatment – Isoniazid and rifampin for 9 months.
 - Infant may have therapy for 3 months with Isoniazid.

Pregnancy Complicated By Medical Conditions

- Group B Strep
 - Leading cause of perinatal infections with high mortality rate.
 - Found in woman's rectum, vagina, cervix, throat, or skin.
 - Infant becomes infected with contact of vaginal secretions at birth.
 - Symptoms – temp after 12 hrs of delivery, tachycardia, abdominal distention. Culture will confirm diagnosis
 - Deadly to infant.
 - Treatment – PCN
 - Any positive urine will be treated during pregnancy and newborn is treated at birth.

Pregnancy Complicated By Medical Conditions

- Sexually Transmitted Diseases
 - Transmitted by sexual intercourse.
 - Seen with syphilis, gonorrhea, chlamydia.
 - Instruct use of latex condoms to help reduce sexual spread.

Pregnancy Complicated By Medical Conditions

- Urinary Tract Infections
 - Most common in females due to shorter urethra, contamination of urethra from the rectum, and contamination during sexual intercourse.
 - Infection may cause cystitis or pyelonephritis.
 - Burning on urination, urinary frequency, slightly elevated temp,
 - If not treated
 - High fever, chills, flank pain, and N&V.

Pregnancy Complicated by Medical Condition

- Urinary tract Infection
 - Treatment - antibiotics – ampicillin.
 - Nursing care
 - Front to back direction with wiping.
 - Teach mom how to clean a female baby and apply diaper.
 - Adequate fluids.
 - Eight glasses a day.
 - Cranberry juice.
 - Urinate before intercourse reduces irritation and afterwards flushes bladder.