Nursing Care During Complications of Pregnancy

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Introduction:

Pregnancy is one of the most profound times in a woman's life. It is marked by a variety of physical changes, as well as by thoughts and feelings that sometimes overwhelm the mother-to-be. Though pregnancy is generally a time of joy and well-being, complications can occur that cloud the experience and put the woman and her unborn child at risk. The following complication or high risk condition are the most common ones seen in pregnancy:

Ant partum Hemorrhage

Bleeding in pregnancy may jeopardize maternal and fetal well-being. The following conditions may cause abnormal bleeding in pregnancy:

Early Pregnancy Bleeding and nursing care

Miscarriage (Spontaneous Abortion)

Abortion is the delivery of a fetus before the 20th week of gestation.

Signs and symptoms: Typically, bleeding occurs followed by abdominal cramping pain.

Types of spontaneous abortion

- Threatened: first-trimester bleeding in the absence of fluid or tissue loss
- Inevitable: cervical dilation in the setting of rupture of membranes most often followed by contractions and the expulsion of placental or fetal tissue or both
- Incomplete: characterized by bleeding through a dilated internal cervical os; placental or fetal tissue or both, either completely or partially remain in utero and may need to be extracted by ring forceps or evacuated by suction and curettage
- Complete: placental or fetal tissue or both is completely and spontaneously delivered
- Missed: retained placental or fetal tissue, or both, from a failed intrauterine pregnancy
- Induced abortion: an elective medical or surgical termination of a pregnancy before viability.

Medical management:

- if bleeding and infection are not present. Prostaglandin medications (e.g., misoprostol [Cytotec]) may be given orally or vaginally and are usually effective in completing the miscarriage within 7 days.
- If the products of conception are not passed completely, the woman may be prepared for manual or surgical evacuation of the uterus (**dilation and curettage (D&C)**)

Nursing care:

- Special care may be needed for management of side effects of prostaglandin such as nausea, vomiting, and diarrhea.
- **Before a surgical procedure**: The nurse reinforces explanations, answers any questions or concerns, and prepares the woman for surgery.
- **After evacuation After evacuation of the uterus,**

✓ oxytocin is often given to prevent hemorrhage

✓ Antibiotics are given as necessary

✓ Analgesics such as antiprostaglandin agents may decrease discomfort from cramping

✓ The woman who is Rh negative and is not isoimmunized is given RhO(D) immunoglobulin

- **Follow-up Care.** The woman will likely be discharged home within a few hours after a D&C or as soon as her vital signs are stable, vaginal bleeding remains minimal, and she has recovered from anesthesia. Discharge teaching emphasizes the need for rest. If significant blood loss has occurred, iron supplementation may be ordered.
  - ✓ Teaching includes:
  - ✓ information about normal physical findings such as cramping,
  - ✓ type and amount of bleeding
  - ✓ resumption of sexual activity
  - ✓ family planning

Molar pregnancy (Gestational trophoblastic disease):

Molar pregnancy (Gestational trophoblastic disease) GTD, also known as hydatidiform mole is a benign proliferative growth of the placental

trophoblast in which the chorionic villi develop into edematous, cystic, avascular transparent vesicles that hang in a grapelike cluster, figure (1).

Symptoms:

- Dark brown to bright red vaginal bleeding during the first trimester
- Severe nausea and vomiting
- Sometimes vaginal passage of grapelike cysts
- Pelvic pressure or pain

Risks for the Woman

- Increased risk of choriocarcinoma

Diagnosis

- ✓ **diagnosis of molar pregnancy** is much earlier than before because the routine use of ultrasound in early pregnancy detects the molar pregnancy earlier.
- ✓ hCG and transvaginal ultrasound

Medical Management:

- ✓ immediate evacuation of mole with aspiration/suction D&C
- ✓ Follow-up of hCG levels for at least 6 months to detect trophoblastic neoplasia. After hCG levels fall to normal for 6 months, pregnancy can be considered.

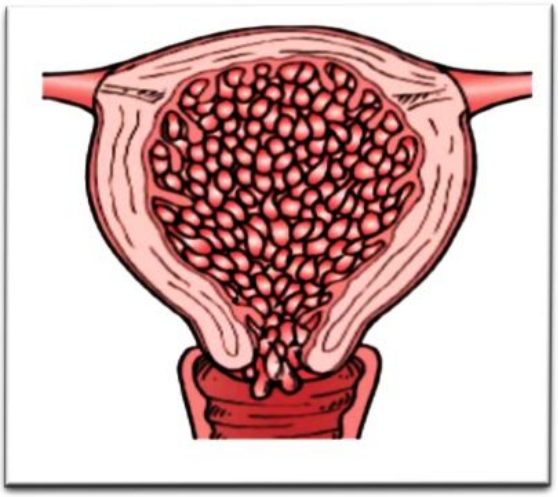

figure (1).Formation of gestational trophoblastic disease (hydatidiform mole).

Nursing Management

- preparing her for a dilation and curettage D&C.
- providing emotional support to deal with the loss and potential risks.
- educating her about the risk that cancer may develop after a molar pregnancy and the strict adherence needed with the follow-up program.

Ectopic Pregnancy

An ectopic pregnancy refers to the implantation of the blastocyst outside the uterine cavity.

- **Locations of implantation**: fallopian tube (98% of the time), ovary, cervix, and abdomen, figure (2)

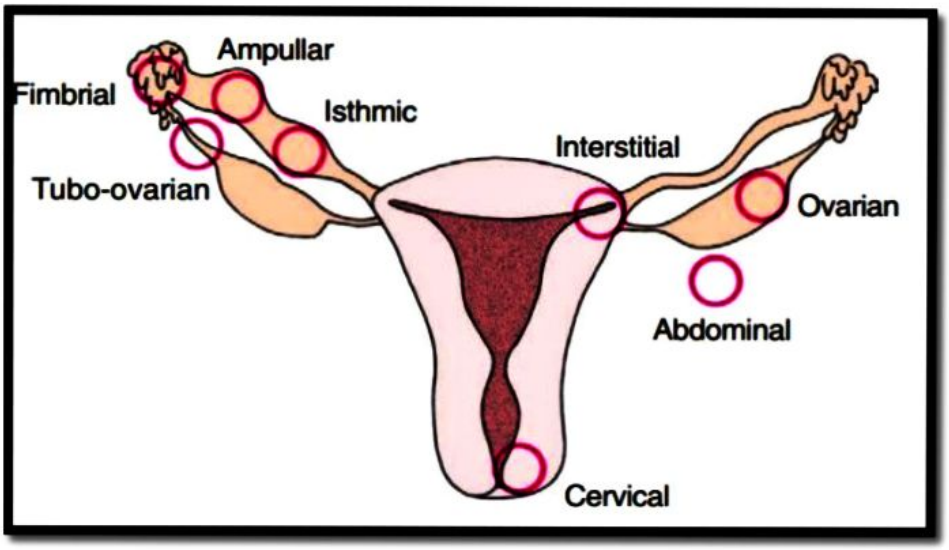

Figure (2)Sites of implantation of ectopic pregnancies.

Risk factors

- Infection such as chlamydia and gonorrhea
- History of infertility
- Smoking
- Prior ectopic pregnancy
- Advanced maternal age

Symptoms

- Pregnancy-associated symptoms such as nausea and vomiting and breast tenderness
- Shoulder pain

- Vaginal bleeding may or may not be present
- Pain in the lower abdomen and/or pelvis

Diagnosis

- Transvaginal ultrasound
- Serum beta-human chorionic gonadotropin (hCG)

Management

- Medical management with the use of methotrexate
- Surgical management**: salpingostomy** for the unruptured fallopian tube, to preserve the tube—an important consideration for the woman wanting to preserve her future fertility. **Salpingectomy** for the ruptured fallopian tube, this surgery (A laparotomy with a removal of the tube) is necessary as a result of possible uncontrolled hemorrhage.

Nursing management

a. ***Preparing the Woman for Treatment***

b. ***Providing Emotional Support***

c. ***Educating the Client***

Educating the woman is crucial. Prevention education may include the following:

1. Avoid contracting STIs that lead to pelvic inflammatory disease (PID).
2. Obtain early diagnosis and adequate treatment of STIs.
3. Avoid smoking during childbearing years since a correlation and increase in risk exists.
4. Use condoms to decrease the risk of infections that cause tubal scarring.
5. Seek prenatal care early to confirm the location of pregnancy

- **late Pregnancy Bleeding and nursing care:**

1. Cervical insufficiency

Cervical insufficiency reviously termed an incompetent cervix, refers to a cervix that dilates prematurely and therefore cannot hold a fetus until term.

Risks to the Woman

- Repeated second trimester or early third trimester births
- Recurrent pregnancy losses (e.g., spontaneous abortions)
- Preterm delivery
- Rupture of membranes/infection

Risk to the Fetus and Newborn

- Preterm birth and consequences of prematurity

Therapeutic Management

Cervical insufficiency may be treated in a variety of ways:

- bed rest; pelvic rest; avoidance of heavy lifting;
- surgically, via a procedure of a **cervical cerclage** in the second trimester. Figure (3).

Figure (3): Cervical Cerclage

Nursing Management

Nursing management focuses on :

- monitoring the woman very closely for signs of preterm labor: backache, increase in vaginal discharge, rupture of membranes, and uterine contractions.
- Provide emotional support and education to allay the couple's anxiety about the well-being of their fetus.

- Provide preoperative care and teaching as indicated if the woman will be undergoing cerclage.
- Teach the client and her family about the signs and symptoms of preterm labor and the need to report any changes immediately.
- Also reinforce the need for activity restrictions (if appropriate) and continued regular follow-up.

2. Placenta abnormalities:

- **Placenta previa**

Placenta previa is a most common painless bleeding condition that occurs during the last two trimesters of pregnancy.

Placenta previa occurs when the placenta is located over the cervical os, covering the os either partially or fully

Incidence: 4 in 1000 deliveries

Signs and symptoms: painless vaginal bleeding

Classification: Placenta previa is generally classified according to the degree of coverage or proximity to the internal os, as follows (see figure 4):

1. complet placenta previa: the internal cervical os is completely covered by the placenta
2. Marginal placenta previa: the placenta is at the margin or edge of the internal os

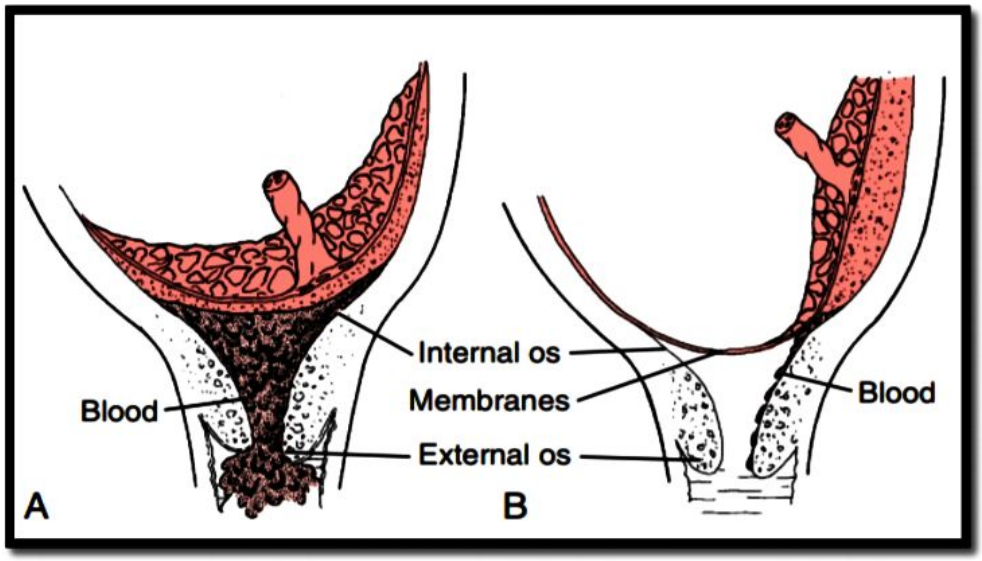

Figure (4): Classification of placenta previa. (A) Complete (B) Marginal

Risk factors: tobacco use, history of cesarean delivery, history of placenta previa, history of uterine instrumentation such as curettage, increased maternal age, increased parity, multiple gestation

Therapeutic management

- If the mother and fetus are both stable, therapeutic management may involve expectant ("wait-and-see") care
- Obtain serial ultrasounds to examine placenta location and fetal growth.
- Avoid cervical examinations.
- Some patients with stable bleeding may be managed on an outpatient basis.
- Advise these patients to observe pelvic rest.
- If the client requires continuous care and monitoring and cannot meet the home care requirements, the antepartal unit is the best environment.
- Instruct the patient to call her HCP if she is having uterine contractions, loss of fluid, and vaginal bleeding.

Nursing Management

the nurse focuses on:

- monitoring the maternal–fetal status, including:
  - ✓ assessing for signs and symptoms of vaginal bleeding and fetal distress.
  - ✓ providing support and education to the client and her family, including what events and diagnostic studies are being performed.
  - ✓ For the majority of women, a cesarean birth will be planned

▪ Abruptio Placentae

Abruptio placentae or placental abruption refers to placental detachment from the uterus.

Incidence: 1 in 75 to 226 deliveries

Signs and symptoms: vaginal bleeding (although in 10%–20% of cases, no vaginal bleeding occurs; instead, occult uterine bleeding is present), abdominal pain, uterine contractions, uterine tenderness, nonreassuring fetal heart rate patterns, fetal death.

Classification: Abruptio placentae also may be classified as partial or complete, depending on the degree of separation. Alternately, it can be classified as concealed or apparent, by the type of bleeding see figure (5).

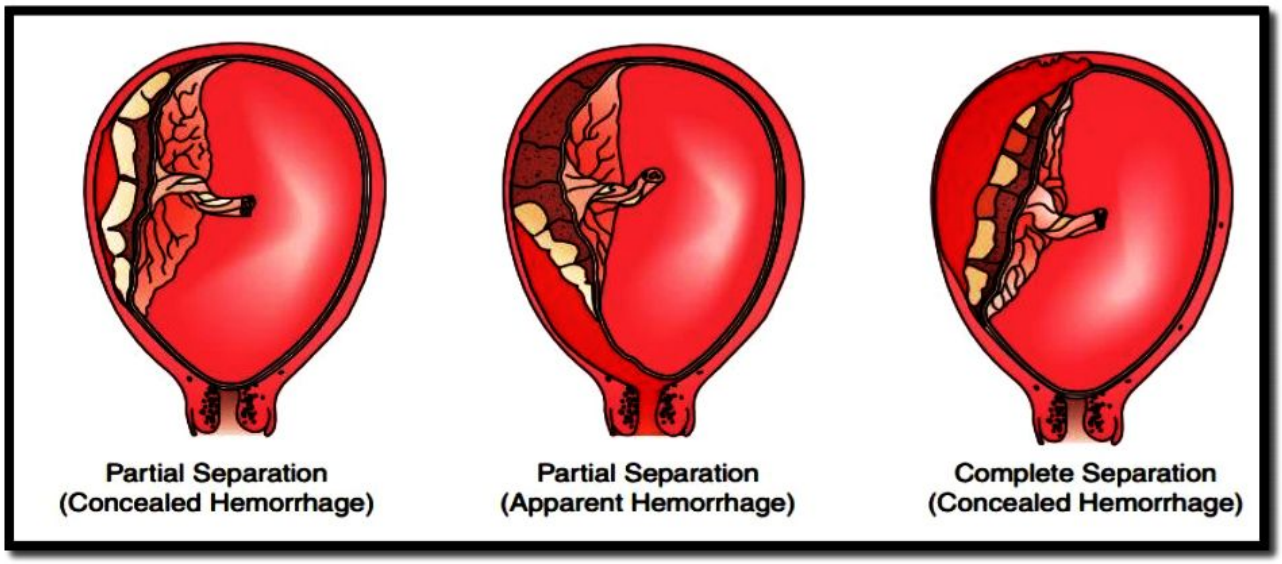

Figure (5): Type of Abruptio Placentae

Therapeutic Management

- Treatment of abruptio placentae is designed to assess, control, and restore the amount of blood lost; to provide a positive outcome for both mother and newborn; and to prevent coagulation disorders.

Nursing Management

Nursing management of the woman with abruptio placentae warrants immediate care to provide the best outcome for both mother and fetus

- place the woman on strict bed rest and in a left lateral position to prevent pressure on the vena cava
- Obtain maternal vital signs frequently, as often as every 15 minutes as indicated, depending on the woman's status and amount of blood loss.
- Assess fundal height for changes.

- Be alert for signs and symptoms of DIC, such as bleeding gums, tachycardia, oozing from the IV insertion site, and petechiae, and administer blood products as ordered if DIC occurs
- Institute continuous electronic fetal monitoring
- Remain with the couple, acknowledge their emotions and fears
- Provide information about the various diagnostic tests, treatments, and procedures that may be done, including the possible need for a cesarean birth
- Encourage the woman to avoid drinking, smoking, or using drugs during pregnancy

▪ Placenta accreta

Placenta accreta is abnormal placentation directly onto the uterine lining caused by a deficient decidua basalis.

Incidence: 1 in 533 deliveries

Signs and symptoms: painless vaginal bleeding

Variations :

1. Placenta increta, wherein the placenta's chorionic villi extend to the myometrium
2. Placenta percreta, wherein the placenta's chorionic villi penetrate through the myometrium and the peritoneum of the uterus

Nursing management

Nurses need to be prepared to assist in this emergency situation as dictated by the health care provider.

Hypertensive Disorder during pregnancy and nursing care

Hypertension is the most common medical disorder in pregnancy, accounting for up to 15% of prenatal hospitalizations.

Classifications:

The classification of hypertension in pregnancy is as follows (ACOG, 2008b):

1. Preeclampsia-eclampsia
2. Chronic hypertension
3. Chronic hypertension with superimposed preeclampsia
4. Gestational hypertension

1. Pre-eclampsia –eclampsia

Preeclampsia, a syndrome that affects both mother and fetus, is clinically defined as an increase in blood pressure after 20 weeks' gestation accompanied by proteinuria in a previously normotensive woman.

Eclampsia is the occurrence of a seizure in a woman with preeclampsia who has no other cause for seizure. Women who are going to develop preeclampsia usually become hypertensive before they develop proteinuria. In any event, the onset of hypertension in pregnancy warrants close observation

2. Chronic Hypertension

- Existence of high BP prior to pregnancy or before the 20th week of gestationPersists beyond 12 weeks postpartum. blood pressure 160/100 mm Hg.
- Medication Therapy: Methyldopa (Aldomet)

3. Chronic hypertension with superimposed preeclampsia

- Hypertensive women who develop new-onset proteinuria; proteinuria before the 20th week of gestation; or sudden increase in proteinuria or BP

4. Gestational Hypertension

- Systolic BP $\geq$ 140/90 for the first time after 20 weeks, without proteinuria. Almost 50% of women with gestational hypertension develop preeclampsia syndrome
- No edema, no proteinuria and blood pressure returns to normal after birth

Nursing care

Nursing care focuses on (1) assisting women to obtain prenatal care, (2) helping them cope with therapy, (3) caring for acutely ill women, and (4) administering medications.

Promoting prenatal care

For early intervention if complications arise.

Helping to cope with therapy

The nurse helps the woman to understand the importance of :

- reduced activity and frequent rest periods.
- Positioning the patient on her side during bed rest helps to improve blood flow to the placenta and more effectively provides oxygen and nutrients to the fetus.

Caring for the acutely ill woman

- A quiet, low-light environment reduces the risk of seizures.
- The woman should remain on bed rest on her side, often the left side, to promote maximum fetal oxygenation.
- Side rails should be padded and raised to prevent injury if a convulsion occurs.
- Stimulation such as loud noises or bumping of the bed should be avoided.
- Visitors are usually limited to one or two support persons. Suction equipment is available for immediate use.
- If a seizure occurs, the nursing focus is to prevent injury and restore oxygenation to the mother and fetus.
- Breathing can stop during a seizure. An oral airway, inserted after the seizure, facilitates breathing and suctioning of secretions.
- Oxygen by face mask improves fetal oxygenation.
- Labor may progress rapidly after a seizure, often while the woman is still drowsy, and the fetus is monitored continuously.

Providing postpartum care

- Close monitoring for 48 hours after delivery is essential.
- Women requiring antihypertensive drugs postpartum who are breastfeeding are usually given methyldopa or labetalol. Other antihypertensive drugs may have adverse effects on the breastfeeding infant.
- Diuretics decrease milk production and are generally not administered.

Gestational Diabetes and nursing care

Diabetes mellitus is an endocrine disorder in which the pancreas cannot produce adequate insulin to regulate body glucose levels.

1. Pregestational Diabetes

Diabetes diagnosed before pregnancy is classified into two major categories: type 1 (insulin-dependent) and type 2 (non–insulin-dependent).

- ***Incidence***: 1% of all pregnancies

2. Gestational Diabetes Mellitus (GDM)

A condition of abnormal glucose metabolism that arises during pregnancy.Possible signal of an increased risk for type 2 diabetes later in life.

Incidence: occurs in 2% to 5% of pregnant women.

Risks for the Woman

- Hypoglycemia
- Preeclampsia
- Cesarean birth
- Development of nongestational diabetes

Risks for the Fetus and Newborn

- Congenital defects
- Growth disturbances (Macrosomia)

- Hypoglycemia first few hours post-birth
- Intrauterine growth restriction
- Respiratory distress syndrome
- Birth injury
- Stillbirth

Diagnosing GDM

Diagnosis is confirmed by means of a fasting blood glucose level >126 mg/dL or a random plasma glucose level >200 mg/dL with hyperglycemia symptoms to be confirmed the next day with repeat testing.

Medication

- If diet and exercise are not enough
- medication such as insulin may be prescribed. Some patients are candidates for oral medication.

Nursing Management

The nurse has an important role in educating the patient with diabetes on keeping excellent glycemic control to optimize outcome for both the mother and the baby

1. ***Proper Nutrition***

- Assess patient's eating habits and food preferences
- Tailor a dietary plan that is composed of complex, high-fiber carbohydrates from whole grains, legumes, fruits and vegetables, protein from lean meats, poultry, and tofu.
- Limit saturated fat intake.

2. ***Physical Activity***

Educate patient on importance of physical activity, and stress that it has been proved to improve glycemic control.

3. Monitoring

- Blood glucose monitoring
- Ketones and glucose in urine
- Monitor for symptoms of hyperglycemia such as increased thirst, urination, and lethargy.

- Monitor for hypoglycemia symptoms such as confusion, visual disturbances, anxiety, tremor, sweating, and increased hunger.
- Tests for Placental Function and Fetal Well-Being.

4. ***Effective Insulin Use***
5. ***Timing for Birth :***cesarean birth was routinely performed in pregnant diabetic women at 37 weeks' gestation.
6. ***Postpartum Adjustment***

- Most women with GDM return to normal glucose levels after childbirth.
- encouraged to make lifestyle changes that include weight loss for Obesity women and exercise to reduce risk of GDM.

Urinary Tract Infection and nursing care

As many as 4% to 10% of nonpregnant women have asymptomatic bacteriuria (organisms are present in the urine without symptoms of infection). In a pregnant woman, because the ureters dilate from the effect of progesterone, stasis of urine occurs. The minimal glucosuria that occurs with pregnancy allows more than the usual number of organisms to grow.

Signs and symptoms:

A UTI typically is manifested by:

- frequency and pain on urination.
- With pyelonephritis a woman develops:
  - ✓ pain in the lumbar region (usually on the right side)
  - ✓ may have accompanying nausea and vomiting, malaise, pain, and frequency of urination.
  - ✓ elevated temperature as high as (39° to 40° C).

Therapeutic Management

- Amoxicillin, ampicillin, and cephalosporins are effective against most organisms causing UTIs and are safe antibiotics during pregnancy.

Nursing Care:

- Teach women to take full course of antibiotic therapy.
- Provide information on strategies to promote bladder health and ways to decrease risk for developing UTI.
  - ✓ Drink 2–4 quarts of fluid each day.
  - ✓ Void every 2–4 hours; avoid postponing urination because when urine remains in the bladder for prolonged periods, it allows increased time for bacteria to multiply.
  - ✓ Empty bladder before and after intercourse to flush out bacteria in the urethra.
  - ✓ Remain hydrated to keep bacteria flushed out of the urinary tract system
  - ✓ Avoid caffeine and alcohol since these can irritate the bladder
  - ✓ Do not douche or use feminine hygiene products that can alter the normal vagina flora.
- Teach women about the signs and symptoms of UTI to be reported to their health care providers

Anemia during pregnancy and nursing care

- Iron-Deficiency Anemia
- Folic Acid–Deficiency Anemia
- Sickle Cell Anemia.

True anemia is present when:

- a woman's hemoglobin concentration is less than 11 g/dL in the first or third trimester of pregnancy .
- or a woman's hemoglobin concentration is less than 10.5 g/dL in the second trimester.

A Woman With Iron-Deficiency Anemia:

Iron-deficiency anemia is the most common anemia of pregnancy, complicating as many as 15% to 25% of all pregnancies .Many women enter pregnancy with a deficiency of iron stores resulting from :

- a diet low in iron
- heavy menstrual periods
- unwise weight.

Risk of Iron-Deficiency Anemia for fetus and woman:

- Mildly associated with low birth weight and preterm birth.
- woman experiences extreme fatigue and poor exercise tolerance because she cannot transport oxygen effectively.

Nursing Actions

- Refer the woman to a dietitian for nutritional counseling and reinforce dietary interventions.
- Advise that taking iron supplementation at bedtime and on an empty stomach may increase absorption and decrease gastrointestinal upset.
- advise women to take iron supplements with orange juice or a vitamin C supplement for best iron absorbed
- Assess fatigue and develop interventions and a plan of care to deal with fatigue

A Woman With Folic Acid–Deficiency Anemia:

Folic acid, or folacin, one of the B vitamins, is necessary for the normal formation of red blood cells in the mother as well as being associated with preventing neural tube defects in the fetus.

women expecting to become pregnant are advised to begin a supplement of **400 mg** folic acid daily in addition to eating folacin-rich foods (green leafy vegetables, oranges, dried beans). During pregnancy, the folic acid requirement increases to **600 mg**/day.

A Woman With Sickle Cell Anemia:

- Sickle cell anemia is a recessively inherited hemolytic anemia caused by an abnormal amino acid in the beta chain of hemoglobin.
- In pregnancy, blockage to the placental circulation can directly compromise the fetus, causing low birth weight and possibly fetal death.

Nursing care:

- **Throughout pregnancy, monitor a woman's:**
- diet to be certain she is consuming sufficient amounts of folic acid
- fluid intake should also be carefully monitored.
- **Fetal health is usually monitored during pregnancy by**:
- an ultrasound examination at 16 to 24 weeks to assess for intrauterine growth restriction and by weekly nonstress or ultrasound examinations beginning at about 30 weeks.