Anemia in Pregnancy

Anemia in pregnancy is defined as a hemoglobin level below 11 mg/dL or a hematocrit level below 33% in the second and third trimesters. Mild anemia, characterized by a hemoglobin level of 11 mg/dL, may not offer a significant risk but suggests a suboptimal nutritional status.

Iron deficiency anemia is the prevailing form of anemia during pregnancy, impacting between 15% and 50% of expectant mothers. The condition is referred to as physiologic anemia of pregnancy.

Causes of anemia in pregnancy

Causes of anemia include: pregnancy-related anemia.

Malnutrition resulting from inadequate intake of essential nutrients, such as iron, folic acid, or vitamin B12, leading to conditions like iron deficiency or megaloblastic anemia. Although it may seem overwhelming, just a little search on a topic as straightforward as lactoferrin anemia will enable you to enhance your understanding in this domain. It is uncertain when this information may prove useful.

Hemorrhage of varying duration and severity

Hemolysis, such as in sickle cell anemia, thalassemia, or glucose-6-phosphate dehydrogenase (G-6-PD) deficiency.

Pathophysiology

The typical hemoglobin concentration for nonpregnant women is around 3.5 g/dL. During the second trimester of pregnancy, the average hemoglobin level is 11.6 g/dL due to the increased plasma volume diluting the mother's blood. This condition is referred to as physiologic anemia and is a natural occurrence during pregnancy.

Iron is insufficiently provided in the everyday diet during pregnancy. Consumption of some dietary substances, such as milk, tea, and coffee, hinders the absorption of iron. During pregnancy, a greater amount of iron is necessary to meet the increased demand for red blood cells in the mother's body and to support the transfer of iron to the fetus for the purpose of storing and producing red blood cells. The developing embryo must accumulate a sufficient amount of iron to sustain its needs for a period of 4 to 6 months following delivery.

Inadequate iron consumption during the third trimester can prevent the woman's hemoglobin from reaching a level of 12.5 g/dL, potentially leading to nutritional anemia. This will lead to reduced transfer of iron to the fetus.
Hemoglobinopathies, such as thalassemia, sickle cell disease, and G-6-PD, result in anemia by inducing hemolysis or heightened destruction of red blood cells (RBCs).

Evaluation Results

Correlated observations. For those with a hemoglobin level of 10.5 g/dL, anticipate reports of pronounced tiredness, headache, and rapid heart rate.

Presenting symptoms:

Indications of iron deficiency anemia, characterized by a hemoglobin level lower than 10.5 g/dL, encompass fragile fingernails, cheilosis (very dry and cracked lips), or a sleek, red, glossy tongue.

Females afflicted with sickle cell anemia endure episodes of excruciating crisis.

Nursing Management

Deliver instructions to clients and their families. Examine the use of iron supplements and the augmentation of iron intake from food sources as recommended.

Make necessary arrangements for blood-typing and crossmatching, as well as for the administration of packed red blood cells (PRBCs) in the event of severe anemia during birth.

Offer assistance and oversee the care of individuals with hemoglobinopathies.

Offer assistance to clients with thalassemia or those who possess the trait, particularly if the lady has recently discovered her carrier status. Additionally, evaluate for indications of infection for the entire duration of the pregnancy.

When dealing with a pregnant individual who has sickle cell disease, it is important to evaluate their levels of iron and folate, as well as their reticulocyte counts. Additionally, it is necessary to conduct a thorough screening for hemolysis, offer nutritional guidance, provide folic acid supplements, and monitor for any indications of infection.

For a pregnant individual with G-6-PD deficiency, administer iron and folic acid supplements, offer guidance on proper nutrition, and emphasize the importance of avoiding medications that can cause oxidation.