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PREGNANCY| BIRTH | POSTPARTUM

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Evaluation and management of Anemia

1. Definition or Key Clinical Information Anemia is when the body has a reduced amount of red blood cells or the body's red blood cells have reduced oxygen-carrying capacity (Marshall & Raynor, 2014). Anemia is clinically defined as hemoglobin less than 10g/dL (Marshall & Raynor, 2014). There are different treatments because there can be different causes of anemia. Iron deficiency anemia is most common and is caused by a diet low in iron, such as a vegetarian diet (Tran & McCormack, 2019). Folate deficiency anemia and B12 deficiency anemia will cause low hemoglobin but high red blood cells.

2. Assessment

i. Risk Factors: Pregnant people who are grand-multiparous, vegetarian, smokers, of African American descent, adolescent, have sickle cell, pica, inadequate diet, significant blood loss, heavy menstrual cycles, live rurally, are of low socioeconomic status, or who are late to prenatal care have a higher risk of anemia (Perumal, 2018; Sinha et al., 2021).

ii. Subjective Symptoms: Pregnant parents with anemia may report breathlessness, feeling more tired than typical, poor memory, difficulty focusing, weakness, achy muscles, pica, mood changes, and irritability. During labor, parents with anemia may present with more blood loss at birth and become more exhausted from their labor.

iii. Objective Signs: Jaundice, tachycardia, peripheral edema, pallor, and poor appetite.

iv. Clinical Impressions: The client may appear exhausted, out of breath, bruising more easily, and complain of not sleeping well. The parent could bleed more in the immediate postpartum and postpartum period.

v. Clinical Test Considerations Routine complete blood counts should be used to monitor the pregnant person's ferritin levels and iron. These should be done at the onset of care, 28 weeks, & 36 weeks of gestation. If it is found that iron is below 10.0g/dL, additional panels for serum folate, hemoglobin electrophoresis, ferritin, and total iron binding capacity should be taken (Varney, 2014). Iron deficiency anemia can be diagnosed by serum ferritin levels lower than 15ug/L (Tran & McCormack, 2019).

vi. Differential Diagnosis Dehydration**,** hypoglycemia, hyperglycemia, insomnia, sleep anemia, HIV/AIDS, stress, thyroid disease, depression, toxemia, alcohol abuse, antiviral drugs, anticonvulsant drugs.

3. Management plan

i. Therapeutic measures to consider within the CPM scope: The client must increase iron and vitamin-C rich foods intake in their daily diet. Counsel on the nutritional needs of the pregnant body. Recommend nettles, alfalfa, yellow dock, and blackstrap molasses (Balch, 2012). Counsel the client to avoid calcium supplements 2 hours before and after iron supplements. Oral elemental iron, 40-80mg for low dose and 100-200 for more therapeutic dose (Tran & McCormack, 2019).

ii. Therapeutic measures commonly used by other practitioners:
Oral iron supplements and intravenous iron for parents unable to take oral iron supplements with severe anemia (Tran & McCormack, 2019).

iii. Ongoing care: Homebirth may be impossible within state licensure if the client's hemoglobin is below 10g/dL at 36 weeks and not responding to treatment. Attempt therapeutic iron dosing and retest CBC if below 10g/dL until it rises above this limit or transfer to OB care if labor begins before CBC showing hemoglobin above 10g/dL.

iv. Indications for Consult, Collaboration, or Referral Midwife must transfer the client out of care to OBGYN if hemoglobin is below 10g/dL at the time of labor. In addition, any blood disease that prevents proper clotting (sickle cell) that could contribute to anemia would require the transfer of care to an OBGYN based on state licensure.

v. Client and family education: Discuss with the client the severe long and short-term implications of anemia on the growth of the fetus and the pregnant body. Explain dietary changes and supplements that can improve hemoglobin and hematocrit levels and that they should be taken consistently. Explain that if CBC is not within normal limits by 37 weeks, there will need to be a determination of the course of care or a transfer of care.

4. References

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