

Condition: Anemia

A. My assigned disease process is anemia.

Anemia is a problem of not having enough healthy red blood cells or hemoglobin or carry oxygen to the body's tissues (Mayo Clinic, 2025). Its mechanisms can be classified into three main categories: decreased RBC production, increased RBC destruction and blood loss. The decreased production can come from bone marrow disorders such as aplastic anemia, nutritional deficiencies (iron, vitamin B12, folate) and chronic diseases (CKD).

Increased RBC destruction or hemolytic anemia can be caused by inherited defects, enzyme deficiencies, autoimmune responses, infections, etc (Meyer et al., 2021). Anemia can also be caused by blood loss (acute or chronic). Anemia is known to cause fatigue, paler skin, shortness of breath, dizziness/lightheadedness, headaches, decreased focusing, bruising and more (Meyer et al., 2021). More symptoms include an increased heart rate (tachycardia) and a low blood pressure. In the case of Janessa, she has some shortness of breath, weakness and dizziness which are all signs of anemia.

B/C. Janessa has been having an increased amount of shortness of breath, weakness and dizziness for a month, those are all clinical signs of anemia. Janessa could clinically be diagnosed with anemia but would require more diagnostic testing and lab work to be fully diagnosed.

Janessa would need a CBC, CMP, Iron, Ferritin, Reticulocyte count, and folate levels. She would require a stool occult for blood, urine analysis, and ultrasound. If Janessa has a low serum iron, ferritin and high tIBC it could indicate iron deficiency anemia. A stool occult needs to be done as part of the anemia work up and would show if she has blood in her stool. The ultrasound would be a workup with her endometriosis.

D. Comparing asthma with anemia, they have distinct causes/symptoms.

Asthma is a chronic respiratory condition that is characterized by inflammation and constricts the airways, which leads to increased shortness of breath, wheezing, coughing, possibly chest tightness. Anemia is characterized by a lack of red blood cells or hemoglobin impairing the body's ability to carry oxygen (Meyer et al., 2021). The symptoms of