Anemia Chart

Mechanism	Examples
Blood loss	• Acute (e.g., Childbirth, GI bleeding, Injuries, Surgery) • Chronic (e.g., Bladder tumors, GI tract cancer/polyps, Heavy menstrual bleeding, Kidney tumors, Ulcers)
Deficient erythropoiesis	• Microcytic (e.g., Anemia of chronic disease, Iron deficiency, Thalassemia) • Normochromic-normocytic (e.g., Anemia of chronic disease, Kidney disease, Endocrine failure, Myelodysplasia, Myelophthisis, Pure red blood cell aplasia, Undernutrition) • Macrocytic (e.g., Alcohol use disorder, Copper deficiency, Folate deficiency, Liver disease, Malabsorption, Myelodysplasia, Vitamin B12 deficiency)
Excessive hemolysis due to extrinsic red blood cell defects	• Reticuloendothelial hyperactivity with splenomegaly, Hypersplenism, Immunologic abnormalities, Cold agglutinin disease, Drug-induced, Hemolytic uremic syndrome (HUS), Paroxysmal cold hemoglobinuria, Thrombotic thrombocytopenic purpura (TTP), Warm antibody hemolytic anemia, Infection (e.g., Clostridial infections, EBV, Malaria), • Mechanical injury, Drugs/toxins (e.g., Phenazopyridine, Ribavirin, Spider bites)
Excessive hemolysis due to intrinsic red blood cell defects	• Membrane alterations, acquired (e.g., Acquired stomatocytosis, Hypophosphatemia) • Membrane alterations, congenital (e.g., Hereditary elliptocytosis, Hereditary spherocytosis, Hereditarystomatocytosis, Hereditary xerocytosis, Neuroacanthocytosis) • Metabolic disorders (inherited enzyme deficiencies)(e.g., Embden-Meyerhof pathway defects, G6PD deficiency, Hemoglobinopathies)

Name: Eddie Clark

Results & Interpretation

Mechanism: Blood Loss - Chronic
Hemoglobin Level: 10.5 g/dL (Normal Range: 12-16 g/dL)
Hematocrit Level: 32% (Normal Range: 36-48%)
Mean Corpuscular Volume (MCV): 80 fL (Normal Range: 80-100 fL)
Interpretation: The test results indicate chronic anemia due to ongoing blood loss. Hemoglobin and hematocrit levels are below the normal range, with a mean corpuscular volume (MCV) within the lower range of normal. This suggests that the red blood cells are smaller than average but still within the acceptable size range for normocytic anemia. Further investigation is required to identify the underlying cause.

Comments/Additional Notes

Additional tests such as iron studies and colonoscopy are recommended to pinpoint the source of chronic blood loss, which may be related to conditions like gastrointestinal tract polyps or ulcers.
Patient should consult a healthcare provider to determine the cause of anemia and explore appropriate treatment options.
Dietary adjustments and iron supplementation may be necessary based on subsequent diagnostic findings.