Anemia, Hematology and Coagulation Tables

Course 03 · Cardiovascular, Vascular and Hematology · October 2026

Anemia by MCV

• Microcytic: iron deficiency, thalassemia trait, inflammation; use ferritin and iron studies.

• Normocytic: chronic inflammation, kidney disease, acute blood loss, hemolysis, marrow disease.

• Macrocytic: B12 / folate deficiency, thyroid/liver disease, alcohol, medication or marrow disease.

• Reticulocytes help separate inadequate production from bleeding/hemolysis.

• Severe anemia with ischemic symptoms, instability or active bleeding requires emergency assessment.

Hemolysis and microangiopathy

• High LDH / indirect bilirubin and low haptoglobin suggest hemolysis.

• Schistocytes + low platelets +/- neuro or renal injury: concern for TMA/TTP; emergency evaluation.

• Do not miss causes of iron deficiency such as chronic GI blood loss.

Platelets and coagulation

• Mucocutaneous bleeding suggests platelet problem; hemarthroses/deep bleeding suggest factor defect.

• PT/INR assesses extrinsic/common pathway and guides warfarin; aPTT assesses intrinsic/common pathway.

• Normal PT/aPTT does not rule out therapeutic DOAC exposure.

• DIC: sepsis/trauma trigger, thrombocytopenia, prolonged clotting times, high D-dimer and often low fibrinogen.

• Platelet clumping may cause pseudo-thrombocytopenia; review smear.

• Heparin exposure with platelet fall and new thrombosis raises HIT concern.

Critical referrals

• Fever in profound neutropenia; blasts with severe cytopenias; suspected TTP/DIC;

• Major bleeding on anticoagulation; rapid-onset thrombocytopenia with organ injury.

Educational use only. Not a substitute for current guidelines, local emergency protocols, or individualized clinical care. Course cases and practice questions are original educational examples.