Hematopathology CC Exam Module Study Guide

Registrants for the HEM only or combined Primary/HEM CC exam must take the mandatory general HEM module plus any elective HEM modules selected during registration.

CC HEM - General Hematopathology (Mandatory 50-Question Module)	
• acute monoblastic/monocytic leukemia	• infectious mononucleosis
• adult T cell leukemia/lymphoma	• in situ follicular lymphoma
• ALL; phenotypes	• large B-cell lymphoma and variants
• amyloidosis	• lymphoma, differential diagnosis
• Anaplasma/Ehrlichia	• mantle cell lymphoma, FISH
• anaplastic large cell lymphoma	• mastocytosis
• autoimmune lymphoproliferative syndrome	• May-Hegglin anomaly
• B cells differentiation; IgM	• micromegakaryocytes
• B-lymphoblastic leukemia/lymphoma	• mycosis fungoides & Sezary syndrome
• BCR/ABL FISH	• myelodysplastic syndromes
• bite RBCs	• myeloproliferative neoplasms
• burr RBCs	• paroxysmal nocturnal hemoglobinuria
• CLL/SLL	• pediatric follicular lymphomas
• CSF; malignant cells	• plasma cell neoplasms
• DIC	• platelet aggregation; ASA
• essential thrombocythemia, JAK negative	• reactive germinal center; IHC
• extranodal NK/T-cell lymphoma, nasal type	• Rosai-Dorfman
• factor inhibitors	• SOX11
• flow cytometry, CML	• t(11;14); techniques for detection
• follicular lymphoma	• T cell prolymphocytic leukemia
• GI follicular lymphoma	• Von Willebrand disease
• hairy cell leukemia	• zinc toxic effects
• Hb S; related disorders	

CC HEM – Blood & Bone Marrow Pathology (Elective 50-Question Module)	
• abnormal RBC morphology; inclusions	• Kostmann syndrome
• acute leukemia of ambiguous lineage	• liver disease
• acute myelomonocytic leukemia	• lymphoplasmacytic lymphoma
• Alder-Reilly anomaly	• malaria
• AML; FISH	• mature T-cell neoplasms
• amyloidosis	• megaloblastic anemia
• bacterial infections; WBC morphology	• metastatic neoplasms
• blood and bone marrow cell identification	• myelodysplastic syndromes; cytogenetics
• B-lymphoblastic leukemia; FISH	• myeloproliferative neoplasms
• bone marrow cell identification	• non-immune hemolytic anemias
• chronic myelogenous leukemia	• Parvovirus
• CLL/SLL	• PDGFRB rearrangements
• congenital anemias	• peripheral blood; immature cells
• copper deficiency	• peripheral blood; non-hematopoietic cells
• delta check; misidentified specimen	• plasma cell myeloma
• Dohle bodies	• polycythemia vera
• erythrocytic parasites	• pseudo-Chediak Higashi anomaly
• FISH vs. classical cytogenetics	• reactive lymphocytosis; WBC infections
• hairy cell leukemia	• renal osteodystrophy
• HbE disorders	• rouleaux
• hematogones	• routine and special histologic stains
• hemoglobin analysis; HPLC	• serous atrophy
• hemolytic disease of the newborn	• sickle solubility test
• iron deficiency anemia	• storage disorders; Gaucher disease
• juvenile myelomonocytic leukemia	

CC HEM – Flow Cytometry (Elective 50-Question Module)	
• aberrant antigen expression in CLL	• infectious mononucleosis
• acute myelomonocytic leukemia	• large B-cell lymphoma variants
• acute promyelocytic leukemia	• large granular lymphocytic leukemia
• anaplastic large cell lymphoma	• lymphoid hyperplasia; mantle zone
• angioimmunoblastic T-cell lymphoma	• lymphoid neoplasms with eosinophilia
• autoimmune disorders	• mantle cell lymphoma
• B lymphoblastic leukemia/lymphoma	• mature T lymphocytes, immunophenotypes
• basophils	• mature T-cell neoplasms
• B-cell differentiation sequence	• mycosis fungoides & Sezary syndrome
• Burkitt lymphoma	• myeloid antigens
• CD3; ALL	• NK/T-cell lymphomas
• chronic granulomatous disease	• plasma cell leukemia
• CLL/SLL; pleural fluid	• plasma cell myeloma
• CLL; ZAP 70	• quality control
• CML (BCR-ABL1+)	• SOX-11
• dead cells	• splenic marginal zone lymphoma
• EMA binding test	• T cell maturation
• hairy cell leukemia	• T-gamma lymphocytosis
• hematogones	• T-lymphoblastic leukemia/lymphoma

CC HEM – Hemostasis & Thrombosis (Elective 50-Question Module)	
• abciximab	• international normalized ratio
• amyloidosis	• lupus anticoagulant/inhibitor
• aspirin and platelet function	• macrothrombocytopenia; genetic defect
• Bernard-Soulier syndrome	• mixing studies
• calibration curve; Protein C	• PFA 100; closure times
• clopidogrel	• platelet aggregation; abciximab
• clopidogrel; thromboelastometry	• platelet aggregation; sample collection and processing
• coagulation factors and pregnancy	• platelet P2Y12 receptor
• coagulation testing; heparin	• proficiency testing performance
• coagulation testing; serum	• Prothrombin C20209T mutation; fluorescence resonance energy transfer analysis
• dabigatran	• quantitative D-dimer
• direct thrombin inhibitors	• reticulated platelet counts
• dysfibrinogenemia	• secondary wave of platelet aggregation
• factor assays; interpretation	• thromboelastograph tracings
• factor deficiencies	• tirofiban; platelet aggregation
• factor deficiencies; TEG	• TTP
• factor inhibitors	• validation of new reagent lots
• factor IX deficiency	• von Willebrand disease, types
• Glanzmann thrombasthenia	• von Willebrand disease; multimer analysis
• GPIIIa	• warfarin ingestion
• heparin induced thrombocytopenia	• warfarin monitoring, argatroban therapy
• heparin therapeutic range	

CC HEM – Laboratory Hematology - No Coag (Elective 50-Question Module)	
• acanthocytes	• infectious mononucleosis
• acute monoblastic/monocytic leukemia	• leukemoid reaction
• bone marrow; CD117	• lipemia; automated blood counts
• chronic granulomatous disease; FCM	• MCV
• CLIA; moderate vs. high complexity testing	• megaloblastic anemia
• cold agglutinins	• monocytes
• computer interoperability; interfaces	• MSDS sheets
• cryoglobulinemia	• neonatal blood
• CSF; cell identification	• non-immune hemolytic anemia
• CSF; non-hematopoietic cells	• Pelger-Huet anomaly
• Dohle bodies	• pertussis
• FDA testing regulations	• plasma cell myeloma
• giant platelets; spurious automated counts	• platelet satellitosis
• Hb C disorders	• pseudothrombocytopenia
• Hb E disorders	• quality control; moving averages
• Hb S disorders	• RBC parasites
• Heinz bodies	• splenectomy; RBC morphology
• hemoglobinopathy analysis	• supravital stains
• hemoglobinopathy/thalassemia	• target RBCs
• hemolytic uremic syndrome	• thalassemias
• Hgb A2 quantitation	• thrombocytosis; spurious lab results
• histoplasmosis	• types of data
• immune hemolytic anemia	

CC HEM – Lymph Node & Related Tissues (Elective 50-Question Module)	
• 7q loss	• Langerhans cell histiocytosis/sarcoma
• angioimmunoblastic T-cell lymphoma	• large B-cell lymphoma; *IRF4* rearrangement
• autoimmune disorders; LNs	• lymphoid hyperplasia; IHC
• CLL/SLL	• lymphoma karyotypes
• CLL/SLL; IHC and flow cytometry; classical cytogenetics	• lymphoplasmacytic lymphoma
• cutaneous T-cell lymphomas	• MALT lymphomas; cytogenetics
• CXCL13 immunostain	• mantle cell lymphoma
• dendritic cells, IHC	• mediastinal neoplasms
• dermatopathic lymphadenopathy	• metastatic neoplasms
• diffuse large B-cell lymphoma, non-germinal center phenotype; activated type	• mycosis fungoides & Sezary syndrome
• follicular lymphoma grading; WHO	• *MYD88* mutation
• heavy chain disease	• myeloid sarcoma
• histiocytic/dendritic neoplasms	• nodal marginal zone lymphoma; IHC
• histiocytic necrotizing lymphadenitis	• PD-1/CD279 IHC
• Hodgkin lymphoma	• pediatric follicular lymphomas
• IHC interpretation; pitfalls	• primary effusion lymphoma
• in situ follicular lymphoma; IHC	• sarcoidosis
• infectious lymphadenitis	• splenic cysts & other non-hematopoietic lesions
• intestinal T-cell lymphoma	• Stark law