

CLINICAL PATHOLOGY CONTENT SPECIFICATIONS HEMATOLOGY

I. Technical Methods

immunophenotypic studies of hematopoietic and lymphoid neoplasms
 basic molecular and cytogenetic analysis of hematopoietic and lymphoid neoplasms
 flow cytometric testing for PNH
 principles of cytogenetic FISH studies
 blood smear review, bone marrow aspirate/biopsy review, body fluids
 General knowledge of methods and method interferences
 PCR/RT-PCR
 FISH
 HPLC
 ELISA
 Spectrophotometric analysis
 TMAs

II. Hematopoiesis

Normal production, structure, and function

III. Erythrocytic Disorders

Thalassemia heterogeneity and lab diagnosis
 Sickle cell disease- lab diagnosis; role of lab in crisis management
 Evaluation of anemia

IV. Leukocyte Disorders

WHO (2001) classification of hematopoietic and lymphoid neoplasms
 Broad general knowledge of disease states and associations, i.e.
 prognostication of CLL
 Zap 70 in CLL
 JAK2 and chronic myeloproliferative disorders
 FLT-3 in AML
 cutaneous lymphomas
 minimal residual disease monitoring
 therapy resistance - Gleevac
 new antibodies used to diagnose Hodgkin lymphoma
 continuing evolution and reliance on cytogenetic and flow cytometry to classify
 leukemias and lymphomas; limitations of morphology
 diagnosis and prognostic indicators for hematolymphoid lesions
 common cytogenetic abnormalities and their associations
 application and interpretation of routine/common flow cytometry markers
 serum and urine free light chains and monoclonal gammopathies

V. Platelets

See MOC Content for Hemostasis and Coagulation

VI. Disorders of Coagulation & Hemostasis

See MOC Content for Hemostasis and Coagulation

VII. Administration and Management

See MOC Content for Lab Administration and Operations

References

1. Katzmann JA, Dispenzieri A, Kyle RA, et al. Elimination of the need for urine studies in the screening algorithm for monoclonal gammopathies by using serum immunofixation and serum free light chains. *Mayo Clinic Proc.* 2006; 81: 1575-8
http://www.ncbi.nlm.nih.gov/pubmed/17165636?ordinalpos=3&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVDocSum
2. Jaffe ES, Harris NL, Stein H, Vardiman, JW. (eds) *Pathology & Genetics. Tumours of Haemotopoietic and Lymphoid Tissues.* IARC Press, Lyon, 2001.