Iraqi Board Hematopathology Specialty Syllabus 2024-2025

1. **REGULAR ASSESSMENT:**

   A. FORMAL EXAMS

   - Basic Hematology (**Primary**) Exam: composed of MCQ, short essays, and a practical exam [Held centrally at the **end of the first year** of training].

   - Hematology Specialty Knowledge **Mid-Exam**: composed of short essay questions, [Held centrally at the **end of the second year** of training].

   - **Hematology Specialty Practical Skills Exam**: including morphology, coagulation, and transfusion [Arranged and held locally by each center at the **End of the third year** of training].

   - **Final** Hematology Exam: composed of MCQ, essay, and a practical exam [Held centrally at the **end of the fourth year** of training].

   B. WORKPLACE ASSESSMENT: in the third and fourth years of training and includes:

   a. **Direct observation of procedural skills**: e.g., Peripheral blood and Bone marrow (BM) smears, ESR, Manual counting of WBC and Platelet counts, PT, APTT, Adjusting the hematology autoanalyzer with a control, BM procedure (a **skill checklist** is to be provided).
   b. **Case-based discussion**: the candidate should present and comment on a case from the workload of the laboratory and discuss the differential diagnosis and this is assessed by the supervisors (weekly).
   c. **Teaching observation** (**Assessment of seminars or Journal Clubs**): preparing seminars or Journal Clubs and the ability of the candidate to teach fellow peers, assessed formally and kept on record (**skill checklist**).

2. **SUPERVISION AND FEEDBACK:**
   A **supervisor,** nominated for each candidate, would be responsible for following the **daily** progress of the trainee and reporting a **Logbook** to the **Hematology coordinator and the Director of the center** and then to the **Head of the Scientific Council** of Pathology at the IBMS.

3. **PROGRESS DECISIONS**:
   At the end of each training year, a structured report on the progress of the candidate and the adherence to the curriculum and fulfilling the objectives of the year is made by the supervisors. This report should include **recommendations for further training or defects** that need to be addressed in the next year.

4. **RECORDING PROGRESS**:
   A **Portfolio** is a structured format including a compilation of academic and professional materials that exemplify the skills, qualifications, education, training, and experiences including the candidate's weekly activities logging activities, assessments, and appraisals, [**recorded by the candidate and cross-checked by the supervisor**]. This is **annually reviewed** by the supervisors with the hematology coordinator and the center director.

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THE FIRST-YEAR

The Training Program Schedule in Year 1:

- **One day/week**: **Theory and Practical sessions** including:
  - RBC Disorders, WBC Disorders, Hemostasis Disorders, and Blood Transfusion
  - Pediatric hematology.
  - Hematology Laboratory practice, clinical techniques, and procedures.
  - Immunophenotyping (flow cytometry and Immunohistochemistry).
  - Cytogenetic and molecular genetic techniques.
  - Communication skills to function as a specialist.
  - Laboratory Management skills and safety measures.
  - Practical sessions on RBC disorders
  - Practical sessions on WBC disorder
  - Practical sessions on Hemostasis disorders
  - Practical sessions on Blood transfusion

- **One day/week**: **Attending Scientific Activities.**
  - Attend **Seminars**, **Journal clubs**, **Guidelines seminars, Case presentations** presented by candidates in the second, third, and fourth years or by seniors and/or,
  - Attend **multidisciplinary team (MDT) meetings** and/or,
  - **Practice mock exams.**

- **Three days/week**: **Practical training** under supervision at a general teaching laboratory:
  - Setting up and use of the light microscope.
  - Prepare and stain peripheral blood films, BMA, and reticulocyte smears.
  - Count WBC, platelets, and reticulocytes manually.
  - Perform ESR and read the result.
  - Explain the principles behind and appropriate use of automated blood counters including factors interfering with results, and interpret the generated results.
  - Examine and report peripheral blood smears and reticulocyte count.
  - Describe the laboratory investigation of hemolytic disorders including disorders of the red cell membrane, enzyme disorders, microangiopathic, and immune hemolysis.
  - Understands the tests used in the diagnosis of hemoglobinopathies.
  - Describe the techniques for coagulation testing including automation of coagulation tests and thrombophilia tests.
  - Practice and interpret results of PT, INR, APTT, Thrombin time, Fibrinogen assay, and D-dimer.
  - Outline and practice basic blood Transfusion techniques (manual and automated), including blood group testing, antibody screening, cross-matching, and direct and indirect antiglobulin tests understanding their principles and limitations.

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THE SECOND YEAR:

The Practical Training Program Schedule in Year 2:

- One month: **National Blood Transfusion Center**.
- One month: **Pediatric Hematology Oncology (Ward and Laboratory)**.
- One month: **Adult Clinical Hematology.**
- Two weeks: **Molecular Laboratory**.
- Two weeks: **Flow cytometry Laboratory**.
- Eight months: **Main Teaching General Hematology Laboratory.**

- **Collect 25 cases from the clinical wards, and present the most 3 interesting cases**.
- **Present and attend Seminars, Journal clubs, and Guidelines Seminars.**
- **Case presentations (morphology, flow cytometry, Hb electrophoresis, HPLC, etc.).**
- **Case-based discussion with the supervisor.**
- **Attend multidisciplinary team (MDT) meetings.**
- **Practice mock exams.**

THE THIRD YEAR:

The Practical Training Program Schedule in Year 3:

- Two months: **Pediatric Hematology Oncology (Ward** and **Laboratory)**.
- One month: **Adult Clinical Hematology, t**he candidate will perform BM aspirate and biopsy under supervision, follow the patient up, and discuss with the seniors the BM and the blood findings.
- Two weeks: **Bone Marrow Transplant Center**.
- One month: **Inherited Bleeding Disorders Center.**
- One month: **Thalassemia Center**.
- Two weeks: **Molecular Laboratory**.
- Two weeks: **Flow cytometry Laboratory**.
- 5.5 months of conducting and writing a **Research**

- **Present and attend Seminars, Journal clubs, and Guidelines Seminars.**
- **Case presentations** (morphology, flow cytometry, Hb electrophoresis, HPLC, etc.).
- **Case-based discussion with the supervisor.**
- Attend **multidisciplinary team (MDT) meetings**.
- **Practice mock exams.**

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THE FOURTH YEAR:

The Practical Training Program Schedule in Year 4:

- One month: **National Blood Transfusion Center.**
- One month: **Inherited Bleeding Disorders Center.**
- One month: **Pediatrics Laboratory.**
- One month: **Thalassemia center.**
- Eight months: Practice in the **main Hematology Laboratory.**

- **Present and attend Seminars, Journal clubs, and Guidelines Seminars.**
- **Case presentations** (morphology, flow cytometry, Hb electrophoresis, HPLC, etc.).
- **Case-based discussion with the supervisor.**
- **Attend multidisciplinary team (MDT) meetings**.
- **Practice mock exams.**

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