Program for Master Degree of nephrology

Program type: Single
Program code: NEPH 800
Department offering the program: Internal Medicine department
Total credit points: 150 credit points
Academic year: 2009/2010
Head of nephrology department: Prof. Dr. Dawlat Belal, professor of internal medicine, Cairo University
Program Coordinator: Dr. Osama Mohamady
External evaluators: Prof. Dr. Sabry Gohar, professor of nephrology, Ain Shams University

I. Program Aims:

The overall aim of the training program is to graduate a specialist who can develop a management plan for the patient in the field of renal diseases, dialysis and renal transplantation with a sound knowledge of the appropriate treatments including health promotion, disease prevention and long term management.

The student should achieve evidence-based standards of the specialty practice by acquiring satisfactory levels of basic knowledge, clinical and some laboratory skills.

The program will prepare the student to embrace and maintain continuous professional development.

II. Intended learning outcomes (ILOs)

1-Knowledge and understanding:

By the successful completion of this program the Candidate should:

a. Recognize basic scientific knowledge related to renal diseases and related systemic presentations
b. Review the common medical problems presenting to nephrologist in primary health care setting, hospital and community - their diagnosis, prevention and treatment.

c. Recognize nephrological diseases in terms of mental, functional and physical processes.

d. Describe the common clinical problems related to the different renal diseases.

e. Describe the lab. investigations of the different renal diseases.

f. Describe the different imaging techniques used for the diagnosis of the common renal diseases.

g. Identify the clinical manifestations and differential diagnosis of common renal disorders with an emphasis on the incidence of the different manifestations and their relative importance in establishing diagnosis, and the early manifestations of serious renal diseases.

2-Intellectual skills: Candidate should:

a. Recognize and interpret an appropriate diagnostic plan for evaluation of common renal complaints which is appropriate in terms of the differential diagnosis, the severity of the clinical situation and the risks, benefits and costs to the patient.

b. Recognize and interpret the different imaging techniques which help in the diagnosis of different renal diseases.

c. Formulate a differential diagnosis for patients presenting with proteinuria and renal impairment by the appropriate use of clinical data and investigations.

d. Prescribe drugs for renal patients, including drug handling and dose modifications in patients with acute or chronic renal impairment or renal replacement therapy.

e. Reconstruct a healthy dietary plan for the patient suffering from renal diseases.

3-Professional and practical skills: Candidates should:

a. Analyse the clinical data to reach an appropriate differential diagnosis.

b. Criticise any lab. or imaging results which doesn’t match the clinical data.

c. Design an adequate modality of treatment for the common renal Ds.

d. Specify treatment goals for renal patients based upon national and international therapeutic targets whilst recognising the individual patients circumstances.

e. Perform some simple diagnostic procedures in the field of renal diseases and clinical nutrition.
4-General and transferable skills: Candidates should:

a. Acquire an ethical and professional attitude with the patient and his family to gain their confidence.

b. Create a good communication with other health care providers.

c. Discuss with the patient his crucial role in managing his illness.

d. Demonstrate the importance of multidisciplinary team working.

e. Determine when to refer the patient to another speciality for further clinical work up.

f. Realize the importance of patient and family education for early screening of the commonly inherited renal diseases.

g. Review the different scientific methodologies to build up a criticizing reading abilities.

i. Acquire some computer skills necessary to make use of the medical data.

j. Realize the importance of genetic counseling for the common genetically transmitted Ds in nephrology.

k. Realize the importance of the role of the multidisciplinary team in the management of renal diseases.

III. Academic standards.

External references for standards: Master degree of Sheffield Institute

IV. Program Admission Requirements

All master-degree students should prepare a thesis in one of the three main domains of Nephrology (Renal diseases, Transplantation and dialysis). The department and the ethical committees must approve the protocol of the research. The thesis should include a review part and a research part. The Thesis is supervised by one or more senior staff members from the Nephrology department and may include other specialties according to the nature of the research. The thesis should be evaluated and approved by a nephrology committee.
Program structure and contents

Total credit points: 150

Program duration: one year.

Program structure:

Master degree of internal medicine: 70 credit points

Courses

- Applied renal physiology (NEPH 811RPHY) 1 credit points
- Applied renal pathology (NEPH 811RPAT) 1 credit points
- Renal diseases (NEPH811Ta) 7 credit points
- Renal transplantation (NEPH811Tb) 1 credit points
- Dialysis (NEPH811Tc) 2 credit points

Training program 45 credit points

Scientific Activity: (3 credit points)

Master Thesis: Twenty credit points.

<table>
<thead>
<tr>
<th>Residencey training program</th>
<th>Credit Points</th>
<th>ILOs.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45</td>
<td>1-d,e,f,2-a,b,c,d,3-a,b,c,d,4-a,b,c,d,e,f.</td>
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<table>
<thead>
<tr>
<th>Courses</th>
<th>Credit Points</th>
<th>ILOs.</th>
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<tbody>
<tr>
<td>Applied renal physiology</td>
<td>2</td>
<td>1-a</td>
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<tr>
<td>(NEPH811RPHY) and Applied</td>
<td></td>
<td>1-d,e,f,2-a,b,c,d,3-a,b,c,d,4-a,b,c,d,e,f.</td>
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<tr>
<td>renal pathology</td>
<td>7</td>
<td></td>
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<tr>
<td>Renal diseases (NEPH811Ta)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Renal transplantation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Dialysis</td>
<td>3</td>
<td>1-d,g,h,2-c,d,e,3-a,b,c,d,f,4-a,b,c,d,e,f,g,h,l,j,k.</td>
</tr>
</tbody>
</table>
Residency Training Program

NB: The details of the training program are provided in separate document.

Master Thesis

All master-degree students should prepare a thesis. The department and the ethical committees must approve the protocol of the research. The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor. Approving the thesis is mandatory to allow the student to set for the final exam.

Scientific Activity

Grand round (presentation of interesting cases) once weekly
Journal club (presenting scientific articles) once every two weeks.
Seminars (including recent topics and controversial issues) once weekly.
Students are expected to participate in the discussions.
Scientific meetings arranged by the department

V. Regulations for progression and program completion

- The student should pass the exam by its all categories
- The thesis should be in one of the three scientific modules mentioned before. If previously fulfilled during the submission to the master degree of general medicine, it will be counted for the student.
- The candidate will receive his degree after collecting all the credit points mentioned before in addition to passing the final exam.

VII. Assessment

1. According to the bylaws of the residency program continuous assessment is carried by professors during the program. An activity booklet will be prepared for each student and will document all his/her clinical, laboratory and operative activities. Scientific activities booklet will be offered to the students to document all his/her participation. The head of the department should allow the students to undergo the final examination when they complete their training program and collect the credit hours needed for scientific activity.

2. Exam structure:

A. Applied renal Physiology and applied renal physiology: Written paper (2 hours) in one paper exam
B. Renal diseases, renal transplantation and dialysis

two written papers that will include case studies.
-Paper 1 (3 hours):
-Paper two (3 hours): a composed of written paper including short answer essay questions multiple choice questions

C. Tracing Exam:

This is composed of 20 items testing data interpretation skills. Items will include different diagnostic tests and pictures. The candidate will be required to make an open-ended written comment or to answer short questions on each item

D. Oral exam is composed of two oral exam stations. Predetermined sets of topics will be used, with opening and supplementary questions, as well as Expected answers & scoring criteria. This component will explore the candidate's depth of knowledge and ability to manage patients. It will also test interpersonal communication skills and attitudes.

E. Clinical Cases exam:

This component tests the ability of the candidate to obtain data from history taking and clinical examination, to present and interpret these data, to discuss patient management and to demonstrate appropriate attitudes. The candidate will be required to take a history and examine the patient while being observed by Two examiners who will not interfere. Subsequently, the candidate will orally present the findings and discuss clinical data and proposed patient management.

Scoring is based on a predetermined weight for each component of the exam.
<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Tool</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Senior Students</td>
<td>Questionnaire at the end of the program</td>
<td>All the PG students</td>
</tr>
<tr>
<td>2. Alumni</td>
<td>The faculty is currently developing an Alumni office for postgraduates</td>
<td>Not yet determined</td>
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<tr>
<td>3. Stakeholders</td>
<td>A meeting will be arranged during the annual conference of the department</td>
<td>Available representatives from:</td>
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<tr>
<td></td>
<td></td>
<td>• Army hospitals</td>
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<td>• National medical insurance</td>
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<td>• Medical syndicate</td>
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<td>Ministry of health</td>
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<tr>
<td>4. External Evaluators</td>
<td>Review the program and courses</td>
<td>Staff members of of other equivalent Universities in the same speciality</td>
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<tr>
<td></td>
<td>Attending the final exam.</td>
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<td>5. Others</td>
<td>Annual program review</td>
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**Date of approval by department council**

**Signatures**

Program Coordinator     Head of Department
Prof. Osama Mohamady     Prof. Dawlat Belal