برنامج جامعة المنصورة للدراسات العليا الطبية والبيولوجية

كلية الطب- جامعة المنصورة

شهادة مهارية متخصصة في الديلزة

Mansoura University Program for Postgraduate Medical and Biological Studies

Faculty of Medicine- Mansoura University
Dialysis Fellowship(fD)

Program specifications

A- Administrative Information

1. **Title:** Dialysis
2. **Director:** Prof. Dr. Hussein Sheashaa
3. **Coordinators:** Dr. Ahmed Mohammed Abd El Wahab

   Dr. Mostafa Abdel Salam
4. **International collaborators:**

   Prof. John Cuningham, UK

   Prof. Meguid El Nahas , UK

   Prof. Ahmed Halawa, UK
5. **Date of board approval:**
6. **Date of approval of program specification by the faculty council:**

B- Professional Information:

1- Program Aims:

The course is designed to impart basic medical knowledge, patient care, learning about dialysis machines, dialysis process and all forms of extracorporeal blood purification therapies. On completion of the course the candidate will be completely knowledgeable about dialysis and will be skillful in management of the patient, trouble shooting of machines and in effective organizing and running of the dialysis unit.

2-Intended Learning Outcomes (ILOs) for Program

a- Knowledge and Understanding:

At the end of the Program the student should be able to:

a1 Explain the physics of solute movement across membranes.

a2 Recognize the main physiologic mechanims applied in hemodialysis

a3 Demonstrate understanding of urea kinetic remodeling

a4 Recognize different physiological functions of the kidney

a5 Mention different stages of chronic kidney disease(CKD).

a6 Explain complications of CKD and their management .

a7 State different modalities of renal replacement therapy and how/when to apply

a8 Recognize when to initiate, postpone and/or terminate dialysis

a9- Recognize different parts and steps of water purification

A10. Discuss dialysate composition, dilution and delivery

A11. Recognize different types of dialyzers and principles of re-use

A12.Show good understanding of dialysis machine (parts, mechanistics, conductivity and programs)

A13. Explain different routes of blood access, their basics, monitoring and complications

A14. Recognize acute and chronic hemodialysis prescription and anticoagulation

A15. Show good knowledge about complications of hemodialysis

A16. Explain basics, indications and modalities of CRRT

A17. Recognize basics and indications of therapeutic apharesis and hemoperfusion

A18. Demonstrate knowledge of management of different clinical problems that may complicate or co-exist with hemodialysis

A19. Recognize precautions for dialysis in special groups like pregnant, children, the elderly, critically ill, mentally retarded and patients with terminal illness

A20. Explain HRQoL changes in HD patients and how to assess.

A21. Describe physiological basics of PD, mechanistic and equipments.

A22. Recognize acute and chronic PD prescription, adequacy of dialysis and complications of PD.

b- Intellectual skills

At the end of the Program the student should be able to:

B1 Utilize available resources to achieve adequate dialysis.

B2 Use personal judgment for analytical and critical problem solving and seek out information.

B3 Construct appropriate management strategies (both diagnostic and therapeutic) for patients with common diseases, both acute and chronic, including medical, psychiatric, and surgical conditions.

B4 Design an initial course of management for stabilization of patients with serious illnesses.

B5 Classify factors that place individuals at risk for disease or injury, to determine strategies for appropriate response.

B6 Retrieve, analyze, and synthesize relevant and current data from literature, using information technologies and library resources, in order to help solve a clinical problem based on evidence (EBM).

B7 Recognize and cope with uncertainty by:

a. Accepting that uncertainty is unavoidable in the practice of medicine.

b. Using appropriate cognitive strategies to deal with uncertainty when it arises.

c- Professional and practical skills

At the end of the Program the student should be able to:

c1- Carry out central venous catheters insertion

c2- Prepare and insert AVF needles and start HD session

c3- Provide the maximum protective measures to avoid the risks of hemodialysis

c4- Diagnose of common and life threatening illnesses affecting the body and each of its major organ systems, presenting throughout the age spectrum.

c5- Write competently and evaluate professional reports and referral letters related to his specialty

c6- Manage and perform a CRRT session specially in critically ill patients

c7. Perform bedside assessment of dialysis adequacy.

c8.Manage and perform a PD session and evaluate patients for adequacy of dialysis and complications

D- General and Transferable skills

At the end of the Program the students should be able to:

D1. Use Evidence Based Medicine in management decisions.

D2. Work effectively within the health care team.

D3. Solve problems related to patients, work management, and among colleagues.

D4. Cope with a changing work environment.

D5. Apply safety and infection control measures during practice.

3-Academic Standards:

Academic Reference Standards (ARS) for Dialysis Fellowship Degree of Mansoura faculty of Medicine were compiled according to the general Academic Reference Standards provided by the National Authority for Quality Assurance and Accreditation of Education (NAQAAE) for postgraduate programs(published on February 2009). The program ARS were approved by the faculty council on / /2015.

4-Curriculum Structure and Contents

4a. Program duration: 2 years (39 credit hours).

4b. Program structure:

	Duration	Credit hours
1st Semester	**6 months**	**7+3 clinical**
2nd Semester	**6 months**	**5+1 clinical**
3rd Semester	**6 months**	**9+3 clinical**
4th Semester	**6 months**	**9+2 clinical**
Log book (includes clinical training)	**Clinical training through the whole course**	**9**
Total		**39**

5-Courses contributing to the program

5.1. 1st semester:

a . **Compulsory**

a1- Code No. **fD1**

Course Title: **Renal physiology**

Credit hours: 3

a2- Code No. **fD2**

Course Title: **Chronic kidney disease management**

Credit hours: 4

5.2. 2nd semester :

a . **Compulsory**

a1 - Code No. **fD0**

Course Title: **Mechanisms of solute transfer and urea kinetic modeling**

Credit hours: 2

a2 - Code No. **fD3**

Course Title: **Water, dialysate circuits, the machine and dialyzer**

Credit hours: 3

5.3. 3rd semester :

a . **Compulsory**

a1 - Code No. **fD4**

Course Title: **Blood-based therapies and dialysis adequacy**

Credit hours: 9

5.4. 4th semester :

a . **Compulsory**

a1 - Code No. **fD5**

Course Title:

- Clinical problems and hemodialysis in special groups and assessment of health-related quality of life in HD patients

- Peritoneal dialysis (PD)

Credit hours: 9

Program: Dialysis Fellowship

Code of course	Course Title	Program ILOs to be covered
fD0	**Mechanisms of solute transfer and urea kinetic modeling**	a1, a2, a3 , b1, c7
fD1	**Renal physiology**	A4 , b2
fD2	**Chronic kidney disease management**	A5,a6,a7,a8,b3,b4, b5,c4,c5,d2,d3,d4,d5
fD3	**Water, dialysate circuits, the machine and dialyzer**	A9, a10, a11, a12, b1, b2,c1,c2,c3,d1
fD4	**Blood-based therapies and dialysis adequacy**	A13,a14,a15,a16,a17,b3,b4,b5, b6,b7,c4,c5,c6,d2,d3,d4
fD5	**-Peritoneal dialysis** **-Clinical problems and HD in special groups** and **health-related quality of life** HD patients	A18,a19,a20,a21,a22,b4,b5,b6, b7,c4,c5,c6,c8,d2,d3,d4,d5

6-Program admission requirements

- Medical Bachelor of medicine and surgery (M.B.B.Ch) and working as dialysis residence or master degree in internal medicine
- Acceptance letter of site of work.

7- Regulations for progression and Program completion

-The lectures for each course will appear once at the start of the course and there will be continuous evaluation to the candidates by case discussions, activities, quizes and traineeship evaluation thourough the course.

-The assessment is :

Online MCQs following each semester(All represent 20% of final exam marks) and the candidate will not pass to the following semester unless he/she scores at least 75% in previous semester exam.

-log book (9 credit hours): this book will contain all the activity that will be done through the program and the clinical training which will be conducted through the courses. The candidate will not be allowed to apply to the exam of the fellowship unless completing 75% of log book activities.

-Accepted places for traineeship activities:

1. Mansoura UNC dialysis unit
2. Mansoura Nephrology and Dialysis Unit(MNDU)
3. New Mansoura General Hospital dialysis unit
4. Dialysis units belonging to different universities and the logbook must be signed by the head of the unit

-The final exam(objectively-structured exam) will be conducted online after the end of the 4th semester including MCQs, EMQs and cases(150 marks) and clinical exam(3 OSCE cases, 50 marks each).

8-Evaluation of program intended learning outcomes

8.1-Senior students:

Tool: Questionnaires-Review of assessment method

Sample: Students in the last year

8.2-Alumni

Tool: Questionnaires

Sample: Student finished fellowship within 5 years

8.3-Stakeholders (Employers)

Tool: interviews

Sample: directors of nearby hospitals and dialysis units .

8.4-External Evaluator(s) External Examiner

Tool: Reports

Sample: External examiners in each course

We verify that all of the information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.

Program director: Prof. Hussein Shaeshaa

Head of Quality Assurance Unit:

Dean: