



# برنامج جامعة المنصورة للدراسات العليا الطبية والبيولوجية

كلية الطب- جامعة المنصورة

شهادة مهارية متخصصة في التغذية لمرضى الكلى

## **Mansoura University Program for Postgraduate Medical and Biological Studies**

*Faculty of Medicine- Mansoura University  
Renal Nutrition Fellowship (fRN)*

## Program specifications

### A- Administrative Information

1. **Titel:** Renal nutrition
2. **Director:** Prof. Dr. Hussein Sheashaa
3. **Co-director:** Dr. Doaa Hamed
4. **Coordinator:** Dr. Ahmed Mohammed Abd El Wahab
5. **International collaborators:** Prof.
6. **Date of board approval:**
7. **Date of approval of program specification by the faculty council:**

### B- Professional Information:

#### 1- Program Aims:

- Provides clinicians& dietitians with the knowledge and skills to manage the nutritional issues of people with kidney disease.
- Improves training and experience in renal nutrition
- Implementation of many guidelines concerning nutritional assessment
- Monitor and manage renal nutrition therapy to close nutrition gaps, support patient recovery, and improve outcomes.
- Participation with health care professional to determine different nutritional requirements and to develop and implement renal-specific nutrition care plans for kidney disease patients
- Educational activities and counseling the patient & the family

#### 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 basics of different physiological renal functions
- a2 Recognize the main physiologic mechanisms involved in Na, K, Ca, Ph and other electrolytes handling by the kidney
- a3 Demonstrate understanding of basics of body heat balance, caloric requirements in different body states and how to assess.
- a4 Recognize different pathways of reno-endocrinal axis and their effect on nutritional status in renal disease
- a5 Recognize basic principals of nutrition(planning healthy diet, food pyramid, composition and exchange tables) .
- a6 Explain dietary assessment in renal disease .
- a7 State different modalities of anthropometric assessment in renal disease
- a8 Recognize methods of biochemical nutritional evaluation in renal disease and nutritional adequacy
- a9-** Recognize rationale and approach to physical nutritional assessment
- A10. Discuss nutritional requirements in renal patients with hypertension, DM, dyslipidemias and obesity
- A11. Recognize nutritional support in patients on dialysis(HD,PD) and factors affecting it
- A12.Show good understanding of nutritional support in patients receiving renal transplant and factors affecting it
- A13. Explain definition, causes, assessment, consequences and treatment of protein energy wasting.
- A14. Recognize details of nutrition management of the AKI patients

A15. Show good knowledge about patho-physiology of CKD-MBD, presentations, assessment and management

A16. Explain potential benefits and risks of physical activity in renal patients

A17. Recognize vitamins, minerals and trace elements requirements in renal disease

A18. Demonstrate knowledge of nutritional management of renal disease in pregnancy, infancy, childhood and aging adult.

A19. Explain dietary management in nephrotic syndrome and nephrolithiasis

A20. Recognize public policy and renal nutrition practice in the past, present and future

A21. Explain issues affecting dietary adherence and counseling approaches.

A22. Recognize the indications, administration, monitoring and adverse effects of enteral and parenteral nutrition and intradialytic parenteral support

## **b- Intellectual skills**

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

B1 Utilize available resources to achieve adequate nutritional support for renal patients.

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 different patterns of kidney disease.

B4 Design an initial course of management for stabilization of patients with Renal disease.

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- Prepare nutritional plan tailored according to every renal patient needs

C2- Provide the maximum protective measures to avoid the risks of malnutrition in renal patients

C3- Diagnose of common and life threatening illnesses affecting the body and each of its major organ systems, presenting throughout the age spectrum.

C4- Write competently and evaluate professional reports and referral letters related to his specialty

C5- Perform bedside assessment of nutritional adequacy.

### **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 renal nutrition 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 (30 credit hours).

4b. Program structure:

	Duration	Clinical	Theoretical Credit hours
1 <sup>st</sup> Semester	6 months		6
2 <sup>nd</sup> Semester	6 months	2 credit hours	6
3 <sup>rd</sup> Semester	6 months	2 credit hours	6
4 <sup>th</sup> Semester	6 months	2 credit hours	6
		6	24
<b>Total</b>		<b>30</b>	

### 5-Courses contributing to the program

#### 5.1. 1<sup>st</sup> semester:

**a . Compulsory**

a1- Code No. **fRN1**

Course Title:

- 1. Renal physiology.**
- 2. Physiology of metabolism and principals of nutrition basics**
- 3. Renal-endocrine axis**
- 4. Kidney function in health and disease**

Credit hours: 6

**5.2. 2<sup>nd</sup> semester :**

**a . Compulsory**

a1 - Code No. **fRN2**

Course Title:

- 1. Nutritional care process and assessment**
- 2. Vitamins, minerals and trace elements requirements in kidney disease**
- 3. Enteral and parenteral nutritional support in renal disease**

Credit hours: 8

**5.3. 3<sup>rd</sup> semester :**

**a . Compulsory**

a1 - Code No. fRN3

Course Title:

1. **Nutritional management in patients receiving RRT and in AKI**
2. **Nutritional management in CKD**

Credit hours: 8

**5.4. 4<sup>th</sup> semester :**

a . **Compulsory**

a1 - Code No. fRN4

Course Title:

1. **Nutritional management for CKD patients with special needs**
2. **Additional nutritional considerations in kidney disease**

Credit hours: 8

**Program: Renal Nutrition diploma**



Code of course	Course Title	Program ILOs to be covered
<b>fRN1</b>	<b>1. Renal physiology.</b> <b>2. Physiology of metabolism &amp; Principles of nutrition basics</b> <b>3. Renal-endocrine axis</b> <b>4. Kidney function in health and disease</b>	a1, a2, a3, a4, a5, b1,
<b>fRN2</b>	<b>1. Nutritional care process and assessment</b> <b>2. Vitamins, minerals and trace elements requirements in kidney disease</b> <b>3. Enteral and parenteral nutritional support in renal disease</b>	A6, a7, a8, a9, a17, a22, , b2, b3, b4, b5, c1, c2, c5, d1, d2, d3
<b>fRN3</b>	<b>1. Nutritional management in patients receiving RRT and in AKI</b> <b>2. Nutritional management in CKD</b>	A10, A11, a12, a13, a14, a15, a16, b1, b2, b3, b4, b5, c3, c4, c5, d2, d3, d4, d5
<b>fRN4</b>	<b>1. Nutritional management for CKD patients with special needs</b> <b>2. Additional nutritional considerations in kidney disease</b>	A18, a19, a20, a21, b3, b4, b5, b6, b7 b2, c1, c2, c3, c4, c5, d1, d2, d3, d4

## 6-Program admission requirements

- M.Sc. in internal medicine or M.Sc. degree in nutrition and food science
- Acceptance letter from 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 online cases discussions, activities, quizzes thorough the course. 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 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.

-The final exam(objectively-structured exam) will be conducted online after the end of the 4<sup>th</sup> semester including MCQs, EMQs and cases (120marks) and clinical OSCE exam (3 cases, 40 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 hemodialysis 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:**