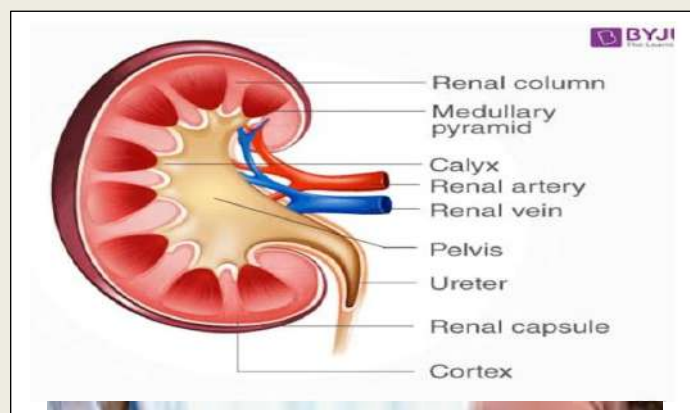


MBBS Final Year
Module Name: Renal
(BLOCK 'P')
Session 2022-23



**Abbottabad International Medical Institute,
Abbottabad**

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1. Overview

Program	MBBS
Year	2022 – 2023
Module Name	Renal
Contact Hours	21
Pre-requisites of the course	<ol style="list-style-type: none"> 1. Anatomy 2. Physiology 3. Pathology 4. Biochemistry
Infrastructure Requirements	<ol style="list-style-type: none"> 1. Lecture hall 2. Demonstration room 3. Ward

Faculty Responsible for Module

Sr. No	Faculty	Designation	Department
	Block Coordinator		
	Prof/Dr.	Prof. Aziz un Nisa Abbasi	OB/GYN
	Module Coordinator		
	Prof/Dr.	Dr. Saima Iltaf	OB/GYN
	Module Committee		
1.	Prof. Nasreen Abbasi	Professor	OB/GYN
2.	Dr. Sarah Kanwal	Senior Registrar	OB/ GYN
3.	Dr. Sumera Kazmi	Associate Professor	Medicine
4.	Dr. Nadia Qaiser	Senior Registrar	Surgery
5.	Dr. Adnan	Assistant Professor	Paeds
6.	Dr. Wahaj	Assistant Professor	Nephrology

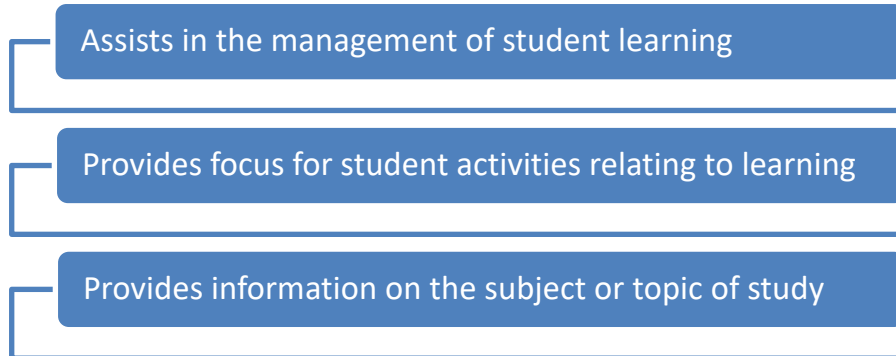
2. INTRODUCTION

What is Study Guide?

“An aid, usually in the form of printed notes designed to assist students with their learning.” *

Role of Study Guide

Study guides have three roles in facilitating learning



**AMEE Medical Education Guide No 16: Study guides---their use and preparations*

1. Helps students to plan their learning in line with the learning outcomes.
2. Facilitates students to make best use of the learning opportunities provided
3. Helps teacher to adopt appropriate learning strategies lectures, small group teachings, clinical skills, demonstration, tutorial and case-based learning that will be implemented to achieve the course objectives.
4. Provides knowledge about the content of the course
5. Helps students to prepare for the assessment which is part of the educational program.
6. Facilitates students to respond appropriately to the educational environment of the institution.
7. Assists students to contact the concerned faculty member in case of any difficulty.
8. Provides information about the learning resources such as Text books, reference books, web- links and journals for students to consult in order to maximize their learning.
9. Includes information on the assessment methods formative as well as summative that will be held to determine every student's achievement of objectives.
10. Provides information related to examination policy, rules and regulations.

3. CURRICULUM FRAMEWORK

Integrated Curriculum: Integrated curriculum is an educational approach that emphasizes interdisciplinary instruction, where students learn through the integration of knowledge from multiple subjects. This approach aims to create a more meaningful and engaging learning experience for students by connecting various subjects and disciplines into a unified curriculum.

4. LEARNING METHODOLOGIES

1. Large Group Discussion (LGD)
2. Small Group Discussions (SGDs)
3. Case Based Discussions (CBDs)
4. Clinical Rotations
5. Skills Sessions on Manikins

4.1 Large Group Discussion

Large Group Discussion are different from conventional lectures. Lectures are made interactive when the teacher or instructor discusses the topic or common clinical scenario by using pictures, radiographs, videos of patient interaction etc. Students are actively involved in the learning process when they are asked questions, are given small tasks where they can apply knowledge gained during the session.

4.2 Small Group Discussions (SGDs)

SGD allows students to actively participate in learning process and enables them to clarify concepts and acquire psychomotor skills and attitude. Sessions are planned in a structured way by using clinical cases, patient interviews or discussion topics. Students are encouraged to share their concepts and are motivated to give opinions and apply basic knowledge gained from lectures and self-study. Role play is an effective small group strategy to sensitize students with real life situations. Teacher asks ask probing questions, rephrase and summarize to help clear the concepts

4.3 Case- Based Discussions

Case-Based Discussion is a strategy in which learning is focused around a clinical scenario. List of questions is developed regarding the case under discussion and students are encouraged to discuss their ideas and answer the questions applying relevant basic or clinical knowledge acquired during the course. Usually, common clinical cases are selected for discussions.

4.4 Clinical Rotations

4.5 Skills Session

Themes

Table 1: Thematic Distribution

S. No	Themes	Duration in Hours
1	Facial swelling	4
2	Scanty Urine	6
3	Loin pain and dysuria	5
4	Pain and swelling of external genitalia	5

5. Learning Objectives

By the end of Renal Module, Final year MBBS students will be able to:

1. Discuss the diagnostic approach and management of an adult and a child with suspected glomerular disease.
2. Discuss the diagnostic approach and management of an adult and a child with acute and chronic renal disease.
3. Discuss the management of a patient with nephrocalcinosis.
4. Discuss the etiology, clinical features, and management of common electrolyte abnormalities.
5. Explain the diagnosis and management of a patient with hematuria and UTIs.
6. Explain the common diseases of the urogenital system.
7. Take history and perform a physical examination of urogenital system.
8. Counsel a patient with acute and chronic renal failure.

6. OBJECTIVES & LEARNING STRATEGIES

Abbreviations & Acronyms

LGD: Large Group Discussion
 SGD: Small Group Discussion
 MCQ: Multiple Choice Question
 SAQs: Short Answer Questions
 Demo: Demonstration

Subject	Topic	Topic Objectives	Teaching Hours	Mode of Teaching	Assessment Tools
Medicine/ Nephrology	Investigations of renal diseases	Discuss the biochemical, radiological, hematological, and other specialized investigations and their interpretations in renal diseases.	1 hour	Clinical Rotation	MCQ OSCE
	Approach to a facial swelling	Discuss the diagnostic workup and management approach for a patient with facial swelling of renal origin			
		Take history and perform physical examination of patient with facial swelling			
	Minimal change disease	Explain the diagnostic workup and management and complications of a patient with Minimal change disease.	1 hour	LGD	MCQ
	Post streptococcal Glomerulonephritis	Explain the diagnostic workup and management and complications of a patient with Post-Streptococcal Glomerulonephritis.			
	IgA Nephropathy	Explain the diagnostic workup and management and complications of a patient with IgA Nephropathy.			
	Chronic glomerulonephritis	Explain the diagnostic workup and management and complications of a patient with Chronic glomerulonephritis			
Pediatrics	Nephrotic Syndrome	Discuss the clinical presentation, the diagnostic workup and management for suspected GN and Nephrotic Syndrome in Pediatric patients.	1 hour	Clinical Rotation	MCQ
		Take a history from a patient with Nephrotic Syndrome.			
		Perform physical examination of a patient with suspected GN and Nephrotic Syndrome.			
		Effectively counsel a child and his/her parents with nephrotic syndrome.	1 hour		

Theme-2: Scanty Urine

Medicine/ Nephrology	Electrolyte disorders	Explain the etiology, clinical features, diagnosis, and treatment of Hyper and Hyponatremia.	1 hour	SGD	MCQ OSCE
		Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypokalemia.			
		Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypophosphatemia.			
		Explain the etiology, clinical features, diagnosis, and treatment of hyper and hypomagnesemia.			
	Blood Ph abnormalities	Explain the etiology, clinical features, diagnosis and treatment of Metabolic acidosis and alkalosis and its associated compensations.	1 hour	CBD	MCQ
		Explain the etiology, clinical features, diagnosis and treatment of respiratory acidosis and alkalosis and its associated compensation.			
	Scanty Urine	Discuss the diagnostic workup and management approach for a patient with oliguria and anuria.	1 hour	LGD	MCQ
	Uremia	Discuss the pathophysiological mechanisms, clinical manifestations, investigations, and management of a patient with Uremia.			
	Chronic Kidney Injury	Explain the diagnostic workup and management and complications of a patient with Chronic Kidney Injury	1 hour	SGD	MCQ
Pediatrics	Acute Kidney Injury (AKI)	Discuss the clinical presentation, the diagnostic workup and management for Acute Kidney Injury in Pediatric patients.			
	Chronic Renal Failure (CKD)	Discuss the clinical presentation, the diagnostic workup and management for Chronic Renal Failure in Pediatric patients.			

Theme-3: Loin pain and dysuria

Medicine/ Nephrology	Approach to blood in urine (haematuria)	Take a history from a patient presenting with blood in the urine.	1 hour	Clinical Rotation	MCQ OSCE
		Perform a physical examination of a patient with blood in the urine.			
		Discuss the diagnostic workup and management approach for a patient blood in urine.	1 hour	LGD	MCQ
	Loin pain and dysuria	Discuss the diagnostic workup and management approach for a patient with loin pain and dysuria.			
	Acute pyelonephritis	Discuss the diagnostic workup and management approach for a patient with acute pyelonephritis.			
	Acute and chronic prostatitis	Discuss the diagnostic workup and management approach for a patient with acute and chronic prostatitis			
Surgery	Nephrolithiasis	Explain the etiology, risk factors, types, approach, investigations, treatment, and prevention of Nephrolithiasis	1 hour	Clinical Rotation	MCQ OSCE
		Take a history from a patient presenting with acute Flank and loin pain.			
		Perform a physical examination of a patient with acute Flank, and loin pain.			
		Counsel a patient presenting with nephrolithiasis.			
	Dysuria	Discuss the diagnostic workup for Dysuria.	1 hour	LGD	MCQ
		Discuss the management options for a patient with Dysuria			
	Hematuria	Discuss the diagnostic workup for Hematuria.	1 hour	SGD	MCQ
		Discuss the management options for a patient with Hematuria.			

Theme-4: Pain and swelling of external genitalia					
Surgery	Testicular torsion	Discuss the diagnostic workup for Testicular torsion	1 hour	CBD	MCQ
		Discuss the management options for a patient with Testicular torsion.			
	Hydrocele	Discuss the diagnostic workup for Hydrocele.			
		Discuss the management options for a patient with Hydrocele.			
	Testicular tumors	Explain the diagnostic workup and management and complications of a patient with suspected Testicular tumors.	1 hour		
	Epididymo-orchitis	Discuss the diagnostic workup for Epididymo-orchitis.	1 hour	LGD	MCQ
		Discuss the management options for a patient with Epididymo-orchitis.			
Pediatric surgery	Hypospadias	Discuss the types, complications, and management of a child with Hypospadias.	1 hour	LGD	MCQ
Urology	Male infertility	Discuss the diagnostic approach and management options for a male patient with infertility.	1 hour	SGD	MCQ
Medicine/ Nephrology	Sexually transmitted infections	Classify STDs and enlist their treatment options.	1 hour	LGD	MCQ
		Discuss the management approach of a patient with a new onset lesion on the genitalia.		LGD	MCQ

7. LEARNING RESOURCES

Sr. No	Text Books	Edition
1.	Obstetrics by Ten Teachers	20 th
2.	Gynaecology by Ten Teachers	
3.	Davidson's Principles and e of medicine	
4.	Nelson book of pediatrics	
5.	Bailey and love's Short practice of Surgery	
	Reference Books	
1.	Dewhurst's textbook of gynaecology and obs	9 th
2.	Davidson's Principles and e of medicine	
3.	Nelson book of pediatrics	
4.	Bailey and love's Short practice of Surgery	
	Video Links/Journals/ Websites	
1.	The Obstetritian and Gynaecologist (TOG)	2022 – till date

Additional Learning Resources

Hands on	Students will be involved in practical performance by using models
Skills Lab	Acquiring of skills in a simulated environment i.e. skills lab involving experiential learning ensures patient safety and confidence building in approaching and treating the patients.
Videos	Students are encouraged to watch videos in order to familiarize themselves with the procedures and protocol which they can watch at any time as per their own convenience, as part of Self-Directed Learning.
Internet Resources	Students are encouraged to use accessible internet resources for clarity of their concepts and update their knowledge.

8. ASSESSMENT METHODS

MCQs: Multiple Choice questions; Single best Type

OSPE/OSCE: Objective Structured Practical/Clinical examination

Presentation:

Quiz:

8.1 Multiple Choice Questions

1. Single best type MCQs having five options with one correct answer and four distractors are part of assessment.
2. Correct answer carries one mark, and incorrect will be marked zero. Rule of negative marking is not applicable.
3. Students mark their responses on specified computer-based sheet designed by Khyber Medical University.

8.2 Objective Structured Practical/Clinical Examination

1. Nine OSCE stations are used for formative as well as summative assessment.
2. Time allocated for each station is five minutes as per Examination rules of Khyber Medical University, Peshawar.
3. All students are rotated through the same stations.
4. Stations used are unobserved, observed, interactive and rest stations.

5. On unobserved stations, models, lab reports, radiographs, flowcharts, case scenarios may be used to assess cognitive domain.
6. On observed station, examiners don't interact with candidate and just observe the performance of skills /procedures.
7. On interactive station, examiner ask questions related to the task within the allocated time.
8. On rest station, students are not given any task. They just wait to move to the next station

8.3 Presentation

Students are given topics for presentation either individually or in groups. They are encouraged to prepare presentations on power point to enhance their understanding of the topic and IT Skills.

8.4 Quiz

To evaluate the knowledge of the students, well-tailored quiz is conducted.

9. INTERNAL ASSESSMENT CRITERIA

9.1 10% weightage of Internal Assessment in professional exam is policy of Khyber Medical University.

9.2 This Internal Assessment will comprise of following components

Total 12 (Theory)

1. Attendance (4)
2. Class presentations (4)
3. Pre-Prof (4)

Total 18 (OSPE)

1. Attendance Ward (6)
2. Log Book (6)
3. Ward Test (6)

10. EXAMINATION RULES & REGULATIONS

1. One class test of the subject will be held monthly, marks of which will be included in internal assessment. Marks for class test can vary according to syllabus and teachers' choice
2. One module and one Block exam will be taken after completion of module and block respectively.
3. Pre-prof Exam comprising 120 MCQs will be conducted at the end of session before prep leaves.
4. The pattern of Pre-prof will be same as the Professional Exam taken by Khyber Medical University, Peshawar.
5. OSPE/OSCEs will be conducted at the end of block as well as pre-prof Exam.

11. Exam Blue Print

Block P			
Module	Subject	Subject MCQs	Total MCQs
Renal 0	Medicine / Nephrology	22	40
	Surgery / Urology	10	
	Pediatrics	6	
	Pediatric surgery	2	

12. FEEDBACK ON EXAMINATION

1. Students' feedback on assessment strategies will be taken in a preformed proforma for feedback twice a year i.e., pre-prof and prof exams.
2. Feedback of theory as well as OSPE/OSCE & Viva will be taken.
3. Department of Medical Education & Quality Enhancement Cell in collaboration with Exam Cell of AIMI is responsible to conduct this exercise.

13. ACADEMIC CALENDAR

ACADEMIC CALENDAR 2022-23 AIMC											
YEAR	MONTH	Mon	Tue	Wed	Thu	Fri	Sat	Sun	ACADEMIC EVENTS	PUBLIC HOLIDAYS	
2022	December	5	6	7	1	2	3	4			25 th December 2022 Quaid's Day
		12	13	14	15	16	17	18	Institutional Management Committee (IMC) Meeting		
		19	20	21	22	23	24	25			
		26	27	28	29	30	31		Commencement of Classes 2 nd Year MBBS		
2023	January							1	Winter Vacations		
		2	3	4	5	6	7	8			
		9	10	11	12	13	14	15			
		16	17	18	19	20	21	22			
		23	24	25	26	27	28	29			
		30	31								
	February			1	2	3	4	5			5 th February Kashmir Day
		6	7	8	9	10	11	12			
		13	14	15	16	17	18	19			
		20	21	22	23	24	25	26	Commencement of Classes 1 st , 3 rd , 4 th & Final Year MBBS		
	March	27	28						Medical & Dental Examination 1 st year MBBS		
				1	2	3	4	5			
		6	7	8	9	10	11	12			
		13	14	15	16	17	18	19			
	April	20	21	22	23	24	25	26			Pakistan Day 23 rd March
		27	28	29	30	31					
							1	2	Exam Block N Final Year MBBS *		
		3	4	5	6	7	8	9	Exam Block D 2 nd Year MBBS Theory & OSPE *		
	May	10	11	12	13	14	15	16	Exam Block A 1 st Year MBBS Theory & OSPE *		
		17	18	19	20	21	22	23	Exam Block G 3 rd Year MBBS Theory & OSPE *		
		24	25	26	27	28	29	30	Exam Block J 4 th Year MBBS *	Eid ul Fitar 17 th to 29 th April	
		1	2	3	4	5	6	7		1 st May Labor Day	
	June	8	9	10	11	12	13	14	International Thalassaemia Day		
		15	16	17	18	19	20	21	Exam Block E 2 nd Year MBBS *		
		22	23	24	25	26	27	28			
		29	30	31					World No Tobacco Day		
	July				1	2	3	4	Spring Festival		
		5	6	7	8	9	10	11	Institutional Management Committee (IMC) Meeting		
		12	13	14	15	16	17	18	World Blood Donor Day		
		19	20	21	22	23	24	25	Exam Block O Final Year MBBS *		
	August	26	27	28	29	30				Eid ul Azha 26 th June to 1 st July	
						1	2	Exam Block B 1 st Year MBBS *			
3		4	5	6	7	8	9	Exam Block C 1 st Year MBBS *			
10		11	12	13	14	15	16	Exam Block F 2 nd Year MBBS *			
September	17	18	19	20	21	22	23	Sports Week		Aashura	
	24	25	26	27	28	29	30				
	31										
		1	2	3	4	5	6	Exam Block H 3 rd Year MBBS *			
October	7	8	9	10	11	12	13	Exam Block K 4 th Year MBBS *		14 th August National Day	
	14	15	16	17	18	19	20				
	21	22	23	24	25	26	27				
	28	29	30	31							
November					1	2	3	Exam Block I Exam 3 rd Year MBBS *			
	4	5	6	7	8	9	10				
	11	12	13	14	15	16	17	Exam Block L Final Year MBBS *			
	18	19	20	21	22	23	24	Exam Block P Final Year MBBS *	27 th September Eid Milad-ul-Nabi		
December	25	26	27	28	29	30	31				
	2	3	4	5	6	7	8	Exam Block M1, M2 4 th Year MBBS *			
	9	10	11	12	13	14	15				
December	16	17	18	19	20	21	22				
	23	24	25	26	27	28	29	Breast Cancer Awareness Day			
	30	31									
			1	2	3	4	5				
December	6	7	8	9	10	11	12				
	13	14	15	16	17	18	19	Exam Block Q Final Year MBBS *			
	20	21	22	23	24	25	26				
	27	28	29	30							
December					1	2	3	World AIDS Day			
	4	5	6	7	8	9	10				
	11	12	13	14	15	16	17	Institutional Management Committee (IMC) Meeting			
	18	19	20	21	22	23	24				
* Exact Dates for all the block exams will be announced later										25 th December Quaid's Day	

More than 75% attendance is mandatory as per Khyber Medical University Examination policy to sit in the pre-prof and Final Professional Examination

In case of Medical Leave or any other unforeseen situation, refer to Exam Policy.

Table 8: OSCE station distribution of different subjects

BLOCK-P (TOTAL STATIONS=20 and 6 marks/station)					
Subjects	OSCE stations	Viva stations	Short cases	Logbook and history books (1-station)	Structured Long case -30 marks)
Gynaecology	7	1	2	Gynaecology And Obstetrics	Gynaecology And Obstetrics
Medicine+ Endocrinology	2	1	1		
Paediatrics	1	1	0		
Surgery	1	1	1		
Total	11	4	4	1	1

14. MODEL QUESTIONS

Multiple Choice Question

A 4 year old boy has presented with sudden onset periorbital oedema, which has progressed to oedema across his entire body. He has been lethargic, with a poor appetite and his mum states that his urine has looked a bit 'frothy'. On examination he has leukonychia. What is the most appropriate initial investigation for this presentation?

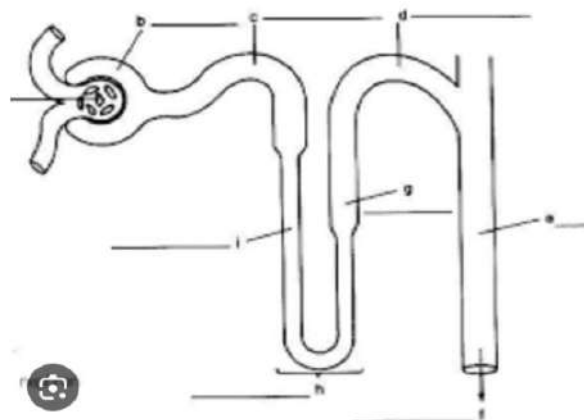
- A Urine dipstick
- B Renal ultrasound
- C Renal biopsy
- D U&Es
- E Fasting glucose

OSCE

STATION

1. Identify instrument

2. List uses



Renal osce identify parts of nephron