

2024



BAQAI MEDICAL COLLEGE 4TH YEAR MBBS



STUDY GUIDE

RENAL MODULE

SPIRAL II – INTEGRATED CURRICULUM
STUDY GUIDE FOR THE STUDENTS OF
4th YEAR MBBS SESSION 2024- 2025



BAQAI MEDICAL COLLEGE
BAQAI MEDICAL UNIVERSITY

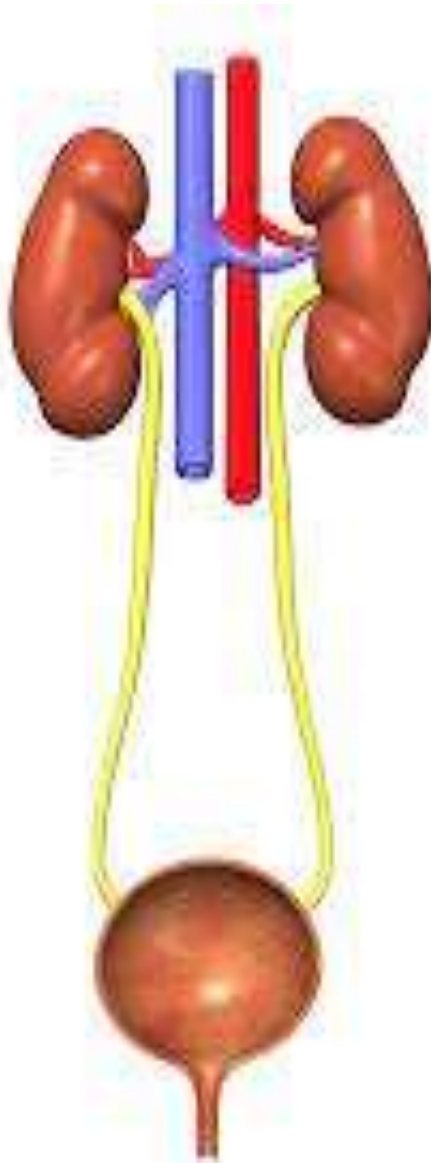
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INTEGRATED MODULAR COURSE STUDY GUIDE



RENAL MODULE

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The landscape of medical education is evolving rapidly, embracing a shift from teacher-centered to student-centered learning approaches across undergraduate and postgraduate levels. In response to these advancements, this study guide for the integrated modular system has been meticulously crafted to align with these changes, following the SPICES model of curriculum development.

1. **Student-centered Approach:** The course organization, content, and activities are predominantly structured around student engagement and empowerment.
2. **Problem-Oriented Learning:** Case-based learning is integrated into our modules to foster problem-solving skills among students.
3. **Explicit Integration:** Basic sciences content is seamlessly integrated with pre-clinical and clinical subjects to provide a comprehensive understanding of medical concepts.
4. **Community Engagement:** Field visits to satellite clinics and community healthcare centers offer students firsthand exposure to community-related health issues.
5. **Elective Opportunities:** Students are encouraged to pursue electives within our institution and other institutes to broaden their learning experiences.
6. **Structured Program:** Our curriculum unfolds systematically, starting from foundational medicine concepts and encompassing all facets of medical sciences in Spiral integration.

Therefore, this study guide serves as a comprehensive resource, offering content-related information, guidance on learning strategies, curriculum management, and outlines of student activities. It is designed to support the undergraduate MBBS program in a multidimensional manner, facilitating holistic learning and development.

<i>Vision</i>	<i>Mission</i>
	
<i>Baqai Medical University</i>	
<p>To evolve as a nucleus for higher learning with a resolution to be socially accountable, focused on producing accomplished health care professionals for services in all spheres of life at the national and global level”.</p>	<p>The mission of Baqai Medical University is to be recognized as a center of excellence in education, research, patient care, and community services by producing highly capable and knowledgeable professionals.</p>
<i>Baqai Medical College</i>	
<p>Our vision is to enhance access and excellence in medical education and research, with the aim of capacity building of students and faculty through innovations, and science and technology competencies, to achieve rapid and sustainable health. The medical graduate thus produced, will be informed, and trained enough to serve the community better, and to be an advisor to the national and international health organizations.</p>	<p>The mission of the Baqai Medical College is to produce medical graduates, who are responsible and accomplished individuals and have skills for problem-solving, clinical judgment, research, and leadership for a medical practice at the international level and are also aware of the health problems of the less privileged rural and urban population of Pakistan.</p>

POLICIES AND PROCEDURES

Code of Conduct and Maintenance of Discipline of Students Regulations Under section 25(e) BMU Act.1996

All University students shall be under the full disciplinary control of the University. No students shall be allowed to participate in politics. The action against the act of indiscipline shall include fines, debarring from attending class, and cancellation of admission, depending on the gravity of indiscipline.

The following shall constitute acts of indiscipline for which action may be taken against the student or students:

- (a) Breach of any rule public morals, such as:
 - Use of indecent or filthy language;
 - Use of immodest dress;
 - Use of undesirable remarks or gestures; and
 - Disorderly behavior, such as shouting, abusing, quarrelling, fighting and insolence.
- (b) Defiance of authority
- (c) Action, defamatory of and derogatory to Islam
- (d) Immorality
- (e) Being found under the effect of an intoxicant or misuse of drugs including marijuana, LSD dope and other opioids.
- (f) False personation or giving false information or willful suppression of information, cheating or deceiving.
- (g) Inciting or staging a walk-out, a strike, or an unauthorized procession.
- (h) Shouting of slogans derogatory to the prestige of the University or the reputation of its officers or teachers.
- (i) Visiting without a pass place which are not to be visited without a pass.
- (j) Visiting places declared out of bounds for students.

Every student must carry his / her Identity Card which will be open to examination and will be demanded at the time of entrance to the various University Faculties and functions.

No student will be admitted to the facilities of the library, transport, or the canteen unless he /she is in possession of the Identity Card

INTRODUCTION TO THE INTEGRATED CURRICULUM(SPIRAL- II) FOR 4TH YEAR MBBS

Welcome to the Integrated Curriculum (SPIRAL-II), designed for 4th-year MBBS students. In this study guide, we delve into the principles and structure of our curriculum, emphasizing its unique approach to organ-system-based integration.

The integrated curriculum for 4th-year MBBS is a testament to our commitment to providing comprehensive and cohesive medical education. Rooted in the principle of organ-system-based integration, this curriculum offers a progressive and immersive learning experience.

At its core, the SPIRAL-II curriculum embodies level seven integration, as defined by Harden's 11 levels of integration, encapsulating the pinnacle of correlation. This level of integration underscores our dedication to bridging the traditional boundaries between basic sciences and clinical medicine, fostering a holistic understanding of medical concepts.

Through SPIRAL-II, students embark on a journey of exploration, where the intricacies of various organ systems are intricately woven together to get a comprehensive picture of human health and disease. By transcending the isolated subject matter, students gain a deeper appreciation for the interconnectedness of physiological processes and pathological manifestations.

Key to the success of our integrated approach is the seamless alignment of theoretical knowledge with practical application. By intertwining classroom learning with clinical experiences, SPIRAL-II empowers students to translate theoretical concepts into real-world scenarios, preparing them for the complexities of medical practice.

Furthermore, SPIRAL-II embraces a multidisciplinary approach, fostering collaboration among faculty members from diverse specialties. This collaborative effort ensures that students receive a well-rounded education, enriched by the expertise of professionals across various medical domains.

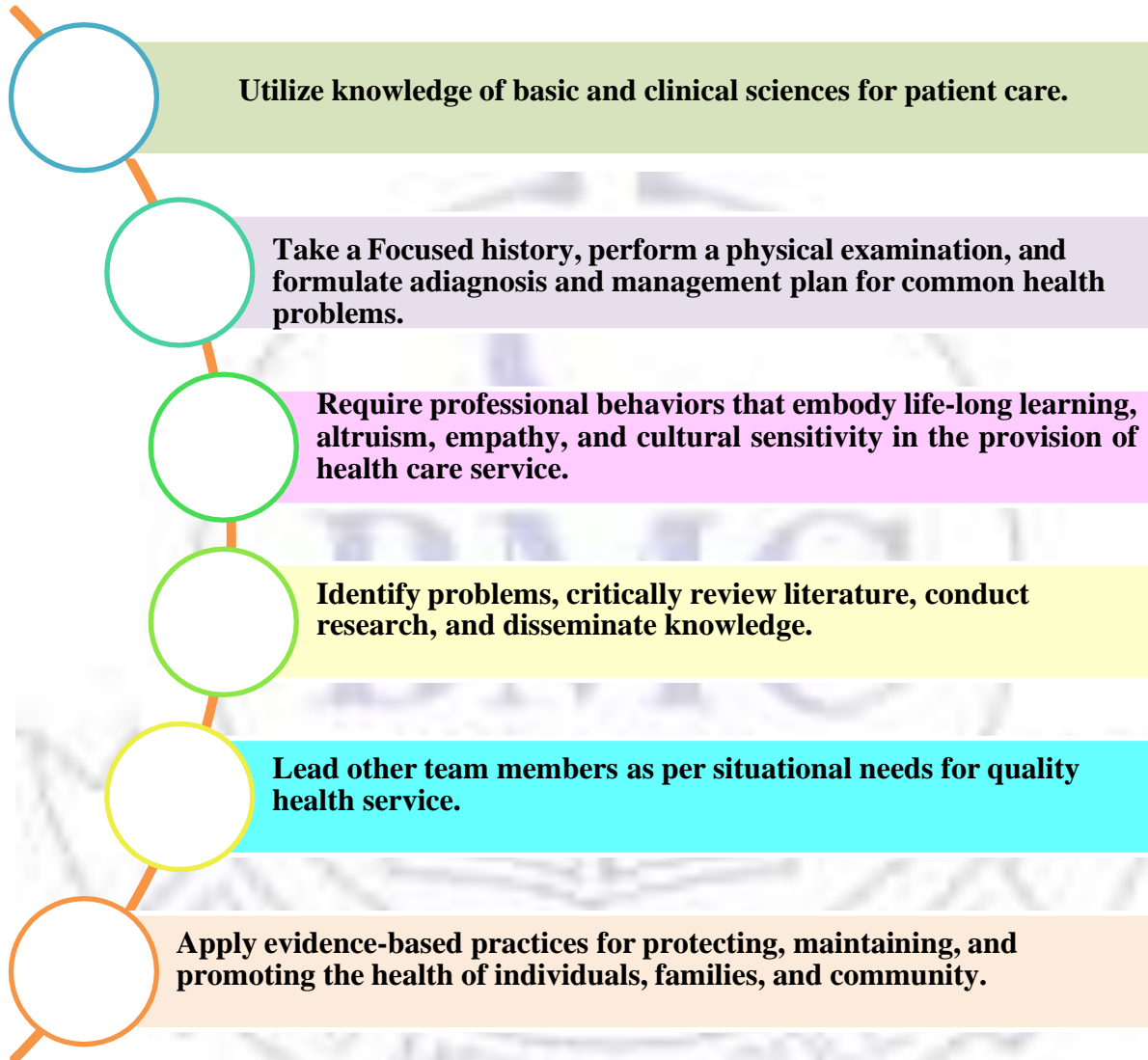
Hence, the Integrated Curriculum (SPIRAL-II) for 4th year MBBS embodies a paradigm shift in medical education, where integration, correlation, and multidisciplinary collaboration converge to cultivate competent and compassionate healthcare professionals. Join us as we embark on this transformative journey, where the boundaries of medical knowledge are transcended, and the art and science of medicine are seamlessly intertwined.



Integration is Key

OUTCOMES OF THE MBBS PROGRAM

The Baqai University graduate of the MBBS program will be able to:



BAQAI MEDICAL COLLEGE
TEACHING FACULTY FOR 4TH YEAR MBBS



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Dr. Maria Mehmood	MBBS, FCPS (ENT)	Assistant Professor
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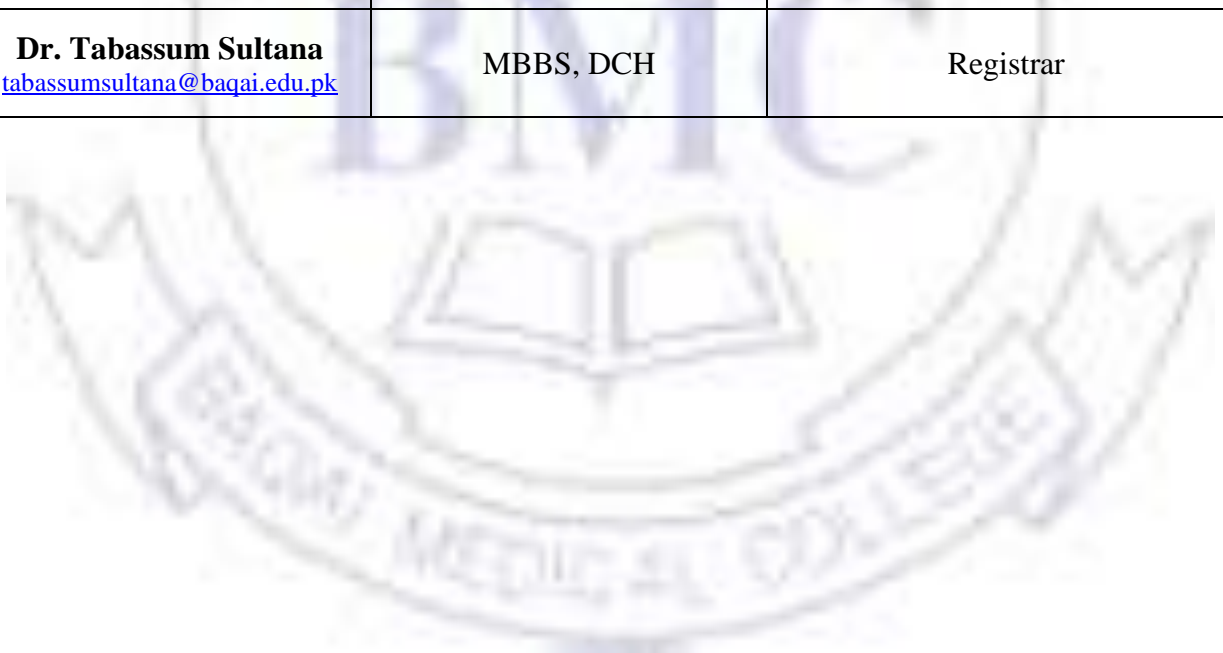
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<i>Dr. Sarah Azhar</i>	<i>Head CIC Spiral II</i>
<i>Dr. Maeesa Sajeel</i>	<i>Member, 4th-year MBBS Class Coordinator</i>
<i>Prof. Dr. M.S. Fahmi</i>	<i>Member, Department of Ophthalmology</i>
<i>Dr. Abdul Ghaffar</i>	<i>Member, Department of Surgery & Allied</i>
<i>Dr. Amara Altaf</i>	<i>Member, Department of Community Medicine</i>
<i>Dr. Dania Faisal</i>	<i>Member, Department of Medicine & Allied</i>
<i>Dr. Faraz Saleem</i>	<i>Member, Department of Pharmacology</i>
<i>Dr. Hina Amjad</i>	<i>Member, Department of Pharmacology</i>
<i>Dr. Nasima Iqbal</i>	<i>Member, Department of Pathology</i>
<i>Dr. Nikhat Ahsan</i>	<i>Member, Department of Obstetrics & Gynecology</i>
<i>Dr. Rehana Babar</i>	<i>Member, Department of ENT</i>
<i>Dr. Saadia Akram</i>	<i>Member, Department of Obstetrics & Gynecology</i>
<i>Dr. Tahira Saeed</i>	<i>Member, Department of Pediatrics</i>
<i>Dr. Zulfiqar H. Naqvi</i>	<i>Member, Department of Community Medicine</i>
<i>Ms. Maria Rahim</i>	<i>Member, Department of Research</i>

TEACHING METHODOLOGIES

		
<p>Interactive Lectures</p>	<p>Case-based Learning</p>	<p>Student's Presentations</p>
		
<p>Flipped Classroom</p>	<p>Small group discussions</p>	<p>Practical demonstration</p>
		
<p>Hands-on practice of clinical skills in a simulated environment</p>	<p>Virtual teaching sessions</p>	<p>Self-directed learning</p>

Module V

Renal Module

INTRODUCTION TO MODULE – III



<i>Module – IV</i>	
<i>Reproduction</i>	
System	<ul style="list-style-type: none"> • Renal System
Duration	6 Weeks (From 19 th December 2023 to 6 th February 2024)
Assessment Dates	*Wednesday 7 th February 2024
Assessment Pattern	MCQs, SEQs & OSPE

*The Assessment pattern and dates are tentative (Subject to change)

Pathology			
At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:			
Topic	Teaching Strategy	Duration	Learning Objectives
Clinical manifestations of renal diseases	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define different terms e.g., Azotemia, Uremia, Urinary tract infection, Nephrolithiasis, and Nephrosclerosis. 2. Describe briefly the major Renal Syndromes: Acute Nephritic Syndrome, Nephrotic Syndrome, rapidly progressive Glomerulonephritis, Acute Renal Failure, Chronic Renal Failure, and Renal Tumors.
Glomerular Diseases	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Classify Glomerular diseases. 2. Explain the pathologic response of the Glomerulus to injury. 3. Discuss the etiological causes, pathogenesis, and morphology of Primary glomerular disease. 4. Comprehend the pathogenesis, morphology, and clinical manifestations of the Glomerular diseases secondary to systemic diseases.
Glomerulonephritis	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define and classify Glomerulonephritis. 2. Comprehend focal segmental glomerulonephritis, membranous glomerulonephritis, post-streptococcal glomerulonephritis, and rapidly progressive glomerulonephritis based on their etiology, pathogenesis, clinical features, and morphology.

Pathology

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Nephrotic and Nephritic Syndrome	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe the causes, pathophysiology, morphology, and clinical manifestations of Nephrotic syndrome. 2. Discuss Nephritic syndrome based on its causes, pathogenesis, morphology, and clinical features. 3. Discuss the etiology, pathophysiology, clinical features, and morphology of minimal change disease.
Renal Tubular and Interstitial diseases	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe the causes, pathogenesis, morphology, and clinical features of acute renal tubular injury/ necrosis. 2. Enumerate the causes of Tubulointerstitial Nephritis. 3. Discuss the pathogenesis, clinical, and morphological features of Tubular-interstitial Nephritis. 4. Differentiate between Acute and Chronic Pyelonephritis based on causes, pathogenesis, clinical features, and morphology. 5. Explain the causes, pathogenesis, and clinical features of Drug-induced Tubulo-nephritis.
Diseases involving Renal Blood Vessels	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Differentiate the causes, pathogenesis, clinical features, and morphology of Nephrosclerosis and Malignant Nephrosclerosis. 2. Discuss the pathogenesis, morphology, and clinical course of Renal artery stenosis. 3. Define and classify Thrombotic Microangiopathies. 4. Differentiate Hemolytic Uremic Syndrome (HUS) and Thrombotic Thrombocytopenic purpura (TTP) based on their pathology, and clinical and morphological features.

Pathology

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Neoplasms of the Kidney	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Classify benign and malignant renal tumors. 2. Summarize the pathogenesis and morphology of benign renal tumors. 3. Discuss the types, etiology, pathogenesis, clinical features, and morphology of Renal Cell Carcinoma. 4. Explain the causes, pathogenesis, morphology, and clinical features of Wilms Tumor.
Cystic Diseases of the Kidney	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Classify renal cystic diseases. 2. Differentiate between adults and childhood polycystic kidney disease in terms of etiology, pathophysiology, clinical manifestations, and morphology. 3. Describe the types, etiology, pathology, clinical features, and morphology of cystic diseases of the renal medulla. 4. Discuss the causes, pathogenesis, morphological and clinical features of simple renal cysts, multi-cystic renal dysplasia, and acquired (dialysis-associated) cystic diseases.
Nephropathy due to Systemic diseases	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Discuss Diabetic nephropathy based on causes, pathogenesis, clinical features, and morphology. 2. Explain the causes, pathogenesis, clinical features, and morphology of nephropathy due to amyloidosis. 3. Describe the causes, pathogenesis, morphology, and clinical features of nephropathy due to SLE. 4. Summarize the pathogenesis and clinical features of HIV-induced nephropathy.

Pathology

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Renal Failure	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define renal failure. 2. Discuss the causes, risk factors, pathogenesis, clinical features, and morphology of acute renal failure. 3. Describe the predisposing factors, pathogenesis, clinical features, and morphology of chronic renal failure. 4. Comprehend the complications of renal failure.
Urinary Outflow Obstruction	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define Obstructive Uropathy. 2. Enumerate the major causes of Urinary outflow obstruction. 3. Discuss the causes, pathogenesis, clinical features, and morphology of Hydro-nephrosis. 3. Define and classify Urolithiasis. 4. Describe the types, causes, pathogenesis, morphology, and clinical features of Urolithiasis.
Inflammatory Diseases of the Lower Urinary Tract	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Classify the inflammatory diseases of the lower urinary tract. 2. Discuss the causes, pathogenesis morphology, and clinical features of Cystitis. 3. Discuss the etiology, pathogenesis, clinical manifestations, and morphology of Malakoplakia.
Tumor and tumor-like lesions of the Urinary Bladder	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Enumerate the metaplastic lesions of the Urinary Bladder. 2. Classify neoplasms of the Urinary Bladder. Discuss the risk factors, causes, pathogenesis morphology, clinical features, and grading of Transitional Cell Carcinoma. 3. Discuss the etiology, pathogenesis, clinical manifestations, morphology, and grading of Bladder Carcinoma.

Pathology

At the end of these 2 ¼ hours practical sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Morphological changes of different renal disorders	Practical (Task-based learning)	2 ¼ hours	1. Recognize the morphological changes of glomerulonephritis, nephropathy, nephrosclerosis, minimal change disease, acute tubular injury, and renal failure.
Manifestations of Glomerular diseases	Practical (Task-based learning)	2 ¼ hours	2. Classify glomerular diseases. 3. Differentiate between primary and secondary glomerular diseases in terms of their causes, mechanisms, and clinical manifestations. 4. Identify the differentiating gross and microscopic features of primary and secondary glomerular diseases with their points of identification and correlate them with their pathophysiology and clinical features.
Renal Tumors	Practical (Task-based learning)	2 ¼ hours	1. Identify the different types of renal tumors with their points of identification and correlate them with their pathophysiology and clinical features.
Urolithiasis	Practical (Task-based learning)	2 ¼ hours	1. Identify the different types of renal stones with their points of identification and correlate them with their pathophysiology and clinical features.
Transitional Cell Carcinoma	Practical (Task-based learning)	2 ¼ hours	1. Identify the different types of Transitional cell carcinoma with their points of identification and correlate them with their pathophysiology and clinical features.

Pharmacology

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Diuretics - I	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define diuretics. 2. Classify diuretics. 3. Explain the mechanism of action of Furosemide. 4. List the pharmacokinetic properties of Furosemide. 5. List common clinical uses of Furosemide. 6. List common adverse effects of Furosemide. 7. List the contraindications of Furosemide.
Diuretics - II	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Explain the mechanism of action of Hydrochlorothiazide, Mannitol, and Spironolactone. 2. List the pharmacokinetic properties of these drugs. 3. List common clinical uses of these drugs. 4. List common adverse effects and contraindications of these drugs.
Antidiuretics	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Classify antidiuretic hormone agonists and antagonists. 2. Explain the mechanism of action of Desmopressin and Conivaptan. 3. List common clinical uses of these drugs. 4. List the adverse effects of these drugs. 5. List the contraindications of these drugs.

Pharmacology

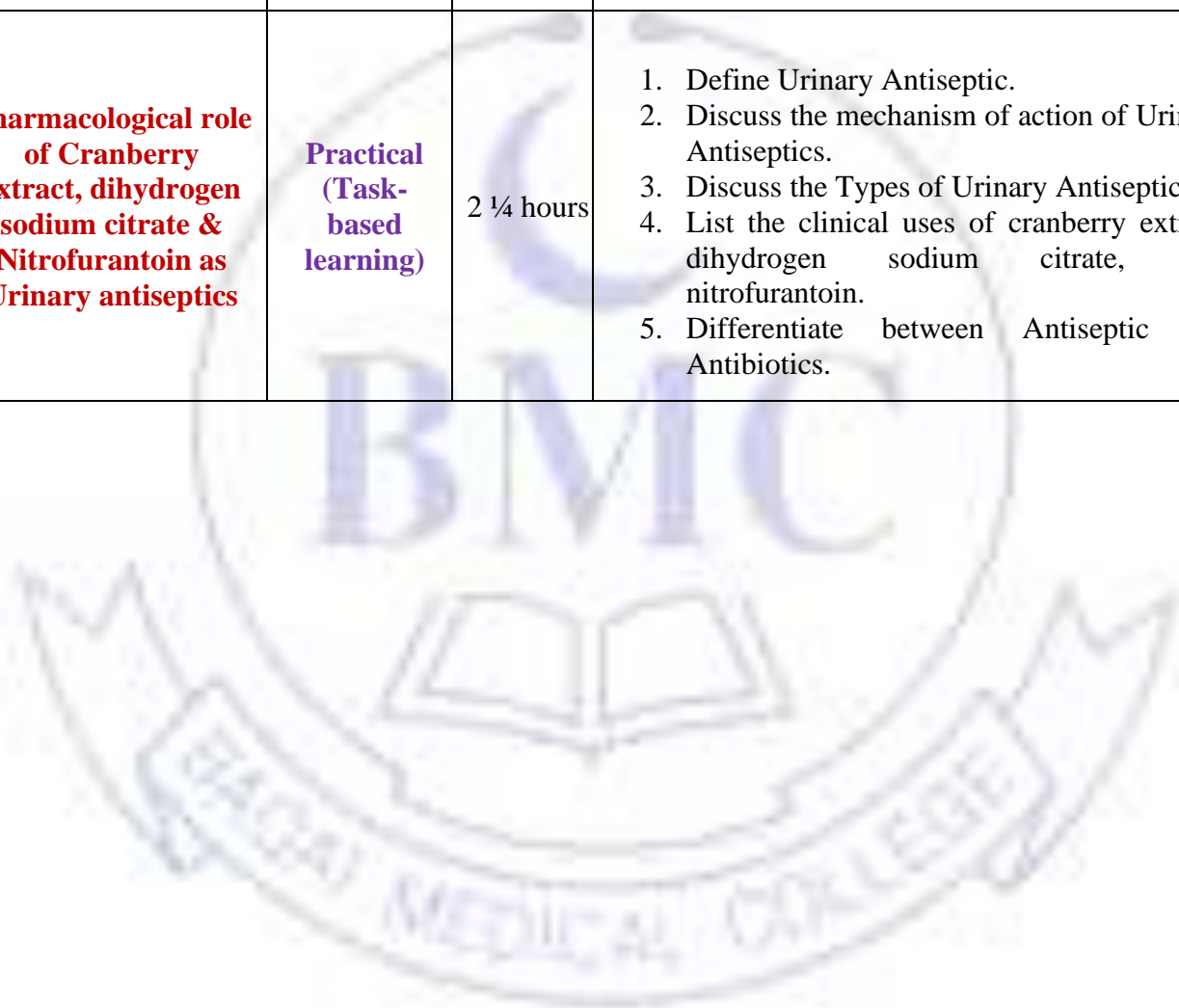
At the end of these 2 ¼ hours small group discussion sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Prescription writing on Diuretics	Small Group discussion	2 ¼ hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case.
Prescription writing on Diabetes Insipidus	Small Group discussion	2 ¼ hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case.
Prescription writing on Urinary Tract Infection & Sexually Transmitted Disease	Small Group discussion	2 ¼ hours	<ol style="list-style-type: none"> 1. Discuss the rationale for prescribing the drugs for the pharmacological management of the given case. 2. Discuss the pharmacological management of the given case.

Pharmacology

At the end of these 2 ¼ hours practical sessions, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Pharmacological role of Cranberry extract, dihydrogen sodium citrate & Nitrofurantoin as Urinary antiseptics	Practical (Task-based learning)	2 ¼ hours	<ol style="list-style-type: none"> 1. Define Urinary Antiseptic. 2. Discuss the mechanism of action of Urinary Antiseptics. 3. Discuss the Types of Urinary Antiseptics. 4. List the clinical uses of cranberry extract, dihydrogen sodium citrate, and nitrofurantoin. 5. Differentiate between Antiseptic and Antibiotics.



Community Medicine

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to epidemiology	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe epidemiological transition, screening for disease, and community diagnosis. 2. Define basic concepts and uses of epidemiology. 3. Explain the concepts of morbidity, mortality, disability, and fertility.
Epidemiological study designs	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe epidemiological study designs. 2. Explain the differences between various study designs. 3. Identify the study designs suitable in a given scenario.
Causation and association	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe the concept of association and causation. 2. Explain the criteria for establishing a causal association.
Primary Health Care I	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define primary health care and its levels. 2. Explain the principles of health care. 3. Discuss the essential components and elements of the health care system.
Primary Health Care II	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Describe the structure of primary health care. 2. Discuss selective primary health care approach and accelerated health program. 3. Enlist the constraints for primary health care.

Community Medicine

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Introduction to Environmental Health / Air Pollution	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define environmental health. 2. List the various environmental factors that can affect human health. 3. Define air pollution and its primary sources. 4. Discuss major air pollutants and their effect on human health.
Water pollution	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define water pollution and list the types of water pollutants. 2. Explain the environmental health risks of water pollution. 3. Define Water Purification. 4. Discuss different types of water purification methods.
Noise pollution/ Radiations	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define noise pollution. 2. Explain the common environmental noise sources and their effects on human health. 3. Explain the hazards of radiation. 4. Describe the methods and strategies aimed at controlling radiation exposure.
Housing	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Explain the role of housing as a determinant of health and its impact on well-being. 2. List the housing quality parameters. 3. Describe the common housing hazards and their impact on human health. 4. Discuss the problems of urban, rural and slum housing.

Community Medicine

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Snake Bite	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Enumerate the risk factors of snake bite incidents. 2. Describe the signs and symptoms of snake bite. 3. Discuss the management and prevention strategies for snake bites.
Demography	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Define terms related to demography. 2. Differentiate between fertility and fecundity. 3. List the causes of high fertility. 4. Calculate the basic fertility measures.
Mortality & Morbidity	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Differentiate between mortality and morbidity. 2. Explain the reasons for high mortality in the past and the causes of mortality decline. 3. Discuss the health indicators of Pakistan.
Population Pyramid	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Discuss the population pyramid. 2. Explain the interpretation of the population pyramid. 3. Describe the demographic transition and its public health importance.

Community Medicine Field Visit*

At the end of these Community Field Visits, the students of 4th year MBBS will be able to:

<p style="text-align: center;">Water Treatment Plant</p> <p style="text-align: center;">Gulshan E Iqbal, Karachi</p>	<ol style="list-style-type: none"> 1. Participants will explore the German and French water treatment technologies utilized at the plant. 2. Participants will observe the day-to-day operational procedures of the Water Treatment Plant, from water intake to the final distribution
<p style="text-align: center;">Slaughterhouse Landhi,</p> <p style="text-align: center;">Bhens Colony, Karachi.</p>	<ol style="list-style-type: none"> 1. Participants will gain firsthand insights into the ethical animal handling practices employed at the Slaughterhouse in Landhi, Bhens Colony, Karachi. 2. Participants will observe the procedures and protocols in place to ensure humane treatment, emphasizing the facility's commitment to ethical standards in the meat production process.

*List of proposed field visits of Community Medicine

Medicine

At the end of these 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Laboratory Interpretation of Renal Profile	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Interpret the Renal profile of different renal disorders. 2. Make different diagnosis. 3. Discuss and formulate a treatment plan.
Urinary Tract Infection	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Identify the symptoms and signs of Urinary Tract Infection (UTI). 2. Make differential diagnosis. 3. Discuss and formulate a treatment plan.

Surgery

At the end of these two 1-hour interactive lectures, the students of 4th year MBBS will be able to:

Topic	Teaching Strategy	Duration	Learning Objectives
Urolithiasis	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Summarize the pathophysiology of renal stones. 2. Describe the etiology of urolithiasis. 3. Review the risk factors for developing urolithiasis. 4. Discuss the different types of renal stones. 5. Explain the common physical exam findings associated with urolithiasis. 6. Describe the importance of collaboration and communication among the interprofessional team to improve outcomes for patients affected by Urolithiasis.

Pediatrics

At the end of this 1-hour interactive lecture, the students of 4th year MBBS will be able to:




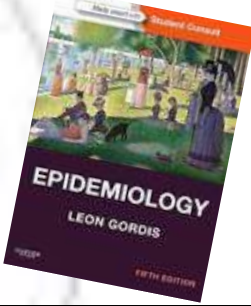

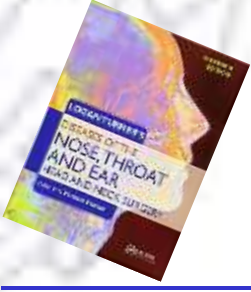
Topic	Teaching Strategy	Duration	Learning Objectives
Nephrotic Syndrome	Interactive Lecture	1 hour	<ol style="list-style-type: none"> 1. Briefly review the definition & review the etiology of Nephrotic Syndrome. 2. Understand the pathophysiology of Nephrotic Syndrome. 3. Understand the terminology about the clinical course of Nephrotic Syndrome. 4. Understand its specific management and Supportive care. 5. Recognize clinical signs of dehydration. 6. Understand the management of Complications.




SUGGESTED READING BOOKS

PATHOLOGY			
<p>Robbins & Cotran Pathologic Basis of Disease 10th Edition Kumar, Abbas & Aster</p>		<p>Pathology Illustrated 8th Edition Alasdair D. T. Govan</p>	
<p>Curran's Atlas of Histopathology 4th Edited Edition Robert Curran</p>		<p>Rubin's Pathology: Clinicopathologic Foundations of Medicine 6th Edition Raphael Rubin & David S. Strayer</p>	
PHARMACOLOGY & THERAPEUTICS			
<p>Basic and Clinical Pharmacology 14th Edition Bertram Katzung</p>		<p>Lippincott's illustrated review of Pharmacology 7th Edition Karen Whalen</p>	
<p>Katzung and Trevor's Pharmacology Examination and Board Review 14th Edition Katzung and Trevor</p>		<p>Goodman & Gillman The Pharmacological Basis of Therapeutics 14th Edition Laurence L Brunton & Bjorn C. Knollmann</p>	

SUGGESTED READING BOOKS

COMMUNITY MEDICINE			
<p>Public Health & Community Medicine 8th Edition M. Ilyas</p>		<p>Public Health & Preventive Medicine 13th Edition Maxcy- Rosenau-Last</p>	
<p>Park's Textbook of Preventive & Social Medicine 20th Edition K. Parks</p>		<p>Epidemiology 5th Edition Leon Gordis</p>	
ENT			
<p>Diseases of Ear, Nose and Throat 8th Edition P.L. Dhingra & Shruti Dhingra</p>		<p>Logan Turner's Diseases of the Nose, Throat and Ear, Head and Neck Surgery 11th Edition Musheer Hussain</p>	

SUGGESTED READING BOOKS

OPHTHALMOLOGY			
<p>Clinical Ophthalmology 4th Edition Shafi M. Jatoi</p>		<p>ABC of Eyes 4th Edition P. Shah, P.T. Khaw & A.R. Elkington</p>	
RESEARCH METHODOLOGY			
<p>Introduction to Research in Health Sciences- Stephen Polgar, Shane A. Thomas</p>		<p>Epidemiology 5th Edition Leon Gordis</p>	

SUGGESTED WEBSITES & SEARCH ENGINES

	
<p>https://www.medscape.com</p>	<p>https://www.PathologyOutlines.com</p>
	
<p>https://pubmed.ncbi.nlm.nih.gov</p>	<p>https://scholar.google.com</p>
	
<p>https://medlineplus.gov</p>	<p>https://medicine.nus.edu.sg/pathweb</p>

ASSESSMENT METHODS

1. Formative Assessment

- Assignment
- Quiz (face-to-face or online)
- Student Presentation
- Class participation in small group discussions and case-based learning sessions
- Project / Poster

* 4th Year MBBS Students are directed to maintain their practical journals and logbooks for formative assessment.

2. Summative Assessment

- **Modular Exam:**

With reference to the Assessment Policy of BMC, dated 14-06-21) (Point 5: Process; Summative assessment points a, b & d); a single modular exam will be conducted at the end of each module which will include all the subjects of basic medical sciences.

*Module exam will be assessed by any of the following assessment methods:

- BCQ
- SEQ
- OSPE
- **Annual Exam:**
 - Internal Evaluation = 20%
 - Final Exam= 80%Theory: MCQs, EMQs & SAQs
Practical: Viva & OSPE





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Baqai Medical College
4th Year MBBS Session 2024 - 2025
Renal Module Week 1



Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:15	Practical / Tutorial 2:15 – 4:30		
Monday	Clinical manifestation of renal disease [Pathology] (Dr. Munazza Rashid) [Pathology Lecture Hall]	Glomerular diseases [Pathology] (Prof. Dr. Nasima Iqbal) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R	Morphological changes of different renal disorders [Pathology] (Dr. Sana Mubarak/ Dr. Rozina Khan) [Pathology Lecture Hall]		
Tuesday	Glomerulonephritis [Pathology] (Dr. Muhammad Rizwan) [Pathology Lecture Hall]	Diuretics- I [Pharmacology] (Prof. Dr. Shaikh Nadeem) [Pathology Lecture Hall]				Clinics	A Y	Group A: Pharmacology (T1) Group B: SDL Group C: Pathology Group D: Pharmacology (T2)
Wednesday	Introduction to Environmental Health / Air Pollution [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Diuretics- II [Pharmacology] (Prof Dr. Asif Ahmed) [Pathology Lecture Hall]				Clinics	E R	Group A: SDL Group B: Pathology Group C: Pharmacology (T2) Group D: Pharmacology (T1)
Thursday	Nephrotic & Nephritic Syndrome [Pathology] (Dr. Maeesa Sajeel) [Pathology Lecture Hall]	Water Pollution [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]		Group C: Community Field Visit				
			A K	Clinics	S	Group A: Pharmacology (T2) Group B: Pharmacology (T1) Group D: Pathology		
	8:30 – 9:30	9:30 – 10:30	10:30 – 1:30		1:30 – 2:15	2:15 – 4:30		
Friday	Renal Tubular and Interstitial diseases [Pathology] (Dr. Muhammad Khan) [Pathology Lecture Hall]	Nephrotic Syndrome [Pediatrics] (Dr. Arshad Hamid Khan) [Pathology Lecture Hall]	Clinics		Jumma Prayers	Group A: Pathology Group B: Pharmacology (T2) Group C: Pharmacology (T1) Group D: SDL		

Pathology SGD: Manifestations of Glomerular Diseases

Pharmacology (T1): Prescription writing on Diabetes Insipidus

Pharmacology (T2): Prescription writing on Diuretics

Facilitator: Dr. Tooba Khan/ Dr. Yasir Rishi

Facilitator: Dr. S. Javeria Ikram

Facilitator: Dr. Izrum Rajput

Venue: Pathology Lecture Hall

Venue: Pharma Lab

Venue: Pharmacology Lec Hall



Baqai Medical College
4th Year MBBS Session 2024 - 2025
Renal Module Week 2



Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:15	Practical / Tutorial 2:15 – 4:30
Monday	Neoplasms of the Kidney [Pathology] (Dr. Ghazal Irfan) [Pathology Lecture Hall]	Anti-Diuretics [Pharmacology] (Dr. Faraz Saleem) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R	Group A: Research Group B: SDL Group C: Pathology Group D: Pharmacology
Tuesday	Renal Failure [Pathology] (Dr. Nasima Iqbal) [Pathology Lecture Hall]	Laboratory Interpretation of Renal Profile [Medicine] (Dr. Anita Haroon) [Lecture Hall 13]		Clinics		Group A: SDL Group B: Pathology Group C: Pharmacology Group D: Research
Wednesday	Noise Pollution / Radiations [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Cystic diseases of the Kidney [Pathology] (Dr. Maeesa Sajeel) [Pathology Lecture Hall]		Clinics		Group A: Pharmacology Group B: Research Group C: SDL Group D: Pathology
Thursday	Diseases involving Renal Blood Vessels [Pathology] (Dr. Sarah Azhar) [Pathology Lecture Hall]	Housing [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Group D: Community Field Visit			
			A K	Clinics	S	Group A: Pathology Group B: Pharmacology Group C: Research
Friday	8:30 – 9:30	9:30 – 10:30	10:30 – 1:30		1:30 – 2:15	2:15 – 4:30
	Snake Bite [Community Medicine] (Dr. Muneer Ahmed) [Com Med Lecture Hall 1]	Inflammatory disease of the lower urinary tract [Pathology] (Dr. Sarah Azhar) [Pathology Lecture Hall]	Clinics		Jumma Prayers	How to search evidence on diagnosis? [Evidence-based Medicine] [Pathology Lecture Hall]

Pathology Practical: Renal Tumors

Facilitator: Dr. Nadeem Baqai/ Dr Sana Mubarak

Venue: Pathology Museum

Pharmacology: Prescription writing on Sexually Transmitted Diseases **Facilitator:** Dr. Hina Masood

Venue: Pharmacology Lecture Hall



Baqai Medical College
4th Year MBBS Session 2024 - 2025
Renal Module Week 3



Day	Lecture 1 8:30 – 9:30	Lecture 2 9:30 – 10:30	10:30 - 10:45	Clinics 10:45 – 1:45	1:45 - 2:15	Practical / Tutorial 2:15 – 4:30
Monday	Urinary Outflow obstruction [Pathology] (Dr. Muhammad Rizwan) [Pathology Lecture Hall]	Tumor and Tumor-like lesions of the lower urinary tract [Pathology] (Dr. Muhammad Khan) [Pathology Lecture Hall]	T E A B R E	Clinics	P R A Y E R	Group A: SDL Group B: Pathology Group C: Pharmacology (P) Group D: Pharmacology (T)
Tuesday	Demography [Community Medicine] (Dr. S. Nauman Raza) [Com Med Lecture Hall 1]	Urinary Tract infections [Medicine] (Dr. Anita Haroon) [Lecture Hall 13]		Clinics		Group A: Pathology Group B: Pharmacology (P) Group C: Pharmacology (T) Group D: SDL
Wednesday	Mortality & Morbidity [Community Medicine] (Dr. S. Nauman Raza) [Com Med Lecture Hall 1]	Urolithiasis [Surgery & Allied] (Dr. Tanveet) [LRC, Dept of Surgery]		Clinics		Group A: Pharmacology (P) Group B: Pharmacology (T) Group C: SDL Group D: Pathology
Thursday	Nephropathy due to Systemic diseases [Pathology] (Dr. Ghazal Irfan) [Pathology Lecture Hall]	Population Pyramid [Community Medicine] (Dr. S. Nauman Raza) [Com Med Lecture Hall 1]	Group B: Community Field Visit			
			A K	Clinics	S	Group A: Pharmacology (T) Group C: Pathology Group D: Pharmacology (P)
Friday	8:30 – 9:30	9:30 – 10:30	10:30 – 1:30		1:30 – 2:15	2:15 – 4:30
	5th Integrated Module Assessment (Theory)		Clinics		Jumma Prayers	5th Integrated Module Assessment (Practical)

Pathology Practical: Urolithiasis & Transitional Cell Carcinoma

Facilitator: Dr Rozina Khan

Venue: Histopathology Lab

Pharmacology: Pharmacological role of Cranberry, Dihydrogen sodium citrate & nitrofurantoin as Urinary Antiseptics **Facilitator:** Dr. Samreen **Venue:** Pharma Lab

Pharmacology (Tutorial): Prescription Writing on Urinary Tract Infection **Facilitator:** Dr. Sehrish Mehmood

Venue: Pharma Lecture Hall