

**COURSE TITLE: RENAL PATHOLOGY & CLINICAL PRACTICE**

<b>STUDY HOURS:</b>	<b>60+160</b>	<b>MARKS</b>	
<b>PAPER:</b>	<b>01</b>	<b>THEORY</b>	<b>120</b>
<b>Term :</b>	<b>4<sup>th</sup></b>	<b>PRACTICAL:</b>	<b>30</b>
		<b>TIME :</b>	<b>03HRS</b>
	<b>COURSE CONTENTS</b>	<b>STUDY HOURS</b>	
		<b>(Theory +Practical)</b>	

<b>Course contents</b>	<b>STUDY HOURS</b>
	<b>(THEORY+PARCTICAL)</b>
<b>A. CLINICAL ASPECTS OF RENAL PATHOLOGY</b>	<b>60+80</b>
<b>A1. Renal/Glomerular Diseases:</b>	
A1.1 Introduction	
A1.1 Signs & symptoms	
A1.1 Drug therapy	
<b>A2. Clinical Assessment of:</b>	
A2.1 Hypermnatremia/Hyponatremia	
A2.2 Hyperkalaemia/Hypokalaemia	
A2.3 Hypercalcemia/Hypocalcaemia	
A2.3 Hyperphosphatemia	
<b>A3. Metabolic Disorder:</b>	
A3.1 Metabolic acidosis	
A3.2 Metabolic alkalosis	
A3.4 Respiratory acidosis	
A3.5 Respiratory alkalosis	
<b>A4. Renal Involvement in:</b>	
A4.1 Cardiovascular diseases	
A4.2 Connective tissues disorders	
A4.3 Diabetes mellitus	
A4.4 Chest diseases	
A4.5 Gastrointestinal disorders	
A4.6 Cancers	
<b>A5 Hypertension:</b>	
A5.1 Definition	
A5.2 Types	
A5.3 Pathogenesis	
A5.4 Essential hypertension	
A5.5 Reno vascular hypertension	
A5.6 Treatment	
<b>A6. Urinary Tract Infections in:</b>	
A6.1 Infants	
A6.2 Children	
A6.3 Pregnancy	

- A7. **Nephrolithiasis:**
  - A7.1 Definition
  - A7.2 Types
  - A7.3 Causes
  - A7.4 Signs & symptoms
  - A7.5 Treatment
- A8. **Sickle Cell Nephropathy:**
- A9. **Cystic diseases of kidneys:**
- A10. **Tubular interstitial diseases:**
- A11. **Acute Renal Failure:**
  - A11.1 Definition
  - A11.2 Causes
  - A11.3 Pathogenesis
  - A11.4 Metabolic derangements
  - A11.5 Principles of drug therapy in renal failure
  - A11.6 Management of ARF
- A12. **Chronic renal failure:**
  - A12.1 Introduction
  - A12.2 Causes
  - A12.3 Pathogenesis
  - A12.4 Signs & symptoms
- A13. **The Aging Kidney:**

**To demonstrate all the above on**

- 1. Chart
- 2. Slide/projector
- 3. Models

## **B. Practical**

**80**

- B1. General Duty in Nephrology
- B2. History taking
- B3. Routine Investigation
- B4. Preparation of patient of Dialysis procedure
- B5. Pre dialysis care and instruction
- B6. Post Dialysis care and instruction

### **RECOMMENDED BOOKS:**

- 1. Clinical Dialysis by Allen R. Nissenson
- 2. Know your kidney by Wook
- 3. Pharmacology by Shamim
- 4. Principles and Practice of Dialysis by William L. Henrich
- 5. Ref Primary of Kidney Disease

### **REFERENCE BOOKS:**

- 1. Nephrology Dialysis by Davidson
- 2. Embryology Review Board Series and Management of Renal Disease
- 3. Robins Pathology by IE Soundarn
- 4. Advances in Nephrology by Jean Pierre Grunfek



**COURSE TITLE: TREATMENT OF RENAL DISEASES & LIFE SUPPORT PROCEDURES, DIALYSIS & CLINICAL PRACTICE**

**STUDY HOURS: 60+160**  
**PAPER: 02**  
**TERM: 4<sup>th</sup>**

**THEORY 120**  
**PRACTICAL: 30**  
**TIME: 03HRS**

**COURSE CONTENTS    STUDY HOURS**  
**(Theory +Practical)**

<b>A.</b>	<b>TREATMENT OF ADVANCED RENAL DISEASES &amp; LIFE SUPPORT PROCEDURES</b>	<b>40+60</b>
	<b>(Brief Introduction)</b>	
A1.	<b>Treatment of metabolic derangement:</b>	
A1 . 1	Metabolic acidosis	
A1 . 2	Metabolic alkalosis	
A1 . 3	Respiratory acidosis	
A1 . 4	Respiratory alkalosis	
A2.	<b>Treatment of electrolytes imbalance:</b>	
A2 . 1	Hypernatremia/Hyponatremia	
A2 . 2	Hyperkalaemia/Hypokalaemia	
A2 . 3	Hypercalcemia/Hypocalcaemia	
A2 . 4	Hyperphosphatemia	
A3	<b>ECG:</b>	
A3 . 1	Normal reading	
A3 . 2	Abnormal in renal diseases	
A4.	<b>Treatment of :</b>	
A4 . 1	Glomerular diseases	
A4 . 2	Renal emergencies	
A5.	<b>Role of steroids in renal diseases:</b>	
A6.	<b>Treatment modalities in:</b>	
A6 . 1	Acute renal failure	
A6 . 2	Chronic renal failure	
<b>B.</b>	<b>DIALYSIS &amp; CLINICAL ASPECTS</b>	<b>20+20</b>
B1.	Dialysis:	
B1 . 1	Pre-dialysis care & instructions	
B1 . 2	Post-dialysis care & instructions	
B1 . 3	Complications of dialysis	
B2	Septicemia:	
B3.	Cardiac arrest:	
B4.	Use of contrast in renal medicine:	
B5.	The importance of cardiopulmonary resuscitation	

## **C. Practical Practice & Dialysis Room**

**80**

- C1. Introduction to Dialysis Room
- C2. Introduction to Dialysis Equipment
- C3. Introduction to room / Equipment sterilization
- C4. Operating of Dialysis Machine
- C5. Equipment / Dialysis Machine Maintenance
- C6. Safety / Precaution

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- 5. Ref Primary of Kidney Disease

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