



# BRCU25 Presentation Table of Contents

## Na, K, & Acid-Base

Sodium and acid base derangement is a key topic for nephrologists and the board exam. In this tab, you'll find lectures and cases on diagnosing various abnormalities in sodium and water homeostasis. Focus on identifying causes and effective management strategies. Additionally, there are questions on how diseases like cirrhosis, CHF, CKD, and nephrotic syndrome affect sodium levels. Next, study potassium dynamics and its movement between body compartments, considering the influence of medications and kidney adaptation.

### Na/K

- Relationship Between Sodium and Water: Principles of Hyponatremia and Hypernatremia - M. Rosner (60 minutes)
- Cases: Volume, Sodium, and Water Disorders – R. Rodby, M. Rosner (56 minutes)
- Normal Kidney Potassium Handling – B. Palmer (25 minutes)
- Potassium: Hypokalemic and Hyperkalemic Disorders – B. Palmer (59 minutes)

### Acid Base Overview

- Acid-Base Disorders: Key Core Concepts – K. Raphael (20 minutes)
- Metabolic Acidosis – R. Rodby and B. Palmer (59 minutes)
- Metabolic Alkalosis – W. Whittier (47 minutes)

### Acid Base Deeper Dive

- Increased Anion Gap Metabolic Acidosis – B. Palmer (43 minutes)
- Non-Anion Gap Metabolic Acidosis: General Concepts – R. Rodby (38 minutes)
- Non-Anion Gap Metabolic Acidosis: Proximal and Distal RTA – R. Rodby (41 minutes)
- Cases: Sodium — R. Rodby (36 minutes)
- Cases: Acid Base — S. Norby (27 minutes)



## Ca, PO<sub>4</sub>, Mg, & Stones

Divalent cations can be challenging. Spend time on the lectures in this section, focusing on how hormones affect serum levels. Also, consider how genetic abnormalities and medication exposures influence these levels. Learn how abnormalities can lead to kidney stones, with an emphasis on prevention strategies.

- Calcium/Phosphorus/PTH, Vitamin D, and FGF-23: Pathophysiology of Metabolic Bone Disease – A. Zisman (43 minutes)
- Nephrolithiasis: Pathogenesis, Diagnosis, and Medical Management – A. Zisman (59 minutes)
- Phosphorus Control and Disorders – L. Maursetter (34 minutes)
- Magnesium: Normal Physiology, Hypomagnesemia, and Hypermagnesemia – L. Maursetter (24 minutes)
- Cases: Nephrolithiasis – W. Whittier (33 minutes)
- Cases: Calcium, Phosphorus, and PTH — A. Zisman (31 minutes)
- Interactive Cases (Small Groups) — Lead: Case leads: R. Rodby, S. Norby, A. Zisman, and G. Thomas (67 minutes)



## CKD & ESKD

CKD and ESKD are core topics in Nephrology, accounting for nearly 25% of board exam questions. This section covers the causes and treatments of CKD, along with the latest updates. It also includes everything related to dialysis, such as modalities, blood pressure management, adequacy, metabolic bone disease, and access. Start with the didactic lectures for a comprehensive overview, then reinforce your knowledge with case-based lectures.

- Diabetic Nephropathy – W. Whittier (42 minutes)
- Cases: Diabetic Kidney Disease – R. Rodby (32 minutes)
- Dialysis: Cardiovascular and BP Issues – N. Bansal (30 minutes)
- Common Medical Problems in Patients with ESKD – S. Sanghavi (32 minutes)
- Hemodialysis: Selected Complications – M. Unruh (38 minutes)
- Peritoneal Dialysis: Infectious and Noninfectious Complications – S. Watnick (53 minutes)
- Cases: ESKD – C. Chan (28 minutes)
- HD and PD -- V. Niyar (37 minutes)
- ESKD Vascular Access and Related Infections – M. Wasse (37 minutes)
- Principles of Drug Prescribing in Acute and Chronic Kidney Diseases – K. Cardone (47 minutes)
- Treatment of CKD-MBD – S. Moe (20 minutes)
- Cases: Metabolic Bone Disease – T. Isakova (20 minutes)
- Cases: CKD and ESKD - C. Chan and M. Unruh (28 minutes)
- CKD and ESKD: Live Case Discussions — Lead: L. Maursetter, Panelists: M. Unruh, C. Chan, Anna Burgner (66 minutes)



## Transplant

Transplant nephrology is a challenging subtopic within nephrology. This section offers a high-yield review of the kidney transplant process, covering donor and recipient evaluation, transplant immunology, pathology, and post-transplant complications. Case-based sessions are also available for deeper understanding.

- Transplant Evaluation – S. Farouk (47 minutes)
- Transplant Immunology – B. Concepcion (35 minutes)
- Transplant Biopsy: Indications and Findings – J. Hou (30 minutes)
- Post-Transplant Infectious Complications – J. Smith (22 minutes)
- Post-Transplant Noninfectious Complications – B. Concepcion (42 minutes)
- Cases: Transplantation – B. Concepcion (38 minutes)
- Transplant Immunosuppressant Complications Cases – A. Wiseman (28 minutes)
- Introduction to Immunology Transplant — B. Concepcion (28 minutes)
- Case-Based Kidney Transplant Pathology— R. Mannon (30 minutes)
- Donor/Recipient Evaluation — S. Farouk (22 minutes)
- Complications in Transplant Management — S. Westphal (23 minutes)
- Infectious Complications in Transplant — J. Smith (22 minutes)
- High Yield Cases in Transplant — S. Westphal, Panelists: R. Mannon, J. Smith, B. Concepcion, S. Farouk (71 minutes)
- Ask the Panel/Fast Facts in Transplant — Lead: S. Westphal, Panelists: R. Mannon, J. Smith, B. Concepcion, S. Farouk (7 minutes)



## HTN

Blood pressure questions cover acute and chronic stages. This section provides an overview of chronic hypertension diagnosis and management. Lectures on secondary causes guide patient workup and offer an organized schema of secondary diagnoses for board preparation. Focus on necessary diagnostic testing. Practice cases to reinforce knowledge in this area.

- Pathophysiology and Treatment: Essential Hypertension – G. Thomas (50 minutes)
- Renal Artery Stenosis, Renovascular Hypertension, and Ischemic Nephropathy – L. Maursetter (20 minutes)
- Secondary Hypertension: Clinical Syndromes, Diagnostic Workup, and Management – G. Thomas (57 minutes)
- Hypertensive Urgencies and Emergencies: Clinical Presentations and Therapy – J. Topf (38 minutes)
- Cases: Hypertension 1 – L. Maursetter (29 minutes)
- Cases: Hypertension 2 – G. Thomas (36 minutes)



## Glomerular

Glomerular Disease is a high-frequency favorite on the boards. This section features histology/pathology images and focuses on likely exam questions. From pathophysiology to updates on newer causes and treatments, it offers a comprehensive overview for your board preparation.

- Approach to the Interpretation of Proteinuria, Albuminuria, and Dysproteinemia – J. Velez (32 minutes)
- Approach to Urinary Sediment – J. Seltzer (30 minutes)
- Pathogenesis and Mechanisms of Glomerular Injury – L. Mariani (41 minutes)
- Pathology of Glomerulonephritides – G. Markowitz (34 minutes)
- Pathology of Non-Glomerular Acute Kidney Injury, G. Markowitz (23 minutes)
- Idiopathic and Primary Glomerulonephritides – L. Mariani (36 minutes)
- IgA Nephropathy and Cases – K. Campbell (40 minutes)
- Secondary Glomerulonephritides and Vasculitis – R. Falk (57 minutes)
- Amyloid, Fibrillary Glomerulonephritis, and Thrombotic Angiopathies – A. Shirali (39 minutes)
- Viral Nephritides, Including HIV, CMV, and Hepatitis – N. Leung (36 minutes)
- Introduction to Pathophysiology - L. Mariani (32 minutes)
- Introduction to Pathology - G. Markowitz (39 minutes)
- Glomerulonephritis: Live Case Discussions #1 - Lead: R. Falk, Panelists: L. Mariani, A. Shirali, H. Seethapathy, G. Markowitz (88 minutes)
- Glomerulonephritis: Live Case Discussions #2 — Lead: G. Markowitz, Panelists: L. Mariani, A. Shirali, H. Seethapathy, R. Falk (67 minutes)
- GN Treatment Update – H. Seethapathy (20 minutes)
- Ask the Professor - R. Falk, L. Mariani, A. Shirali, G. Markowitz, H. Seethapathy (26 minutes)



## AKI & ICU

This section focuses on topics commonly seen on the board exam, including diseases with a high rate of AKI such as heart failure and cirrhosis, medications affecting kidney function, and systemic disorders leading to AKI. It also covers when to use renal replacement therapy, its forms, and potential complications, all likely board exam topics.

- AKI: Assessment, Diagnosis, and Management – S. Sanghavi (28 minutes)
- Nephrotoxins for the Boards – M. Perazella (45 minutes)
- AKI: Prevention and Non-Dialytic Therapy – J. Koyner (41 minutes)
- Acute Renal Replacement Therapies – A. Tolwani (67 minutes)
- Cases: Onconeurology – M. Perazella and M. Rosner (48 minutes)
- Cases: Imaging in Nephrology – M. Perazella (34 minutes)
- Poisonings and Intoxications – D. Goldfarb (39 minutes)
- Cases: Urine Microscopy and Other Assorted Images - M. Perazella (29 minutes)
- Cases: AKI and ICU - A. Tolwani and S. Sanghavi (38 minutes)
- AKI: Live Case Discussions - Lead: S. Sanghavi, Panelists: A. Tolwani, J. Koyner, and M. Perazella (88 minutes)



## Other

In this section, delve into how different drugs impact the interstitial tissue and tubules of the kidney. Then explore how cystic diseases, both genetic and acquired, influence kidney function and systemic manifestations. Additionally, review pregnancy-related topics affecting the kidney, including hypertension, eclampsia, and pregnancy after kidney diseases like lupus and transplant. Finally, we've provided a set of board questions covering various topics to test your overall knowledge.

### **Tubular, Interstitial, Cystic**

- Inherited Renal Cystic Diseases – R. Perrone (32 minutes)
- Genetic Renal Disease – B. Freedman (30 minutes)
- Acute and Chronic Interstitial Nephritis – M. Perazella (33 minutes)
- Cases: Urinalysis/Urine Microscopy – M. Perazella (36 minutes)

### **Pregnancy**

- Pregnancy and Kidney Diseases – B. Jim (38 minutes)
- Cases: Genetics and Pregnancy – B. Freedman and B. Jim (37 minutes)

### **Other**

- Board Cases 1 – L. Maursetter (34 minutes)
- Board Cases 2 – R. Rodby and L. Maursetter (49 minutes)