

Rotation:
Nephrology Subspecialty Selective

Goals:
 Every resident will be able to demonstrate competency in the evaluation, diagnosis and treatment of common nephrologic conditions.

Objectives:
 By the end of the Nephrology Subspecialty Selective, PGY-1 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	SPECIALTY SPECIFIC OBJECTIVES			
	Evaluate, diagnose, and treat patients suffering from the following nephrologic conditions including but not limited to: <ul style="list-style-type: none"> • Sodium Balance • Potassium Balance • Body Water Alterations • Disorders of calcium and magnesium balances • Simple and Mixed Acidosis • Simple and Mixed Alkalosis • Acute Renal Failure • Chronic Renal Disease • Systemic Hypertension • Diabetes Mellitus, with and without renal disease • Metabolic Syndrome 	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Categorize acid-base disorders as metabolic or respiratory	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Determining if acid-base disorders are appropriately compensated	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately use dialysis for acute indications	Clinical Teaching	ABIM global assessment form	

		Conferences Reading List	Written Exam Record Review	
	Differentiate between acute glomerular, tubular and interstitial diseases; and between primary and secondary acute renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage chronic co-existent conditions complicating the course of chronic renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Differentiate between chronic glomerular, tubular and interstitial diseases; and between primary and secondary chronic renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately choose referral of patients for renal transplantation	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select diagnostic imaging studies for patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select and interpret blood and urine biochemistry	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Use and interpret microscopic urinalysis	Clinical Teaching Conferences	ABIM global assessment form Written Exam	

		Reading List	Record Review	
	Use medical microbiology and anatomical histopathology in the evaluation and treatment of patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between primary and secondary hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately use pharmacotherapy in the treatment of hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage the systemic complications of diabetes mellitus	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between Type I and Type II diabetes and demonstrate competence in the management of each	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
Medical Knowledge	SPECIALTY SPECIFIC OBJECTIVES			
Practice Based Learning and Improvement	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			
Interpersonal and Communication Skills	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			

Professionalism	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			
Systems-Based Practice	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			

By the end of the Nephrology Subspecialty Selective, PGY-2 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	SPECIALTY SPECIFIC OBJECTIVES			
	Evaluate, diagnose, and treat patients suffering from the following nephrologic conditions including but not limited to: <ul style="list-style-type: none"> • Sodium Balance • Potassium Balance • Body Water Alterations • Disorders of calcium and magnesium balances • Simple and Mixed Acidosis • Simple and Mixed Alkalosis • Acute Renal Failure • Chronic Renal Disease • Systemic Hypertension • Diabetes Mellitus, with and without renal disease • Metabolic Syndrome 	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Categorize acid-base disorders as metabolic or respiratory	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Determining if acid-base disorders are appropriately compensated	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam	

			Record Review	
	Appropriately use dialysis for acute indications	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Differentiate between acute glomerular, tubular and interstitial diseases; and between primary and secondary acute renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage chronic co-existent conditions complicating the course of chronic renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Differentiate between chronic glomerular, tubular and interstitial diseases; and between primary and secondary chronic renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately choose referral of patients for renal transplantation	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select diagnostic imaging studies for patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select and interpret blood and urine biochemistry	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Use and interpret microscopic urinalysis	Clinical Teaching	ABIM global assessment	

		Conferences Reading List	form Written Exam Record Review	
	Use medical microbiology and anatomical histopathology in the evaluation and treatment of patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between primary and secondary hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately use pharmacotherapy in the treatment of hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage the systemic complications of diabetes mellitus	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between Type I and Type II diabetes and demonstrate competence in the management of each	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
Medical Knowledge	SPECIALTY SPECIFIC OBJECTIVES			
Practice Based Learning and Improvement	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			
Interpersonal and Communication	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a			

Skills	comprehensive list.			
Professionalism	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			
Systems-Based Practice	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			

By the end of the Nephrology Subspecialty Selective, PGY-3 residents are expected to expand and cultivate skills and knowledge learned during previous training and to achieve the following objectives based on the six general competencies. The resident should exhibit an increasing level of responsibility and independency as he or she progresses throughout the year.

Competency	Required Skill(s)	Teaching Method(s)	Formative Evaluation Method(s)	Frequency of Evaluation
Patient Care	SPECIALTY SPECIFIC OBJECTIVES			
	Evaluate, diagnose, and treat patients suffering from the following nephrologic conditions including but not limited to: <ul style="list-style-type: none"> • Sodium Balance • Potassium Balance • Body Water Alterations • Disorders of calcium and magnesium balances • Simple and Mixed Acidosis • Simple and Mixed Alkalosis • Acute Renal Failure • Chronic Renal Disease • Systemic Hypertension • Diabetes Mellitus, with and without renal disease • Metabolic Syndrome 	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Categorize acid-base disorders as metabolic or respiratory	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Determining if acid-base disorders are appropriately compensated	Clinical Teaching Conferences	ABIM global assessment form Written Exam	

		Reading List	Record Review	
	Appropriately use dialysis for acute indications	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Differentiate between acute glomerular, tubular and interstitial diseases; and between primary and secondary acute renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage chronic co-existent conditions complicating the course of chronic renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Differentiate between chronic glomerular, tubular and interstitial diseases; and between primary and secondary chronic renal diseases	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately choose referral of patients for renal transplantation	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select diagnostic imaging studies for patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately select and interpret blood and urine biochemistry	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	

	Use and interpret microscopic urinalysis	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Use medical microbiology and anatomical histopathology in the evaluation and treatment of patients with renal disease	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between primary and secondary hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Appropriately use pharmacotherapy in the treatment of hypertension	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Manage the systemic complications of diabetes mellitus	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
	Distinguish between Type I and Type II diabetes and demonstrate competence in the management of each	Clinical Teaching Conferences Reading List	ABIM global assessment form Written Exam Record Review	
Medical Knowledge	SPECIALTY SPECIFIC OBJECTIVES			
Practice Based Learning and Improvement	SPECIALTY SPECIFIC OBJECTIVES See General Internal Medicine Objectives for a comprehensive list.			
Interpersonal and Communication Skills	SPECIALTY SPECIFIC OBJECTIVES See General Internal Medicine Objectives for a comprehensive list.			

Professionalism	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			
Systems-Based Practice	SPECIALTY SPECIFIC OBJECTIVES			
	See General Internal Medicine Objectives for a comprehensive list.			

Learning Venues:

Read the Nephrology section in Harrison's Textbook of Internal Medicine. At the end of the month, turn in the exact number of pages you have read. All aspects of the curriculum are covered in this textbook. This should be the primary reference source.

Alternatively, each resident will be given a series of review articles, which cover the major nephrology topics. If this reading source is used in place on Harrison's, the resident should report which articles were completed during the rotation.

- 1) review the slide carousel which demonstrates slides of typical findings seen in urinalysis.
- 2) attend Nephrology Journal club, every Tuesday at 12 noon
- 3) attend renal biopsy conference, first Wednesday of the month at 1 PM
- 4) attend Medicine morning report and Medicine Grand Rounds
- 5) attend Nephrology didactic teaching sessions: wed 11 am at 6 Dobbs conference room.
- 6) attend Nephrology Case Conference at fri 11am (alternates between VAMC conference room on 4G and UT 6 Dobbs conference room)
- 7) attend daily Nephrology attending rounds
- 8) attend outpatient Nephrology clinics: (Mon am and Thurs am for VAMC assigned residents, and Tues pm Medplex clinic for residents assigned at UT Bowld/ Med service.

Additional reference material:

Up to Date computerized textbook of Nephrology. This is available at both the division of nephrology office at UTCHS and at the Nephrology division, VAMC. This is useful for obtaining recent literature references concerning Nephrology topics.

There is a resident notebook kept in the Division of Nephrology, UTCHS which includes key references concerning many aspects of clinical Nephrology.

Renal pathophysiology. (Burton Rose and Helmut Rennke)

You will be provided with a PC floppy disk that contains handouts and lecture notes dealing with the following topics: acid-base disorders, urinalysis, and summary of the basic renal syndromes. The disc will also include sample test questions.

Competency Evaluation:

- 1) A multiple-choice examination will be given at the end of the rotation. The examination will deal with all aspects of clinical nephrology (as described in the resident curriculum). Questions will be formatted similarly to the Internal Medicine board examination (single best answer multiple-choice). The results of this examination will be included as part of your monthly evaluation.

2) The ABIM standardized global assessment form will be filled out by your attending physician.

3) Attendance at nephrology didactic teaching sessions and Internal Medicine Housestaff conferences should be > 75 %. Residents will provide documentation of completing the reading assignment (Harrison's text or supplemental articles).

4) Medical record review: Nephrology attending will review and critique a written nephrology consult, which has been performed and entered into the patient's chart. This critique will be reflected on the global assessment form.

Outcomes Assessment:

The educational success of our elective in nephrology will be based on two criteria:

(1) Nephrology subsections scores on the in-service examination of all residents who have successfully complete the elective and (2) Nephrology subsections scores on the ABIM certifying examination in internal medicine taken by medical graduates. Our goal is all residents scoring at the 50th percentile or higher.