

**Internal Medicine Residency Program Rotation Curriculum**

**I. Rotation Sites and Supervision**

Rotation Name: Nephrology Consult Service

Site	Faculty Supervisor	Administrator	Phone
UCIMC	Madeleine Pahl, M.D.		714-456-5142
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**II. The educational purpose or rationale for this rotation.**

During the rotation the trainees will become familiar with:

- a. The skills required to become an effective consultant
- b. The evaluation and management of patients with a wide variety of kidney-related diseases on an inpatient and outpatient basis
- c. The evaluation and selection of patients for acute dialysis
- d. The principles and practices of the various forms of dialysis therapy

**III. The principal teaching methods for this rotation.**

- a. Patient-based case experiences of adolescent-adults in the general inpatient wards, acute care units, emergency ward, and ambulatory renal and transplant clinics
- b. Educational attending rounds with in-depth discussion of complicated and interesting patients on the team
- c. Work rounds devoted to the discussion of issues of diagnosis, patient care and management; conducted by the fellow with regular participation by the attending
- d. Conferences and didactic lectures as outlined on the monthly schedule ( Renal Grand Rounds, Pathophysiology Conference, Research Conference, Journal Club, and Pathology Conference)

**IV. Responsibilities of each of the participants on this rotation.**

**a. Medical Student**

- 1. Perform requested inpatient consults and serve as primary consultant for follow-up on at least 3 patients/week
- 2. Evaluate patients in the outpatient care clinics
- 3. Participate in all rounds
- 4. Attend all conferences and lectures as outlined on the monthly schedule

**b. Medical Resident: PGY1**

- 1. Perform requested inpatient consults and serve as primary consultant for follow-up on at least 4 patients/week
- 2. Evaluate patients in the outpatient care clinics
- 3. Participate in all rounds
- 4. Attend all conferences and lectures as outlined on the monthly schedule

5. Serve as teacher and supervisor to medical students on the team

**b. Medical Resident: Senior Resident**

1. In addition to the responsibilities of the PGY1 Resident, the senior resident will place more emphasis on teaching responsibilities, especially for interns and fellow residents.
2. The senior residents will be available to the junior residents and students to provide consultation on clinical material, help prepare them for rounds and presentation to the faculty.
3. Senior residents will prepare board review questions in nephrology for discussion with the team.
4. Senior residents will be responsible for case presentation to the Academy of Internal Medicine.

**Educational Objectives: The PGY1 resident**

1. Will demonstrate competence in obtaining an appropriate history for complaints related to the genito-urinary system.
2. Will demonstrate competence in the evaluation and management of acute kidney injury, the initial evaluation of hematuria, the evaluation and management of hypertension, and the evaluation of proteinuria.
3. Will demonstrate competence in the evaluation and management of electrolyte disorders and fluid balance.

**Educational Objectives: The senior resident**

1. Will demonstrate competence in obtaining an appropriate history for complaints related to the genito-urinary system.
2. Will demonstrate competence in the evaluation and management of acute kidney injury, the initial evaluation of hematuria, the evaluation and management of hypertension, and the evaluation of proteinuria.
3. Will demonstrate competence in the evaluation and management of nephritic syndrome.
4. Will demonstrate competence in the diagnosis of systemic syndrome related to the kidney such as Wegener’s Granulomatosis, Goodpasture Syndrome, and connective tissue diseases, especially SLE.
5. Will demonstrate competence in the evaluation and management of nephrolithiasis.
6. Will demonstrate competence in the evaluation of and medical management of chronic kidney disease.

**Competencies by Level of Training for Nephrology Consults**

<b>Patient Care</b>	PGY1	PGY2	PGY3
Complete medical data base (H&P) relevant to nephrology and good patient care overall	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Diagnostic decision making based upon the best evidence	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Involving patients in decisions about their care	Most of the time	All of the time	
Working with other health care professionals	All of the time		

to ensure the best care			
Teaching patients and families	Most of the time	All of the time	
Patient triage and evaluation of severity	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Response to emergencies	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Commitment to wellness, screening & prevention.	Most of the time	All of the time	
Identification & intervention in psycho-social issues, including domestic violence & depression	Most of the time	All of the time	

<b>Medical Knowledge</b>	PGY1	PGY2	PGY3
Medical illnesses	Reporter & Interpreter	Manager & Educator	Competent to practice independently
Complete differential diagnoses	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Epidemiology & biostatistics	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Research design		Competent in basic issues	Competent in basic issues
Ambulatory medicine	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
ICU Medicine	Reporter & Interpreter	Manager & Educator	Competent at the level of a well-trained internist
Recognizing own limitations	All of the time		

<b>Practice-based Learning</b>	PGY1	PGY2	PGY3
Take advantage of patient care to read & learn	Consistently		
Use of medical information resources & search tools	Consistently		
Inspiring others to use Evidence-based resources and make EBM-based decisions	Basic understanding	Consistently	
Applying critical appraisal techniques consistently to patient resources I use for patient care	Basic understanding	Consistently	

<b>Interpersonal &amp; Communication Skills</b>	PGY1	PGY2	PGY3
Create personal relationships with each patient by appropriately engaging them at each encounter	Most of the time	All of the time	
Use of verbal & non-verbal facilitation	Most of the time	All of the time	
Consistently demonstrate appropriate empathy & <b>good listening skills</b>	All of the time		
Respectful communication with colleagues & other professionals	All of the time		
Involve patients & families in discussions about care. Patient education.	Most of the time	All of the time	
I go out of my way to ensure the best possible	All of the time		

care.			
Enlist patients & families in health care decisions, including their feedback	Most of the time		
My ability to accept & integrate feedback from faculty & peers	All of the time		
I always sit down at the bedside to speak with my patients.	All of the time		

<b>Professionalism</b>	PGY1	PGY3	PGY3
Altruism: patients needs above their own	Most of the time	Most of the time	Most of the time
Confidentiality (including HIPAA)	All of the time		
Ethical behavior	All of the time		
Commitment to excellence	All of the time		
Sensitivity to age, gender, gender-preference, ethnicity, culture & disability	Most of the time	All of the time	
Awareness of duty hours, fatigue in myself & others, & other outside stresses, including substance abuse & finances	All of the time		
Commitment to education & to learning	All of the time		Accelerated
Personal insight & self-reflection	Most of the time	All of the time	
Completion of assignments	All of the time		
Timely response to pages	All of the time		
Timely completion of medical records	All of the time		
Conference attendance	Meets requirements		
Hand-offs and sign-outs	Consistently well presented	Consistently of the highest quality	
Leadership skills	Developing	Consistent	Consistent

<b>Systems-based Practice</b>	PGY1	PGY2	PGY3
Cost-effectiveness	Generally aware	Integrates into all plans	
Use of outside resources	Generally aware	Integrates into all plans	
Use of case-management	Generally aware	Integrates into all plans	
Attention to quality, safety, and process improvement	Generally aware	Integrates into all plans	Makes these a top priority in all areas
<b>Systems-based Practice (continued)</b>	PGY1	PG2	PGY3
Identification of systems issues that affect patient care	Developing	Consistently	Consistently
Use of the incident reporting systems to identify systems issues	Developing	Consistently	Consistently
Understanding of the business of medicine, health care systems, & public policy	Developing	Generally aware	Sophisticated understanding

<b>Teaching Skills</b>	PGY1	PGY2	PGY3
Commitment to teaching	Generally aware; expresses importance	Strong commitment	
Use of the microskills of teaching	Developing	Skilled	Skilled
Understanding of the teachable moment	Developing	Skilled	Skilled

Patience with learners	Developing	Skilled	Skilled
Conference presentation	Developing	Basic	Skilled
Patient education & adherence	Basic	Clearly competent	

<b>Organization Skills</b>	PGY1	PGY2	PGY3
Patient care organization systems & practice	Uses systems	Fully integrated; multi-tasks easily	
Ability to prioritize personal issues in accord with personal values & priorities (Get my life in order)	Basic understanding	Consistent focus	
Ability to help others get organized		Advisor	Educator
Organizing for study, reading, & life-long learning	Conscious of necessity	Competent & committed	
Organizing teams to include & prioritize learning & teaching		Competent & committed	
Organizing to obtain & prepare for careers or fellowships	Aware	Competent	

**c. Fellow**

1. Carry beeper and respond in a timely and responsive manner to all requested consults
2. Triage consults to medical students and residents and review and supervise care
3. Perform inpatient consults and serve as primary consultant for follow-up on all patients not assigned to medical students or residents
4. Evaluate patients in the outpatient care clinics
5. Direct work rounds and participate in all attending rounds
6. Attend all conferences and lectures as outlined on the monthly schedule
7. Serve as primary teacher and supervisor for medical students and residents on the team
8. Prepare didactic talks and conferences as assigned
9. Cover consult service on evenings, weekends, and holidays as per call schedule and discuss and round with the on-call attending
10. Participate in the evaluation process for medical students and residents

**d. Attending**

1. Serve as attending physician for the purposes of consultation
2. Direct attending rounds
3. Participate in work rounds on a regular basis
4. Supervise and document procedures
5. Oversee the residents and fellows teaching obligations, review teaching methods and assign specific projects
6. Teach
7. Evaluate all team members by direct observation of clinical, presentation, procedural skills, and humanitarian attributes

**V. Core Suggested Reading for this rotation**

Basic Recommended Readings for this rotation come from **Current Medical Diagnosis and Treatment**, 2009. Access these readings at

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

In addition, you should be familiar with basic practice guidelines in this discipline. Access these at

<http://www.accessmedicine.com/guidelines.aspx?type=1>

Select the appropriate chapters for review. These chapters can be accessed through the Grunigen Medical Library website.

<http://www.accessmedicine.com/resourceTOC.aspx?resourceID=1>

Chapters of specific relevance for this rotation are

Chapter 22	<a href="#"><u>Kidney Disease</u></a>
Chapter 23	<a href="#"><u>Urologic Disorders</u></a>

**VI. Key physical diagnosis skills, which should be reviewed during this rotation.**

Comprehensive history and physical with particular emphasis on renal-related issues

**VII. Key procedures, which the resident should be able to *perform*.**

Ability to perform and interpret a routine urine analysis

Placement of temporary vascular access for hemodialysis

**VIII. Key tests or procedures which the resident should be able to *understand the indications for and to interpret*.**

1. Routine blood chemistries, serum electrolytes, blood gases
2. Routine urine analysis
3. Measures of renal function: laboratory and radiologic measures
4. Radiology procedures: KUB, IVP, renal scan, renal ultrasound
5. Dialysis: hemodialysis, peritoneal dialysis, CRRT
6. Percutaneous renal biopsy of native and transplanted kidneys

**IX. The most important diseases or conditions, which the resident should see and understand during this rotation.**

1. Fluid, electrolyte and acid-base disorders
2. Acute renal failure
3. Nephrotic syndrome
4. Primary and secondary glomerular disorders, particularly diabetic nephropathy
5. Tubular and interstitial disorders, particularly acute tubular necrosis
6. Essential and secondary hypertension
7. End-stage renal disease

**X. Evaluation Methods**

Faculty will evaluate each resident's performance using the standard "Internal Medicine Resident Evaluation Form" at the end of each block rotation. Evaluation forms will be submitted to the Nephrology division and to the Internal Medicine for review by the Program Director and by the

Residency Oversight Committee. Similarly student's performance will be evaluated and submitted to the Medical School student's Affairs Office.

Residents will complete evaluations of their attending faculty, their supervising residents, and the rotation itself. These evaluations will be submitted to the Nephrology division and the Residency Program for Review by the Program Directors and the Curriculum Committee. Copies of evaluations will be submitted to the Division Chiefs for their review.

**XI. Core Educational Topics and Venues for this Discipline**  
Outlined in the attached Core Curriculum of Internal Medicine

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