University of Washington
Internal Medicine Residency

Nephrology Curriculum

Educational Goals: IM Residents will rotate through nephrology consult rotations to:

- Evaluate and manage patients with fluid and electrolyte disorders and learn acid base pathophysiology and management
- Familiarize them with the mechanisms, clinical manifestations, and diagnostic strategies for patients with acute and chronic diseases of the kidney.
- Teach them to implement renopreventive strategies and to refer patients to subspecialists at the appropriate time in their disease;
- To develop familiarity with principles, clinical indications, complications and performance of nephrologic procedures including acute and chronic hemo- and peritoneal dialysis, renal biopsy, vascular access placement, slow dialysis, and plasmapheresis.
- Educate them regarding the ongoing management of a patient s/p kidney transplantation

This chart details the minimum curricular goals for each year of residency.

**Patient Care: History Taking**

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<th>Resident Competency Evaluation Form, Mini-CEX</th>
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| **PGY-1** Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with moderate input from faculty. Specific historical areas include:  
  - Risk factors for ARF  
  - Nephrotoxic drugs  
  - Drugs requiring dosing adjustment in renal failure  
  - Etiology of CRF  
  - Transplant history |
| **PGY-2** Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources with occasional input from faculty. Begins to deal with sensitive topics such as:  
  - Compliance/adherence issues  
  - Substance abuse  
  - End of life issues in dialysis patients |
| **PGY-3** Demonstrates the ability to obtain and document an accurate and complete history from patient, caretaker or outside resources independently. Successfully deals with sensitive topics. Provides feedback to junior team members on their history taking skills. |

**Patient Care: Physical Exam**

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| **PGY-1** Demonstrates the ability to perform a routine exam for:  
  - Volume status  
  - pericarditis  
  - Assessment of vascular access for appropriate bruit and signs of infection  
  - Exam of renal allograft (size, location and tenderness)  
  Attempts to characterize abnormalities on exam with regular input from faculty. |
| **PGY-2** Demonstrates the ability to recognize abnormalities on the physical exam and appropriately characterize: Requires regular input from faculty. |
| **PGY-3** Independently carries out an accurate physical examination with both normal and abnormal physical findings |

**Pt Care: Medical Decision Methods**

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<th>Resident Competency Evaluation Form, Chart Review/documentation</th>
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| **PGY-1** Reliably recognizes critical illness and appropriately seeks assistance. Writes progress notes that identify important data and demonstrate thoughtful problem based assessment and plan. Initiates diagnostic testing for:  
  - Sodium disorders  
  - Hypokalemia and hyperkalemia  
  - Acute renal failure  
  - Calcium and phosphate disorders  
  - Metabolic acidosis and alkalosis  
  Identifies reasons for urgent dialysis  
  Interprets drug levels and adjusts appropriately for renal function  
  Can acutely manage a patient with hyperkalemia |
| **PGY-2** |
| **PGY-3** |
### PGY-2
Reliably recognizes critical illness and can independently initiate management strategies. Management goals are correct with moderate faculty input.
- Appropriately analyzes diagnostic tests as described in the PGY-1 year.
- Begins to reliably manage all electrolyte disturbances.

### PGY-3
Reliably recognizes critical illness and can independently initiate emergent and ongoing management strategies.

### Patient Care: Procedural Skills

| PGY-1 | Masters cognitive, counseling and technical skills for:  
|       | - Central line placement in at least one site  
|       | - Foley catheter placement  
|       | Interprets results of:  
|       | - Urinalysis  
|       | - Urine culture and sensitivity  
|       | Understands the indications for:  
|       | - Renal ultrasound  
|       | - Catheter placement  
|       | Documents appropriately  
|       | Relies on moderate faculty input.  

| PGY-2 | Masters cognitive, counseling and technical skills for:  
|       | Central line placement for both IJ and subclavian  
|       | Interprets study reports:  
|       | - Renal ultrasound with regard to renal size and evidence or cysts/obstruction  
|       | - Renal biopsy with regard to distinguishing between glomerular and no glomerular disease  
|       | Relies on occasional faculty input.  

| PGY-3 | Independent in performing, interpreting and planning appropriate procedures for patients with renal disease.  

### Patient Care: Consultation Process

| PGY-1 | Clarify questions to be answered. Thorough data gathering in providing consults.  

| PGY-2 | Develops strategy for managing patient referrals and follow-up.  
|       | Is an effective consultant.  

| PGY-3 | Consultation provided with EBM literature review.  

### Medical Knowledge

| PGY-1 | Applies relevant clinical and basic science knowledge in the following common medical conditions:  
|       | - Acid Base Disorders  
|       | - Fluid and electrolyte disorders  
|       | - Acute and chronic renal failure  
|       | - Indications for emergent dialysis  
|       | - Evaluation for transplant  
|       | - Basics of immunosuppressive therapy  

| PGY-2 | Demonstrates a progression in content knowledge and analytical thinking with well formulated differential diagnoses and management plans.  

| PGY-3 | Understanding and application of medical literature related to common medical conditions.  

### Interpersonal Skills and Communication

| PGY-1 | Effectively establishes rapport with patients and families.  
|       | Communicates well with primary referring team and other consultants.  
|       | Presents on rounds in an organized and articulate fashion.  
|       | Functions as an effective consult team member.  
|       | Provides timely and thorough electronic documentation of patient care.  

| PGY-2 | Effectively carries out difficult discussions, such as sensitive topic discussions with moderate faculty input.  
|       | Provides teaching and feedback to more junior team members on their communication styles.  
|       | Functions as an effective team leader.  

| PGY-3 | Able to deal with the most challenging patients and families with minimal direction.  
|       | Coordinates team communication to optimize patient care.  
|       | Functions as an effective team leader with decreasing reliance on attending.  
|       | Functions as a consultant.  

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*Internal Medicine  
Nephrology Curriculum*
### Professionalism

| PGY-1 | Strives for patient care and knowledge excellence.  
|       | Reliably accomplishes assigned tasks.  
|       | Demonstrates integrity, respect for others, honesty and compassion.  
|       | Demonstrates timely completion of administrative tasks and documentation. |

| PGY-2 | Strives for patient care and knowledge excellence.  
|       | Reliably identifies and accomplishes necessary tasks.  
|       | Sets a tone of respect and collegiality for the team. |

| PGY-3 | Acts as role model for patient care and professional behavior. |

### Practice Based Learning and Improvement

| PGY-1 | Seeks and accepts feedback from team about patient care, organization and presentations. Learns basic EBM principles, and article review.  
|       | Understands limits of own knowledge, and seeks help. |

| PGY-2 | Understands EBM principles, and begins to utilize relevant research to support decision-making and teaching of junior team members.  
|       | Identifies knowledge deficiencies and seeks to correct them. |

| PGY-3 | Appropriately integrates EBM with expert opinions and professional judgment.  
|       | Ability to accurately self-assess skills and performance. |