

**LSU Health Sciences Center  
Children's Hospital  
Pediatric Nephrology Fellowship Policy and  
Procedure Manual**

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## 1. General Description

The Pediatric Nephrology Fellowship offered by the Division of Pediatric Nephrology of the Department of Pediatrics provides an opportunity to pursue training in clinical pediatric nephrology and to pursue training in basic science research or clinical research. The program goal is to provide for the trainees the opportunity to receive outstanding educational training in order to pursue a career in academic medicine (basic science, clinical research, or clinical education).

The main objective of the LSU Health Sciences Center Pediatric Nephrology Fellowship program is to produce Pediatric Nephrologists who are leaders in the field of Pediatric Nephrology, whether in clinical or basic science activities. We also aim to produce physicians who possess habits of life-long learning in order to build upon their knowledge, skills and professionalism.

The clinical Pediatric Nephrology program is conducted at the Children's Hospital of New Orleans. The clinical activities at Children's Hospital integrate the 6 core competencies (patient care, medical knowledge, practice based learning and improvement, interpersonal and communication skills, professionalism and systems based learning). The trainee will participate in clinical training, research and scholarly activities. The training experience includes inpatient consultation services, management of end stage renal disease, renal pathology, transplantation nephrology, and outpatient nephrology clinical activities. The Children's Hospital has the only Pediatric Dialysis Unit in the State of Louisiana. This provides the trainees with a unique opportunity to manage pediatric patients with end stage renal disease of different ages including infants. Our patients are referred from (but not limited to) Louisiana and Mississippi. Our population represents a wide mix of racial and socioeconomic groups. The Division of Pediatric Nephrology maintains satellite clinics at Baton Rouge, Lafayette and Shreveport. The fellows will have the opportunity to pursue research activities at the Children's Research Institute. Another option for research opportunities is the LSU Health Sciences Center located a short distance from the Children's Hospital Main Campus.

The 36-month curriculum consists of 16 months of inpatient rotations, outpatient clinics, and electives 17 months of research. The fellows have three months of vacation. During the elective months fellows may receive additional training and experience in the areas of renal histopathology, radiology, urology and HLA laboratory.

Following the three years of training, the trainee will have confidence in evaluating and managing patients with a wide variety of kidney disorders (including transplantation), and have had extensive training in acute and chronic hemodialysis, continuous renal replacement therapy (CVVHD) and renal biopsies. Each fellow performs approximately 30-40 renal biopsies during his/her training period. The trainee will also have: 1) developed skills to be an effective physician, 2) an appreciation of hypothesis driven-scientific investigation, 3) training in critically evaluating the medical literature and in scholarship 4) Complete a research project that he/she can pursue after completion of the fellowship program.

## 2. Schedule for the Pediatric Nephrology Fellowship

### First year

Inpatient service	6 months
Clinical Electives	3 months
Research	2 months
Vacation	1 month

### SECOND YEAR

Inpatient	3 months
Clinical Electives	1 month
Research	7 months
Vacation	1 month

### Third Year

Inpatient	1 month
Clinical Electives	none
Research	10 month
Vacation	1 month

### 3. Conference Schedule

Monday	
8:00-9:00	Morning Report
12:00-1:00	Pediatric Nephrology Division Meeting Renal Pathology Conference (once a month)
Tuesday	
8:00-9:00	Morning Report
Wednesday	
8:00-9:00	Grand Rounds
12:00-1:00	Journal Club
4:00-5:00	Pediatric Nephrology Conference (2 <sup>nd</sup> and 3 <sup>rd</sup> Wednesday)
Thursday	
8:00-9:00	Morning Report
Friday	
8:00-9:00	Morning Report

#### Journal Club

The purpose of journal club is to develop the ability to critically analyze data reported in the literature. In general, papers are presented and discussed from high quality clinical journals (NEJM, Kidney International, J Am Soc Neph, Ann Int Med, Lancet, Transplantation) and basic science journals (Nature, J Biol Chem, Cell, Science, Proc Natl Acad Sci, J Clin Invest, Am J Physiol).

#### Renal Physiology

The Renal Physiology core lectures are given in collaboration with the adult nephrology service at LSU Health Sciences Center. Both Adult and Pediatric nephrology trainees participate in this activity.

#### Renal Pathology Conferences

The pathology conference is arranged by the pediatric pathology department. The faculty and fellows participate in this activity. This is done once a month.

#### Core Competency Curriculum

In addition, the Program Director provides information regarding educational materials pertaining to core competencies that may be sent by the Graduate Medical Education Committee or other sources. Fellows are required to complete HIPAA online courses relating to Professionalism (General Privacy Issues, Conflict of Interest and Commitment). Fellows are expected to attend lectures in the LSU Health Sciences r on ethics, medical errors, professionalism, and other pertinent topics.

## **4. Evaluation of fellows**

### **A. Methods for evaluation**

Monthly Evaluations are conducted using the following guidelines of the Accreditation Council for Graduate Medical Education (ACGME), American Board of Medical Specialties Generic Form for Global Ratings of Resident Performance. Humanistic qualities and the need to be the primary care advocate for patient's needs are emphasized. All monthly evaluations are reviewed by the Program Director.

360-Degree Evaluations are performed by nurses, social workers, nutritionists and any other staff who have significant contact with the fellow during their clinical duties in the hospital, clinics or dialysis units (these are completed every 6 months and reviewed by the Program Director).

Summary Competency Evaluations are performed every six months. Fellows meet with the Program Director to review evaluations and a written document is prepared. Furthermore, every three months the Program Director meets with all trainees to review program goals and to address any issues that may arise in the operation of the program. In this way, the program maintains a dynamic state that allows change to occur to meet the needs of trainees.

In-Service Examination: At the end of the first year of training, fellows take a mock board examination (in-service examination) to determine their level of knowledge acquisition during the first year of training. Results of the examination are used to focus their education on any deficiencies.

Nephrology Research Evaluation: In the second year, a nephrology research evaluation is reviewed with the fellows by the supervising mentor.

Fellows may be able to view their written evaluations at any time. Fellows will be advanced to positions on the basis of satisfactory progressive scholarship and professional growth. In the event of an adverse annual evaluation, fellows are offered the opportunity to address judgments of academic deficiencies or misconduct with the Division Chief or the head of the Graduate Medical Committee.

### **B. Evaluation Schedule**

Monthly: Consult Eval

Biannual: 360<sup>o</sup> Eval, Clinical Eval, Dialysis Eval, Competency Summary

Yearly: Research Eval, Inservice Eval

## C. Core Competencies in the Evaluation Process

### **Patient Care**

These refined abilities include: (a) obtaining appropriately directed medical histories that are precise, logical, thorough and reliable; (b) conducting expert, focused physical examinations that elicit subtle findings and are directed toward the patient's problems; and (c) demonstrating understanding and proficiency while minimizing risk and discomfort to patients in the performance of diagnostic and technical procedures.

Evaluation of key procedures include percutaneous renal biopsy of both autologous and transplanted kidneys, acute and chronic hemodialysis, peritoneal dialysis, continuous renal replacement therapy, and urinalysis. The evaluation will take into account the length of the fellow's training.

Specific elements include:

Medical Interviewing (history taking)

Physical Examination

Diagnostic Studies (selection, implementation)

Synthesis of clinical data, differential diagnosis

Develop management plan

Prescribe, perform essential procedures

Counsel patients, providing information needed to understand illness, prevent disease and specifically discuss issues relating to renal replacement therapy

Demonstrate clinical judgment

Provide care sensitive to culture, social circumstances

Use information technology to optimize care

Respect the patient's privacy and autonomy

### **Medical Knowledge**

This is defined as the specialized, current basic and clinical science knowledge necessary to function as an expert pediatric nephrologist. (This includes a broad base of knowledge of the pathogenesis, natural history and management of congenital and acquired diseases of the kidney and urinary tract; renal physiology; disorders of fluid, electrolyte and acid base regulation; normal and disordered mineral metabolism; acute and chronic renal failure; the management of patients receiving immuno-suppressive therapy; and the management and diagnosis of severe hypertension.

The pediatric nephrologist also must be proficient in the principles and applications of various forms of renal replacement therapy including the management and systems operations of hemodialysis, peritoneal dialysis and renal transplantation).

Medical knowledge is assessed on each rotation as well as in a yearly in-service examination that provides feedback both to the trainee as well as to the program regarding deficiencies in specific content issues.

**Practice-Based Learning and Improvement**

These are demonstrated skills that include: (a) the ability to self-evaluate and improve upon one's own performance, (b) incorporation of feedback into improvement, and (c) effective use technology to manage information for both patient care and self-improvement.

**Interpersonal and Communication Skills**

The Pediatric Nephrology Program emphasizes of the humanistic qualities of this component of clinical competence. This includes the ability establish highly effective, humanistic and therapeutic relationships with patients and families. This includes demonstration of listening to patients, narrative and non verbal skills, and education and counseling of patients, families, and colleagues. These issues are addressed in conferences dealing with difficult decision-making in Pediatric Nephrology.

**Professionalism**

This includes demonstrating respect, compassion, integrity, and honesty. It includes teaching and role modeling responsible behavior; commitment to self-assessment—where the fellow willingly acknowledges errors; consistently considers needs for patients, families and colleagues and the need to be the patient's primary care advocate.

**Systems-Based Learning**

This includes demonstration of effective access/utilization of outside resources, effective use of systematic approaches to reduce errors and improve patient care, and enthusiastic assistance in developing systems improvement.

**Moral and Ethical Behavior**

The high standard of ethical and moral behavior is evaluated as satisfactory or unsatisfactory. This implies the consistent demonstration of a high standard of moral and ethical behavior expected within the clinical setting and of the medical profession.

**Overall Clinical Competence as a Specialist in Pediatric Nephrology**

This represents the supervising attending physician's overall assessment of the degree to which the fellows possesses the knowledge, skills, and attitudes essential for certification by the American Board of Pediatrics also taking into context the amount of training. In the evaluation of these competencies there is an implicit commitment to scholarship: to maintain and update clinical skills throughout one's professional career, to acquire new knowledge through computer access and by reading the current medical literature, to participate in the design and conduct of clinical studies or related research, to attend scientific and clinical meetings for nephrologists and to evaluate critically the new medical scientific information relevant to the subspecialty.

**360 Degree Evaluation**

Fellows are evaluated by nursing, social worker, and nutrition staff every six months. Fellows are evaluated on patient care, medical knowledge, practice-based learning improvement, interpersonal and communication skills, professionalism and systems-based practice.

## 5. Evaluation of Faculty

Fellows complete a standardized evaluation form every month for supervising attendings involved in monthly rotations. The following aspects of teaching and faculty performance are evaluated:

### A. Relationship with Trainees, Supportive

- Was supportive
- Was approachable
- Was patient
- Was empathetic

### B. Feedback

- Provided effective feedback in a clear, timely, and specific manner
- No feedback to individuals from team
- Feedback presented in inappropriate, humiliating manner
- Gives specific and timely feedback on remediable problems
- Gives positive feedback when and where appropriate

### C. Teaching Skills, Autonomy: Provided an appropriate balance between independence and supervision

#### D. Teaching Skills, Bedside Teaching:

Skillfully demonstrated medical interview and physical diagnosis techniques at the bedside

#### E. Teaching Skills, Communication of Knowledge

- Effectively communicated medical knowledge in presentations
- Effectively communicated medical knowledge in articulation of clinical reasoning
- Too much information, no summary points or poor flow of case discussion
- Explains clearly, presents material in an organized manner, summarizes, emphasizes what is important and communicates what is expected to be learned

#### F. Teaching Skills, Expectations: Set clear expectations

#### G. Teaching Skills, Enthusiasm

- Was enthusiastic about teaching
- Teaching appeared an additional chore; rounds were passive and uninteresting
- Dynamic and energetic, enjoys teaching; has an interesting style of presentation that stimulates interest in the subject

#### H. Teaching Skills, Organization: Was organized for teaching

#### I. Teaching Skills, Problem Solving: Stimulated problem solving, asked effective questions

#### J. Role Modeling, Clinical Judgment: Served as a role model for clinical judgment

#### K. Role Modeling, Collegial Relationship

- Served as a role model for relationships with other health care professionals
- Team functioned poorly, poor communication, low morale
- Creates atmosphere which strengthens team work; goals of team clearly identified, encourages openness

**L. Role Modeling, Evidence-Based Medicine:** Served as a role model for use of medical evidence, e.g. from the medical literature

**M. Role Modeling, Patient Care Coordination:**

- Served as a role model for coordination of patient care; cost-effective use of health care systems
- Disregards input from health care team. Fails to use alternative sites of care.
- Uses resources of entire health care team. Demonstrates appropriate, effective communication.

**N. Role Modeling, Patient Relationships**

- Served as a role model for relationships with patients/families
- Lacked humanism and sensitivity with patients/families; did not value patient perspective
- Demonstrated effective and compassionate care in communications with patients and families

**O. Overall Teaching Skills**

- What suggestions would you give this teaching faculty member to improve his/her teaching?

**P. Lecture Skills**

- What suggestions would you give this teaching faculty member to improve his/her conference lectures?

**Q. Teaching Skills, Overall: Overall teaching effectiveness**

**R. Confidential Comments**

## **6. Evaluation of the Program**

At three month intervals, the program director meets with the fellows group to elicit feedback on the day-to-day operation of the fellowship program. Feedback on each rotation is elicited as well as feedback regarding each attending and their performance as a teacher. As much as possible, comments are acted upon to improve the performance of the program. In addition, the fellows' feedback is brought to the attention of the Division Chief to address any larger divisional issues.

Once a year, a detailed evaluation survey addressing the performance of the program is given to the fellows. Fellows who have graduated from the program are also asked to fill out a post-graduate effectiveness survey to determine if the program is adequately preparing fellows for practice. The program effectiveness is discussed every six months during the divisional meetings to evaluate the operation of the program and any needed changes.

## 7. Procedures: Teaching and Evaluation

Fellows use an electronic on-line database to log procedures for native and transplant renal biopsies. The supervising teaching faculty member evaluates the fellow's performance of the procedure. Performance is reviewed periodically to ensure competency and safety. The evaluation will take into account the length of the fellow's training.

Evaluation of key procedures includes:

- percutaneous renal biopsy of autologous and transplanted kidneys
- acute and chronic hemodialysis
- peritoneal dialysis
- continuous renal replacement therapy
- urinalysis

Satisfactory performance of percutaneous biopsy of autologous and a transplant kidney entails: knowledge of indications for the procedure, obtaining informed consent, performance of the procedure itself including minimizing patient discomfort, and interpretation of results of the biopsy

Satisfactory performance of acute and chronic dialysis entails:

knowledge of proper indications for hemodialysis, knowledge of first dialysis precautions, writing of dialysis orders which includes choosing dialysis filters, estimating dry weight and modification during special circumstances (immediate allograft dysfunction), choosing dialysate composition, understanding and treatment of complications, and modifying dialysis prescription for inadequate kinetics in chronic hemodialysis patients

Satisfactory performance of peritoneal dialysis entails:

knowledge of proper indications of peritoneal dialysis, writing orders for peritoneal dialysis which includes dialysis prescription (volume of dialysate, frequency of exchanges, and use of different hypertonic solutions), understanding and treatment of complications, and modifying dialysis prescription for inadequate kinetics in chronic peritoneal dialysis patients

Satisfactory performance of continuous renal replacement therapy entails:

knowledge of proper indications of continuous renal replacement therapy, writing orders for continuous renal replacement therapy (flow rate of dialysate, choosing ultrafiltration rate, choosing dialysate composition including the use of bicarbonate based solutions), understanding and treatment of complications, and modifying dialysis prescription for inadequate clearance in patients undergoing continuous renal replacement therapy

Satisfactory performance of urinalysis includes:

correct performance of urinalysis and interpretation of findings, and knowledge of limitations of interpretation as applied to patient care

## **8. Supervision of Fellows**

The program director coordinates all aspects of the nephrology fellows' education and training, including their supervision by faculty members. Fellows are provided with responsibilities consistent with their level of training. Every patient examined, and every procedure or test performed is either done under the direct supervision of a faculty member or is reviewed with a faculty member. Faculty members are directly responsible for ensuring that resident procedures are performed to the high standards set by the Program and that appropriate documentation is completed (including documentation for resident credentialing). Appropriate faculty supervision is provided during all educational experiences.

Specific mechanisms for proper supervision of fellows:

### **A. Clinical Training**

Nephrology fellows round and present clinical cases in teaching rounds, Pediatric Nephrology Continuity experience, and Dialysis Ambulatory experience and receive one-on-one instruction and feedback in history taking, physical examination and in-patient and outpatient management of pediatric nephrology patients. These case presentations may include review of clinical data, urinalysis, review of pathologic specimens, and imaging data. The teaching faculty members interview, examine and discuss assessment and plans with the pediatric nephrology fellows for all inpatient consultations, nephrology continuity clinic outpatients, and outpatient dialysis ambulatory patients. All inpatient consultations and follow up care, Pediatric Nephrology Outpatient Clinic visits, and Outpatient Dialysis patients are discussed and supervised by Pediatric Nephrology teaching faculty members. All outpatient supervision, whether in the Pediatric Nephrology Outpatient clinic or for Outpatient Dialysis Ambulatory experience is directly supervised with the attending present. During the inpatient Pediatric Nephrology rotations, the Nephrology fellow directs a team of residents, and medical students. The nephrology fellow is responsible for organization of rounds, assisting the attending physician with the education of the Pediatric residents and medical students, and supervising the Pediatric residents and medical students.

### **B. Procedural Supervision**

Procedures such as renal biopsy, urinalysis, hemodialysis and peritoneal dialysis procedures are directly supervised by attending physicians. At times, hemodialysis and peritoneal dialysis treatments may not be directly supervised. For example, an attending may not be present on site after hours. However in all cases, prior to the initiation of any procedure, the case, indications, risk and benefit for the procedure are fully discussed. At any time during the three year training period, attending physicians will be available to come in to the hospital to directly supervise any procedure. Fellows receive formal feedback on procedural competence as part of each post rotational evaluation. An on-line log of procedures or equivalent that nephrology fellows are credentialed to perform is maintained.

### **C. Research**

Throughout the course of any research project, Pediatric Nephrology fellows meet regularly with their faculty research mentor to report their progress and discuss the design and content of their projects. Every fellow research project is supervised by a faculty mentor who is available to discuss any issues that may arise. Residents also discuss their progress with other residents and other interested attending faculty at various research conference and clinical conferences. If a trainee is not making adequate progress, mentors are required to clearly communicate this information to the advisory committee with a written description of the problem. Mentors and advisory committee will work closely to determine why a problem exists and how it can

be remedied. Mentors will meet with the trainee to discuss these findings and develop a plan that will move the trainee back on track toward fulfilling these criteria. Trainees will also be required to evaluate the Nephrology Training Program and their mentor's effectiveness.

## 9. Educational Goals

It is the ultimate goal of the Nephrology Subspecialty Program to educate fellows toward Board certification through excellence in educational instruction and achievement of required performance skills through implementation of the ACGME Core Competencies:

### Patient Care (PC)

- 
- Communicate effectively and demonstrate caring and respectful behavior
- Gather essential and accurate information about their patients
- Make informed decisions about diagnostic and therapeutic interventions
- Develop and carry out patient management plans
- Counsel and educate patients and their families
- Use information technology to support patient care decisions and patient education
- Perform competently all medical and invasive procedures
- Provide healthcare services aimed at preventing and maintaining health
- Work with healthcare professionals to provide patient-focused care

### Medical Knowledge (MK)

- 
- Demonstrate knowledge about establishing and evolving biomedical, clinical and cognate sciences and how to apply them
- Demonstrate an investigatory and analytic thinking approach to clinical situations
- Know and apply the basic and clinically supportive sciences

### Practice-Based Learning and Improvement (PBL)

- 
- Analyze practice experience and perform practice-based improvement activities using a systematic methodology
- Locate, appraise and assimilate evidence from scientific studies
- Obtain and use information about their own population of patients and the larger population of patients  
In the University
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness
- Use information technology to manage information, access online medical information and support  
Their own education
- Facilitate the learning of students and other healthcare professionals

**Interpersonal and Communication Skills  
(ICS)**

- 
- Create and sustain a therapeutic and ethically sound relationship with patients
- Use effective listening skills as well as nonverbal clues
- Work effectively with others

**Professionalism  
(P)**

- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society; and a commitment to excellence
- Develop a commitment to ethical principles
- Demonstrate sensitivity and responsiveness to patients' culture, age, gender and disabilities

**Systems-Based Practice  
(SBP)**

- 
- Understand the greater effects of patient care and other professional practices
- Know how types of medical practice and delivery systems differ from one another
- Practice cost-effective healthcare and resource allocation that does not compromise quality of care
- Advocate for quality patient care and assist patients in dealing with system complexities
- Know how to partner with healthcare managers and healthcare providers to assess, coordinate, and improve healthcare and know how these activities can affect system performance

## Pediatric Nephrology Rotation Specific Goals and Objectives

### 10. Research – Introduction Rotation

Rotation Goal # 1. Become knowledgeable about research activities and options applicable to the field of pediatric nephrology and understand all aspects of research training available at the academic medical center				
	Rotation Objectives	Instructional Strategies	Evaluation Strategies	Competencies Addressed
1	Identify the major research activities of the faculty in the Pediatric Nephrology Division and in the academic center applicable to pediatric nephrology. (Acad, MK)	Meet with faculty in Division and with other. faculty recommended based on their research activities.(Acad, ICS)  Attendance and participation in all scheduled research meetings in division. (Acad)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by PD. (P, PBL, ICS)	MK= Medical Knowledge  ICS= Interpersonal and Communication Skills  P= Professionalism  PC= Patient Care  PBL= Practice Based Learning  SBP= Systems Based Practice  Acad= Academics
2	List the research training opportunities and scheduled presentations available to fellows in the academic medical center. (Acad)	Meet with research faculty and administration.  (ICS, Acad)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by PD. (P, PBL, ICS)	

3	<b>List at least 4 personal research options for involvement at the academic medical center. (Acad)</b>	Discussions with research faculty and PD. (Acad, ICS)	Immediate feedback from faculty Review of list by PD (P, ICS ) Total Global evaluation at end of rotation completed by PD (P, ICS, Acad)	X ICS X P X Acad
4	<b>Explain the ABP requirements for documentation and performance of research during fellowship training and the Scholarship Oversight Committee Process at the academic medical center. (Acad)</b>	Research ABP website and institution GME policies and procedures. (MK, Acad)	Immediate feedback from faculty Review of lists by PD (P, ICS) Total Global evaluation at end of rotation completed by PD (P, ICS, Acad)	X MK    X ICS X P X Acad
5	<b>Demonstrate the ability to utilize hospital electronic and print resources for information essential to research activities. (Acad, PBL,MK)</b>	Attend IS orientation and practice sessions. Meet library staff and explore library resources (Acad, ICS, MK)	Immediate feedback from faculty Total Global evaluation at end of rotation completed by PD (P, ICS, Acad)	X MK    X ICS X P X Acad

## 11. Research Rotation: Second Year

<b>Rotation Goal # 1. Become proficient in design, execution and dissemination (via oral and written methods) of clinical and/or basic science research applicable to the field of pediatric nephrology</b>					
	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>	
1	<b>Demonstrate ability to evaluate and develop research questions and hypotheses. (Acad)</b>	Work with research advisor. (ICS)  Attendance and participation in all scheduled research meetings in division. (Acad, MK)  Prepare appropriate literature reviews of selected topics. (Acad, MK)	Immediate feedback from faculty  (P, ICS)  Total Global evaluation at end of rotation completed by faculty  (P, ICS, Acad)	X MK	X ICS  X Acad
2	<b>Demonstrate ability to evaluate and design studies and analyze data to address specific aims. (Acad)</b>	Meet with research advisor and faculty. (ICS)  Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, MK)  Attend and present at Journal Club. (Acad, MK)	Immediate feedback from faculty  (P, ICS)  Total Global evaluation at end of rotation completed by faculty  (P, ICS, Acad)	X MK	X ICS  X Acad
3	<b>Become familiar with specific research techniques necessary to advance scientific investigations. (Acad)</b>	Meet with research advisor. (ICS, Acad)  Discussions with research faculty and PD. (Acad)  Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)	Immediate feedback from faculty  Review of list by PD  (P, ICS)  Total Global evaluation at end of rotation completed by faculty	X MK	X ICS  X Acad

			(P, ICS, Acad)	
4	<b>Demonstrate ability to evaluate and present scientific information orally and in writing.(Acad)</b>	<p>Meet with research advisor. (ICS, Acad)</p> <p>Discussions with research faculty and PD.</p> <p>Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)</p>	<p>Immediate feedback from faculty</p> <p>Review of presentations by PD</p> <p>(P, ICS)</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, ICS, Acad)</p> <p>Reviews of manuscripts (Acad)</p>	<p>X MK    X ICS</p> <p>X P      X Acad</p>
5	<b>Demonstrate ability to evaluate and write effective grants and proposal for scientific studies.(Acad)</b>	<p>Meet with research advisor. (ICS, Acad)</p> <p>Discussions with research faculty and PD.</p> <p>Review at least 5 successful grants.</p> <p>Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)</p>	<p>Immediate feedback from faculty</p> <p>(P, ICS)</p> <p>Reviews of grant proposals</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, ICS, Acad)</p> <p>Reviews of grants (Acad)</p>	<p>X MK    X ICS</p> <p>X P      X Acad</p>

6	<b>Demonstrate the ability to prepare a variety of instructional materials (oral, visual, small group, lecture, interactive and on-line) and effectively teach students, residents and colleagues. (Acad, MK, ICS)</b>	Meet with research advisor and faculty to develop presentations. (ICS, Acad)  Present at local venues. (ICS, Acad)	Immediate feedback from faculty (P, ICS)  Formal evaluations of presentations ( Acad, ICS)  Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad)  Feedback and presentation evaluations from external faculty and peers (Acad, ICS)	X MK    X ICS  X P    X Acad
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### 11. Research Rotation: Third Year

<b>Rotation Goal # 1. Become proficient in design, execution and dissemination (via oral and written methods) of clinical and/or basic science research applicable to the field of pediatric nephrology</b>				
	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
7	<b>Demonstrate mastery of specific research techniques necessary to advance scientific investigations. (Acad)</b>	Meet with research advisor. (ICS, Acad)  Discussions with research faculty and PD. (Acad)  Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)	Immediate feedback from faculty  Review of list by PD (P, ICS)  Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad)	X MK    X ICS  X P    X Acad

2	<b>Evaluate limitations of study design and identify potential pitfalls and solutions regarding data analysis</b>	Meet with research advisor. (ICS, Acad) Discussions with research faculty and PD. Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)	Immediate feedback from faculty Review of presentations by PD (P, ICS) Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad) Reviews of manuscripts (Acad)	X MK X ICS X P X Acad
3	<b>Interpret results regarding specific aims and formulate answers to research questions and hypotheses. (Acad)</b>	Meet with research advisor and faculty. (ICS) Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, MK) Attend and present at Journal Club. (Acad, MK)	Immediate feedback from faculty (P, ICS) Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad)	X MK X ICS X P X Acad
4	<b>Improve and refine scientific writing and oral presentation skills.(Acad)</b>	Meet with research advisor. (ICS, Acad) Discussions with research faculty and PD. Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)	Immediate feedback from faculty Review of presentations by PD (P, ICS) Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad) Reviews of manuscripts (Acad)	X MK X ICS X P X Acad

5	<p><b>Demonstrate ability to evaluate and write effective grants and proposal for scientific studies.(Acad)</b></p>	<p>Meet with research advisor. (ICS, Acad)</p> <p>Discussions with research faculty and PD.</p> <p>Review at least 5 successful grants.</p> <p>Present research proposal and/or progress report at local (lab and/or clinical research group) research meetings. (Acad, ICS, MK)</p>	<p>Immediate feedback from faculty (P, ICS)</p> <p>Reviews of grant proposals</p> <p>Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad)</p> <p>Reviews of grants (Acad)</p>	<p>X MK    X ICS</p> <p>X P     X Acad</p>
6	<p><b>Improve ability to prepare a variety of instructional materials (oral, visual, small group, lecture, interactive and on-line) and effectively teach students, residents and colleagues. (Acad, MK, ICS)</b></p>	<p>Meet with research advisor and faculty to develop presentations. (ICS, Acad)</p> <p>Present at resident and fellow teaching conferences (ICS, Acad)</p> <p>Present at multidisciplinary and interdivisional meetings (ICS,Acad)</p> <p>Present at local venues. (ICS, Acad)</p>	<p>Immediate feedback from faculty (P, ICS)</p> <p>Formal evaluations of presentations ( Acad, ICS)</p> <p>Total Global evaluation at end of rotation completed by faculty (P, ICS, Acad)</p> <p>Feedback and presentation evaluations from external faculty and peers (Acad, ICS)</p>	<p>X MK    X ICS</p> <p>X P     X Acad</p>

## 12. Pediatric Nephrology Ward Service Rotation – First Year Nephrology Fellow

**Rotation Goal 1: Understand the role and develop the ability as a pediatric nephrologist to assist pediatricians and other primary care providers to recognize and initiate management of patients with renal conditions who generally are referred to pediatric nephrology.**

	Rotation Objectives	Instructional Strategies	Evaluation Strategies	Competencies Addressed
1.1	<p><b>Define how to determine if the following signs and symptoms are caused by a renal disease and define the initial evaluation and management of:</b></p> <ol style="list-style-type: none"> <li>1. Elevated blood pressure (MK)</li> <li>2. Edema (MK)</li> <li>3. Hematuria (MK)</li> <li>4. Proteinuria (MK)</li> <li>5. Urinary frequency and/or dysuria (MK)</li> <li>6. Oliguria (MK)</li> <li>7. Polyuria and/or polydipsia (MK)</li> <li>8. Enuresis (MK)</li> <li>9. Unusual cravings for salt or potassium (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK, ICS)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC,PBL,SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty (P, PBL,ICS)</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PC, ICS, SBP, Acad)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>MK = Medical Knowledge</p> <p>ICS= Interpersonal and Communication Skills</p> <p>P= Professionalism</p> <p>PC= Patient Care</p> <p>PBL= Practice Based Learning</p>

	<ul style="list-style-type: none"> <li>10. Growth retardation (MK)</li> <li>11. Acidosis (MK)</li> <li>12. Unexpected fractures (MK)</li> <li>13. Nausea, poor appetite, weight loss, fatigue</li> <li>14. Vasculitic rashes (MK)</li> <li>15. Arthritis and arthralgia (MK)</li> <li>16. Abdominal pain (MK)</li> <li>17. Abdominal mass (MK)</li> </ul>			<p>SBP= Systems Based Practice</p> <p>Acad= Academics</p>
1.2	<p><b>Define the etiologies, pathophysiology, clinical characteristics, evaluation and management of common and uncommon renal conditions including:</b></p> <ul style="list-style-type: none"> <li>1. Hypertension, pre, Stage 1 or Stage 2</li> <li>2. Urinary tract infection, uncomplicated or complicated (MK)</li> <li>3. Vesicoureteral reflux, uncomplicated or complicated (MK)</li> <li>4. Nonspecific urethritis (MK)</li> <li>5. Enuresis, daytime and/or nighttime (MK)</li> <li>6. Urinary frequency without renal cause (MK)</li> <li>7. Obstructive uropathy (MK)</li> <li>8. Renal mass, cystic diseases, hydronephrosis, dysplasia (MK)</li> <li>9. Diabetes insipidus (MK)</li> <li>10. Dehydration (MK)</li> <li>11. Electrolyte disturbances (MK)</li> <li>12. Proteinuria, orthostatic, transient or persistent (MK)</li> <li>13. Hematuria with or without proteinuria (MK)</li> <li>14. Acute kidney injury (MK)</li> <li>15. Hemolytic uremic syndrome (MK)</li> <li>16. Chronic kidney disease (MK)</li> <li>17. Urolithiasis, nephrocalcinosis/hypercalciuria</li> <li>18. Tubular disorders, primary or secondary (MK)</li> <li>19. Glomerulonephritis (MK)</li> <li>20. Hereditary nephritis (MK)</li> </ul>	<p>Read and discuss information about suspected and established renal conditions. (MK, ICS)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC,PBL,SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL,ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Competency assessment for renal biopsy procedure (MK, PC, PBL, SBP)</p>	<p>MK = Medical Knowledge</p> <p>ICS= Interpersonal and Communication Skills</p> <p>P= Professionalism</p> <p>PC= Patient Care</p> <p>PBL= Practice Based Learning</p> <p>SBP= Systems Based Practice</p> <p>Acad= Academics</p>

	21. Interstitial nephritis (MK) 22. Nephrotic syndrome, primary and secondary (MK) 23. Henoch-Schonlein purpura (MK) 24. Autoimmune diseases with potential for renal involvement, e.g. SLE, Wegener, etc. (MK) 25. Systemic conditions with potential for renal involvement, e.g. sickle cell anemia/trait, bacteremia/sepsis, shock and severe dehydration, diabetes mellitus (MK) 26. Metabolic bone disorders (MK) 27. Renal tumors and tumor lysis syndrome (MK)			
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<b>Rotation Goal 2: Understand the pathophysiology and develop ability to manage fluid, electrolyte and acid-base problems in pediatrics.</b>				
	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
2.1	<b>Discuss the normal physiology and pathophysiology of body fluids (water) and electrolytes and methods to correct dehydration and water and electrolyte disorders. (MK)</b>	Read and discuss information about body fluids and electrolytes. (MK)  Assist in evaluation and management of children with suspected or established fluid and electrolyte conditions. (PC,PBL,SBP)	Immediate feedback from faculty (P, PBL,ICS)  Total Global evaluation at end of rotation completed by faculty (P, PBL,ICS)	X MK    X ICS X P     X PC X PBL   X SBP X Acad

		Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)	In-Training Examination (ITE) scores (MK)	
2.2	<b>Interpret acid base laboratory values and discuss the differential diagnosis of acidosis and alkalosis and describe the approach to diagnosis and treatment. (MK)</b>	<p>Read and discuss information about acid-base pathophysiology and disorders. (MK)</p> <p>Assist in evaluation and management of children with acid-base disorders. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P     X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>

**Rotation Goal 3: Develop ability to manage Chronic Kidney Disease in children. Understand the pathophysiology and management of chronic kidney disease in children.**

**Rotation Objectives**

**Instructional Strategies**

**Evaluation Strategies**

**Competencies Addressed**

3.1	<b>Discuss the stages and etiologies of CKD in children. (MK)</b>	<p>Read and discuss information about CKD in children. (MK)</p> <p>Assist in evaluation and management of children with CKD. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients.</p> <p>(ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>
3.2	<b>Discuss the pathophysiology responsible for the progression of chronic renal insufficiency in children with CKD and the management priorities and anticipatory issues related to the different stages of CKD in children. (MK)</b>	<p>Read and discuss information about CKD in children. (MK)</p> <p>Assist in evaluation and management of children with CKD. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients.</p> <p>(ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(ICS, P, SBP, Acad)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>
3.3	<b>Describe the issues relevant to preparation for renal replacement therapy for a child with CKD. (MK)</b>	<p>Read and discuss information about CKD in children. (MK)</p> <p>Assist in evaluation and management of children with CKD. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients.</p> <p>(ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>

**Rotation Goal 4: Develop ability to manage the applications of renal replacement therapies, including renal transplantation, for children with end stage renal disease.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
4.1	<b>Understand concepts and indications and demonstrate the ability to provide extracorporeal renal replacement therapies (RRT) (e.g. hemodialysis, peritoneal dialysis, continuous hemofiltration) for children. (MK)</b>	<p>Read and discuss information about RRT in children. (MK)</p> <p>Assist in evaluation and management of children with RRT. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients.</p> <p>(ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>
4.2	<b>Understand the concepts and indications and demonstrate the ability to assist in management of</b>	<p>Read and discuss information about RTx in children. (MK)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p>

	<b>renal transplantation (RTx) in children. (MK)</b>	Assist in evaluation and management of children with RTx. (PC, PBL, SBP)  Communicate with referring physicians and other physicians caring for patients.  (ICS, P, SBP, Acad)	) (P, PBL, ICS)  In-Training Examination (ITE) scores (MK)	X Acad
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### 13. Pediatric Nephrology Ward Service Rotation – Advanced or Second/Third Nephrology Fellow

**Rotation Goal 1: Function effectively as a consultant to pediatricians and other primary care providers in the inpatient and outpatient setting through appropriate recognition and initial management of patients with renal conditions who generally are referred to pediatric nephrology.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
1.	<p><b>Determine if the following signs and symptoms are caused by a renal disease and plan the initial evaluation and management of:</b></p> <ol style="list-style-type: none"> <li>1. Elevated blood pressure (MK)</li> <li>2. Edema (MK)</li> <li>3. Hematuria (MK)</li> <li>4. Proteinuria (MK)</li> <li>5. Urinary frequency and/or dysuria (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>MK = Medical Knowledge</p> <p>ICS= Interpersonal and Communication Skills</p> <p>P= Professionalism</p>

	<ul style="list-style-type: none"> <li>6.Oliguria (MK)</li> <li>7.Polyuria and/or polydipsia (MK)</li> <li>8.Enuresis (MK)</li> <li>9.Unusual cravings for salt or potassium (MK)</li> <li>10. Growth retardation (MK)</li> <li>11. Acidosis (MK)</li> <li>12. Unexpected fractures (MK)</li> <li>13. Nausea, poor appetite, weight loss, fatigue</li> <li>14. Vasculitic rashes (MK)</li> <li>15. Arthritis and arthralgia (MK)</li> <li>16. Abdominal pain (MK)</li> <li>17. Abdominal mass (MK)</li> </ul>			<p>PC= Patient Care</p> <p>PBL= Practice Based Learning</p> <p>SBP= Systems Based Practice</p> <p>Acad= Academics</p>
1.2	<p><b>Demonstrate ability to recognize, evaluate, and manage common and uncommon renal conditions in the clinical setting and know the associated etiologies, pathophysiology, and clinical characteristics. Of the following diagnoses:</b></p> <ul style="list-style-type: none"> <li>1. Hypertension, pre, Stage 1 or Stage 2 (MK)</li> <li>2. Urinary tract infection, uncomplicated or complicated (MK)</li> <li>3. Vesicoureteral reflux, uncomplicated or complicated (MK)</li> <li>4. Nonspecific urethritis (MK)</li> <li>5. Enuresis, daytime and/or nighttime (MK)</li> <li>6. Urinary frequency without renal cause (MK)</li> <li>7. Obstructive uropathy (MK)</li> <li>8. Renal mass, cystic diseases, hydronephrosis, dysplasia (MK)</li> <li>9. Diabetes insipidus (MK)</li> <li>10. Dehydration (MK)</li> <li>11. Electrolyte disturbances (MK)</li> <li>12. Proteinuria, orthostatic, transient or persistent (MK)</li> </ul>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>MK = Medical Knowledge</p> <p>ICS= Interpersonal and Communication Skills</p> <p>P= Professionalism</p> <p>PC= Patient Care</p> <p>PBL= Practice Based Learning</p> <p>SBP= Systems Based Practice</p> <p>Acad= Academics</p>

	13. Hematuria with or without proteinuria (MK) 14. Acute kidney injury (MK) 15. Hemolytic uremic syndrome (MK) 16. Chronic kidney disease (MK) 17. Urolithiasis, nephrocalcinosis/hypercalciuria 18. Tubular disorders, primary or secondary (MK) 19. Glomerulonephritis (MK) 20. Hereditary nephritis (MK) 21. Interstitial nephritis (MK) 22. Nephrotic syndrome, primary and secondary (MK) 23. Henoch-Schonlein purpura (MK) 24. Autoimmune diseases with potential for renal involvement, e.g. SLE, Wegener, etc. (MK) 25. Systemic conditions with potential for renal involvement, e.g. sickle cell anemia/trait, bacteremia/sepsis, shock and severe dehydration, diabetes mellitus (MK) 26. Metabolic bone disorders (MK) 27. Renal tumors and tumor lysis syndrome (MK)			
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**Rotation Goal 2: Further understand the pathophysiology of fluid, electrolyte and acid-base problems in pediatrics and demonstrate ability to determine urgency/emergency of these disorders and to appropriately triage to inpatient or intensive care setting.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
2.1	<b>Discuss the normal physiology and pathophysiology of body fluids (water) and electrolytes and methods to correct dehydration and water and electrolyte disorders. (MK)</b>	Read and discuss information about body fluids and electrolytes. (MK)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty	X MK    X ICS  X P    X PC  X PBL    X SBP

		Assist in evaluation and management of children with suspected or established fluid and electrolyte conditions. (PC, PBL, SBP)  Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)	(P, PBL, ICS)  In-Training Examination (ITE) scores (MK)	X Acad
2.2	<b>Interpret acid base laboratory values and discuss the differential diagnosis of acidosis and alkalosis and describe the approach to diagnosis and treatment. (MK)</b>	Read and discuss information about acid-base pathophysiology and disorders. (MK)  Assist in evaluation and management of children with acid-base disorders. (PC, PBL, SBP)  Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  In-Training Examination (ITE) scores (MK)	X MK X ICS  X P X PC  X PBL X SBP  X Acad

**Rotation Goal 3: Further ability to understand the pathophysiology of chronic kidney disease in children and become proficient in management of chronic kidney disease in children.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
3.1	<b>Discuss the stages and etiologies of CKD in children. (MK)</b>	Read and discuss information about CKD in children. (MK)  Assist in evaluation and management of children with CKD. (PC, PBL, SBP)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)	X MK X ICS  X P X PC  X PBL X SBP

		Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)	In-Training Examination (ITE) scores (MK)	X Acad
3.2	<b>Discuss the pathophysiology responsible for the progression of chronic renal insufficiency in children with CKD and the management priorities and anticipatory issues related to the different stages of CKD in children.</b>	<p>Read and discuss information about CKD in children. (MK)</p> <p>Assist in evaluation and management of children with CKD. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>
3.3	<b>Describe the issues relevant to preparation for renal replacement therapy for a child with CKD.</b>	<p>Read and discuss information about CKD in children. (MK)</p> <p>Assist in evaluation and management of children with CKD. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>

**Rotation Goal 4: Develop ability to manage the applications of renal replacement therapies, including renal transplantation, for children with end stage renal disease with increasing autonomy and self-directed learning.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
4.1	<b>Master concepts and indications and demonstrate the ability to provide extracorporeal renal replacement therapies (RRT) (e.g. hemodialysis, peritoneal dialysis, continuous hemofiltration) for children. (MK)</b>	<p>Read and discuss information about RRT in children. (MK)</p> <p>Assist in evaluation and management of children with RRT. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Competency assessment for initiation of chronic dialysis (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>

			Competency assessment for initiation of acute RTT (MK)	
4.2	<b>Master the concepts and indications and demonstrate the ability to plan the management of renal transplantation (RTx) in children. (MK)</b>	<p>Read and discuss information about RTx in children. (MK)</p> <p>Assist in evaluation and management of children with RTx. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>

<b>Rotation Goal 5: Develop ability to manage comprehensive care of children on dialysis and post renal transplantation.</b>				
	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
5.1	<b>Understand concepts of multidisciplinary care and lead comprehensive care team in management of children on chronic dialysis. (P, ICS,PC)</b>	<p>Read and discuss information about multidisciplinary care management for children on chronic dialysis. (PC)</p> <p>Assist in evaluation and management of children with children on chronic dialysis. (PC)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>Multisource evaluation from families and care team (P, PBL, ICS)</p>	<p>X ICS</p> <p>X P      X PC</p> <p>X PBL   X SBP</p> <p>X Acad</p>

5.2	<b>Understand concepts of multidisciplinary care and lead comprehensive care team in management of children with renal transplantation (RTx). (P, ICS,PC)</b>	<p>Read and discuss information about multidisciplinary care management for children with RTx. (PC)</p> <p>Assist in evaluation and management of children with RTx. (PC)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>Multisource evaluation from families and care team (P, PBL, ICS)</p>	<p>X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>

<b>Rotation Goal 6: Develop ability to conduct patient care and teaching rounds.</b>				
	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
6.1	<b>Understand methods and demonstrate ability to effectively conduct inpatient rounds and manage care of children with renal disorders. (PBL,PC, ICS, Acad)</b>	<p>Conduct inpatient rounds with faculty supervision. (PC, ICS, Acad)</p> <p>Communicate with referring physicians and other physicians caring for patients. (P, PC, ICS,SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P,PC, ICS)</p>	<p>X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>



**Rotation Goal 7: Develop ability to teach and lead education activities for students and residents participating in pediatric nephrology educational activities.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
7.1	<b>Demonstrate ability to effectively organize teaching materials for effective education of students, residents and colleagues. (Acad)</b>	Prepare educational materials with guidance from faculty and other educational sources.  (Acad)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P,PC, ICS)	X ICS  X P      X PC  X Acad
7.2	<b>Demonstrate effective teaching methods: orientation, objectives, feed forward, varying teaching styles, feedback and involvement of learners in self-education and demonstrate ability to effectively teach and provide leaning opportunities for students and trainees. (Acad)</b>	Teach via rounds and other opportunities.  Assist learners in mastering knowledge and skills in pediatric nephrology.  (Acad)	Immediate feedback from faculty and learners  Total Global evaluation at end of rotation completed by faculty and learners (P,PC, ICS)	X ICS  X P      X PC  X Acad

## 14. Pediatric Dialysis Rotation

**Rotation Goal: Understand and be able to apply the physiology and methods of renal replacement therapies for children with end stage renal disease.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>	
1	<b>Explain and understand the basic principles of extracorporeal renal replacement therapies (RRT) (e.g. hemodialysis, peritoneal dialysis, continuous hemofiltration) for children. (MK)</b>	Read and discuss principles underlying RRT in children. (MK)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)  Competency assessment of Pediatric RRT Medical Knowledge (MK)	X MK  X P	X ICS  X PBL
2	<b>Identify the indications for and application of extracorporeal renal replacement therapies (e.g. hemodialysis, peritoneal dialysis, continuous hemofiltration) for children with acute and chronic kidney failure. (MK)</b>	Read and discuss principles underlying RRT in children. (MK)  Assist in evaluation and management of RRT in children. (PC, PBL)	Immediate feedback from faculty and learners  Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)  Competency assessment for initiation of chronic dialysis (MK)	X MK  X P  X PBL	X ICS  X PC

			Competency assessment for initiation of acute RTT (MK) Multisource evaluation from families and care team (P, PC, ICS)	
3	<b>Identify and explain regulatory and business issues important in management of a pediatric dialysis unit (PBL, SBP)</b>	Read and discuss information about management of a pediatric dialysis unit. (MK) Assist in QI work and other management issues of a pediatric dialysis unit. (PBL, SBP)	Immediate feedback from faculty Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)	X ICS    X P X PBL    X SBP
4	<b>Demonstrate ability to develop and execute an appropriate business plan for a pediatric dialysis unit and comply with all local and national regulations for a pediatric dialysis unit (PBL, SBP)</b>	Read and discuss information about management of a pediatric dialysis unit. (MK) Assist in QI work and other management issues of a pediatric dialysis unit. (PBL, SBP)	Immediate feedback from faculty Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS) Competency assessment of Business of a Pediatric Dialysis Unit Medical Knowledge (PBL, SBP)	X MK    X ICS X P    X PBL X SBP

## 15. Pediatric Renal Transplantation Rotation

Rotation Goal: Understand and be able to apply the principles and methods of renal transplantation for children.

	Rotation Objectives	Instructional Strategies	Evaluation Strategies	Competencies Addressed	
-	<b>Explain and understand the basic principles of renal transplantation (RTx) for children. (MK)</b>	Read and discuss principles underlying RTx in children. ( MK)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  Competency assessment of Pediatric RTx Medical Knowledge  (MK)	X MK	X ICS
				X P	X PC
				X PBL	

			Multisource evaluation from families and care team  (P, PC, ICS)		
2	<b>Identify the indications for and application of RTx for children. (MK)</b>	Read and discuss principles underlying RTx in children. (MK)  Assist in evaluation and management of RTx in children. (PBL, SBP)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  Competency assessment for initiation of RTx therapy in a child  (MK, PC)	X MK X P X PBL	X ICS X PC X SBP
3	<b>Identify and explain all regulations, including all CMS regulations, important in management of a pediatric RTX program (PBL, SBP)</b>	Read and discuss information about management of a pediatric RTX program. (MK)  Assist in QI work and other management issues of a pediatric RTX program. (PBL, SBP)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  Management of a Pediatric RTX Program Medical Knowledge  (MK, PC)	X MK X P X PBL	X ICS X PC X SBP
4	<b>Demonstrate ability to develop and execute an appropriate business plan for a pediatric RTX program and comply with all local and national regulations for a pediatric dialysis unit (PBL, SBP)</b>	Read and discuss information about management of a pediatric RTX program.  Assist in QI work and other management issues of a pediatric RTX program. (PBL, SBP)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)	X MK X P X PBL	X ICS X PC X SBP

			Competency assessment of Management of a Pediatric RTx Program Medical Knowledge (MK, PC)	
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## 16. Pediatric Urology Rotation

**Rotation Goal: Understand the role and scope of practice of the pediatric urologist and the interaction of pediatric nephrologists and urologists in the care of children with urogenital disorders.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>
✓	<b>Identify the role and general scope of practice of the pediatric nephrologist and contrast that with that of the urologist.</b>  (MK)	Read and discuss principles underlying pediatric urologic care for children.  (MK)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)	X MK    X ICS  X P      X PBL

2	<p><b>Identify and demonstrate ability to manage urogenital disorders in children that require involvement of a pediatric nephrologist.</b> (MK)</p>	<p>Read and discuss principles underlying pediatric urologic care for children. (MK)</p> <p>Assist in evaluation and management of children with urologic conditions. (PC)</p>	<p>Immediate feedback from faculty and learners</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p>	<p>X MK    X ICS</p> <p>X P     X PC</p> <p>X PBL</p>
3	<p><b>Identify situations where children benefit from the skills of a pediatric urologist and demonstrate how a pediatric nephrologist effectively collaborates with a pediatric urologist in the care of children with urogenital and renal disease.</b> (MK)</p>	<p>Assist in coordination of care with a pediatric urologist in the care of children with urologic conditions. (PC)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p>	<p>X MK    X ICS</p> <p>X P     X PC</p> <p>X PBL</p>

## 17. Pediatric Renal Pathology Rotation

**Rotation Goal: Understand the principles and use of renal pathology to assist in the management of children with renal disorders.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>	
1	<p><b>Define the basic principles involved in renal pathology processing and assessment for children with renal disorders.</b></p> <p>(MK)</p>	<p>Read and discuss principles underlying pediatric pathology methods and assessment techniques for children.</p> <p>(MK)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>Competency assessment of Pediatric Renal Pathology Medical Knowledge (MK)</p>	X MK	X ICS
2	<p><b>Discuss the indications for and methods used to perform a renal biopsy to aid in the care of children with renal disorders.</b></p> <p>(MK)</p>	<p>Read and discuss the indications for and methods used to perform a renal biopsy in children.</p> <p>(MK)</p>	<p>Immediate feedback from faculty and learners</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p>	X MK	X ICS
				X P	X PBL

3	<b>Demonstrate the ability to interpret and assess renal pathology to aid in the care of children with renal disorders.</b> <b>(MK)</b>	Demonstrate ability to collaborate with a renal pathologist to interpret renal pathology and utilize renal pathology findings to assist in of care of children with renal disease.  (ICS, MK, PC)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)	X MK  X P  X PBL	X ICS  X PC

### 18. Pediatric Renal Radiology Rotation

**Rotation Goal: Understand the principles and use of pediatric radiology to assist in the management of children with renal disorders.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>	
1	<b>Define the basic principles involved in pediatric radiology and assessment for children with renal disorders.</b> <b>(MK)</b>	Read and discuss principles underlying pediatric radiology methods and assessment techniques for children.  (MK)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  Competency assessment of Pediatric Renal Pathology Medical Knowledge (MK)	X MK  X P	X ICS  X PBL

2	<p><b>Discuss the indications for and methods used to perform radiologic studies to aid in the care of children with renal disorders.</b></p> <p><b>(MK)</b></p>	<p>Read and discuss the indications for and methods used to perform radiologic studies in children.</p> <p>(MK)</p>	<p>Immediate feedback from faculty and learners</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p>	<p>X MK      X ICS</p> <p>X P        X PBL</p>
3	<p><b>Demonstrate the ability to interpret and assess pediatric radiology studies to aid in the care of children with renal disorders.</b></p> <p><b>(MK)</b></p>	<p>Demonstrate ability to collaborate with a pediatric radiologist to interpret radiologic studies and utilize findings to assist in of care of children with renal disease.</p> <p>(ICS, MK, PC)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p>	<p>X MK      X ICS</p> <p>X P        X PC</p> <p>X PBL</p>

## 19. Pediatric Renal Clinic/Office Practice: First Year

**Rotation Goal: Understand and be able to apply the principles of effective outpatient organization and delivery of care for children with suspected or known kidney disorders.**

	Rotation Objectives	Instructional Strategies	Evaluation Strategies	Competencies Addressed
-	<p><b>Define how to determine if the following signs and symptoms are caused by a renal disease and define the initial evaluation and management of:</b></p> <ol style="list-style-type: none"> <li>1. Elevated blood pressure (MK)</li> <li>2. Edema (MK)</li> <li>3. Hematuria (MK)</li> <li>4. Proteinuria (MK)</li> <li>5. Urinary frequency and/or dysuria (MK)</li> <li>6. Oliguria (MK)</li> <li>7. Polyuria and/or polydipsia (MK)</li> <li>8. Enuresis(MK)</li> <li>9. Unusual cravings for salt or potassium (MK)</li> <li>10. Growth retardation (MK)</li> <li>11. Acidosis (MK)</li> <li>12. Unexpected fractures (MK)</li> <li>13. Nausea, poor appetite, weight loss, fatigue</li> <li>14. Vasculitic rashes (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (p, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Multisource evaluation from families and care team (P, ICS, PC)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>

	<p>15. Arthritis and arthralgia (MK)  16. Abdominal pain (MK)  17. Abdominal mass (MK)</p>			
2	<p><b>Define the etiologies, pathophysiology, clinical characteristics, evaluation and management of common and uncommon renal conditions including:</b></p> <ol style="list-style-type: none"> <li>1. Hypertension, pre, Stage 1 or Stage 2 (MK)</li> <li>2. Urinary tract infection, uncomplicated or complicated (MK)</li> <li>3. Vesicoureteral reflux, uncomplicated or complicated (MK)</li> <li>4. Nonspecific urethritis (MK)</li> <li>5. Enuresis, daytime and/or nighttime (MK)</li> <li>6. Urinary frequency without renal cause (MK)</li> <li>7. Obstructive uropathy (MK)</li> <li>8. Renal mass, cystic diseases, hydronephrosis, dysplasia (MK)</li> <li>9. Diabetes insipidus (MK)</li> <li>10. Dehydration (MK)</li> <li>11. Electrolyte disturbances (MK)</li> <li>12. Proteinuria, orthostatic, transient or persistent (MK)</li> <li>13. Hematuria with or without proteinuria (MK)</li> <li>14. Acute kidney injury (MK)</li> <li>15. Hemolytic uremic syndrome (MK)</li> <li>16. Chronic kidney disease (MK)</li> <li>17. Urolithiasis, nephrocalcinosis/hypercalciuria</li> <li>18. Tubular disorders, primary or secondary</li> <li>19. Glomerulonephritis (MK)</li> <li>20. Hereditary nephritis (MK)</li> <li>21. Interstitial nephritis (MK)</li> <li>22. Nephrotic syndrome, primary and secondary (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Multisource evaluation from families and care team (P, ICS, PC)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>

	<p>23. Henoch-(MK)Schonlein purpura (MK)</p> <p>24. Autoimmune diseases with potential for renal involvement, e.g. SLE, Wegener, etc. (MK)</p> <p>25. Systemic conditions with potential for renal involvement, e.g. sickle cell anemia/trait, bacteremia/sepsis, shock and severe dehydration, diabetes mellitus (MK)</p> <p>26. Metabolic bone disorders (MK)</p> <p>27. Renal tumors and tumor lysis syndrome (MK)</p>			
3	<p><b>Begin to identify and regulatory and business management issues important in development and management of a pediatric renal clinic/office practice. (PBL, SBP)</b></p>	<p>Read and discuss information about organization and management of a pediatric renal clinic/office practice.</p> <p>(PBL, SBP)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>Pediatric Renal Coding and Billing Medical Knowledge (PBL, SBP)</p>	<p>X ICS    X P</p> <p>X PBL    X SBP</p>
4	<p><b>Participate in meetings regarding administrative duties and billing meetings and conferences Become educated with all local and national regulations. (PBL, SBP)</b></p>	<p>Read and discuss information about management of a pediatric renal clinic/office practice.</p> <p>Assist in QI work and other management issues of a pediatric renal clinic/office practice.</p> <p>(PBL, SBP)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>Competency assessment of Pediatric Renal Coding and Billing Medical Knowledge</p> <p>(PBL, SBP)</p>	<p>X ICS    X P</p> <p>X PBL    X SBP</p>

### 19. Pediatric Renal Clinic/Office Practice: Second/Third Year

Rotation Goal: Understand and be able to apply the principles of effective outpatient organization and delivery of care for children with suspected or known kidney disorders with increasing autonomy and self-directed learning.

Rotation Objectives

Instructional  
Strategies

Evaluation  
Strategies

Competencies  
Addressed

1	<p><b>Determine if the following signs and symptoms are caused by a renal disease and perform the initial evaluation and management of:</b></p> <ol style="list-style-type: none"> <li>1. Elevated blood pressure (MK)</li> <li>2. Edema (MK)</li> <li>3. Hematuria (MK)</li> <li>4. Proteinuria (MK)</li> <li>5. Urinary frequency and/or dysuria (MK)</li> <li>6. Polyuria (MK)</li> <li>7. Polyuria and/or polydipsia (MK)</li> <li>8. Enuresis (MK)</li> <li>9. Unusual cravings for salt or potassium (MK)</li> <li>10. Growth retardation (MK)</li> <li>11. Acidosis (MK)</li> <li>11. Unexpected fractures (MK)</li> <li>12. Nausea, poor appetite, weight loss, fatigue</li> <li>14. Vasculitic rashes (MK)</li> <li>15. Arthritis and arthralgia (MK)</li> <li>16. Abdominal pain (MK)</li> <li>17. Abdominal mass (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Multisource evaluation from families and care team (P, ICS, PC)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>
2	<p><b>Recognize common and uncommon renal conditions in the outpatient setting and incorporate the etiologies, pathophysiology and clinical characteristics into the diagnoses, evaluation and management of the following:</b></p> <ol style="list-style-type: none"> <li>1. Hypertension, pre, Stage 1 or Stage 2 (MK)</li> <li>2. Urinary tract infection, uncomplicated or complicated (MK)</li> <li>3. Vesicoureteral reflux, uncomplicated or complicated (MK)</li> <li>4. Nonspecific urethritis (MK)</li> <li>5. Enuresis, daytime and/or nighttime (MK)</li> <li>6. Urinary frequency without renal cause (MK)</li> <li>7. Obstructive uropathy (MK)</li> </ol>	<p>Read and discuss information about suspected and established renal conditions. (MK)</p> <p>Assist in evaluation and management of children with suspected or established renal conditions. (PC, PBL, SBP)</p> <p>Communicate with referring physicians and other physicians caring for patients. (ICS, P, SBP, Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>In-Training Examination (ITE) scores (MK)</p> <p>Multisource evaluation from families and care team (P, ICS, PC)</p>	<p>X MK    X ICS</p> <p>X P      X PC</p> <p>X PBL    X SBP</p> <p>X Acad</p>

	<p>8. Renal mass, cystic diseases, hydronephrosis, dysplasia (MK)  9. Diabetes insipidus (MK)  10. Dehydration (MK)  11. Electrolyte disturbances (MK)  12. Proteinuria, orthostatic, transient or persistent (MK)  13. Hematuria with or without proteinuria (MK)  14. Acute kidney injury (MK)  15. Hemolytic uremic syndrome (MK)  16. Chronic kidney disease (MK)  17. Urolithiasis, nephrocalcinosis/hypercalciuria  18. Tubular disorders, primary or secondary  19. Glomerulonephritis (MK)  20. Hereditary nephritis (MK)  21. Interstitial nephritis (MK)  22. Nephrotic syndrome, primary and secondary (MK)  23. Henoch-(MK)Schonlein purpura (MK)  24. Autoimmune diseases with potential for renal involvement, e.g. SLE, Wegener, etc. (MK)  25. Systemic conditions with potential for renal involvement, e.g. sickle cell anemia/trait, bacteremia/sepsis, shock and severe dehydration, diabetes mellitus (MK)  26. Metabolic bone disorders (MK)  27. Renal tumors and tumor lysis syndrome (MK)</p>			
3	<p><b>Identify and explain all regulatory and business management issues important in development and management of a pediatric renal clinic/office practice. (PBL, SBP)</b></p>	<p>Read and discuss information about organization and management of a pediatric renal clinic/office practice.  (PBL, SBP)</p>	<p>Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)</p>	<p>X ICS    X P  X PBL    X SBP</p>

			Pediatric Renal Coding and Billing Medical Knowledge (PBL, SBP)	
4	<b>Demonstrate ability to develop and execute an appropriate business plan for a pediatric renal clinic/office practice and comply with all local and national regulations. (PBL, SBP)</b>	Read and discuss information about management of a pediatric renal clinic/office practice.  Assist in QI work and other management issues of a pediatric renal clinic/office practice.  (PBL, SBP)	Immediate feedback from faculty  Total Global evaluation at end of rotation completed by faculty  (P, PBL, ICS)  Competency assessment of Pediatric Renal Coding and Billing Medical Knowledge  (PBL, SBP)	X ICS    X P  X PBL    X SBP

**20. Additional Objectives – may be added all or in part to any rotation**

**Rotation Goal: Display professional behaviors, communicate clearly and effectively, demonstrate commitment to continued learning and improvement, demonstrate effective teaching methods and display knowledge of public and health care systems that impact on patients and society's health.**

	<b>Rotation Objectives</b>	<b>Instructional Strategies</b>	<b>Evaluation Strategies</b>	<b>Competencies Addressed</b>	
1	<p><b>Display professional behaviors in all activities</b></p> <p>1. Ethics (P)</p>	<p>Read and discuss principles underlying professional behaviors and Code of Conduct for professionals in institution. (MK)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>Multisource evaluations</p> <p>(P, ICS, PC)</p>	X MK	X ICS
2	<p><b>Develop and display clear and effective communications (ICS)</b></p>	<p>Read and discuss principles underlying clear and effective communications. (MK, ICS)</p> <p>Utilize effective communication principles in writing (ICS)</p>	<p>Immediate feedback from faculty and learners</p> <p>Total Global evaluation at end of rotation completed by faculty</p> <p>(P, PBL, ICS)</p> <p>Multisource evaluations</p> <p>(P, ICS, PC)</p> <p>Competency assessments of written communications</p> <p>(P, ICS, PC)</p>	X MK	X ICS
				X P	X PC
				X PBL	X SBP
				X PBL	

3	<p><b>Demonstrate commitment to continued learning and improvement. (Acad, MK, P)</b></p> <ol style="list-style-type: none"> <li>Career development</li> <li>Team principles</li> <li>Leadership skills</li> </ol>	<p>Conduct effective searches of literature. (Acad)</p> <p>Read and demonstrate understanding of medical literature relevant to clinical situations (Acad)</p> <p>Identify gaps in knowledge and plans to address these gaps. (Acad)</p> <p>Construct effective Individualized Learning Plan. (Acad)</p> <p>Construct and implement an effective QI project in field. (Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>Formal evaluations of literature searches, EBM studies (MK, Acad)</p>	<p>X MK      X ICS</p> <p>X P        X PC</p> <p>X PBL     X Acad</p>
4	<p><b>Demonstrate effective teaching methods. (Acad)</b></p>	<p>Read and understand effective teaching methods. (Acad)</p> <p>Observe and evaluate effective teachers in a variety of settings. (Acad)</p> <p>Incorporate effective teaching methods into own teaching efforts. (Acad)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p> <p>Formal evaluations by learners, peers and faculty (P, PBL, ICS)</p>	<p>X ICS      X P</p> <p>X PBL     X Acad</p>
5	<p><b>Develop and demonstrate knowledge of public and health care systems that impact on patients and society's health (SBP)</b></p> <ol style="list-style-type: none"> <li>Epidemiology of kidney disease in region, USA and world</li> </ol>	<p>Read and discuss public health and systems issues. (SBP)</p> <p>Define relevant health care business principles in field. (SBP)</p>	<p>Immediate feedback from faculty</p> <p>Total Global evaluation at end of rotation completed by faculty (P, PBL, ICS)</p>	<p>X ICS      X P</p> <p>X PBL     X SBP</p>

	<ol style="list-style-type: none"> <li>2. Health care delivery systems</li> <li>3. Role of multidisciplinary teams in delivery of effective care</li> <li>4. Transition programs</li> <li>5. Cost-effective care</li> <li>6. Dialysis unit and ESRD care regulations</li> <li>7. CMS, UNOS and other regulatory agencies</li> </ol>	<p>Evaluate and incorporate effective documentation and coding methods into patient care. (SBP)</p>		
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## 21. Divisional Policies

### A. Academic due process and grievance policy

This policy adheres to and extends the Institutional Grievance Policy of the LSU Health Sciences Center Office of Graduate Medical Education. A grieved fellow should notify the Program Director, in writing, of the grievance. If the fellow's grievance is with the Program Director, the fellow should submit his/her grievance to the Director of the Pediatrics Residency Program. This notification should include all pertinent information and evidence which supports the grievance. The Program Director or his/her designee will set a mutually convenient time with the fellow to meet to discuss the complaint and to attempt to reach a satisfactory solution. When the complaint involves negative evaluations or questions of clinical competence, it will be referred to the Department of Pediatrics Competency Committee. If the complaint involves an unsatisfactory rating for Overall Clinical Competence, Patient Care, or Professionalism, or involves an action of probation, suspension, or dismissal, the Associate Dean of Graduate Medical Education will be notified. The resident will be notified of his/her due process and has the right to appeal this decision. The resident must follow the timeline set forth by the Office of Graduate Medical Education.

### B. Fellow moonlighting policy

Nephrology Fellows at the LSU/ Children's Hospital Pediatric Nephrology Fellowship Program may engage in professional activities outside the educational program (moonlighting) only with *prior written consent from the Program Director*

NOTE: An exchange visitor who holds a J visa may receive compensation only for activities that are part of the designated training program. An exchange visitor who engages in unauthorized employment shall be deemed to be in violation of his or her program status and is subject to termination as a participant in an exchange visitor program.

Even when permitted, Renal Fellows must not be **required** to engage in "moonlighting," because residency education is a full-time endeavor. The Program Director must ensure that moonlighting does not interfere with the ability of the Fellow to achieve the goals and objectives of the educational program. Moonlighting that occurs within the Fellowship Program and/or the sponsoring Institution or the non-hospital sponsor's primary clinical site(s), i.e., internal moonlighting must be counted toward the 80-hour weekly limit on duty hours. All Fellows engaged in moonlighting must be licensed for unsupervised medical practice in the state where the moonlighting occurs. It is the responsibility of the moonlighting Fellow and the Institutional hiring such a Fellow to moonlight to determine whether such licensure is in place, adequate liability coverage is provided and whether the Fellow has the appropriate training and skills to carry out assigned duties. The Fellow is responsible for obtaining malpractice insurance.

**C. Recruitment and applications**

The LSU/ Children's Hospital Pediatric Nephrology Fellowship Program accepts Fellowship applications through the ERAS internet based computer system: Fellowship candidates are required to have (by the time of starting Fellowship) graduated from a 3-year accredited Pediatrics Residency program. Candidates can be offered positions as soon as their applications and personal interviews with the LSU/Children's Hospital Nephrology Attending staff have been completed.

**D. Promotion**

First year Fellows are promoted to the second year after satisfactory completion of the first year. Non-renewal of a Fellow's contract for the second year can only occur in accordance with the steps required by the LSU Health Sciences Center/Children's Hospital Agreement (contract) and must include failure to improve during a probationary period of 60 days that has defined goals. Fellows that will not be offered contract renewal for the second year must be given 120 days notice before the expiration of present contract.

**E. Work environment**

The Fellowship complies with the RRC's "*Common Requirements for all Core and Subspecialty Programs*" for resident duty hours and the working environment . In addition: The Fellows are provided offices and desks at Children's' Hospital, and computers with high-speed internet access, PowerPoint software, and printers.

**F. Duty hours and on-call**

The Fellowship complies with the RRC's "*Common Requirements for all Core and Subspecialty Programs*" for resident duty hours and the working environment The Fellow on the Clinical Service is on call for the entire month, except for weekends which start 6:00 PM Fridays and last until 8:00 AM Mondays. Call is never "In-house" but Fellows are expected to return to the hospital to see appropriate consults and admissions. The on-call schedule including holidays is made by common agreement between the Fellows.

### **Duty hours**

- a. Duty hours are defined as all clinical and academic activities related to the residency program, i.e., patient care (both inpatient and out-patient), administrative duties related to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled academic activities such as conferences. Duty hours do not include reading and preparation time spent away from the duty site.
- b. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.
- c. Residents must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a four week period, inclusive of call. One day is defined as one continuous 24- hour period free from all clinical, educational, and administrative activities.
- d. A-10 hour time period for rest and personal activities must be provided between all daily duty periods, and after in-house call. If an on-call dialysis needs to be performed between the hours of 10pm and 8am, the attending nephrologist on call will come in to the hospital (unless some prior arrangement has been made which will provide 10 hours of rest during the latter part of the day).

### **On call activities**

The objective of on-call activities is to provide residents with continuity of patient care experiences throughout a 24 hour period. In-house call is defined as those duty hours beyond the normal work day when residents are required to be immediately available in the assigned institution.

- a. In-house call must occur no more frequently than every third night, averaged over a four-week period.
- b. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to 6 additional hours to participate in didactic activities, maintain continuity of medical and surgical care, transfer care of patients, or conduct out-patient continuity clinics.
- c. No new patients may be accepted after 24 hours of continuous duty except in outpatient continuity clinics. A new patient is defined as any patient for whom the resident has not previously provided care.
- d. At-home call (pager call) is defined as call taken from outside the assigned institution. The frequency of at-home call is not subject to the every third night limitation. However, at-home call must not be so frequent as to preclude rest and reasonable personal time for each resident. Residents taking at-home call must be provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period. When residents are called into the hospital from home, the hours residents spend in-house are counted toward the 80-hour limit. The program director and the faculty must monitor the demands of at-home call in their programs and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

### **G. Absence/Coverage**

Fellows need to arrange coverage if they are gone or unavailable during the time they are on active rotations. Any pre-arranged Fellow absences should be cleared with the appropriate Attending. A memo or email with the dates and covering Fellow must be circulated. The Fellow needs to make sure that the designated person is available and on-site. The Fellow covering the unavailable Fellow should let the other service's "charge" nurse know that they are covering and available.

### **H. Gifts to physicians from industry**

Many gifts given to physicians by companies in the pharmaceutical, device, and medical equipment industries serve an important and socially beneficial function. For example, companies have long provided funds for educational seminars and conferences. However, there has been growing concern about certain gifts from industry to physicians. Some gifts that reflect customary practices of industry may not be consistent with the Principles of Medical Ethics. To avoid the acceptance of inappropriate gifts, physicians should observe the following guidelines: Any gifts accepted by physicians individually should primarily entail a benefit to patients and should not be of substantial value. Accordingly, textbooks, modest meals, and other gifts are appropriate if they serve a genuine educational function. Cash payments should not be accepted. The use of drug samples for personal or family use is permissible as long as these practices do not interfere with patient access to drug samples. It would not be acceptable for non-retired physicians to request free pharmaceuticals for personal use or use by family members. Individual gifts of minimal value are permissible as long as the gifts are related to the physician's work (e.g., pens and notepads). The Council on Ethical and Judicial Affairs defines a legitimate "conference" or "meeting" as any activity, held at an appropriate location, where (a) the gathering is primarily dedicated, in both time and effort, to promoting objective scientific and educational activities and discourse (one or more educational presentation(s) should be the highlight of the gathering), and (b) the main incentive for bringing attendees together is to further their knowledge on the topic(s) being presented. An appropriate disclosure of financial support or conflict of interest should be made. Subsidies to underwrite the costs of continuing medical education conferences or professional meetings can contribute to the improvement of patient care and therefore are permissible. Since the giving of a subsidy directly to a physician by a company's representative may create a relationship that could influence the use of the company's products, any subsidy should be accepted by the conference's sponsor who in turn can use the money to reduce the conference's registration fee. Payments to defray the costs of a conference should not be accepted directly from the company by the physicians attending the conference. Subsidies from industry should not be accepted directly or indirectly to pay for the costs of travel, lodging, or other personal expenses of physicians attending conferences or meetings, nor should subsidies be accepted to compensate for the physicians' time. Subsidies for hospitality should not be accepted outside of modest meals or social events held as a part of a conference or meeting. It is appropriate for faculty at conferences or meetings to accept reasonable honoraria and to accept reimbursement for reasonable travel, lodging, and meal expenses. It is also appropriate for consultants who provide genuine services to receive reasonable compensation and to accept reimbursement for reasonable travel, lodging, and meal expenses. Token consulting or advisory arrangements cannot be used to justify the compensation of physicians for their time or their travel, lodging, and other out-of-pocket expenses. Scholarship or other special funds to permit medical students, residents, and fellows to attend carefully selected educational conferences may be permissible as long as the selection of students, residents, or fellows who will receive the funds is made by the academic or training institution. Carefully selected educational conferences are generally defined as the

major educational, scientific or policy-making meetings of national, regional or specialty medical associations. No gifts should be accepted if there are strings attached. For example, physicians should not accept a gift if they are given in relation to the physician's prescribing practices. In addition, when companies underwrite medical conferences or lectures other than their own, responsibility for and control over the selection of content, faculty, educational methods, and materials should belong to the organizers of the conferences or lectures. (II) Issued June 1992 based on the report, "Gifts to Physicians from Industry," adopted December 1990; (JAMA. 1991; 265: 501 and Food and Drug Law Journal.1992; 47: 445-458); Updated June 1996 and June 1998.

## **I. LEAVE**

Fellows are granted leave benefits as described in the LSUHSC House Officer Manual. There is no additional leave granted for personal time.

### **Job Interviews**

There is no allocated time for job interviews. Vacation leave is utilized for this activity. Absences for interviews should be taken during outpatient rotations. The program director must be notified of these absences. It is the responsibility of the fellow to arrange coverage.

### **Vacation leave**

Fellows are entitled to twenty-eight days including weekends per year. Vacation leave must be used during the calendar year.

### **Sick Leave**

Fellows are permitted fourteen days including weekends of paid sick leave per year that may not be accumulated into subsequent calendar years and may only be used for the illnesses of the Fellow.

### **Educational Leave**

Fellows are permitted five days including weekends of education leave per year to attend or present at medical meetings that may not be accumulated into subsequent calendar years.