

PEDIATRIC NEPHROLOGY CLINICAL ELECTIVE

Value of the Pediatric Nephrology Elective:

The practice of pediatric nephrology includes evaluation and care of infants, children and adolescents with acute and chronic kidney disease, fluid and electrolyte disorders and hypertension. Many problems that are common in the pediatric nephrology clinic are also commonly seen in a general pediatric practice, including hypertension (3-5% of all children), congenital anomalies of the urinary tract (0.5-1.5% of all pregnancies, 20-30% of identified anomalies), hematuria, proteinuria, voiding dysfunction and recurrent urinary tract infections. Acute kidney injury, electrolyte abnormalities and hypertension are common in hospitalized children and may occur in response to the use of medications and clinical scenarios that occur in many medical specialties.

Broad Goals:

- Residents completing the Pediatric Nephrology elective will:
 - expand their knowledge and skills regarding the evaluation and management of infants, children and adolescents presenting with signs and symptoms suggesting kidney disease in both the inpatient and outpatient settings.
 - have the opportunity to explore the field of pediatric nephrology, evaluating and caring for patients with a wide array of nephrologic, fluid and electrolyte, and hypertensive disorders

Objectives:

- Develop facility in the evaluation and management of common outpatient problems including asymptomatic hematuria and proteinuria, hypertension, prenatally identified hydronephrosis, voiding dysfunction and recurrent urinary tract infection
- Develop facility in the initial evaluation and management of common inpatient problems including acute renal failure, neonatal hypertension, medication-induced hypertension, and fluid and electrolyte problems including dehydration, hypernatremia, hyponatremia, hyperkalemia and hypokalemia.
- Discuss presentation and initial evaluation and management of nephrotic syndrome, acute glomerulonephritis, hemolytic uremic syndrome and elevated creatinine in kidney transplant patients
- Review modalities of renal replacement therapy, their indications and complications
- Participate in the care of infants, children and adolescents with a wide variety of acute and chronic nephrologic conditions and fluid and electrolyte problems
- Recognize nephrology conditions which require subspecialty referral/consultation in both inpatient and outpatient settings

Rotation Description:

The Pediatric Nephrology elective is open to pediatric and medicine-pediatric residents at all levels of training, and contains significant inpatient and outpatient experience. Residents on the elective will round on most days with the on-service attending and will participate in the care of all patients on the pediatric nephrology Ward C and consult services. Residents will also participate in 2-3 half-day Pediatric Nephrology outpatient clinics weekly. Residents are expected to research and prepare a discussion of a pertinent topic (chosen with the on-service attending) each week. The on-service attending will provide additional teaching sessions, and the residents will also participate in teaching sessions held with the Ward C team. Residents will participate in a number of divisional patient care sessions, which can include transplant lab review, dialysis team meetings, and outpatient review and will attend the monthly renal biopsy conference shared with the Internal Medicine-Nephrology division and our divisional journal club. As many residents choose a two week elective, participation in these experiences, many of which are on a monthly schedule, will be variable

Resident Expectations:

- See assigned patients on the Pediatric Nephrology Ward C and consult services daily prior to attending rounds, present the interval history, analysis and plan to the inpatient nephrology attending, and, for consult patients, write a daily note.
- Perform the initial visit for most new consult patients; if appropriate, share responsibility for initial H&P on Ward C nephrology patients with the Ward C team.

- Attend all Pediatric Nephrology outpatient clinics, perform initial patient histories and physicals; discuss and implement further plans with pediatric nephrology attending physicians in the clinic.
- Prepare one formal topic discussion weekly
- Attend patient care conferences and teaching sessions as described above
- Complete the Pediatric Nephrology pre-test and post-test in a timely fashion as assigned by the on-service attending. The pre-test and post-test are not open book tests.
- Identify knowledge gaps and make a practice of reading on a pediatric nephrology topic nightly
- Attend usual departmental conferences, including Pediatric Grand Rounds, Thursday afternoon lectures, noon case conferences, and continuity clinic.
- Participate in the supervision and education of medical students on the Pediatric Nephrology elective.

Reading/Resources:

- The Pediatric Nephrology elective does not have an assigned reading curriculum. Please see the information under “Expectations” regarding weekly topic discussion, nightly reading, and pre-test and post-test. You will be given a brief handout entitled “Pediatric Nephrology in Review” at your orientation, which can help guide your reading plans.
- The American Board of Pediatrics “Content List” for Pediatric Nephrology is available in the Residency folder on the server. Review of the list can help you identify learning areas on which to focus during the elective as well as throughout your residency

Individualized Curriculum:

- The patient population encountered and the overall objectives of the elective are well-suited both to residents entering primary care pediatrics and those who plan a subspecialty career. Assigned topic discussions can be tailored to individual resident learning goals and career plans. Although residents will generally be expected to attend all outpatient pediatric nephrology clinics, there may be some occasions when a resident with certain career goals might benefit from additional exposure to the inpatient service (for instance, for a future intensivist, institution of CVVH in conflict with clinic.)
- Residents on the pediatric nephrology elective should review the American Board of Pediatrics “Content List” for nephrology and identify personal learning goals for the rotation, and discuss those goals with the attending on service.
- Expectations for depth of knowledge base, patient management expertise and sophistication of topic presentations are adjusted for the training level of the participating resident.
- Residents completing the rotation in July may choose to attend Camp Kydnie as one week of their rotation (and should contact Dr. Kees-Folts if they are interested in that experience.)
- If 4 weeks of this elective are done during residency, this will count as a key elective.

Feedback and Evaluation:

- Residents can expect to receive weekly (Friday) verbal feedback from the inpatient attending (and should request feedback if a session hasn’t been scheduled)
- Formal (New Innovations, “Milestone”-based) evaluation will be completed individually by all Pediatric Nephrology attendings, as allowed by the degree of contact. In a 4 week elective, the resident will probably have worked with at least 2 attendings on the inpatient service, and with all attendings in the outpatient clinic
- Evaluation parameters will include
 - Knowledge base, problem-solving and patient management skills as demonstrated in patient care discussions (inpatient and outpatient), written notes, topic discussions and performance on the pre-test and post-test
 - Communication skills as demonstrated in discussions with patients and families in both the inpatient and outpatient settings
 - Attention to life-long learning as demonstrated during weekly topic reviews as well as evidence of ongoing reading on Pediatric Nephrology topics

Questions & Concerns:

- Please contact Veronica Clark, Pediatric Nephrology Administrative Assistant with any questions regarding the logistics of starting the rotation. (vclark@pennstatehealth.psu.edu; 531-5707)
- Dr. Kees-Folts is the rotation director; please feel free to contact her by email or pager with any questions or concerns or clarifications regarding this elective. (dkeesfolts@pennstatehealth.psu.edu; pager 0163)
- Any of the pediatric nephrology attendings are happy to speak with you during or before your elective to help answer questions
 - Debbi Kees-Folts, M.D. dkeesfolts@pennstatehealth.psu.edu
 - Michael Freeman, M.D. mfreeman3@pennstatehealth.psu.edu
 - Kathleen Altemose, M.D. kaltemose@pennstatehealth.psu.edu
 - Hannah Kim, M.D. hkim4@pennstatehealth.psu.edu (starting 7/1/2021; email address will be confirmed)

Logistics

First Day/Orientation Information:

- You can expect that you will meet with the on-service attending on the first morning of your rotation to be oriented to the inpatient service and expectations for the elective. You will be contacted by Ms. Clark during the week before your rotation with details; note that the Pediatric Nephrology offices are in the Academic Support Building (90 Hope Dr.)
- The initial orientation will include a review of current inpatients, schedules for inpatient rounds and outpatient clinics, and an overall review of the expectations and plan for your elective. You will receive a printed schedule.
- Please be prepared to discuss your goals for the rotation during your orientation
- You will be asked to complete the Pediatric Nephrology pre-test (and will complete a post-test at the conclusion of the rotation.)
- You should review your list of personal learning goals with the orienting attending, and continue to discuss your progress with all of the physicians whom you work with throughout the course of the rotation.

What is the schedule/who will you work with:

- Expect to be available for rotation responsibilities roughly between the hours of 7:30 and 5 p.m. on weekdays. There may be occasional later days, particularly on Mondays due to afternoon clinic
- There are no evening or weekend “call responsibilities” on this elective
- Outpatient clinics are held every Monday afternoon, every Friday morning and 1st and 3rd Thursday mornings. Clinics are listed under “Peds Neph Group” in Powerchart. Conflicts with outpatient clinic should be avoided whenever possible.
- There are no night or weekend responsibilities directly related to this elective, however residents may be needed to staff cross-covers on the weekends and occasionally during the week.
- The only general exceptions are Thursday afternoons, when time is protected for didactics, and your assigned continuity clinic afternoon. Other exceptions will be listed on the block docs that are sent out prior to the start of the rotation.
- Residents are expected to communicate with the attending early in the rotation if other time is going to be missed, such as for a doctor’s appointment.
- The inpatient pediatric nephrology attending is the primary “point person” for the rotation, providing orientation and additional teaching sessions. However, you will work with all of the pediatric nephrology attendings during outpatient clinic sessions
 - You can expect to be evaluated by all of the physicians with whom you work during the rotation
- It is generally ideal to limit the Pediatric Nephrology elective to one resident/block. There will sometimes also be a third or fourth year medical student on the rotation.