

Pediatric Endocrinology Clinical Elective

Elective rotation available for all Pediatric and Med-Peds residents

Value of the Rotation:

- Opportunity to have experience with many endocrine disorders which mostly are evaluated and followed in the clinic rather than in the hospital.
- Opportunity to understand how the out-patient education for new-onset diabetes patients and family is conducted in the clinic.
- To have experience with various type of insulin pumps and the initiation of pump therapy.
- To experience the endocrine stimulation tests

Broad Goals:

- To become familiar with the evaluation and treatment of children with common endocrine problems including growth failure, thyroid disorders (hyper- or hypothyroid, mass), adrenal insufficiency, Cushing syndrome, precocious or delayed puberty, disorders of sex development, hypopituitarism, parathyroid, mineral or bone disorders, and diabetes.

Objectives:

- Develop skills in the evaluation and management of common endocrine problems in children
- Understand the feedback of various endocrine systems, put the whole system into consideration, correctly interpret the hormonal data and identify the origin of the problems. Understand that a hormone level in the normal range may not be normal in some circumstances
- Be able to explain to patients and families regarding the reasons of initial screening for endocrine disorders
- Recognize possible endocrine problems and refer to pediatric endocrine clinic
- Be able to select appropriate stimulation tests or suppression tests to evaluate adrenal, growth hormone, puberty and glucose metabolism.
- Understand the urgency and provide prompt evaluation and tight control of congenital hypothyroidism
- Promptly evaluate disorders of sex development particularly congenital adrenal hyperplasia
- Describe the key components of the steroidogenesis and order appropriate hormones in the evaluation of adrenal functions
- Describe the process of sex development and use as a tool to analyze disorders of sex development
- To be able to manage a new-onset type 1 diabetes in the clinic, emergency department or hospital, and provide an initial outpatient diabetes education
- Understand the basic functions of a pump and be able to interpret the download data, and adjust insulin dosage and schedules.
- Understand the usefulness of continuous glucose monitors and interpret the data.
- Be able to evaluate and treat hypoglycemia in various ages
- Be able to evaluate and treat hyper- and hypocalcemia, osteoporosis, vitamin D deficiency, and hypoparathyroidism

Rotation Description

The pediatric endocrine elective is open to pediatric and medicine-pediatric residents at all levels of training, and contains most outpatient and some inpatient experience. Residents attend endocrine clinic every day, and is assigned to an attending each clinic according to the schedule which is designed to have equal clinic supervision under each attending. Residents may attend one session of new-onset type 1 diabetes education, pump initiation or instruction, and hormone stimulation tests. Residents may see inpatient consultation or follow-up outside clinic hours, or during a clinic session for special situations if the clinic attending agrees.

Expectations

- Meet with the Director of the Rotation to discuss personal goals for the rotation in the first 1-3 days of rotation
- Attend the endocrine and diabetes clinics in the morning and afternoon every day except continuity clinic, departmental Thursday afternoon lectures, and special occasions
- See patients in the clinic under the supervision of an attending per schedule
- Complete the charts of the patients seen by residents
- Follow the lab results and discuss with the attending and contact patients
- See inpatients for consultation or follow-up as available or needed
- Residents are expected to be in the hospital and available via page for consults and clinic from 8am-5pm, Monday - Friday.
- 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.
- 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.

Reading/Resources

- Some reading material will be provided to every resident at the beginning of the elective. Division clinic provide some endocrine text book for reference. On-line resource is available. Links to important articles and resources are sent to rotators prior to the first week of their rotation.

Individualized curriculum

- Residents with individual agenda or career plan may discuss with the director of the rotation for a modification of the focus or schedule. Interest in research or quality improvement projects may be discussed and arranged.
- Residents who complete a total of four weeks of Pediatric Endocrinology elective may use this as a "key" elective.

Feedback and evaluation

- The expectation and the goal or special interest will be discussed at the beginning of the elective. Feedback will be discussed in the middle and at the end of the elective.

Questions & Concerns:

- Please contact Natalie Allen, MD (nallen4@pennstatehealth.psu.edu) or Lydia Hibshman (lhshman@pennstatehealth.psu.edu) with any questions, concerns or clarifications regarding this elective.

Logistics

First day/orientation information

- Residents email to the division secretary Lydia at lhibshman@pennstatehealth.psu.edu a few days in advance to confirm their elective, and provide their elective days, continuity clinic, vacations and other duties. Lydia will send residents a package by email. Residents report to clinic in the morning of the first day and will plan to meet with the director of the rotation in the first 1-3 days of the rotation.

What is the schedule/who will you work with?

The division has 7 faculty members:

Dan Hale, MD (Division Chief)

Kanthi Bangalore Krishna, MD

Natalie Allen, MD

Lina Huerta-Saenz, MD

Peter Lee, MD, PhD

Neha Patel, MD

Raul Ramirez Acevedo, MD

Rotators will also work with many other team members during their elective including Diabetes Educators, a Social Worker, and Dietitians.

Usually there are two attending in each half-day clinic session. The residents are sometimes assigned to our outreach clinics depending upon number of rotators and clinics available.