

PEDIATRIC ENDOCRINE FELLOWS' CONTINUITY CLINIC – YEARS 1, 2, 3.

Beginning in the first year, and continuing throughout the fellowship training, the fellows will attend this clinic. In this clinic, they will evaluate patients referred to them. They will follow these patients longitudinally, as well as following patients first evaluated as inpatients. The fellow will be identified to the patients and their parents as the child's pediatric endocrinologist – the fellow will see these patients each time they return for follow up. This clinic provides the continuity experience required for the fellow to learn longitudinal management of pediatric endocrine disorders.

Two clinics per month will be for general pediatric endocrine disorders. Two clinics per month will be dedicated to evaluating and managing children with diabetes and with metabolic bone disease. Children with diabetes will be managed in concert with the diabetes nurse educator and a nutritionist as part of a comprehensive diabetes clinic. Clinical issues that arise between clinic visits for a fellow's continuity patients will be addressed by the fellow (rather than, for example, the diabetes nurse educator.)

Goals and Objectives and Educational Strategies

These are the same as the relevant goals and objectives from the **JOHNS HOPKINS HOSPITAL INPATIENT AND OUTPATIENT PEDIATRIC ENDOCRINOLOGY** clinical activity, and include aspects of *medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice*. It is expected that the fellow's independence regarding management of their patients in the continuity clinic will increase as the fellow progresses from year 1 to year 2 to year 3. This includes both the encounters in clinic, as well as issues arising between clinic visits. (Appropriate review and supervision is to be maintained through the training period.)

Evaluation Strategies

In addition to the formal evaluation processes outlined above, faculty assigned to supervise the fellows' continuity clinic provide feedback to the fellows and to the program director on an ongoing basis.

Supervision

Faculty attend the fellows' continuity clinic to review the clinical care provided by the fellow. Faculty are also available for patient management discussions as they arise outside of clinic. During the course of the fellowship, it is expected that the fellows will assume increasing independence for the management of their patients followed in the continuity clinic.

RESEARCH – YEARS 2 AND 3.

The emphasis of the second and third years of fellowship is on the trainee's research experience, establishing a foundation on which to continue a career in medical investigation, as well as on which to evaluate published research.

Goals and Objectives

- Intensive laboratory-based research experience
 - Participate in the design, conduct, evaluation, and preparation for publication of a laboratory research project
- Understand the requirements for performance of research in a scientifically sound manner
- Be knowledgeable in the ethics of the performance and presentation of research
- Be able to critically review the published scientific literature
- Presentation of an abstract at a national meeting (years 2 and/or 3)
- First author publication of the fellow's research project (year 3)
- Preparation of an application for external grant support (year 2 and/or 3)
 - Possible sources include Lawson Wilkins Society Fellowship Awards, NIH individual NRSA, NIH K08 Awards, Endocrine Fellows Foundation Awards, etc.

Educational Strategies

- Direction by research mentor
 - Frequent presentation of research progress to research mentor
- Weekly research conferences
 - Presentations by faculties and fellows with discussions and critiques of research techniques and approach.
 - Presentation at 2 or more pediatric endocrine research conferences per year
- On-line training modules
 - Animal care and use
 - Conflict of interest and commitment
 - Privacy issues relating to research
 - Preparing the research privacy authorization form
- Course on Research Ethics (C.O.R.E.)
- JHU course on Biomedical communication (grant writing; writing a research paper; giving a research talk; communicating to get the job)
- Perform review of submitted research manuscripts – appropriate manuscripts will be given to the fellow by the fellow's research mentor or other program faculty. The fellow will be given guidance in how to review the manuscript, and after completing their critique, the faculty member will discuss the fellow's critique along with their own critique.

Evaluation Strategies and Supervision

- The research mentor will meet regularly with the fellow to review research progress.
- The fellow's Scholarship Oversight Committee will meet twice a year with the fellow to review and advise the fellow regarding progress. A written summary will be prepared based on this meeting.
- The program director will review the research progress of the fellow during the semi-annual review meetings with the fellow.

JOHNS HOPKINS HOSPITAL INPATIENT AND OUTPATIENT PEDIATRIC ENDOCRINOLOGY – YEARS 2 AND 3

During the second and third years, the fellow will spend less time in clinical experience as the bulk of the effort in these years is focused on the fellow's research training. However, the fellow will have sufficient clinical exposure during these years to solidify their clinical expertise. In addition, it is expected that their autonomy with patient evaluation and management will increase during this time (with continued supervision by faculty.)

The goals and objectives, educational strategies, evaluation strategies, and supervision remain the same as outline above for this activity for the first year of fellowship, with the addition noted below.

Goals and Objectives

Patient Care

- The fellow will demonstrate increasing independence and autonomy with the evaluation and management of children referred for evaluation by pediatric endocrinology
 - By the end of the first year of training the fellow will be capable of independently evaluating and developing a management plan for patients that they see. While all clinical care will be under the supervision of the teaching staff, it is expected that by the end of the first year, the fellow will take primary responsibility for presenting the diagnosis, prognosis, and treatment plan to the patient and their family for patients seen by the trainee in their continuity clinic.
 - By the end of the first year of training, the fellow will be expected to be able to supervise the evaluation and development of a treatment plan by medical students and pediatric residents who participate in the outpatient pediatric endocrine clinics. In addition, the subspecialty residents will be expected to develop the skills necessary to supervise and direct the pediatric residents caring for pediatric inpatients. (While the trainees will be expected to achieve and demonstrate these skills, the teaching staff will continue to have direct oversight of all clinical care provided by the trainees.)

DIDACTIC LECTURES – YEARS 2 AND 3

Educational Strategies

Teaching Skills

- During each year, the fellow will present at least 4 (2nd year) or 6 (3rd year) of the weekly pediatric endocrine clerkship/rotation didactic session. These are presentations on pediatric endocrine topics presented to the medical students and residents rotating with pediatric endocrinology. (*Medical knowledge, practice-based learning and improvement, interpersonal and communication skills, systems-based practice*)

Evaluation Strategies

Of Trainee

- The didactic sessions presented by the fellows to the rotating medical students and residents will be attended by the on-call faculty member. Afterward, the faculty member will provide informal feedback on the session, including the demonstration of medical knowledge, as well as regarding teaching technique. A written comment regarding the session will be maintained in the trainee's educational file.

○ **DIDACTIC LECTURES – YEARS 2 AND 3**

The following seminars will be attended by each fellow during the second or third year of training:

Biomedical Communications Workshop – given by the JHMI Professional Development Office:

- Grant Writing
- Writing a research paper
- Giving a research talk
- Communicating to get the job

Course on Research Ethics (C.O.R.E.) – given by the JHUSOM. Course objectives: following the program the participants should be able to:

- Describe the context for the development of research ethics at the national and local levels
- Recognize aspects of study design that can be ethically problematic including subject selection, research-related risks, conflicts of interest, and use of vulnerable populations
- Describe the key concepts of informed consent including respect for autonomy, voluntariness, decision-making capacity, disclosure of information, and understanding
- Describe methods of protecting privacy and confidentiality in the context of human subjects research
- Recognize the key concepts in the responsible conduct of research, including data acquisition and management, mentor/trainee responsibilities, publication practices and authorship standards, conflicts of interest and commitment, and scientific misconduct

The program includes the following sessions:

- *Research ethics*
- *Protocol development and design*
- *Informed consent and human subjects protection*
- *Scientific integrity and mentorship*
- *Responsible conduct of research*
- *Conflicts of interest and commitment*
- *Data acquisition, management, sharing and ownership*
- *Publication, authorship, and peer review*
- *Animal research ethics*