



Department of Pediatrics

The Department of Pediatrics offers several electives for medical students. The senior medical student elective offers an opportunity to broaden and deepen the exposure to the different facets of pediatrics. Subspecialty as well as general pediatric electives are available. Fourth-year students are offered more autonomy and independence in accordance with their abilities. Each elective is four weeks in duration and student performance is measured by a faculty evaluation with an assigned grade of satisfactory or failure.

The department's involvement in community service is part of a NUMC's belief in the importance of promoting health, wellness, and education in Nassau County. Our new ambulatory facility was specifically designed to meet the needs of women and their children. Besides serving as an active general pediatric practice, the center is a major teaching facility for medical students and residents in Nassau County. Our medical students receive a thorough and well-rounded background in the medical care of infants, children, and adolescents.

Our goals are to educate medical students about the unique physiology, pathophysiology, social, and health care needs of children and their families. The Department of Pediatrics hopes this will be an enjoyable and educationally valuable experience for all students.

We offer electives in the following specialties:

- Sub-Internship in Pediatrics
- Sub-Internship in Neonatology
- Allergy & Immunology
- Pediatric Hematology/Oncology
- Pediatric Infectious Disease

The following description is a general guideline for the elective. You and your preceptor will arrange details. Please recognize that your elective is enhanced by your planning and preparation before the month and finishing touches after the month. If you have any questions, please contact us. We will be happy to assist you.

PEDIATRIC ALLERGY & IMMUNOLOGY ELECTIVE

Course Director: Rose Marie Young, MD

Duration: 4 Weeks

GOALS

To acquaint the student with the evaluation, work-up, and treatment of children presenting with various allergic and immunologic disorders.

CLINICAL EXPERIENCE

Participation in the inpatient and outpatient evaluation

and consultation of all children referred to the service; the medical student will work closely with the pediatric resident, and the findings will be discussed with the attending physician.

EDUCATIONAL OBJECTIVES

The medical student will become familiar with the appropriate techniques used in allergy and immunology practice for the evaluation, history and physical examination of the patient. After a careful and thorough history, and physical examination, the student will be expected to develop a cogent differential diagnosis and appropriate work-up; this will be presented to the attending physician for discussion.

All of the appropriate laboratory testing and allergy testing used in the work-up of the patient will be discussed. Medical students will participate in the continuity care of the patient with an allergy or immunologic disorder.

EVALUATION METHOD

Clinical observation and case presentation will be completed by course director and senior residents.

DIDACTIC EXPERIENCE

Formal didactic/teaching sessions with the attending physician are held on a regular basis. The curriculum will include the following topics: Anaphylaxis, Angioedema, Urticaria, Allergic Rhinitis, Conjunctivitis, Asthma, Atopic Dermatitis, Drug Allergy, Food Allergy, and Immuno-deficiency. Allergy: Shot administration and skin testing, Medication delivery and pulmonary function testing.

SUGGESTED READING

Nelson Textbook of Pediatrics e-dition: Text with Continually Updated Online Reference (Nelson Textbook of Pediatrics (Bherman)) by Robert M. Kliegman, Richard E. Behrman, Hal B. Jenson, and Bonita F. Stanton.

Text

1. *Allergy, Principles and Practices*. Edited by Middleton, Reed, Ellis et al.
2. *Immunological Diseases*. Edited by Samter, Talmage, Frank et al.

Journals

1. *JAMA: Primer on Allergic and Immunologic Diseases* (yearly or every other year).
2. *Allergy and Asthma Proceedings: Vol. 25, 4 July-Aug. 2004 Supplement 1*.
3. *Northwestern Univ. Allergy-Immunology Syllabus: Residents and Students*
4. *JACI – Journal of Allergy and Clinical Immunology* (official journal of the American Academy of Allergy, Asthma and Immunology).
5. *Annals of Allergy, Asthma and Immunology* (official journal of the American College of Allergy, Asthma and Immunology).

PEDIATRIC INFECTIOUS DISEASE ELECTIVE

Course Director: Brinda Doraiswamy, MD
Duration: 4 Weeks

GOALS

To acquaint the student with the evaluation, work-up and treatment of children presenting with various infectious diseases.

EDUCATIONAL OBJECTIVES

The student becomes part of the team in the Division of Infectious Diseases. Objectives for the elective include: to further the development of the thoughtful and organized approach to patients with complaints related to infectious diseases; to gain familiarity with the clinical presentation, etiologic agents, diagnostic studies, and management of patients with serious bacterial and viral infections; to learn the antimicrobial spectrum of activity, indications for usage, and adverse effects of, commonly used antibiotics; to interpret antibiotic susceptibility data provided by the Microbiology Laboratory.

CLINICAL EXPERIENCE

1. The student will participate in the inpatient and outpatient evaluation and consultation of all children referred to the service. The medical student will work closely with the pediatric resident, and the findings will be discussed with the attending physician.
2. The medical student will become familiar with the appropriate techniques used in infectious disease practice for the evaluation, history and physical examination of the patient. After a careful and thorough history and physical examination, the student will be expected to develop a cogent differential diagnosis and appropriate work-up; this will be presented to the attending physician for discussion.
3. All of the appropriate laboratory testing used in the work-up of the patient will be discussed. This will include: the proper evaluation of a CBC, ESR, Lyme titers, viral and bacterial cultures, and many other laboratory tests will be reviewed and discussed as indicated.
4. Participation in the continuity care of the patient with an infectious disease.

DIDACTIC EXPERIENCE

Formal didactic/teaching sessions with the attending physicians are held on a regular basis. Topics include:

- Prevention
- Counseling and screening of infectious disease
- Normal and pathologic states related to infectious disease
- Evaluate, treat, and/or refer patients with presenting signs and symptoms that may indicate an infectious disease process
- Common conditions not referred (ex: common cold, pharyngitis, otitis media and externa, sinusitis etc.)
- Conditions Generally Referred (mastoiditis, peritonsillar, retropharyngeal, dental abscesses, epiglottitis, bacte-

- rial tracheitis, bacteremia, UTI, sepsis, meningitis etc.)
- Human Immunodeficiency Virus (HIV), antibiotic usage in managing infections in children
- Immunizations vaccines to prevent common childhood diseases

EVALUATION METHOD

Clinical observation will be completed mainly by the course director.

RECOMMENDED READING

RED BOOK, 2006 Report by the AAP Committee on Infectious Diseases

Behrman R, Kleigman, RM & Arvin A.M. (Editors), *Nelson Textbook of Pediatrics*, Philadelphia, WB Saunders. The major authoritative textbook reference in pediatrics.

PEDIATRIC SUB-INTERNSHIP ELECTIVE

Course Director: Jacob Rosenberg, MD
Duration: 4 Weeks

GOALS

To develop competence in the fundamentals of pediatrics and to expose the student to the diagnosis and management of a variety of illnesses in the pediatric patient on the general pediatric ward.

EDUCATIONAL OBJECTIVES

The sub-intern will function as part of the house staff team and will manage assigned cases under the supervision of pediatric residents and pediatric faculty and will be assigned overnight call every fourth night. The sub-intern should participate actively in a wide range of diagnostic evaluations, patient management, and pediatric procedures. The sub-intern should acquire knowledge and skill in each of these areas, along with knowledge and skill in discharge planning, ambulatory, and other follow-up care for a wide range of general pediatric problems.

CLINICAL EXPERIENCE

By the completion of this rotation the medical student will:

- A. Develop the ability to gather, organize and record data, integrate data and interpret it, under the supervision of experiences team members.
- b. Develop the professional characteristics of responsibility, thoroughness, reliability, and compassion. The sub-intern should also acquire the professional abilities of analytical reasoning, physical examination, and procedural skills. A sub-intern should strive to develop independent learning.
- C. responsible for a panel of patients similar to that of pediatric first- year residents and will become an integral member of the pediatric house staff team. A log of patients seen during the sub-internship must be presented to the site director at the completion of the sub-internship.

D. Topics covered during the rotation will include, but not be limited to:

- Anticipatory Guidance
- Behavioral and Preventive Pediatrics
- Growth and Development
- Nutrition
- Newborn
- Adolescence
- Child Abuse
- Acutely Ill Child
- Genetic Disorders
- Infectious Diseases
- Neurologic
- Nephrology Cardiovascular
- Allergy and Immunology
- Dermatology
- Endocrine and Genetic Disorders
- Gastrointestinal Tract
- Hematology/Oncology
- Orthopedics
- Pharmacology and Toxicology
- Respiratory Tract
- Rheumatic Diseases

RECOMMENDED READING (use most current edition)

Behrman R, Kleigman, RM & Arvin A.M. (Editors), *Nelson Textbook of Pediatrics*, Philadelphia, WB Saunders.

Pediatrics. Edited by A Rudolph A.

Principles and Practice of Pediatrics. Edited by F.A. Oski, C.D. DeAngelis, R.D. Feigin, J.A. McMillan, & J.B. Warshaw.

EVALUATION METHODS

Clinical observation and case presentation evaluations will be completed by course director and senior residents.

PEDIATRIC HEMATOLOGY & ONCOLOGY ELECTIVE

Course Director: Dominick Sabatino, MD

Duration: 4 Weeks

GOALS

To acquaint the student with the evaluation, work-up and treatment of children presenting with hematologic and/or oncologic disorders.

EDUCATIONAL OBJECTIVE

Open to one student, this four-week elective provides direct involvement in the many aspects of caring for children and adolescents with cancer and chronic hematologic disorders. This involves the management of complex medical problems and the challenge of supporting family members who are dealing with their child's diagnosis. The student will also participate in the management and diagnosis of children and adolescents with acute hematologic problems. The student will be an

active member of the clinical pediatric hematology/oncology team and will be involved in their daily activities.

CLINICAL EXPERIENCE

1. Participation in the inpatient and outpatient evaluation and consultation of all children referred to the service; the medical student will work closely with the pediatric resident, and the findings will be discussed with the attending physician
2. The medical student will become familiar with the appropriate techniques used in hem-onc for the evaluation, history and physical examination of the patient. After a careful and thorough history and physical examination, the student will be expected to develop a cogent differential diagnosis and appropriate work-up; this will be presented to the attending physician for discussion
3. All of the appropriate laboratory testing used in the work-up of the patient will be discussed. This will include: the proper evaluation of a CBC and examination of a peripheral smear, common testing used for the evaluation of a bleeding disorder, hemoglobin electrophoresis, evaluation of immune hemolytic disease and disorders, as well as the laboratory evaluation of the anemic patient. Other laboratory testing will be reviewed and discussed as indicated.
4. Participation in the continuity care of the hem/oncology patient; this will include participation in chemotherapy sessions.

DIDACTIC EXPERIENCE

Formal didactic/teaching sessions with the attending physician are held on a regular basis, usually three times per week. The curriculum will include the following topics:

- Evaluation of the patient with suspected anemia: general principles, history, physical exam, classification, fundamental physiopathologic mechanisms with illustrative cases, before appropriate laboratory studies with discussion;
 - Microcytic/hypochromic anemias
 - Hemolytic anemias
 - Megaloblastic anemias
 - Bone marrow failure syndromes
 - Neutropenias
- Evaluation of the patient with a possible bleeding disorder.
- Evaluation of oncologic disorders: acute leukemias, non-Hodgkins lymphoma, Hodgkins lymphoma, neuroblastoma, Wilms' tumor, Ewings (PNET), osteosarcoma, retinoblastoma, and histiocytic malignancies

SUGGESTED READING MATERIAL

Hematology of Infancy and Childhood, Edited by Nathan and Oski.
Up-to-date online selected topics
Please note: reading material will be discussed with the student on the first day of the elective. Purchasing a textbook is not necessary. The student will be given a department manual and syllabus which contains the required reading material(s).

HOW TO APPLY

If you are interested in applying, please call 516-572-5399 or visit us at www.numc.edu.

SUB-INTERNSHIP IN NEONATOLOGY

Course Director: Harriet Boxer, MD

Length of rotation: 4 weeks

GOALS

To develop competence in the fundamentals of neonatology and to expose the student to the management of preterm and full-term neonates with a variety of illnesses and conditions in the Neonatal Intensive care Unit.

OBJECTIVES

The student will be a member of a team of residents, fellows and attendings who provide 24-hour care of ICU newborns. The student examines patients assigned to the team on a daily basis, and enter progress notes in the patient charts. Orders may be written by the student and counter-signed by the pediatric resident. Procedures may be performed by the student under direct supervision. The student will make daily work rounds with the team and will participate in attending rounds and teaching sessions. The student will be on-call every fourth night with a member of the team and during this period the team will cover the well-newborn nursery, labor and delivery and the NICU.

DIDACTIC EXPERIENCE

Participation in daily morning report and lecture is mandatory as is attendance at Grand Rounds and CME conferences.

Formal didactic/teaching sessions with the attending physician are held on a regular basis, usually three times per week. The curriculum will include, but will not be limited to the following topics:

- **Perinatal Prevention.** Understand the pediatrician's role and become an active advocate for programs to reduce morbidity and mortality from high-risk pregnancies
- **Resuscitation and Stabilization.** Assess, resuscitate and stabilize critically ill neonates
- **Common Signs and Symptoms.** Evaluate and manage, under the supervision of a neonatologist, common signs

and symptoms of disease in premature and ill newborns

- **Common Conditions.** Recognize and manage, under the supervision of a neonatologist, the common conditions in patients encountered in the NICU
- **Diagnostic Testing.** Under the supervision of a neonatologist, order and understand the indications for, limitations of, and interpretation of laboratory and imaging studies unique to the NICU setting.

The student will be informed of ongoing clinical studies and participate in these if appropriate.

EVALUATION METHOD

Clinical Observation, will be completed by course director and senior residents

HOW TO APPLY

If you are interested in applying, please call 516-572-5399 or visit us at www.numc.edu.