

Allergy and Immunology
Howard University Hospital

Overview and Rationale

Allergy and immunology involves the management of disorders related to hypersensitivity or altered reactivity caused by release of immunologic mediators or by activation of inflammatory mechanisms. An understanding of immunology is essential for mastery of subspecialty areas within all of the major disciplines of internal medicine and most of its allied specialties.

The general internist should be able to offer primary care for several diseases involving altered immunity or hypersensitivity. For these diseases, the general internist should be able to initiate diagnostic evaluation and therapy with or without the help of a subspecialist. The general internist should also be able to recognize many other diseases in which altered immunity plays an important role.

Goals

- 1) To acquire the knowledge, skills and attitude to effectively assess and manage the patient with allergic and immunological disorders.

Objectives: At the end of the rotation, the resident should be able to

- 1) accurately take an allergy history
- 2) demonstrate knowledge of the physiology and pathology of the immunological system
- 3) demonstrate knowledge of the clinical presentation and management of bronchial asthma
- 4) demonstrate knowledge of the indication for and the interpretation of allergy testing
- 5) demonstrate knowledge of the indication for and complications of desensitization

Rotation Description and Lines of Responsibility

The Allergy and Immunology rotation is a four week consultative and outpatient experience. The attending physician is responsible for all clinical, academic and administrative activity during the rotation. A R2 or R3 may be assigned to the rotation along with senior medical students. The clinical mix of patients is drawn from the allergy clinic, and consultations from the Howard University Hospital clinical service.

The resident is responsible for the initial assessment and follow-up of patients on the consult service. The resident is responsible for the completion of the database and the collection and collation of all laboratory and radiological data. The level of supervision and completion of assessment will vary depending on the postgraduate year of training. It is expected that R3 will require less supervision in their assessment than that of a R2 resident. All new and established patients on the consult service are presented on daily teaching rounds. The attending physician will discuss the presentations of patients at their bedside and will engage in patient-based discussions and demonstrations. Residents may have assigned topics for presentation at teaching rounds.

Residents will also see patients predominately in the allergy clinic. Residents will assess new and established patients who visit the clinic. Residents will be precepted by an attending physician who will review all patients and sign the database to attest accuracy and completion of data.

Teaching methods

Teaching Rounds

Daily teaching rounds are conducted by the attending physician. These are patient base discussions and demonstration that are driven by the cases presented.

Core Lectures: Residents attend lectures in allergy and immunology which are part of the core lecture series.

Didactics:

Topics are assigned by faculty which covers the following core areas in nephrology.

- Allergic rhinitis/sinusitis
- Anaphylaxis
- Asthma
- Contact and atopic dermatitis
- Drug allergies
- Food allergies
- Hypersensitivity pneumonias (see also Pulmonary)
- Hypersensitivity or small vessel vasculitis (see Rheumatology)
- Immunomodulatory therapy
- Primary and secondary immunodeficiency
- Tumor immunology
- Urticaria and angioedema

Procedure Skills

- Spirometry and spirometric response to bronchodilators
- Wright-Giemsa stain of nasal and pulmonary secretions

Primary Interpretation of Tests

- Delayed-hypersensitivity skin tests

Ordering and Understanding Tests

- Drug desensitization protocols
- Computed tomography of lungs, sinuses
- Immediate skin tests for IgE-mediated reactions to inhalants, food, and certain drugs
- In vitro test for specific IgE
- Levels of complement component, C1 esterase inhibitor
- Methacholine inhalation challenge
- Patch tests
- Prick and intradermal skin tests
- Pulmonary function tests (including spirometry, lung volume, diffusion)

- Serum Immunoglobulin levels

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- Serum theophylline levels

- T- and B-cell quantitation and subtyping (CD classification)

- Total eosinophil count

Evaluation Methods

Residents: Residents will be evaluated by the attending physician at the end of the rotation using a global rating form.

Faculty: Faculty will be evaluated in an anonymous fashion using a global rating form at the end of the rotation.

Rotation: The rotation will be evaluated by the residents at the end of the rotation using a global rating form

Reading List: