ALLERGY AND IMMUNOLOGY CURRICULUM
INTERNAL MEDICINE RESIDENTS

PGY 1, 2, 3, 4 - OUTPATIENT

Last revised by Gerald Lee, MD on June 19, 2012

Rotation Goals:

1. Gain experience in care of outpatient allergic and immunologic disorders.
2. Understand when to refer to allergists for care of patients.

Learning Objectives for the Rotation

Patient Care: ***accomplished via clinic, and attending interactions***

- All residents will demonstrate
  - Ability to perform an allergy-targeted history and physical examination.
  - Ability to educate the patient and family in using:
    - Metered dose inhaler with/without spacer
    - Peak flow meters and home charting
    - Home nebulizers
    - Dry powder inhalers
  - Ability to interpret basic pulmonary function parameters obtained in the office.
  - Ability to teach environmental controls for animals, dust mite, mold and pollens
  - Ability to teach patients and families asthma self-management for daily and emergency situations
- PGY-2, -3, and -4 residents will be precise, logical, and efficient in their data collection.

Medical Knowledge: ***accomplished via clinic, attending interaction, teaching audio & video tapes, conference; evaluated by pre- and post-test and attending evaluation.***

- All residents will
  - Acquire knowledge of the epidemiology, etiology, pathophysiology, risk factors, clinical manifestations, exam and diagnostic evaluation, and ambulatory management of the following diseases by attending lectures either from teaching audio & video tapes, or from attending staff:
    - Asthma
    - Anaphylaxis
    - Clinical immunology
    - Adverse drug reactions
    - Sinusitis
    - Allergy skin testing
    - Immunotherapy
    - Allergic contact dermatitis
    - Pregnant patients with asthma and/or allergic rhinitis
    - Allergic and Nonallergic Rhinitis
    - Urticaria and angioedema
    - Stinging insect reactions
    - Adverse food reactions
    - Pulmonary function tests
    - Atopic dermatitis
    - Total and allergen specific IgE
    - * Eosinophilic Esophagitis
  - Understand the basic immunodeficiency diseases.

- Recall the screening tests to needed to diagnose the type of immunodeficiency when it is suspected.
- PGY-1 residents will
  - Formulate a prioritized differential diagnosis.
  - Formulate an appropriate initial diagnostic and therapeutic plan.
- PGY-2 residents will demonstrate all of the above, and
  - Progression in knowledge and analytical thinking.
  - Anticipate and minimize adverse consequences of therapy.
- PGY-3 and PGY-4 residents will demonstrate all of the above, and show initiative to stay current with new medical knowledge.

Practice-Based Learning and Improvement: ***accomplished via clinic, attending interactions, conferences, and journal club; evaluated by attending evaluation***

- All residents will
  - Utilize available resources to make timely and appropriate diagnostic and management decisions.
  - Emphasize the use of evidence-based medicine.
  - Seek formative feedback, and use it to improve performance.
  - PGY-1 residents should
    - Demonstrate self-motivation to acquire knowledge.
  - PGY-2 residents will, in addition to above:
    - Demonstrate impact of study design on validity or applicability to individual patient situations.
  - PGY-3 and -4 residents will accomplish all the above, and
    - Model independent learning, and identify and remedy knowledge deficits.

Interpersonal and Communication Skills: ***accomplished via clinic, attending interactions, and conferences; evaluated by attending evaluation.***

- All residents will
  - Interact with other physicians, patients, and nursing and clinic staff in a professional and respective manner.
  - Diligently keep legible, complete and timely medical records.
  - Identify the questions and wishes of the consulting physician.
  - PGY-2, PGY-3, and PGY-4 residents will also
    - Routinely respond to the questions raised by the consulting physician.
    - Facilitate education of other health care professionals.

Professionalism: ***accomplished via all educational and patient care activities; evaluated by attending evaluation.***

- All residents will
  - Demonstrate respect and compassion in interactions with colleagues, patients and their families, including sensitivity and responsiveness to their race, gender, age, and other defining characteristics.
  - Uphold patient confidentiality and informed consent.

- Recognize and admit mistakes and notify the attending, and (when appropriate, with guidance from the attending) the patient when mistakes are found.

Systems Based Practice: ***accomplished via clinic and attending interactions; evaluated by attending evaluation.***

- All residents will
  - Become familiar with the practice of outpatient allergy.
  - Learn to work with health team members to develop new strategies to improve systematic processes of care when deficiencies are found.
  - PGY-2 residents will also
    - Effectively coordinate care with other health care professional.
    - Guide patients through the complex health care system as needed.
  - PGY-3 and PGY-4 residents will also
    - Demonstrate knowledge of methods to control health care costs while preserving high quality care.

Suggested Reading:

1. Northwestern University Allergy-Immunology Syllabus, *Allergy and Asthma Proceedings*, Volume 33, Supplement 1, May/June 2012.
   a. http://ingentaconnect.com/content/ocean/aap/2012/00000033/a00103s1
2. Primer on Allergic and Immunologic Diseases, *Journal of Allergy and Clinical Immunology*, 125 No. 2 February, 2010 p.S1-S394-Supp 2
   a. http://jacionline.org/issues?issue_key=S0091-6749(10)X0004-5
3. Consultation and Referral Guidelines Citing the Evidence: How the Allergist / Immunologist Can Help
   a. http://www.aaaai.org/practice-resources/consultation-and-referral-guidelines.aspx
4. Le, Tao, et.al. ACAAI Review for the Allergy & Immunology Boards. 2010.
   a. http://www.acaai.org/Documents/AI_Review_Final.pdf
5. Adkinson, N.F., Yunginger, J.W., Busse, W.W., Buchner, B.S., Holgate, S.T. and Simons, F.E.: Middleton's Allergy Principles and Practice, C.V. Mosby Co., 2008.
   a. Accessible via MDConsult: www.mdconsult.com

Elective Schedule:

Residents rotate through the University Allergy and Immunology practice as well as private practice allergy offices.

Prior to the beginning of your elective, please contact Dr. Gerald Lee at University Allergy and Immunology (629-3723, Gerald.Lee@louisville.edu) to coordinate dates for your elective. In addition, contact Jan Ising at Kentuckiana Allergy at 426-1621 for a provider schedule at Kentuckiana Allergy.

In addition, please complete the AAAAI pre-test on New Innovations prior to starting your elective. Prior to the end of your elective, there is also an AAAAI post-test available for completion.

	Monday	***Tuesday***	***Wednesday***	***Thursday***	***Friday***
8-9 am	University Allergy & Immunology, 210 E. Gray St. Suite 1000	Private office	8:30 am: University Allergy & Immunology, 210 E. Gray St. Suite 1000	Grand Rounds, Ambulatory Care Building, LL	2nd and 4th Fridays: University Allergy and Immunology, 210 E. Gray St. Suite 1000
9-12 am	University Allergy and Immunology	Private Office	University Allergy & Immunology	Private office	1st and 3rd Fridays: Pediatric Immune Deficiency Clinic, 210 E Gray St. Suite 802 2nd and 4th Fridays: University Allergy and Immunology
12-1 pm				Journal Club, UL or VA	1st and 3rd Fridays: Immune deficiency lunch conference
1-5 pm	University Allergy and Immunology	Private office	Internal Medicine Didactics, U of L (12:30-3:30)	Private office	Private office or University Allergy and Immunology

Expectations:

- **Punctuality and attendance** for all patient care activities and lectures noted above, and for all internal medicine house staff regularly scheduled conferences. If a personal or family emergency arises requiring tardiness or absence, call UL Chief Medical Resident and allergy attending to arrange any necessary coverage, including continuity clinic.
- Residents have the **option** of doing a brief case report and literature review or brief research project. When this is done, they have the option of reducing the amount of time seeing patients to 50% of the rotation and use the other 50% on the project.
- Each resident will be assigned a topic to review of particular interest to him or her and present to the attending faculty prior to ending their rotation on the service.

Evaluation:

- Residents and attendings evaluate each other via the www.new-innov.com evaluation form. Supervising attendings are expected to meet mid month with rotating residents to discuss their performance to date and to give useful suggestions for improvement.