

UCLA Department of Neurology

GOALS FOR NEUROLOGY RESIDENCY TRAINING PROGRAM

GENERAL GOALS:

The primary goal of the neurology residency training program is to provide residents with the knowledge, skills, and experience to practice neurology in both inpatient and outpatient settings with the highest level of competence. At the same time, the program strives to ensure that residents are adhering to the highest ethical standards, and seeks to engender and sustain the qualities of compassion and selfless concern for patients. An additional important aim of the residency program is to instill inquisitiveness and learning skills that prepare residents for a life-long process of self-education essential to the effective practice of neurology. Finally, while stressing these common goals, the program must also accommodate the specific strengths and career goals of individual residents with training that has the capacity to be tailored to these individual needs. To summarize the primary goal of residency training is provide Neurology Residents at UCLA with competency in the following areas:

- 1. Patient care *that is compassionate, appropriate, and effective for the treatment of illness and the promotion of health.***
- 2. Medical knowledge *about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care.***
- 3. Practice-based learning and improvement *that involves the investigation, evaluation, and incorporation of standards of care for patients with the ability to appraise and assimilate scientific evidence, and improvements in patient care.***
- 4. Interpersonal and communication skills *that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.***
- 5. Professionalism, *as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.***
- 6. Systems-based practice *as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.***

These goals are accomplished in the program by providing residents with training in a variety of settings where patients from diverse backgrounds are seen under the supervision of faculty with a broad range of expertise. The present venues for training are UCLA Medical Center, Olive View Medical Center, West Los Angeles VA Medical Center, and the Sepulveda VA Medical Center. Each of these centers has a unique patient population, and therefore provides a unique training experience:

- 1) At **UCLA**, a tertiary referral center for a large area of Southern California, residents see not only patients with common neurological problems, but also patients with uncommon illnesses or illnesses that are refractory to standard treatments. Diagnostic and therapeutic facilities are available at UCLA that exist at only a small number of centers nationwide.
- 2) **Olive View Medical Center** is a facility administered by the County of Los Angeles, and serves an indigent and poorly insured population of patients, which includes many recent immigrants. In this setting, residents often see patients whose medical problems are being addressed for the first time, or whose problems have been inadequately cared for in the past. In addition, the immigrant population allows residents to see patients with illnesses that are endemic to other parts of the world.
- 3) At the **West Los Angeles VA Medical Center**, residents evaluate inpatients and outpatients that typically have common and/or chronic neurological problems. The patients generally have longer hospital stays. Diagnosis and treatment can occur at a slower pace. Residents have the opportunity to observe serial examinations and illness progression.
- 4) At **Sepulveda VA Medical Center**, a “flagship” for outpatient care in the VA system, residents also see patients with common neurological problems, and particularly those associated with aging. The patients have a wide range of “bread and butter” neurological diagnoses. This is also a rotation designed to facilitate resident proficiency in basic EEG interpretation.

SPECIFIC GOALS FOR YEAR IN TRAINING:

The training program provides opportunities for increasing responsibility and professional maturation of residents. Early clinical assignments are based on direct patient care responsibility for a limited number of patients. Subsequent assignments place residents in a position of taking increased responsibility for patient care, resident supervision, and teaching.

YEAR 1

The goal of the first year of the program is to familiarize the resident with the basic aspects of neurological diagnosis and management, as well as with the neuroscientific principals underlying neurological disease. Residents in the first year will:

1. Achieve basic competence in obtaining the neurological history and performing a neurological examination on awake and comatose patients.
2. Acquire an understanding of the indications for ordering diagnostic testing (including CT, MRI, angiography, non-invasive vascular studies, EMG, evoked potentials, EEG, neuropsychological testing, and others).
3. Acquire the ability to interpret the results of these studies at a basic level.

4. Acquire the ability to recognize and initiate management for common neurological

emergencies, including increased intracranial pressure, evolving stroke, intracranial hemorrhage, status epilepticus, spinal cord compression, and impending respiratory failure due to neuromuscular weakness.

5. Become proficient in recording, organizing, and synthesizing information regarding a patient history, examination, and diagnostic test results into a coherent written and verbal presentation that effectively conveys the most pertinent important information about the patient and provides the basis for discussion of further diagnostic and therapeutic management.
6. Develop the ability to diagnose and therapeutically manage common neurological problems at a basic level.
7. Acquire introductory level knowledge about the management of patients with neurological disease, which falls into subspecialty areas.
8. Learn to distinguish primary neurological problems from those that are primarily psychiatric in etiology or those that arise from primary medical illnesses.
9. Receive an introduction to the pathophysiology of neurological disease.

YEAR 2

In the second year, the skills obtained in the first year are solidified and refined. There is emphasis on subspecialty skills, and there is increased time for learning the pathophysiology of disease in greater depth. There is also increased management and teaching responsibility as well as increased independence in patient care. Residents in this year in training have subspecialty rotations in Epilepsy and Child Neurology, as well as elective rotations. In this year, residents are expected to:

1. Achieve an increased level of independence in diagnostic and therapeutic management of neurological management, and begin to supervise junior residents in this process.
2. Achieve a basic level of competence in performing EMG's, and an advanced level of competence in the interpretation of EEG's, evoked potentials, CT scans, and MRI scans.
3. Acquire a more detailed understanding of the neuroscientific basis for neurology, including molecular biology and genetics, cellular neurophysiology, pathology, and cognitive function.
4. Become competent in the basic evaluation and management of neurological problems in pediatric patients. This includes an understanding of the growth and development of the nervous system, diagnostic and therapeutic skills for problems that are unique to infants and children, and understanding of how neurological problems that also occur in adulthood are managed differently when they occur in childhood.
5. Become competent in the basic evaluation and management of patients with seizures. This includes an understanding of the diagnostic and therapeutic techniques (surgical and non-surgical) that are unique to epilepsy patients.
6. Gain experience in specific areas of individual interest for each resident, and initiation of research projects for those residents interested in basic or clinical research.
7. Begin to formulate long term career goals.

YEAR 3

In the 3rd year, neurology residents should be able to function independently in the evaluation and management of patients with neurological problems. There is an increased emphasis on teaching, organizational, and leadership skills. There is increased time to explore specific areas of neurology that are relevant to the individual residents' career interests. In this year, residents should:

1. Become proficient and independent in all aspects of neurological evaluation and management.
2. Lead a clinical team including junior residents, students, and faculty.
3. Refine the ability to organize and balance multiple clinical responsibilities in an efficient and maximally productive manner.
4. Take a primary role in the teaching of students and residents. This includes the organization and supervision of teaching conferences.
8. Achieve a higher level of competence in performing EMG's, and an advanced level of competence in the interpretation of EEG's, evoked potentials, CT scans, and MRI scans.
9. Refine and solidify an understanding of the neuroscientific basis for clinical neurology, including molecular biology and genetics, cellular neurophysiology, pathology, and cognitive function.
5. Pursue areas of specific interest relevant to individual career goals.

SITE-SPECIFIC GOALS AND OBJECTIVES:

UCLA Center for Health Sciences

Rotations include the General Neurology Service, the Stroke Service, the Epilepsy Service, the Rehabilitation Service, the Pediatric Neurology Service, the Outpatient Continuity Clinic, and Outpatient Specialty Clinics. The rotations at the Center for Health Sciences serve as the core experience of the residency. In addition to general neurology, residents will be exposed to all neurological sub-specialties at CHS. Residents will be supervised and taught by a diverse faculty with a wide range of sub-specialty expertise. They will have access to state-of-the-art equipment for diagnosis and therapy, and will interact with highly specialized interventional neuro-radiologists and neurosurgeons. Specific goals at UCLA CHS include:

1. Proficiency in the evaluation and treatment of both general and sub-specialty neurology patients in the inpatient and outpatient settings.
2. Experience with the evaluation and treatment of complex, tertiary referral patients who have been previously evaluated by other specialists.
3. The ability to utilize and interpret advanced imaging, electrophysiological, and laboratory studies in the management of neurological patients, and to interact with interventional neuroradiologists and neurosurgeons.
4. Achieve competence in managing neurological patients in the critical care setting. An understanding of management of the particular neurological problems associated with organ and bone marrow transplantation.
5. Achieve an understanding of practice issues within the UCLA CHS health care system as

well as the ability to call effectively on other resources in the system to provide optimal health care for patients encountered at that site.

West Los Angeles VA Medical Center

Rotations at the West LA VA Medical Center include the Neurology Ward Service, the Neurology Consult Service, and the Outpatient Neurology Clinics (General, Neurobehavior, and Movements Disorders). Specific goals for the experience at the West LA VA include:

1. Proficiency in the evaluation and treatment of common neurological problems in the inpatient and outpatient settings.
2. Skills in the management of chronic neurological problems, and particularly those associated with aging.
3. The ability to manage patients on the neurology ward as the primary physician.
4. The ability to manage neurological and psychiatric problems associated with military service and/or combat.
5. Increased proficiency in outpatient subspecialty management of Movement Disorders and Neurobehavioral Disorders, Neurobehavioral Disorders, Electrodiagnostic Medicine and Neuroradiology.
6. Achieve an understanding of practice issues within the VA health care system as well as the ability to call effectively on other resources in the system to provide optimal health care for patients encountered at that site.

Sepulveda VA Medical Center

Residents will see outpatients in both general and subspecialty clinics at the Sepulveda VA. This rotation provides residents with much needed education in management of patients in outpatient settings. Site-specific goals include:

1. Proficiency in the outpatient management of patients with common neurological problems.
2. Proficiency in the management of patients with chronic neurological problems in the outpatient setting.
3. The ability to work as a team with primary care physicians and other specialists in the management of patients in the outpatient setting.
4. The ability to work with digital medical records in the outpatient setting.
5. There is a didactic emphasis at the Sepulveda VA: foundations of EEG interpretation.
6. Achieve an understanding of practice issues within the VA health care system as well as the ability to call effectively on other resources in the system to provide optimal health care for patients encountered at that site.

Olive View Medical Center

Residents will see patients on the Neurology Consult Service and in Outpatient Neurology Clinics. The patients at Olive View medical center are cultural diverse and often socio-economically disadvantaged. Site-specific goals include:

1. Proficiency in the inpatient and outpatient management of patients with acute and previously untreated chronic neurological illness.
2. The ability to manage patients with multiple poorly treated medical problems.
3. The ability to evaluate and treat neurological disorders specific to indigent patients and recent immigrants, including nutritional and infectious disorders not commonly seen at other sites.
4. The ability to provide the highest standard of care to neurological inpatients and outpatients in a setting where diagnostic and therapeutic resources may be more limited than at other sites.
5. Achieve an understanding of practice issues within the County health care system as well as the ability to call effectively on other resources in the system to provide optimal health care for patients encountered at that site.

DIDACTIC THREAD:

There is a didactic thread for all rotations. Residents are expected to return to UCLA CHS for the scheduled Wednesday didactic curriculum regardless of the site of their active rotation. Since these didactic activities are a constant for every rotation, they included in this outline of programmatic curriculum. The specific activities are listed below with the competencies addressed by the activity identified using the following key:

Patient Care: 1

Medical Knowledge: 2

Practice-Based Learning and Improvement: 3

Interpersonal and Communication Skills: 4

Professionalism: 5

Systems-Based Practice: 6

- **Grand Rounds** is a weekly conference scheduled by the Department of Neurology that occurs on Wednesday mornings from 9:00- 10:00 a.m. These rounds are widely attended by departmental faculty (clinical and basic science), adjunct clinical faculty, residents, students, nursing, and other interested staff. Local and visiting faculty present clinical and basic science topics in Neurology.
 - **Competencies addressed: 1, 2, 3, 4, 5, and 6.**
- **Core Curriculum** is a carefully designed set of lectures organized to cover core topics pertinent to the education of neurology residents and rotating students. This lecture is scheduled from 10:00 – 11:00 a.m. on Wednesdays immediately following Grand Rounds.
 - **Competencies addressed: 1, 2, 3, 4, 5, and 6.**

- **Journal Club** occurs on Wednesday mornings on a regular basis (once or twice per month) following or incorporated into the core curriculum. A journal article is assigned to a senior resident for discussion.
 - **Competencies addressed: 1, 2, 3, and 6.**
- **Resident Update Meetings** are scheduled on the first Wednesday of the month from 10:00-12:00 noon. This forum is used to discuss active issues in the residency program that may range from curricular changes to staffing issues. This meeting is coordinated by the residency program directors and is meant to be an open collaboration with the residents.
 - **Competencies addressed: 3, 4, 5, and 6.**
- **Neuroanatomy Cases** are presented by senior residents on Wednesdays during the open 11:00-12:00 noon slots left open by the other curricular events. The case topics are organized with an attempt to correlate with the content of the scheduled core curriculum topic.
 - **Competencies addressed: 1, 2, and 3.**
- **NOC (Noon Outpatient Conference)** occurs on Wednesdays from 12:00 noon – 1:00 pm. Guest faculty, residents, and fellows provide didactic presentations that are clinically based. Effort is made to intermittently have patients present at this conference for demonstration of physical findings and to aid in difficult diagnoses.
 - **Competencies addressed: 1, 2, 3, 4, 5, and 6.**

This overview outlines the UCLA Neurology Training Program as a unified or integrated curriculum. More detailed site specific goals and objectives are outlined for each rotation. Each rotation provides a structure for resident education in all of the core competency areas. There are specific activities at each rotation that promote growth in key competency areas which are further identified in these site-specific goals and objectives.