

OVERALL COMPETENCY-BASED GOALS & OBJECTIVES
NEUROLOGY RESIDENCY PROGRAM
University of North Dakota School of Medicine & Health Sciences (UNDSMHS)

The goal of the UNDSMHS Neurology Residency is to train Neurologists to provide excellent and timely care to the peoples of the Dakotas, and the adjacent regions served by our affiliated institutions. This statement aligns with the UNDSMHS Purpose Statement: *the primary purpose of the UNDSMHS is to educate physicians and other health professionals*. Other purpose include the discovery of knowledge that benefits the people of this state and enhances the quality of their lives. The clinical training will hold strictly to the ACGME concept of “graded and progressive responsibility” through the use of competency based methods of evaluation utilizing the ACGME Neurology Milestones. Our program values responsibility, honesty, integrity, and transparency in the educational development of our residents. The ultimate goal is to graduate Neurologists who have developed all the high level skills necessary to enter the unsupervised practice of Neurology. They will maintain an exemplary level of practice through the life-long learning process. Physicians completing the Residency Program will be eligible for certification by the American Board of Psychiatry and Neurology.

First Year Residents (PGY-1)

The goals of the transitional year are threefold:

- To obtain knowledge in internal medicine for it to serve as a foundational prerequisite for studying and practicing neurology
- To develop skills in internal medicine
- To gain experience in some of the fields related to neurology, e.g. Allergy-Immunology, Palliative Care, and Infectious Diseases.

Objectives: During the transitional year, residents will

1. Evaluate and manage common medical conditions found in patients with neurologic disease. Examples include atrial fibrillation, diabetes mellitus, auto-immune disease, etc.
2. Identify when a patient has possible neurologic disorder and develop a preliminary diagnostic and management plan.
3. Understand when a patient has a psychiatric or neurosurgical condition and obtain timely consultation.
4. Learn how to work with the interdisciplinary members of the health care team in a respectful and effective manner.

Second Year Residents (PGY-2)

The goals for PGY-2 are:

- To become proficient in neurological case formulation and localizing the lesions
- To learn to rapidly identify and manage neurological conditions in adults and children
- To learn to evaluate and manage a wide range of neurological conditions in the outpatient setting
- To become proficient in lumbar puncture
- To gain exposure to EEG and EMG
- To appreciate the interdisciplinary nature of neurological care and learn to work as part of a team

Objectives: During the PGY-2 year, residents will

1. Master case presentations to the attending staff or at educational conferences.
2. Participate in stroke codes, accurately differentiating acute strokes from mimics and determining tPA eligibility.
3. Manage acute adult neurological problems such as seizures, headache, multiple sclerosis relapse, Guillain-Barre syndrome, etc.
4. Learn to manage febrile and other seizures in children.
5. Obtain basic background rhythms on EEG.

6. Explain the role of EMG in localizing neuromuscular disease.
7. Evaluate and manage common outpatient problems such as headache, seizures, nerve entrapment, radiculopathy, polyneuropathy, Alzheimer's disease, and Parkinson's disease.
8. Participate in morning interdisciplinary rounds, interacting with members of the team in a respectful and effective way.
9. Teach neurology to, and act as a role model for, medical students on the neurology clerkship.
10. Begin to incorporate evidence-based medicine in patient care.

Third Year Residents (PGY-3)

The goals for PGY-3 are:

- To develop more advanced neurological localization and management skills
- Increase independence while managing complex patients
- To provide supervision to the junior residents
- To get more experience at EEG and EMG
- Holistic approach to patient care

Objectives: During PGY-3, residents will

1. Formulate cases presented to the attending staff or at educational conferences consistently and concisely.
2. Evaluate and manage complex stroke patients.
3. Evaluate and manage inpatient consult service with less supervision.
4. Evaluate and manage outpatients with complex disease, such as severe dementia, late-stage Parkinson's, and ALS and other uncommon neuromuscular disorders.
5. Identify epileptiform discharges and seizures on EEG.
6. Perform nerve conduction studies and EMG under direct supervision.
7. Teaching junior residents the role of Neurology consulting services.
8. Provide care that takes into account cost and other resource limitations.

Fourth Year Residents (PGY-4)

The goals for PGY-4 are:

- To achieve high level skill in neurological examination, diagnostic evaluation, and management sufficient to manage patients independently
- To be a mentor and role model for junior residents

Objectives: The PGY-4 resident will

1. Manage patients with complex neurological diseases in a variety of subspecialty clinics.

2. Manage the entire spectrum of acute stroke, status epilepticus, and other neurological emergencies.
3. Identify normal and abnormal background rhythms, epileptiform discharges, and seizures on EEG and compose precise EEG reports.
4. Perform nerve conduction studies and low-complexity EMGs.
5. Lead morning report and systems of care conferences.
6. Lead bedside teaching exercises for neurology clerkship students

Description

Sanford Health, Fargo, North Dakota is the primary site for all of our inpatient clinical rotations, our continuity clinic, and our ambulatory rotations. Sanford Health, Sioux Falls, South Dakota has been established as a secondary site for Pediatric Neurology rotations only. The program director, program Administrator, and all core faculty will be based at Sanford. Sanford Health is a large, private, not-for-profit integrated healthcare system with hospitals and clinics in twenty six states and over ten plus countries. Sanford Health, Fargo, North Dakota is the largest tertiary care hospital in our region. The patient population is representative of the general population of our region, with all ages, both genders, and all socioeconomic groups well represented and great diversity of clinical problems.

The Neurology Residency program has come together after accessing the depth and breadth of the Neurology department at Sanford Health. All faculty have strong passion to educate future Neurologists in both North and South Dakota to serve those populations in the future. According to the American Academy of Neurology, North and South Dakota have the most severe neurologist shortage in the United States. The waiting periods to make an appointment with a neurologist at Sanford Health can be as long as six months to a year. The most effective way to increase Neurologists in the Dakotas is “to grow our own” by creating a Neurology Residency program. The primary Sanford site that this Neurology Residency program will be conducted at already has residency education for Internal Medicine, Geriatric Medicine, Orthopedic Surgery, Family Medicine, General Surgery, Transitional Year, and Psychiatry; therefore the infrastructure is in place to support the Neurology program. The Neurology Residency program will enhance the learning experience for all current residents in training, in all departments, which will lead to improved care to other people in North and South Dakota.

Clinical Rotations

The PGY-1 year includes rotations in a broad range of clinical specialties including:

- Team Based Internal Medicine (3)
- Internal Medicine Critical Care
- Emergency Medicine
- Internal Medicine – Outpatient or Inpatient experience
- Internal Medicine Ambulatory
- Night Medicine/Research & Scholarly Activity (PBLI)
- Electives (4)

The PGY-2 year includes rotations on the following clinical services:

- Stroke (3)
- Psychiatry
- Epilepsy
- Neurocritical care
- Adult General Neurology (3)
- Neuroradiology
- Neurosurgery
- Elective

The PGY-3 year includes rotations on the following clinical services:

- EMU/EEG (2)
- EMG (2)
- General Neurology or Stroke (2)
- Multiple Sclerosis
- Ophthalmology/Neuromuscular
- Pediatric Neurology (3)
- Elective

The PGY-4 year includes rotations on the following clinical services:

- EMG (2)
- Research (2)
- Headache
- EMU/EEG (2)
- Ophthalmology/Neuromuscular
- Movement Disorder
- Elective (3)

Instructional Program

The educational program will consist of regularly scheduled didactic sessions including grand rounds, visiting professors, seminars, journal club, quality improvement conferences, morbidity and mortality, teaching rounds, AAN case-based curriculum, and simulations. As part of the care team, residents will also be responsible for teaching their colleagues and presenting cases during the conferences and various sessions. The clinical training is focused on the development of the necessary knowledge and skills to be a proficient Neurologist and enable graduates of the program to sit for the American Board of Psychiatry and Neurology exam.

Resident Role and Expectations

Residents are an integral part of the health care team, and as such, are required to perform patient evaluations in the inpatient and outpatient settings. A plan for graduated responsibility is utilized. Residents are expected to develop the skills necessary to allow for increased autonomy with each year of training leading to independent practice.

Assessment Methods

Objective resident evaluation is a critical component of the UNDSMHS Neurology Residency program. Residents are evaluated in all six domains of competency by multiple faculties from all sites at various levels of their training. Each of the following evaluation instruments will be used to evaluate University of North Dakota School of Medicine and Health Science Neurology Residents' mastery of the Core Competencies:

- RITE (Residency In-service Training Examination)
- Attending Clinical Skills Evaluations
- Evaluations from each rotational assignment regarding ACGME Milestones
- Multi-Source Evaluations
- Chart Review

- Case Presentations
- Conference attendance (didactic lectures, grand rounds, journal club, PECN discussions)
- Resident Portfolio
- Self-Assessment Evaluations
- Medical Student Assessment (3rd year medical students in Neurology Clerkship)
- Clinical Competency Committee Review (CCC)

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