Rotation: OHSU and VA Inpatient Neurology Ward I

Resident Level: PGY-2 (first three months)

Setting: Residents will be trained to manage ill patients on the inpatient hospital wards, stressing diagnosis and management of neurological diseases requiring hospitalization.

OHSU Ward training includes care of primary, secondary, and tertiary care patients with complex neurological, medical, and social needs. The patient mix offers variety, complexity, and acuity, including exposure to the interventional management of acute stroke patients admitted to the Intensive Care Unit. The VA Ward training experience has similar goals, and provides residents an opportunity to expand their knowledge base in the care of geriatric patients, since a large proportion of hospitalized Veterans are over age 65 years.

I. Patient Care

Goals: To develop basic skills in the care of neurologically ill hospital inpatients, including attention to general medical issues.

Objectives:

1. To learn to perform and document a relevant history and examination on culturally diverse patients to include as appropriate:
   a. Chief complaint
   b. History of present illness
   c. Past medical history
   d. A comprehensive review of systems
   e. A biological family history
   f. A sociocultural history
   g. Developmental history (especially for children)
2. To generate and implement basic appropriate differential diagnoses
3. To learn to evaluate, assess, and recommend effective management of patients

To demonstrate the following abilities:

1. To determine:
   a. If a patient's symptoms are the result of a disease affecting the central and/or peripheral nervous system or are of another origin, e.g., of a systemic, psychiatric, or psychogenic illness
   b. A formulation, differential diagnosis, laboratory investigation, and management plan
2. To begin to develop the technical skills to:
   a. Perform lumbar puncture, edrophonium, and caloric testing
   b. Identify and describe abnormalities seen in common neurological disorders on radiographic testing, including plain films, myelography, angiography, CT, isotope, and MRI
   c. Evaluate the application and relevance of investigative procedures and interpretation in the diagnosis of neurological disease, including the following:
      1) Electroencephalogram
      2) Motor and sensory nerve conduction studies
      3) Electromyography
      4) Evoked potentials
      5) Polysomnography
6) Electronystagmogram
7) Audiometry
8) Perimetry
9) Psychometry
10) CSF analysis
11) Vascular imaging (Duplex, transcranial Doppler)
12) Radiographic studies as outlined above.

3. To develop basic skills in the recognition and treatment of neurological disorders

II. Medical Knowledge

Goals: Knowledge expectations for residents are stratified according to training level. For the initial neurology ward rotations, the goal is to build a solid basic knowledge of neurological disease and to maintain and build on general medical knowledge obtained in earlier training.

Objectives:

1. To obtain basic knowledge of major disorders, including considerations relating to age, gender, race, and ethnicity, based on the literature and standards of practice. This knowledge shall include:
   a. The epidemiology of the disorder
   b. The etiology of the disorder, including medical, genetic, and sociocultural factors
   c. The phenomenology of the disorder
   d. The experience, meaning, and explanation of the illness for the patient and family, including the influence of cultural factors and culture-bound syndromes
   e. Effective treatment strategies
   f. Course and prognosis
2. Basic knowledge of healthcare delivery systems, including patient and family counseling
3. Basic knowledge of the application of ethical principles in delivering medical care
4. Basic ability to reference and use electronic systems to access medical, scientific, and patient information

Residents at this level should demonstrate basic knowledge of the following:

1. Basic neuroscience that is critical to the practice of neurology
2. Pathophysiology of major psychiatric and neurological disorders and familiarity with the scientific basis of neurological diseases, including:
   a. Neuroanatomy
   b. Neuropathology
   c. Neurochemistry
   d. Neurophysiology
   e. Neuropharmacology
   f. Neuroimmunology/neurovirology
   g. Neurogenetics/molecular neurology and neuroepidemiology
   h. Neuroendocrinology
   i. Neuroimaging
   j. Neuro-ophthalmology
   k. Neuro-otology
   l. Cerebrospinal fluid
   m. Critical care and emergency neurology
   n. Coma and brain death
   o. Geriatric neurology
   p. Headache and facial pain
   q Interventional neurology (basic principles only)
   r Movement disorders
3. Residents shall demonstrate basic knowledge of psychiatry, including the following:
   a. Psychopathology, diagnostic criteria, and clinical course for common psychiatric disorders
b. Drug dependence and substance abuse
c. Psychopharmacology

III. Interpersonal Communication Skills

Goal: To communicate with patients, colleagues, and staff in a productive, positive, and professional manner to optimally manage patient care and other duties

Objectives:

1. To listen to and understand patients and to attend to nonverbal communication
2. To communicate effectively with patients using verbal, nonverbal, and written
3. To develop and maintain a therapeutic alliance with patients by instilling feelings of trust, honesty, openness, rapport, and comfort in the relationship
4. To partner with patients to develop an agreed upon healthcare management plan
5. To transmit information to patients in a clear and meaningful fashion
6. To understand the impact of the their own feelings and behavior so that such feelings and behaviors do not interfere with appropriate treatment
7. To communicate effectively and work collaboratively with allied healthcare professionals and with other professionals involved in the lives of patients
8. To educate patients and professionals about medical, psychosocial, and behavioral issues

To demonstrate basic ability to obtain, interpret, and evaluate consultations from other medical specialties. This shall include:

1. Knowing when to solicit consultation
2. Formulating and clearly communicating the consultation question
3. Discussing the consultation findings with the consultant
4. Discussing the consultation findings with patient and family

To demonstrate basic ability to communicate effectively with patients and their families by:

1. Gearing all communication to the educational and intellectual levels of patients and their families
2. Demonstrating sociocultural sensitivity to patients and their families
3. Providing explanations of psychiatric and neurological disorders and treatment that are jargon-free and geared to the educational and intellectual levels of patients and their families
4. Providing preventive education that is understandable and practical
5. Respecting the patients' cultural, ethnic, religious, and economic backgrounds
6. Developing and enhancing rapport and a working alliance with patients and their families
7. Ensuring that the patient and/or family have understood the communication

Residents shall maintain up-to-date medical records and write legible prescriptions. These records must capture essential information while simultaneously respecting patient privacy, and they must be useful to health professionals outside of neurology.

To show basic ability to effectively lead a multidisciplinary treatment team, including being able to:

1. Listen effectively
2. Elicit needed information from team members
3. Integrate information from different disciplines
4. Manage conflict
5. Clearly communicate an integrated treatment plan

To show basic skills in communicating effectively with patients and their families while respecting confidentiality. Such communication may include:

1. The results of the assessment
2. Use of informed consent when considering procedures
3. Genetic counseling and palliative care when appropriate
4. Consideration and compassion for the patient in providing accurate medical information and prognosis
5. The risks and benefits of the proposed treatment plan, including possible side effects of medications and/or complications of nonpharmacologic treatments
6. Alternatives (if any) to the proposed treatment plan
7. Appropriate education concerning the disorder, its prognosis, and prevention strategies

IV. Practice-Based Learning and Improvement

**Goals:** To recognize and accept limitations in their own knowledge base and clinical skills and to develop the skills of practice based learning and improvement for lifelong learning.

**Objectives:** Residents shall demonstrate basic skills for obtaining and evaluating up-to-date information from scientific and practice literature and other sources to assist in the quality care of patients. This shall include, but not be limited to:
1. Use of medical libraries
2. Use of information technology, including Internet-based searches and literature databases (e.g., Medline)
3. Use of drug information databases
4. Active participation, as appropriate, in educational courses, conferences, and other organized educational activities both at the local and national levels

Residents shall evaluate caseload and practice experience in a systematic manner. This may include:
1. Case-based learning
2. Use of best practices through practice guidelines or clinical pathways
3. The review of patient records and outcomes
4. Obtaining evaluations from patients (e.g., outcomes and patient satisfaction)
5. Obtaining appropriate supervision and consultation
6. Maintaining a system for examining errors in practice and initiating improvements to eliminate or reduce errors

Residents shall demonstrate a basic ability to critically evaluate relevant medical literature. This ability may include:
1. Using knowledge of common methodologies employed in research
2. Researching and summarizing a particular problem that derives from their own caseloads.

Residents shall demonstrate the ability:
1. To review and critically assess scientific literature to determine how quality of care can be improved in relation to one's practice (e.g., practice parameter adherence). Within this aim, physicians shall be able to assess the generalizability or applicability of research findings to patients in relation to their sociodemographic and clinical characteristics.
2. To develop and pursue effective remediation strategies that are based on critical review of the scientific literature.

V. Professionalism

**Goals:** To develop the habits and skill of professionalism that will instill the trust, confidence, and respect of their peers, coworkers, and patients

**Objectives:** Residents shall demonstrate responsibility for their patients' care, including:
1. Responding to communication from patients and health professionals in a timely manner
2. Establishing and communicating back-up arrangements, including how to seek emergent and urgent care when necessary
3. Using medical records for appropriate documentation of the course of illness and its treatment
4. Providing coverage if unavailable, (for example, when out of town or on vacation)
5. Coordinating care with other members of the medical and/or multidisciplinary team
6. Providing for continuity of care, including appropriate consultation, transfer, or referral if necessary
To demonstrate ethical behavior, integrity, honesty, compassion, and confidentiality in the delivery of care, including matters of informed consent/assent, professional conduct, and conflict of interest.

To demonstrate respect for patients and their families, and their colleagues as persons, including their ages, cultures, disabilities, ethnicities, genders, socioeconomic backgrounds, religious beliefs, political leanings, and sexual orientations.

To demonstrate understanding of and sensitivity to end of life care and issues regarding provision of care.

To review their professional conduct and remediate when appropriate.

To participate in the review of the professional conduct of their colleagues.

To be aware of safety issues, including acknowledging and remediating medical errors, should they occur.

**VI. Systems-Based Practice**

**Goals:** To develop a working knowledge of the diverse systems involved in treating patients of all ages, and to understand how to use the systems to the benefit of patients.

**Objectives:** To develop basic facility in the use of:
1. Use of practice guidelines
2. Ability to access community, national, and allied health professional resources that may enhance the quality of life of patients with chronic psychiatric and neurological illnesses
3. Demonstration the ability to lead and delegate authority to healthcare teams needed to provide comprehensive care for patients with psychological and neurological disease
4. Demonstration skills for the practice of ambulatory medicine, including time management, clinic scheduling, and efficient communication with referring physicians
5. Use of appropriate consultation and referral mechanisms for the optimal clinical management of patients with complicated medical illness
6. Demonstration of awareness of the importance of adequate cross coverage
7. Use of accurate medical data in the communication with and effective management of patients

In the community system, to:
1. Recognize the limitation of healthcare resources and demonstrate the ability to act as an advocate for patients within their sociocultural and financial constraints
2. Demonstrate knowledge of the legal aspects of psychiatric and neurological diseases as they impact patients and their families
3. Demonstrate an understanding of risk management.

To demonstrate knowledge of and interact with managed health systems, including:
1. Participating in utilization review communications and, when appropriate, advocating for quality patient care
2. Educating patients concerning such systems of care

To demonstrate knowledge of community systems of care and assist patients to access appropriate care and other support services. This requires knowledge of treatment settings in the community that include ambulatory, consulting, acute care, partial hospital, skilled care, rehabilitation, and substance abuse facilities; halfway houses; nursing homes and home care; and hospice organizations. Physicians should demonstrate knowledge of the organization of care in each relevant delivery setting and the ability to integrate the care of patients across such settings.