

APPENDIX J: GOALS AND OBJECTIVES FOR THIS CLINICAL NEUROPHYSIOLOGY RESIDENCY PROGRAM. (PR II.A2)

Electromyography, Clinical Neurophysiology and Neuromuscular Disorders

Location: Methodist University Hospital, Regional Medical Center (the MED), and LeBonheur Children's Hospital

Educational Purpose:

The purpose of the electromyography, clinical neurophysiology, and neuromuscular disorder rotations to provide residents with the knowledge base and clinical experience to successfully evaluate and treat patients with neurological disorders using appropriate procedures and techniques.

Objectives:

Each resident/fellow is expected to achieve the following objectives based on the six general competencies:

Patient Care

- Complete a complete medical history and comprehensive physical examination with emphasis in manual muscle testing and describe sensory tests, also including chief complaint, history of present illness, and family and social history, with detail pedigree analysis on hereditary disorders, proper selection of tests and their interpretation i.e. DNA testing, autoantibody testing.
- Create patient management plan and provide patient education.
- Create differential diagnoses
- Nerve conduction velocity tests, repetitive stimulation tests and needle electromyography.
- Diagnose and treat the following neurological disorders including but not limited to: entrapment neuropathies, radiculopathies, plexopathies, peripheral neuropathies, motor neuron disease, myopathies and neuromuscular transmission defects, movement disorders, brain tumors and other mass lesions, encephalitis/meningitis, traumatic disorders, mononeuropathies, polyneuropathies, and myelopathies.
- Perform the following tests:
 - motor and sensory nerve conduction tests
 - nerve stimulation tests
 - blink reflex
 - single fiber electromyography
 - stimulated single fiber electromyography
 - nerve conduction studies in unusual nerves and collision techniques
 - masseter reflex
 - autonomic nervous system testing, sympathetic skin response QSART, measurement of RR interval variations, Valsalva maneuver and valsalvae ratio
- Correctly insert needle electromyography.
- Record all performed tests and patient diagnosis.
- Measure jitter, blocking and density.
- Perform electrophysiologic studies used in clinical practice.
- Apply chemodenervation in the treatment of spasticity and dystonia using EMG recordings.
- Evaluate, assess, and recommend cost-effective management of patients particularly in choosing electrodiagnostic testing, biopsy, seizure monitoring, polysomnography, and genetic testing.
- Determine if a patient's symptoms are the result of a disease affecting the

central or peripheral nervous system or are of another origin such as hereditary, acquired, focal or diffuse progressive, or relapsing or episodic.

Medical Knowledge

- Demonstrate the knowledge of pathophysiology of major neurological disorders particularly neuromuscular disease, epilepsy, sleep disorders and their emotional implications (i.e. depression) and familiarity with the scientific basis of neurological diseases, including membrane physiology, synaptic transmission, sensory receptors and perception, special senses, reflexes, segmental and suprasegmental control of movement, cerebellar function, reticular system/mechanisms of sleep and arousal/consciousness/circadian rhythms, rhinencephalon/limbic system/the visceral brain, learning and memory, cortical organizations and function, pathophysiology of epilepsy, cerebral blood flow, autonomic function, and blood-brain barrier.
- Implement electrical safety procedures.
- Measure performance of tests.
- Gains an understanding of the various features of the equipment used in our laboratories.
- Determine the effects of temperature, filter settings and amplifications on outcome of testing.
- Compare the common pitfalls in the performance and interpretation of electrodiagnostic studies and proper measurements during the performance of these tests.
- Recognize muscle location and innervation.
- Review the basic concepts of nerve and muscle anatomy and physiology.
- Recognize the characteristics of the motor unit shape, amplitude duration, phases, firing rates, stability and recruitment patterns.
- Identify “myopathic” and “neurogenic” motor units not only by the performance of these tests but also through the review of specially made videotapes.
- Recognize spontaneous muscle activity such as endplate potentials, fibrillations, positive sharp waves, fasciculations, myotonia, complex high frequency discharges, and myokymia.
- Recognize common electrical interference artifacts.
- Interpret the results of the following tests: motor and sensory nerve conduction tests, nerve stimulation tests, blink reflex, single fiber electromyography, stimulated single fiber electromyography, nerve conduction studies in unusual nerves and collision techniques, masseter vibratory reflex, autonomic nervous system testing, tilt table tests, sympathetic skin response QSART, measurement of RR interval variations, and valsalva maneuver and valsalva ratio.
- Create and issue a preliminary report of test interpretations.
- Describe the basic aspects of muscle histology.
- Utilize the basics of clinical research.
- Interpret electrophysiologic studies used in clinical practice.
- Analyze muscle and nerve biopsies.
- Evaluate biopsies of neuromuscular clinic patients, perform ischemic exercise, edrophonium tests.
- Utilize the basics of somatosensory and other evoked responses.
- Interpret myasthenic syndromes.
- Improve skills in neuromuscular diseases.

Practice Based Learning and Improvement

- Analyze assigned readings in course manuals, handbooks, textbooks and atlases.
- Develop a clinical research project.

- Interpret patient records and issue a report of the results.
- Teach students and fellow residents on electrophysiology and subspecialties of neuromuscular diseases including epilepsy and sleep.
- Attend the neuromuscular disease weekly conferences where patient records are reviewed with the attending
- Read childhood and neonatal studies (pediatric electromyography)
- Evaluate patient care practices and develop ways to improve these practices.
- Assess their health care practices and discuss how they meet standards.
- Complete a QA/QI project under faculty direction
- Demonstrate improvement in clinical management
- Implement new scientific advances and clinical approaches into current care practices.
- Obtain information from a variety of sources in field of study and related health fields.
- Analyze and evaluate medical texts and studies that pertain to their patient's health problems.
- Take responsibility for lifelong learning.
- Use information technology to enhance patient care practices.
- Use patient care errors and near misses to teach residents and students.
- Acknowledge errors and work to minimize them.

Electroencephalography/Epilepsy/ Evoked Responses Rotation/ Sleep Rotations

Location: Methodist University Hospital, VA Administration Hospital Sleep Center, Regional Medical Center (the MED), and LeBonheur Children's Hospital

Educational Purpose:

The purpose is to provide residents with the knowledge base and clinical experience to successfully evaluate and treat patients with neurological disorders using appropriate procedures and techniques.

Objectives:

Each resident is expected to achieve the following objectives based on the six general competencies:

Patient Care

- Perform EEG and evoked potential testing (BAER,SSEP,VEP), sleep tests, polysomnography, multiple sleep latency, vestibular tests and ENG, intraoperative evoked responses testing for spinal cord surgery
- Analyze EEGs
- Manage patients with epilepsy
- Assess the pharmacological effects of anticonvulsants to educate, manage and patients with epilepsy
- Diagnose and manage the following syndromes:
 - sleep related breathing disorders
 - narcolepsy
 - periodic limb movement disorders
 - some of the more commonly occurring parasomnias
 - REM sleep behavior disorders
 - seizures and pseudoseizure
- Discuss patient management plans and provide patient education.
- Educate patients with sleep disorders

Medical Knowledge

- Develop the basic montages and performance of EEG and evoked potential testing
- Evaluate the EEG intraoperative monitoring corticography and evoked responses during the EEG and evoked response rotation.
- Develop a knowledge of electricity and concepts of brain, spinal cord and peripheral nerve physiology
- Utilize electrical safety with the ability to recognize electrical problems
- Interpret tracings of adult, child and neonatal recordings including recognition of normal variants and abnormal wave patterns and their variations, and the recognition of artifacts.
- Recognize normal developmental patterns of the newborn and children
- Recognize diffuse encephalopathies, focal brain lesions, dementias such as Jakob- Creutzfeldt disease and to recognize abnormal spike activity and PLEDS and properly diagnose seizures, status epilepticus and brain death.
- Interpret EEG tracings
- Interpret intraoperative evoked responses testing for spinal cord surgery
- Recognize when significant change occurs in EP during surgery and electrocorticography for epilepsy surgery patients to recognize interictal discharges and electrographic seizures intraoperatively during resection of epileptic focus
- Use standard montages for recording overnight polysomnography, multiple sleep latency test and maintenance of wakefulness test (MKMWT)
- Implement placement of scalp electrodes and other physiological monitors.
- Interpret common physiologic and physical artifacts recorded during studies so they can be eliminated in the analysis of test results.
- Describe the anatomical structure involved in the physiology of normal sleep.
- Utilize the basics of emergency medicine.
- Interpret vestibular tests and ENG

Practice Based Learning and Improvement

- Analyze assigned readings in course manuals, handbooks, textbooks and atlases of normal and abnormal waveforms.
- Analyze material of currently acceptable procedures for sleep staging with particular reference to nomenclature.
- Interpret patient records and issue a report of the results.
- Critique readings pertaining to sleep disorders
- Teach students and fellow residents on electrophysiology and subspecialties of neuromuscular diseases including epilepsy and sleep.
- Attend the Epilepsy Monitoring Unit and attend the Sleep Clinic once a week, and weekly conferences where patient records are reviewed with the attending
- Read childhood and neonatal studies (pediatric electroencephalography, magnetoencephalography)
- Analyze assigned readings in course manuals, handbooks, textbooks and atlases.
- Interpret patient records and issue a report of the results. Use the results to improve patient care.
- Evaluate patient care practices and develop ways to improve these practices.
- Assess their health care practices and discuss how they meet standards.
- Complete a QA/QI project under faculty direction
- Implement new scientific advances and clinical approaches into current health care practices.
- Obtain information from a variety of sources in field of study and related fields.

- patient's
 - Analyze and evaluate medical texts and studies that pertain to their health problems.
 - Take responsibility for lifelong learning.
 - Use information technology to enhance patient care practices.
 - Use patient care errors and near misses to teach residents and students.
 - Acknowledge errors and work to minimize them

Practice Based Learning and Improvement

- The resident will demonstrate his/her skills for independent self-improvement in the practice of neurology. This shall include use of:
 - medical libraries
 - information technology, Internet, Medline and other medical/drug databases
 - educational conferences at the local and national level
 - American Academy of Neurology Practice Guidelines (website and distributed on CD)
 - calling national experts with specific questions not readily answered in the literature
 - citing the relevant literature during teaching rounds and in conferences
 - The resident will 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 (AAN website)
 3. Review of patient records (CPRS at the VAMC)
 4. Obtaining evaluations from patients (e.g., outcomes and patient satisfaction forms)
 5. Employment of principles of quality improvement in practice
 6. Obtaining appropriate supervision and consultation
 7. Participating in the QA/QI conference for examining errors in practice and initiating improvements to eliminate or reduce errors
 - The resident will demonstrate an ability to critically evaluate the relevant medical literature. This should include:
 1. knowledge of common methodologies employed in clinical research
 2. implementation of new knowledge to change practice and improve patient care, including the use of AAN practice guidelines and other evidence-based literature to make patient care decisions
 3. use of reliable assessment techniques to monitor improvement by the change in practice (e.g., Quality Improvement performance measure)
 4. writing journal article critiques for portfolio and participating in Journal Club
 5. writing CPC discussions for portfolio and participating in CPC conferences
 6. preparing case studies with literature reviews for portfolio and for teaching purposes
 7. developing and completing a research project
 8. developing effective remediation strategies that are based on critical review of the scientific literature
 - Demonstrate self-learning by reading textbook chapters and relevant journal articles about their patient problems.
 - Demonstrate scholarship by citing references

Interpersonal and Communication Skills

- In the presence of patients and their families, the resident shall demonstrate the ability to:
 - Carefully listen to patients and attend to nonverbal communication so as to understand their questions and concerns.

- Demonstrate socio-cultural sensitivity to patients & families and their preferences
- Speak plainly in jargon-free layman terms to communicate clearly and effectively (or otherwise gear the level of communication to the patient's educational and professional level).
- Develop a therapeutic alliance with patients by instilling feelings of trust, honesty, openness, rapport, and comfort
- Partner with patients to assure compliance with a treatment plan
- Educate and counsel patients and their families in a clear and meaningful fashion regarding
 1. Disease process, prevention and prognosis
 2. Informed consent including risk versus benefits of a procedure
 3. Alternatives to proposed treatment
 4. Compliance with a therapeutic plan
 5. End of life and palliative care
 6. Genetic counseling
- Ask the patient and/or family to describe the therapeutic plan to make certain it is correctly understood.
- Control the resident's own feelings and behavior so that it does not interfere with appropriate treatment
- Communicate effectively and work collaboratively with nurses, students, clerks and other healthcare professionals involved in the patient's care.
- The resident shall demonstrate the ability to write notes that describe essential information with clarity and that are useful to other health professionals.
- The resident shall demonstrate the ability to obtain, interpret, and evaluate consultations from other medical specialties. This shall include:
 1. Knowing when to solicit consultations
 2. Communicating clearly the reason for the consultation
 3. Discussing the consultation findings with the consultant
 4. Discussing the consultation findings with the patient and family
- The resident shall demonstrate the ability to serve as an effective consultant to other medical specialists. This shall include:
 1. Clarifying the consultation question by speaking directly with the physician requesting the consult
 2. Maintaining the role of consultant in follow-up
 3. Communicating clear and specific recommendations verbally and in writing
 4. Respecting the expertise of the requesting professionals when disagreements occur
- The resident shall maintain up-to-date medical records by
 1. Writing timely legible notes
 - a. Complete H&Ps
 - b. Concise substantive daily progress notes using the S.O.A.P. format
 - c. Concise discharge summaries
 - d. Patient instructions
 2. Writing timely legible orders

3. Writing legible prescriptions.
 4. Dictating reports with clarity
- The resident shall demonstrate the 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
 - The resident shall demonstrate the ability to communicate effectively during rounds with
 1. Concise and accurate oral presentations
 2. Careful listening
 3. Effective command of pertinent patient details to answer questions
 4. Incisive questioning posed to the attending and others
 5. Literature citations relevant to the discussion
 - The resident shall demonstrate the ability to teach medical students
 - In the fundamentals of daily routines (e.g., how to access labwork, patient records, neuroimaging and scheduling clerks, write orders and progress notes)
 - The neurological exam
 - Neuroanatomical localization of the lesion
 - Formulation of a diagnostic and therapeutic plan
 - Feedback on medical student notes that the resident co-signs
 - Counseling and educating patients and their families
 - Supervision of lumbar punctures and other procedures
 - How to prepare for oral presentations to the attending

Professionalism

- The resident shall demonstrate responsibility for their patients' care, including:
 - Responding to communication from patients and health professionals in a timely manner
 - Seeing patients promptly in clinic without prolonged delays
 - Seeing patients promptly in consultation at the ER, ICU and in the hospital
 - Rounding with the ward team on time
 - Communicating with the attending in a timely fashion
 - Ordering laboratory and diagnostic tests in a timely manner.
 - Arranging back-up for emergent and urgent care when necessary
 - Documenting the patient's course in the medical records in a timely fashion
 - Arranging coverage for absence (for example, when out of town or on vacation)
 - Coordinating care with other members of the medical and/or multidisciplinary team
 - Providing for continuity of care, including appropriate consultation, transfer, or referral if necessary
 - Genuinely taking the attitude "the buck stops with me" and "I will go the extra mile" in the care of his/her patient.

- The resident shall demonstrate ethical behavior, integrity, honesty, compassion, and confidentiality in the delivery of care
- The resident shall demonstrate a courteous respect for patients and their families, regardless of their age, culture, disability, ethnicity, gender, socioeconomic background, religious belief, political leaning, and sexual orientation. Respect includes
 - Appropriate dress
 - Shaking hands on meeting the patient and family
 - Maintaining eye contact during conversations
 - Sensitivity to special cultural or ethnic needs of patients
 - Collegiality in interactions with patients and personnel
 - Delivering on promises to return a patient call, submit a timely prescription or fill out an insurance form.
- The resident shall demonstrate understanding of and sensitivity to end of life care and issues regarding provision of care.
- The resident shall review their professional conduct and remediate when appropriate.
- The resident shall participate in the review of the professional conduct of his/her colleagues when circumstances require it.
- The resident shall acknowledge medical errors, should they occur, and engage in their remediation.
- The resident shall provide a role model for medical students and for other residents.

Systems Based Practice

The resident shall have a working knowledge of the diverse systems involved in treating patients. This will include the:

- Mandatory attendance at the campus wide lecture series on systems based practice
 - Use of practice guidelines from the American Academy of Neurology website
 - Ability to access community and national resources that improve the quality of life of patients with chronic neurological illnesses (e.g., National Epilepsy Foundation, ALS society, Muscular Dystrophy Association, National Parkinson's Foundation)
 - Leading and/or delegating authority (as ward chief) to service team members and other healthcare personnel to provide comprehensive care for patients.
 - Demonstration of skills in Neurology Clinic,
 - including time management (e.g., identifying patient bottlenecks and correcting them)
 - clinical scheduling
 - efficient communication with referring physicians
 - constructive feedback to questionnaires designed to improve clinic efficiency
6. Timely consultation for the optimal management of patients with complicated medical illness
7. Arranging and providing timely cross-coverage
8. Recognizing potential errors in reported medical data due to systems problems
- delays in transferring samples to the lab,
 - laboratory error

- mistaken identity
 - mistaken entry into a computerized data base.
- 9. Recognizing medical errors committed by health care providers and other personnel through periodic QA/QI conferences.
- The resident shall demonstrate
 - An understanding of health care costs and cost containment including
 - Selectivity in ordering neuro-imaging and other tests
 - Consideration of cost when treatments are comparable in efficacy
 - Cooperation with Pharmacy to use the most cost effective drugs.
 - Cooperation with case managers
 - Use of critical pathways
 - Ability to recognize and pre-empt non-medical reasons that prolong hospital length of stay
 - Accurate coding (CPT & ICD9) and proper documentation to secure timely reimbursement from third party payers
 - the ability to act as patient advocate.
 - knowledge of the legal aspects of neurological diseases as they impact patients and their families
 - an understanding of risk management by participating in the annual full day UT sponsored course.
 - Knowledge of managed health systems including utilization review and patient safety.
 - knowledge of and interaction with community services that offer skilled nursing care, rehabilitation, substance abuse facilities, halfway houses, nursing homes and hospices.
- The resident shall demonstrate
 - A working understanding of patient safety issues that include
 - Prevention of the transmission of infectious diseases by health care personnel (e.g., annual TB testing, routine washing hands, wearing gloves and masks, reports of needle sticks)
 - OSHA regulations (e.g., by taking the mandatory annual UT sponsored course)
 - Hospital disaster drills (active participation in periodic code delta exercises at the VAMC)
- The resident shall demonstrate
 - A working understanding of patient privacy issues that include
 - HIPPA regulations (e.g., by taking the mandatory annual UT and VAMC sponsored course)
 - Cybersecurity training (e.g., by taking the mandatory annual VAMC sponsored course)
- Learn to recognize and pre-empt non-medical issues that prolong hospital length of stay
- Learn to be more selective in costly diagnostic tests
- Cooperate with Pharmacy to use the most cost effective drugs.

Appendix J: General Competencies

Document how the program has integrated the six neurology competencies (i.e., patient care, medical knowledge, practice-based learning and improvement, professionalism, and systems-based practice) into the didactic and clinical curriculum. Describe the method(s) used to evaluate resident performance in each area (e.g., 360 degree evaluation, patient surveys, portfolios, record review, simulations, standardized oral exams, standardized patients, written examinations, etc.).

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The ACGME is monitoring the implementation of general competencies and assessment by using a common data collection tool. Log onto the Web Accreditation Data System and proceed to the Site Visit Information section and select *Update/Verify Competency and Assessment Form* to enter your information. Once the information has been entered and saved, select *Print ADS*

PATIENT CARE

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Accurate History & Neurological Exam, Formulation & Plan for neuromuscular, epilepsy and sleep disorders	Demonstrate methodical structured interview, neuro-exam & diagnostic thinking	Live patient in clinics, hospital and EMG testing	Checklist, informal & written feedback	Daily observations and monthly evaluation	Immediate informal and written feedback	Program Director offers corrective action as needed.
Sound clinical decision-making	Orders appropriate diagnostic tests, consults & treatment plan	Presentations to staff, oral presentations at daily work rounds (variation on record review)	Immediate informal critique and constructive feedback. Global rating. Chart review.	Monthly/Quarterly	Written evaluation at end of month	Deficiencies are addressed immediately by attending and in quarterly meetings by the Program Director
Accurate exam for diagnosis and prognosis of epilepsies, sleep and neuromuscular disorders	Demonstrate methodical structured neuro-exam & diagnostic thinking	Observation with live patients	Checklist, informal & written feedback	Daily/Monthly/Quarterly	Immediate informal and written feedback and monthly evaluations	Program Director offers corrective action as needed. Annual review .
Performs and interprets EMG/NCV tests	Learn electrode placement, choose proper tests/diagnosis	Daily observation, discussion, feedback	Daily, during performance of the studies, monthly evaluations	Daily, monthly and in quarterly meetings	Immediate informal, weekly quiz, monthly, quarterly evaluations	Program Director offers corrective action as needed, deficiencies are addressed immediately by the attending.
Reads and interprets EEGs and Evoked Responses	Learn to read and interpret the studies	Daily observations, discussion	Daily during performance of studies, monthly evaluations	Daily, monthly, quarterly evaluations	Immediate informal, weekly quiz, monthly, quarterly evaluations	Program Director offers corrective action as needed, deficiencies are addressed immediately

						by the attending
Reads and interprets sleep studies	Learn to read and interpret the studies	Daily observations, discussion	Daily, during performance of studies and monthly evaluations	Daily, monthly, quarterly evaluations	Immediate informal, weekly quiz, monthly, quarterly evaluations	Program Director offers corrective action as needed, deficiencies are addressed immediately by the attending

MEDICAL KNOWLEDGE

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Expanded knowledge base in neurological emergencies	Orders appropriate diagnostic tests, consults & treatment plan	Day to day supervision when emergencies occur, discussion	Daily observations, weekly quiz, monthly evaluations	Daily, monthly, final exam	Written evaluations, quarterly meetings	Reorganize course to address common weaknesses.
Neuro-anatomy	Identifies key CNS & PNS structures and their function	Supervise, observe electrode placement/ muscle identification	Daily observations, monthly evaluations	Daily, monthly evaluations, final exam	Written evaluations and quarterly meetings	Feedback to attending, Program Director faculty on common weaknesses, reorganize course
Neuro-rehab	Requests appropriate consults from PT, OT, speech pathology, dysphagia, and other disciplines	Supervise, observe, discussion during rounds	Daily observations	Daily	Written evaluations and quarterly meetings	Feedback, reorganize course to address common weaknesses
Neuropathology	Identify gross and microscopic neuropath specimens	Supervise, observe, discussion weekly when reading biopsies	Observation, monthly evaluations	Weekly	Global assessment	Feedback, reorganize course to address common weaknesses
Pediatric Neurology	Demonstrate methodical structured neuro-exam & diagnostic thinking	Supervise during weekly EMG/EEG, clinics and rounds	Observation, weekly quiz, monthly evaluations, AANEM exam	Weekly, monthly	Global assessment, immediate and written feedback	Feedback, discussed by faculty, reorganize course to address common weaknesses

PRACTICE-BASE LEARNING

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Uses Information technology to improve patient care	Demonstrates facility in accessing Medline, Internet sites and other data bases.	Role modeling	Attending notes literature citations and other data brought to bear on patient care (Global rating)	Monthly	Written evaluation at end of month	Periodic review
Critically evaluates the medical literature to improve patient care.	Organizes a focused talk I a scientific context	1. In rounds 2. Journal Club 3. Tri-weekly seminars	Dr. Bertorini critiques residents at Journal Club, during meetings and seminars.	Weekly	Informal evaluation	Periodic review
Applies research and statistical methods	Conducts a research project with presentation at a national meeting and publication in a peer-reviewed journal.	Research mentor	Mentor comments during project and peer review of the manuscript	Research spare time on Wednesday afternoons	End of project publications	Periodic review

INTERPERSONAL & COMMUNICATION SKILLS

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Listening, interviewing and communication skills	Obtains key history during patient encounter. Shows compassionate bedside manner. Effective counseling.	1. Live patients, during EMG tests	Checklist, informal & written feedback	Daily, monthly evaluations	Immediate informal and written feedback	Periodic review.
Establishes therapeutic relationship with patients during rounds/clinics.	1. Average wait for outpatient to see MD is less than 45 minutes, 2. Explains clearly, provides patient education & schedules timely re-visit.	Role modeling with teaching Attending.	Daily and monthly evaluations	Weekly quiz, monthly evaluations	Survey results and part of outpatient evaluation	Periodic review
Rapport with patient and family	Demonstrates empathy, respect and concern for patient and family preferences	Role modeling with teaching attending	Attending observation of Resident-patient interaction during daily work rounds on the inpatient services (Global assessment)	Monthly	Informal and written feedback	Periodic review

PROFESSIONALISM

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Works easily with colleagues and other personnel. Shows leadership skills.	Provides coverage ward & clinic when unavailable (eg on vacation).	Role modeling	360 degree feedback from secretaries, clinic clerks, staff and others	Monthly evaluations, six months	Informal and written feedback	Periodic review.
	Takes charge in coordinating care with other members of a medical team	Role modeling. Direct counseling by colleagues & staff when deficiencies are identified.	Global assessment	Monthly	Informal and written feedback.	Periodic review
	Discharge summaries completed in timely fashion.	Orientation	Medical Records informs Program Director of delinquencies.	Monthly	Informal and written feedback	Periodic review
Demonstrates knowledge of ethical issues in medicine	Understands the legal rights of patients undergoing research.	1. AAN sponsored course on ethics for neurologists 2. CITI on-line course: The Protection of Human Research Subjects.	Monthly evaluations	Monthly, six months, annual	Certificate of course completion.	

SYSTEMS BASED PRACTICE

Required skill(s)	Specific Objectives	Teaching Method	Evaluation Method	Timing	Feedback to Resident	Program Improvement
Basic concepts of diverse systems in hospital and other medical practices	Reduces risk management in patient care	During test performance, daily rounds, clinics, QA/QI conferences. Resident Risk management half day conference	Interactive conferences	Monthly, annual	Immediate	Corrective measures from QA/QI are incorporated and shared with medical administration.
	Demonstrates knowledge of ICD9 and CPT coding	Conferences	Feedback, discussion	Annual	Immediate	Periodic evaluation
	Uses Medical Ethics	Didactic conferences	Interactive conferences	Bi-annual	none	Periodic evaluation