Rotation Overview:

Outpatient Neurological Services at the UCLA Westwood and the West LA VA campuses house multiple general neurology and neurology subspecialty clinics. Residents have the opportunity to rotate through the subspecialty clinics during this rotation. The rotation is a 5-week mandatory rotation in the PGY2 year and a 4-6 week elective rotation in the PGY3 and PGY4 years. Participating residents examine patients in the various subspecialty clinics under the supervision of attending neurologists with expertise in each subspecialty area.

Clinical teaching and patient encounters are meant to introduce the residents to subspecialty areas in neurology and to the specific management issues common to each clinical entity. This limited rotation is designed to provide a window into each subspecialty area rather than to be exhaustive in its educational approach. It is assumed that residents may repeat this rotation during residency. This rotation may also motivate a given resident to identify a subspecialty interest prompting the resident to participate in a more concentrated subspecialty elective or post-graduate fellowship.

This overview outlines the Subspecialty Rotation as a unified or integrated curriculum. This rotation provides a structure for resident education in all of the core competency areas; however there are rotation activities that promote growth in specific competency areas, which are further identified below 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

Principle Teaching / Learning Activities:

1) **Scheduled clinical activities** are as noted below with the expectation that morning clinics begin at 9:00 a.m. and afternoon clinics at 1:00 p.m. Clinic activities occur on the Westwood Campus in the 300 Medical Plaza. Those scheduled at the West LA VA are designated with an (*) and the clinic location is noted below the schedule. There is a community neurology experience in the evening at the Venice Family Clinic noted with (**) . Directions to this location are attached to these goals and objectives as an addendum. Venice Family Clinic is on the 3rd Thursday evening of the month (6-9:00 p.m.).

Competencies addressed: 1, 2, 3, 4, 5, and 6.
<table>
<thead>
<tr>
<th>Time</th>
<th>Clinic</th>
<th>Primary Attending</th>
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<tbody>
<tr>
<td>Monday a.m.</td>
<td>Neuro Otology</td>
<td>Dr. Robert Baloh</td>
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<tr>
<td>Monday p.m.</td>
<td>Neuro Oncology</td>
<td>Dr. Timothy Cloughesy</td>
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<tr>
<td>Tuesday a.m.</td>
<td>Neuromuscular (MDA)</td>
<td>Dr. Shieh / Dr. Graves</td>
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<tr>
<td>Tuesday p.m.</td>
<td>Movement Disorders*</td>
<td>Dr. Indu Subramanian</td>
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<tr>
<td>Wednesday a.m.</td>
<td>Residency Core Didactics</td>
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<tr>
<td>Wednesday p.m.</td>
<td>Multiple Sclerosis</td>
<td>Dr. Giesser / Dr. Sicotte</td>
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<tr>
<td>Thursday a.m.</td>
<td>Neurobehavior Clinic*</td>
<td>Dr. Mario Mendez</td>
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<td>Thursday p.m.</td>
<td>Independent Study</td>
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<td>Friday a.m.</td>
<td>Ataxia Clinic</td>
<td>Dr. Susan Perlman</td>
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<tr>
<td>Friday p.m.</td>
<td>Movement Disorders</td>
<td>Dr. Jeffrey Bronstein</td>
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* The Movement Disorders Clinic at the West LA meets in the 1 West Clinic. The
  Neurobehavior Clinic meets in with Neurobehavior Unit located at the West LA VA
  on 3 South, Building 500.

2) **Didactics:**

- **Neurophysiology Conference**: Tuesdays 12 noon-1 p.m., Oldendorf conference
  room (topics in neurophysiology such as intra-operative monitoring, sleep
  medicine, evoked potentials, EEG interpretation).
  Competencies addressed: 1, 2, 3, and 6.

- **Neuromuscular/Electrodiagnostic Medicine Conference**: Tuesday 1-2 p.m.,
  Oldendorf conference room (UCLA Reed Neurologic Research Center).
  Competencies addressed: 1, 2, 3, and 6.

- **Neuromuscular Pathology Conference**: first Tuesday of the month, 1-2 p.m.,
  Oldendorf Conference Room (UCLA Reed Neurologic Research Center).
  Competencies addressed: 1, 2, 3, and 6.

- **Cognitive Neurology Conference** is a series didactic sessions with Dr. Mendez
  covering brain-behavior disorders and topics in cognitive neurology. This
  conference is scheduled on Thursdays from 8:00 a.m. – 9:00 a.m. in the
  Neurobehavior unit prior to starting the scheduled Neurobehavior clinic.
  Competencies addressed: 1, 2, 3, and 6.

- **Movement Disorders Clinical Conference** is scheduled at 4:00 p.m. on Friday
  afternoons. A diagnostically challenging or interesting patient is presented for
  examination and discussion.
  Competencies addressed: 1, 2, 3, and 6.

** In addition, all residents rotating through this Subspecialty Rotation are
expected to attend and benefit from the competency-based curriculum or
DIDACTIC THREAD covered in the Wednesday lecture series (Grand Rounds, Core Curriculum, Resident Update Meetings, Journal Club, Neuroanatomy Case Review, and NOC).

Principle Educational Goals / Objectives:

Aside from providing residents with a menu of subspecialty patient experiences and didactics, the educational goals and objectives for this rotation are subspecialty specific and are listed by each subspecialty below:

Neuro-Otology:
- Know how to distinguish vertigo from other types of dizziness.
- Know how to do a bedside vestibular exam.
- Know how to diagnose the common causes of vertigo.
- Know how to treat benign positional vertigo.

Neuro-Oncology:
- Recognize common presentations of brain tumors, order appropriate diagnostic testing evaluations, and provide a differential for other conditions that may mimic brain tumors.
- Describe grading systems for gliomas.
- Treat symptoms associated with increased intracranial pressure.
- Understand the controversy regarding prophylaxis of seizures in brain tumor patients without prior seizures.
- Describe various treatment options for patients with newly diagnosed glioma.
- Discuss the use of MRI and other imaging modalities in following persons with a brain tumor.
- Be able to diagnose cord compression from intra-axial and extra-axial metastases to the cord.

Neuromuscular:
- Be able to recognize patterns of neuromuscular weakness and then generate a differential diagnosis based on the presentation and examination (myopathy, neuropathy).
- To be exposed to the common clinical presentations and examination features in patients with relatively unusually neuromuscular disorders (ALS, myotonic dystrophy, FSH dystrophy, dystrophinopathies, hereditary neuropathies, myasthenia gravis).
- To be aware of the multi-disciplinary needs and care options for patient with chronic and progressive neuromuscular diseases.
- To develop a working knowledge of typical diagnostic testing necessary in the evaluation of patients with neuromuscular disease.

Movement Disorders / Parkinson’s Disease:
• Recognize common presentations of Parkinson’s disease and other movement disorders provide a differential diagnosis for other conditions that may mimic these disorders, and be able to order appropriate diagnostic testing for these diagnoses.
• Describe the basic pathology and epidemiologic patterns of Parkinson’s disease and other common movement disorders.
• Understand and provide symptomatic treatment of Parkinson’s disease and other common movement disorders.
• Know when to prescribe basic rehabilitation modalities (physical therapy, occupational therapy, speech therapy) used in treating Parkinson’s disease and other movement disorders including the use of assistive devices (walkers, wheelchairs, splints).

Multiple Sclerosis:
• Recognize common presentations of MS, order appropriate diagnostic evaluations, and provide a differential for other conditions that may mimic MS.
• Describe the basic immunology of MS.
• Describe epidemiologic patterns seen in MS (e.g., geography, ethnicity, gender).
• Describe the several clinical courses of MS (e.g., relapsing remitting, secondary progressive, primary progressive).
• Treat an acute exacerbation of MS, in both in-patient and out patient conditions, and recognize and treat pseudo-exacerbations.
• Understand and provide symptomatic treatment for common primary and secondary symptoms of MS.
• Know when to prescribe basic rehabilitation modalities used in treating persons with MS.
• Know how to prescribe and monitor “first-line” disease modifying agents used for prophylactic management of MS.

Neurobehavior:
• Recognize the common manifestations of brain-behavior disorders (behavioral manifestations of brain disease)
• Develop skill in the performance of mental status assessment as a tool for the neurological evaluation and localization of these disorders
• Gain an understanding of the breadth of possible cognitive and neuropsychological evaluation
• Gain an understanding of some of the basic principles of behavioral and cognitive neurology and the diseases associated with them
• Evaluate at least 1 patient from each of the three basic domains of Neurobehavior:
  o Dementia/delirium
  o Focal cognitive disorders
  o Neurological neuropsychiatry.
• Gain a beginning familiarity with the use of psychoactive medications in brain disorders

Ataxia/Neurogenetics:
See at least one example each of a dominantly inherited ataxia, a recessively inherited ataxia (preferably Friedreich’s ataxia), a spastic ataxia (any inheritance), a pure cerebellar syndrome (any inheritance), a multiple system atrophy, a mitochondrial disorder, and a Huntington’s disease. Other neurogenetic conditions may also be seen.

Perform a neurologic history and examination that reveals the neural subsystems involved in each of the above phenotypes.

Discuss the differential diagnosis and appropriate work-up of both the genetic and acquired causes of these phenotypes.

Describe the typical progression of symptoms, expected timeline of disability, appropriate reevaluations over time, and areas of concern for these conditions.

Discuss pharmacologic management of symptoms in these conditions and any cautions with the use of certain drugs.

Discuss the current understanding of the genetic mechanisms involved in the pathophysiology of these conditions and the possible use of experimental therapies based on these mechanisms.

Describe appropriate genetic counseling for the patient and family. Know what support resources are available for the patient and family and know how to manage confidential genetic information. Be able to go online to get more information about rare neurogenetic diseases.

**Recommended Resources / References:**

3) Merritts Textbook of Neurology.
4) Neurological Differential Diagnosis, 3rd Edition; John Phillip Patten.
11) Computer access to internet sources and the UCLA Website with available links to the following resources:

   - Pub Med Medline, Harrison’s On Line, MD Consult
   - STAT, Biomedical Library

**Evaluation Methods:**
• At the end of the rotation the attending faculty that have worked with the resident team are asked to fill out a comprehensive evaluation form that is based on the core competency areas and the goals/objectives listed above. These evaluations are compiled and reviewed with each resident biannually.

• The residents and medical students assess the performance of each member of rotating health care team by completing peer evaluations. These peer evaluations are compiled and reviewed with each resident biannually.

• Residents are asked to assess the faculty mentors that they have worked with as well as the overall rotation, again with the use of a written evaluation form.

• Resident Update Meetings, Residency Training Committee meetings, and Resident retreats provide an ongoing forum for recommending curricular or structural changes in the rotation.

Rev. 05/10