Mount Sinai Pediatric Neurology Residency Program
Icahn School of Medicine at Mount Sinai
Teaching Conferences

Neurology Core Curriculum Noon Conference is a 1 hour lecture held daily from 12-1p in the Department of Neurology Yahr Library to cover the neurology residency program core curriculum. It is attended by all the adult neurology residents on site along with pediatric neurology residents in all three years of the training program who will be required to attend.

Basic science topics will be covered within each topic in all subjects of neurology and are mandatory for pediatric and adult neurology residents. Below is our planned lecture schedule organized roughly by topic with the goal of covering all of the topics over a 3-year curriculum:

Summer Session (Common Emergencies & Consults)
1. Neurological Exam
2. Neuro-ophthalmologic exam / emergencies
3. Ischemic stroke/tPA/Endovascular interventions
4. Acute Confusional State / Toxic Metabolic Encephalopathy
5. Status Epilepticus / Intro to EEG and Epilepsy
6. Neuromuscular emergencies / Guillain-Barre Syndrome / Myasthenia Gravis
7. Spinal Cord emergencies / Cord Compression / Spine Trauma
8. Movement Disorder emergencies
9. Headache emergencies
10. ICP and herniation syndromes
11. Neuro-onc emergencies - herniation, malignant cord compression, leptomeningeal mets
12. Principles of interpretation of MRI & CT

Neuroanatomy
13. Surface Anatomy - Cerebral Hemispheres
14. Surface Anatomy – Cerebellum & Brainstem
15. Peripheral Anatomy – embedded within Neuromuscular curriculum lectures
16. Spinal Cord – embedded within spinal cord trauma and neuromuscular lectures
17. Meninges/CSF, Regional Anatomy – embedded within ICP and encephalitis lectures
18. Thalamus/Hypothalamus – embedded within stroke and ICH lectures
19. Limbic System – embedded within dementia, encephalitis, etc.
20. Basal Ganglia – embedded within movement disorders lectures
21. Vascular anatomy – embedded within stroke lectures

Basic neurophysiology and cellular biology
22. Neuron Structure/Intracellular Trafficking – embedded in neurophysiology lectures
23. Membrane Potential & Action Potential – embedded in neurophysiology lectures
24. Neurotransmission – embedded in neuromuscular and demyelinating disorders lectures

Development
25. Stem cells, cell determination – embedded in Peds Neuroembryology lectures
26. Embryogenesis, neurogenesis, migration – embedded in Peds Neuroembryology lectures

Neuropharmacology
27. Anti-epilepsy drugs 1
28. Anti-epilepsy drugs 2
29. Disease Modifying Therapies for MS & Demyelinating Disorders
30. Stroke (antiplatelets, tPA)
31. Neuropsychopharmacology - Antidepressants/Antipsychotics

**Neuroradiology**
32. Neuroradiology of Multiple Sclerosis
33. Neuroradiology of the Spine
34. Angiography: MRA and CT Angiography (CTA) in Stroke
35. Neurophakomatosis

**General Neurology Topics**
36. Back Pain / Pain/Opioids
37. Neuro-Otology - Vertigo & Audiology

**Neuropathology**
38. Neuropathology of Brain Tumors
39. Neuropathology (Forensic)
40. Neuropathology of CNS Infections
41. Neuropathology of Degenerative Diseases
42. Neuropathology of Autoimmune & Demyelinating Neuropathies
43. Muscle & Nerve Neuropathology

**Neuro-ophthalmology**
44. Extraocular Movements & Evaluation of Diplopia
45. Sudden Visual Loss

**Behavioral Neurology**
46. Neuropsychological testing

**Neurodegenerative Diseases**
47. Parkinson’s Disease – diagnosis, pharmacological & surgical management approaches
48. Alzheimer’s Disease/Dementias/MCI clinical
49. NPH, Gait disorders
50. ALS

**Neurogenetic / Neurodegenerative Diseases**
51. Huntington’s Disease

**Neuroinfectious Diseases**
52. HIV Neurology
53. Prion Diseases - CJD clinical and basic science
54. Meningoencephalitis

**Neuroimmunology**
55. MS Clinical Features / Basic neuroimmunology
56. Introduction to Neuromyelitis Optica (NMO)
57. Transverse Myelitis
58. Symptom Management in Multiple Sclerosis
59. Neurosarcoidosis
60. Neurological Manifestations of SLE

**Vascular & Critical Care Neurology**
61. Intro to Neurocritical Care
62. Stroke Syndromes / TIAs
63. Posterior Fossa Stroke
64. Stroke Mimics & Chameleons
65. Stroke Prevention
66. Traumatic CNS Injury
67. Vascular Dissections
68. Subarachnoid hemorrhage
69. Stupor & Coma
70. Brain Death Exam
71. Neurological Essentials of Acute & Chronic Spinal Cord Injury

**Neuromuscular**
72. Peripheral Demyelinating Neuropathies / Autoimmune Neuropathies
73. Introduction to Neuromuscular Ultrasound
74. Diagnosis & Management of Neuropathic Pain
75. Mononeuropathies & Plexopathies of the Upper Limb
76. Mononeuropathies & Plexopathies of the Lower Limb
77. Hereditary Neuropathies
78. Peripheral & Autonomic Neuropathies
79. Myasthenia Gravis
80. AIDP/GBS
81. Intraoperative Monitoring

**Neuro-otology**
82. Meniere’s Disease

**Movement Disorders**
83. Chorea & Hyperkinetic Disorders
84. Tremor, Dystonia, Tics, Other Movement Disorders

**Headache**
85. Common Headache Syndromes
86. Status migrainosis / Migraine management in the ED
87. Migraine Pathophysiology
88. Trigeminal Autonomic Cephalgias
89. Facial Pain
90. Head injury and headache
91. Tension type headache
92. Chronic daily headache
93. Analgesic overuse headache
94. Headache & Pregnancy
95. Botox and Nerve Blocks
96. Alternative Therapies for Headache

**Epilepsy**
97. Management of First Time Seizure
98. Classification of Seizures & Epilepsy
99. EEG in the Critically Ill & ACNS Nomenclature
100. Seizure Semiology
101. Adolescent/Adult Epilepsy Syndromes
102. Epilepsy in Women & Pregnancy
103. Non-pharmacological Therapies for Epilepsy
104. Epilepsy Neurosurgery
105. Psychogenic Non-Epileptic Seizures (PNES)
106. AED Discontinuation

**Sleep Medicine**
107. Intro to Sleep Part 1 – EDS (OSA, narcolepsy)
108. Intro to Sleep Part 2 – Parasomnias

**Ethics**
109. Neuroethics
Health Care Management/Practice Management
110. Running a Neurology Practice
111. Coordinated Care Models

Quality Assurance
112. Making Medical Errors
113. Diagnostic Errors in Clinical Decision Making

Medical Education
114. Teaching Medical Students

Wellness
115. Wellness Sessions

Miscellaneous
116. RITE Review Session 1
117. RITE Review Session 2
118. RITE Review - EEG
119. RITE Review - Peds Neuro
120. Monthly Continuum Based Teaching of Neurological Disorders
     -Presented by PGY-4 neurology residents