

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. Neurophakomatoses

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 migrainosus / 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