

Neonatal Seizures

Objectives

- Explain why the neonatal brain is susceptible to seizure
- Describe the classifications of neonatal seizures
- Know why an EEG is necessary for diagnoses of neonatal seizures
- Identify the most common etiologies for neonatal seizures
- List the high-risk populations for which a cEEG should be instituted to detect seizures
- Differentiate between the first and second tier antiseizure medications and their indications for use

Content Outline

1. Introduction to Seizures in Neonates
2. Pathophysiology
 - A. Neurotransmitters and their role in neonatal seizures
3. Classification
 - A. Table 11-1 Seizure descriptors based on clinical feature
 - B. Figure 11-2 Seizure classification subtypes
4. Etiology
 - A. High-risk populations for seizures
5. Diagnosis
 - A. cEEG
 - B. Neuro-imaging
6. Management
 - A. Antiseizure medications including first tier, second tier and others used in neonates
7. Prognosis

Reading Material Resources

NI29111: Neonatal Seizures by Dalila Lewis, MD, FAAP and Andrew Tyler Knox, MD, MS is based on the resource listed below. A copy of the resource is included with the module.

Handbook of Neonatal Neurology, Bissinger, et al., The National Certification Corporation (NCC), 2024, Chapter 11, 211-232