National EMS Education Standard Competencies

**Medicine**
Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

**Neurology**
Anatomy, presentations, and management of
- Decreased level of responsiveness (pp 675–676, 685–686, 697)
- Seizure (pp 675–676, 681–685, 696–697)
- Stroke (pp 675–676, 678–681, 694–696)
Anatomy, physiology, pathophysiology, assessment, and management of
- Stroke/transient ischemic attack (pp 675–681, 686–696)
- Seizure (pp 675–676, 681–690, 693–697)
- Status epilepticus (pp 675–676, 682–690, 693–697)
- Headache (pp 675–678, 686–690, 693–695)

### Knowledge Objectives

1. Describe the anatomy and physiology and functions of the brain and spinal cord. (pp 675–676)
2. Discuss the different types of headaches, the possible causes of each, and how to distinguish a harmless headache from a potentially life-threatening condition. (pp 676–678)
3. Explain the various ways blood flow to the brain may be interrupted in case of a cerebrovascular accident. (p 678)
4. Discuss the causes, similarities, and differences of an ischemic stroke, hemorrhagic stroke, and transient ischemic attack. (pp 678–680)
5. List the general signs and symptoms of stroke and how those symptoms manifest if the left hemisphere of the brain is affected and if the right hemisphere of the brain is affected. (pp 680–681)
6. List three conditions with symptoms that mimic stroke and the assessment techniques EMTs may use to identify them. (p 681)
7. Define a generalized seizure, partial seizure, and status epilepticus; include how they differ from each other and their effects on patients. (pp 681–682)
8. Describe how the different stages of a seizure are characterized. (p 682)
9. Discuss the importance for EMTs to recognize when a seizure is occurring or whether one has already occurred in a patient. (p 684)
10. Explain the postictal state and the specific patient care interventions that may be necessary. (pp 684–685)
11. Describe altered mental status; include possible causes and the patient assessment considerations that apply to each. (pp 685–686)
12. Discuss scene safety considerations when responding to a patient with a neurologic emergency. (pp 686–687)
13. Explain the special considerations required for pediatric patients who exhibit altered mental status. (p 687)
14. Explain the primary assessment of a patient who is experiencing a neurologic emergency and the necessary interventions that may be required to address all life threats. (pp 687–689)
15. Describe the process of history taking for a patient who is experiencing a neurologic emergency and how this process varies depending on the nature of the patient’s illness. (pp 689–690)
16. Explain the secondary assessment of a patient who is experiencing a neurologic emergency. (pp 690–692)
17. Explain how to use stroke assessment tools to rapidly identify a stroke patient; include two commonly used tools. (pp 690–693)
18. Explain the concept of a stroke alert and the important timeframe for the most successful treatment outcome for a patient who is suspected of having a stroke. (pp 690, 694)
19. List the key information EMTs must obtain and document for a stroke patient during assessment and reassessment. (pp 693–694)
20. Explain the care, treatment, and transport of patients who are experiencing headaches, stroke, seizure, and altered mental status. (pp 694–697)
21. Explain the special considerations required for geriatric patients who are experiencing a neurologic emergency. (p 696)

### Skills Objective

1. Demonstrate how to use a stroke assessment tool such as the Cincinnati Prehospital Stroke Scale, 3-Item Stroke Severity Scale (LAG), or FAST mnemonic to test a patient for aphasia, facial weakness, and motor weakness. (pp 691–693)