



Pertinent Assessment Findings

1. Presence of thermal or non-thermal burns
2. Evidence of trauma
3. Evidence of focal neurologic deficits

Quality Improvement

Associated NEMSIS Protocol(s) (eProtocol.01) (for additional information, go to www.nemsis.org)

- 9914209 – Injury - Lightning/Lightning Strike

Key Documentation Elements

- Initial airway status
- Initial cardiac rhythm
- Neurologic exam (initial and repeat)
- Associated/secondary injuries
- Pain scale documentation/pain management

Performance Measures

- Cardiopulmonary issues addressed early and documented appropriately
- Patient transported to closest appropriate facility
- Pain scale documented and treated per guidelines (when appropriate)
- **National EMS Quality Alliance (NEMSQA) Performance Measures** (for additional information, see www.nemsqa.org)
 - o Trauma—01: Pain Assessment of Injured Patients

References

1. Anderson DR, Gillberg JM, Torrey JW, Koneru JN. Lightning induced inappropriate ICD shock: an unusual case of electromagnetic interference. *Pacing Clin Electrophysiol.* 2012;35(6): e159–62
2. Arnoldo BD, Purdue GF. The diagnosis and management of electrical injuries. *Hand Clin.* 2009;25(4):469–79
3. Blumenthal R. Secondary missile injury from lightning strike. *Am J Forensic Med Pathol.* 2012;33(1):83–5
4. Blumenthal R, Jandrell IR, West NJ. Does a sixth mechanism exist to explain lightning injuries? Investigating a possible new injury mechanism to determine the cause of injuries related to close lightning flashes. *Am J Forensic Med Pathol.* 2012;33(3):222–6
5. Brunner FX. [Bilateral tympanic membrane perforation caused by a lightning accident]. *HNO.* 1984;32(10):429–30
6. Centers for Disease Control and Prevention (CDC). Lightning-associated deaths – United States, 1980–1995. *MMWR Morb Mortal Wkly Rep.* 1998 May 22;47(19):391–94
7. Cherington M, Kurtzman R, Krider EP, Yarnell PR. Mountain medical mystery: unwitnessed death of a healthy young man, caused by lightning. *Am J Forensic Med Pathol.* 2001;22(3):296–8
8. Cooper MA. Emergent care of lightning and electrical injuries. *Semin Neurol.* 1995;15(3):268–78
9. Cooper MA. A fifth mechanism of lightning injury. *Acad Emerg Med.* 2002;9(2):172–4