

## **Quality Improvement**

### **Associated NEMSIS Protocol(s) (eProtocol.01)** (for additional information, go to [www.nemsis.org](http://www.nemsis.org))

- 9914027—Environmental - Heat Exposure/Heat Exhaustion
- 9914029—Environmental - Heat Stroke/Heat Exposure

### **Key Documentation Elements**

- Patient assessment includes all types of medication/drug use and detailed past medical history
- Environmental assessment performed
- Cooling interventions considered and implemented
- Decision-making regarding securing devices
- Decision-making regarding monitoring ABCs (Airway, Breathing, Circulation)

### **Performance Measures**

- Blood glucose level obtained
- Fluids given for hypotension
- Attempts to reduce core temperature
- Time from arrival at scene to when active cooling by immersion is started
- All decompensations during EMS care reviewed
- ***National EMS Quality Alliance (NEMSQA) Performance Measures*** (for additional information, see [www.nemsqa.org](http://www.nemsqa.org))
  - *Hypoglycemia—01: Treatment Administered for Hypoglycemia.*
    - *Measure of patients who received treatment to correct their hypoglycemia*
  - *Pediatrics—03: Documentation of Estimated Weight in Kilograms*

## **References**

1. Belval, L., Casa, D., Adams, W., Chiampas, G., Holschen, J., Hosokawa, Y., Jardine, J., Kane, S., Labotz, M., Lemieux, R., McClaine, K., Nye, N., O'Connor, F., Prine, B., Raukar, N., Smith, M. and Stearns, R., 2022. *Consensus Statement- Prehospital Care of Exertional Heat Stroke*.
2. Bouchama A, Knochel JP. Heat Stroke. *NEJM*. 2002;346(25):1978–88
3. Bouchama A, Dehbi M, Chaves-Carballo E. Cooling and hemodynamic management in heatstroke: practical recommendation. *Crit Care Lond Engl*. 2007;11(3): R54
4. Brugger H, Bouzat P, Pasquier M, Mair P, Fieler J, Darocha T, Blancher M, de Riedmatten M, Falk M, Paal P, Strapazzon G, Zafren K, Brodmann Maeder M. Cut-off values of serum potassium and core temperature at hospital admission for extracorporeal rewarming of avalanche victims in cardiac arrest: A retrospective multi-centre study. *Resuscitation*. 2019;139:222–229. doi: 10.1016/j.resuscitation.2019.04.025
5. Epstein, Y., Yanovich, R. “Heatstroke” *N Engl J Med* 2019;380:2449-59. <https://www.nejm.org/doi/pdf/10.1056/NEJMra1810762?articleTools=true>. Accessed March 11, 2022
6. Heled Y, Rav-Acha M, Shani Y et al. The “Golden Hour” for heatstroke treatment. *Mil Med*, 2004 169(3)184–186
7. Lipman G, Eifling K, Ellis MA, et. al. Wilderness Medical Society practice guidelines for the prevention and treatment of heat-related illness. *Wilderness Environ Med*.