



be associated with DKA

### **Quality Improvement**

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

- 9914121 – Medical - Hyperglycemia

### **Key Documentation Elements**

- Document reassessment of vital signs and mental status after administration of IV fluids
- Document glucose level (if in scope of practice) when indicated

### **Performance Measures**

- When in scope of practice, point of care blood glucose checked for all patients with symptoms of altered level of consciousness, seizure, stroke, or hyperglycemia
- When hyperglycemia documented, appropriate volume replacement given while avoiding overzealous repletion before insulin therapy at receiving center
- 12-lead EKG obtained
- ***National EMS Quality Alliance (NEMSQA) Performance Measures*** (for additional information, see [www.nemsqa.org](http://www.nemsqa.org))
  - o *Pediatrics—03: Documentation of Estimated Weight in Kilograms*

### **References**

1. Corwell B, Knight B, Olivieri L, Willis GC. Current diagnosis and treatment of hyperglycemic emergencies. *Emerg Med Clin North Am.* 2014;32(2):437–52
2. Desachy A, Vuagnat AC, Ghazali AD, et al. Accuracy of bedside glucometry in critically ill patients: influence of clinical characteristics and perfusion index. *Mayo Clin Proc.* 2008;83(4):400–5
3. Funk DL, Chan L, Lutz N, Verdile VP. Comparison of capillary and venous glucose measurements in healthy volunteers. *Prehosp Emerg Care.* 2001;5(3):275–7
4. Holstein A, Kuhne D, Elsing HG, et al. Practicality and accuracy of prehospital rapid venous blood glucose determination. *Am J Emerg Med.* 2000;18(6):690–4
5. Holstein A, Plaschke A, Vogel MY, Egberts EH. Prehospital management of diabetic emergencies – a population-based intervention study. *Acta Anaesthesiol Scand.* 2003;47(5):610–5
6. Jones JL, Ray VG, Gough JE, Garrison HG, Whitley TW. Determination of prehospital blood glucose: a prospective, controlled study. *J Emerg Med.* 1992;10(6):679–82
7. Kitabchi AE, Umpierrez GE, Miles JM, et al. Hyperglycemic crises in adult patients with diabetes. *Diabetes Care.* 2009;32(7):1335–43
8. Kulkarni A, Saxena M, Price G., et al. Analysis of blood glucose measurements using capillary and arterial blood samples in intensive care patients. *Intensive Care Med.* 2005; 31:142
9. Kumar G, Sng BL, Kumar S. Correlation of capillary and venous glucometry with laboratory determination. *Prehosp Emerg Care.* 2004;8(4):378–83
10. Roberts K, Smith A. Outcome of diabetic patients treated in the prehospital arena after a hypoglycemic episode, and an exploration of treat and release protocols: a review of the literature. *Emerg J Med.* 2003;20(3):274–6

### **Revision Date**

March 11, 2022