

Quality Improvement

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

- 9914111 – Medical - Allergic Reaction/Anaphylaxis

Key Documentation Elements

- Medications given
- Dose and concentration of epinephrine given
- Route of epinephrine administration
- Time of epinephrine administration
- Signs and symptoms of the patient

Performance Measures

- Percentage of patients with anaphylaxis that receive epinephrine for anaphylaxis:
 - Via the IM route (vs. other routes)
 - Via the IM route in the anterolateral thigh (vs. other locations)
- Percentage of patients with anaphylaxis who receive:
 - Epinephrine within 10 minutes of arrival
 - The appropriate weight-based dose of epinephrine
- Percentage of patients that require airway management in the prehospital setting (and/or the emergency department)
- ***National EMS Quality Alliance (NEMSQA) Performance Measures*** (for additional information, see www.nemsqa.org)
 - *Pediatrics—03: Documentation of Estimated Weight in Kilograms*

References

1. Banerji, A, Rudders SA, Corel B, Garth AP, Clark S, Camargo, CA Jr. Predictors of hospital admission for food-related allergic reactions that present to the emergency department. *Ann Allergy Asthma Immunol.* 2011;106(1):42–8
2. Breuer C, Wachall B, Gerbeth K, Abdel-Tawab M, Fuhr U. Pharmacokinetics, and pharmacodynamics of moist inhalation epinephrine using a mobile inhaler. *Eur J Clin Pharmacol.* 2013;69(6):303–10
3. Capps JA, Sharma V, Arkwright, PD. Prevalence, outcome, and pre-hospital management of anaphylaxis by first aiders and paramedical ambulance staff in Manchester, UK. *Resuscitation.* 2010;81(6):653–7
4. Dahlof C, Mellstrand T, Svedmyr N. Systemic absorption of adrenaline after aerosol, eye-drop and subcutaneous administration to healthy volunteers. *Allergy.* 1987;42(3):215–21
5. Hauswald M. Can paramedics safely decide which patients do not need ambulance transport or emergency department care? *Prehosp Emerg Care.* 2002;6(4):383–6
6. Heilborn H, Hjemdahl P, Daleskog M, Adamsson U. Comparison of subcutaneous injection and high-dose inhalation of epinephrine – implications for self-treatment to prevent anaphylaxis. *J Allergy Clin Immunol.* 1986;78(6):1174–9
7. Hompes S, Köhli A, Nemat K, et al. Provoking allergens and treatment of anaphylaxis in children and adolescents – data from the anaphylaxis registry of German-speaking countries. *Pediatr Allergy Immunol.* 2011;22(6):568–74
8. Huang F, Chawla K, Jarvinen KM, Nowak-Wegrzyn A. Anaphylaxis in a New York City pediatric emergency department: Triggers, treatments, and outcomes. *J Allergy Clin Immunol.* 2012;129(1):162–168.e1–3

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Rev. March 2022

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