

Anaphylaxis, Allergies, and Angioedema

Brian H. Rowe

Theodore J. Gaeta

REFERENCES

- Sampson HA, Munoz-Furlong A, Campbell RL, et al: Second symposium on the definition and management of anaphylaxis: summary report—Second National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network symposium. *J Allergy Clin Immunol* 117: 391, 2006. [PMID: 16461139]
- Bjornsson HM, Graffeo CS: Improving diagnostic accuracy of anaphylaxis in the acute care setting. *West J Emerg Med* 11: 456, 2010. [PMID: 21293765]
- Campbell RL, Hagan JB, Manivannan V, et al: Evaluation of National Institute of Allergy and Infectious Diseases/Food Allergy and Anaphylaxis network criteria for the diagnosis of anaphylaxis in emergency department patients. *J Allergy Clin Immunol* 129: 748, 2012. [PMID: 22051698]
- Johansson SG, Bieber T, Dahl R, et al: Revised nomenclature for allergy for global use: report of the Nomenclature Review Committee of the World Allergy Organization, October 2003. *J Allergy Clin Immunol* 113: 832, 2004. [PMID: 15131563]
- Kemp SF, Lockey RF: Anaphylaxis: a review of causes and mechanisms. *J Allergy Clin Immunol* 110: 341, 2002. [PMID: 12209078]
- Peavy RD, Metcalfe DD: Understanding the mechanisms of anaphylaxis. *Curr Opin Allergy Clin Immunol* 8: 310, 2008. [PMID: 18596587]
- Blatman KH, Ditto AM: Chapter 25: idiopathic anaphylaxis. *Allergy Asthma Proc* 33 (Suppl 1): S84, 2012. [PMID: 22794698]
- Gupta R, Sheikh A, Strachan DP, Anderson HR: Time trends in allergic disorders in the UK. *Thorax* 62: 91, 2007. [PMID: 16950836]
- Gaeta TJ, Clark S, Pelletier AJ, Camargo CA: National study of U.S. emergency department visits for acute allergic reactions, 1993 to 2004. *Ann Allergy Asthma Immunol* 98: 360, 2007. [PMID: 17458433]
- Nowak RM, Macias CG: Anaphylaxis on the other front line: perspectives from the emergency department. *Am J Med* 125 (1 Suppl): S34, 2014. [PMID: 24384136]
- Sciar DA, Lieberman PL: Anaphylaxis: underdiagnosed, underreported, and undertreated. *Am J Med* 127 (1 Suppl): S1, 2014. [PMID: 24384132]
- Lee S, Belloio MF, Hess EP, et al: Time of onset and predictors of biphasic anaphylactic reactions: a systematic review and meta-analysis. *J Allergy Clin Immunol Pract* 2015 Feb 11 [Epub ahead of print] [PMID: 25680923]
- Grunau BE, Li J, Yi TW, et al: Incidence of clinically important biphasic reactions in emergency department patients with allergic reactions or anaphylaxis. *Ann Emerg Med* 63: 736, 2014. [PMID: 24239340]
- Lieberman P: Treatment of patients who present after an episode of anaphylaxis. *Ann Allergy Asthma Immunol* 111: 170, 2013. [PMID: 23987190]
- Simons FE, Arduoso LR, Bilo MB, et al: World Allergy Organization anaphylaxis guidelines: summary. *J Allergy Clin Immunol* 127: 587, 2011. [PMID: 21377030]
- Sala-Cunill A, Cardona V, Labrador-Horrillo M, et al: Usefulness and limitations of sequential serum tryptase for the diagnosis of anaphylaxis in 102 patients. *Int Arch Allergy Immunol* 160: 192, 2013. [PMID: 23018683]
- Sampson HA, Mendelson L, Rosen JP: Fatal and near-fatal anaphylactic reactions to food in children and adolescents. *N Engl J Med* 327: 380, 1992. [PMID: 1294076]
- Lieberman P, Nicklas RA, Oppenheimer J, et al: The diagnosis and management of anaphylaxis practice parameter: 2010 update. *J Allergy Clin Immunol* 126: 477, 2010. [PMID: 20692689]
- Simmons FE, Arduoso LR, Bilo MB, et al: International consensus on (ICON) anaphylaxis. *World Allergy Organ J* 30: 9, 2014. [PMID: 24920969]
- Muraro A, Roberts G, Worm M, et al: Anaphylaxis: guidelines from the European Academy of Allergy and Clinical Immunology. *Allergy* 69: 1026, 2014. [PMID: 24909803]
- Lieberman PL: Reconciliation and first-line treatment of anaphylaxis. *Am J Med* 127 (1 Suppl): S6, 2014. [PMID: 24384138]
- Dhami S, Panesar SS, Roberts G, et al: Management of anaphylaxis: a systematic review. *Allergy* 69: 168, 2014. [PMID: 24251536]
- Kemp SF, Lockey RF, Simons FE, World Allergy Organization Ad Hoc Committee on Epinephrine in Anaphylaxis: Epinephrine: the drug of choice for anaphylaxis. A statement of the World Allergy Organization. *World Allergy Organ J* 1 (7 Suppl): S18, 2008. [PMID: 23282530]
- www.resus.org.uk/pages/reaction.pdf (Emergency treatment of anaphylactic reactions. Guidelines for healthcare providers. Working Group of the Resuscitation Council [UK]. 2008.) Accessed August 12, 2014.
- Simons FE, Gu X, Simons KJ: Epinephrine absorption in adults: intramuscular versus subcutaneous injection. *J Allergy Clin Immunol* 108: 871, 2001. [PMID: 11692118]
- Simons FE, Roberts JR, Gu X, Simons KJ: Epinephrine absorption in children with a history of anaphylaxis. *J Allergy Clin Immunol* 101: 33, 1998. [PMID: 9449498]
- Campbell RL, Belloio MF, Knutson BD, et al: Epinephrine in anaphylaxis: higher risk of cardiovascular complications and overdose after administration of intravenous bolus epinephrine compared with intramuscular epinephrine. *J Allergy Clin Immunol Pract* 3:76, 2015. [PMID: 25577622]
- Perel P, Roberts I, Ker K: Colloids versus crystalloids for fluid resuscitation in critically ill patients. *Cochrane Database Syst Rev* 2: CD000567, 2013. [PMID: 23450531]
- Rowe BH, Sevcik W, Villa-Roel C: Management of severe acute asthma in the emergency department. *Curr Opin Crit Care* 17: 335, 2011. [PMID: 21716106]
- Choo KJ, Simons FE, Sheikh A: Glucocorticoids for the treatment of anaphylaxis. *Cochrane Database Syst Rev* 4: CD007596, 2012. [PMID: 22513951]
- Sheikh A: Glucocorticoids of the treatment and prevention of anaphylaxis. *Curr Opin Allergy Clin Immunol* 13: 263, 2013. [PMID: 23507835]
- Sheikh A, Ten Broeck VM, Brown SG, Simons FE: H1-antihistamines for the treatment of anaphylaxis with and without shock. *Cochrane Database Syst Rev* 1: CD006160, 2007. [PMID: 17253584]
- Nurmatov UB, Rhatigan E, Simmons FE, Sheikh A: H2-antihistamines for the treatment of anaphylaxis with and without shock: a systematic review. *Ann Allergy Asthma Immunol* 112: 126, 2014. [PMID: 24468252]
- Shan Z, Rong Y, Yang W, et al: Intravenous and nebulized magnesium sulfate for treating acute asthma in adults and children: a systematic review and meta-analysis. *Respir Med* 107: 321, 2013. [PMID: 23290189]
- Nowak R, Farrar JR, Brenner BE, et al: Customizing anaphylaxis guidelines for emergency medicine. *J Emerg Med* 45: 299, 2013. [PMID: 23643240]
- Simons FE, Sheikh A: Anaphylaxis: the acute episode and beyond. *BMJ* 346: f602, 2013. [PMID: 23403828]
- Chan NJ, Soliman AM: Angiotensin converting enzyme inhibitor-related angioedema: onset, presentation, and management. *Ann Otol Rhinol Laryngol*. 124: 89, 2015. [PMID: 25059449]
- Rasmussen ER, Mey K, Bygum A: Angiotensin-converting enzyme inhibitor-induced angioedema: a dangerous new epidemic. *Acta Derm Venereol* 94: 260, 2014. [PMID: 24285044]
- Bezalel S, Mahlab-Guri K, Asher I, Werner B, Sthoeger ZM: Angiotensin-converting enzyme inhibitor-induced angioedema. *Am J Med*. 128: 120, 2015 [PMID: 25058867]
- Bas M, Greve J, Stelter K, et al: A randomized trial of icatibant in ACE-inhibitor-induced angioedema. *N Engl J Med*. 372: 418, 2015. [PMID: 25629740]
- Greve J, Bas M, Hoffmann TK, Schuler PJ, Weller P, Kojda G, Strassen U: Effect of C1-Esterase-inhibitor in angiotensin-converting enzyme inhibitor-induced angioedema. *Laryngoscope*. 2015 Jan 13. [Epub ahead of print] [PMID: 25583256]
- Lewis LM, Graffeo C, Crosley P, et al: Ecallantide for the acute treatment of angiotensin-converting enzyme inhibitor-induced angioedema: a multicenter, randomized, controlled trial. *Ann Emerg Med*. 65: 204, 2015. [PMID: 25182544]
- Moellman JJ, Bernstein JA: Diagnosis and management of hereditary angioedema: an emergency medicine perspective. *J Emerg Med* 43: 391, 2012. [PMID: 22285754]
- Canonica GW, Rossi O: Diagnosis and treatment of hereditary angioedema. *Panminerva Med* 54: 241, 2012. [PMID: 22801442]
- Banerji A: Hereditary angioedema: classification, pathogenesis, and diagnosis. *Allergy Asthma Proc* 32: 403, 2011. [PMID: 22221432]
- Floccard B, Hautin E, Bouillet L, Coppere B, Allaouchiche B: An evidence-based review of the potential role of icatibant in the treatment of acute attacks of hereditary angioedema type I and II. *Core Evid* 7: 105, 2012. [PMID: 23055948]
- Thomas MC, Shah S: New treatment options for acute edema attacks caused by hereditary angioedema. *Am J Health Syst Pharm* 68: 2129, 2011. [PMID: 22058099]
- Pekdemir M, Eysel M, Aksay E, Yanturali S, Akturk A, Kiyas S: Effective treatment of hereditary angioedema with fresh frozen plasma in an emergency department. *J Emerg Med* 33: 137, 2007. [PMID: 17692764]
- Nwaru BI, Hickstein L, Panesar SS, et al: The epidemiology of food allergy in Europe: a systematic review and meta-analysis. *Allergy* 69: 62, 2014. [PMID: 24205824]
- Muraro A, Werfel T, Hoffmann-Sommergruber K, et al: EAACI Food Allergy and Anaphylaxis Guidelines: diagnosis and management of food allergy. *Allergy* 69: 1008, 2014. [PMID: 24909706]
- Joint Task Force on Practice Parameters, American Academy of Allergy Asthma and Immunology, et al: Drug allergy: an updated practice parameter. *Ann Allergy Asthma Immunol* 105: 259, 2010. [PMID: 20934625]
- Lieberman P, Camargo CA Jr, Bohlke K, et al: Epidemiology of anaphylaxis: findings of the American College of Allergy, Asthma and Immunology Epidemiology of Anaphylaxis Working Group. *Ann Allergy Asthma Immunol* 97: 596, 2006. [PMID: 17165265]

USEFUL WEB RESOURCES

- Anaphylaxis Canada—<http://www.anaphylaxis.org/>
 EMNet: Anaphylaxis—http://www.emnet-usa.org/search_main.cfm?terms=anaphylaxis&submit=&x=19&y=9
 The Food Allergy and Anaphylaxis Network (FAAN)—<http://www.foodallergy.org>
 MedicAlert® U.S.—www.medicalert.org