# EVIDENCE-BASED PRACTICE RECOMMENDATIONS

An Evidence-Based Review Of Pediatric Anaphylaxis
Santillanes G, Davidson J. October 2010; Volume 7, Number 10

This issue of Pediatric Emergency Medicine Practice will focus on the identification of patients with anaphylaxis including those with atypical presentations. The authors review the literature behind the treatment of anaphylaxis and review recent guidelines on the topic.

<table>
<thead>
<tr>
<th>Key Points</th>
<th>Comments</th>
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<tbody>
<tr>
<td>Anaphylaxis can present with a variety of signs and symptoms.</td>
<td>Consider the diagnosis even in patients who don’t present with classic symptoms of urticaria, angioedema, or wheezing. Two recent studies found that about half of patients meeting criteria for food-related anaphylaxis did not receive a discharge diagnosis of anaphylaxis.</td>
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<td>The observation period must be individualized but a 6-hour observation period is supported by several expert guidelines.</td>
<td>The Resuscitation Council of the UK recommends at least 6 hours of observation for most patients. The statement published by the National Institute of Allergy and Infectious Diseases/Food Allergy and Anaphylaxis Network with input from the American College of Emergency Physicians and the American Academy of Pediatrics states that a 4 to 6 hour observation period is appropriate for most patients. Longer observation periods may be considered for patients with severe reactions or with risk factors for biphasic or fatal anaphylaxis.</td>
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<td>Intramuscular epinephrine is recommended as the most important treatment in all anaphylaxis treatment guidelines.</td>
<td>Limited data suggests that, in both adults and children, peak plasma epinephrine levels are reached more quickly with intramuscularly administered epinephrine than with subcutaneously administered epinephrine. However, one recent pediatric study found that the majority of ED epinephrine doses were administered subcutaneously rather than intramuscularly. Not only is epinephrine underused in the ED setting, but patients also underuse their epinephrine auto-injectors.</td>
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<td>Patients diagnosed with anaphylaxis should be discharged with an epinephrine auto-injector and instructions to follow-up with an allergist. They should also be counseled in trigger avoidance.</td>
<td>Many studies demonstrate a need for improvement in ED discharge medications and instructions for patients with anaphylaxis. One study of food allergy showed that only 35% of patients with food related anaphylaxis were given instructions to avoid the offending food. A survey of 29 attending pediatricians found that only 17% generally demonstrated use of an epinephrine auto-injector and only 24% gave written information at the time of prescription.</td>
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<td>Antihistamines and corticosteroids are at best second line treatments for anaphylaxis.</td>
<td>Several studies in adults demonstrate that the combination of H1 and H2 receptor blockers is superior to an H1 receptor blocker alone in the treatment of cutaneous symptoms of mild allergic reactions. Therefore, antihistamines may be helpful as a second-line adjunct agent to treat cutaneous symptoms of anaphylaxis, but they do not relieve airway symptoms, shock, or hypotension. The reason cited for giving corticosteroids is to prevent biphasic or protracted reactions, though few studies have addressed this question.</td>
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See reverse side for reference citations.
REFERENCES


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Phone: 1-800-249-5770 or 678-366-7933
Fax: 1-770-500-1316
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E-mail: ebm@ebmedicine.net

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