FIVE THINGS TO KNOW ABOUT ...

Anaphylaxis in the acute care setting

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Anaphylaxis is a relatively common life-threatening condition

Prevalence estimates for anaphylaxis range from 0.05% to 2% in the general population.¹ One in 12 patients presenting with anaphylaxis will experience a repeat reaction within one year.² Food allergens cause most reactions in children and young adults, whereas insect stings and medications are more common triggers in older adults.³ Childhood allergies to milk, egg, soy and wheat may resolve by adolescence, whereas nut and seafood allergies commonly persist into adulthood.³

Patients should be monitored for four to eight hours in the emergency department

From 11% to 23% of patients may experience biphasic reactions, with symptom relapse typically observed within eight hours after initial management.¹ Longer surveillance or hospital admission is indicated for comorbidities (e.g., asthma) and characteristics linked to biphasic reaction (e.g., the need for fluid resuscitation or more than 0.3 mg of epinephrine).⁷

Antihistamines and corticosteroids have limited usefulness in the management of acute anaphylaxis

Two Cochrane reviews did not find high-quality clinical trials that had assessed antihistamines or corticosteroids for anaphylaxis management and were unable to make definitive recommendations for or against their use.^{4,5} In a large randomized controlled trial evaluating medications for the prevention of allergic reactions following administration of snake antivenom, low-dose (0.25 mg) epinephrine given subcutaneously reduced severe allergic reactions at one hour by 43% (95% confidence interval 25%–67%), whereas H₁-antihistamine and hydrocortisone given intravenously were ineffective.⁶ Following epinephrine administration, corticosteroids may be considered for the possible prevention of biphasic reactions.¹ Antihistamines can be used to manage rhinoconjunctivitis and urticaria.¹

Fixed-dose epinephrine autoinjectors do not allow flexible weight-based (0.01 mg/kg) dosing in children

To balance efficacy and safety, the 0.3-mg epinephrine autoinjector is appropriate for children who weigh 25 kg or more and for children weighing 20 kg or more who are at increased risk of fatal reactions, including those with asthma.⁸ The 0.15-mg autoinjector is reasonable for children weighing 10–25 kg, and it is often prescribed for infants weighing less than 10 kg because of a lack of a smaller autoinjector dose and a high risk of underdosing by parents using the ampule, syringe and needle.⁸

Patients treated in the emergency department should receive an autoinjector, patient education and a referral for follow-up

Patient education should include instruction on when and how to use an autoinjector and counselling regarding allergen avoidance. Referral to an allergist is recommended for allergy testing and challenges, immunomodulation therapy, allergen-avoidance counselling and clinical assessment of resolution.¹

Additional information for patients and their families is available at www.allergysafecommunities.ca.

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