



POSTER PRESENTATION

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# Characteristics of anaphylaxis in a pediatric emergency department (ED): does management follow published guidelines?

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## Introduction

Guidelines for the management of anaphylaxis have been published. We characterized anaphylaxis and its management in a pediatric ED.

## Methods

We conducted a chart review of visits to the IWK ED from January 2005 to December 2007 with possible anaphylaxis. Of 201 potential cases, 87 visits by 75 patients fulfilled the diagnosis based on published criteria.

## Results

There were 40 males ( $7.2 \pm 4.9$  (mean  $\pm$  SD) years) and 35 females ( $6.7 \pm 4.8$  years). 36% of the first and 42% of the second episode were diagnosed as anaphylaxis. Symptoms included respiratory (84%), cutaneous (90%) and gastrointestinal (59%). No patient had hypotension, but the blood pressure was not documented in 25% of cases. Triggers were peanuts/nuts (46%), fish/seafood (6.9%), food-unknown (19.5%), food-other (11.6%), unknown/no agent (9.2%) and insect stings (3.4%). 39% of cases had asthma, 25% had atopic dermatitis, and 10% had allergic rhinitis. Time from exposure to symptoms was  $31.9 \pm 69.6$  min. Epinephrine was administered to 34.5% of patients. Time from onset of symptoms to epinephrine administration was  $70.0 \pm 61.0$  min and  $15.4 \pm 19.4$  min from presentation to the ED. Length of stay in the ED was  $209.0 \pm 163.0$  minutes. 37% of patients were observed in the ED for  $\geq 4$  hours. 24% of patients left the ED without access to an epinephrine auto-injector and 19.5% were not referred to an allergist.

## Conclusions

There are gaps between anaphylaxis guidelines and actual management in a typical ED. Failure to diagnose anaphylaxis leads to suboptimal treatment that may lead to adverse outcomes. Adoption of standard protocols for anaphylaxis in the ED may improve outcomes of potentially life-threatening reactions.

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