autoinjectors, increased comfort with treatment, fewer reactions, and improvement in knowledge about food allergy (J Pediatr. 2012;160[4]:651–656). This article also supports the notion that patients should carry a second adrenaline autoinjector, as almost one-third of patients who used their autoinjectors for anaphylaxis required a second dose.

**Epinephrine Auto-Injector Use in Adolescents at Risk of Anaphylaxis: A Qualitative Study in Scotland, UK**


**PURPOSE OF THE STUDY.** Adolescents with allergies are at high risk of fatal anaphylactic reactions. The current study explores barriers to epinephrine auto-injector use among at-risk adolescents in Scotland and investigates strategies to improve anaphylaxis management.

**STUDY POPULATION.** Twenty-six adolescents aged 13 to 19 years and 28 of their parents participated in this qualitative study. Participants were recruited through school nurses, primary care physicians, allergy specialists, and a patient support group and via a press release. Forty-five adolescents were identified as potential participants, 29 met inclusion criteria, and 3 declined to participate. Inclusion criteria included anaphylaxis within the past 5 years, an earlier reaction, and/or testing indicating high risk.

**METHODS.** This qualitative study involved in-depth, semistructured interviews that explored adolescents’ accounts of anaphylactic reactions and issues related to epinephrine use. Interview topics included accounts of reactions, emergency management, and what might improve management. Eight adolescents and 10 parents participated in subsequent focus groups.

**RESULTS.** The majority of adolescents had neither self-administered nor been given epinephrine, despite reactions that warranted this medication. Eighteen adolescents reported anaphylactic reactions during which epinephrine was available; 11 of those reported not using their autoinjector. Barriers to epinephrine use included failure to recognize anaphylaxis, uncertainty about technique and when to administer epinephrine, and fear. Most adolescents reported carrying autoinjectors some of the time. Several participants found it inconvenient to carry autoinjectors. One reported not using an autoinjector because it was not carried.

**CONCLUSIONS.** Adolescents and parents reported underuse of epinephrine autoinjectors. Barriers to epinephrine use are complex and include inadequate training, motivation and self-discipline to carry the medication, ability to identify a reaction, knowledge of when to use the device, and preparation for managing the challenging emotions that accompany emergencies.

**Anaphylaxis as an Adverse Event Following Immunisation in the UK and Ireland**


**PURPOSE OF THE STUDY.** To estimate the incidence and clinical presentation of anaphylaxis as an adverse event after immunization through prospective active surveillance.

**STUDY POPULATION.** Children under age 16 years in the United Kingdom and Ireland with suspected anaphylaxis as an adverse event after immunization were reported to the British Pediatric Surveillance Unit (BPSU) over a 13-month period.

**METHODS.** Pediatricians in the United Kingdom and Ireland were sent monthly cards inquiring about rare disorders including cases of children who may have had anaphylaxis after receiving an immunization. The cards were sent to BPSU. For those who did report a possible case, the physicians were asked to complete a more complete questionnaire (online or paper) about the presentation, diagnosis, management, and outcome of the case.

**RESULTS.** Overall, return rates for the monthly cards inquiring about rare disorders were 93.2% in the United Kingdom and 91.8% in Ireland. In all, 15 reports of possible anaphylaxis were made to the BPSU. Seven cases met the criteria for anaphylaxis as an adverse event after immunization. For 3 cases, the onset of symptoms occurred within 15 minutes of immunization; whereas 4 cases occurred 30 minutes or longer post immunization, with 1 case occurring 120 minutes later. The majority of
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