Occurrence of Anaphylaxis by School Grade Level and Staff Training: Findings From the EPIPen4SCHOOLS® Survey

ABSTRACT

A survey of school nurses revealed that they scored lower on objective knowledge tests concerning anaphylactic reactions (especially those triggered by food allergy) occur outside the home. Appropriate training of school personnel to recognize severe allergic events is critical, as many among the relevant population are untrained or inadequately trained. This exploratory, cross-sectional, web-based survey of schools participating in the EpiPen4Schools program (Mylan Specialty L.P.) assessed anaphylactic events and treatment(s) administered at each responding school during the 2013-2014 school year.

INTRODUCTION

• Anaphylaxis is a serious, acute, and potentially life-threatening allergic reaction.
• Risk of anaphylaxis can be affected by age; e.g., students in high school are at highest risk for anaphylaxis, and pregnant women are also at increased risk for anaphylaxis.
• Epinephrine, a fast-acting medication, is essential for anaphylaxis.

OBJECTIVE

• This analysis describes the preparedness of staff to recognize anaphylaxis and the symptoms of anaphylaxis in U.S. schools enrolled in the EPIPen4SCHOOLS® program (Mylan Specialty L.P.).

METHODS

• The study population was composed of 6019 school surveys completed by school nurses, teachers, medical professionals, student leaders, or parent volunteers from schools that participated in the EpiPen4Schools program. Survey data were collected via the EpiPen4Schools online survey tool that was accessible at www.epipen4schools.com.

RESULTS

• Anaphylactic events among students were most often triggered by food (66%, 478/721), followed by medication (25%, 183/721) and insect bites/stings (9%, 66/721).

STRENGTHS AND LIMITATIONS

• Strengths: The study was a comprehensive analysis of anaphylactic events in U.S. schools, providing detailed data on events.

• Limitations: This study assessed anaphylactic events in school settings in U.S. schools, and the results may not be generalizable to other school settings.

SUMMARY AND CONCLUSIONS

• Nearly half of the anaphylactic events were experienced by students enrolled in high school.
• Food allergies triggered 49% of the anaphylactic events among students across grade levels, whereas other common triggers were environmental and insect bites/stings (40% and 11%, respectively).