

Vakkalanka JP, Hardison LS, Holstege CP. Trends in Electronic Cigarette Exposures Reported to the National Poison Center Database. *J Clin Toxicol* 2014;52(5) 542-548

CONTEXT:

The Centers for Disease Control and Prevention (CDC) has reported an increase in electronic cigarette (e-cigarette) use in both adults and adolescents. Poison Center calls provide data on exposures pertaining to e-cigarette devices and components (including nicotine-refill cartridges), potentially identifying epidemiological trends in reported exposures over time.

OBJECTIVE:

To characterize the trends in e-cigarette exposures reported to United States (U.S.) Poison Centers between 01 June 2010 and 30 September 2013.

METHODS:

We obtained data from the American Association of Poison Control Centers (AAPCC) for all exposures involving e-cigarettes reported to the National Poison Data System (NPDS) by U.S. Poison Centers and described trends in exposures over time, demographics, geographical characteristics, clinical effects and outcomes, management site, and exposure route.

RESULTS:

A total of 1,700 exposures were reported to Poison Centers during this time. The most frequent age groups were children 5 years or below with 717 (42.2%) exposures and adults ages 20-39 years with 466 (27.4%) exposures. Temporal trends showed an increase of 1.36 exposures per month [95% CI: 1.16-1.56] from June 2010 through December 2012, after which exposures increased by 9.60 per month [95% CI: 8.64-10.55] from January through September 2013. The majority of patients who were followed reported that they had only minor effects.

CONCLUSIONS:

The majority of exposures to e-cigarette devices and components occurred in children of 5 years or below due to accidental exposure. Based on the available data, the reported exposures have resulted in minimal toxicity. Calls to Poison Centers regarding these products have rapidly increased since 2010, and continued surveillance may show changes in the epidemiological trends surrounding e-cigarette exposures.