

# Features of Synthetic Cannabinoid Exposures: Report from the ToxIC Registry



Diane P Calello MD<sup>1,2</sup>, Alex B Troncoso MD<sup>1,2</sup>

<sup>1</sup>Morristown Medical Center, Morristown, NJ, USA

<sup>2</sup>Emergency Medical Associates Research Foundation, Parsippany, NJ, USA

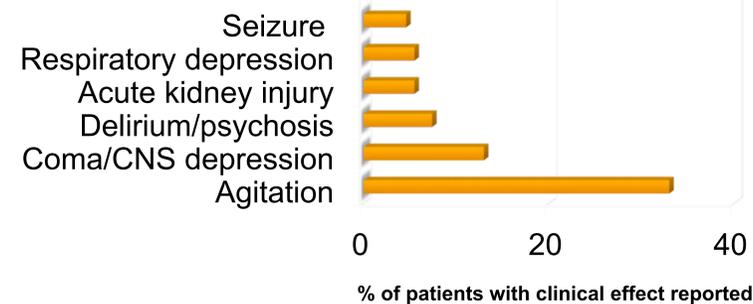


**Background:** Synthetic cannabinoid (SC) exposures often prompt ED visits and toxicology consultation. This is presumably due to clinical effects uncommon to traditional marijuana (*Cannabis sativa*) including seizures, agitated delirium, and myocardial ischemia.

**Objective:** We sought to examine the features of SC exposures reported to the ToxIC registry, including demographics, street names, routes of exposure and clinical effects.

**Methods:** All cases entered into ToxIC from 2011 to October 2014 selected as “Bath Salt, Synthetic Cannabinoid, other Designer Drug, or Agent referred to by a Street Name” were then sorted to identify SC cases. Non-SC and unknown exposures were excluded. Data was reviewed for the features below.

## Clinical Effects Reported from Synthetic Cannabinoid Exposures



## Results:

- 108 cases total, average age 27.1 years (SD 11.6, range 14-59)
- 86% male.
- Most common street name mentions: “K2” (n=36), “spice” (n=17), “black mamba” (n=12), “crazy monkey” (n=6).
- Routes (when listed): inhalation (92%, 2% oral).
- Most common clinical effects reported were agitation (n=36, 33.3%), coma/CNS depression (n=14, 13%), delirium/psychosis (n=8, 7.4%), acute kidney injury (n=6, 5.5%), respiratory depression (n=6, 5.5%), and seizure (n=5, 4.6%).

“WTF”, used by patient at our institution



**Conclusion:** In this cohort, young males with inhalation exposure were by far the most common. Although these exposures were not confirmed by laboratory analysis, the nature of this database (cases seen and entered by a medical toxicologist directly caring for the patient) increases the likelihood of accurate reporting. These compounds have widely varied content, leading to unpredictable clinical effects atypical of *Cannabis sativa*, including those listed above. Clinicians caring for these patients should be alert to the broad spectrum of effects.

