



2015 Advisory # 36

Increase in synthetic cannabinoid (K2)-related adverse events and emergency department visits, New York City

September 17, 2015

This is an UPDATE to the Health Advisory issued on July 27, 2014 and April 17, 2015.

The New York City Department of Health and Mental Hygiene has continued to monitor emergency department visits related to synthetic cannabinoids (K2). Despite multi-agency enforcement actions at a number of stores selling synthetic cannabinoid products emergency department visits have continued to increase and there is mounting evidence of these products' widespread availability in New York City.

Since January, 2015, there have been more than 4,500 synthetic cannabinoid-related emergency department visits in New York City detected by syndromic surveillance. Synthetic cannabinoid-related emergency department visits have increased dramatically since April, with more than 2,300 ED visits occurring during the months of July and August. Males account for approximately 90% of the visits; patients have a median age of 37. Nearly all (99%) of patients are aged 18 and older.

Residents of shelters and individuals with a psychiatric illness disproportionately bear the burden of adverse health events associated with synthetic cannabinoid use.

To date in New York City, there has been one death involving K2 in combination with other substances confirmed by The Office of the Chief Medical Examiner.

Clinical information

- Synthetic cannabinoids are referred to by different names including: K2, Spice, synthetic marijuana, or “legal” marijuana. Common brand names include: Geeked up, Smacked, Scooby Snax, Green Giant, Red Giant, Mr. Bad Guy, iBlown, and Trippy.
- Type and severity of symptoms are variable, but two common clinical patterns occur:
 - Patients may appear sluggish and have some symptoms similar to an opioid overdose including lethargy, confusion, respiratory depression, bradycardia, vomiting, seizure, elevated heart rate, loss of consciousness, or unresponsiveness.
 - Patients may appear highly agitated and have symptoms similar to those of phencyclidine (PCP) use including hallucination, aggressive behavior, or paranoia.
- More patients have lethargy-like symptoms compared to agitation or aggressive behavior.
- No antidote is presently available for synthetic cannabinoid intoxication; however, symptoms are usually short-lived and self-limited.
- Synthetic cannabinoids are not detected by standard urine toxicology screens; therefore, synthetic cannabinoid exposure should not be ruled out based on negative screening results. Consult your laboratory for preferred testing methods.

- Because the exact compounds contained in synthetic cannabinoid products change frequently, risks and adverse consequences are unpredictable.
- Treatment of agitation and restlessness with benzodiazepines is an acceptable and effective intervention. Diphenhydramine has been used with some success in reversing dystonic reaction and muscle rigidity.
- Scientific evidence for treatment of individuals with chronic use is lacking, but motivational counseling and cognitive behavioral therapy might be effective.

Legal information

- It is illegal in New York State to possess, sell, offer to sell, or manufacture synthetic cannabinoids.¹ Stores in possession of synthetic cannabinoids can be fined \$250 per packet. Additionally, continuing or repeat violation may result in closure of the retail establishment and entities and persons who have been ordered by the DOHMH to stop selling synthetic cannabinoids risk additional civil and criminal penalties if found to have them.

You can educate your patients about the undesirable effects of synthetic cannabinoids and inform them that these drugs are illegal. Drug treatment locators are available at: www.oasas.ny.gov. Referrals for treatment are available at 1-800-LIFENET.

ED providers and staff serving populations at increased risk should be aware of the recent increases in adverse events associated with synthetic cannabinoids in New York City. We would like to remind medical providers that they are required to report suspect or confirmed cases of poisoning (including overdose) by drugs or other toxic agents within 24 hours to the Poison Control Center at 1-800-222-1222 or 212-764-7667 (POISONS). These reports are critical in detecting and preventing overdose outbreaks.

If you become aware of stores selling synthetic cannabinoid products we encourage you to report them to 311.

Please share this with any providers you know working with substance users in New York City.

Sincerely,

Hillary Kunins

Hillary Kunins, MD, MPH
Assistant Commissioner
Bureau of Alcohol and Drug Use Prevention, Care and Treatment

¹Public Health Law Section 225, Title 10, Part 9 states “It shall be unlawful for any individual or entity to possess, manufacture, distribute, sell or offer to sell any synthetic phenethylamine or synthetic cannabinoid or product containing the same”