

Health Advisory

Increases in Emergency Department Visits Due to Synthetic Cannabinoids (K2)

October 11, 2018

Emergency department (ED) visits related to synthetic cannabinoid use have increased substantially in Philadelphia, from an average of 14 per month in 2016, 22 per month in 2017, to 76 per month in 2018.

Individuals with synthetic cannabinoid-related ED visits in 2018 are predominately male (79%), between the ages of 25-44 years old (60%), and from neighborhoods in Kensington and Upper North Philadelphia (56%). Recent evidence from Philadelphia Drug Enforcement Administration (DEA) drug seizure data indicate that synthetic cannabinoids are also being mixed with other drug types, including the powerful synthetic opioid, fentanyl.

Synthetic cannabinoids, known by the brand names K2 or spice, are substances that attempt to mimic the effects of marijuana, but are not marijuana. While marijuana has one active ingredient, tetrahydrocannabinol (THC), synthetic cannabinoids can include any of over 700 active chemicals, some many times stronger than THC. Typically, producers spray a mixture of these drugs onto dried plant matter (leaves, flowers, resin), which is then smoked. To satisfy demand and escape criminalization, the chemical composition of the synthetic cannabinoids is regularly changed as particular compounds become regulated. This results in products with unpredictable and toxic effects, summarized below.

The Philadelphia Department of Public Health is alerting medical personnel that: (1) A rise in the number of patients presenting with unusual symptoms, including aggression or paranoia, may be attributed to synthetic cannabinoid intoxication; (2) Patients who smoked K2 and have symptoms of opioid intoxication may be unaware that they have taken fentanyl. Higher doses of naloxone may be required to revive these individuals.

Clinical Information:

- **Clinical Features** - Symptoms can vary and may include lethargy or sedation, seizures, nausea or vomiting, agitation or aggression, anxiety and paranoia, muscle spasms or tremors, unconsciousness, hypertension, dysrhythmias, and kidney injury. Long term effects of using synthetic cannabinoids are unknown.
- **Diagnosis** - Synthetic cannabinoids are not detected on a normal urine drug analysis, and therefore, synthetic cannabinoid use should not be ruled out based on a negative screen.
- **Treatment** - There is no antidote to synthetic cannabinoid intoxication, but symptoms are normally self-limiting. Sedatives or anxiolytics may be considered in patients who are especially agitated and at risk of harming themselves until the effects of the synthetic cannabinoid wear off.

You can help patients who are using synthetic cannabinoids by informing them that:

- Synthetic cannabinoids are NOT marijuana.
- Synthetic cannabinoids are dangerous and unpredictable drugs.
- Synthetic cannabinoids are being mixed with other drugs, including fentanyl. Encourage patients to obtain naloxone in case of opioid related overdoses (www.phillynaloxone.com).
- Possession of synthetic cannabinoids is illegal and may result in a felony charge.

Please report any overdose surges or unusual drug-related observations to the Philadelphia Department of Public Health at 215-685-5200.

SUMMARY POINTS

- Synthetic cannabinoid intoxication is becoming more common in Philadelphia
- Synthetic cannabinoids are being mixed with the synthetic opioid fentanyl
- Synthetic cannabinoids cause varied, unpredictable toxic effects.
- Report clusters to the Health Dept.

