

Health Advisory: Significant Bleeding Associated with Contaminated Synthetic Cannabinoids

Minnesota Department of Health Thu April 5 1300 CDT 2018

Action Steps:

Local and tribal health departments: Please forward to hospitals, clinics, emergency departments, urgent care centers, and convenience clinics in your jurisdiction.

Hospitals and clinics: Please distribute to all health care providers in these facilities.

Health care providers:

- Inquire about potential exposures in the last three months to synthetic cannabinoids (i.e. K2, spice, synthetic marijuana, legal weed, and fake weed) and rat poisons or rodenticides for patients exhibiting signs of bleeding or unusual coagulopathy.
- If a patient with synthetic cannabinoid exposure reports or has evidence of bleeding, check the patient's International Normalized Ratio (INR), particularly if the patient is being considered for release.
- If a patient reports synthetic cannabinoid exposure, look and query carefully for signs of bleeding. If not present, consider obtaining an INR prior to release, as INR has been elevated in some cases prior to clinical signs.
- Contact the Minnesota Poison Control Center at 1-800-222-1222 to discuss treatment and clinical management of these patients. Report suspect or confirmed cases of poisoning by drugs or other toxic agents within 24 hours to the Minnesota Poison Control Center.
- Advise patients that if they and/or others they know have used any of these products and start experiencing severe, unexplained bleeding or bruising, **have someone take them to the hospital immediately or call 911**. Patients should not walk or drive themselves. Advise patients to tell their health care providers about the possible link between their symptoms and synthetic cannabinoid use.

Background

On March 28, 2018, the Minnesota Department of Health received a report about a cluster of cases in Illinois with severe bleeding due to a Vitamin K-dependent coagulopathy among patients who report using synthetic cannabinoids. As of April 4, a total of 81 cases have been reported, including two deaths. The majority of cases are from Illinois, with a few cases from Indiana, Wisconsin, and Maryland. To date, there have been no cases in Minnesota.

Exposed cases have significantly elevated INRs, manifesting as unexplained bleeding, which is often severe. All cases have been hospitalized for symptoms such as blood in urine or stool, severe bloody nose, coughing up blood, or bleeding from other body sites. Patients are being treated with high doses of Vitamin K intravenously.

An investigation of this outbreak is currently ongoing. It is suspected that synthetic cannabinoids that have been contaminated with an anticoagulant are the cause of the

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outbreak. Nine of the cases have tested positive for brodifacoum, which is a lethal anticoagulant often used as a rodenticide or rat poison. As brodifacoum persists in the human body a long time, treatment with oral Vitamin K may be needed for months following exposure, and long term follow up care will be required.

Synthetic cannabinoids are synthesized, mind-altering chemicals that are either sprayed on dried, shredded plant material so they can be smoked or sold as liquids to be vaporized and inhaled in e-cigarettes and other devices. Hundreds of brands now exist, including but not limited to K2, Spice, Joker, Black Mamba, Bombay Blue, Genie, Kush, Kronic, Scooby Doo, and Zohai.

These chemicals are called cannabinoids because they are similar to chemicals found in the marijuana plant. Because of this similarity, synthetic cannabinoids are sometimes misleadingly called "synthetic marijuana" (or "fake weed"), and they are often marketed as safe, legal alternatives to that drug. In fact, they are not safe and may affect the brain much more powerfully than marijuana; their actual effects can be unpredictable and, in some cases, more dangerous or even life-threatening.

Clinical Presentation

Patients present with severe bleeding from various body sites unexplained by an injury or anticoagulant use or known exposure to rodenticide.

The Illinois Department of Public Health report that patients have presented to the emergency department (ED) for bleeding from multiple body sites and back pain. The patients did not have a history of taking warfarin or exposure to brodifacoum-containing rat poisons, yet had INR values ranging from 6 to greater than 20 on presentation.

Some patients initially presented to the ED with bleeding from at least one site, left against medical advice, and returned later with extremely elevated INR and severe bleeding requiring hospital admission. Several patients have been readmitted to the same or a different hospital due to a relapse.

Additional Information

- [Exposure to Synthetics? Please Call Poison Center \(PDF\)](http://www.health.state.mn.us/han/2018/synthetics.pdf)
<http://www.health.state.mn.us/han/2018/synthetics.pdf>
Poster on synthetic drugs and bleeding that can be hung in ED
- [Illinois Department of Public Health Outbreak website:](http://www.dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/synthetic-cannabinoids)
<http://www.dph.illinois.gov/topics-services/prevention-wellness/medical-cannabis/synthetic-cannabinoids>
- [Illinois Department of Public Health Press Release – April 2, 2018:](http://www.dph.illinois.gov/news/second-death-individual-who-used-synthetic-cannabinoids)
<http://www.dph.illinois.gov/news/second-death-individual-who-used-synthetic-cannabinoids>

Questions or Concerns

For questions or concerns on drug toxicity, overdose or any suspected poisoning, intoxication, inhalation or ingestion, call the Minnesota Poison Control Center 24/7 at 1-800-222-1222.

A copy of this HAN is available at: <http://www.health.state.mn.us/han/>

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.