



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

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To: North Carolina Clinicians  
From: Zack Moore, MD, MPH, State Epidemiologist  
**Subject: Update Regarding Vitamin K-Dependent Coagulopathy Associated with Synthetic Cannabinoids Use**  
Date: July 31, 2018

Three cases of vitamin K-dependent coagulopathy in patients who reported using synthetic cannabinoids have been reported to the North Carolina Division of Public Health (NC DPH) since June 2018. North Carolina clinicians and emergency responders are critical in identifying and reporting cases and ensuring appropriate clinical management.

There is currently a multistate outbreak of severe coagulopathy associated with synthetic cannabinoids use. As of July 13, 2018, 11 states had reported at least 250 cases, including 6 deaths, to the Centers for Disease Control and Prevention (CDC). Brodifacoum, a long-acting vitamin K-dependent antagonist that is used as rat poison, has been detected in case-patients' drugs and biological samples.

Patients with Vitamin K-dependent coagulopathy may first present to primary care providers, emergency departments, or urgent care clinics with any these symptoms: bruising, nosebleeds, excessively heavy menstrual bleeding, hematemesis, hemoptysis, hematuria, flank pain, abdominal pain, and bleeding gums or mouth.

### Recommendations

If a patient presents with signs or symptoms consistent with Vitamin-K dependent coagulopathy, NC DPH recommends that clinicians do the following:

1. Contact the Carolinas Poison Center at 1-800-222-1222 to report the case and discuss the treatment and management of the patient.
2. Ask the patient if they have used synthetic cannabinoids within the last 3 months. Other names include K2, Spice, synthetic marijuana, and fake weed/legal weed.

Even in the absence of signs and symptoms of coagulopathy, if the patient reports synthetic cannabinoids use or you suspect use, check the patient's INR before releasing them. Additional information about the ongoing outbreak and recommendations for clinicians are in the attached [CDC Health Advisory](#).

### Reporting

To report any similar cases, or if you have questions about treatment and management of these cases, please contact the Carolinas Poison Center at 1-800-222-1222.

If you have questions about the ongoing outbreak, please contact the NC DPH at 919-695-2662.

**NC DEPARTMENT OF HEALTH AND HUMAN SERVICES • DIVISION OF PUBLIC HEALTH**

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