



Date: August 1, 2019

BEOH-2019-03

To: Wisconsin Hospital Emergency Department and Urgent Care Clinicians

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**New Case of Severe Bleeding Associated with Synthetic Cannabinoid
("K2" and "Spice") Use**

PLEASE DISTRIBUTE WIDELY

The Wisconsin Department of Health Services (DHS) was notified of a patient in southern Wisconsin with severe bleeding after using synthetic cannabinoids, often called "fake weed", "K2", and "spice", which contained the rat poison brodifacoum. This is the first new case of brodifacoum poisoning since October 2018.

During the 2018 outbreak, DHS confirmed 69 cases of brodifacoum poisoning linked to synthetic cannabinoid use. Patients experienced severe bleeding and did not have a history of taking warfarin, yet had INR values ranging from 6 to undetectable on presentation. The following guidance was previously provided to clinicians to minimize the chance of adverse outcomes among patients.

In patients who present with unexplained bleeding, including nosebleeds, bleeding of the gums, bruising, vomiting blood, blood in urine or stool, or excessively heavy menstrual bleeding, emergency department (ED) and urgent care providers are encouraged to:

1. Ask patients if they have used synthetic cannabinoids within the last three months. Terms for these products may include K2, spice, synthetic marijuana, fake weed, legal weed, and genie.
2. If the patient reports synthetic cannabinoid use or you suspect use, check the patient's INR before releasing them.

For patients with coagulopathy secondary to brodifacoum poisoning, outpatient follow up is critical. Large doses ($\geq 50\text{mg/day}$) of Vitamin K1 (phytonadione) for several weeks to months may be required to prevent bleeding. Discharging providers are encouraged to ensure patients will have access to adequate follow up and vitamin K supply prior to discharge.

Please contact the Wisconsin Poison Center at 1-800-222-1222 regarding diagnostic testing and treatment regimens for these patients and to assist with case tracking. Providers are asked to also report suspect cases to their local health department (LHD). If the LHD is not available, please notify DHS at 608-266-1120 during business hours.