Vitamin K-dependent Coagulopathy Associated with Synthetic Cannabinoid Use

INTRODUCTION

As of April 26, 2018, the Illinois Department of Public Health (IDPH) has identified 155 cases and four deaths from severe bleeding associated with synthetic cannabinoid usage since March 2018. Similar findings have been identified in other states including Florida, Indiana, Kentucky, Maryland, Missouri, Pennsylvania, Virginia and Wisconsin.

Synthetic cannabinoids are man-made and have brand names such as K2, Spice, AK-47, Mr. Happy, Scooby Snak, Kush, Kronic, Black Mamba, Bombay Blue Genie, Zohai, and others. Synthetic products are not one product. Hundreds are manufactured and sold and new ones with unknown health risks become available each year. These products may contain brodifacoum found in rat poison, Individuals using synthetic cannabinoids may have severe bleeding after using and the effects are unpredictable, harmful and potentially deadly.

BACKGROUND

The Alabama Department of Public Health (ADPH) syndromic surveillance program has identified suspected cases through emergency department and emergency services data and is currently investigating these cases further. To date, there have been no confirmed cases in Alabama.

GUIDANCE FOR HEALTH CARE PROVIDERS

ADPH is suggesting a heightened awareness of the possibility of coagulopathy associated with synthetic cannabinoid use. Clinical presentation of vitamin-K dependent coagulopathy may include hematuria, bleeding gums/mouth, flank or abdominal pain, vomiting or coughing up blood, excessively heavy menstrual bleeding, nosebleeds and intracranial bleeding.

If healthcare providers are caring for and investigating unusual cases of bleeding with no clear or definitive etiology, then additional questioning concerning exposure to synthetic cannabinoids may yield useful clues. Past medical history questions should include specific details pertaining to synthetic cannabinoids and not just marijuana usage. The time frame from last use to onset of bleeding ranges from 0-26 days with a median of 1 and a mean of 2.5 days. Note that drug screens may be negative with synthetic cannabinoids. If available, drug levels of brodifacoum in the blood serum may be more specific.

Clinicians should also consider ordering coagulation laboratory in suspect patients with unexplained clinical symptoms and bleeding. Elevated INR values 2x and higher than normal may warrant vitamin K treatment and possible hospitalization. The Centers for Disease Control and Prevention (CDC) has published a bulletin for clinical action, available at COCA Clinical Action: Outbreak Alert Update: Potential Life-Threatening Vitamin K-Dependent Antagonist Coagulopathy Associated With Synthetic Cannabinoids Use.

Healthcare workers are asked to strongly discourage patients with exposure to synthetic cannabinoids on further usage. Clinicians should report suspect cases to ADPH online via RedCap at Report Cannabinoid-associated Antagonist Coagulopathy. Clinicians who see these patients and have questions about appropriate treatment and dosing, should contact the Regional Poison Control Center at 1-800-222-1222.