

HEALTH ADVISORY



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REGION IV PUBLIC HEALTH

Clark, Cowlitz, Skamania, Wahkiakum
counties and Cowlitz Tribe

TO: Physicians and other Healthcare Providers

Please distribute a copy of this information to each provider in your organization.

Questions regarding this information may be directed to the following Region IV health officers:

Alan Melnick, MD, MPH, CPH

Clark County Public Health, (360) 397-8412

Skamania County Community Health, (509) 427-3850

Cowlitz County Health & Human Services, (360) 414-5599

Wahkiakum County Health & Human Services, (360) 795-6207

Teresa Everson, MD, MPH

Clark County Public Health, (360) 397-8412

Skamania County Community Health, (509) 427-3850

Alert categories:

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides updated information regarding an incident or situation; no immediate action necessary.

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CDC warns of antibiotic-resistant infections tied to procedures in Mexico, coagulopathy tied to synthetic cannabinoids

Summary

The Centers for Disease Control and Prevention (CDC) has recently issued advisories about two investigations:

1. Ten Verona Integron-mediated Metallo- β -lactamase-producing carbapenem-resistant *Pseudomonas aeruginosa* (VIM-CRPA) infections among adult patients returning to the United States after undergoing invasive procedures in Mexico.
2. Multistate outbreak of coagulopathy from exposure to synthetic cannabinoid products containing a vitamin K-epoxide cycle antagonist, brodifacoum. This is an update from an advisory issued May 31, 2018. Currently, there are 324 cases and at least eight fatalities.

Background – antibiotic-resistant infections

CDC was first notified of the outbreak on Sept. 28, 2018 through the Antibiotic Resistance Laboratory Network. The adult patients had undergone invasive procedures, such as endoscopy and surgery, in Mexico. Seven patients reported receiving bariatric surgery in Tijuana, Baja California, Mexico between September and November 2018. Out of those seven, six patients underwent surgery at Grand View Hospital in Tijuana.

In Washington, two cases of VIM pseudomonas aeruginosa surgical site infections connected to bariatric surgery have been identified as part of the cluster. Of those two cases, one was identified in 2015 and the other in November 2018. The case identified this year is associated with Grand View Hospital in Tijuana.

Action requested – antibiotic-resistant infections

Providers caring for patients with a history of recent invasive procedures in Mexico should be aware of the potential for infections caused by resistant pathogens like VIM-CRPA. For those with signs of infection, providers should obtain cultures, perform antimicrobial susceptibility testing to guide treatment, and have any carbapenem-resistant strains of *Pseudomonas aeruginosa* and Enterobacteriaceae tested for VIM and other plasmid-mediated carbapenemases.

CDC continues to recommend that patients admitted to health care facilities in the U.S. following an overnight stay in a health care facility outside the U.S. (within the last six months) undergo rectal screening for carbapenemase-producing organisms.

In Washington, voluntary submission of carbapenem-resistant *Pseudomonas aeruginosa* (CRPA) through clinical labs has been ongoing since 2016 and continues through the West Regional Antibiotic Resistance Laboratory Network (ARLN) located at the Washington Public Health Laboratories (PHL).

Background – coagulopathy

Since the index patient with hypocoagulopathy associated with synthetic cannabinoids use was identified on March 8, 2018 in Illinois, at least 324 people have presented to health care facilities with serious bleeding from possible exposure. None of the cases is in Washington.

Vitamin K1 continues to be the recommended therapy. Since the original advisory in May, two new clinical scenarios have emerged:

1. Several patients have outpatient follow-up blood brodifacoum concentrations that are higher than their initial blood brodifacoum concentrations.
2. At least one patient has become pregnant since starting outpatient oral Vitamin K1 treatment.

When patients are found to have outpatient follow-up blood brodifacoum concentrations higher than their initial blood brodifacoum concentrations, it strongly suggests that they have continued or resumed using synthetic cannabinoid products containing brodifacoum while on oral vitamin K1 therapy. The consequences of re-exposure to brodifacoum include:

1. Risk of life-threatening hemorrhage,
2. Oral vitamin K1 dosing may need to be increased, and
3. Oral vitamin K1 treatment duration may need to be extended.

Pregnancies in patients who are on oral vitamin K1 treatment for brodifacoum toxicity are high-risk pregnancies. Brodifacoum crosses the placenta. Both mother and fetus are at risk for serious bleeding. Brodifacoum may also be a teratogen because its chemical structure is similar to warfarin, a known teratogen.

Action requested – coagulopathy

- Maintain a high index of suspicion for continued or resumed use of synthetic cannabinoid products containing brodifacoum in patients who are on oral vitamin K1 therapy. Ask these patients about continued or resumed use of synthetic cannabinoid products.
- Counsel against resuming or continuing use of synthetic cannabinoid products. Refer patients to the Substance Abuse and Mental Health Services Administration (SAMHSA) national helpline, 1-800-662-HELP(4357), a free, confidential, 24/7, 365-day-a-year treatment referral and information service in English and Spanish for individuals and families facing mental and/or substance use disorders.
- Advise patients that their current oral vitamin K1 dosing may not prevent recurrent coagulopathy from re-exposure to brodifacoum in synthetic cannabinoid products and the duration of oral vitamin K1 treatment may need to be extended.
- Consider periodic quantitative testing of patients' blood for brodifacoum during outpatient follow-up visits to inform if patients continued or resumed use of synthetic cannabinoid products containing brodifacoum. In addition, serial blood brodifacoum concentrations allow for calculation of blood brodifacoum half-life and assist in determining duration of oral vitamin K1 therapy.
- Ask all women of childbearing age who are on oral vitamin K1 therapy about the possibility of being pregnant and counsel them about reliable contraceptive techniques. A periodic pregnancy test should be performed on all women of childbearing age who are on oral

vitamin K1 therapy. Pregnant patients on oral vitamin K1 should be referred for high-risk pregnancy management and follow-up.

- Contact Washington Poison Center (1-800-222-1222) for questions on diagnostic testing and management of these patients.
- Promptly report possible cases to your local health department at the number listed below.

Thank you for your partnership.

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Clark County Public Health:	(564) 397-8182	(360) 397-8080
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Wahkiakum County Health and Human Services:	(360) 795-6207	(360) 795-6143