

From the Office of the North Zone Medical Officers of Health

November 14, 2019

Dear Colleague,

Re: Severe Pulmonary Disease Associated with E-cigarette Use; updates and reminders

Cases of severe lung injury related to vaping continue to be reported across North America. Vaping is the act of inhaling and exhaling an aerosol produced by a device such as an electronic cigarette. The cause of this illness is still under investigation but we wanted to provide an update and a reminder of your role as a clinician:

1. **Etiology:** The US CDC has identified vitamin E acetate in bronchiolar lavage samples from 29 patients with e-cigarette associated lung injury. While it therefore appears that vitamin E acetate is associated with this condition, evidence is not yet sufficient to rule out contribution of other chemicals of concern. The etiology of Canadian cases has not yet been determined.
2. **Case counts:**
 - a. In Canada, as of November 12, 2019, there have been seven confirmed or probable cases of severe lung illness related to vaping. There have been no cases to date in Alberta that have met the definition for a confirmed or probable case.
 - b. In the US, as of November 13, 2019, 2,172 cases have been reported to CDC with 42 deaths.
3. **Reporting:** Severe pulmonary disease associated with e-cigarette use is notifiable under the Public Health Act of Alberta. As a result, any cases meeting the following definitions are required to be reported to your zone Medical Officer of Health by the fastest means possible.

Confirmed Case:

- A. Using an e-cigarette ("vaping") or dabbing* in 90 days prior to symptom onset; **AND**
- B. Pulmonary infiltrate, such as opacities on plain film chest radiograph or ground-glass opacities on chest CT; **AND**
- C. Absence of pulmonary infection on initial work-up: Minimum criteria include negative respiratory pathogen panel, influenza PCR or rapid test if local epidemiology supports testing. All other clinically indicated respiratory ID testing (e.g., urine Antigen for *Streptococcus pneumoniae* and *Legionella*, sputum culture if productive cough, Bronchoalveolar lavage (BAL) culture if done, blood culture, HIV-related opportunistic respiratory infections if appropriate) must be negative; **AND**
- D. No evidence in medical record of alternative plausible diagnoses (e.g., cardiac, rheumatologic or neoplastic process).

Probable Case: A, B, and D above; **AND**

Infection identified via culture or PCR, but clinical team** believes this is not the sole cause of the underlying respiratory disease process OR Minimum criteria to rule out pulmonary infection not met (testing not performed) and clinical team** believes this is not the sole cause of the underlying respiratory disease process.

* Using an electronic device (e.g., electronic nicotine delivery system (ENDS), electronic cigarette, e-cigarette, vaporizer, vape(s), vape pen, dab pen, or other device) or dabbing to inhale substances (e.g., nicotine, marijuana, THC, THC concentrates, CBD, synthetic cannabinoids, flavorings, or other substances).

**Clinical team caring for the patient.

Your role as a clinician: It is important to consider all possible causes of illness in patients presenting with these symptoms, even if they report a history of e-cigarette product use. Clinicians should evaluate and treat for other likely causes of illness (e.g., infectious or other) as clinically indicated. If you identify a confirmed or probable case, please report to the Zone Medical Officer of Health at:

- Monday to Friday 0830 – 1630 (excluding holidays): call NZ CDC Intake, call **1-855-513-7530**
- Evenings, weekends, holidays: call **1-800-732-8981**, ask for Public Health On Call (PHOC)
- Nights 2300 – 0700: call **1-800-732-8981**, ask for MOH On Call for your community.

To prevent any harms that could come from vaping, please reinforce with your patients that non-smokers, pregnant women and young people should not vape.

We will continue to provide updates regarding this emerging public health issue. In the meantime, we thank you for your important role in protecting the health of Albertans. This advisory will be posted on the AHS-MOH webpage www.albertahealthservices.ca/medstaff/Page7082.aspx