Health Alert

KITSAP PUBLIC HEALTH DISTRICT

September 17, 2019

Outbreak of Severe Lung Disease Associated with Vaping

Actions Requested

- **Be aware** of reports of severe pulmonary disease associated with vaping from multiple states. As of September 15, 2019, 3 cases have been reported from Washington State.
- **Ask all patients with severe pulmonary disease** whether they have used any e-cigarette or vaping products in the last 90 days.
- **Report patients hospitalized** with severe pulmonary disease of unclear etiology and a history of e-cigarette or vaping product use within the past 90 days to Kitsap Public Health (KPHD) using the phone number listed below.
- **If e-cigarette or vaping product use is suspected as a possible etiology of a patient's severe pulmonary disease, obtain detailed history** regarding substance(s) used, substance source(s), device(s) used, product modifications by the user, where the product(s) were purchased, method of substance use, and other potential cases.
- **Determine if any remaining product, including devices and liquids, are available for testing.** Testing can be coordinated with local or state health departments.
- **Consider all possible causes of illness in patients reporting respiratory and gastrointestinal symptoms and e-cigarette/vaping product use.** Evaluate and treat for other possible causes of the illness as clinically indicated. Consider consultation with specialists as appropriate.
- **Remind patients that their healthiest option is to stop vaping and using tobacco products.**

For questions, please contact our Communicable Disease staff at 360-728-2235.

Background

As of September 15, 2019, 3 cases of lung disease associate with vaping have been reported in Washington State from King County and Spokane County. All three confirmed cases reported vaping prior to illness but to date Washington State Department of Health (DOH) has not identified a product, device, or additive that are common to all three cases. Investigations into the specifics of products, devices, or additives is ongoing.

As of September 11, 2019, at 5pm, 380 cases of lung illness associated with the use of e-cigarette products have been reported to CDC from 36 states and six deaths have been confirmed. All patients have a reported history of e-cigarette product use, and no consistent evidence of an infectious cause has been discovered. Therefore, the suspected cause is a chemical exposure. Most patients have reported a history of using e-cigarette products containing THC. Many patients have reported using THC and nicotine. Some have reported the use of e-cigarette products containing only nicotine. No consistent e-cigarette or vaping product, substance, or additive has been identified in all cases, nor has any one product or substance been conclusively linked to lung disease in patients. These investigations are ongoing.

Other clinical considerations

- **The CDC will host a webinar for clinicians, "Severe Lung Illness Associated with Using E-Cigarette Products," on Thursday, Sept 19, 2019, 11:00am-12:00pm.** Information is available at: https://emergency.cdc.gov/coca/calls/2019/callinfo_091919.asp?deliveryName=DM8936
- Clinical improvement of patients with severe pulmonary disease associated with e-cigarette use has been reported with the use of corticosteroids. The decision to use corticosteroids should be made on a case-by-case basis based on risks and benefits and the likelihood of other etiologies.
- Lipoid pneumonia associated with inhalation of lipids in aerosols generated by e-cigarettes has been reported based on the detection of lipid-laden alveolar macrophages obtained by bronchoalveolar lavage (BAL) and lipid staining (e.g., oil red O). The decision about whether to perform a BAL should be based on individual clinical circumstances.
- Lung biopsies have been performed on some patients. If a lung biopsy is obtained, lipid staining may be considered during pathologic examination, and is best performed on fresh tissue. Routine pathology tissue processing (including formalin-fixation and paraffin-embedding) can remove lipids. Conducting routine tissue processing and histopathologic evaluation is still important. Consider consultation with specialists in pulmonary medicine and pathology to help inform any evaluation plan.
- Patients who have received treatment for severe pulmonary disease related to e-cigarette or vaping product use should undergo follow-up evaluation as clinically indicated to monitor pulmonary function.

Resources

- CDC severe lung disease webpage - https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html
- DOH severe lung illness webpage - https://www.doh.wa.gov/Emergencies/SevereLungIllness