

HEALTH UPDATE



Public Health
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REGION IV PUBLIC HEALTH

Clark, Cowlitz, Skamania, Wahkiakum
counties and Cowlitz Tribe

To: Physicians and other health care 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:

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Clark County Public Health, 564.397.8412

Skamania County Community Health, 509.427.3850

Cowlitz County Health & Human Services, 360.414.5599

Wahkiakum County Health & Human Services, 360.795.6207

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Alert categories:
<p>Health Alert: conveys the highest level of importance; warrants immediate action or attention.</p>
<p>Health Advisory: provides important information for a specific incident or situation; may not require immediate action.</p>
<p>Health Update: provides updated information regarding an incident or situation; no immediate action necessary.</p>

Outbreak of Severe Lung Disease Associated E-cigarette Use or Vaping Updated Case Definition

Background

As of this week, 805 cases of lung illness associated with the use of e-cigarette products have been reported to CDC from 47 states. As of September 27, 2019, seven cases have been reported in Washington State from King, Spokane, Pierce, Snohomish and Mason counties.

All patients have a reported history of e-cigarette product use, and no consistent evidence of an infectious cause. Therefore, the suspected cause is a chemical exposure. Most patients have reported a history of using e-cigarette products containing THC only, THC and nicotine, as well as 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.

Action Requested

- Ask all patients with severe pulmonary illness whether they have used any e-cigarette or vaping products in the last 90 days.
 - Report patients hospitalized with severe pulmonary illness of unclear etiology and a history of e-cigarette or vaping product use within the past 90 days to your local health department.
 - If e-cigarette or vaping product use is suspected as a possible etiology of a patient's severe pulmonary illness, 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 your local health department.
 - 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 illness (e.g., infectious, rheumatologic, neoplastic) as clinically indicated. Consider consultation with specialists (pulmonary, infectious disease, critical care, medical toxicology) as appropriate.
- Review the updated Case Definition below for guidance on testing recommendations.**

Other Clinical Considerations

- 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 illness related to e-cigarette or vaping product use should undergo follow-up evaluation as clinically indicated to monitor pulmonary function.

CDC Case Definition: Updated September 18, 2019

Confirmed Using an e-cigarette ("vaping") or dabbing* in 90 days prior to symptom onset
AND
Pulmonary infiltrate, such as opacities, on plain film chest radiograph or ground-glass opacities on chest CT
AND
Absence of pulmonary infection on initial work-up. Minimum criteria are:

- 1) A negative respiratory viral panel
AND
- 2) A negative influenza PCR or rapid test, if local epidemiology supports influenza testing
AND
- 3) All other clinically-indicated respiratory infectious disease 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) are negative

AND
No evidence in medical record of alternative plausible diagnoses (e.g., cardiac, rheumatologic, or neoplastic process).

Probable Using an e-cigarette ("vaping") or dabbing* in 90 days prior to symptom onset
AND
Pulmonary infiltrate, such as opacities, on plain film chest radiograph or ground-glass opacities on chest CT
AND
Infection identified via culture or PCR, but clinical team** believes this infection is not the sole cause of the underlying lung injury **OR** Minimum criteria to rule out pulmonary infection not met (testing not performed) and clinical team** believes infection is not the sole cause of the underlying lung injury
AND
No evidence in medical record of alternative plausible diagnoses (e.g., cardiac, rheumatologic, or neoplastic process).

Additional Resources

- Centers for Disease Control and Prevention: [Outbreak of Lung Disease Associated with E-Cigarette Use, or Vaping](#)
- MMWR: [Severe Pulmonary Disease Associated with Electronic-Cigarette–Product Use — Interim Guidance](#)

Thank you for your partnership.

Local health jurisdiction	Phone	Fax
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Skamania County Community Health	509.427.3850	509.427.0188
Wahkiakum County Health and Human Services	360.795.6207	360.795.6143