

Center for Policy, Planning and Evaluation Administration
Division of Epidemiology – Disease Surveillance and Investigation

October 11, 2019

Health Notice for District of Columbia Healthcare Providers
Severe Lung Disease in Patients Reporting Recent Vaping

Summary

As of October 10, over 1000 cases of severe pulmonary disease have been reported in multiple states, with 18 confirmed deaths. Patients all reported recent use of vaping products containing either nicotine or THC in the weeks leading up to presentation.

Cases have reported various symptoms upon presentation, including:

- Headache
- Pleuritic chest pain
- Loss of appetite
- Fatigue
- Shortness of breath
- Fever
- Cough
- Nausea
- Weight loss

Most cases have required hospitalization, with some requiring ventilators. It is unclear at this point if the illnesses are associated with the vaping devices themselves, or with any contaminants inhaled through them. Clinicians are encouraged to remain alert for potential cases.

Background

Vaping is the act of inhaling and exhaling an aerosol (often mistaken as water vapor), which actually consists of fine particles. Many of these particles contain varying amounts of toxic chemicals, which have been linked to cancer, as well as respiratory and heart disease.

The e-liquid in vaporizer products usually contains a propylene glycol or vegetable glycerin-based liquid with nicotine, flavoring and other chemicals and metals, but not tobacco. Some people use these devices to vape tetrahydrocannabinol (THC), the chemical responsible for most of marijuana's mind-altering effects, as well as synthetic cannabinoids.

Since June of this year, patients have been presenting to emergency rooms with pronounced respiratory symptoms that progressively worsen. Some patients have become sick enough to need mechanical ventilation, but later improved with corticosteroid administration. All patients said they had "vaped" during the weeks and months prior to hospitalization, with many claiming they had recently used THC-containing products. According to the CDC, there is no

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Phone: 202-727-3616 (8:15am-4:45pm) | 1-844-493-2652 (after-hours calls)

product conclusively linked to this clinical syndrome, and no specific product in common among all cases.

Recommendations for DC Healthcare Providers

As ED and urgent care providers are likely to be the first healthcare providers to encounter these patients, we encourage you to implement the following guidance for patients who present with progressive respiratory symptoms, especially those without any history of respiratory illness:

- 1. Providers should obtain a thorough substance use history from patients presenting with respiratory symptoms, paying attention to inhalation drug use, particularly vape products.**
- 2. Obtain any information about name and type of products used, and if possible, a sample of the product for testing.**
- 3. Report all suspected cases to the case to the District of Columbia Department of Health using the Notifiable Disease and Condition Case Report form found on our website: (<https://dchealth.dc.gov/release/dc-health-department-advises-residents-stop-using-e-cigarettes>). Select Vaping-associated Pulmonary Illness as the suspected diagnosis.**

If you have previously encountered any similar cases since July 2019 that were not reported, please also complete the Notifiable Disease and Condition Case Report form.

Case Definition

Confirmed

Inhalational drug* use in 90 days prior to symptom onset.

AND

Pulmonary infiltrate, as manifested by opacities on plain film chest radiograph or ground-glass opacities on chest CT

AND

Absence of pulmonary infection: Minimum criteria include negative respiratory viral panel, influenza PCR, and blood culture. All other ID testing (e.g., urine strep pneumo/ legionella/ mycoplasma, sputum culture if productive cough, BAL culture if done, HIV-related opportunistic respiratory infections if appropriate) must be negative

AND

No evidence in medical record that pulmonary disease is due to rheumatologic or neoplastic process.

Probable

Inhalational drug* use in 90 days prior to symptom onset.

AND

Pulmonary infiltrate, as manifested by 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 is not the sole cause of the underlying disease process.

--OR--

Inhalational drug* use in 90 days prior to symptom onset.

AND

Pulmonary infiltrate, as manifested by opacities on plain film chest radiograph or ground-glass opacities on chest CT.

AND

Minimum criteria to rule out pulmonary infection not met (testing not performed) and no mention of infectious process in discharge summary or ICD10 discharge diagnoses.