



Nebraska Department of Health and Human Services
HEALTH ALERT NETWORK
Advisory



TO: Nebraska Healthcare Providers and Public Health

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RE: Severe Pulmonary Disease Related to Vaping

DATE: August 22, 2019

The Office of Epidemiology at DHHS is actively seeking reports of Nebraska cases with severe respiratory illness related to vaping products first reported on July 25, 2019 by the Wisconsin State Health Department¹. No cases have been identified in NE. Since the initial Wisconsin report, other states have identified additional cases. On August 16, CDC issued a clinician advisory which is excerpted below.

Vaping is increasing in popularity and the materials used are almost entirely unregulated. The potential for inhaled contaminants, adulterants, toxins and poisons exists and could cause illness or injury at any time. Clinicians are advised to consider this possibility when clinical circumstances dictate, and report patients suspected of this condition to a local health department, (<http://dhhs.ne.gov/Pages/Local-Health-Departments.aspx>) or NE DHHS (402-471-2937).

CDC CLINICIAN OUTREACH AND COMMUNICATION ACTIVITY, AUGUST 16

As of August 14, 2019, 30 cases of severe pulmonary disease have been reported to the Wisconsin Department of Health Services (DHS). Using a case definition drafted by DHS, 15 cases are confirmed (ages 16-34 years) and 15 cases are still under investigation (ages 16-53 years). Patients presented with respiratory symptoms including cough, shortness of breath, and fatigue. Symptoms worsened over a period of days or weeks before admission to the hospital. Other symptoms reported by some patients included fever, chest pain, weight loss, nausea, and diarrhea. Chest radiographs showed bilateral opacities, and CT imaging of the chest demonstrated diffuse ground-glass opacities, often with sub-pleural sparing. Evaluation for infectious etiologies was negative among nearly all patients.

Some patients experienced progressive respiratory compromise requiring mechanical ventilation but subsequently improved with corticosteroids. All patients reported “vaping” (i.e., use of e-cigarette devices to aerosolize substances for inhalation) in the weeks and months prior to hospital admission. Many have acknowledged recent use of tetrahydrocannabinol (THC)-

¹ <https://www.dhs.wisconsin.gov/dph/memos/beoh/2019-02.pdf>

containing products while speaking to healthcare personnel or in follow-up interviews by health department staff; however, no specific product has been identified by all cases, nor has any product been conclusively linked to this clinical syndrome.

Illinois has identified 24 possible cases. Of these, 10 are considered confirmed, 12 are still under investigation, and 2 have been excluded. A total of 153 possible cases of severe lung illness associated with e-cigarette product use have been reported by 16 states (CA, CT, FL, IL, IN, IA, MN, MI, NC, NJ, NM, NY, PA, TX, UT, and WI). The etiology of this illness is unclear at this time; however, active, state-specific epidemiological investigations are ongoing to better characterize the demographic, clinical, and laboratory features of cases.

What Clinicians Can Do

Clinicians should always inquire about potential drug (legal and illicit) use as part of a general history. When patients present with respiratory or pulmonary illness, especially of unclear etiology, clinicians should ask about the use of e-cigarette products (devices, liquids, refill pods and/or cartridges) for “vaping”. If possible, inquire about the types of drugs (legal or illicit) used and methods of drug use (e.g., smoking, “vaping”).

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. Evaluation for common infectious etiologies when also suspected should be pursued and less common infections, and rheumatologic or neoplastic processes considered, as clinically indicated. Aggressive supportive care in these possible or suspected cases is warranted, and in severe cases, pulmonary, infectious disease and critical care specialists should be consulted.

If an e-cigarette product is suspected as a possible etiology of a patient’s illness, it is important to inquire what type of product as well as if the patient is:

- using commercially available devices and/or liquids (i.e. bottles, cartridges or pods);
- sharing e-cigarette products (devices, liquids, refill pods and/or cartridges) with other people;
- re-using old cartridges or pods (with homemade or commercially bought products); or
- heating the drug to concentrate it and then using a specific type of device to inhale the product (i.e., “dabbing”).

Healthcare providers should also ask patients about any retained product, including devices and liquids, in order to ascertain availability for possible testing to be coordinated by the local/state health department.

For More Information

- Wisconsin Department of Health: <https://www.dhs.wisconsin.gov/outbreaks/index.htm>
- Illinois Department of Health: <http://dph.illinois.gov/news/illinois-department-public-health-warns-hospitalizations-potentially-tied-vaping>
- Information on electronic cigarettes and similar devices: https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm
- For assistance with management of patients suspected of illness related to recreational, illicit, or other drugs: Call your local poison control center at: 1-800-222-1222.