

Health Advisory: Update on Severe Acute Lung Injury Among Patients Who Report Vaping

Minnesota Department of Health, Wed Sep 11 14:00 CDT 2019

Action Steps:

Local and tribal health departments: Please forward to hospitals, clinics, emergency departments, urgent care centers, and convenience clinics in your jurisdiction.

Hospitals and clinics: Please distribute to all health care providers, especially pulmonologists and intensive care specialists, in these facilities.

Health care providers:

- Ask patients who present with pulmonary symptoms about vaping
- When treating patients with pulmonary symptoms who report a history of vaping, consider consultation with a pulmonologist and conduct a thorough infectious disease evaluation
- Report suspected cases to MDH at 651-201-4237 or 651-201-5449 as soon as possible
- Hold clinical specimens (blood, urine, bronchoalveolar lavage) for submission to the Minnesota Department of Health Public Health Laboratory
- Let patients know that MDH will be interested in speaking with them and collecting products to test for chemicals that may be involved in this national outbreak
- Attend webinar for Minnesota clinicians on the epidemiology and clinical issues associated with the outbreak on Friday September 13, 2019 at 1:00 pm. Registration link below.

Background

As of September 10, 2019, the Minnesota Department of Health has been alerted to 37 patients experiencing severe lung disease and who reported vaping. Twenty-five cases meet the CDC case definition as confirmed or probable and 12 others are being assessed for case status. The CDC reports that more than 450 patients have been identified across the United States. Minnesota patients presented for care with symptoms indicative of pneumonia, including fever, but symptoms did not resolve after broad spectrum antibiotic treatment. Evaluation for infectious diseases was negative in all patients. Symptoms have typically resulted in hospitalizations, some lasting multiple weeks, and some patients requiring invasive ventilation. Unfortunately, there has been 1 death occurring in a Minnesota patient who developed lung injury following vaping. There have been 5 other deaths reported nationally.

Twenty two Minnesota cases had interview or medical record information on THC; all reported vaping “black market” THC products. Many patients report vaping both nicotine and THC. Patients report vaping a variety of products and at this point, no single product has been directly linked to this outbreak.

Clinical Presentation and Evaluation

Clinical presentation has included shortness of breath, fever, cough, malaise and gastrointestinal symptoms (nausea, vomiting, abdominal pain or diarrhea). Other symptoms reported include headache, dizziness, and chest pain. Chest radiograph demonstrated bilateral opacities and CT imaging demonstrated diffuse ground glass opacification. Leukocytosis and elevated C-reactive protein were noted, but all studies for pulmonary infection were negative, including samples from bronchoalveolar lavage. Some patients required mechanical ventilation and extracorporeal membrane oxygenation. Treatment with systemic steroids has been helpful in many cases.

Clinicians should ask patients who present with pulmonary symptoms about vaping. Consultation with pulmonologists should be considered, when treating patients who have pulmonary symptoms and report a history of vaping.

Because symptoms are consistent with an infection, a thorough evaluation for infectious diseases should be conducted. Admission whole blood, serum and urine, and bronchoalveolar lavage specimens should be saved and submitted to MDH upon request.

MDH and the Minnesota Hospital Association are partnering in a webinar for clinicians that will review the epidemiology and clinical issues associated with this outbreak. The webinar will be on Friday September 13 at 1:00 pm. Please register for this webinar at the following link: <https://web.telspan.com/register/240mnhospitals/mdhvaping>

Patient Education

Patients with a history of vaping who are experiencing pulmonary symptoms should seek clinical care and avoid using e-cigarettes and other vaping products. Clinicians should ask their patients who present with respiratory symptoms about vaping, including vaping THC products.

People should avoid vaping illicit THC products and modifying vaping products. As a general rule, young people and pregnant women should avoid vaping, and patients should be informed about the harms of vaping. MDH and CDC have extensive information on this at www.health.mn.gov/ecigarettes and https://www.cdc.gov/tobacco/basic_information/e-cigarettes/index.htm

Questions or Concerns

For questions or concerns, please contact:

- Nate Wright at 651-201-4237 or nate.wright@state.mn.us or
- Terra Wiens at 651-201-5449 or terra.wiens@state.mn.us

For more information at MDH, visit our web page:

<https://www.health.state.mn.us/news/pressrel/2019/lunginjuries082219.html>

A copy of this HAN is available at: www.health.state.mn.us/han

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.