Severe Pulmonary Disease Associated with “Vaping”

Summary and Action Items
- The Centers for Disease Control and Prevention (CDC) and several states are investigating the occurrence of severe pulmonary disease among people who report “vaping.”
- The Ohio Department of Health (ODH) has received six reports of patients experiencing serious respiratory symptoms following e-cigarette or vaping product use. Those reports are being investigated.
- ODH is requesting that this alert be distributed to all health care providers in your jurisdiction.
- ODH is requesting health care providers who are seeing patients with suspected serious pulmonary illness of unclear etiology and who vape report these suspected cases to their local health department (LHD) by the close of the next business day following patient presentation.

Background
Multiple states across the country have reported clusters of patients experiencing severe respiratory disease after using e-cigarette or vapor products. As of August 21, 2019, 153 possible cases have been reported across 16 states. CDC’s clinician outreach and communication activity (COCA) document is attached.

Potential Exposures
Patients have reported vaping in the weeks to months prior to illness. Many have acknowledged recent use of tetrahydrocannabinol (THC)-containing products; however, no specific product has been identified by all cases, nor has any product been conclusively linked to this clinical syndrome. An investigation has been initiated with interviews of patients to further study the issue.

Symptoms and Imaging
Patients present with respiratory symptoms including cough, shortness of breath and fatigue. Symptoms worsen over a period of days or weeks before admission to the hospital. Other symptoms may include fever, anorexia, pleuritic chest pain, nausea, abdominal pain and diarrhea. Chest radiographs show bilateral opacities, typically in the lower lobes and CT imaging of the chest shows diffuse ground glass opacities, often with subpleural sparing. Evaluation for infectious etiologies were negative in all patients. Some patients had progressive respiratory compromise requiring endotracheal intubation but subsequently improved with systemic steroids.

Management
At this time, it is unknown what is causing or contributing to the symptoms. Infectious etiologies should be ruled out. Aggressive supportive care is warranted, and in severe cases, it is recommended that pulmonary and critical care specialists are consulted. If an e-cigarette or vaping product is suspected as a possible etiology of a patient’s illness, it is important to inquire about the type of product and where the product was obtained and if samples of the product are available for possible analysis.

Prevention
At this time, it is unknown what product(s) or chemicals may be linked to these illnesses.
**ODH and LHD Response**

LHDs who hear about suspect cases should notify ODH for follow up information. ODH will gather information from LHDs about cases within Ohio to look for common exposures and more information on products and chemicals linked to illnesses.

**Contact**

Please report all suspected cases to the local health department in the jurisdiction in which the case resides by completing the attached draft form. Please report these suspect cases by the close of the next business day following patient presentation. To locate a local health department, please visit [https://odhgateway.odh.ohio.gov/lhdinformationsystem/Directory/GetMyLHD](https://odhgateway.odh.ohio.gov/lhdinformationsystem/Directory/GetMyLHD)

For additional information, clinicians can contact their local health department or the Ohio Department of Health, Tobacco Use Prevention and Cessation Program.

Kirtana Ramadugu, MPH  
Tobacco Epidemiologist  
Tobacco Use Prevention and Cessation Program  
Ohio Department of Health  
614-644-0743  
Kirtana.ramadugu@odh.ohio.gov

Courtney Dewart, PhD, MPH, RN  
CDC Epidemic Intelligence Service Officer  
Bureau of Infectious Diseases  
Assigned to Ohio Department of Health  
614-644-8784  
Courtney.dewart@odh.ohio.gov

**Attachments**

- CDC Clinical Outreach and Communication Activity (released 8/16/2019)
- ODH Draft Clinician Report Form– Severe Respiratory Disease Associated with Vaping