

HEALTH ALERT

Severe Pulmonary Disease Associated with E-Cigarettes or Vaping

September 30, 2019

Update from Health Alert released August 23, 2019

Summary and Action Items

- The Centers for Disease Control and Prevention (CDC) and multiple states are investigating the occurrence of severe pulmonary disease among people who report vaping.
- As of September 26, 2019, state and local public health officials in Ohio have confirmed 21 cases of vaping-related severe pulmonary illness and are investigating an additional 19 reports of illness among patients experiencing serious respiratory symptoms following e-cigarette or vaping product use.
- Updates on the Ohio Department of Health (ODH) investigation can be found on the Tobacco Use Prevention and Cessation program webpage under “News & Events”. Link to investigation may be found [here](#).
- ODH is requesting that this alert be distributed to all health care providers in your jurisdiction.
- **ODH is requiring health care providers or any individual having knowledge, to report to their local health department (LHD) by the end of the next business day, all suspected cases of severe pulmonary disease of unclear etiology with a history of vaping in the past 90 days (see attached Director’s Journal Entry).**
- CDC guidance on clinical specimen collection and storage as well as additional resources for healthcare providers are included.

Background

Multiple states across the country have reported clusters of patients experiencing severe respiratory disease after using e-cigarette or vapor products. As of September 26, 2019, 805 cases have been reported across 46 states and one U.S. territory. Twelve deaths have been confirmed in ten states. CDC’s clinician outreach and communication activity (COCA) document and CDC HAN with recommendations for clinicians are attached.

Potential Exposures

Patients have reported vaping in the weeks to months prior to illness. Many patients have reported using THC and nicotine. The latest findings from the national investigation into lung injuries associated with e-cigarette use, or vaping, suggest products containing THC play a role in the outbreak. The investigation is ongoing. No specific product has been identified by all cases, nor has any product been conclusively linked to this clinical syndrome.

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 and all associated testing should be documented on the clinical report form (attached). 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

No specific product has been identified by all cases, nor has any product been conclusively linked to this clinical syndrome. While the investigation is ongoing, CDC recommends that individuals consider refraining from e-cigarettes or vaping products, particularly those containing THC. People who use e-cigarette products should not buy them off the street and should not modify e-cigarette products or add any substances that are not intended by the manufacturer, regardless of the ongoing investigation.

CDC Guidance for Specimen Collection and Storage

CDC can receive select clinical specimens for evaluation. Please see documents linked below for guidance on specimen types, collection, and storage. If you are interested in submitting specimens to CDC, please contact your local health department or ODH to obtain pre-approval and shipping information.

- [Laboratory Clinical Specimen Collection and Storage Guidance For Lung Injury Related to e-Cigarette Exposures](#) The purpose of this document is to provide general specimen collection and storage guidance for healthcare providers and public health laboratory personnel.
- [Specimen Submission Guidance for Pathologic Evaluation of Tissue Specimens from Cases of Pulmonary Disease Associated with E-Cigarette Product Use](#) This guidance document will assist health departments, healthcare providers, and pathologists with submission of tissue specimens.

Additional CDC Resources and Information for Healthcare Providers

- [Clinician Outreach and Communication Activity \(COCA\)](#)
On September 19, 2019, CDC experts hosted a Clinician Outreach and Communication Activity (COCA) call on the outbreak of lung injury associated with e-cigarette product use or vaping. Video and slides are now available.
- [Outbreak of Lung Injury Associated with E-cigarette Product Use or Vaping: Information for Clinicians Presentation](#) This PowerPoint presentation is being provided for clinicians to use to review e-cigarette and vaping terminology, clinical features reported among cases of lung injury in recent outbreaks, and CDC recommendations for clinicians.

- **E-Cigarette Use Among Young People Video ([long form](#) and [short form](#))**
CDC expert Dr. Brian King giving a talk about e-cigarette use among young people for clinicians and public health professionals.

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

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>.

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

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Attachments

- Director's Journal Entry (released 9/30/2019)
- ODH Clinician Report Form– Severe Respiratory Disease Associated with Vaping (version 2.0 – dated 9/26/2019)
- CDC HAN (released 8/30/2019)
- ODH HAN (released 8/23/2019)
- CDC Clinical Outreach and Communication Activity (released 8/16/2019)