

HEALTH ALERT

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>

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

Clinician Report Form Severe Pulmonary Disease Associated with Vaping

Report Date: _____

Reporter Information:

Name and Title: _____ Phone Number: _____

Facility/Hospital Name: _____

Can medical records be sent to the local health department? Yes No

Patient Information:

First Name: _____ Middle Initial: _____ Last Name: _____

Date of Birth (month/day/year): ____/____/____ Sex: Male Female Unknown

Patient Address: _____

Telephone Number: (Home) _____	Race:	White
Telephone Number: (Cell) _____		Black/African American
Telephone Number: (Other) _____		Asian
		Native Hawaiian/Pacific Islander
		American Indian/Alaskan Native
		Other: _____

Ethnicity: Hispanic Non-Hispanic Unknown

Patient evaluated at (please circle): ED visit Treated inpatient Treated outpatient
Other: _____

Patient current disposition: (please circle)	Treated and discharged	Date of Discharge: ____/____/____
	Admitted for inpatient care	
	Died	Date of Death: ____/____/____
	Other: _____	

Health and Medical Information:

Date of Illness Onset: ____/____/____ Time: ____ : ____

Signs/symptoms (circle all that apply):

- | | | | |
|-------------------------------|--------------|-------------|-------------|
| Shortness of breath | Hypoxia | Diarrhea | Weight Loss |
| Cough (with or without blood) | Nausea | Fever | Weakness |
| Wheezing | Vomiting | Chills | Dizziness |
| Chest Pain (pleuritic) | Stomach Pain | Palpitation | Fatigue |

Other: _____

Does that patient have any pre-existing conditions (specifically pulmonary disease due to rheumatologic or neoplastic processes)?

Yes what condition: _____
 No

Was the patient treated for symptoms related to this current pulmonary illness? Yes No Unknown

Was the patient treated with antibiotics? Yes No Unknown Not applicable

Did the patient's illness respond to antibiotics? Yes No Unknown Not applicable

Was the patient treated with steroids? Yes No Unknown Not applicable

Did the patient's illness respond to steroids? Yes No Unknown Not applicable

Did the patient require intubation? Yes No Unknown Not applicable

Testing Information:

Was laboratory testing performed? Yes No Unknown

Did any tests indicate that symptoms were indicative of a pulmonary infection? Yes No

Test	Collection Date	Result (pos/neg/pending)	Result Date
Blood cultures			
Respiratory viral panel			
Rapid influenza test/PCR			
Sputum gram stain			
Respiratory Sync Virus			
Urine <i>S. pneumoniae</i> / <i>Legionella</i> / <i>Mycoplasma</i>			
BAL culture			
Other:			

Patient's lowest WBC count: _____

Patient's lowest Platelet count: _____

Patient's highest CRP: _____

Patient's lowest absolute lymphocyte count: _____

Patient's highest AST: _____

Patient's highest ALT: _____

Did the patient receive a chest x-ray or CT? Yes No Unknown

If yes, which test? _____

Imaging results: _____

Imaging contained any pulmonary infiltrates Yes No Unknown
(opacities or ground glass opacities)?

Risk Factor Information:

Did the patient use any vaping, e-cigarette, or marijuana products prior to symptom onset?

Yes No Unknown

Which products were used?
(circle all that apply)

Marijuana (any kind)
Vaped THC cartridges (e.g. dank vapes)
Vaped commercial nicotine (e.g. JUUL)
Other: _____

Product brand and description: _____

How soon after using vaping products did the patient begin experiencing symptoms? (minutes, hours, days)

Were the products laced with any other substances prior to use? Yes No Unknown

If yes, with what? _____

Was a nicotine product altered in any way prior to use? Yes No Unknown

If yes, altered how? _____

How often does the patient use these vaping products? (circle one)

- Every day
- Some days
- Occasionally
- This was the first time these products were used

When did the patient start regularly using vaping products (use every day or some days)? (circle one)

- Less than 6 months ago
- Between 6 months and 1 year ago
- More than 1 year ago

Where were the products obtained?
(circle all that apply)

From friend or family member
From another person that is not a friend or family member
From store (e.g. gas station, convenience store, vape shop)
Other: _____

If store, store name: _____

Store address: _____

Store city: _____

Store state: _____

Store ZIP: _____

When were the products obtained?

Date: ____/____/____

Time: ____ : ____

Is product available for testing? Yes No Unknown

Notes:

If you are a provider filling out this form, please contact the local health department in the jurisdiction in which the patient resides to report the suspected case. If patient residence is unknown, report to the local health department in which the provider is located. To locate a local health department please visit:
<https://odhgateway.odh.ohio.gov/lhdinformationsystem/Directory/GetMyLHD>

If you have additional questions, please contact your local health department or Kirtana Ramadugu, ODH epidemiologist, at 614-644-0743 or Courtney Dewart, CDC EIS Officer assigned to ODH, at 614-644-8784.

For Local Health Department Use Only

Health department jurisdiction: _____

Date reported to the local health department (MM/DD/YYYY): _____

Status of investigation:

- Waiting on medical records
- Medical records review
- Waiting for patient response to interview request
- Patient/proxy refused interview
- Patient lost to follow up
- Not a case
- Complete

Case status (see OPHCS for case definitions):

- Confirmed
- Probable
- Suspect
- Not yet determined
- Not a case

Case investigator contact information:

Name: _____

Title: _____

Phone number: _____

Email address: _____

Local health departments, please return completed forms to the Ohio Department of Health via secure fax at: 614-564-2456, attention: Kirtana Ramadugu or Courtney Dewart.