Technical Bulletin
Division of Public and Behavioral Health

Date: September 2019
Topic: Outbreak of Severe Pulmonary Disease Associated with Using E-cigarette Products: Alert for Healthcare Providers
Contact: Melissa Peek-Bullock, State Epidemiologist, Office of Public Health Informatics and Epidemiology
To: Rural HealthCare Providers and Medical Facilities

Current Situation:

The Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), state and local health departments, and other clinical and public health partners are investigating a multistate outbreak of severe pulmonary disease associated with the use of e-cigarette products. As of September 6, 2019, over 450 possible cases of lung illness associated with the use of e-cigarette products have been reported to CDC nationally. Five deaths have been confirmed from California, Illinois, Minnesota and Oregon. The first case in Nevada has been reported from Clark County and occurred in a teenage child. This case was hospitalized but has since recovered. Among the cases reported nationally, there has been no evidence of pulmonary infection.

Clinical Description:

Cases in this investigation have reported symptoms such as:

- Cough, shortness of breath, and/or chest pain
- Nausea, vomiting and/or diarrhea
- Fatigue, fever and/or weight loss

Cases have reported that their symptoms have developed over a few days to several weeks. A pulmonary infection does not appear to be the cause of the symptoms. Symptoms among cases have generally not improved with antibiotic treatment alone.

Recommendations for Clinicians:

1. Patients who report e-cigarette product use within the last 90 days should be thoroughly evaluated for signs and symptoms of pulmonary illnesses.
2. If e-cigarette product use is suspected as a possible cause for a patient's lung disease, a detailed history of the substances used, the sources, and the devices used should be obtained and efforts should be made to determine if any remaining product, devices, and liquids are available for testing.
3. If available, products or devices used in the 90 days prior to illness should be tested. Product collection and testing should be coordinated through the Office of Public Health Informatics and Epidemiology (OPHIE).
4. Clinical improvement of patients with severe pulmonary disease associated with e-cigarette use has been reported with the use of corticosteroids. The decision to use corticosteroids should be made on a case-by-case basis.
5. Lipoid pneumonia associated with inhalation of lipids in aerosols generated by e-cigarettes has ben reported based on the detection of lipid-laden alveolar macrophages obtained by bronchoalveolar lavage (BAL) and lipid staining. The decision to perform a BAL should be based on individual clinical circumstances.
6. Lung biopsies have been performed on some patients.

7. Patients who have received treatment for severe pulmonary disease related to e-cigarette product use should undergo follow-up evaluation as clinically indicated to monitor pulmonary function.

Reporting:

The Nevada Division of Public and Behavioral Health (DPBH) is requesting that clinicians report cases of severe pulmonary disease of unclear etiology and a history of e-cigarette product use within the past 90 days. These cases can be reported to DPBH M-F 8:00 AM to 5:00 PM at (775) 684-5911 or afterhours at (775) 400-0333. Case reporting can also be performed by fax at (775) 684-5999.

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Reference: https://emergency.cdc.gov/han/han00421.asp ; https://www.cdc.gov/tobacco/basic_information/e-cigarettes/severe-lung-disease.html#recommendations-for-hcps