TO: West Virginia Healthcare Providers, Hospitals and Other Healthcare Facilities

FROM: Catherine Slemp, MD, MPH, Commissioner and State Health Officer
Bureau for Public Health
West Virginia Department of Health and Human Resources

DATE: August 26, 2019

LOCAL HEALTH DEPARTMENTS: Please distribute to community health providers, hospital-based physicians, infection control preventionists, laboratory directors and other applicable partners.

OTHER RECIPIENTS: Please distribute to association members, staff, etc.

**Summary and Action Items**
- All patients with severe pulmonary illness of unknown etiology should be asked about recent vaping practices.
- When treating patients with severe pulmonary symptoms who report a history of vaping, consider consultation with a pulmonologist and rule out common infectious and non-infectious etiologies.
- Patients with unexplained severe pulmonary illness and recent vaping should be immediately reported to the local health department (LHD).

**Background**
Multiple states have reported cases of severe pulmonary illness primarily among adolescents and young adults who report vaping (use of e-cigarette and similar devices to inhale aerosolized liquid). Patients reported vaping both nicotine and tetrahydrocannabinol (THC)-containing products. Product names are unknown. The Bureau for Public Health has begun to investigate sporadic cases. During 2017-2018, current e-cigarette use in the U.S. increased by 78% (from 11.7% to 20.8%) among middle and high school students. It is important to note that West Virginia has a high rate of youth vaping. The Bureau for Public Health is calling for expanding surveillance to more readily identify any illnesses and medical incidents caused by vaping.

**Clinical Presentation and Evaluation**
Clinical presentation among cases included shortness of breath, fever, cough, fatigue and gastrointestinal symptoms (nausea, vomiting, abdominal pain, and diarrhea). Other symptoms reported by some patients included weight loss, dizziness and chest pain. Symptoms worsened over a period of days or weeks before admission to the hospital. On hospital admission, most patients were febrile, tachycardic and hypoxic. Symptoms have resulted in hospitalizations lasting multiple weeks with some patients requiring mechanical ventilation. No infectious etiology has been identified. Clinicians should ask patients who report 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 similar to those with an infection, a thorough evaluation for infectious diseases should be conducted. Contact your LHD with suspect cases as soon as possible.
If vaping is suspected as the etiology of a patient’s illness, it is important to inquire what type of product as well as if the patient is using commercially available devices and/or liquids; sharing products (devices, liquids, refill pods and/or cartridges) with other people; reusing old cartridges or pods (with homemade or commercially bought products) or heating the drug to concentrate it and then using a specific type of device to inhale the product (i.e., “dabbing”). Healthcare providers should also ask about any retained product, including devices and liquids, in order to ascertain availability for possible testing to be coordinated by the local/state health department.

The Centers for Disease Control and Prevention (CDC) notified the U.S. healthcare systems and clinicians about illnesses and what to watch for via a Clinician Outreach and Communication Activity (COCA) Clinical Action Message. This message urged clinicians to report possible cases of unexplained vaping-associated pulmonary illness to their state/local health departments.

For more information visit: https://emergency.cdc.gov/newsletters/coca/081619.htm.

**Patient Education**
Young persons should not use vaping products and e-cigarettes, and adults should be informed about the dangers of such products. Patients with a history of vaping who are experiencing pulmonary symptoms should seek clinical care.

For more information, contact the Office of Epidemiology and Prevention Services (OEPS), Division of Infectious Disease Epidemiology at (304) 558-5358, extension 1 or the 24/7 answering service at (304) 347-0843.