



**TO:** West Virginia Healthcare Providers, Hospitals and other Healthcare Facilities

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

**DATE:** November 13, 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

- E-cigarette, or vaping, product use associated lung injury (EVALI), previously referred to as vaping-associated lung injury, should be reported within 24 hours to the local health department (LHD) or to the Bureau for Public Health (BPH) by calling (304) 558-5358 per the Reportable Disease Rule 64-CSR-7.
- Rapid recognition of patients with EVALI, increased understanding of diagnostic and treatment considerations, and timely reporting to public health could reduce morbidity and mortality associated with this injury.
- Healthcare providers should conduct a complete clinical evaluation for patients with suspected EVALI including a patient history, physical examination, laboratory testing, and imaging, and should consider consultation with specialists.
- Healthcare providers of suspect EVALI cases should let patients know public health is interested in speaking with them and collecting products to test for chemicals that may be involved in this national outbreak.

### Background

BPH along with the Centers for Disease Control and Prevention (CDC), LHDs, and clinical partners continue to investigate a multi-state outbreak of e-cigarette, or vaping, product use associated lung injury (EVALI). As of November 5, 2019, 2,051 cases have been reported to CDC from 49 states, the District of Columbia and 1 U.S. territory; 39 deaths have been confirmed in 24 states. A total of 8 cases and 0 deaths have been reported in West Virginia to date. The latest national analyses of bronchoalveolar lavage (BAL) fluid samples (or samples of fluid collected from the lungs) of patients with EVALI, identified vitamin E acetate, an additive in some THC-containing products. This is the first time a potential chemical of concern has been detected in biologic samples from patients with these lung injuries. These findings provide direct evidence of vitamin E acetate at the primary site of injury within the lungs. While it appears that vitamin E acetate is associated with EVALI, evidence is not yet sufficient to rule out contribution of other chemicals of concern to EVALI. No one compound or ingredient has emerged as the cause of these illnesses to date; and it may be that there is more than one cause of this outbreak. Many different substances, brands and product sources are still under investigation.

### Clinical Evaluation for Patients with Suspected EVALI

EVALI is considered a diagnosis of exclusion because at present there is no specific test or marker for its diagnosis. Healthcare providers should consider multiple etiologies, including the possibility of EVALI and concomitant infection. Additionally, providers should evaluate alternative diagnoses as suggested by clinical

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findings and medical history (e.g., cardiac, gastrointestinal, rheumatologic, and neoplastic processes; environmental or occupational exposures; or causes of acute respiratory distress syndrome).

**Patient History:** All healthcare providers evaluating patients for EVALI should ask about the use of e-cigarette, or vaping, products and should ask about types of substances used, duration and frequency of use, and last time of use.

**Physical Examination:** For patients who report the use of e-cigarette, or vaping, products, physical examination should include vital signs and pulse-oximetry.

**Laboratory Testing:** Laboratory testing should be guided by clinical findings. A respiratory virus panel including influenza during influenza season, should be conducted. Evaluation of community-acquired pneumonia should include testing for the following infectious diseases: *Streptococcus pneumoniae*, *Legionella pneumophila*, and opportunistic respiratory infections if appropriate.

**Imaging:** Radiographic findings consistent with EVALI include pulmonary infiltrates on CXR and opacities on chest computed tomography (CT) scan. A CXR should be obtained on all patients with a history of e-cigarette, or vaping, product use who have respiratory or gastrointestinal symptoms, particularly when accompanied by decreased O<sub>2</sub> saturation (<95%). Chest CT might be useful when the CXR result does not correlate with clinical findings or to evaluate severe or worsening disease, complications such as pneumothorax or pneumomediastinum, or other illnesses in the differential diagnosis, such as pneumonia or pulmonary embolism.

**Consultation with Specialists:** Consultation with specialists might be necessary to optimize patient management. For patients being evaluated for possible EVALI, consideration should be given to consultation with a pulmonologist who can help guide further evaluation, recommend empiric treatment, and review the indications for bronchoscopy.

For complete guidance on evaluating and caring for patients with suspected EVALI, visit the CDC's Evaluating and Caring for Patients with EVALI at <https://go.usa.gov/xpaiC>.

**Reporting:** Report all cases of suspected EVALI within 24 hours to the LHD or to BPH by calling (304) 558-5358. EVALI is a Category II reportable condition under the Reportable Disease Rule 64-CSR-7.

Let patients know public health is interested in speaking with them and collecting products to test for chemicals that may be involved in this national outbreak.

### **Patient Education**

Individuals should not use e-cigarette, or vaping, products that contain THC. Individuals should not purchase any type of e-cigarette, or vaping, product, particularly those containing THC, off the street and should not modify or add any substance to e-cigarette, or vaping, products that are not intended by the manufacturer, including products purchased through retail establishments. The only way to assure individuals are not at-risk while the investigation continues, is to refrain from using all e-cigarette, or vaping, products. Irrespective of the investigation, e-cigarette, or vaping, products should **never** be used by youth, young adults or those who are pregnant.

For assistance with quitting tobacco, the West Virginia Tobacco Quitline is available and free or low cost to all residents over the age of 18. Pregnant women and those under 18 may participate with physician approval. Call 1-800-QUIT-NOW (1-800-784-8669) or 1-877-966-8784 to speak to a Quitline representative. In addition, effective treatments are available, and recovery is possible for those addicted to marijuana. To locate treatment in your area, call 1-800-662-HELP (1-800-662-4357).

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

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