

## **PUBLIC HEALTH ADVISORY**

# **INTERIM GUIDANCE FOR EVALUATION AND CARE OF PATIENTS WITH SUSPECTED E-CIGARETTE/VAPING ASSOCIATED LUNG INJURY (EVALI) AND REDUCING REHOSPITALIZATION AND DEATH POST-DISCHARGE DECEMBER 26, 2019**

### **Background**

CDC, the Food and Drug Administration, state and local health departments and clinical stakeholders continue to investigate a nationwide outbreak of e-cigarette/vaping associated lung injury (EVALI).

As of December 10, 2019, a total of 2,409 hospitalized EVALI cases have been reported to CDC, including 52 (2%) deaths among EVALI patients. Among 1,139 reported cases with patient hospital discharge by October 31, 2019, 31 (2.7%) patients were rehospitalized after initial discharge (median time to readmission 4 days) and seven patients died following discharge after an EVALI hospitalization. Characteristics of EVALI patients who were rehospitalized or died following hospital discharge indicate some chronic medical conditions such as cardiac disease, chronic pulmonary disease (e.g., chronic obstructive pulmonary disease and obstructive sleep apnea), diabetes and greater age are risk factors leading to higher morbidity and mortality among some EVALI patients.

According to the California Department of Public Health (CDPH), 178 cases were reported for the state through December 10, 2019. Locally, ten cases have been reports with several cases still under investigation.

Current case counts are posted weekly at <https://www.cdc.gov/lunginjury> (United States), <https://www.cdph.ca.gov/Programs/CCDPHP/Pages/EVALI-Weekly-Public-Report.aspx> (California) and <https://www.rivco-diseasecontrol.org/> (Riverside County).

### **Clinical Guidance**

Clinical guidance from CDC and state partners for EVALI continues to evolve as more information about EVALI becomes available. Updates to current clinical guidance include recommendations for discharge planning and optimized follow-up and case management after discharge that might reduce risk of rehospitalization and avert post discharge mortality among patients hospitalized for EVALI. Updated recommendations include:

- confirming no clinically significant fluctuations in vital signs for at least 24–48 hours before discharge;
- ensuring outpatient primary care or pulmonary specialist follow-up, optimally within 48 hours of discharge (previously recommended within 2 weeks of discharge);
- planning for discharge care, early follow-up, and management of any comorbidities;
- arranging posthospitalization specialty care;
- following best practices for medication adherence; and
- ensuring social support and access to mental and behavioral health and substance use disorder services.

The updated interim guidance is posted at:

[https://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm685152e2-h.pdf?deliveryName=USCDC\\_921-DM16081](https://www.cdc.gov/mmwr/volumes/68/wr/pdfs/mm685152e2-h.pdf?deliveryName=USCDC_921-DM16081)

## Clinical Evaluation

### *History*

- Ask about respiratory, gastrointestinal, and constitutional symptoms (e.g., cough, chest pain, shortness of breath, abdominal pain, nausea, vomiting, diarrhea and fever) for patients who report a history of use of e-cigarette, or vaping, products.
- Ask all patients about recent use of e-cigarette or vaping products, specifically:
  - types of substances used (e.g., tetrahydrocannabinol [THC], cannabis [oil, dabs], nicotine, modified products or the addition of substances not intended by the manufacturer);
  - product source, specific product brand and name;
  - duration and frequency of use and time of last use;
  - product delivery system and method of use (aerosolization, dabbing, or dripping).
- Determine if e-cigarette or vaping devices are available. Follow hospital policy regarding release of patients' personal property items.

### *Physical Exam*

- Assess vital signs and oxygen saturation via pulse oximetry.

### *Diagnostic Testing*

- Appropriate radiographic evaluation (at minimum plain-film chest X-ray, or chest CT if indicated)
- Infectious disease evaluation should include:
  - respiratory viral panel, including influenza testing during flu season
  - *Streptococcus pneumoniae*
  - *Legionella pneumophila*
  - *Mycoplasma pneumoniae*
  - endemic mycoses and opportunistic infections as clinically indicated
- Initial laboratory evaluation
  - Consider complete blood count with differential, liver transaminases and inflammatory markers (e.g., erythrocyte sedimentation rate and C-reactive protein).
  - In all patients, consider conducting urine toxicology testing, with informed consent, including testing for THC.

## Disease Reporting and Submission of e-Cigarette/Vaping Devices

Report suspect EVALI cases to RUHS Public Health Disease Control within one working day of identification. Report via phone by calling 951-358-5107 or by faxing the documents listed below to 951-358-5102:

- History and physical

- Infectious disease and pulmonologist consults
- CXR/CT reports
- Results for infectious disease testing (please hold clinical specimens for potential testing by CDPH and/or CDC)

If the e-cigarette or vaping device(s) is/are available, please hold items pick up by a PH courier for delivery to Riverside County PH Laboratory.

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