Severe Vaping-Associated Pulmonary Illness (VAPI)

Merlin disease code: 72000 Severe Vaping-Associated Pulmonary Illness (VAPI)

Clinical criteria for case classification

**Confirmatory:**
1. A person who was hospitalized with both of the following:
   - Pulmonary infiltrates, such as opacities on plain film chest radiograph or ground-glass opacities on chest CT
   - **And** no evidence in medical record of alternative plausible diagnoses (e.g., cardiac, rheumatologic, or neoplastic process);

2. A person who died outside a hospital or prior to hospital admission (e.g., at home, in route to a hospital, in an emergency department) with all of the following:
   - No chest imaging or clinical evaluation,
   - **And** pathologic evidence of acute lung injury (e.g., diffuse alveolar damage, acute fibrinous pneumonitis or bronchiolitis, or organizing pneumonia often with vacuolated or foamy macrophages or pneumocytes),
   - **And** no evidence in medical record or at autopsy of alternative plausible diagnoses.

**Supportive:**
Both of the following:
- A person who was hospitalized
- **And** had pulmonary infiltrates, such as opacities on plain film chest radiograph or ground-glass opacities on chest CT.

Laboratory criteria for case classification

**Confirmatory:**
1. For person who was hospitalized, all of the following on initial work-up:
   - Negative respiratory viral panel,
   - **And** absence of a positive influenza PCR,
   - **And** absence of a positive influenza rapid test,
   - **And** absence of positive result for all other clinically indicated respiratory ID testing (e.g., urine antigen for *Streptococcus pneumoniae* and *Legionella*, sputum culture if productive cough, bronchoalveolar lavage culture, blood culture, testing for HIV-related opportunistic respiratory infections if appropriate).

2. For a person who died outside a hospital or prior to hospital admission:
   Absence of pulmonary infection (e.g., influenza, *S. pneumoniae, Legionella*, and other infectious diseases, including HIV-related infections as appropriate, as evidenced by microscopy, immunohistology, microbiology, or molecular testing).
Presumptive:
1. For person who was hospitalized, both of the following:
   • Clinical team caring for the patient believes pulmonary infection is not the sole cause of the underlying respiratory disease process
   • **And** one or more of the following:
     o Positive respiratory viral panel,
     o **Or** respiratory viral panel was not performed,
     o **Or** positive influenza PCR,
     o **Or** positive influenza rapid test,
     o **Or** positive result for other clinically indicated respiratory ID testing.

2. For a person who died outside a hospital or prior to hospital admission, both of the following:
   • Medical examiner or other forensic pathologist believes pulmonary infection is not the sole cause of the underlying respiratory disease process
   • **And** one or more of the following:
     o Positive respiratory viral panel,
     o **Or** positive influenza PCR,
     o **Or** positive influenza rapid test,
     o **Or** positive result for other clinically indicated respiratory ID testing.

Epidemiological criteria for case classification
A person who used e-cigarette ("vaping") or dabbing to inhale substances in 90 days before onset.

Case classification

**Confirmed:**
Either of the following:
   • A person with confirmatory clinical criteria (1), confirmatory laboratory criteria (1), and epidemiological criteria
   • **Or** a person with confirmatory clinical criteria (2), confirmatory laboratory criteria (2), and epidemiological criteria.

**Probable:**
Either of the following:
   • A person with confirmatory clinical criteria (1), presumptive laboratory criteria (1), and epidemiological criteria
   • **Or** a person with confirmatory clinical criteria (2), presumptive laboratory criteria (2), and epidemiological criteria.

**Suspect:**
A person with supportive clinical criteria and epidemiological criteria will **temporarily** be classified as suspect while being investigated (all cases will eventually be classified as confirmed, probable, or not a case).
Severe Vaping-Associated Pulmonary Illness (VAPI) (Continued)

Not a case:
One or more of the following:
- Person did not use e-cigarette ("vaping") or dabbing to inhale substances in 90 days before onset,
- or person was not hospitalized and did not die,
- or person was hospitalized but did not have pulmonary infiltrates, such as opacities on plain film chest radiograph or ground-glass opacities on chest CT,
- or person died outside a hospital or prior to hospital admission but did not have pathologic evidence of acute lung injury,
- or person had evidence in medical record of alternative plausible diagnoses (e.g., cardiac, rheumatologic, or neoplastic process).

Criteria to distinguish a new case from previous reports
Not applicable.