

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

[Paper case report form](#)  
Merlin extended data required

## 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).

# Severe Vaping-Associated Pulmonary Illness (VAPI) (Continued)

## 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:
    - Positive respiratory viral panel,
    - **Or** respiratory viral panel was not performed,
    - **Or** positive influenza PCR,
    - **Or** positive influenza rapid test,
    - **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:
    - Positive respiratory viral panel,
    - **Or** positive influenza PCR,
    - **Or** positive influenza rapid test,
    - **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.