



NC DEPARTMENT OF HEALTH AND HUMAN SERVICES

ROY COOPER • Governor

MANDY COHEN, MD, MPH • Secretary

MARK T. BENTON • Assistant Secretary for Public Health

Division of Public Health

To: North Carolina Clinicians
From: Zack Moore, MD, MPH, State Epidemiologist
Subject: Severe Acute Pulmonary Disease among People who Reported Vaping (2 pages)
Date: August 30, 2019 (*replaces version dated August 16, 2019*)

This memo has been updated to reflect changes in criteria for reporting, provide updated state and national information, and provide additional resources.

The North Carolina Division of Public Health is alerting clinicians to recent reports of severe pulmonary disease following vaping. As of August 27, 2019, 215 possible cases have been reported from 25 states; 17 cases had been reported in North Carolina through August 29. The causes of these illnesses are under investigation.

Clinical Presentation

Patients have presented with respiratory symptoms (cough, shortness of breath, or chest pain) and some have also experienced gastrointestinal symptoms (nausea, vomiting, or diarrhea) or non-specific constitutional symptoms (fatigue, fever, or weight loss). Radiologic findings have varied and include bilateral pulmonary infiltrates and diffuse ground-glass opacities. Evaluation for infectious etiologies has been completed in many patients without an identified infectious cause. Some patients have had progressive respiratory compromise requiring endotracheal intubation but subsequently improved with systemic steroids.

Potential Exposures

Recent inhalation of cannabinoid products, THC or cannabidiol, have been reported in many of the patients. To date, no single substance or e-cigarette product has been consistently associated with illness.

Recommendations

North Carolina clinicians are urged to take the following steps to ensure appropriate identification and clinical management of cases:

1. **Contact North Carolina Poison Control at 1-800-222-1222 immediately to report cases and discuss treatment and management for any patient presenting meeting all of the following criteria:**
 - signs or symptoms of respiratory illness,
 - a history of using an e-cigarette ("vaping") or "dabbing" within 90 days prior to symptom onset,
 - evidence of bilateral pulmonary infiltrates or opacities on chest radiograph or chest CT, AND
 - absence of an alternative plausible diagnoses (e.g., cardiac, rheumatologic, or neoplastic process).
2. Ask all patients with progressive respiratory symptoms and unknown etiology if they have used vaping devices within the last 3 months and which substances were used.

Reporting

To report any similar cases, or if you have questions about treatment and management of these cases, please contact North Carolina Poison Control at 1-800-222-1222.

If you have questions about the ongoing outbreak, please contact the NC Division of Public Health at 919-695-2662.

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LOCATION: 5605 Six Forks Road, Building 3, Raleigh, NC 27609

MAILING ADDRESS: 1931 Mail Service Center, Raleigh, NC 27699-1931

www.ncdhhs.gov • TEL: 919-707-5000 • FAX: 919-870-4829

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Additional Resources

- North Carolina guidance and updates are available at <https://www.tobaccopreventionandcontrol.ncdhs.gov/ecigs/>.
- Information and guidance from the federal Centers for Disease Control and Prevention (CDC) is available at <https://emergency.cdc.gov/newsletters/coca/081619.htm>.
- CDC's August 23 media statement is available at: <https://www.cdc.gov/media/releases/2019/s0821-cdc-fda-states-e-cigarettes.html>.

This is an evolving investigation; guidance and recommendations are likely to change as new information is obtained.