



UM-CDG-097 Diagnostic Aerosol or Vapor Inhalation

Approved By:
Director, Health Services

Effective Date:
10/16/2025

This Policy applies to all SECUR affiliates, associates, and subsidiaries.

Approved by Courtney Gonzales, Director of Health Services on behalf of the Utilization Management Committee.

PURPOSE

This coverage determination guideline serves to address diagnostic aerosol or vapor inhalation, a procedure where aerosolized drugs or solutions are administered to a member via nebulizer or other inhalation device to help mobilize sputum for diagnostic testing, particularly for suspected lung infections or cancer. It can also be used to produce bronchodilation, which may improve a member's ability to perform a pulmonary function test (PFT) or for members who are unable to produce an adequate sputum sample.

Inhalation therapy is used in the therapeutic treatment of members with known lung disease, as well as for producing bronchodilation, mobilizing sputum, and inducing sputum production for diagnostic purposes.

This coverage determination guideline fully addresses the use of aerosol or vapor inhalation for sputum mobilization, bronchodilation, and sputum induction for diagnostic purposes.

If a member is unable to produce sputum, inhalation of a nebulized solution of 3 or 4 ml of distilled water or hypertonic sodium chloride results in the induction of an adequate specimen for examination. Any type of nebulizer may be used; however, ultrasonic nebulizers, which produce a concentrated mist, are preferred. The procedure is terminated when an adequate specimen is obtained, the nebulizer solution is exhausted, or after a maximum of 15-20 minutes. The procedure is most often used for members suspected of having tuberculosis or a lung malignancy, and to search for *Pneumocystis carinii* infection in members with the acquired immunodeficiency syndrome (AIDS).

For SECUR Health Plan members, National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) will be applied to requests when applicable. SECUR Health Plan Coverage Determination Guidelines (CDG) will be utilized in the absence of an appropriate NCD and/or LCD.

DEFINITIONS

None

POLICY

SECUR Health Plan considers the use of an aerosol or vapor inhalation for diagnostic purposes medically necessary for the following indications:

- For the induction/mobilization of sputum in a member who presents with signs and symptoms of a respiratory infection (e.g., fever, dyspnea, chest congestion, cough) or suspected lung malignancy, and who is unable to produce an adequate sputum specimen for examination by conventional methods;
- For the induction/mobilization of sputum in a member who continues to demonstrate signs and symptoms of a respiratory infection (e.g., fever, dyspnea, chest congestion, cough) despite antibiotic treatment, and who is unable to produce an adequate sputum specimen for follow-up examination by conventional methods; and/or
- To produce bronchodilation prior to a pulmonary function test (PFT), when the member's functional ability to perform the test is decreased and would otherwise result in an inconclusive finding.

References:

1. Local Coverage Determination (LCD) L33969 (retired) Diagnostic Aerosol or Vapor Inhalation <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=33969&ver=16&bc=0>
2. Fauci A, Braunwald E, Isselbacher K, et al. Harrison's principles of internal medicine. 14th ed. New York: McGraw- Hill; 1998.
3. van den Berg J, Kerstjens H, Postma D, van der Bij W, Koeter G. Sputum Induction in Research: Beware of the Beast. *Am J Respir Crit Care*. 2003;168(10):1253. Accessed September 28