Medical Coverage Policy | Rhinomanometry and Acoustic Optical Rhinomanometry

EFFECTIVE DATE: 12|01|2008
POLICY LAST REVIEWED: 02|04|2026

OVERVIEW
Rhinomanometry, acoustic rhinometry, and optical rhinometry are techniques to objectively measure nasal patency. Several clinical applications are proposed including allergy testing, evaluation of obstructive sleep apnea, and patient assessment prior to nasal surgery.

MEDICAL CRITERIA
Not applicable

PRIOR AUTHORIZATION
Not applicable

POLICY STATEMENT
Medicare Advantage Plans
Rhinomanometry and acoustic/optical rhinometry are considered not covered as the evidence is insufficient to determine the effects of the technology on health outcomes.

Commercial Products
Rhinomanometry and acoustic/optical rhinometry are considered not medically necessary as the evidence is insufficient to determine the effects of the technology on health outcomes.

COVERAGE
Benefits may vary between groups and contracts. Please refer to the appropriate Benefit Booklet, Evidence of Coverage, or Subscriber Agreement for applicable medically necessary benefits/coverage.

BACKGROUND
Rhinomanometry, acoustic rhinometry, and optical rhinometry are techniques to objectively measure nasal patency. Several clinical applications are proposed including allergy testing, evaluation of obstructive sleep apnea, and patient assessment prior to nasal surgery.

Nasal patency is a complex clinical issue that can involve mucosal, structural, and psychological factors. The perception of nasal obstruction is subjective and does not always correlate with clinical examination of the nasal cavity, making it difficult to determine which therapy might be most likely to restore satisfactory nasal breathing. Therefore, procedures that objectively measure nasal patency have been sought. Three techniques that could potentially be useful in measuring nasal patency are as follows:

1. Rhinomanometry is a test of nasal function that measures air pressure and the rate of airflow in the nasal airway during respiration. These findings are used to calculate nasal airway resistance. Rhinomanometry is intended to be an objective quantification of nasal airway patency.
2. Acoustic rhinometry is a technique intended for assessment of the geometry of the nasal cavity and nasopharynx and for evaluating nasal obstruction. The technique is based on an analysis of sound waves reflected from the nasal cavities.
3. Optical rhinometry uses an emitter and a detector placed at opposite sides of the nose and can detect relative changes in nasal congestion by the change in transmitted light. This technique is based on the absorption of red/near-infrared light by hemoglobin and the endonasal swelling-associated increase in local blood volume.

Overall, the scientific evidence does not permit conclusions about the effect of rhinomanometry, acoustic rhinometry, or optical rhinometry on health outcomes. To date, no studies have been published that evaluate the clinical utility of these tests. None of the studies identified have prospectively compared patient outcomes with and without the use of one or more of these tests for any clinical condition. Therefore, the technologies are considered not medically necessary as there is no proven efficacy.

CODING

Medicare Advantage Plans and Commercial Products

The following CPT code(s) is not covered for Medicare Advantage Plans and considered not medically necessary for Commercial Products:

92512 Nasal function studies (e.g., rhinomanometry)

RELATED POLICIES

Not applicable

PUBLISHED

Provider Update, April 2026
Provider Update, March 2025
Provider Update, March 2024
Provider Update, March 2023
Provider Update, July 2022

REFERENCES

1. Larivee YMD, Leon Z BS, Salas-Prato M PhD, Ganeva E MD, Desrosiers M MD. *"Evaluation of the Nasal Response to Histamine Provocation with Acoustic Rhinometry."*Journal of Otolaryngology;November 2001;30:6:319-323.2. Andre RF, Vuyk HD, Ahmed A et al. Correlation between subjective and objective evaluation of the nasal airway. A systematic review of the highest level of evidence. Clin Otolaryngol 2009; 34(6):518-25.
3.. Canakcioglu S, Tahamiler R, Saritzali G et al. Nasal patency by rhinomanometry in patients with sensation of nasal obstruction. Am J Rhinol Allergy 2009; 23(3):300-2.
4. Pirila T, Tikanto J. Acoustic rhinometry and rhinomanometry in the preoperative screening of septal surgery patients. Am J Rhinol Allergy 2009; 23(6): 605-9.
5. Schumacher MJ. Nasal congestion and airway obstruction: the validity of available objective and subjective measures. Curr Allergy Asthma Rep 2002; 2(3):245-51.
6. Wilson AM, Sims EJ, Orr LC et al. Effects of topical corticosteroid and combined mediator blockade on domiciliary and laboratory measurement of nasal function in seasonal allergic rhinitis. Ann Allergy Asthma Immunol 2001; 87(4):344-9.
7. Ellegard EK, Hellgren M, Karlsson NG. Fluticasone propionate aqueous nasal spray in pregnancy rhinitis. Clin Otolaryngol 2001; 26(5):394-400.
8. Rhee CS, Kim DY, Won TB et al. Changes of nasal function after temperature-controlled radiofrequency tissue volume reduction for the turbinate. Laryngoscope 2001; 111(1):153-8.
9. Suzina AH, Hamzah M, Samsudin AR. Objective assessment of nasal resistance in patients with nasal disease. J Laryngol Otol 2003; 117(8):609-13.
10. Numminen J, Dastidar P, Heinonen T et al. Reliability of acoustic rhinometry. Respir Med 2003; 97(4):421-7.

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