

Medical Coverage Policy | Rhinomanometry and Acoustic Optical Rhinomanometry



EFFECTIVE DATE: 12|01|2008
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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

None

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

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

RELATED POLICIES

None

PUBLISHED

Provider Update, July 2022

Provider Update, July 2021

Provider Update, June 2020

Provider Update, January 2020

Provider Update, March 2019

Provider Update, May 2018

REFERENCES

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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.
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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.
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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.
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