MEDICAL POLICY

POLICY TITLE	**PHARYNGOMETRY AND RHINOMETRY**
POLICY NUMBER	**MP 2.088**

Original Issue Date (Created):	**3/1/2012**
Most Recent Review Date (Revised):	**7/20/2018**
Effective Date:	**9/1/2018**

I. POLICY

Pharyngometry and rhinometry are considered **investigational** as techniques for screening, diagnosis, or treatment planning in persons with known or suspected obstructive sleep apnea (OSA) and for all other indications. There is insufficient evidence to support a conclusion concerning the health outcomes or benefits associated with these procedures

Cross-references:

MP 2.045 Diagnosis and Medical Management of Obstructive Sleep Apnea
MP 1.128 Surgical Treatment of Snoring and Obstructive Sleep Apnea

II. PRODUCT VARIATIONS

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This policy is applicable to all programs and products administered by Capital BlueCross unless otherwise indicated below.

FEP PPO - The FEP program dictates that all drugs, devices or biological products approved by the U.S. Food and Drug Administration (FDA) may not be considered investigational. Therefore, FDA-approved drugs, devices or biological products may be assessed on the basis of medical necessity.

III. DESCRIPTION/BACKGROUND

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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. Discussion of 3 techniques that could potentially be useful in measuring nasal patency follows.

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.

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.

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.

Acoustic pharyngometry also uses acoustic reflection for volume analysis of oro-pharynometric parameters to establish a correlation between morpho-volumetric variations of oro-pharyngo-laryngeal spaces and the presence and severity of disease. Acoustic pharyngometry is a method of investigating obstruction in sleep disordered breathing together with other exams such as cephalometrics, computed tomography, magnetic resonance imaging and fibronasopharngolaryngoscopy etc. It is also used to monitor medical and surgical treatments for the management of obstructive sleep apnea.

Acoustic Pharyngometer

The Eccovision® Acoustic Pharyngometer (Sleep Group Solutions) is a device which uses acoustic reflection technology to measure the patient's pharyngeal airway size and stability from the Oral Pharyngeal Junction to the Glottis. Sound waves are projected down the airway and reflected back in such a way that the Pharyngometer software can analyze and quantify changes in the airways cross-sectional area. The data is graphically displayed showing the relationship between the cross-sectional area of the airway and distance in centimeters. Studies suggest a relationship between the existence of obstructive sleep apnea and a narrow, collapsible, airway. The test is completed with the patient awake and seated during the exam which takes 2-5 minutes to complete.

Acoustic Rhinometer

The Eccovision® Acoustic Rhinometer (Sleep Group Solutions) also uses acoustic reflection technology and measures nasal patency and maps out the topography of the nasal airway identifying the location and severity of airway obstruction. The test is completed with the patient awake and seated during the exam which takes 30 seconds to complete.

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IV. RATIONALE

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Summary

Overall, the scientific evidence does not permit conclusions about the effect of rhinomanometry, acoustic rhinometry or optical rhinometry on net health outcome. To date, no studies have been published that evaluate the clinical utility of these tests. That is, 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 investigational.

V. DEFINITIONS

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510 (K) is a premarketing submission made to FDA to demonstrate that the device to be marketed is as safe and effective, that is, substantially equivalent (SE), to a legally marketed device that is not subject to premarket approval (PMA). Applicants must compare their 510(k) device to one or more similar devices currently on the U.S. market and make and support their substantial equivalency claims.

ACOUSTIC REFLECTION technology is based on the analysis of sound waves that are launched from a loudspeaker and travel along a wave tube into the subject's airways where they are reflected. Measurement of differences in the reflected wave signals enables a graphic representation of the variations in pharyngeal cross-sectional area at several anatomic levels.

ACOUSTIC PHARYNGOMETRY is a non-invasive technique using acoustic reflection that quantifies geometrically complex pharyngeal dimensions in order to assess the upper airway for possible site(s) of obstruction.

ACOUSTIC RHINOMETRY is a non-invasive technique using acoustic reflection to study nasal physiology. It may be used to evaluate the nasal cavity to aid in the identification of fixed lesions such as septal deviations or alterations in cross-sectional area induced by allergens or drugs.

VI. BENEFIT VARIATIONS

TOP

The existence of this medical policy does not mean that this service is a covered benefit under the member's contract. Benefit determinations should be based in all cases on the applicable contract language. Medical policies do not constitute a description of benefits. A member's individual or group customer benefits govern which services are covered, which are excluded, and which are subject to benefit limits and which require preauthorization. Members and providers should consult the member's benefit information or contact Capital BlueCross for benefit information.

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VII. DISCLAIMER TOP

Capital BlueCross's medical policies are developed to assist in administering a member's benefits, do not constitute medical advice and are subject to change. Treating providers are solely responsible for medical advice and treatment of members. Members should discuss any medical policy related to their coverage or condition with their provider and consult their benefit information to determine if the service is covered. If there is a discrepancy between this medical policy and a member's benefit information, the benefit information will govern. Capital BlueCross considers the information contained in this medical policy to be proprietary and it may only be disseminated as permitted by law.

VIII. CODING INFORMATION TOP

Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Investigational; therefore not covered:

CPT Codes ®							
92512	92520	92700					

IX. REFERENCES TOP

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X. POLICY HISTORY

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MP- 2.088	**CAC 10/25/2011 -** New policy
	CAC 10/30/12 – Consensus review. No change to policy statements. References updated. Codes reviewed 10/31/12
	01/14/2013- Codes updated
	CAC 11/26/13 Consensus review. No change to policy statements References updated,
	CAC 11/25/14 Consensus review. No change to policy statements. References updated and rationale added. Coding reviewed on 11/07/2014
	CAC 11/24/15 Consensus review. No change to policy statements. Reference and rationale update. Coding reviewed.
	CACA 11/29/16 Consensus review. No change to policy statements. Background, rationale and references updated. Variation reformatting. Coding Reviewed.
	11/13/17 Consensus review. No change to policy statements. References and rationale reviewed.
	7/20/18 Consensus. No change to policy statements. Rationale condensed. References reviewed.

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