



CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all plans administered by CIGNA Companies including plans administered by Great-West Healthcare, which is now a part of CIGNA.

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Subject **Peak Flow Meters**

Table of Contents

Coverage Policy	1
General Background	1
Coding/Billing Information	3
References	4
Policy History	5

Hyperlink to Related Coverage Policies

Home Spirometry
Omalizumab (Xolair®)
Pulmonary Rehabilitation

INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans as well as benefit plans formerly administered by Great-West Healthcare. Please note, the terms of a participant's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a participant's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a participant's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable group benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2009 CIGNA

Coverage Policy

CIGNA covers standard handheld, portable peak flow meters as medically necessary under the core medical benefits of the plan for treatment of asthma or other reversible obstructive airway disease.

CIGNA does not cover electronic or computerized peak flow meters (e.g., AirWatch® peak flow meter, Microlife Peak Flow Meter) because they have not been demonstrated to improve health outcomes over the use of a standard handheld portable peak flow meter and therefore are considered convenience items and not medically necessary.

General Background

Peak flow meters are portable handheld devices that are used to measure peak expiratory flow (PEF). PEF is the maximum air flow achieved during a forced expiration. This device can be used as a non-invasive form of self-monitoring of respiratory status for patients with asthma or other reversible obstructive airway disease. It allows the patient an objective measurement to go along with symptoms of tightness, wheeze or cough or when minimal symptoms are present (Mendoza and Field, 2003). PEF measurements should be compared to the patient's own best measurement. The personal best is the highest PEF measurement achieved when the patient's asthma is under control. To establish the personal best, PEF is usually measured at least two times daily over a two- to three-week period. After the personal best is established and symptoms are stable, PEF is

usually measured daily. More frequent monitoring may be needed for patients whose conditions are severe, poorly controlled, or who have experienced an exacerbation (Kennedy, et al., 1998).

Generally, peak flow meters are simple devices with the ability to measure PEF. Available handheld portable peak flow meters include, but are not limited to:

- Mini-Wright peak flow meter (Clement Clarke International Limited, Essex, United Kingdom)
- ASSESS[®] Peak Flow Meter (Respironics, Inc, Murrysville, PA)
- AsthmaCheck[®] Peak Flow Meter (Respironics, Inc, Murrysville, PA)
- POCKETPEAK[®] (Hudson RCI, Temecula, CA)
- MicroPeak[®] (Micro Direct, Inc, Auburn, ME)

Asthma is a chronic inflammatory disorder of the airways with symptoms that may include: dyspnea, wheezing, coughing, chest tightness and sputum production. Treatment of asthma aims to reduce inflammation, maximize airway function and prevent asthma-related problems. Management of asthma may include: pharmacologic treatment, environmental control and avoidance of triggers of asthma. Education should be provided regarding an action plans which is based on monitoring of the disease and recognizing the symptoms of exacerbation. Peak flow meters have been used as a tool in the monitoring of asthma and other reversible obstructive airway diseases. The use of peak flow meters has been recommended in several international and national asthma guidelines.

Other Types of Peak Flow Meters

Newer peak flow meters have been developed that include such enhanced features as: electronic, computerized memory storage capacity or the ability to measure other lung functions. There is no evidence in the scientific literature to indicate that more advanced models of peak flow meters are more effective than conventional meters in the management of asthma. Available electronic peak flow meters include, but are not limited to:

- AirWatch[®] peak flow meter (iMetrikus, Inc., Mountain View, CA)
- Microlife Peak Flow Meter (Microlife, Dunedin, FL)

U.S. Food and Drug Administration (FDA)

The FDA classifies peak flow meters as Class II devices. They are identified as devices to measure a patient's peak expiratory flow rate. The FDA published a guidance document regarding the labeling of peak flow meters for over-the-counter sale. The guidance document indicates that peak flow meters may be available for over-the-counter sale if the device meets all of the following:

- only measures peak flow
- is not programmable
- does not require physician or other health care provider adjustment
- does not alert the patient to take medication
- the labeling is in conformance with the guidance document for labeling of peak flow meters for over-the-counter sale

Literature Review

A Cochrane systematic review (Gibson, et al., 2003) was conducted to evaluate different modalities for the delivery of asthma self-management programs. The review included 15 randomized controlled trials that evaluated the differing components of asthma self-management interventions as to whether they included peak expiratory flow monitoring, regular medical review and a written action plan. Six trials compared PEF and symptom self-monitoring. A review of these six studies indicated that there were no significant differences in health outcomes, suggesting that the use of either method is effective.

Professional Societies/Organizations

British Thoracic Society (BTS) and Scottish Intercollegiate Guidelines Network (SIGN): The BTS and SIGN developed evidence-based guidelines for the management of asthma (2009). The guidelines note that “many patients with asthma and all patients with severe asthma should have an agreed written action plan and their own peak flow meter.” In particular, the guidelines note that PEF monitoring is useful in certain situations

including: at diagnosis and initial assessment, when assessing response to changes in treatment, when monitoring response during exacerbations and changes in treatment, or as part of an asthma action plan.

Canadian Asthma Consensus Group: This group published evidence-based guidelines for management of asthma (1999). The guidelines note that use of PEF monitoring may be useful in patients who have difficulty recognizing changes in their symptoms. Home PEF monitoring should be used in conjunction with an appropriate action plan based on the patient's symptoms.

Global Initiative for Asthma (GINA) and National, Heart, Lung and Blood Institute (NHLBI): GINA and NHLBI developed evidence-based guidelines: the Global Strategy for Asthma Management and Prevention (2008). The GINA guidelines note that, "Peak expiratory flow measurements are made using a peak flow meter and can be an important aid in both diagnosis and monitoring of asthma. Modern PEF meters are relatively inexpensive, portable, plastic, and ideal for patients to use in home settings for day-to-day objective measurement of airflow limitation."

Institute for Clinical Systems Improvement (ICSI): ICSI guidelines for asthma include a recommendation for patient education that encompasses a written action plan including home peak flow rate monitoring or a symptom diary (2008). The guidelines indicate that home peak flow monitoring is recommended for patients with moderate to severe persistent asthma, or anyone with a history of severe exacerbations.

The ICSI guidelines for chronic obstructive pulmonary disease (COPD) note that, "Although peak flow meters should not be used to diagnose or monitor COPD, monitoring of PEF at home and at work can be used in certain situations to determine the reversibility of and variability in airway obstruction" (2009).

NHLBI National Asthma Education and Prevention Program (NAEPP): The NAEPP developed an evidence-based consensus set of guidelines for diagnosis and management of asthma (2007). The guidelines include the use of a peak flow meter for self-monitoring to assess level of asthma control and signs of worsening. The guidelines note that, "Peak flow monitoring may be particularly helpful for patients who have difficulty perceiving symptoms, a history of severe exacerbations, or moderate or severe asthma."

Summary

Peak flow meters are portable handheld devices that are used to measure peak expiratory flow (PEF). The device is used as a noninvasive form of self-monitoring of respiratory status for patients with asthma or other reversible obstructive airway disease. Peak flow meters are considered a standard of care for management of these respiratory conditions. They are recommended in national and international guidelines for the management of asthma.

Coding/Billing Information

Note: This list of codes may not be all-inclusive.

Covered when medically necessary:

HCPCS Codes	Description
A4614	Peak expiratory flow rate meter, hand held
S8096	Portable peak flow meter
S8097	Asthma kit (including but not limited to portable peak expiratory flow meter, instructional video, brochure, and/or spacer)

ICD-9-CM Diagnosis Codes	Description
493.00-493.92	Asthma
496	Chronic airway obstruction, not elsewhere classified

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Policy History

Pre-Merger Organizations	Last Review Date	Policy Number	Title
CIGNA HealthCare	8/15/2007	0401	Peak Flow Meters

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Connecticut General Life Insurance Company has acquired the business of Great-West Healthcare from Great-West Life & Annuity Insurance Company (GWLA). Certain products continue to be provided by GWLA (Life, Accident and Disability, and Excess Loss). GWLA is not licensed to do business in New York. In New York, these products are sold by GWLA’s subsidiary, First Great-West Life & Annuity Insurance Company, White Plains, N.Y.