

Medical Policy



Oxygen and Oxygen Equipment

▼ Description

Oxygen and oxygen equipment involves the system for furnishing oxygen, the vessels for storing oxygen, the tubing and related supplies that allow the safe delivery of oxygen in the home and the oxygen contents.

▼ Policy

Oxygen and oxygen equipment is considered **reasonable and necessary** when a Member meets coverage criteria.

▼ Policy Guidelines

Medicare Member Coverage Criteria:

Refer to Medicare's Oxygen and Oxygen Equipment medical policy (L33797) for coverage criteria.

Non Medicare Member Coverage Criteria:

- A. Oxygen and oxygen related medical supplies are considered reasonable and necessary when ordered by the Member's treating physician for the following circumstances:
1. Member has a diagnosis of severe lung disease and qualifying lab values (see section below on qualifying lab values):
 - Bronchiectasis
 - Chronic obstructive pulmonary disease (COPD)
 - Cystic fibrosis
 - Diffuse interstitial lung disease
 - Pediatric bronchopulmonary dysplasia (BPD)
 - Widespread pulmonary neoplasm; OR
 2. Member has a diagnosis of other hypoxia-related symptoms or findings with qualifying lab values (see section below on qualifying lab values):
 - Erythrocytosis (hematocrit greater than 55%)
 - Pulmonary hypertension
 - Recurring congestive heart failure due to chronic cor pulmonale;
OR

3. Other diagnoses of hypoxia-related symptoms or findings with qualifying lab values (see section below on qualifying lab values) that usually resolve with limited or short-term oxygen therapy:
 - Asthma
 - Croup
 - Bronchitis
 - Pneumonia

The above diagnoses may be considered reasonable and necessary for short-term therapy (generally less than 1 month duration), it is not reasonable and necessary on an ongoing basis absent special circumstances. Requests for more than short-term use will be reviewed on an individual consideration basis. For ongoing oxygen treatment due to the above, repeat qualifying lab values are reviewed on a monthly basis.

4. Other diagnoses for which short-term use of oxygen has been shown to be beneficial (unrelated to hypoxia), e.g., cluster headaches may be certified as reasonable and necessary on an individual case basis upon medical review:
 - Cluster headaches (E0431)
 - Hemoglobinopathies
 - Infants with BPD – may have variable oxygen needs and consideration will be reviewed on an individual consideration basis and may be required in the absence of documentation of otherwise qualifying oxygen saturation values.

Oxygen for home use is considered not reasonable and necessary for indications other than those noted above. Oxygen therapy will also be considered not reasonable and necessary if any of the following conditions are present:

- Angina pectoris in the absence of hypoxemia. This condition is generally not the result of a low oxygen level in the blood and there are other preferred treatments.
- Dyspnea without cor pulmonale or evidence of hypoxemia.
- Severe peripheral vascular disease resulting in clinically evident desaturation in one or more extremities but in the absence of systemic hypoxemia. There is no evidence that increased PO₂ will improve the oxygenation of tissues with impaired circulation.
- Terminal illnesses that do not affect the respiratory system.
- Headaches other than cluster headaches, as noted above.
- Sleep apnea when the condition does not otherwise qualify for home oxygen.

- A. Qualifying Lab Values (all qualification studies must be done while on room air unless medically contraindicated. Documentation of blood gas values can come from the doctor's office, hospital or from an outpatient laboratory – see Miscellaneous section below for further clarification):

1. Continuous Oxygen:

- a. Resting PaO₂ less than or equal to 55 mm Hg or oxygen saturation less than or equal to 88%
 - b. Resting PaO₂ of 56-59 mm Hg or oxygen saturation of 89% in the presence of any of the following:
 1. Dependent edema suggesting congestive heart failure
 2. Erythrocythemia (hematocrit greater than 56%)
 3. P pulmonale on the electrocardiogram (P wave greater than 3 mm in standard leads II, III, or aVF)
 - c. Resting PaO₂ greater than 59 mm Hg or oxygen saturation greater than 89% only with additional documentation justifying the oxygen prescription and a summary of more conservative therapy that has failed.
2. Non-continuous Oxygen (oxygen flow rate and number of hours per day must be specified):
- a. During exercise: PaO₂ less than or equal to 55 mm Hg or oxygen saturation less than or equal to 88% with a low level of exertion.
 - b. During sleep: PaO₂ less than or equal to 55 mm Hg or oxygen saturation less than or equal to 88% with associated complications, such as pulmonary hypertension, daytime somnolence, and cardiac arrhythmias.
- B. Oxygen Delivery systems – the following delivery systems may be considered reasonable and necessary:
1. Stationary: oxygen concentrators, liquid reservoirs, or large cylinders that are designed for stationary use may be considered reasonable and necessary for members who do not regularly go beyond the limits of a stationary oxygen delivery system with a 50-ft. tubing or those who use oxygen only during sleep.
 2. Portable: systems that weigh 10 lbs. or more and are designed to be transported but not easily carried by the member (steel cylinder attached to wheels) may be considered reasonable and necessary for members who occasionally go beyond the limits of a stationary oxygen delivery system with 50-ft. tubing for less than 2 hours per day for most days of the week (minimum 2 hours/week).
 3. Ambulatory: systems that weigh less than 10 lbs. When filled with oxygen, are designed to be carried by the member, and will last for 4 hours at a flow rate equivalent to 2 L/min continuous flow; e.g., liquid refillable units and aluminum or fiber wrapped light-weight cylinders, with or without oxygen conserving devices. Ambulatory systems may be considered reasonable and necessary for members who regularly go beyond the limits of a stationary oxygen delivery system with a 50-ft. tubing for 2 hours or more per day and for most days of the week (minimum 6 hours/week). Prescription based on the activity status of the member.

4. Portable Oxygen Concentrators: Portable oxygen concentrators and combination stationary/portable oxygen systems are considered medically necessary as an alternative to ambulatory oxygen systems for members who meet both of the following criteria:

- Member meets criteria for ambulatory oxygen systems (above);
AND
- Member is regularly (at least monthly) away from home for durations that exceed the capacity of ambulatory oxygen systems.

C. Reassessment

Except as noted above for short-term oxygen cases where repeat qualifying lab values are reviewed on a monthly basis, reassessment of oxygen needs through pulse oximetry or arterial blood gas is required and must be performed by an independent respiratory provider 12 months after the initiation of therapy for persons who qualify for oxygen based upon an arterial PO₂ at or below 55 mm Hg or an arterial oxygen saturation at or below 88%, or at 3 months after initiation for persons who qualify for oxygen based upon an arterial PO₂ between 56 – 59 mm Hg or an arterial oxygen saturation of 89% with dependent edema, P pulmonale, or erythrocythemia.

For Pediatric Members:

The pediatric population is considered to be the age group under 19 years of age.

Oxygen equipment is considered reasonable and necessary for members meeting the following general criteria:

- The oxygen saturation rate is 93% or below or PO₂ level is 65mm HG or below.
- Oxygen is required during a variety of activities (sleeping, feeding, resting).

For portable oxygen systems, the above criteria must be met and ambulation outside the home is necessary.

Proof of Continued Need - Testing Specifications:

The medical necessity for ongoing oxygen in the home must be demonstrated via either blood gas results or pulse oximetry performed by the individual's attending physician or an independent respiratory practitioner one month after initiation of therapy for conditions that may be expected to be short-term, such as pneumonia, asthma, bronchitis or bronchiolitis, and three months after initiation of therapy for other conditions. Following the three-month initial evaluation, pulse oximetry or arterial blood gas results must be reported within 12 months of the

initiation of oxygen and whenever there is an increase in the amount of oxygen or change in the type of oxygen equipment being requested.

▼ **MISCELLANEOUS:**

- Hypoxemia must be demonstrated by a recent blood gas analysis or pulse oximetry, and alternative treatment methods should be considered and attempted prior to initiating home oxygen. Blood gas values must be obtained on room air unless medically contraindicated. Home oxygen must be prescribed by a physician who has seen and examined the patient within one month of the request. The prescription must specify the diagnosis and the oxygen flow rate and estimate the frequency and duration of therapy.
- In the following situations, a new order must be obtained and kept on file by the supplier, but neither a new CMN or a repeat blood gas study are required:
 - Prescribed maximum flow rate changes but remains within one of the following categories: (a) less than 1 LPM, (b) 1-4 LPM, (c) greater than 4 LPM.
 - Change from one type of stationary system to another (i.e., concentrator, liquid, gaseous).
 - Change from one type of portable system to another (i.e., gaseous or liquid tanks, portable concentrator, transfilling system).
- Emergency or stand-by oxygen systems for members who are not regularly using oxygen will be considered not reasonable and necessary since they are precautionary and not therapeutic in nature.
- The Non-Invasive OPEN Ventilation System (NIOV) provides positive pressure inspiratory support for members using oxygen. Coded E1352. Based on clinical data provided by the manufacturer, this item is effective only when used in conjunction with oxygen; therefore, it is classified as an accessory to oxygen equipment. Oxygen reimbursement is a bundled payment. All options, supplies and accessories are considered included in the monthly rental payment.

SHP

COMMERCIAL AND SAS MEMBERS ONLY. For Medicare Advantage follow Medicare guidelines without the criteria for clinical trials.

Criteria for Cluster Headaches

- D. Home oxygen therapy (unrelated to hypoxia) for intermittent use for cluster headaches is considered medically necessary when ALL of the following criteria are met:
 - a. Cluster headaches that meet the diagnostic criteria used by the International Headache Society to form a definitive diagnosis of CH (see criteria below); and

- b. Where headaches are refractory to prescription medications (prescribers must document what has been tried and failed).
- E. Diagnostic criteria for cluster headaches must meet ALL of the following criteria:
 - a. At least five attacks (within one month) fulfilling criteria b-d; and
 - b. Severe or very severe unilateral orbital, supraorbital and/or temporal pain lasting 15-180 minutes (when untreated); and
 - c. At least one of the following criteria must be met:
 - 1. Conjunctival injection and/or lacrimation; or
 - 2. Nasal congestion and/or rhinorrhea; or
 - 3. Eyelid edema; or
 - 4. Forehead and facial sweating; or
 - 5. Forehead and facial flushing; or
 - 6. Sensation or fullness in the ear; or
 - 7. Miosis and/or ptosis; or a sense of restlessness or agitation; and
 - d. Attacks have a frequency between one every other day and 8 per day for more than half of the time when the disorder is active.
- F. Initial approval of oxygen would be for 6 months; member is to be reevaluated after 6 months to assess effectiveness of oxygen therapy and determine ongoing need for oxygen. Code E0431 ONLY
- G. Home oxygen therapy is managed by Northwood.
- H. NO clinical trials are required for SHP members.

HCPCS Level II Codes and Description

Equipment:

E0424 STATIONARY COMPRESSED GASEOUS OXYGEN SYSTEM, RENTAL; INCLUDES CONTAINER, CONTENTS, REGULATOR, FLOWMETER, HUMIDIFIER, NEBULIZER, CANNULA OR MASK, AND TUBING

E0425 STATIONARY COMPRESSED GAS SYSTEM, PURCHASE; INCLUDES REGULATOR, FLOWMETER, HUMIDIFIER, NEBULIZER, CANNULA OR MASK, AND TUBING

E0430 PORTABLE GASEOUS OXYGEN SYSTEM, PURCHASE; INCLUDES REGULATOR, FLOWMETER, HUMIDIFIER, CANNULA OR MASK, AND TUBING

E0431 PORTABLE GASEOUS OXYGEN SYSTEM, RENTAL; INCLUDES PORTABLE CONTAINER, REGULATOR, FLOWMETER, HUMIDIFIER, CANNULA OR MASK, AND TUBING

E0433 PORTABLE LIQUID OXYGEN SYSTEM, RENTAL; HOME LIQUEFIER

USED TO FILL PORTABLE LIQUID OXYGEN CONTAINERS,
INCLUDES PORTABLE CONTAINERS, REGULATOR FLOWMETER,
HUMIDIFIER, CANNULA OR MASK AND TUBING, WITH OR WITHOUT
SUPPLY RESERVOIR AND CONTENTS GAUGE

E0434 PORTABLE LIQUID OXYGEN SYSTEM, RENTAL; INCLUDES
PORTABLE CONTAINER, SUPPLY RESERVOIR, HUMIDIFIER,
FLOWMETER, REFILL ADAPTOR, CONTENTS GAUGE, CANNULA
OR MASK, AND TUBING

E0435 PORTABLE LIQUID OXYGEN SYSTEM, PURCHASE; INCLUDES
PORTABLE CONTAINER, SUPPLY RESERVOIR, FLOWMETER,
HUMIDIFIER, CONTENTS GAUGE, CANNULA OR MASK, TUBING
AND REFILL ADAPTOR

E0439 STATIONARY LIQUID OXYGEN SYSTEM, RENTAL; INCLUDES
CONTAINER, CONTENTS, REGULATOR, FLOWMETER, HUMIDIFIER,
NEBULIZER, CANNULA OR MASK, & TUBING

E0440 STATIONARY LIQUID OXYGEN SYSTEM, PURCHASE; INCLUDES
USE OF RESERVOIR, CONTENTS INDICATOR, REGULATOR,
FLOWMETER, HUMIDIFIER, NEBULIZER, CANNULA OR MASK, AND
TUBING

E0441 STATIONARY OXYGEN CONTENTS, GASEOUS, 1 MONTH'S SUPPLY
= 1 UNIT.

E0442 STATIONARY OXYGEN CONTENTS, LIQUID, 1 MONTH'S SUPPLY = 1
UNIT

E0443 PORTABLE OXYGEN CONTENTS, GASEOUS, 1 MONTH'S SUPPLY =
1 UNIT

E0444 PORTABLE OXYGEN CONTENTS, LIQUID, 1 MONTH'S SUPPLY =1
UNIT

E0445 OXIMETER DEVICE FOR MEASURING BLOOD OXYGEN LEVELS
NON-INVASIVELY

E1390 OXYGEN CONCENTRATOR, SINGLE DELIVERY PORT, CAPABLE OF
DELIVERING 85 PERCENT OR GREATER OXYGEN
CONCENTRATION AT THE PRESCRIBED FLOW RATE

E1391 OXYGEN CONCENTRATOR, DUAL DELIVERY PORT, CAPABLE OF
DELIVERING 85 PERCENT OR GREATER OXYGEN
CONCENTRATION AT THE PRESCRIBED FLOW RATE, EACH

E1392 PORTABLE OXYGEN CONCENTRATOR, RENTAL

E1405 OXYGEN AND WATER VAPOR ENRICHING SYSTEM WITH HEATED
DELIVERY

E1406 OXYGEN AND WATER VAPOR ENRICHING SYSTEM WITHOUT
HEATED DELIVERY

K0738 PORTABLE GASEOUS OXYGEN SYSTEM, RENTAL; HOME

COMPRESSOR USED TO FILL PORTABLE OXYGEN CYLINDERS;
INCLUDES PORTABLE CONTAINERS, REGULATOR, FLOWMETER,
HUMIDIFIER, CANNULA OR MASK, AND TUBING

Accessories:

A4608 TRANSTRACHEAL OXYGEN CATHETER, EACH

A4615 CANNULA, NASAL

A4616 TUBING (OXYGEN), PER FOOT

A4617 MOUTH PIECE

A4619 FACE TENT

A4620 VARIABLE CONCENTRATION MASK

A7525 TRACHEOSTOMY MASK, EACH

E0455 OXYGEN TENT, EXCLUDING CROUP OR PEDIATRIC TENTS

E0555 HUMIDIFIER, DURABLE, GLASS OR AUTOCLAVABLE PLASTIC
BOTTLE TYPE, FOR USE WITH REGULATOR OR FLOWMETER

E0580 NEBULIZER, DURABLE, GLASS OR AUTOCLAVABLE PLASTIC,
BOTTLE TYPE, FOR USE WITH REGULATOR OR FLOWMETER

E1352 NIOV- NON-INVASIVE OPEN VENTILLATION SYSTEM. PROVIDES
POSITIVE PRESSURE INSPIRATORY SUPPORT FOR MEMBERS
USING OXYGEN.

E1353 REGULATOR

E1354 OXYGEN ACCESSORY, WHEELED CART FOR PORTABLE
CYLINDER OR PORTABLE CONCENTRATOR, ANY TYPE,
REPLACEMENT ONLY, EA.

E1355 STAND/RACK

E1356 OXYGEN ACCESSORY, BATTERY PACK/CARTRIDGE FOR
PORTABLE CONCENTRATOR, ANY TYPE, REPLACEMENT ONLY

E1357 OXYGEN ACCESSORY, BATTERY CHARGER FOR PORTABLE
CONCENTRATOR, ANY TYPE, REPLACEMENT ONLY, EA.

E1358 OXYGEN ACCESSORY, DC POWER ADAPTER FOR PORTABLE
CONCENTRATOR, ANY TYPE REPLACEMENT ONLY, EA.

▼ Documentation Requirements

Items in this policy may be subject to the Affordable Care Act (ACA) 6407 requirements.

The Affordable Care Act (ACA) 6407 requires that the treating physician conduct a face-to-face examination during the six month period preceding the written order. The documentation must be received by the provider prior to delivery for certain DME items. The documentation must describe a medical condition for which the DME is being prescribed.

▼ Important Note:

Northwood's Medical Policies are developed to assist Northwood in administering plan benefits and determining whether a particular DMEPOS product or service is reasonable and necessary. Equipment that is used primarily and customarily for a non-medical purpose is not considered durable medical equipment.

Coverage determinations are made on a case-by-case basis and are subject to all of the terms, conditions, limitations, and exclusions of the member's contract including medical necessity requirements.

The conclusion that a DMEPOS product or service is reasonable and necessary does not constitute coverage. The member's contract defines which DMEPOS product or service is covered, excluded or limited. The policies provide for clearly written, reasonable and current criteria that have been approved by Northwood's Medical Director.

The clinical criteria and medical policies provide guidelines for determining the medical necessity for specific DMEPOS products or services. In all cases, final benefit determinations are based on the applicable contract language. To the extent there are any conflicts between medical policy guidelines and applicable contract language, the contract language prevails. Medical policy is not intended to override the policy that defines the member's benefits, nor is it intended to dictate to providers how to direct care. Northwood Medical policies shall not be interpreted to limit the benefits afforded to Medicare or Medicaid members by law and regulation and Northwood will use the applicable state requirements to determine required quantity limit guidelines.

Northwood's policies do not constitute medical advice. Northwood does not provide or recommend treatment to members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

▼ References

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Applicable URAC Standard

Core 8	Staff operational tools and support
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Change/Authorization History

Revision Number	Date	Description of Change	Prepared/ Reviewed by	Approved by	Review Date:
A	Nov.2006	Initial Release	Rosanne Brugnani	Ken Fasse	n/a
01		Annual Review / no revisions	Susan Glomb	Ken Fasse	Dec.2008
02	Jan.2009	HCPCS Codes added: E1354, E1356, E1357, and E1358	Susan Glomb	Ken Fasse	
03	Jan.2009 with June 2009 revisions	Clarified conditions for blood gas studies. Clarified testing requirements when exercise test results are used to qualify. Revised certification section to address new payment section Moved information on payment of greater than 4 LPM oxygen to the Policy Article, Non-Medical Necessity Coverage and Payment Rules section. Added RA modifier for Medicare patients.	Susan Glomb	Ken Fasse	
04	Dec.4, 2009	Policy update. Annual review.	Susan Glomb	Ken Fasse	Dec.09
05	01-05-10	Added code: E0433; portable liquid oxygen system, rental; home liquefier used to fill portable liquid oxygen containers, includes portable containers, regulator, flowmeter, humidifier, cannula or mask and tubing, with or without supply reservoir and contents gauge. Narrative changes: E0441 changed to Stationary oxygen contents, gaseous, 1 month's supply = 1 unit. E0442 changed to Stationary oxygen contents, liquid, 1 month's supply = 1 unit. E0444 changed to Portable oxygen contents, liquid, 1 month's supply = 1 unit.	Susan Glomb	Ken Fasse	
06	9-16-10	Policy reviewed and updated to reflect changes to Medicare policy and LCD dated 7-1-10 e.x., Coverage for maintenance and servicing months 37-60.	Susan Glomb	Ken Fasse	

07	12-03-10	Annual Review – No changes	Susan Glomb	Ken Fasse	Dec 2010
08	02-04-11	Policy update to reflect guidelines for BMCHP members.	Susan Glomb	Ken Fasse	
09	06-06-11	Information for cluster headaches added to policy.	Susan Glomb	Dr. B. Almasri	
10	07-20-11	Added Important Note to all Medical Policies	Susan Glomb	Dr. B. Almasri	
11	11-22-11	Annual Review. Policy format changed. Added References to Policy.	Susan Glomb	Dr. B. Almasri	Nov. 2011
12	12-4-12	Annual Review – No changes	Susan Glomb	Dr. B. Almasri	Dec 2012
13	12-30-13	Annual Review. Added description for a Non invasive OPEN ventilation system. Coded as E1352. Also, deleted Codes K0741 and K0742.	Susan Glomb	Dr. B. Almasri	Dec 2013
14	12-4-14	Annual Review. Added: Items in this policy may be subject to the Affordable Care Act (ACA) 6407 requirements	Susan Glomb	Dr. B. Almasri	
15	12-16-15	Annual Review. Added specific Medicare coverage reference information.	Lisa Wojno	Dr. B. Almasri	
16	12-06-16	Annual Review. No Changes.	Lisa Wojno	Dr. B. Almasri	December 2016
17	03-01-17	Policy updated to reflect criteria for SHP members in “boxed” area.	Susan Glomb	Dr. B. Almasri	
18	12-20-17	Annual Review. No Changes.	Lisa Wojno	Dr. Cheryl Lerchin	December 2017
19	12-12-18	Annual review. Updated Medicare references.	Carol Dimech	Dr. C. Lerchin	December 2018