Home Oxygen Therapy
Policy Number: PG0234
Last Review: 01/04/2021

GUIDELINES
This policy does not certify benefits or authorization of benefits, which is designated by each individual policyholder contract. Paramount applies coding edits to all medical claims through coding logic software to evaluate the accuracy and adherence to accepted national standards. This guideline is solely for explaining correct procedure reporting and does not imply coverage and reimbursement.

SCOPE
X Professional, DME Provider
_ Facility

DESCRIPTION
Home oxygen therapy administered at concentrations greater than air external to a building or device (ambient or room air) is intended to treat or prevent symptoms and manifestations of hypoxemic or non-hypoxemic medical conditions that are known to clinically improve with oxygen. Oxygen is administered by inhalation utilizing devices that provide controlled oxygen concentrations and flow rates to the patients. Oxygen therapy should maintain adequate tissue and cell oxygenation while trying to avoid oxygen toxicity.

Oxygen is a colorless, odorless gas at room temperature. It can be delivered in a chamber, by compressed air, through an oxygen concentrator, or other methods. People who have lung diseases, like chronic obstructive pulmonary disease, or low blood oxygen levels, can benefit from receiving oxygen at home to help reduce symptoms and improve quality of life. This policy describes when home oxygen therapy may be considered medically necessary.

Oxygen equipment alternatives include three types of systems to provide home oxygen:
- Compressed oxygen (tanks)
- Liquid oxygen
- Oxygen concentrators

POLICY

** Paramount HealthCare Notification is Required to allow proper processing for reimbursement.**

<table>
<thead>
<tr>
<th>ADVANTAGE</th>
<th>ELITE</th>
<th>HMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIVIDUAL MARKETPLACE</td>
<td>PROMEDICA MEDICARE PLAN</td>
<td>PPO</td>
</tr>
</tbody>
</table>

Portable and Ambulatory Home Oxygen Therapy does not require prior authorization.

Effective 3/15/2020 - PORTABLE OXYGEN CONCENTRATORS require a prior authorization, During the Public Health Emergency effective immediately through the expiration of the applicable state of emergency, in order to not create any delays for members being sent home from the Emergency Room with a portable oxygen concentrator, HCPCS E1392, will not require a prior authorization when:
- there is a diagnosed with COVID-19 and
- the member is discharged from the Emergency Room.

** Paramount HealthCare Notification is Required to allow proper processing for reimbursement.**

HCPCS E1392

Limits may apply.
COVERAGE CRITERIA
HMO, PPO, Individual Marketplace, Elite/ProMedica Medicare Plan, Advantage

Medically Necessary:
Home oxygen therapy is considered medically necessary and, therefore, covered when all of the following criteria are met:

- The treating professional provider has determined that the individual has severe lung disease or hypoxia-related symptoms that might be expected to improve with oxygen therapy, and
- Required face-to-face encounter with a qualified provider: physician (medical doctor, doctor of osteopathy, or doctor of podiatric medicine), nurse practitioner, clinical nurse specialist, physician assistant. The treating physician must perform an in-person examination with the patient on or before the date of the Written Order (Prescription) prior to delivery and within the 6 months prior to date of the written order prior to delivery, and
- The beneficiary’s blood gas studies meets the criteria stated below, and
- The qualifying blood gas study or pulse oximetry study was performed by a qualified provider (Oximetry test must be performed by a physician or qualified laboratory. O2 saturations (sats) will not be accepted from an oxygen supplier), and
- The qualifying blood gas study or pulse oximetry study was obtained under one of the following conditions:
  - If performed during an inpatient hospital stay, the reported test must be the one obtained closest to, but no earlier than, 2 days prior to the hospital discharge date, or
  - If not performed during an inpatient hospital stay, within 30 days of the date of Initial Certification, the reported test must be performed while the individual is in a chronic stable state (i.e., not during a period of acute illness, an exacerbation of their underlying disease), and
- Alternative treatment measures have been tried or deemed clinically ineffective (e.g., medical and physical therapy directed as secretions, bronchospasm and infections, nebulizer treatments, steroid therapy).

Qualifying laboratory studies criteria:
- Ordered and evaluated by the attending physician.
- 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.

Adults: Continuous Oxygen
1. Resting Awake - Arterial partial pressure of oxygen (PaO2) equal to or less than 55 mm Hg or an arterial oxygen saturation (SaO2) equal to or less than 88 percent taken at rest (awake), or
2. For those beneficiary’s whose arterial PaO2 is 56-59 mm Hg or whose arterial SaO2 is 89 percent at rest (awake), during sleep for at least 5 minutes, or during exercise, if there is evidence of: or
   a. Dependent edema suggesting congestive heart failure
   b. Pulmonary hypertension or cor pulmonale, determined by measurement of pulmonary artery pressure, gated blood pool scan, echocardiogram, or “P” pulmonale on EKG (P wave greater than 3 mm in standard leads II, III, or AVF), or
   c. Erythrocythemia with a hematocrit greater than 56 percent.
3. Resting PaO2 greater than 59 mm Hg or SaO2 greater than 89% only with additional documentation justifying the oxygen prescription and a summary of more conservative therapy that has failed.

Adults: Non-Continuous Oxygen
4. During exercise: An arterial PO2 equal to or less than 55 mm Hg or an arterial SaO2 equal to or less than 88 percent, taken during exercise for a beneficiary who demonstrates an arterial PO2 at or above 56 mm Hg or an arterial SaO2 at or above 89 percent during the day while at rest. In this case, oxygen is provided for during exercise if it is documented that the use of oxygen improves the hypoxemia that was demonstrated during exercise when the beneficiary was breathing room air, or
5. During sleep: PaO2 equal to or less than 55 mm Hg or SaO2 equal to or less than 88%, for at least 5 minutes taken during sleep for a beneficiary who demonstrates an arterial PO2 equal to or above 56 mm Hg or a SaO2 equal to or above 89 percent while awake, or
6. A decrease in arterial PO2 more than 10 mm Hg, or a decrease in arterial oxygen saturation more than 5 percent from baseline saturation, for at least 5 minutes taken during sleep associated with symptoms (e.g.,
impairment of cognitive processes and [nocturnal restlessness or insomnia]) or signs (e.g., cor pulmonale, "P" pulmonale on EKG, documented pulmonary hypertension and erythrocytosis) reasonably attributable to hypoxemia.

Infants and Children:
- PaO2 of equal to or less than 60 mm Hg; or
- SaO2 of equal to or less than 92%.

Reassessment:
Except as noted in short-term indications, reassessment of oxygen needs through pulse oximetry or arterial blood gas is required and must be performed by an independent respiratory provider at 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 SaO2 at or below 88 %, or at 3 months after initiation for persons who qualify for oxygen based upon an arterial PO2 between 56 to 59 mm Hg or an arterial SaO2 of 89 % with dependent edema, P pulmonale, or erythrocythemia. Additional reassessments may be requested at any time at the discretion of Paramount. The member’s primary care and/or treating doctor must be notified for authorization of all testing and treatment changes, including the discontinuation of coverage for oxygen therapy.

Short-term supplemental home oxygen therapy is medically necessary for treatment of hypoxemia-related symptoms with qualifying laboratory values associated with acute conditions including, but not limited to any of the following:
- Bronchiolitis
- Chronic obstructive pulmonary disease (COPD) exacerbation
- Pneumonia
- Asthma
- Croup

Although treatment of these diagnoses (pneumonia, asthma, croup, bronchitis) may be considered medically necessary for short-term therapy (generally less than 1 month duration), it is not considered medically necessary on an ongoing basis absent special circumstances. Requests for more than episodic oxygen for these diagnoses are subject to medical review. For ongoing oxygen treatment, repeat qualifying lab values are reviewed on a monthly basis.

Long-term supplemental home oxygen therapy is medically necessary for treatment of hypoxemia-related symptoms with qualifying laboratory values (see Note below) from chronic lung conditions including, but not limited to any of the following:
- Bronchiectasis
- Chronic lung disease (CLD)
- COPD
- Cystic fibrosis
- Pediatric bronchi-pulmonary dysplasia (BPD)
- Diffuse interstitial lung disease
- Erythrocytosis
- Pulmonary hypertension
- Pulmonary neoplasm (primary or metastatic)
- Recurring congestive heart failure (CHF) due to chronic cor pulmonale

Intermittent home oxygen therapy is considered medically necessary for the treatment of cluster headaches (CH). The home use of oxygen to treat CH is covered only when furnished to patients who have had at least:
- Five severe to very severe unilateral headache attacks lasting 15-180 minutes when untreated.
- The headaches must be accompanied by at least one of the following findings: and
  - Ipsilateral conjunctival injection and/or lacrimation; or
  - Ipsilateral nasal congestion and/or rhinorrhea; or
  - Ipsilateral eyelid edema; or
  - Ipsilateral forehead and facial sweating; or
  - Ipsilateral miosis and/or ptosis; or
A sense of restlessness or agitation
- Attacks have a frequency from one every other day to eight per day
- Not attributed to another disorder

Supplemental home oxygen therapy is considered medically necessary during exercise when there is documentation of both of the following:
- Desaturation to an arterial oxygen saturation (SaO2) of equal to or less than 88% during exercise; and
- Improvement in hypoxemia and dyspnea or exercise capacity during exercise while using supplemental oxygen.

Supplemental home oxygen therapy is considered medically necessary during sleep in an individual, but not limited to, with any of the following conditions:
- Unexplained pulmonary hypertension, cor pulmonale, edema secondary to right heart failure, or erythrocytosis and hematocrit is greater than 56%; or
- If arterial PO2 at or above 56 mm Hg or an arterial oxygen saturation or pulse oximetry study at or above 89% while awake, additional testing must show:
  - Arterial PO2 at or below 55 mm Hg, or an arterial oxygen saturation or pulse oximetry study at or below 88% for at least 5 minutes during sleep; or
  - Decrease in arterial PO2 of more than 10 mm Hg, or a decrease in arterial oxygen saturation or pulse oximetry study more than 5% for at least 5 minutes, taken during sleep associates with symptoms or signs reasonably attributable to hypoxemia.

- Nocturnal restlessness with impaired cognitive processes
- Insomnia with impaired cognitive processes
- Cor pulmonale
- “P” pulmonale on EKG (P wave greater than 3 mm in standard leads II, III, or aVF); or
- Documented pulmonary hypertension
- Erythrocytosis

Medical Certification of Medical Necessity for Oxygen Equipment must include for DME supplied:
- Prescription and/or MD signed Prior Authorization/CMN Form
- A diagnosis of the disease requiring home use of oxygen,
- Items to be dispensed,
- The oxygen flow rate,
- An estimate of the frequency or duration of use (e.g., 2 liters per minutes, 10 minutes per hour, 12 hours per day),
- Duration of need (e.g., 6 months or lifetime)
- Evidence of qualifying test results done within 30 days before the initial date of service

PORTABLE OXYGEN
Portable oxygen systems weigh 10 lbs. or more and are designed to be transported but not easily carried, e.g., a steel cylinder attached to wheels (“stroller”). These are considered medically necessary and, therefore, covered when the individual is mobile within the home and the qualifying blood gas study or pulse oximetry study was performed while at rest (awake) or during exercise. If the only qualifying blood gas study or pulse oximetry study was performed during sleep, portable oxygen is considered not medically necessary and, therefore, not covered.
- Considered medically 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).
- Preset portable oxygen units are considered medically necessary

When a portable oxygen system is covered, the supplier must provide whatever quantity of oxygen the patient uses; reimbursement is the same, regardless of the quantity of oxygen dispensed.

AMBULATORY OXYGEN
Ambulatory oxygen systems weigh less than 10 lbs. when filled with oxygen and are designed to be carried, e.g., liquid refillable units and aluminum or fiber wrapped lightweight cylinders, with or without oxygen conversing
devices.

- Considered medically 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, the appropriate oxygen delivery system will be delivered.

PORTABLE OXYGEN CONCENTRATORS, HCPCS E1392

A portable oxygen concentrator is a portable device used to provide oxygen therapy to a patient at substantially higher concentrations than the levels of ambient air. Portable oxygen concentrators receive air, purify it and then distribute the changed air. 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; and
- Member is regularly (at least monthly) away from home for durations that exceed the capacity of ambulatory oxygen systems.

** Reimbursement will be maintained at the CMS allowed oxygen reimbursement rates, E1392. Code E1392 describes an oxygen concentrator, which is designed to be portable, is capable of delivering 85% or greater oxygen concentration, and is capable of operating on either AC or DC (e.g., auto accessory outlet) power. Code E1392 includes the device itself, an integrated battery or patient-replaceable batteries that are capable of providing at least 2 hours of remote portability at a minimum of 2 LPM equivalency, a battery charger, an AC power adapter, a DC power adapter, and a carry bag and/or cart. The combined weight of the concentrator and the battery/batteries capable of 2 hours of portability must be 20 pounds or less.

Ambulatory oxygen systems and portable oxygen concentrators are considered not medically necessary for members who qualify for oxygen solely based on blood gas studies obtained during sleep.

Separate coverage for a portable oxygen delivery system may be made in addition to payment for a stationary system only if the following criteria are met:

- The individual must have a demonstrable need for a separate portable system, either to maintain mobility in a private residence or to accomplish out-of-home activities;
- The individual's stationary oxygen delivery system cannot be used as a portable delivery system; and
- The prescribed oxygen flow is four LPM or less. If the prescribed oxygen flow is greater than four LPM, then no separate payment is made for the portable oxygen delivery system

Separate coverage will not be made, however, for both a stationary and a portable oxygen concentrator.

If coverage criteria are met, a second oxygen tank (spare tank) is considered not medically necessary, except in instances where the member is dependent on continuous oxygen. A single oxygen tank may be considered medically necessary for a person who is dependent on an oxygen concentrator.

Liquid oxygen and related equipment are non-covered Medicaid services unless recipient does not have electrical utilities at residence. Reimbursement will be only for stationary at the same rate of concentrator.

The reasonable useful lifetime (RUL) for oxygen equipment is 5 years. The RUL is not based on the chronological age of the equipment. It starts on the initial date of service and runs for 5 years from that date. RUL also does not take into account exchanges of equipment, new suppliers, or changes of modality (concentrator, gaseous, liquid).

Not Medically Necessary:

Home oxygen therapy is considered not medically necessary for any of the following indications, including but not limited to:

- Severe peripheral vascular disease with clinically evident desaturation in one or more extremities in the absence of systemic hypoxemia.
- Terminal illness not affecting the respiratory system
- Treatment of angina pectoris or dyspnea in the absence of documented associated cor pulmonale or hypoxemia

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- Breathlessness without cor pulmonale or evidence of hypoxemia
- Myocardial infarction
- Cardiogenic shock
- Sickle cell anemia
- Acute thermal and chemical pulmonary damage, i.e., smoke inhalation with pulmonary insufficiency
- Acute or chronic cerebral vascular insufficiency
- Acute cerebral edema
- Hepatic necrosis
- Aerobic septicemia
- Cutaneous, decubitus, and stasis ulcers
- Anaerobic septicemia and infection other than clostridia
- Skin burns (thermal)
- Senility
- Nonvascular causes of chronic brain syndrome (Pick’s disease, Alzheimer’s disease, Korsaloff’s disease)
- Tetanus
- Multiple sclerosis
- Arthritic diseases
- The use of preset regulators used with portable oxygen systems

All home oxygen therapy equipment from contracted providers is rented rather than purchased. Only rented oxygen equipment is eligible for coverage. Purchased oxygen equipment is statutorily non-covered.

Oxygen supplies and accessories (e.g., nasal cannula, tubing, facemask, oxygen conserving devices) are included in the rental reimbursement and are therefore, not eligible for separate reimbursement. Payment for accessories (e.g., cannula, tubing, etc.), delivery, back-up equipment, maintenance, and repairs is included in the rental allowance. Payment for oxygen contents (stationary and/or portable) is included in the allowance for stationary equipment (E0424, E0439, E1390, E1391).

Paramount does not consider Electrical generators a DME item as they are not primarily medical in nature.

Humidifiers (e.g., Vapotherm) for oxygen nasal cannula are not separately reimbursable.

**CODING/BILLING INFORMATION**
The appearance of a code in this section does not necessarily indicate coverage. Codes that are covered may have selection criteria that must be met. Payment for supplies may be included in payment for other services rendered.

<table>
<thead>
<tr>
<th>CPT CODES</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>82803-82810</td>
<td>Gases, blood, any combination of pH, pCO2, pO2, CO2, HCO3 (including calculated O2 saturation); with O2 saturation, by direct measurement, except pulse oximetry; or gases, blood, O2 saturation only, by direct measurement, except pulse oximetry</td>
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</tbody>
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<table>
<thead>
<tr>
<th>HCPCS CODES</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4608</td>
<td>Transtracheal oxygen catheter, each</td>
</tr>
<tr>
<td>A4615</td>
<td>Cannula, nasal</td>
</tr>
<tr>
<td>A4616</td>
<td>Tubing (oxygen), per foot</td>
</tr>
<tr>
<td>A4619</td>
<td>Face tent</td>
</tr>
<tr>
<td>A4620</td>
<td>Variable concentration mask</td>
</tr>
<tr>
<td>A7525</td>
<td>Tracheostomy mask, each</td>
</tr>
<tr>
<td>A9900</td>
<td>Miscellaneous DME supply, accessory, and/or service component of another HCPCS code</td>
</tr>
<tr>
<td>E0424</td>
<td>Stationary compressed gaseous oxygen system, rental; includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0425</td>
<td>Stationary compressed gas system, purchase; includes regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
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<tr>
<td>E0430</td>
<td>Portable gaseous oxygen system, purchase; includes regulator, flowmeter, humidifier, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0431</td>
<td>Portable gaseous oxygen system, rental; includes portable container, regulator, flowmeter, humidifier, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0433</td>
<td>Portable liquid oxygen system, rental; home liquefier used to fill portable liquid oxygen containers, includes portable regulator, flowmeter, humidifier, cannula or mask and tubing, with or without supply reservoir and contents gauge</td>
</tr>
<tr>
<td>E0434</td>
<td>Portable liquid oxygen system, rental; includes portable container, supply reservoir, humidifier, flowmeter, refill adaptor, contents gauge, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0435</td>
<td>Portable liquid oxygen system, purchase; includes portable container, supply reservoir, flowmeter, humidifier, contents gauge, cannula or masks, tubing and refill adaptor</td>
</tr>
<tr>
<td>E0439</td>
<td>Stationary liquid oxygen system; rental, includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0440</td>
<td>Stationary liquid oxygen system; purchase, includes use of reservoir, contents indicator, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing</td>
</tr>
<tr>
<td>E0441</td>
<td>Stationary oxygen contents, gaseous, 1 month's supply = 1 unit</td>
</tr>
<tr>
<td>E0442</td>
<td>Stationary oxygen contents, liquid, 1 month's supply = 1 unit</td>
</tr>
<tr>
<td>E0443</td>
<td>Portable oxygen contents, gaseous, 1 month's supply = 1 unit</td>
</tr>
<tr>
<td>E0444</td>
<td>Portable oxygen contents, liquid, 1 month's supply = 1 unit</td>
</tr>
<tr>
<td>E0447</td>
<td>Portable oxygen contents, liquid, 1 month's supply = 1 unit, prescribed amount at rest or nighttime exceeds 4 liters per minute (lpm)</td>
</tr>
<tr>
<td>E0455</td>
<td>Oxygen tent, excluding croup or pediatric tents</td>
</tr>
<tr>
<td>E0555</td>
<td>Humidifier, durable, glass or autoclavable plastic bottle type, for use with regulator or flowmeter</td>
</tr>
<tr>
<td>E0580</td>
<td>Nebulizer, with compressor, durable, glass or autoclavable plastic, bottle type, for use with regulator or flowmeter</td>
</tr>
<tr>
<td>E1352</td>
<td>Oxygen accessory, flow regulator capable of positive inspiratory pressure</td>
</tr>
<tr>
<td>E1353</td>
<td>Regulator</td>
</tr>
<tr>
<td>E1354</td>
<td>Oxygen accessory, wheeled cart for portable cylinder or portable concentrator, any type, replacement only, each</td>
</tr>
<tr>
<td>E1355</td>
<td>Stand/rack</td>
</tr>
<tr>
<td>E1356</td>
<td>Oxygen accessory, battery pack/cartridge for portable concentrator, any type, replacement only, each</td>
</tr>
<tr>
<td>E1357</td>
<td>Oxygen accessory, battery charger for portable concentrator, any type, replacement only, each</td>
</tr>
<tr>
<td>E1358</td>
<td>Oxygen accessory, DC power adaptor for portable concentrator, any type, replacement only, each</td>
</tr>
<tr>
<td>E1390</td>
<td>Oxygen concentrator, single delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate</td>
</tr>
<tr>
<td>E1391</td>
<td>Oxygen concentrator, dual delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate</td>
</tr>
<tr>
<td>E1392</td>
<td>Portable oxygen concentrator, rental</td>
</tr>
<tr>
<td>E1405</td>
<td>Oxygen and water vapor enriching system; with heated delivery</td>
</tr>
<tr>
<td>E1406</td>
<td>Oxygen and water vapor enriching system; without heated delivery</td>
</tr>
<tr>
<td>K0738</td>
<td>Portable gaseous oxygen system, rental; home compressor used to fill portable oxygen cylinders, includes portable regulator, flowmeter, humidifier, cannula or mask, and tubing</td>
</tr>
</tbody>
</table>

**REVISION HISTORY EXPLANATION**

**ORIGINAL EFFECTIVE DATE:** 06/01/2009

2/1/2010: Added/deleted code. Repair procedure E1340 was deleted in 2010, so only procedure K0739 is valid to report repair and maintenance.

11/10/15: Title changed from Oxygen Therapy to Home Oxygen Therapy. Removed codes A4575, A4606, & A4618. Added code E0580. Policy reviewed and updated to reflect most current clinical evidence per Medical
Policy Steering Committee.

**12/16/2020**: Medical policy placed on the new Paramount Medical Policy Format  
**01/04/2021**: Criteria update - supplemental home oxygen therapy criteria clarified/updated, specific reassessment criteria removed, and during the PHE, and in order to not create any delays for members being sent home from the Emergency Room with a portable oxygen concentrator, HCPCS E1392, will not require a prior authorization.

**REFERENCES/RESOURCES**  
Centers for Medicare and Medicaid Services, CMS Manual System and other CMS publications and services  
Ohio Department of Medicaid  
Centers for Medicare and Medicaid Services, Healthcare Common Procedure Coding System, HCPCS Release and Code Sets  
Industry Standard Review  
Hayes, Inc.