

Clinical Policy: Outpatient Oxygen Use

Reference Number: CP.MP.190

Date of Last Revision: 11/24

[Coding Implications](#)
[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

Oxygen therapy is the administration of oxygen at concentrations greater than that in ambient air (20.9%) with the intent of treating or preventing the symptoms and manifestations of hypoxemia.¹

Note:

- If a medically necessary, lesser cost item exists and will suit the member/enrollee's medical needs, a higher cost item will be denied.
- For criteria applicable to Medicare plans, please see MC.CP.MP.190 Outpatient Oxygen Use.

Policy/Criteria

- I. It is the policy of health plans affiliated with Centene Corporation[®] that initial approval of oxygen concentrators and oxygen systems (for indications other than cluster headaches; for stationary oxygen systems for cluster headaches, see section VI) for members/enrollees ≥ 18 years of age are **medically necessary** when meeting all of the following⁸:
 - A. Physician-documented severe lung disease or hypoxemia-related symptoms that might be expected to improve with oxygen therapy;
 - B. The blood gas study or pulse oximetry measurement meets one of the following:
 1. Member/enrollee qualifies for Group I by meeting any of the following^{3,8}:
 - a. An arterial PO₂ at or below 55 mm Hg, or an arterial oxygen saturation (or pulse oximetry) at or below 88 percent taken at rest (awake), breathing room air;
 - b. An arterial PO₂ at or below 55 mm Hg, or an arterial oxygen saturation (or pulse oximetry) at or below 88 percent, taken during sleep, for a beneficiary who demonstrates an arterial PO₂ at or above 56 mm Hg or an arterial oxygen saturation (or pulse oximetry) at or above 89 percent while awake;
 - c. A decrease in arterial PO₂ more than 10 mm Hg, or a decrease in arterial oxygen saturation (or pulse oximetry) more than five percent from baseline saturation, taken during sleep and 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;
 - d. An arterial PO₂ at or below 55 mm Hg or an arterial oxygen saturation (or pulse oximetry) at or below 88 percent, taken during exercise for a beneficiary who demonstrates an arterial PO₂ at or above 56 mm Hg or an arterial oxygen saturation (or pulse oximetry) 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;

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2. Member/enrollee qualifies for Group II by meeting both of the following^{1,8}:
 - a. An arterial PO₂ of 56 through 59 mm Hg or an arterial blood oxygen saturation of 89 percent or less at rest (awake), during sleep, or during exercise (as described under Group I criteria);
 - b. Any of the following:
 - i. Dependent edema suggesting congestive heart failure;
 - ii. 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);
 - iii. Erythrocythemia with a hematocrit greater than 56 percent;
 - C. The qualifying blood gas study or pulse oximetry measurement was obtained under one of the following conditions^{3,8}:
 1. Performed during an inpatient hospital stay, and the reported test was the one obtained closest to, but no earlier than two days prior to the hospital discharge date;
 2. Not performed during an inpatient hospital stay, and the reported test was performed when the treating practitioner noted signs and symptoms of illness that can be relieved by oxygen treatment in the home;
 - D. If the request is for a portable oxygen system, both of the following⁸:
 1. The member/enrollee is mobile within the home or community;
 2. The qualifying blood gas study or pulse oximetry measurement was performed while at rest (awake) or during exercise. (If the only qualifying blood gas study or pulse oximetry measurement was performed during sleep, portable oxygen will be denied as not reasonable and necessary).
- II.** It is the policy of health plans affiliated with Centene Corporation that initial approval of oxygen concentrators and other oxygen delivery systems for members/enrollees < 18 years of age (including medically fragile members/enrollees and those covered under EPSDT) are **medically necessary** when meeting all of the following⁵:
- A. Physician-documented severe lung disease or hypoxemia-related symptoms that might be expected to improve with oxygen therapy, including but not limited to the following:
 1. Chronic lung disease of prematurity;
 2. Cystic fibrosis complicated by severe chronic hypoxemia⁵;
 3. Acute pulmonary/respiratory disease with persistent type I (hypoxic) respiratory failure, as a means to facilitate earlier discharge to home, when deemed safe;
 4. Bronchopulmonary dysplasia (BPD) complicated by chronic hypoxemia⁵;
 5. Agenesis, hypoplasia, dysplasia of the lung;
 6. Chronic cardiopulmonary disease (cor pulmonale);
 7. P pulmonale (right atrial enlargement) on EKG;
 8. Any of the diagnostic causes of chronic hypoxemia due to alveolar hypoventilation, ventilation-perfusion mismatching, intracardiac or intrapulmonary shunting, or impaired alveolar-capillary diffusion;
 9. Pulmonary hypertension without congenital heart disease (CHD) complicated by chronic hypoxemia⁵;
 10. Interstitial lung disease complicated by severe chronic hypoxemia⁵;

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- B. Laboratory results of oximetry, polysomnography, or arterial blood gases demonstrate one of the following⁵:
 - 1. In children younger than one year old, one of the following:
 - a. $\text{SpO}_2 \leq 90\%$ during 5% of the recording time;
 - b. Three independent measurements of $\text{SpO}_2 \leq 90\%$ if measurements are taken intermittently;
 - 2. In children aged one year or older, one of the following:
 - a. $\text{SpO}_2 \leq 93\%$ during 5% of the recording time;
 - b. Three independent measurements of $\text{SpO}_2 \leq 93\%$ if measurements are taken intermittently;
- C. If request is for a portable oxygen system, member/enrollee is mobile within the home or community.⁷

III. It is the policy of health plans affiliated with Centene Corporation that reauthorization of oxygen concentrators and oxygen systems for members/enrollees ≥ 18 years of age are **medically necessary** when meeting the following^{1,7,9}:

- A. Evaluation by the treating physician within 90 days prior to the date of recertification, and one of the following:
 - 1. Chronic hypoxemia is not expected to improve or is expected to worsen, as documented in an explanatory letter of medical necessity (LOMN);
 - 2. Treatment is for nocturnal hypoxemia in a member/enrollee who qualifies for Group I (as defined in criteria section I), and two oxygen requests have already been authorized;
 - 3. A new arterial blood gas (ABG) or pulse oximetry result documents that member/enrollees still meets the criteria in section I above (initial approval criteria), and one of the following:
 - a. For Group I (as defined in section I), the measurement is obtained within 90 days of the recertification date, and by the physician or designee, or by an independent diagnostic testing facility (IDTF). O_2 levels obtained by DME providers do not qualify. Home oxygen companies are permitted to coordinate with an IDTF for the purpose of obtaining needed overnight oximetry saturation testing;
 - b. For Group II (as defined in section I; rare cases where initial certification was for three months with PO_2 56 through 59 or O_2 sat 89%), a repeat ABG or oximetry must be obtained within 30 days of recertification date;
- B. If the request is for a portable oxygen system, both of the following⁷:
 - 1. The member/enrollee is mobile within the home or community;
 - 2. The qualifying blood gas study or pulse oximetry measurement was performed while at rest (awake) or during exercise. (If the only qualifying blood gas study or pulse oximetry measurement was performed during sleep, portable oxygen will be denied as not reasonable and necessary).

IV. It is the policy of health plans affiliated with Centene Corporation that reauthorization of oxygen concentrators and other supplemental oxygen delivery systems for members/enrollees < 18 years of age (including medically fragile members/enrollees and those covered by EPSDT) are medically necessary when meeting all of the following:

- A. Evaluation by the treating physician within 30 days prior to the date of recertification;

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- B. One of the following:
 - 1. A new recorded (overnight recommended) pulse oximetry tracking, sleep study report, or blood gas result documents that the member/enrollee still meets the initial authorization criteria in Section II above, and the measurement meets both of the following:
 - a. Obtained within 30 days of the recertification date;
 - b. Obtained by the physician or designee, or by an independent diagnostic testing facility (IDTF). DME companies are prohibited from obtaining the O₂ levels unless they are also home oxygen providers. Home oxygen companies are permitted to coordinate with an IDTF for the purpose of obtaining needed overnight oximetry saturation testing;
 - 2. Chronic hypoxemia is not expected to resolve or is expected to worsen, as documented in an explanatory letter of medical necessity (LOMN);
 - C. If request is for a portable oxygen system, member/enrollee is mobile within the home or community.⁷
- V. It is the policy of health plans affiliated with Centene Corporation that oxygen concentrators **are not medically necessary** for the following indications^{1,3,8}:
- A. Angina pectoris in the absence of hypoxemia;
 - B. Breathlessness without cor pulmonale or evidence of hypoxemia;
 - C. Severe peripheral vascular disease resulting in clinically evident desaturation in one or more extremities but in the absence of systemic hypoxemia;
 - D. Shortness of breath or dyspnea in a pediatric patient without evidence of hypoxemia;
 - E. Terminal illnesses that do not affect the ability to breathe.^{1,8}
- VI. It is the policy of health plans affiliated with Centene Corporation that stationary gaseous oxygen systems (i.e. cylinder of liquid or gaseous oxygen) and related delivery equipment for the treatment of cluster headaches are **medically necessary** when meeting the following:
- A. Diagnosis of cluster headache as evidenced by all of the following^{7,10,11,12,13};
 - 1. At least five severe to very severe unilateral headache attacks lasting 15 to 180 minutes when untreated;¹⁴
 - 2. The headaches are accompanied by at least one of the following:
 - a. Ipsilateral conjunctival injection and/or lacrimation;
 - b. Ipsilateral nasal congestion and/or rhinorrhea;
 - c. Ipsilateral eyelid edema;
 - d. Ipsilateral forehead and facial sweating;
 - e. Ipsilateral miosis and/or ptosis;
 - f. A sense of restlessness or agitation;¹⁴
 - 3. Frequency of headache attacks occur between one every other day and eight per day.¹¹

Background

Oxygenation is the process of oxygen diffusing passively from the alveolus to the pulmonary capillary, where it binds to hemoglobin in red blood cells or dissolves into the plasma.² A low partial pressure of oxygen in the blood is termed hypoxemia. Hypoxemia can have multiple causes including hypoventilation, ventilation-perfusion (V/Q) mismatch, right-to-left shunts,

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diffusion limitation, and reduced inspired oxygen tension. Common tests to determine if oxygenation is impaired and at risk of being insufficient include arterial oxygen saturation (SaO₂), arterial oxygen tension (PaO₂), alveolar to arterial (A-a) oxygen gradient, and the PaO₂/fraction of inspired oxygen (FiO₂) ratio.²

Indications for continuous long-term oxygen therapy (LTOT) for those with chronic lung disease include³:

- Resting arterial oxygen tension (PaO₂) less than or equal to 55 mmHg (7.32 kPa), or a pulse oxygen saturation (SpO₂) less than or equal to 88 percent;
- PaO₂ less than or equal to 59 mmHg (7.85 kPa), or an SpO₂ less than or equal to 89 percent, if there is evidence of cor pulmonale, right heart failure, or erythrocytosis (hematocrit >55 percent);
- PaO₂ of 55 mmHg (7.32 kPa) or lower, or an SpO₂ of 88 percent or lower, during exercise or sleep.

Prescribed oxygen flow rates may vary throughout the day with activity or sleep or during acute exacerbations of disease. For patients with nocturnal oxygen desaturation, clinical evaluation for sleep-disordered breathing utilizing polysomnography is often appropriate.³

The American Association for Respiratory Care

According to the American Association for Respiratory Care LTOT in the home or alternate site health care facility is normally indicated for the treatment of hypoxemia and has been shown to have a significant positive impact on hypoxemic patients with chronic obstructive pulmonary disease (COPD). LTOT has also been shown to reduce hospitalizations and lengths of stay. Laboratory indications for LTOT include documented hypoxemia in adults, children, and infants older than 28 days as evidenced by PaO₂ ≤ 55 mm Hg or SaO₂ ≤ 88% in subjects breathing room air or PaO₂ of 56 to 59 mm Hg or SaO₂ or SpO₂ ≤ 89% in association with specific clinical conditions such as cor pulmonale, congestive heart failure, or erythrocythemia with hematocrit > 56. Some patients may not demonstrate a need for oxygen therapy at rest but will be hypoxemic during ambulation, sleep, or exercise. Oxygen therapy is indicated during these specific activities when the SaO₂ is demonstrated to fall to ≤ 88%. The initial need for LTOT is determined by measurement of inadequate arterial blood oxygen tensions and/or saturations and/or the presence of clinical indicators. Ongoing evaluation or reassessment of arterial blood gas tensions and/or saturations by invasive or noninvasive methods may be indicated whenever there is a change in clinical status that may be cardiopulmonary related.¹

The American Thoracic Society

Per the American Thoracic Society Clinical Practice Guidelines for Home Oxygen Therapy (HOT) in Adults, HOT is recommended for the following:⁴

- For patients with severe resting hypoxemia, the prescription of LTOT to improve survival is supported by historical trials in patients with COPD;
- The expert panel strongly recommends prescribing oxygen for patients with interstitial lung disease (ILD) with severe resting hypoxemia;
- Existing evidence and panel consensus suggest not prescribing LTOT for patients with COPD with moderate resting hypoxemia;

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- This review confirmed scarce and inconclusive data to support the prescription of oxygen in patients who have normoxia at rest but desaturate (sometimes markedly) with exertion;
- Emerging evidence suggests that ambulatory oxygen therapy may improve health-related quality of life in patients with ILD in the short term but long-term data is needed;
- The panel unanimously agreed that liquid oxygen (LOX) should be offered to active patients on high-flow oxygen;
- Finally, the minimal standard of care for all patients receiving home oxygen therapy must include education and training related to their oxygen equipment, oxygen safety, and self-management.

The American Thoracic Society Clinical Practice Guidelines for Home Oxygen Therapy in Children states that, despite widespread use of home oxygen therapy (HOT) in children for various lung and pulmonary vascular diseases, there is a striking paucity of data regarding its implementation, efficacy, monitoring, and discontinuation. With limited evidence, the panel provides recommendations based on expert opinion and experiences associated with patient-important outcomes, which will aid clinicians in the management of complex pediatric patients requiring HOT.⁵

HOT for children is recommended for the following situations⁵:

- Cystic fibrosis complicated by severe chronic hypoxemia (strong recommendation, very low-quality evidence);
- Cystic fibrosis patients who have both mild chronic hypoxemia and dyspnea on exertion (conditional recommendation, very low-quality evidence);
- Bronchopulmonary dysplasia complicated by chronic hypoxemia (strong recommendation, very low-quality evidence);
- Sleep-disordered breathing complicated by severe nocturnal hypoxemia in those who cannot tolerate positive airway pressure therapy or are awaiting surgical treatment of sleep-disordered breathing (conditional recommendation, very low-quality evidence);
- Sickle cell disease complicated by severe chronic hypoxemia (conditional recommendation, very low-quality evidence);
- Pulmonary hypertension without congenital heart disease complicated by chronic hypoxemia (strong recommendation, very low-quality evidence);
- Interstitial lung disease complicated by severe chronic hypoxemia (strong recommendation, very low-quality evidence);
- Interstitial lung disease patients who have mild chronic hypoxemia and either dyspnea on exertion or desaturation during sleep or exertion (conditional recommendation, very low-quality evidence);
- Pulmonary hypertension with congenital heart disease complicated by chronic hypoxemia but not until there has been consultation with a pediatric pulmonologist or cardiologist who has expertise in the management of pulmonary hypertension in this clinical setting, regardless of previous reparative or palliative congenital heart surgery (strong recommendation, very low-quality evidence).

Additionally, the expert panel unanimously agreed that optimal implementation of the above HOT recommendations consists of all of the following⁵:

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- Oxygen therapy to maintain an oxygen saturation as measured by pulse oximetry in an acceptable range according to age and respiratory condition outlined in the full guideline document;
- Use of oxygen equipment that is of the appropriate size, developmental stage, and flow rate to function properly;
- Oxygen therapy monitoring by pulse oximetry in the home.

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2023, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

HCPCS Codes	Description
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 noninvasively

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HCPCS Codes	Description
E0447	Portable oxygen contents, liquid, 1 month's supply = 1 unit, prescribed amount at rest or nighttime exceeds 4 liters per minute (LPM)
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
S8120	Oxygen contents, gaseous, 1 unit equals 1 cubic foot
S8121	Oxygen contents, liquid, 1 unit equals 1 pound

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Policy developed	05/20	
Noted in reauthorization criteria for Group 1 that nocturnal hypoxemia doesn't have to have a qualifying ABG or pulse ox after the first two approvals. Added that a DME company cannot provide the reauthorization pulse ox test, but an independent diagnostic testing facility (IDTF) can, and a home oxygen company can coordinate with an IDTF to do so also. Added criteria for portable oxygen systems in IV.	07/20	07/20
In sections I and III, clarified that the criteria applies to stationary oxygen systems as well as portable oxygen systems. In section II: specified that the diagnosis list is not all-inclusive, and that there be a cause of severe lung disease or hypoxia; edited diagnosis list; added polysomnography as a qualifying lab results option. Specified that reauthorization criteria in section III applies to adults. Added reauthorization criteria for age <21 years in section IV. Portable oxygen systems: Added that criteria in section I. must be met and specified that portable oxygen system criteria applies to adults. Added "shortness of breath or dyspnea in a pediatric patient without evidence of hypoxemia" to the list of not medically necessary indications for oxygen concentrators. Removed accessory codes. Replaced "members" with "members/enrollees" in all instances.	09/20	09/20
Clarified in I.2.a. that the oxygen saturation should be 89% or less, instead of 89%.	10/20	
For reauthorization of oxygen concentrators and stationary oxygen systems in adults in section III, added an option for a letter of medical necessity documenting a chronic condition not expected to improve or	11/20	11/20

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Reviews, Revisions, and Approvals	Revision Date	Approval Date
<p>expected to worsen, when provided in addition to a physician evaluation within 90 days. Clarified that both the Group 1 re-auth criteria in section III.A.2.a need to be met. Restructured section III with minor rewording. Specified that section I. applies to oxygen concentrators and stationary oxygen systems for indications other than cluster headaches, and referred to section VII for stationary oxygen systems for cluster headaches. Specified in section VII that the criteria for cluster headaches applies to those ≥ 21 years.</p>		
<p>Annual review. References reviewed and updated. Background updated. Changed “review date” in the header to “date of last revision” and “date” in the revision log header to “revision date.” Reviewed by specialist.</p>	09/21	09/21
<p>Edited portable oxygen criteria to include option for “mobile within community” in addition to “within the home.” Reorganized portable oxygen criteria within sections I and III. Added criteria for portable oxygen systems for pediatrics in sections II and IV.</p>	10/21	10/21
<p>In the over 21 auth and reauth sections regarding the qualifying blood gas study for portable oxygen and concentrators, removed “for the approved stationary concentrator” for clarity.</p>	11/21	
<p>Annual review. References reviewed and updated. Coding Verified.</p>	01/22	01/22
<p>Annual review. Updated title from Oxygen Use and Concentrators to Outpatient Oxygen Use. Added “Note: If a medically necessary, lesser cost item exists and will suit the member/enrollee’s medical needs, a higher cost item will be denied.” Under the Description section. In I.A. updated “hypoxia” to “hypoxemia.” Updated statement and included reference (based on CMS NCD 240.2)⁸ to I.B.1. and I.B.2 for clarity. In II.A. updated “hypoxia” to “hypoxemia.” In III.A.2. added “criteria” to (as defined in criteria section I) statement for clarity. In IV.B.2. changed Chronic hypoxemia is not expected to “improve” to “resolve.” In VI. Added “(i.e. cylinder of liquid or gaseous oxygen)” and related “delivery equipment”... for clarity and removed age criteria “≥ 21.” Reformatted criteria in VI.A.1. and 2 for clarity. Removed VI.B. “Enrolled in clinical trial.” Minor rewording with no clinical significance. Background updated with no clinical significance. References reviewed and updated. Internal and external specialist reviewed.</p>	01/23	01/23
<p>Annual review. Updated all criteria instances of "blood gas study" to include "or pulse oximetry measurement" and all instances of “arterial oxygen saturation” to include “(or pulse oximetry)”. Changed age requirements in I. and III. from ≥ 21 to ≥ 18 years of age. Changed age requirements in II and IV from <21 to <18 years of age. Minor rewording in Criteria I. Added clarifying language to Criteria I.B.1.a. regarding breathing room air. In I. B.1.b., I.B.1.c., and I.B.2.a., removed the requirement that the measurement is taken after 5 minutes of sleep vs. during sleep. Criteria I.D.2. updated to reflect condition requirements for blood gas study not performed during an inpatient hospital stay.</p>	01/24	01/24

Reviews, Revisions, and Approvals	Revision Date	Approval Date
Removed I.E. regarding alternative treatments. Added clarifying language to Criteria II.A.2. for cystic fibrosis complicated by severe chronic hypoxemia. Updated Criteria II.A.4. to state Bronchopulmonary dysplasia (BPD) complicated by chronic hypoxemia. Added Criteria II.A.9. to include pulmonary hypertension without congenital heart disease complicated by chronic hypoxemia. Added Criteria II.A.10. to include interstitial lung disease complicated by severe chronic hypoxemia. Updated Criteria II.B.1. and Criteria II.B.2. to include requirements for SpO ₂ measurements for children younger than one year old and for children aged one year or older. Minor rewording in Criteria III.A.3.a. and Criteria III.A.3.b. Minor rewording to Criteria IV.B.1. Clarifying language added to Criteria V.C. regarding the absence of systemic hypoxemia. Added Criteria V.E. to include terminal illnesses that do not affect the ability to breathe. Minor rewording in Criteria VI. Added Criteria VI.A.3. to include frequency of headache attacks. Background updated with no impact on criteria. References reviewed and updated.		
Annual review. Removed criteria I.C. The qualifying blood gas study or pulse oximetry measurement was performed by a physician or by a qualified provider or supplier of laboratory services. Minor edits to background with no impact to criteria. Added CPT E0447 to coding table. References reviewed and updated. Reviewed by external specialist.	11/24	11/24

References

1. American Association for Respiratory Care. AARC clinical practice guideline: Oxygen therapy in the home or alternate site health care facility – 2007 revision & update. AARC; 2007. <https://www.aarc.org/wp-content/uploads/2014/08/08.07.1063.pdf>. Published August 2007. Accessed September 23, 2024.
2. Theodore AC. Measures of oxygenation and mechanisms of hypoxemia. UpToDate. www.uptodate.com. Published August 15, 2023. Accessed September 23, 2024.
3. Carter R, Nwasuruba C. Long-term supplemental oxygen therapy. UpToDate. www.uptodate.com. Published July 10, 2023. Accessed September 23, 2024.
4. Jacobs SS, Krishnan JA, Lederer DJ, et al. Home Oxygen Therapy for Adults with Chronic Lung Disease. An Official American Thoracic Society Clinical Practice Guideline [published correction appears in *Am J Respir Crit Care Med*. 2021 Apr 15;203(8):1045 to 1046]. *Am J Respir Crit Care Med*. 2020;202(10):e121 to e141. doi:10.1164/rccm.202009-3608ST
5. Hayes D Jr, Wilson KC, Krivchenia K, et al. Home Oxygen Therapy for Children. An Official American Thoracic Society Clinical Practice Guideline. *Am J Respir Crit Care Med*. 2019;199(3):e5 to e23. doi:10.1164/rccm.201812-2276ST
6. Nagler J. Continuous oxygen delivery systems for the acute care of infants, children, and adults. UpToDate. www.uptodate.com. Published July 19, 2023 Accessed September 23, 2024.

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7. Local coverage determination: Oxygen and oxygen equipment (L33797). Centers for Medicare and Medicaid Services. <http://www.cms.hhs.gov/mcd/search.asp>. Published October 01, 2015 (revised April 01, 2023). Accessed September 23, 2024.
8. National coverage determination: home use of oxygen (240.2). Centers for Medicare and Medicaid Services. <http://www.cms.hhs.gov/mcd/search.asp>. Published October 27, 1993 (revised September 27, 2021). Accessed September 23, 2024.
9. Spece LJ, Epler EM, Duan K, et al. Reassessment of Home Oxygen Prescription after Hospitalization for Chronic Obstructive Pulmonary Disease. A Potential Target for Deimplementation. *Ann Am Thorac Soc*. 2021;18(3):426 to 432. doi:10.1513/AnnalsATS.202004-364OC
10. American Headache Society, American Migraine Foundation. Our Joint Statement on Oxygen Therapy for Cluster Headache. <https://americanheadachesociety.org/news/ahs-amf-statement-oxygen-therapy/>. Accessed September 23, 2024.
11. Headache Classification Committee of the International Headache Society (IHS) The International Classification of Headache Disorders, 3rd edition. *Cephalalgia*. 2018;38(1):1 to 211. doi:10.1177/0333102417738202
12. Robbins MS, Starling AJ, Pringsheim TM, Becker WJ, Schwedt TJ. Treatment of Cluster Headache: The American Headache Society Evidence-Based Guidelines. *Headache*. 2016;56(7):1093 to 1106. doi:10.1111/head.12866
13. National Institute for Health and Care Excellence. Headaches in over 12s: diagnosis and management. Clinical guideline [CG150]. <https://www.nice.org.uk/guidance/cg150/chapter/Key-priorities-for-implementation>. Published September 19, 2012 (Updated December 17, 2021). Accessed September 23, 2024.
14. Omojo Odihi Malu, Bailey J, Matthew Kendall Hawks. Cluster Headache: Rapid Evidence Review. *American Family Physician*. 2022;105(1):24-32. Accessed September 24, 2024. <https://www.aafp.org/pubs/afp/issues/2022/0100/p24.html#:~:text=Cluster%20headache%20consists%20of%20attacks>

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and

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limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. The Health Plan retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom the Health Plan has no control or right of control. Providers are not agents or employees of the Health Plan.

This clinical policy is the property of the Health Plan. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members/enrollees and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members/enrollees and their representatives agree to be bound by such terms and conditions by providing services to members/enrollees and/or submitting claims for payment for such services.

Note: For Medicaid members/enrollees, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members/enrollees, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <http://www.cms.gov> for additional information.

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