

**Subject:** Hyperbaric or Topical Oxygen Therapy (HBOT)

**Medical Policy #:** 8.6

**Status:** Reviewed

**Original Effective Date:** 12/21/2005

**Last Review Date:** 01-25-2023

## Disclaimer

Refer to the member's specific benefit plan and Schedule of Benefits to determine coverage. This may not be a benefit on all plans or the plan may have broader or more limited benefits than those listed in this Medical Policy.

## Description

Hyperbaric Oxygen Therapy (HBOT) is a treatment modality in which the entire body is enclosed in a pressure vessel and exposed to 100% oxygen at greater than one atmosphere pressure. Either a mono-place chamber pressurized with pure O<sub>2</sub> or a larger multi-place chamber pressurized with compressed air where the patient receives pure O<sub>2</sub> by mask, head tent, or endotracheal tube may be used. Hyperbaric Oxygen Therapy aids healing in a variety of ways by increasing the oxygen that is available for cellular metabolism.

Hyperbaric Oxygen therapy serves **four** primary functions:

1. To increase the concentration of dissolved oxygen in the blood, which supplements oxygenation to all parts of the body;  
**and**
2. Replaces sluggish gas in the bloodstream with oxygen, then metabolized by the body;  
**and**
3. It may stimulate the development of a collagen matrix and angiogenesis;  
**and**
4. Also, acts as a bactericide for certain susceptible bacteria.

Developed as treatment for decompression illness, this modality is an established therapy for treating medical disorders such as carbon monoxide (CO) poisoning, gas gangrene, acute decompression illness and air embolism. Hyperbaric oxygen (HBO) therapy is also considered acceptable as adjunctive therapy in the treatment of sequella of acute vascular compromise and in the management of some disorders that are refractory to standard medical and surgical care or the result of radiation injury.

## Coverage Determination

**Prior Authorization is required. Logon to Pres Online to submit a request:** <https://ds.phs.org/preslogin/index.jsp>

Presbyterian follows CMS Hyperbaric Oxygen Therapy, National Coverage Determination ([NCD 20.29](#)) for **Medicare, Medicaid** and **Commercial** members.

### Indication of Coverage:

- The use of HBO therapy is covered as adjunctive therapy only after there are no measurable signs of healing for at least 30 –days of treatment with standard wound therapy and must be used in addition to standard wound care.
- Standard wound care in patients with diabetic wounds includes: assessment of a patient's vascular status and correction of any vascular problems in the affected limb if possible, optimization of nutritional status, optimization of glucose control, debridement by any means to remove devitalized tissue, maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings, appropriate off-loading, and necessary treatment to resolve any infection that might be present.
- Failure to respond to standard wound care occurs when there are no measurable signs of healing for at least 30 consecutive days. Wounds must be evaluated at least every 30 days during administration of HBO therapy.
- Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.

### Covered Conditions

Hyperbaric oxygen (HBO) therapy in a chamber (including the one-man unit) is limited to the following conditions:

1. Acute carbon monoxide intoxication,
2. Decompression illness,
3. Gas embolism,
4. Gas gangrene,
5. Acute traumatic peripheral ischemia. HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened.

Not every Presbyterian health plan contains the same benefits. Please refer to the member's specific benefit plan and Schedule of Benefits to determine coverage [MPMPPC051001].

6. Crush injuries and suturing of severed limbs. As in the previous conditions, HBO therapy would be an adjunctive treatment when loss of function, limb, or life is threatened.
7. Progressive necrotizing infections (necrotizing fasciitis),
8. Acute peripheral arterial insufficiency,
9. Preparation and preservation of compromised skin grafts (not for primary management of wounds),
10. Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management,
11. Osteoradionecrosis as an adjunct to conventional treatment,
12. Soft tissue radionecrosis as an adjunct to conventional treatment,
13. Cyanide poisoning,
14. Actinomycosis, only as an adjunct to conventional therapy when the disease process is refractory to antibiotics and surgical treatment,
15. Diabetic wounds of the lower extremities in patients who meet the following three criteria:
  - a. Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes;
  - b. Patient has a wound classified as Wagner grade III or higher; and
  - c. Patient has failed an adequate course of standard wound therapy.

**Exclusions Non-covered conditions:**

1. Cutaneous, decubitus, and stasis ulcers.
2. Chronic peripheral vascular insufficiency.
3. Anaerobic septicemia and infection other than clostridial.
4. Skin burns (thermal).
5. Senility.
6. Myocardial infarction.
7. Cardiogenic shock.
8. Sickle cell anemia.
9. Acute thermal and chemical pulmonary damage, i.e., smoke inhalation with pulmonary insufficiency.
10. Acute or chronic cerebral vascular insufficiency.
11. Hepatic necrosis.
12. Aerobic septicemia.
13. Nonvascular causes of chronic brain syndrome (Pick's disease, Alzheimer's disease, Korsakoff's disease).
14. Tetanus.
15. Systemic aerobic infection.
16. Organ transplantation.
17. Organ storage.
18. Pulmonary emphysema.
19. Exceptional blood loss anemia.
20. Multiple Sclerosis.
21. Arthritic Diseases.
22. Acute cerebral edema.

Non-Covered: Topical hyperbaric oxygen chamber, HCPCS code (A4575) is considered not reasonable and necessary, per Oxygen and Oxygen Equipment LCD ([L33767](#)).

**Coding**

The coding listed in this medical policy is for reference only. Covered and non-covered codes are within this list.

CPT Code	Description
99183	Physician or other qualified health care professional attendance and supervision of hyperbaric oxygen therapy, per session

HCPCS Code	Description
A4575	Topical hyperbaric oxygen chamber, disposable- NON-COVERED
G0277	Hyperbaric oxygen under pressure, full body chamber, per 30-minute interval

ICD-10 Codes
Covered ICD-10 diagnoses codes are implemented by either a single or dual diagnosis requirement, which are based on patients' condition. Please download <a href="#">Compressed file CR10318</a> , select file <b>20.29 HBO Therapy 103017F</b> , then select worksheet tab "ICD Diagnosis".

## Reviewed by / Approval Signatures

**Clinical Quality & Utilization Mgmt. Committee:** Gray Clarke MD

**Senior Medical Director:** David Yu MD

**Medical Director:** Ana Maria Rael MD

**Date Approved:** 01-25-2023

## References

1. CMS, National Coverage Determination (NCD) for Hyperbaric Oxygen Therapy ([20.29](#)), Effective Date of Version #4, is 04/03/2017. [Cited 12/27/2021] CMS, LCD for Oxygen and Oxygen Equipment, (L33797), Revision date: 08/02/2020, R7. [Cited 11/15/2022]

## Publication History

- 05-18-17 Annual Review. Accessed MCG #A-0250 21<sup>st</sup> Edition. Last updated 2-2-17. No changes.
- 11-20-19 Annual Review. Removed MCG #ACG: A-0250 and replaced to follow MCG (N2029v4) or CMS NCD 20.29 and/or LCD L35021 for all LOB. Provided CPT.
- 01-27-21 Annual review. Reviewed by PHP Medical Policy Committee on 01/06/2020. Policy was following both NCD 20.29 and LCD L35021 for all LOB. CMS has retired LCD L35021 and related article A56714. The policy will continue to follow NCD 20.29 for all LOB. HCPCS hospital code G0277 will now require PA for all LOB and 99183 will continue with PA requirement. Due to retirement of L35021, Limitation and Documentation Requirement sections has been removed from policy. Criteria was added to policy using NCD 20.29. Added A4575 to policy.
- 01-26-22 Annual review. Reviewed by PHP Medical Policy Committee on 01/12/2022. Change. The policy will continue to follow CMS Hyperbaric Oxygen Therapy, (NCD 20.29) for Medicare, Medicaid and Commercial and MCG (N2029v4) reference will be removed. Added non-coverage statement from Local Coverage Determination (LCD- L33797), that topical hyperbaric oxygen chambers (A4575) is not reasonable and necessary. Code A4575 is considered not medically necessary for all product lines and will be configured as such. Prior authorization for codes 99183 and G0277 will continue.
- 01-25-23 Annual review. Reviewed by PHP Medical Policy Committee on 11/16/2022. No change. Continue to follow CMS Hyperbaric Oxygen Therapy, (NCD 20.29) for Medicare, Medicaid and Commercial. Continue non-coverage statement from Local Coverage Determination (LCD- L33797), that topical hyperbaric oxygen chambers (A4575) is not reasonable and necessary. Continue config of A4575 as not medically necessary for all product lines. Continue PA for codes 99183 and G0277.

*This Medical Policy is intended to represent clinical guidelines describing medical appropriateness and is developed to assist Presbyterian Health Plan and Presbyterian Insurance Company, Inc. (Presbyterian) Health Services staff and Presbyterian medical directors in determination of coverage. The Medical Policy is not a treatment guide and should not be used as such.*

*For those instances where a member does not meet the criteria described in these guidelines, additional information supporting medical necessity is welcome and may be utilized by the medical director in reviewing the case. Please note that all Presbyterian Medical Policies are available online at: [Click here for Medical Policies](#)*

### **Web links:**

*At any time during your visit to this policy and find the source material web links has been updated, retired or superseded, PHP is not responsible for the continued viability of websites listed in this policy.*

*When PHP follows a particular guideline such as LCDs, NCDs, MCG, NCCN etc., for the purposes of determining coverage; it is expected providers maintain or have access to appropriate documentation when requested to support coverage. See the References section to view the source materials used to develop this resource document.*