Hyperbaric Oxygen Therapy (HBOT)

PM 8.6

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 these criteria.

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 O₂ or a larger multi-place chamber pressurized with compressed air where the patient receives pure O₂ 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. Log on to Pres Online to submit a request: https://ds.phs.org/preslogin/index.jsp.

Presbyterian follows both CMS National Coverage Determination (NCD) [20.29](https://www.cms.gov) and LCD-L35021 for Hyperbaric Oxygen Therapy.

Benefit is covered for Medicare, Medicaid and Commercial members based on the following:

For covered and non-covered conditions for HBO therapy may be found in the (NCD) [20.29](https://www.cms.gov).

See LCD-L35021 for treatment guidelines specific to conditions and include criteria for diagnosis with expected frequency; duration of treatment; documentation requirements; utilization such as maximum allowed number of HBO services; restriction on the outpatient/inpatient...
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**Limitations:**

- **Inpatient only setting HBO treatment:**
  - The following conditions are conditions that are expected to be provided in the *inpatient only setting* due to the acute and critical nature of the disease, concomitant conditions, and the need for correlation with other acute, invasive or monitoring services; gas gangrene, sequella of acute peripheral ischemia (including reperfusion conditions of arterial embolism and thrombosis, reimplantation or crush injuries of the extremities), necrotizing fasciitis, air embolisms, carbon monoxide/cyanide poisoning.

  **Pregnancy:**
  - Pregnancy is considered a contraindication to HBOT except in the case of carbon monoxide poisoning for which it is specifically indicated on an emergent basis.

**Documentation Requirements:**

1. The medical record documentation must support the medical necessity of the services as stated in the NCD and this policy.
2. Documentation that a trained emergency response team is available and that the setting provides the required availability of ICU services that could be needed to ensure the patient’s safety if a complication occurred.
3. The documentation present in the clinical record must provide an accurate description and diagnosis of the medical condition supporting that the use of HBO is reasonable and medically necessary. The medical documentation must include but is not limited to the following:
   a. An initial assessment, which includes a history and physical that clearly substantiates the condition for which HBO is recommended. This should also include any prior medical, surgical or HBO treatments.
   b. Documentation of the procedure (logs) including ascent time, descent time and pressurization level. There should be a treatment plan identifying timeline and treatment goals.
   c. Physicians’ progress notes that describe the physical findings, type(s) of treatment(s) provided, number of treatments provided, the effect of treatment(s) received and the assessment of the level of progress made toward achieving the completion of established therapy goals.
   d. Physician-to-physician communications or records of consultations, additional assessments, recommendations or procedural reports.
e. Laboratory reports (cultures or Gram stains) that confirm the
diagnosis of necrotizing fasciitis are required and must be
present as support for payment of HBO.

f. X-ray findings and bone cultures confirming the diagnosis of
osteomyelitis are required and must be present as support for
payment of HBO.

g. Documentation to support the presence of gas gangrene as
proven with laboratory reports (Gram stain or cultures) and X-
ray.

h. Documentation of date and anatomical site of prior radiation
treatments.

i. Documentation supporting date of skin graft and compromised
state of graft site.

j. For diabetic wounds of the lower extremity, the Wagner
classification of the wound and the failure of an adequate
course (at least 30 days) of standard wound therapy must be
documented at the initiation of therapy:
  - Documentation must include criteria and exam consistency
to establish the diagnosis of a Wagner's grade III wound.
  - Documentation of standard wound care in patients with
diabetic wounds must include: assessment of a patient’s
vascular status and documentation of correction of any
vascular problem sufficient to impair wound healing in the
affected limb; documentation of optimization of nutritional
status; documentation of optimization of glucose control;
documentation of debridement by any means to remove
devitalized tissue; documentation of maintenance of a clean,
mint bed of granulation tissue with appropriate moist
dressings; documentation of efforts for appropriate off-
loading; and documentation of necessary treatment to
resolve any infection that might be present. Failure to
respond to standard wound care occurs when there is no
documentation of measurable signs of healing for at least 30
consecutive days post optimization for healing. The medical
record must include, at a minimum, a wound evaluation at
least every 30 days during administration of HBO therapy.

Exclusions:

See NCD 20.29, for Non-covered HBO. The following are listed as
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.
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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.
14. Tetanus.
15. Systemic aerobic infection.
16. Organ transplantation.
17. Organ storage.
18. Pulmonary emphysema.
19. Exceptional blood loss anemia.
20. Multiple Sclerosis.
22. Acute cerebral edema.
23. Preparation for dental extraction when radiation therapy has not been done at least 6 months prior, in order to prevent the development of osteoradionecrosis.

Coding

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

<table>
<thead>
<tr>
<th>CPT Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>99183</td>
<td>Physician or other qualified health care professional attendance and supervision of hyperbaric oxygen therapy, per session</td>
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<table>
<thead>
<tr>
<th>HCPCS Code</th>
<th>Description</th>
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<tr>
<td>G0277</td>
<td>Hyperbaric oxygen under pressure, full body chamber, per 30 minute interval</td>
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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 downloaded Compressed file CR10318, select file 20.29 HBO Therapy 103017F, then select worksheet tab “ICD Diagnosis”.
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Reviewed by: David Yu, MD

References
1. CMS IOM Publication 100-03, Medicare National Coverage Determinations (NCD) Manual, Chapter 1, Part 1, Section 20.29 Hyperbaric Oxygen Therapy, Rev. #213, 02/15/2019. [Cited 07/29/2019]
2. CMS, National Coverage Determination (NCD) for Hyperbaric Oxygen Therapy (20.29), Effective Date of Version #4, is 04/03/2017.
3. CMS, Local Coverage Determination (LCD) L35021, Revision date 11/14/2019, R#22. [Cited 07/29/2019]

Approval Signatures:
Clinical Quality & Utilization Mgmt. Committee: Howard Epstein MD
Medical Director: Norman White MD

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Publication History:
11-20-19: Annual Review. Removed MCG #ACG: A-0250, and replaced criteria with NCD and LCD guidelines. Provided CPT

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 Policies are 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 guidelines 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.