Important note:
Unless otherwise indicated, this policy will apply to all lines of business.
Even though this policy may indicate that a particular service or supply may be considered medically necessary and thus covered, this conclusion is not based upon the terms of your particular benefit plan. Each benefit plan contains its own specific provisions for coverage and exclusions. Not all benefits that are determined to be medically necessary will be covered benefits under the terms of your benefit plan. You need to consult the Evidence of Coverage (EOC) or Summary Plan Description (SPD) to determine if there are any exclusions or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and your plan of benefits, the provisions of your benefits plan will govern. However, applicable state mandates will take precedence with respect to fully insured plans and self-funded non-ERISA (e.g., government, school boards, church) plans. Unless otherwise specifically excluded, Federal mandates will apply to all plans. With respect to Medicare-linked plan members, this policy will apply unless there are Medicare policies that provide differing coverage rules, in which case Medicare coverage rules supersede guidelines in this policy. Medicare-linked plan policies will only apply to benefits paid for under Medicare rules, and not to any other health benefit plan benefits. CMS's Coverage Issues Manual can be found on the CMS website. Similarly, for Medicaid-linked plans, the Texas Medicaid Provider Procedures Manual (TMPPM) supersedes coverage guidelines in this policy where applicable.

SERVICE: Hyperbaric Oxygen Therapy (HBOT)

PRIOR AUTHORIZATION: Not required

POLICY: SWHP may consider HBOT medically necessary for the following indications, once other standard and conventional therapies have been unsuccessful:

1. Acute carbon monoxide intoxication,
2. Decompression illness,
3. Air or Gas embolism,
4. Gas gangrene (clostridial myositis and myonecrosis),
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.
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. Acute peripheral arterial insufficiency,
8. Progressive necrotizing infections (necrotizing fasciitis),
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. Carbon monoxide poisoning with exposure to cyanide – combination may have synergistic toxicity,
14. Actinomycosis caused by Actinomyces Israelii that is refractory to conventional therapy, (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.
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,
- 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.

EXCLUSIONS: SWHP considers the use of systemic HBOT unproven for the following conditions (not an all-inclusive list) because there is insufficient evidence in the medical literature establishing that systemic HBOT is more effective than conventional therapies:

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.
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.

Contraindications for HBO:

- Absolute
  - Untreated tension pneumothorax
Relative
- Upper respiratory tract infection
- Emphysema with carbon dioxide retention
- Asymptomatic pulmonary lesions seen on chest x-ray • History of thoracic or ear surgery
- Uncontrolled hyperthermia
- Pregnancy
- Claustrophobia
- Seizure disorder

OVERVIEW: HBOT involves the systemic administration of pure gaseous oxygen under pressures greater than one atmosphere in a specialized chamber. The goal of HBO therapy is to promote tissue healing through a combination of increasing hydrostatic pressure and elevation of the tissue oxygen tension, increasing cellularity and improving vascularity; and to reverse hypoxia, prevent tissue damage and reduce the incidence of delayed neurological effects.

MANDATES: There are no mandated benefits for HBO

CODES:
Important note:
CODES: Due to the wide range of applicable diagnosis codes and potential changes to codes, an inclusive list may not be presented, but the following codes may apply. Inclusion of a code in this section does not guarantee that it will be reimbursed, and patient must meet the criteria set forth in the policy language.

| CPT Codes: | 99183 Hyperbaric oxygen therapy  
G0277 HBOT, full body chamber, 30m |
| CPT Not Covered: |
| HCPCS Not Covered: | A4575 Topical hyperbaric oxygen chamber, disposable  
E0446 Topical oxygen delivery system, not otherwise specified, includes all supplies and accessories |
Choose the spreadsheet 20.29 HBO Therapy 103017F. |

CMS: NCD 20.29, June 19, 2006. LCD L35021 Effective Date 04/11/2019

POLICY HISTORY:

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REFERENCES:
The following scientific references were utilized in the formulation of this medical policy. SWHP will continue to review clinical evidence related to this policy and may modify it at a later date based upon the evolution of the published clinical evidence. Should additional scientific studies become available and they are not included in the list, please forward the reference(s) to SWHP so the information can be reviewed by the Medical Coverage Policy Committee (MCPC) and the Quality Improvement Committee (QIC) to determine if a modification of the policy is in order.

18. Hailey D. Hyperbaric oxygen therapy - recent findings on evidence for its effectiveness. Information Paper. IP


