Medical Necessity Guidelines:
Hyperbaric Oxygen Treatment (HBO)

Effective: September 15, 2023

Prior Authorization Required
If REQUIRED, submit supporting clinical documentation pertinent to service request to the FAX numbers below

| Yes ☒ No ☐ |

Notification Required
IF REQUIRED, concurrent review may apply

| Yes ☐ No ☒ |

Applies to:

Commercial Products
☒ Harvard Pilgrim Health Care Commercial products; 800-232-0816
☒ Tufts Health Plan Commercial products; 617-972-9409
CareLink℠ – Refer to CareLink Procedures, Services and Items Requiring Prior Authorization

Public Plans Products
☒ Tufts Health Direct – A Massachusetts Qualified Health Plan (QHP) (a commercial product); 888-415-9055
☒ Tufts Health Together – MassHealth MCO Plan and Accountable Care Partnership Plans; 888-415-9055
☒ Tufts Health RITogether – A Rhode Island Medicaid Plan; 857-304-6404
☒ Tufts Health Unify* – OneCare Plan (a dual-eligible product); 857-304-6304
*The MNG applies to Tufts Health Unify members unless a less restrictive LCD or NCD exists.

Senior Products
☐ Harvard Pilgrim Health Care Stride Medicare Advantage; 866-874-0857
☐ Tufts Health Plan Senior Care Options (SCO), (a dual-eligible product); 617-673-0965
☐ Tufts Medicare Preferred HMO, (a Medicare Advantage product); 617-673-0965
☐ Tufts Medicare Preferred PPO, (a Medicare Advantage product); 617-673-0965

Note: While you may not be the provider responsible for obtaining prior authorization or notifying Point32Health, as a condition of payment you will need to ensure that any necessary prior authorization has been obtained and/or Point32Health has received proper notification. If notification is required, providers may additionally be required to provide updated clinical information to qualify for continued service.

Note: Prior authorization is not required for Hyperbaric Oxygen Therapy, in a pressurized chamber for the treatment of emergency conditions

Overview

Hyperbaric Oxygen Therapy (HBO) is used to treat a variety of conditions including carbon monoxide poisoning, tissue injuring due to radiation exposure, trauma, chronic wounds, surgery, or infection. During the therapy the patient breathes in and is exposed to pure oxygen at a pressure typically 2 to 3 times greater than the atmospheric pressure. The elevated concentration of blood plasma and by non-poisoned hemoglobin elevating oxygen delivery to the tissues It is intended to either accelerate or cause healing that would not ordinarily occur. Depending on the condition being treated, HBO can work through increasing systemic blood oxygen levels, increasing ambient pressure while reducing blood nitrogen levels (countering the primary cause and mechanism of decompression sickness), increasing the oxygen levels in wounded tissue, and/or exposing anaerobic bacteria to a pure oxygen environment.

Clinical Guideline Coverage Criteria

The Plan considers non-emergent hyperbaric oxygen therapy (HBO) as reasonable and medically necessary when documentation confirms ONE of the following conditions:
1. Severe or profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed

2. Preparation and preservation of hypoxia- or decreased-prefusion-compromised skin grafts and flaps, supported by photograph (with ruler for scale), identification flap/graft type, graft surgeon identification, surgical exploration results, and transcutaneous oxygen tension testing results indicating hypoxia (TcPO2 less than 40mmHg on room air), when conventional treatment failure is indicated by ONE of the following:
   a. Etiology of compromise cannot be identified
   b. Etiology of compromise cannot be corrected surgically
   c. Compromise persists despite correction of all identified etiologies

3. Adjunctive treatment with conventional therapy for ONE of the following WHEN unresponsive to conventional therapy alone:
   a. Osteo- or soft tissue radionecrosis (e.g., radiation enteritis, cystitis, proctitis) when chronic and refractory to conventional medical and/or surgical management that includes debridement or resection of nonviable tissue along with antibiotic therapy
      i. If treatment is for osteoradionecrosis of the jaw, there is evidence of bony resorption or overt fracture in a previously irradiated mandible
   b. Chronic refractory osteomyelitis unresponsive to (or in a case contraindicating) at least surgical debridement and a six-week course of parenteral antibiotics
   c. Progressive necrotizing infections (necrotizing fasciitis, Meloney’s ulcer), with conventional treatment having included inpatient antibiotics, surgical debridement, and, when indicated, skin grafts
   d. Actinomycosis refractory to antibiotics and surgical treatment
   e. Sudden sensorineural hearing loss (SSNHL) according to standard definition (hearing decline of at least 30 decibels in at least three sequential frequencies in no more than three days) as an addition to corticosteroid treatment when initiation of HBO treatment is within fourteen days of onset

4. Adjunctive treatment of diabetic ulcers/wounds of the lower extremities when ALL of the following are confirmed:
   a. Ulcerations have a severity of at least Wagner grade III
   b. Ulcerations have not healed appreciably after thirty days of standard wound therapy, including ALL the following when appropriate
      i. Assessment and correction of vascular condition in affected limb(s)
      ii. Nutritional adjustment
      iii. Glucose control improvement
      iv. Debridement
      v. Maintenance of granulation tissue cleanliness and moisture with dressings
      vi. Appropriate off-loading
      vii. Treatment of any infection

Coverage of hyperbaric oxygen therapy for non-emergent conditions requires:

- Prior authorization
- All conditions being treated with adjunctive HBO, including treatment of compromised grafts and diabetic ulcerations, must be evaluated, and documented at least every 15 sessions and at least every 30 days of treatment
- For members with compromised skin grafts or diabetic foot wounds, the following criteria must be met:
  o The treatment can be used as adjunctive therapy only when there has been no measurable improvement in the Member’s condition
  o A treatment plan has been submitted to HPHC for review which includes the proposed number of treatments as well as the goal of the therapy
- For members with osteoradionecrosis, The Plan will consider coverage of hyperbaric oxygen therapy as an adjunctive treatment. A letter of medical necessity must be submitted

Note:

- The Plan will not cover hyperbaric oxygen therapy as a prophylactic measure, including prior to the extraction of teeth or other oral surgery procedures
- The Plan considers adjunctive HBO as not medically necessary when following any 30-day period in which measurable signs of healing have not been demonstrated

Guidelines:
The Wagner Diabetic Foot Ulcer Grade Classification System is as follows:
Hyperbaric Oxygen Treatment (HBO)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No open lesion</td>
</tr>
<tr>
<td>1</td>
<td>Superficial ulcer without penetration to deeper layers</td>
</tr>
<tr>
<td>2</td>
<td>Ulcer penetrates to tendon, bone, or joint</td>
</tr>
<tr>
<td>3</td>
<td>Lesion has penetrated deeper than grade 2 and there is abscess, osteomyelitis, pyarthrosis, plantar space abscess, or infection of the tendon and tendon sheaths</td>
</tr>
<tr>
<td>4</td>
<td>Wet or dry gangrene in the toes or forefoot</td>
</tr>
<tr>
<td>5</td>
<td>Gangrene involves the whole foot or such a percentage that no local procedures are possible and amputation (at least below the knee level) is indicated</td>
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</tbody>
</table>

**Limitations**

The Plan considers topical oxygen therapy as experimental/ investigational regardless of place of setting. In addition, The Plan considers full-body hyperbaric oxygen therapy (HBO) as not medically necessary for all other indications including but not limited to:

1. Acute cerebral edema
2. Acute osteomyelitis
3. Hepatic necrosis
4. Aerobic septicemia
5. Cutaneous, decubitus, and stasis ulcer
6. Chronic peripheral vascular insufficiency
7. Acute or chronic cerebral vascular insufficiency
8. Arthritic diseases
9. Nonvascular factors in chronic brain syndromes (such as dementia, Pick’s disease, Alzheimer’s disease, Korsakoff’s disease)
10. Multiple sclerosis
11. Pulmonary emphysema
12. Myocardial ischemia or infarction
13. Acute coronary syndrome
14. Cardiogenic shock
15. Sickle cell anemia
16. Tetanus
17. Systemic aerobic infection
18. Suspected central retinal artery occlusion
19. Acute chemical and thermal pulmonary damage
20. Preconditioning for coronary artery bypass graft surgery
21. Organ storage and transplantation
22. Intra-abdominal abscess
23. Inflammatory bowel disease (Crohn’s Disease, ulcerative colitis)
24. Brown recluse spider bites
25. Wagner Grade 2 or lower diabetic foot ulcers
26. Cerebral Palsy
27. Autism Spectrum Disorder

**Codes**

The following code(s) require prior authorization:

**Table 1: CPT/HCPCS Codes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>99183</td>
<td>Physician attendance and supervision of hyperbaric oxygen therapy, per session</td>
</tr>
<tr>
<td>G0277</td>
<td>Hyperbaric oxygen under pressure, full body chamber, per 30-minute interval</td>
</tr>
</tbody>
</table>

**Table 2: CPT/HCPCS Codes – Codes considered not medically necessary:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>A4575</td>
<td>Topical hyperbaric oxygen chamber, disposable</td>
</tr>
</tbody>
</table>
Hyperbaric Oxygen Treatment (HBO)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E0446</td>
<td>Topical oxygen delivery system, not otherwise specified, includes all supplies and accessories</td>
</tr>
</tbody>
</table>

References:

35. Hyperbaric Oxygen Therapy for Burns, Infections, and Non-diabetic Wounds. Hayesinc.com/subscriber [via subscription only].
38. Hyperbaric Oxygen Therapy for Osteoradionecrosis. Hayesinc.com/subscriber [via subscription only].


Approval And Revision History
June 30, 2020: Reviewed by the Medical Policy Approval Committee (MPAC), Fax number for Unify updated
Subsequent endorsement date(s) and changes made:
- March 17, 2021: Reviewed by IMPAC. Minor working changed made in Clinical Coverage Criteria Section: Refractory mycoses: mucormycosis, actinomycosis, conidiobolus coronato, and Clostridial myositis, clostridial myonecrosis (gas gangrene); references updated
- February 1, 2022: Template updated
- February 16, 2022: Reviewed by MPAC for integration purposes between Harvard Pilgrim Health Care and Tufts Health Plan. Added indication for sudden sensorineural hearing loss (SSNHL) under “non-emergent conditions requiring hospitalization” for effective date April 1, 2022
- April 20, 2022: Reviewed by MPAC with an effective date of May 12, 2022; clarified “osteo – soft tissue radionecrosis” includes radiation enteritis, cystitis, and proctitis when chronic and refractory to conventional medical treatment and/or surgical management
- July 20, 2022: Reviewed by MPAC with an effective date of September 1, 2022; removed section “emergency conditions required without prior authorization” and codes for these conditions
- June 21, 2023: Reviewed by MAPC, renewed without changes

Background, Product and Disclaimer Information
Medical Necessity Guidelines are developed to determine coverage for benefits and are published to provide a better understanding of the basis upon which coverage decisions are made. We make coverage decisions using these guidelines, along with the Member’s benefit document, and in coordination with the Member’s physician(s) on a case-by-case basis considering the individual Member's health care needs.

Medical Necessity Guidelines are developed for selected therapeutic or diagnostic services found to be safe and proven effective in a limited, defined population of patients or clinical circumstances. They include concise clinical coverage criteria based on current literature review, consultation with practicing physicians in our service area who are medical experts in the particular field, FDA and other government agency policies, and standards adopted by national accreditation organizations. We revise and update Medical Necessity Guidelines annually, or more frequently if new evidence becomes available that suggests needed revisions.

For self-insured plans, coverage may vary depending on the terms of the benefit document. If a discrepancy exists between a Medical Necessity Guideline and a self-insured Member’s benefit document, the provisions of the benefit document will govern. For Tufts Health Together (Medicaid), coverage may be available beyond these guidelines for pediatric members under age 21 under the Early and Periodic Screening, Diagnostic and Treatment (EPSDT) benefits of the plan in accordance with 130 CMR 450.140 and 130 CMR 447.000, and with prior authorization.

Treating providers are solely responsible for the medical advice and treatment of Members. The use of this guideline is not a guarantee of payment or a final prediction of how specific claim(s) will be adjudicated. Claims payment is subject to
eligibility and benefits on the date of service, coordination of benefits, referral/authorization, utilization management guidelines when applicable, and adherence to plan policies, plan procedures, and claims editing logic.