Medical Necessity Guidelines: Hyperbaric Oxygen Treatment

Effective: June 17, 2020

Prior Authorization Required
If REQUIRED, submit supporting clinical documentation pertinent to service request.

Applies to:
COMMERCIAL Products
☒ Tufts Health Plan Commercial products; Fax: 617.972.9409
☒ Tufts Health Freedom Plan products; Fax: 617.972.9409
• CareLink℠ – Refer to CareLink Procedures, Services and Items Requiring Prior Authorization

TUFTS HEALTH PUBLIC PLANS Products
☒ Tufts Health Direct – A Massachusetts Qualified Health Plan (QHP) (a commercial product); Fax: 888.415.9055
☒ Tufts Health Together – MassHealth MCO Plan and Accountable Care Partnership Plans; Fax: 888.415.9055
☒ Tufts Health RITogether – A Rhode Island Medicaid Plan; Fax: 857.304.6404
☒ Tufts Health Unify* – OneCare Plan (a dual-eligible product); Fax: 857.304.6304
*The MNG applies to Tufts Health Unify members unless a less restrictive LCD or NCD exists.

SENIOR Products
• Tufts Health Plan Senior Care Options (SCO), (a dual-eligible product) – Refer to the Tufts Health Plan SCO Prior Authorization List
• Tufts Medicare Preferred HMO, (a Medicare Advantage product) – Refer to the Tufts Medicare Preferred HMO Prior Authorization and Inpatient Notification List

Note: While you may not be the provider responsible for obtaining prior authorization, as a condition of payment you will need to make sure that prior authorization has been obtained.

OVERVIEW
Hyperbaric oxygen therapy is the inhalation of 100 percent oxygen inside a hyperbaric oxygen chamber that is pressurized to greater than one atmosphere. Hyperbaric oxygen therapy causes both mechanical and physiologic effects by inducing a state of increased pressure and hyperoxia.

CLINICAL COVERAGE CRITERIA
Emergency Conditions Covered Without Prior Authorization:
Tufts Health Plan will cover the use of hyperbaric oxygen therapy, in a pressurized chamber, for the treatment of the following emergency conditions without prior authorization.

1. Decompression sickness
2. Acute carbon monoxide poisoning
3. Acute air (gas) embolism
4. Cyanide poisoning
5. Gas gangrene
6. Acute traumatic peripheral ischemia (crush injury) when loss of function, limb, or life is threatened
7. Other traumatic ischaeas, including arterial insufficiency
8. Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management
9. Soft tissue infections with tissue necrosis, including mixed aerobic and anaerobic infections or refractory mycoses
10. Acute cerebral edema
11. Refractory mycoses: mucormycosis, actinomycosis, cannabis canidiobolus
12. Acute peripheral arterial insufficiency

Refer to covered ICD10 diagnosis codes listed below
Non-emergent Conditions Requiring Prior Authorization:
Tufts Health Plan may cover the use of hyperbaric oxygen therapy, in a pressurized chamber, for the treatment of the following non-emergent conditions:

1. Diabetic foot wounds that meet ONE of the following:
   a. Wagner Grade 3 diabetic foot ulcers (DFUs) that have not shown improvement after 60 days of standard wound therapy (Wagner Grading System-Appendix A19)
   (Standard wound care for Members with diabetic wounds include: assessment of vascular status and correction of any vascular problems if possible, optimization of nutritional status, optimized glucose control, debridement to remove devitalized tissue, maintenance of a clean and moist bed of granulation tissue with appropriate moist dressings, appropriate limb elevation, and necessary treatment to resolve any infection that might be present11)
   b. Wagner Grade 3 or higher DFU’s that have just had a surgical debridement of an infected foot (e.g., partial toe or ray amputation; debridement of ulcer with underlying bursa, cicatrix or bone; foot amputation; incision and drainage of deep space abscess; or necrotizing soft tissue infection)

2. Compromised skin grafts or flaps (not for the primary management of wounds)
3. Active osteoradionecrosis
4. Severe or profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed
5. Delayed radiation injury (soft tissue or bony necrosis)

Coverage of hyperbaric oxygen therapy for the above non-emergent conditions requires the following:
- Prior authorization
- An initial authorization, if criteria are met, will be for 20 treatments. For additional authorizations, the wound’s progress must be documented and submitted to Tufts Health Plan for review
- For Members with compromised skin grafts or diabetic foot wounds, the following criteria must be met:
  - The treatment can be used as adjunctive therapy only when there has been no measurable improvement in the Member’s condition.
  - A treatment plan has been submitted to Tufts Health Plan for review, which includes the proposed number of treatments as well as the goal of the therapy
- For Members with osteoradionecrosis, Tufts Health Plan will consider coverage for hyperbaric oxygen therapy as an adjunctive treatment. A letter of medical necessity must be submitted. Tufts Health Plan will not cover hyperbaric oxygen therapy as a prophylactic measure, including prior to the extraction of teeth or other oral surgery procedures

LIMITATIONS
Tufts Health Plan will not cover hyperbaric oxygen therapy, in a pressurized chamber, for the treatment of the conditions for which hyperbaric oxygen therapy has not been proven to be effective, including but not limited to:
- Wagner Grade 2 or lower diabetic foot ulcers (DFUs)
- Cerebral palsy
- Cutaneous, decubitus, and stasis ulcers
- Chronic, peripheral vascular insufficiency
- Anaerobic septicemia and infection other than clostridial
- Senility
- Myocardial infarction
- Cardiogenic shock
- Sickle cell anemia
- Acute thermal and chemical pulmonary damage, e.g., smoke inhalation with pulmonary insufficiency
- Acute or chronic cerebral vascular insufficiency
- Hepatic necrosis
- Aerobic septicemia
- Non-vascular causes of chronic brain syndrome (Pick’s disease, Alzheimer’s disease, Korsakoff’s disease)
- Tetanus
- Systemic aerobic infection
- Organ transplantation
- Organ storage
- Pulmonary emphysema
- Multiple sclerosis
- Arthritic disease
- Prophylaxis treatment for osteoradionecrosis
- Autism Spectrum Disorders
- Sensorineural hearing loss
- Inflammatory bowel disease (Crohn’s disease, ulcerative colitis)

**Note:** Tufts Health Plan will not cover the topical application of hyperbaric oxygen. Tufts Health Plan will only cover the administration of hyperbaric oxygen therapy when the Member is placed inside a pressurized chamber. The use of smaller, limb-encasing devices will not be covered.

**CODES**
The following HCPCS/CPT code(s) require prior authorization for non-emergent conditions listed above:

<table>
<thead>
<tr>
<th>Code</th>
<th>Code Description</th>
</tr>
</thead>
<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>

The following HCPCS code is **not** covered:

<table>
<thead>
<tr>
<th>Code</th>
<th>Code Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4575</td>
<td>Topical hyperbaric oxygen chamber, disposable</td>
</tr>
</tbody>
</table>

Prior authorization is **NOT** required for covered emergency conditions. ICD10 diagnosis codes listed below do not require prior authorization:

<table>
<thead>
<tr>
<th>ICD10 CODE RANGE</th>
<th>Code/Code Range Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>S06.1X0A-S06.1X9S</td>
<td>Traumatic cerebral edema</td>
</tr>
<tr>
<td>S47.1XXA-S47.9XXS</td>
<td>Crushing injury of shoulder and upper arm</td>
</tr>
<tr>
<td>S57.00XA-S57.82XS</td>
<td>Crushing injury of elbow and forearm</td>
</tr>
<tr>
<td>S67.20XA-S67.92XS</td>
<td>Crushing injury of wrist, hand and fingers</td>
</tr>
<tr>
<td>S77.00XA-S77.22XS</td>
<td>Crushing injury of hip and thigh</td>
</tr>
<tr>
<td>S87.00XA-S87.82XS</td>
<td>Crushing injury of lower leg</td>
</tr>
<tr>
<td>S97.00XA-S97.82XS</td>
<td>Crushing injury of ankle and foot</td>
</tr>
<tr>
<td>T57.3X1A</td>
<td>Toxic effect of hydrogen cyanide, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T57.3X2A</td>
<td>Toxic effect of hydrogen cyanide, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T57.3X3A</td>
<td>Toxic effect of hydrogen cyanide, assault, initial encounter</td>
</tr>
<tr>
<td>T57.3X4A</td>
<td>Toxic effect of hydrogen cyanide, undetermined, initial encounter</td>
</tr>
<tr>
<td>T58.01XA</td>
<td>Toxic effect of carbon monoxide from motor vehicle exhaust, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td><strong>ICD10 Code/Code Range</strong></td>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>--------------------------</td>
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</tr>
<tr>
<td>T58.02XA</td>
<td>Toxic effect of carbon monoxide from motor vehicle exhaust, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T58.03XA</td>
<td>Toxic effect of carbon monoxide from motor vehicle exhaust, assault, initial encounter</td>
</tr>
<tr>
<td>T58.04XA</td>
<td>Toxic effect of carbon monoxide from motor vehicle exhaust, undetermined, initial encounter</td>
</tr>
<tr>
<td>T58.11XA</td>
<td>Toxic effect of carbon monoxide from utility gas, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T58.12XA</td>
<td>Toxic effect of carbon monoxide from utility gas, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T58.13XA</td>
<td>Toxic effect of carbon monoxide from utility gas, assault, initial encounter</td>
</tr>
<tr>
<td>T58.14XA</td>
<td>Toxic effect of carbon monoxide from utility gas, undetermined, initial encounter</td>
</tr>
<tr>
<td>T58.2X1A</td>
<td>Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T58.2X2A</td>
<td>Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T58.2X3A</td>
<td>Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, assault, initial encounter</td>
</tr>
<tr>
<td>T58.2X4A</td>
<td>Toxic effect of carbon monoxide from incomplete combustion of other domestic fuels, undetermined, initial encounter</td>
</tr>
<tr>
<td>T58.8X1A</td>
<td>Toxic effect of carbon monoxide from other source, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T58.8X2A</td>
<td>Toxic effect of carbon monoxide from other source, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T58.8X3A</td>
<td>Toxic effect of carbon monoxide from other source, assault, initial encounter</td>
</tr>
<tr>
<td>T58.8X4A</td>
<td>Toxic effect of carbon monoxide from other source, undetermined, initial encounter</td>
</tr>
<tr>
<td>T58.91XA</td>
<td>Toxic effect of carbon monoxide from unspecified source, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T58.92XA</td>
<td>Toxic effect of carbon monoxide from unspecified source, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T58.93XA</td>
<td>Toxic effect of carbon monoxide from unspecified source, assault, initial encounter</td>
</tr>
<tr>
<td>T58.94XA</td>
<td>Toxic effect of carbon monoxide from unspecified source, undetermined, initial encounter</td>
</tr>
<tr>
<td>T65.0X1A</td>
<td>Toxic effect of cyanides, accidental (unintentional), initial encounter</td>
</tr>
<tr>
<td>T65.0X2A</td>
<td>Toxic effect of cyanides, intentional self-harm, initial encounter</td>
</tr>
<tr>
<td>T65.0X3A</td>
<td>Toxic effect of cyanides, assault, initial encounter</td>
</tr>
<tr>
<td>T65.0X4A</td>
<td>Toxic effect of cyanides, undetermined, initial encounter</td>
</tr>
<tr>
<td>T70.20XA</td>
<td>Unspecified effects of high altitude, initial encounter</td>
</tr>
<tr>
<td>T70.29XA</td>
<td>Other effects of high altitude, initial encounter</td>
</tr>
<tr>
<td>ICD10 CODE CODE-RANGE</td>
<td>Code/Code Range Description</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>T70.3XXA-T70.3XXS</td>
<td>Caisson disease [decompression sickness]</td>
</tr>
<tr>
<td>T79.0XXA-T79.0XXS</td>
<td>Air embolism (traumatic)</td>
</tr>
<tr>
<td>T80.0XXA-T80.0XXS</td>
<td>Air embolism following infusion, transfusion and therapeutic injection</td>
</tr>
<tr>
<td>T87.0X1-T87.2</td>
<td>Complications peculiar to reattachment and amputation</td>
</tr>
</tbody>
</table>

**Appendix A**: Wagner Grading System

Grade 1: Superficial Diabetic Ulcer
Grade 2: Ulcer extension
  - Involves ligament, tendon, joint capsule or fascia
  - No abscess or Osteomyelitis
Grade 3: Deep ulcer with abscess or Osteomyelitis
Grade 4: Gangrene to portion of forefoot
Grade 5: Extensive gangrene of foot

**REFERENCES**


APPROVAL HISTORY
April 27, 2004: Reviewed by the Clinical Coverage Criteria Committee

Subsequent endorsement date(s) and changes made:
- August 19, 2005: Reviewed and renewed, no changes made
- October 2, 2006: Reviewed and renewed, no changes made
- October 1, 2007: Reviewed and renewed, no changes made
- March 26, 2008: Reviewed and renewed, no changes made
- May 4, 2009: A limitation for the coverage of HBOT for the treatment of autism spectrum disorders was added as it has not been proven to be effective.
- July 6, 2009: Limitation for the coverage of HBOT for the treatment of soft tissue radiation injuries was added as it has not been proven to be effective.
- August 2010: Reviewed by Medical Policy: added acute peripheral arterial insufficiency, severe anemia and delayed radiation injury (soft tissue and bony necrosis) to covered/emergent diagnoses.
- December 2010: "Autism" changed to "Autism Spectrum Disorders"
- August 2011: Admin process changed to RN and LPN.
- May 9, 2012: Reviewed and renewed at Integrated Medical Policy Advisory Committee (IMPAC), no changes. ICD-10 codes may be added prior to the next IMPAC approval
- May 8, 2013: Reviewed by IMPAC, renewed without changes.
- August 14, 2013: Reviewed by IMPAC, diabetic foot wounds and standard wound care clarified. Timeframe of a diabetic foot wound failing to show signs of healing changed from 30 days to 60 days with effective date of January 1, 2014.
- May 14, 2014: Reviewed by IMPAC, renewed without changes.
- December 31, 2014: Coding updated. Per AMA CPT®, effective December 31, 2014 the following code(s) deleted: C1300 ; and effective January 1, 2015 the following code(s) added G0277
- April 8, 2015: Reviewed by IMPAC. Severe anemia and delayed radiation injury (soft tissue or bony necrosis) changed from 'Emergency Conditions Covered Without Prior Authorization' to 'Non-emergent Conditions Requiring Prior Authorization' for an effective date of October 1, 2015.
- September 2015: Branding and template change to distinguish Tufts Health Plan products in "Applies to" section. Added Tufts Health Freedom Plan products, effective January 1, 2016.

6 Hyperbaric Oxygen Treatment
November 16, 2015: Reviewed by IMPAC. Effective April 1, 2016: Wagner Grading System added to diabetic foot wound criteria 1a and 1b. Limitation added for diabetic foot ulcers that are Wagner Grade 2 or lower. Appendix A added referencing the Wagner Grading System.

March 10, 2016: Wording clarification for anemia added.

April 13, 2016: Reviewed by IMPAC. Prior Authorization initial authorization changed from 10 treatments to 20 treatments effective as of this review date.

April 12, 2017: Reviewed by IMPAC, renewed without changes

April 2017: Added RITogether Plan product to template. For MNGs applicable to RITogether, effective date is August 1, 2017.

October 26, 2017: Minor wording changes.


March 14, 2018: Reviewed by IMPAC, renewed without changes

October 2018: Template and disclaimer updated

March 20, 2019: Reviewed by IMPAC, renewed without changes

February 19, 2020: Reviewed at IMPAC. Table of ICD10 diagnosis codes added to MNG for clarification of prior authorization requirements

June 17, 2020: Reviewed by IMPAC, renewed with no changes

June 30, 2020: Fax number for Unify updated

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.

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.