Hyperbaric Oxygen (HBO2) Pressurization may be eligible for coverage as the primary mode of systemic therapy and all requests and claims must include documentation of medical necessity.

<table>
<thead>
<tr>
<th>IF THE DIAGNOSIS IS:</th>
<th>THEN REVIEW:</th>
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</thead>
<tbody>
<tr>
<td>Radiation necrosis or tissue damage (also known as osteoradionecrosis and soft tissue radiation necrosis),</td>
<td>After 20 treatments.</td>
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<tr>
<td>Decompression sickness,</td>
<td>After 5 days.</td>
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<tr>
<td>Acute carbon monoxide poisoning, smoke inhalation (not chronic), and carbon monoxide poisoning complicated by cyanide poisoning,</td>
<td>After 3 treatments.</td>
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<tr>
<td>Air or gas embolism,</td>
<td>After 5 treatments.</td>
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<tr>
<td>Gas gangrene, also known as Clostridial Myonecrosis (includes Meleney's postoperative gangrene ulcer),</td>
<td>After 3 treatments.</td>
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<tr>
<td>Chronic refractory osteomyelitis,</td>
<td>After 20 treatments.</td>
</tr>
<tr>
<td>Soft tissue infections due to mixed aerobic and anaerobic organisms with tissue necrosis and refractory bacteroides infections,</td>
<td>After 10 treatments.</td>
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<tr>
<td>Crush injury, compartment syndrome, and other acute traumatic ischemias,</td>
<td>After 4 treatments.</td>
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<tr>
<td>Compromised skin grafts or flaps or for enhancement of healing in selected problem wounds,</td>
<td>After 12 treatments.</td>
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<tr>
<td>Selected refractory mycoses (mucormycosis, actinomycosis, or canibolis coronato),</td>
<td>Justification necessary.</td>
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<tr>
<td>Intracranial abscess,</td>
<td>Justification necessary.</td>
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<tr>
<td>Acute cyanide poisoning,</td>
<td>Justification necessary.</td>
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<tr>
<td>Acute cerebral edema,</td>
<td>Justification necessary.</td>
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<tr>
<td>Diabetic wounds, which includes foot wounds or marginally perfused wounds,</td>
<td>After 12 treatments.</td>
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<tr>
<td>Venous stasis ulcers, only if venous surgery, local wound care, leg elevation, counterpressure support, and skin grafting fails,</td>
<td>Justification necessary.</td>
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<tr>
<td>Decubitis ulcers,</td>
<td>Justification necessary.</td>
</tr>
<tr>
<td>Arterial insufficiency ulcer which persists after reconstructive surgery has restored large vessel perfusion (includes peripheral vessels),</td>
<td>Justification necessary.</td>
</tr>
</tbody>
</table>
Brown recluse spider bites, After 5 treatments.

Thermal burns, second or third degree burns involving 15 to 90% of total body surface and initiated within 24 hours of the burn injury, After 5 treatments.

Anemia in exceptional circumstances, accepted medical practice when blood transfusion is impossible or must be delayed, or when loss due to hemolysis or exsanguination and the HCT is 23% or below, Justification necessary.

**Special Policy Consideration on General Hyperbaric Oxygen Pressurization Therapy:** A course of treatment may range from less than one week to several months duration, depending on the severity of the patient's condition and response to therapy.

Documentation must accompany requests and claims for treatment:

- in excess of one-month duration,
- in excess of the number of treatments previously listed or listed as individual consideration, and
- must be reviewed for medical necessity.

**DOCUMENTATION MUST INCLUDE AT LEAST TWO OF THE FOLLOWING:**

- Photographs
- Consultation reports
- Operative or treatment reports and/or other applicable hospital records (examples - pathology report, history and physical)
- Office records
- Letters with pertinent information from;
  - providers
  - subscribers

**NOTE:** The prior approval (prior authorization/precertification) process may be a useful method of establishing medical necessity.

Hyperbaric Oxygen (HBO2) Pressurization is not eligible for coverage as it is considered investigational for the following indications:

- Avascular necrosis,
- Retinal artery insufficiency, acute within the first 24 hours of diagnosis,
- Bone grafts,
- Carbon tetrachloride poisoning, acute,
- Cerebrovascular accident, acute thrombotic or embolic,
- Pseudomembranous colitis, antimicrobial agent-induced colitis,
- Meningitis,
- Head and spinal cord injury, traumatic,
- Sickle cell crisis and/or hematuria,
- Fracture healing,
• Pyoderma gangrenosum,
• Intra-abdominal abscesses,
• Multiple sclerosis,
• Lepromatous leprosy,
• Lyme disease,
• Myocardial infarction, acute,
• Hydrogen sulfide poisoning,
• Sudden deafness,
• Radiation myelitis, cystitis, enteritis, proctitis,
• Retinopathy, as an adjunct to scleral buckling procedure in patients with sickle cell peripheral retinopathy and retinal detachment.

Topical Hyperbaric Oxygen Therapy is not eligible for coverage as it is considered investigational.

DESCRIPTION:

**Hyperbaric Oxygen (HBO2) Pressurization Therapy** is a technique of delivering higher pressures of oxygen to the tissues. Two methods of delivery are available, systemic and topical.

In systemic or large chamber HBO2, the patient is entirely enclosed in a pressure chamber and breathes pure oxygen at a pressure greater than one atmosphere (the pressure of oxygen at sea level). This technique relies on systemic circulation to deliver highly oxygenated blood to the target site, typically a wound. In addition, systemic HBO2 therapy can be used to treat systemic illness such as air or gas embolism, carbon monoxide poisoning, clostridial gas gangrene, etc. Treatment may be carried out either in a monoplace (single patient unit) chamber pressurized with pure oxygen or in a larger, multiplace (multiple patient unit) chamber pressurized with compressed air, in which case the patient receives pure oxygen by mask, head tent, or endotracheal tube. (NOTE: Breathing 100% oxygen at one atmosphere WITHOUT the use of a pressurized chamber is NOT considered to be HBO2 pressurization.)

Topical HBO2 therapy describes a technique of delivering 100% oxygen directly to an open, moist wound at a pressure slightly higher than atmospheric pressure. It is hypothesized that high concentrations of oxygen diffused directly into the wound, increases the local cellular oxygen tension, which in turn promotes wound healing. Topical HBO2 devices consist of an appliance to enclose the wound area (frequently an extremity) and a source of oxygen. The appliances may be disposable and may be used without supervision in the home by well-trained patients. Topical HBO2 therapy has been investigated as a treatment of skin ulcerations due to diabetes, venous stasis, postsurgical infection, gangrene, decubitus, compromised amputations or skin grafts, burns, or frostbite.

HBO2 is a generally accepted medical treatment. HBO2 services include both consultative and therapeutic services. The HBO2 Physician, certified by the American College of Hyperbaric Medicine and American College of Preventive Medicine, must be actively present during all treatments.

The hospital based HBO2 facility must be in full compliance with all standards set forth by the Accreditation Manual for Hospitals (JCAHO).
The freestanding HBO2 facility should be in verified conformation with local community hospital quality assurance and continuous quality improvement standards. Every HBO2 facility must have a physician who has been designated as the Medical Director.

RATIONALE:

Due to the different methods of delivery, topical and systemic HBO2 are TWO distinct technologies. Outcomes associated with systemic HBO2 therapy cannot be duplicated by topical therapy.

There is minimal published literature regarding topical HBO2 therapy. In one controlled study, the changes in ulcer size and depth did not differ between topical HBO2 therapy and no treatment. Other studies consist of anecdotal reports or uncontrolled case series.

DISCLAIMER:

State and federal law, as well as contract language, including definitions and specific inclusions/exclusions, takes precedence over Medical Policy and must be considered first in determining coverage. The member’s contract benefits in effect on the date that services are rendered must be used. Any benefits are subject to the payment of premiums for the date on which services are rendered. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically. HMO Blue Texas physicians who are contracted/affiliated with a capitated IPA/medical group must contact the IPA/medical group for information regarding HMO claims/reimbursement information and other general polices and procedures.

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Posted Jan. 7, 2003