

Corporate Medical Policy

Topical Hyperbaric Oxygen Therapy

File Name: topical_hyperbaric_oxygen_therapy
Origination: 2/2007
Last CAP Review: 3/2009
Next CAP Review: 3/2011
Last Review: 4/2011

Description of Procedure or Service

Topical hyperbaric oxygen therapy is a technique of delivering 100% oxygen directly to an open, moist wound at a pressure slightly higher than atmospheric pressure. It is hypothesized that the high concentrations of oxygen diffuse directly into the wound to increase the local cellular oxygen tension, which in turn promotes wound healing.

Topical hyperbaric oxygen devices consist of an appliance to enclose the wound area (frequently an extremity) and a source of oxygen; conventional oxygen tanks may be used. The appliances may be disposable and may be used without supervision in the home by well-trained patients. Topical hyperbaric oxygen therapy has been investigated as a treatment of skin ulcerations due to diabetes, venous stasis, postsurgical infection, gangrenous lesion, decubitus ulcers, amputations, skin graft, burns, or frostbite.

Due to their different methods of delivery, topical and systemic hyperbaric oxygen are distinct technologies. With systemic hyperbaric oxygen, the patient is entirely enclosed in a pressure chamber and breaths oxygen at a pressure greater than one atmosphere (the pressure of oxygen at sea level). Breathing 100% oxygen at one atmosphere pressure or applying oxygen topically to parts of the body without the use of a pressurized chamber, which encloses the patient completely, is not considered hyperbaric oxygen pressurization. (See separate policy titled "Hyperbaric Oxygen Pressurization")

******Note: This Medical Policy is complex and technical. For questions concerning the technical language and/or specific clinical indications for its use, please consult your physician.***

Policy

BCBSNC will not provide coverage for Topical Hyperbaric Oxygen Therapy. It is considered investigational. BCBSNC does not cover investigational services.

Benefits Application

This medical policy relates only to the services or supplies described herein. Please refer to the Member's Benefit Booklet for availability of benefits. Member's benefits may vary according to benefit design; therefore member benefit language should be reviewed before applying the terms of this medical policy.

When Topical Hyperbaric Oxygen Therapy is covered

Not applicable.

Topical Hyperbaric Oxygen Therapy

When Topical Hyperbaric Oxygen Therapy is not covered

Topical hyperbaric oxygen therapy is considered investigational.

Policy Guidelines

There is insufficient scientific data in the peer-reviewed medical literature to make an adequate appraisal of the efficacy of topical hyperbaric oxygen therapy to treat chronic wounds. The limited number of studies that have been published involved small numbers of patients, most of whom had comorbid conditions. Topical hyperbaric oxygen therapy is unproven for all diagnoses.

The Undersea and Hyperbaric Medical Society issued the following policy statement:

1. Topical oxygen should not be termed hyperbaric oxygen since doing so either intentionally or unintentionally suggests that topical oxygen treatment is equivalent or even identical to hyperbaric oxygen. Published documents reporting experience with topical oxygen should clearly state that topical oxygen not hyperbaric oxygen is being employed.
2. Mechanisms of action or clinical study results for hyperbaric oxygen cannot and should not be co-opted to support topical oxygen since hyperbaric oxygen therapy and topical oxygen have different routes and probably efficiencies of entry into the wound and their physiology and biochemistry are necessarily different.
3. The application of topical oxygen cannot be recommended outside of a clinical trial at this time based on the volume and quality of scientific supporting evidence available, nor does the Society recommend third party payor reimbursement.
4. Before topical oxygen can be recommended as therapy for non-healing wounds, its application should be subjected to the same intense scientific scrutiny to which systemic hyperbaric oxygen has been held.

An updated search of the literature (through May 2010) identified no randomized or non-randomized studies on topical hyperbaric oxygen. Therefore the policy statement remains unchanged.

Billing/Coding/Physician Documentation Information

This policy may apply to the following codes. Inclusion of a code in this section does not guarantee that it will be reimbursed. For further information on reimbursement guidelines, please see Administrative Policies on the Blue Cross Blue Shield of North Carolina web site at www.bcbsnc.com. They are listed in the Category Search on the Medical Policy search page.

Applicable service codes: A4575, E0446

BCBSNC may request medical records for determination of medical necessity. When medical records are requested, letters of support and/or explanation are often useful, but are not sufficient documentation unless all specific information needed to make a medical necessity determination is included.

Scientific Background and Reference Sources

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.04, 10/10/06.

Centers for Medicare & Medicaid Services. NCD for Hyperbaric Oxygen Therapy (20.29). Effective 6/19/06. Retrieved 1/9/07 from http://www.cms.hhs.gov/mcd/viewncd.asp?ncd_id=20.29&ncd_version3

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ECRI Health Technology Assessment. (September 2001) Topical oxygen therapy for chronic wound healing. Retrieved 2/8/07 from http://www.ta.ecri.org/Med_Tech/Prod/summary/detail.aspx?e=6&doc_id=6878&q=topical+oxygen+therapy&anm

Feldmeier JJ, Hopt HW, Warriner RA, Fife CE, Gesell LB, Bennett M. UHMS position statement: topical oxygen for chronic wounds. 2005;32(3):157-68. Retrieved 12/11/08 from <http://archive.rubicon-foundation.org/5009>

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.04, 3/13/08

BCBSA Medical Policy Reference Manual [Electronic Version]. 2.01.04, 8/12/2010

Medical Director review 4/2011

Policy Implementation/Update Information

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| 4/23/07 | New policy issued to indicate that Topical Hyperbaric Oxygen Therapy is considered Investigational. Speciality Matched Consultant Advisory Panel review 3/15/07. Policy approved as written. (adn) |
| 4/27/09 | Policy statement from the Undersea and Hyperbaric Medical Society added to the Policy Guidelines section. References updated. Speciality Matched Consultant Advisory Panel review meeting 3/26/09. No change to policy statement. |
| 6/22/10 | Policy Number(s) removed (amw) |
| 2/15/11 | Added new 2011 HCPCS code E0446 to Billing/Coding section. (lpr) |
| 5/24/11 | Policy reviewed with updated literature search. No change to policy statement. (adn) |

Medical policy is not an authorization, certification, explanation of benefits or a contract. Benefits and eligibility are determined before medical guidelines and payment guidelines are applied. Benefits are determined by the group contract and subscriber certificate that is in effect at the time services are rendered. This document is solely provided for informational purposes only and is based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. Medical practices and knowledge are constantly changing and BCBSNC reserves the right to review and revise its medical policies periodically.