



**EFFECTIVE DATE:** 08 | 21 | 2017

**POLICY LAST UPDATED:** 12 | 18 | 2018

## OVERVIEW

Hyperbaric oxygen therapy (HBOT) involves breathing 100% oxygen at pressures between 1.5 and 3.0 atmospheres (atm). It is generally applied systemically with the patient inside a hyperbaric chamber. HBOT can also be applied topically; that is, the body part to be treated is isolated (eg, in an inflatable bag and exposed to pure oxygen). HBOT has been investigated for various conditions that have potential to respond to increased oxygen delivery to the tissues,

## MEDICAL CRITERIA

### Blue CHiP for Medicare and Commercial

Hyperbaric oxygen therapy (HBOT) is medically necessary when one of the following criteria are met:

1. Failure\* to respond to standard wound care

\*Failure to respond to standard wound care is defined as no measurable signs of healing after a minimum of 30 consecutive days of treatment. In addition, the clinical information submitted must document that all of the following have been addressed:

- assessment of a patient's vascular status and correction of any vascular problems in the affected limb if possible,
- nutritional status,
- glucose control (if diabetic),
- debridement by any means to remove devitalized tissue,
- maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings, appropriate off-loading, and
- necessary treatment to resolve any infection that might be present.

2. Claims filed with a covered diagnosis noted in the attachment

[2018 Autopay HBO Diagnosis](#)

## PRIOR AUTHORIZATION:

### Blue CHiP for Medicare and Commercial

Prior authorization is required for BlueChip for Medicare and recommended for Commercial Products via the online tool for participating providers. See the Related Policies section

No preauthorization needed for claims filed with a covered diagnosis noted in the attachment in the medical criteria section.

## POLICY STATEMENT:

### Blue CHiP for Medicare and Commercial

HBOT is medically necessary medical criteria is met. HBOT is not medically necessary for services not meeting the medical criteria or diagnosis list as the evidence is insufficient to determine the effects of the technology on health outcomes.

For simultaneous use of systemic HBOT and Negative Pressure wound closure, medical criteria for each service must be met using the web based authorization tool.

## **Blue CHiP for Medicare**

Topical hyperbaric oxygen therapy is not covered as its clinical efficacy has not been established.

## **Commercial**

Topical hyperbaric oxygen therapy is not medically necessary its clinical efficacy has not been established.

## **COVERAGE:**

Benefits may vary between groups/contracts. Please refer to the appropriate Evidence of Coverage, Subscriber Agreement, or Benefit Booklet for applicable Medical Treatment coverage.

## **BACKGROUND**

Hyperbaric oxygen therapy (HBOT) is a technique of delivering higher pressures of oxygen to the tissues. Two methods of administration are available. In systemic or large hyperbaric oxygen chamber, the patient is entirely enclosed in a pressure chamber and breathes oxygen at a pressure greater than 1 atmosphere (atm; the pressure of oxygen at sea level). Thus, this technique relies on systemic circulation to deliver highly oxygenated blood to the target site, typically a wound. In addition, systemic HBOT can be used to treat systemic illness, such as air or gas embolism, carbon monoxide poisoning, or clostridial gas gangrene. Treatment may be carried out either in a monoplace chamber pressurized with pure oxygen or in a larger, multiplace chamber pressurized with compressed air, in which case the patient receives pure oxygen by mask, head tent, or endotracheal tube.

Topical hyperbaric 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. 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 therapy has been investigated as a treatment of skin ulcerations resulting from diabetes, venous stasis, postsurgical infection, gangrenous lesion, decubitus ulcers, amputations, skin graft, burns, or frostbite. Note that this evidence review does not address topical oxygen therapy in the absence of pressurization.

The evidence for the use of systemic HBOT in individuals with nonhealing diabetic wounds of the lower extremities, acute traumatic ischemia, soft-tissue radiation necrosis (eg, radiation enteritis, cystitis, proctitis), osteoradionecrosis (ie, pre- and posttreatment), planned dental surgery (non-implant-related) of an irradiated jaw, gas gangrene, and profound anemia with exceptional blood loss when blood transfusion is impossible or must be delayed includes systematic reviews and/or recommendations from the Undersea and Hyperbaric Medical Society's (UHMS). Relevant outcomes include overall survival, symptoms, change in disease status, and functional outcomes. For all indications in the PICO note, evidence and/or USMS guidelines support use of HBOT. The evidence is sufficient to determine qualitatively that the technology results in a meaningful improvement in health outcomes.

The evidence for the use of systemic HBOT in individuals with any condition other than those specified in the policy are not medically necessary as the available studies do not demonstrate that HBOT improves relevant outcomes. The evidence is insufficient to determine the effects of the technology on health outcomes.

The evidence for the use of topical HBOT in individuals who might respond to increased oxygen delivery to tissues includes primarily of case series and case reports. Relevant outcomes are symptoms and change in disease status. Only 1 randomized controlled trial (RCT) was published on any indication. This study, in patients with diabetic foot ulcers, had a small sample size and did not find a significant benefit of topical HBOT. The evidence is insufficient to determine the effects of the technology on health outcomes.

## **CODING:**

### **Blue CHiP for Medicare and Commercial**

**The following codes are medically necessary when filed with a covered diagnosis listed below or medical criteria above has been met:**

**99183** Physician attendance and supervision of hyperbaric oxygen therapy, per session

**G0277** Hyperbaric oxygen under pressure full body chamber, per 30 minutes

**The following codes are not medically necessary:**

**A4575** Topical hyperbaric oxygen chamber, disposable

**E0446** Topical oxygen delivery system, not otherwise specified, includes all supplies and accessories

[2018 Autopay HBO Diagnosis](#)

## **RELATED POLICIES**

Preauthorization via Web-Based Tool for Procedures

## **PUBLISHED**

Provider Update, February 2019

Provider Update, October 2017

Provider Update, September 2016

Provider Update, November 2015

Provider Update, January 2015

Provider Update, September 2012

## **REFERENCES**

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