



Hyperbaric Oxygen (HBO) Therapy

LCD/LMRP

Effective Date:3/1/2008

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LCD Title

Hyperbaric Oxygen (HBO) Therapy – 4M-30AB-R1

Contractor's Determination Number

4M-30AB (L26598)

Contractor Name

TrailBlazer Health Enterprises

Contractor Number

- 04001.
- 04002.

Contractor Type

- MAC – Part A.
- MAC – Part B.

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CMS National Coverage Policy

- *Medicare Benefit Policy Manual* – Pub. 100-02.
- *Medicare National Coverage Determinations Manual* – Pub. 100-03.
- Correct Coding Initiative – *Medicare Contractor Beneficiary and Provider Communications Manual* Chapter 5.
- Social Security Act (Title XVIII) Standard References, Sections:
 - 1862 (a)(1)(A) Medically Reasonable & Necessary.
 - 1862 (a)(1)(D) Investigational or Experimental.
 - 1862 (a)(13)(C) Routine Foot Care.
 - 1833 (e) Incomplete Claim.

Primary Geographic Jurisdiction

- CO – 04101.
- NM – 04201.
- OK – 04301.
- TX – 04401:

- Indian Health Service.
- End Stage Renal Disease (ESRD) facilities.
- Skilled Nursing Facilities (SNFs).
- Rural Health Clinics (RHCs).
- CO – 04102.
- NM – 04202.
- OK – 04302.
- TX – 04402:
 - Indian Health Service.

Oversight Region

- Region VI.

Original Article Effective Date

03/01/2008

03/21/2008

06/13/2008

Original Determination Ending Date

N/A

Revision Effective Date

[09/16/2009](#)

Revision Ending Date

N/A

Indications and Limitations of Coverage and/or Medical Necessity

Medicare will cover hyperbaric oxygen therapy only in the setting of a hospital, either inpatient or

- Should a complication occur during HBO, a cardiopulmonary resuscitation team must be available to provide Advanced Cardiac Life Support (ACLS). Personal physician supervision is often necessary. Additional work required, and therefore, the immediate availability of an ACLS team is necessary during the time the hyperbaric chamber is in operation.
- Since the potential need for the availability of ICU-level of care services, it is reasonable and necessary to require that HBO be provided only in an inpatient or outpatient hospital setting.

The CMS encourages physicians who perform HBO therapy to obtain adequate training in the use of HBO and in advanced cardiac life support. It is also reasonable and necessary to expect the hospital to provide the setting for the delivery of HBO complete the process of credentialing. This would require that the physician provide documentation supporting that he is credentialed in hyperbaric medicine and is able to manage the scope of work required in the delivery of hyperbaric oxygen therapy, as well as being able to manage an acute cardiopulmonary emergency.

- Limited license physicians performing hyperbaric medicine services must have an unlimited license in the state who is also credentialed in hyperbaric medicine by the hospital entity readily available to render services when needed.
- Medicare reimbursement will be limited to therapy that is administered in a chamber (including the hyperbaric unit).

The following conditions meet coverage indications per National Coverage Determination:

Covered Conditions

- **Acute carbon monoxide intoxication (ICD-9-CM diagnosis code 986):**

Acute carbon monoxide intoxication induces hypoxic stress. The cardiac and central nervous system are particularly susceptible to injury from carbon monoxide. The administration of supplemental oxygen is essential to the management of acute carbon monoxide intoxication.

Hyperbaric oxygen causes a higher rate of dissociation of carbon monoxide from hemoglobin than breathing pure air at sea level pressure. The chamber compressions should be between 2.5 and 3.0 atmospheres. Decompression illness is uncommon in patients with persistent neurological dysfunction to require subsequent treatments every eight hours, continuing once or twice daily until there is no further improvement in cognitive function. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Decompression illness (ICD-9-CM diagnosis codes 993.2 and 993.3):**

Decompression illness arises from the formation of gas bubbles in tissue or blood in volumes sufficient to interfere with the function of an organ or to cause alteration in sensation. The cause of this illness is rapid decompression during ascent. The clinical manifestations range from skin eruptions to shock. Circulating gas emboli may be heard with a Doppler device. Treatment of choice for decompression illness is with mixed gases. The result is immediate reduction in the volume of bubbles. The treatment protocol is variable and case-specific. The depths could range between 60 to 165 feet of seawater for durations of more than 14 hours. The patient may or may not require repeat dives. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Gas embolism (ICD-9-CM diagnosis codes 958.0 and 999.1):**

Gas embolism occurs when gases enter the venous or arterial vasculature embolizing in a large enough volume to compromise the function of an organ or body part. This occlusive process results in ischemia to the affected area. Air embolism may occur as a result of surgical procedures (e.g., cardiovascular surgery, infra-axillary vascular anastomoses, arthroplasties or endoscopies), use of monitoring devices (e.g., Swan-Ganz introducer, infusion pumps), or in surgical patients (e.g., ruptured lung in respirator-dependent patient, injection of fluids into tissue). Traumatic injuries (e.g., gunshot wound, penetrating chest injuries). In these cases, HBO therapy is the treatment of choice. It is most effective when initiated early. Therapy is directed toward reducing the volume of gas bubbles and increasing the diffusion gradient of the embolized gas. Treatment modalities range from high-pressure to low-pressure mixed gas dives. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Gas gangrene (ICD-9-CM diagnosis code 040.0):**

Gas gangrene is an infection caused by the clostridium bacillus, the most common being clostridium perfringens. Clostridial myositis and myonecrosis (gas gangrene) is an acute, rapidly growing invasive infection. It is characterized by profound toxemia, extensive edema, massive death of tissue and a variable amount of gas production. The most prevalent toxin is the alpha-toxin which in itself is hemolytic, tissue-necrotizing and produces gas. The diagnosis of gas gangrene is based on clinical data supported by a positive (Gram-stained) smear of the wound from tissue fluids; X-ray radiographs, if obtained, can visualize tissue gas.

The onset of gangrene can occur one to six hours after injury and presents with severe and sudden pain in the infected area. The skin overlying the wound progresses from shiny and tense to dusky, then brown. The infection can progress as rapidly as six inches per hour. Hemorrhagic vesicles may be noted. A thick, yellowish exudate is present. Swelling and edema occur. The non-contractile muscles progress to dark red.

The acute problem in gas gangrene is stopping the rapidly advancing infection caused by alpha-toxin. Continue treatment until the advancement of the disease process has been arrested. The goal of treatment is to stop alpha-toxin production, thereby inhibiting further bacterial growth at which point the body can utilize its host defense mechanisms. HBO treatment starts as soon as the clinical picture presents and is supported by a positive Gram-stained smear. A treatment approach utilizing HBO is an adjunct to antibiotic therapy. Initial surgery may be limited to opening the wound. Debridement of necrotic tissue can be performed when HBO treatments when clear demarcation between dead and viable tissue is evident. The usual treatment is of oxygen administered at 3.0 atm pressure for 90 minutes, three times in the first 24 hours. Over the next five days, treatment sessions twice a day are usual. The sooner HBO treatment is initiated, the better the outcome is in terms of life, limb and tissue saving. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Acute Traumatic Peripheral Ischemia (ATPI) (ICD-9-CM diagnosis codes 902.53, 903.01 and 904.41):**

HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard medical measures when loss of function, limb or life is threatened.

- **Crush injuries and suturing of severed limbs (ICD-9-CM diagnosis codes 927.00–927.11, 927.20–927.21, 927.8–927.9, 928.00–928.01, 928.10–928.11, 928.20–928.21, 928.22–928.23, 928.24–928.25, 928.26–928.27, 928.28–928.29, 928.30–928.31, 928.32–928.33, 928.34–928.35, 928.36–928.37, 928.38–928.39, 928.40–928.41, 928.42–928.43, 928.44–928.45, 928.46–928.47, 928.48–928.49, 928.50–928.51, 928.52–928.53, 928.54–928.55, 928.56–928.57, 928.58–928.59, 928.60–928.61, 928.62–928.63, 928.64–928.65, 928.66–928.67, 928.68–928.69, 928.70–928.71, 928.72–928.73, 928.74–928.75, 928.76–928.77, 928.78–928.79, 928.80–928.81, 928.82–928.83, 928.84–928.85, 928.86–928.87, 928.88–928.89, 928.90–928.91, 928.92–928.93, 928.94–928.95, 928.96–928.97, 928.98–928.99, 929.0, 929.1, 929.2, 929.3, 929.4, 929.5, 929.6, 929.7, 929.8, 929.9, and 996.90–996.96, 996.99):**

As in the previous condition, HBO therapy would be an adjunctive treatment when loss of function is threatened.

Acute traumatic ischemia is the result of injury by external force or violence compromising circulation to an extremity. The extremity is then at risk for necrosis or amputation. Secondary complications are infection, non-healing wounds and non-united fractures. The goal of HBO therapy is to enhance oxygenation at the tissue level to support viability. When tissue oxygen tensions fall below 30 mmHg, the body's ability to fight infection and wound repair is compromised. Using HBO at 2–2.4 atm, the tissue oxygen tension is raised to such a level that the body's responses can become functional again. The benefits of HBO for this indication are enhanced tissue oxygenation, edema reduction and increased oxygen delivery per unit of blood flow, thereby reducing complication rates for infection, non-union and amputation.

The usual treatment schedule is three 1.5-hour treatment periods daily for the first 48 hours. Additional 1.5-hour treatment sessions daily for the next 48 hours may be required. On the fifth and sixth days of treatment, one 1.5-hour session would typically be used. At this point in treatment, outcomes of restored perfusion, reduction of edema and either demarcation or recovery would be sufficient to guide discontinuing further treatment.

For acute traumatic peripheral ischemic, crush injuries and suturing of severed limbs, HBO therapy would be an adjunctive treatment to be used in combination with accepted standard therapeutic measures when function, limb or life is threatened. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Progressive necrotizing infections (necrotizing fasciitis) (ICD-9-CM diagnosis code 710.0):**

The principal treatment for progressive necrotizing infections is surgical debridement and systemic antibiotics. HBO is recommended as an adjunct only in those settings where mortality and morbidity are expected despite aggressive standard treatment of the necrotizing infections. This condition is a relatively rare infection that is usually a result of a group A streptococcal infection beginning with severe or extensive cellulitis that involves the superficial and deep fascia, producing thrombosis of the subcutaneous vessels and gangrene of the underlying tissues. A cutaneous lesion usually serves as a portal of entry for the infection, but so long as a lesion is found. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Acute Peripheral Arterial Insufficiency (ICD-9-CM diagnosis codes 444.21, 444.22 and 444.23):**

Acute peripheral arterial insufficiency is defined as the sudden occlusion of a major artery in an extremity, such as the femoral or brachial artery (e.g., saddle embolus). Emergent surgery is the treatment of choice for acute peripheral arterial insufficiency. HBO therapy is to enhance oxygen at the tissue level to support viability until a definitive procedure is performed (e.g., surgery). Using HBO at 2–2.4 atm, the tissue oxygen tension is raised to such a level that the body's responses can become functional again. The benefits of HBO for this indication are enhanced tissue oxygenation, edema reduction and increased oxygen delivery per unit of blood flow, thereby enhancing limb preservation. This is an emergent condition requiring the continuous presence of the physician beside the chamber.

- **Preparation and preservation of compromised skin grafts (ICD-9-CM diagnosis code 86.22) and artificial skin):**

HBO is utilized for graft or flap salvage in cases where hypoxia or decreased perfusion has compromised an existing skin graft. HBO enhances flap survival. Treatments are given at a pressure of 2.0 atm for 90–120 minutes. It is not unusual to receive treatments twice a day. When the graft or flap is salvaged, treatments are reduced to daily. **Medicare coverage** does not apply to the initial preparation of a graft. HBO therapy is not necessary for normal, uncompromised skin grafts or flaps or for primary closure of wounds.

- **Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management (ICD-9-CM diagnosis codes 730.10–730.19):**

HBO is an adjunctive therapy for chronic refractory osteomyelitis that persists or recurs following primary or first-line interventions. Primary/first-line interventions include antibiotics, aspiration of

immobilization of the affected extremity and surgery. The hallmarks of chronic refractory osteomyelitis are the presence of a nidus of infected dead bone or scar tissue, an ischemic soft tissue envelope and a refractory clinical course (defined as failure after standard surgical debridement and at least six weeks of appropriate antibiotic therapy). HBO is not to be used alone but as an adjunctive therapy in combination with antibiotics. Antibiotic therapy should be based on the basis of bone culture and sensitivity studies. HBO can elevate the oxygen tensions found in infected bone to normal or above-normal levels. This mechanism enhances healing and the body's antimicrobial defense. It is believed that HBO augments the efficacy of certain antibiotics (gentamicin, tobramycin and amikacin). The body's osteoclast function of removing necrotic bone is dependent on a proper oxygen tension environment. HBO provides this environment. HBO treatments are delivered at a pressure of 2.0 to 2.5 atm for a duration of 90 to 120 minutes. It is not unusual to receive daily treatments following major debridement surgery. The number of treatments required varies on an individual basis. Medicare Parts A and B can cover the use of HBO for the treatment of refractory osteomyelitis that has been demonstrated to be unresponsive to conventional medical management.

- **Osteoradionecrosis as an adjunct to conventional treatment (ICD-9-CM diagnosis code 86.22)**
- **Soft tissue radionecrosis as an adjunct to conventional treatment (ICD-9-CM diagnosis code 86.23)**

HBO use in the treatment of osteoradionecrosis and soft tissue radionecrosis is one part of an overall plan of care. Also included in this plan of care are debridement or resection of non-viable tissues in conjunction with HBO therapy. Soft tissue flap reconstruction and bone grafting may also be indicated. The goal of HBO therapy is to increase the oxygen tension in both hypoxic bone and tissue to stimulate growth in functioning cells and to promote fibroblastic proliferation and collagen synthesis. The recommended daily treatments last 90–120 minutes at 2.0 to 2.5 atm. The duration of HBO therapy is highly individualized.

- **Cyanide poisoning (ICD-9-CM diagnosis code 987.7 and 989.0):**

Cyanide poisoning carries a high risk of mortality. Victims of smoke inhalation frequently suffer from carbon monoxide and cyanide poisoning. The traditional antidote for cyanide poisoning is the infusion of sodium thiosulfate. This treatment can potentially impair the oxygen-carrying capacity of hemoglobin. Using HBO as an adjunctive therapy adds the benefit of increased plasma-dissolved oxygen. HBO benefit for the pulmonary injury caused by smoke inhalation remains experimental. The HBO treatment protocol is to administer oxygen at 2.0 to 2.5 atm for up to 120 minutes during the initial treatment. Most patients with combination cyanide and carbon monoxide poisoning will receive only one treatment. This is an emergent condition requiring the continuous presence of a physician beside the chamber.

- **Actinomycosis only as an adjunct to conventional therapy when the disease process is refractory to antibiotics and surgical treatment (ICD-9-CM diagnosis codes 039.0–039.4, 039.8 and 039.9)**

Actinomycosis is a bacterial infection caused by *Actinomyces israelii*. Its symptoms include slow-growing, painless, granulomas that later break down, discharging viscid pus containing minute yellowish granules. Treatment includes prolonged administration of antibiotics (penicillin and tetracycline). Surgical incision and drainage of accessible lesions is also helpful. Only after the disease process has been shown refractory to antibiotics and surgery could HBO be covered by Medicare.

- **Diabetic wounds of the lower extremities (ICD-9-CM codes for diabetic complications 250.73 or 250.80–250.83) must be listed in addition to a covered wound diagnosis code (ICD-9-CM codes 86.11, 86.12, 86.13, 86.14, 86.15, or 86.19) to indicate this condition. See National Coverage Determination (NCD) 20.29 for coverage criterion below and special coding instructions in attached article's "Coding Instructions" section.)**

For dates of service on or after April 1, 2003, HBO therapy is covered for diabetic wounds of the lower extremities in patients who meet the following three criteria per NCD 20.29:

- Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes
- Patient has a wound classified as Wagner grade III or higher; and
- Patient has failed an adequate course of standard wound therapy.

Non-Covered Conditions per NCD 20.29

See attached article.

Note: Type of Bill and Revenue Codes DO NOT apply to Part B.

Type of Bill Codes

13X, 85X

Revenue Codes

Note: TrailBlazer has identified the Type of Bill (TOB) and Revenue Center (RC) codes applicable to CPT/HCPCS codes included in this LCD. Providers are reminded that not all CPT/HCPCS codes list with all TOB and/or RC codes listed. CPT/HCPCS codes are required to be billed with specific TOB and/or RC codes. Providers are encouraged to refer to the CMS *Internet-Only Manual* (IOM) Pub. 100-04, *Claims Processing Manual* for further guidance.

0413

CPT/HCPCS Codes

Note: Providers are reminded to refer to the long descriptors of the CPT codes in their CPT book published by the American Medical Association (AMA) and the Centers for Medicare & Medicaid Services. Do not use short CPT descriptors in policies published on the Web.

99183© Hyperbaric oxygen therapy (Non-OPPS)

C1300 Hyperbaric oxygen under pressure, full body chamber, per 30 minute interval (OPPS)

ICD-9-CM Codes That Support Medical Necessity

The CPT/HCPCS codes included in this LCD will be subjected to procedure to diagnosis editing. They include only those diagnoses for which the identified CPT/HCPCS procedures are covered. If a code is not on the claim, the edit will automatically deny the service as not medically necessary.

Medicare is establishing the following limited coverage for **CPT/HCPCS codes C1300 and 99183**.

Covered for:

039.0–039.4 Actinomycotic infections

039.8–039.9 Actinomycotic infections

040.0 Gas gangrene

250.70–250.73* Diabetes with peripheral circulatory disorders

Note: ICD-9-CM codes 250.70–250.73 or 250.80–250.83 must be listed in addition to a wound diagnosis code (707.10–707.15 or 707.19) to indicate this condition. Please refer to the LCD for further details.

250.80–250.83* Diabetes with other specified manifestations

Note: ICD-9-CM codes 250.70–250.73 or 250.80–250.83 must be listed in addition to a wound diagnosis code (707.10–707.15 or 707.19) to indicate this condition. Please refer to the LCD for further details.

444.21–444.22 Arterial embolism and thrombosis of arteries of the extremities

444.81 Arterial embolism and thrombosis of arteries of iliac artery

526.89 Osteoradionecrosis of the jaw

707.10–707.15* Ulcer of lower limbs, except decubitus

Note: ICD-9-CM codes 250.70–250.73 or 250.80–250.83 must be listed in addition to a wound diagnosis code (707.10–707.15 or 707.19) to indicate this condition. Please refer to the LCD for further details.

707.19*	Ulcer of other part of lower limb
	Note: ICD-9-CM codes 250.70–250.73 or 250.80–250.83 must be listed in add wound diagnosis code (707.10–707.15 or 707.19) to indicate this condition. Pe
728.86	Necrotizing fasciitis
730.10–730.19	Chronic osteomyelitis
902.53	Injury to blood vessels of iliac artery
903.01	Injury to blood vessels of axillary artery
903.1	Injury to blood vessels of brachial blood vessels
904.0	Injury to blood vessels of common femoral artery
904.41	Injury to blood vessels of popliteal artery
927.00–927.03	Crushing injury of upper limb
927.09	Crushing injury of upper limb, multiple sites
927.10–927.11	Crushing injury of elbow and forearm
927.20–927.21	Crushing injury of wrist and hand(s), except fingers(s) alone
927.8–927.9	Crushing injury of upper limb
928.00–928.01	Crushing injury of hip and thigh
928.10–928.11	Crushing injury of knee and lower leg
928.20–928.21	Crushing injury of ankle and foot, excluding toe(s) alone
928.3	Crushing injury of toe(s)
928.8–928.9	Crushing injury of lower limb
929.0	Crushing injury, multiple sites, not elsewhere classified
929.9	Crushing injury; unspecified site
958.0	Air embolism
986	Toxic effect of carbon monoxide
987.7	Toxic effect of other hydrocyanic acid gas
989.0	Toxic effect of hydrocyanic acid and cyanides
990	Complication of radiation therapy
993.2–993.3	Effects of air pressure
996.52	Mechanical complication due to graft of other tissue, not elsewhere classified (s or rejection)
996.90–996.96	Complications of reattached extremity or body part
996.99	Complications of reattached other specified body part
999.1	Air embolism to any site following infusion, perfusion, or transfusion

Note: Providers should continue to submit ICD-9-CM diagnosis codes without decimals on their electronic claims

Diagnoses That Support Medical Necessity

N/A

ICD-9-CM Codes That DO NOT Support Medical Necessity

N/A

Diagnoses That DO NOT Support Medical Necessity

All diagnoses not listed in the "ICD-9-CM Codes That Support Medical Necessity" section of this L

See attached article for non-covered conditions per NCD 20.29.

Documentation Requirements

Documentation supporting medical necessity should be legible, maintained in the patient's medical record, and made available to Medicare upon request.

The documentation present in the clinical record must provide an accurate description and diagnosis of the medical condition supporting that the use of HBO is reasonable and medically necessary. The medical documentation must include but is not limited to the following:

- An initial assessment, which includes a history and physical that clearly substantiates the condition for which HBO is recommended. This should also include any prior medical, surgical and/or HBO treatments.
- Documentation of the procedure (logs) including ascent time, descent time and pressurization. The documentation should be a treatment plan identifying timeline and treatment goals.
- Physician-to-physician communications or records of consultations and/or additional assessments, recommendations or procedural reports.
- Laboratory reports (cultures or Gram stains) that confirm the diagnosis of necrotizing fasciitis and osteomyelitis must be present as support for payment of HBO.
- X-ray findings and bone cultures confirming the diagnosis of osteomyelitis are required and must be present as support for payment of HBO.
- Documentation to support the presence of gas gangrene as proven with laboratory reports (Gram stains, cultures) and X-ray.
- Physicians' progress notes that describe the physical findings, type(s) of treatment(s) provided, treatments provided, the effect of treatment(s) received and the assessment of the level of progress toward achieving the completion of established therapy goals.
- Documentation of date and anatomical site of prior radiation treatments.
- Documentation supporting date of skin graft and compromised state of graft site.
- No payment will be allowed for HBO without documentation that a trained emergency response team is available and that the setting provides the required availability of ICU services that could be needed to ensure patient's safety if a complication occurred.
- For diabetic wounds of the lower extremity, the Wagner classification of the wound and the failure to respond to an adequate course (at least 30 days) of standard wound therapy must be documented at the initiation of HBO therapy.
 - Documentation must demonstrate an ulcer **with** bone involvement (osteomyelitis), localized gangrene of the whole foot.
 - Documentation of standard wound care in patients with diabetic wounds must include: assessment of patient's vascular status and documentation of correction of any vascular problems in the area; documentation of optimization of nutritional status; documentation of optimization of glucose control; documentation of debridement by any means to remove devitalized tissue; documentation of a clean, moist bed of granulation tissue with appropriate moist dressings; documentation of appropriate off-loading; and documentation of necessary treatment to resolve any infection present. Failure to respond to standard wound care occurs when there is no documentation of signs of healing for at least 30 consecutive days. The medical record must include, at a minimum, an evaluation at least every 30 days during administration of HBO therapy.

Appendices

N/A

Utilization Guidelines

HBO therapy should not be a replacement for other standard successful therapeutic measures. D response of the individual patient and the severity of the original problem, treatment may range one week to several months duration, the average being two to four weeks.

Review and document the medical necessity for the use of hyperbaric oxygen for more than two regardless of the condition of the patient.

Sources of Information and Basis for Decision***J4 (CO, NM, OK, TX) MAC Integration***

TrailBlazer adopted the TrailBlazer LCD, "Hyperbaric Oxygen Therapy," for the Jurisdiction 4 (J4) Full disclosure of information sources is found with original contractor LCD.

Other Contractor Local Coverage Determinations

"Hyperbaric Oxygen (HBO) Therapy," TrailBlazer LCD, 00400 (L2084), 09000 (L8823).

(Retired June 2007) "Hyperbaric Oxygen Therapy," Arkansas, BlueCross BlueShield (Pinnacle) LC L8176, L12108, L12109.

Start Date of Notice Period

12/20/2007

Revision History

Number	Date	Explanation
R1	09/16/2009	Added statements in the LCD section titled "ICD-9-CM Codes That Support Necessity" to clarify coding requirements for patients with diabetic wound extremities. Effective dates: 03/01/2008 for New Mexico (Part B) and Oklahoma (Part B); 03/21/2008 for Colorado (Part B); and 06/13/2008 for Colorado, New Mexico (Part A) and Texas (Part A and Part B).
N/A	06/13/2008	LCD effective in TX Part A and Part B and Part A CO and NM 06/13/2008
N/A	03/21/2008	LCD effective in CO Part B 03/21/2008
N/A	03/01/2008	LCD effective in NM Part B and OK Part A and Part B 03/01/2008
	12/20/2007	Consolidated LCD posted for notice effective: 12/20/2007

Article**Article Title****Hyperbaric Oxygen (HBO) Therapy – 4M-30AB-R1****Contractor's Determination Number**

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Primary Geographic Jurisdiction

- CO – 04101.
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 - End Stage Renal Disease (ESRD) facilities.
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N/A

Article Text

Abstract

Hyperbaric Oxygen (HBO) therapy is a medical modality in which the patient's entire body is exposed to 100 percent oxygen under increased atmospheric pressure greater than one atmosphere. This is delivered in a monoplace chamber (pressurized with pure oxygen) or in a multiplace chamber, pressurized with air, where the patient receives pure oxygen by mask, head tent or endotracheal tube.

HBO was developed as a treatment for decompression illness and has been established as a primary treatment of medical disorders such as carbon monoxide poisoning and gas gangrene.

The use of HBO therapy is covered as adjunctive therapy only after there are no measurable signs of healing at least 30 days of treatment with standard wound therapy and must be used in addition to standard

Standard wound care in patients with diabetic wounds includes:

- Assessment of a patient's vascular status and correction of any vascular problems in the affected area.
- Optimization of nutritional status.
- Optimization of glucose control.
- Debridement by any means to remove devitalized tissue.
- Maintenance of a clean, moist bed of granulation tissue with appropriate moist dressings.
- Appropriate off-loading.
- Necessary treatment to resolve any infection that might be present.

Failure to respond to standard wound care occurs when there are no measurable signs of healing for consecutive days. Wounds must be evaluated at least every 30 days during administration of HBO therapy. Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.

Part A Program Instructions:

Reasons for Denial

- Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.
- No payment will be allowed for HBO without documentation that a trained emergency response team is available and that the setting provides the required availability of (Intensive Care Unit) ICU services that are necessary to ensure the patient's safety if a complication occurred.
- All other indications not listed in the "Indications and Limitations of Coverage and/or Medical Necessity" section of the related LCD.
- The medical record does not verify that the service described by the CPT/HCPCS code was provided.
- The service does not follow the guidelines of the related LCD.
- The service is considered:
 - Investigational.
 - For cosmetic purposes.
 - For routine screening.
 - A program exclusion.
 - Otherwise not covered.
 - Never medically necessary.

Non-Covered Conditions per NCD 20.29

No program payment may be made for HBO in the treatment of the following conditions:

- Cutaneous, decubitus and stasis ulcers.
- Chronic peripheral vascular insufficiency.
- Anaerobic septicemia and infection other than clostridial.
- Skin burns (thermal).
- Senility.
- Myocardial infarction.
- Cardiogenic shock.
- Sickle cell anemia.
- Acute thermal and chemical pulmonary damage, i.e., 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 syndrome).
- Tetanus.

- Systemic aerobic infection.
- Organ transplantation.
- Organ storage.
- Pulmonary emphysema.
- Exceptional blood loss anemia.
- Multiple sclerosis.
- Arthritic disease.
- Acute cerebral edema.

Topical Application of Oxygen

The topical application method of oxygen administration does not meet the definition of HBO therapy in the related LCD. Its clinical efficacy has not been established therefore, payment for this method is not allowed.

Coding Guidelines

- Refer to the Correct Coding Initiative (CCI) for correct coding guidelines and specific applicable combinations prior to billing Medicare. Provisions of this LCD do not take precedence over CCI.
- To report these services, use the appropriate CPT/HCPCS code(s).
- All coverage criteria must be met before this service can be reimbursed by Medicare.
- Diagnosis(es) must be present on any claim submitted and must be coded to the highest level.
- The diagnosis code(s) must be representative of the patient's condition.
- For diabetic wounds of the lower extremity, one of the ICD-9-CM codes for diabetic complications (250.73 or 250.80–250.83) must be listed in addition to a covered wound diagnosis (707.10–707.12) to indicate this condition.
- CPT code 99183 applies to Non-Outpatient Prospective Payment System (**Non-OPPS**) providers.
- HCPCS code C1300 applies to **Part A OPPS** providers only.
- Evaluation and management services and/or procedures (e.g., wound debridement) provided in conjunction with oxygen treatment facility in conjunction with a hyperbaric oxygen therapy session should be reported separately.
- When billing for this service in a non-covered situation (e.g., does not meet indications of the related LCD), the appropriate modifier (see below). To bill the patient for services that are not covered (investigational/experimental or not reasonable and necessary) will generally require an Advance Beneficiary Notice (ABN) be obtained before the service is rendered.
 - Modifiers:
 - GA: Waiver of liability statement on file. (Use for patients who do not meet the covered indications and limitations of this LCD and for whom an ABN is on file.) (ABN does not have to be submitted but must be made available upon request.)
 - GZ: Waiver of liability statement is not on file. (Use for patients who do not meet the covered indications and limitations of this LCD and who did **not** sign an ABN.)
 - GY: Item or service is statutorily excluded or does not meet the definition of any Medicare benefit.
- See also Type of Bill and Revenue Code sections below.

Part B Program Instructions:

Reasons for Denial

- Continued treatment with HBO therapy is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment.
- No payment will be allowed for HBO without documentation that a trained emergency response team is available and that the setting provides the required availability of (Intensive Care Unit) ICU services that are necessary to ensure the patient's safety if a complication occurred.
- All other indications not listed in the "Indications and Limitations of Coverage and/or Medical Necessity" section of the related LCD.
- The medical record does not verify that the service described by the CPT/HCPCS code was provided.
- The service does not follow the guidelines of the related LCD.
- The service is considered:
 - Investigational.
 - For cosmetic purposes.

- For routine screening.
- A program exclusion.
- Otherwise not covered.
- Never medically necessary.

Non-Covered Conditions per NCD 20.29

No program payment may be made for HBO in the treatment of the following conditions:

- Cutaneous, decubitus and stasis ulcers.
- Chronic peripheral vascular insufficiency.
- Anaerobic septicemia and infection other than clostridial.
- Skin burns (thermal).
- Senility.
- Myocardial infarction.
- Cardiogenic shock.
- Sickle cell anemia.
- Acute thermal and chemical pulmonary damage, i.e., 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 syndrome).
- Tetanus.
- Systemic aerobic infection.
- Organ transplantation.
- Organ storage.
- Pulmonary emphysema.
- Exceptional blood loss anemia.
- Multiple sclerosis.
- Arthritic disease.
- Acute cerebral edema.

Topical Application of Oxygen

The topical application method of oxygen administration does not meet the definition of HBO therapy in the related LCD. Its clinical efficacy has not been established therefore, payment for this method is not allowed.

Coding Guidelines

- Refer to the Correct Coding Initiative (CCI) for correct coding guidelines and specific applicable combinations prior to billing Medicare. Provisions of this LCD do not take precedence over CCI.
- To report these services, use the appropriate CPT/HCPCS code(s).
- All coverage criteria must be met before this service can be reimbursed by Medicare.
- Diagnosis(es) must be present on any claim submitted and must be coded to the highest level available.
- The diagnosis code(s) must be representative of the patient's condition.
- For diabetic wounds of the lower extremity, one of the ICD-9-CM codes for diabetic complications (250.73 or 250.80–250.83) must be listed in addition to a covered wound diagnosis (707.10–707.12) to indicate this condition.
- CPT code 99183 applies to Non-Outpatient Prospective Payment System (**Non-OPPS**) provided in a non-outpatient setting.
- Evaluation and management services and/or procedures (e.g., wound debridement) provided in a hyperbaric oxygen treatment facility in conjunction with a hyperbaric oxygen therapy session should be reported with the hyperbaric oxygen therapy code.
- When billing for this service in a non-covered situation (e.g., does not meet indications of the LCD), the appropriate modifier (see below). To bill the patient for services that are not covered (investigational/experimental or not reasonable and necessary) will generally require an Advance Notice (ABN) be obtained before the service is rendered.
 - Modifiers:

- GA: Waiver of liability statement on file. (Use for patients who do not meet the covered limitations of this LCD and for whom an ABN is on file.) (ABN does not have to be submitted made available upon request.)
 - GZ: Waiver of liability statement is not on file. (Use for patients who do not meet the covered limitations of this LCD and who did **not** sign an ABN.)
 - GY: Item or service is statutorily excluded or does not meet the definition of any Medicare service.
- Type of Bill and Revenue Codes below DO NOT apply to Part B.

Type of Bill Codes

13X, 85X

Revenue Codes

Note: TrailBlazer has identified the Type of Bill (TOB) and Revenue Center (RC) codes applicable to the CPT/HCPCS codes included in this LCD. Providers are reminded that not all CPT/HCPCS codes list with all TOB and/or RC codes listed. CPT/HCPCS codes are required to be billed with specific TOB and/or RC codes. Providers are encouraged to refer to the CMS *Internet-Only Manual (IOM)* Pub. 100-04, *Claims Processing Manual* for further guidance.

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CPT/HCPCS Codes

Note: Providers are reminded to refer to the long descriptors of the CPT codes in their CPT book published by the American Medical Association (AMA) and the Centers for Medicare & Medicaid Services. Do not use of short CPT descriptors in policies published on the Web.

99183© Hyperbaric oxygen therapy (Non-OPPS)

C1300 Hyperbaric oxygen under pressure, full body chamber, per 30 minute interval (OPPS)

Other Comments

N/A

Comment Summary

[N/A]

Additional Information

[No additional information has been specified for this record]

Comments

Comments are closed.

[This content pertains to...](#)

Programs: Part A,Part B

Topics: Policies, Special Provider Types

Subtopics: Critical Access Hospital, Indian Health, Inpatient Acute Facility, Local Coverage Determination, Outpatient Services



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