MEDICAL POLICY

MEDICAL POLICY DETAILS	
Medical Policy Title	**Hyperbaric Oxygen Therapy (HBOT)**
Policy Number	**2.01.07**
Category	**Technology Assessment**
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Product Disclaimer	• *If a product excludes coverage for a service, it is not covered, and medical policy criteria do not apply.* • *If a commercial product (including an Essential Plan or Child Health Plus product), medical policy criteria apply to the benefit.* • *If a Medicaid product covers a specific service, and there are no New York State Medicaid guidelines (eMedNY) criteria, medical policy criteria apply to the benefit.* • *If a Medicare product (including Medicare HMO-Dual Special Needs Program (DSNP) product) covers a specific service, and there is no national or local Medicare coverage decision for the service, medical policy criteria apply to the benefit.* • *If a Medicare HMO-Dual Special Needs Program (DSNP) product DOES NOT cover a specific service, please refer to the Medicaid Product coverage line.*

POLICY STATEMENT

I. **Topical** Hyperbaric Oxygen Therapy

Based upon our criteria and assessment of the peer-reviewed literature, topical hyperbaric oxygen therapy (HBOT) has not been medically proven to be effective and, therefore, is considered **investigational**.

II. **Systemic** Hyperbaric Oxygen Therapy

A. Based upon our criteria and assessment of the peer-reviewed literature, systemic HBOT in a pressurized chamber has been medically proven to be effective and, therefore, is considered **medically appropriate** for the following indications *(refer to Policy Guideline V for condition-specific recommendations)*:

1. Air or Gas embolism, acute;
2. Arterial Inefficiencies: Enhancement of healing in selected wounds of patients who have non-healing wounds of the lower extremities and who have:
   i. Type I or type II diabetes and a lower extremity wound due to diabetes; and
   ii. A wound classified as Wagner grade 3 or higher (Grade 2: ulcer penetrates to tendon, bone or joint; Grade 3: lesion has penetrated deeper than grade 2 and there is abscess, osteomyelitis, pyarthrosis, plantar space abscess, or infection of the tendon and tendon sheaths; Grade 4: gangrene of the forefoot); and
   iii. No measurable signs of healing after 30 days of an adequate course of standard wound therapy; which includes the following:
      a) assessment of vascular status and correction of any vascular problems in the affected limb if possible;
      b) optimization of nutritional status;

c) optimization of glucose control;
d) debridement by any means to remove devitalized tissue;
e) maintenance of clean, moist bed of granulation tissue with appropriate moist dressings;
f) appropriate off-loading; and
g) necessary treatment to resolve any infection that might be present.

3. Carbon monoxide poisoning, acute;
4. Cerebral edema, acute;
5. Compromised grafts and flaps (not for primary management of these wounds);
6. Crush injury with acute traumatic ischemia and suturing of severed limbs;
7. Cyanide poisoning, acute;
8. Decompression sickness;
9. Gas/wet gangrene (e.g., clostridial myonecrosis);
10. Necrotizing soft tissue infections, based on location and/or organism type and/or particular host immunologic and vascular risk factors causing hypoxia resulting in necrosis;
11. Osteomyelitis, acute, refractory (has not responded to standard medical and surgical management techniques);
12. Osteomyelitis, chronic, refractory (has persisted for at least six weeks or has recurred after appropriate interventions, i.e., surgical debridement and at least one appropriate course of parenteral antibiotics, have been performed);
13. Pre- and post-treatment for patients undergoing dental surgery (non-implant related) of an irradiated jaw;
14. Profound anemia with exceptional blood loss, but only when blood transfusion is impossible or must be delayed;
15. Radiation necrosis osteoradionecrosis (ORN)/bony necrosis and soft tissue radiation necrosis, (e.g., radiation enteritis, cystitis, proctitis); or
16. Refractory mycosis (mucormycosis, actinomycosis, or canidiobolus coronato).

B. Based upon our criteria and assessment of the peer-reviewed literature, systemic HBOT in a pressurized chamber has not been medically proven to be effective and, therefore, is considered **investigational** for all other indications, including, but **not limited to**, the following:
1. Acute ischemic stroke;
2. Amyotrophic Lateral Sclerosis;
3. Arterial peripheral insufficiency, acute;
4. Autism spectrum disorders;
5. Bell's palsy;
6. Bone grafts;
7. Breast cancer, locally advanced, as pretreatment for patients undergoing chemotherapy;
8. Brown recluse spider bites;
9. Carbon tetrachloride poisoning, acute;
10. Cardiopulmonary bypass, as pretreatment;
11. Cerebral palsy;
12. Cerebrovascular disease, acute (thrombotic or embolic) or chronic;
13. Chronic, non-healing wounds;
14. Complex regional pain syndrome;
15. Uncompromised skin grafts or flaps;
16. Fibromyalgia syndrome;
17. Fracture healing;
18. Frostbite;
19. Head injury, traumatic (including traumatic brain injury);
20. Hearing loss (e.g., idiopathic sudden sensorineural hearing loss) and tinnitus;
21. Hydrogen sulfide poisoning;
22. Inflammatory bowel disease (Crohn's disease, ulcerative colitis);

23. Interstitial cystitis;
24. Intra-abdominal and intracranial abscesses;
25. In vitro fertilization;
26. Lepromatous leprosy;
27. Malignant otitis externa;
28. Meningitis;
29. Migraine;
30. Myocardial infarction and acute coronary syndrome (acute myocardial infarction and unstable angina);
31. Multiple sclerosis;
32. Muscle soreness, delayed onset;
33. Prevention of coronary restenosis;
34. Pseudomembranous colitis (antimicrobial agent-induced colitis);
35. Pyoderma gangrenosum;
36. Radiation myelitis;
37. Radiation therapy, for the purpose of tumor sensitization;
38. Retinal artery insufficiency, acute;
39. Retinal detachment;
40. Retinopathy, adjunct to scleral buckling procedures in patients with sickle cell peripheral retinopathy;
41. Sickle cell crisis and/or hematuria;
42. Soft tissue injury;
43. Spinal cord injury; and
44. Thermal burns, acute.

POLICY GUIDELINES

I. HBOT should not be a replacement for successful standard therapeutic measures. Documentation in the medical record should support the specific condition being treated with HBOT and the medical necessity of such treatment. The following information must be documented, as applicable to the specific medical condition:
   A. Initial assessment and medical history detailing the condition requiring HBOT, and a physical exam. The history should list prior treatments, including antibiotic therapy and surgical interventions.
   B. Current adjunctive treatment that includes type of treatment and its effectiveness.
   C. Established HBOT goals.
   D. HBOT session records describing physical findings and treatment rendered (including ascent time, descent time, total compression time, oxygen dose, pressurization level, documentation of attendance, and a recording of events).
   E. Effect of treatment upon established HBOT goals.
   F. When applicable, advanced diabetic foot ulcers may require photos to avoid overuse of HBOT when the foot is not salvageable. For a Wagner five (or Grade D) with complete gangrene of foot, once the heel is necrotic, the patient will likely not respond to HBOT treatments.

II. HBOT treatments of diabetic wounds of the lower extremities should be discontinued when the patient heals, is unable to tolerate treatment, or fails to improve. Documentation must include an assessment of wound healing progress; changes in the wound condition, including the precise wound length, width, and depth measurements; presence of granulation and necrotic tissue; and concurrent measures being addressed relative to wound therapy. Weekly wound measurements should be performed to document progress in wound healing. A steady decrease in wound volume should be noted from week to week.

III. Continued treatment with HBOT is not covered if measurable signs of healing have not been demonstrated within any 30-day period of treatment. Most patients should NOT require more than 40 treatments. Patients who do not respond to 40 treatments will likely not respond to 60 or 80 or 120 treatments.

IV. Below are specific recommendations on the utilization of HBOT, based upon published, peer-reviewed literature.

Condition	**Pressure (ATA*)**	**Patient Selection Criteria**	**Duration, Frequency and/or Number of Treatments**	**Utilization review**
Air or Gas embolism, acute	High to low pressure mixed gases	Gases in the vasculature sufficient enough to interfere with the function of an organ and results in ischemia to the affected areas.	Treatment is typically one to two treatments but occasionally may be as many as five to 10; treatment continues until no additional improvement is seen.	After 10 treatments
Anemia, severe	2.0-3.0 ATA	When blood transfusion is impossible or must be delayed.	Treatments of up to three or four hours, three to four times a day. Treatment can continue with taper of time and frequency until red blood cells have been satisfactorily replaced by patient regeneration or the patient can undergo transfusion.	Daily
Arterial Inefficiencies: non-healing *diabetic wounds* of the lower extremities	2.0-3.0 ATA	Wagner grade 3 or higher and failure of standard wound therapy for at least 30 consecutive days.	90-minute treatments, five days per week, are performed in conjunction with continuing standard wound care; may last for 30-40 treatments.	After 40 treatments
Carbon monoxide poisoning, acute	2.5-3.0 ATA	Within six hours of patient removal from the carbon monoxide-contaminated environment.	One treatment; if patient has persistent neurologic dysfunction after the initial treatment further treatment can occur within six to eight hours and can be continued once or twice daily until there is no additional improvement in cognitive function.	After 5 treatments
Compromised Grafts and Flaps	2.0-2.5 ATA	In tissue compromised by irradiation or in other cases where there is decreased perfusion (vascular compromise) or hypoxia, HBOT has been shown to be extremely useful in flap salvage. This indication is not for primary management of wounds for normal, uncompromised skin grafts or flaps.	90-120minute treatments. It is not unusual to receive treatments twice a day. When the graft or flap appears stable, treatments are reduced to once daily. Should a graft or flap fail, HBOT may be used to prepare the already-compromised recipient site for a new graft or flap. It does not apply to the initial preparation of the body site for a graft.	After 40 treatments
Crush injury	2.0-2.4 ATA	In conjunction with standard therapeutic measures, when loss of function, limb or life is threatened, and tissue oxygen tension is below 30 mmHg.	Three 1.5-hour treatments per day for two days, then twice a day for two days, and then once daily for two days	After 20 treatments
Cyanide poisoning, acute	2.5-3.0 ATA	As an adjunct to infusion of sodium nitrite.	One treatment of 120 minutes.	

Condition	**Pressure (ATA*)**	**Patient Selection Criteria**	**Duration, Frequency and/or Number of Treatments**	**Utilization review**
Decompression sickness	2.0-5.0 ATA	Gas bubbles in the tissue or blood in volumes sufficient enough to interfere with the function of an organ or cause alteration in sensation.	One treatment of 1.5 to 14 hours; patients who have residual defects after the initial treatment should receive additional treatments until clinical stability is achieved; generally, no more than five to 10 treatments.	After 10 treatments
Gas gangrene (e.g., clostridial myonecrosis)	3.0 ATA	Positive gram-stained smear or culture from tissue fluids, tissue gas visualization on x-ray, severe and sudden pain, skin changes, and edema.	Three 90-minute treatments during the first 24 hours, and then two treatments per day for the next two to five days.	After 10 treatments
Necrotizing Soft Tissue Infections:	2.0-2.5 ATA	Adjunctive therapy only in patients where morbidity and mortality are expected to be high despite aggressive standard treatment.	Twice daily for 90 to 120 minutes until condition is stabilized, then once daily.	After 30 treatments
Osteomyelitis, chronic, refractory	2.0-2.5 ATA	HBOT should not be used as a primary treatment for osteomyelitis. HBOT should be considered only after surgical debridement and at least one six-week appropriate course of parenteral antibiotics have been performed.	Daily treatment for 90-120 minutes; can be continued for four to six weeks for patients who respond to initial treatment with antibiotics, surgical debridement, and HBOT.	After 30-40 sessions
Osteoradionecrosis	2.0-2.5 ATA	As adjunctive treatment in the preoperative and postoperative management of the patient.	30 treatments, followed by only minor bony debridement. If response is adequate, an additional 10 treatments can be given. Patients who are not responding are considered stage II; they receive more extensive surgical debridement, then 10 additional treatments. Stage III patients receive 30 treatments, followed by mandibular segmental resection, and then 10 additional treatments.	After 10-30 treatments

Condition	**Pressure (ATA*)**	**Patient Selection Criteria**	**Duration, Frequency and/or Number of Treatments**	**Utilization review**
Osteoradionecrosis, mandibular (i.e., Marx Protocol for ORN and Tooth Extraction)	2.0-2.5 ATA	Evidence of overt fracture or bony resorption. Marx Protocol: Pre-and post-treatment for patients undergoing dental surgery (non-implant-related) of an irradiated jaw.	Initial treatment for stage I patients is 30 treatments. If response is adequate, 10 additional treatments can be provided. Non-responders are considered stage II and receive more extensive surgical debridement, followed by 10 additional treatments. Patients with stage III disease can receive up to 30 treatments, followed by mandibular segmental resection, and then an additional 10 treatments.	After 10-30 treatments
Refractory mycosis (e.g., actinomycosis, mucormycosis)	2.0-2.5 ATA	In conjunction with standard treatment when the disease process is refractory to antibiotics and surgical treatment.	One to two times daily for 90-120 minutes; treatment can continue for up to 40-80 treatments.	After 10-30 treatments

**1 ATA (atmospheres absolute) = pressure of 760 mmHg, 14.7 psi, 760 torr, or 33 ft of seawater.*

Information relating to the frequency of treatment and other treatment specifics can also be found at the web site of the Undersea & Hyperbaric Medical Society (UHMS) [https://www.uhms.org/resources/hbo-indications.html].

V. It is recommended that the Centers for Medicare and Medicaid Services (CMS) criteria for coverage be utilized in determining appropriate practitioners to render HBOT. The CMS criteria state:

A. Qualified non-physician practitioners (NPPs) may supervise HBOT services, if such services are included within their state's scope of practice, if their required supervision or collaborative agreement is with a physician qualified to provide HBOT services, and if the NPP meets the educational requirements identified within the coverage article.

B. Physicians supervising HBOT should be certified in Undersea and Hyperbaric Medicine by the American Board of Emergency Medicine (ABEM), the American Board of Preventive Medicine (APBM), or the American Osteopathic Conjoint Committee of Undersea and Hyperbaric Medicine (AOCUHM); or must have completed a minimum 40-hour training experience in a program such as one approved by the American College of Hyperbaric Medicine or the Undersea and Hyperbaric Medical Society.

C. Advanced Cardiac Life Support (ACLS) training and certification of supervising physicians (and NPPs) is required, for provision of HBOT services in physician offices and off-campus hospital sites; and in on-campus, provider-based departments for which provider-response time to the chamber can be expected to exceed five minutes.

D. HBOT services rendered within a hospital outpatient department are considered "incident to" a physician's or qualified NPP's services and require physician supervision. The physician supervision requirement is presumed to be met when services are performed on hospital premises (i.e., certified as part of the hospital and part of the hospital campus); however, in all instances, it is required that the physician be present during the ascent and descent portions of each treatment.

E. In order to satisfy the immediately available criterion, for HBOT performed in an on-campus outpatient hospital or in an off-campus provider-based department, the physician (or qualified NPP) must be present in the office suite or at a location with a maximum of a five-minute response time to the chamber. For HBOT services performed in a physician office, the physician (or qualified NPP) must be present in the office suite.

DESCRIPTION

HBOT is a technique of delivering highly pressurized oxygen to the tissues. Two methods of administration are available.

In systemic, or large chamber, HBOT, the patient is entirely enclosed in a pressure chamber and breathes nearly 100% oxygen intermittently at a pressure greater than one atmosphere (the pressure of O_2 at sea level). This technique relies on the 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, clostridial gas gangrene, etc. Treatment may be carried out either in a mono (single person) chamber pressurized with nearly 100% O_2 or in a larger, multi-place (multi-person) chamber pressurized with compressed air, in which case the patient receives pure oxygen by mask, head hood, or endotracheal tube.

Topical HBOT describes a technique of delivering 100% oxygen directly to a wound site at a pressure slightly higher than atmospheric pressure. It is hypothesized that the high concentration of oxygen diffuses directly into the wound to increase the local cellular oxygen tension, which, in turn, promotes wound healing. Topical HBOT devices consist of an appliance to enclose the wound area and a source of O_2; conventional O_2 tanks may be used. The appliances may be disposable and may be used without supervision in the home by well-trained patients. Topical HBOT has been investigated as a treatment for skin ulcerations due to diabetes, venous stasis, post-surgical infection, gangrenous lesion, decubitus ulcers, amputations, skin graft, and frostbite.

RATIONALE

HBOT is a procedure; therefore, it is not subject to FDA regulation. The hyperbaric chambers used to administer the therapy do require and have received FDA approval. FDA has cleared hyperbaric chambers for the following disorders:

- Air and gas bubbles in blood vessels
- Anemia (severe anemia when blood transfusions cannot be used)
- Burns (severe and large burns treated at a specialized burn center)
- Carbon monoxide poisoning
- Crush injury
- Decompression sickness (diving risk)
- Gas gangrene
- Hearing loss (complete hearing loss that occurs suddenly and without any known cause)
- Infection of the skin and bone (severe)
- Radiation injury
- Skin graft flap at risk of tissue death
- Vision loss (when sudden and painless in one eye due to blockage of blood flow)
- Wounds (non-healing, diabetic foot ulcers)

HBOT is being studied for other conditions, including COVID-19. However, at this time, the FDA has not cleared or authorized the use of any HBOT device to treat COVID-19 or any conditions beyond those listed above.

HBOT for autism spectrum disorders. In 2009, a double-blind, randomized, controlled study of the use of HBOT to treat children with autism was published. The study included 62 children, ages two through seven, who were diagnosed with an autistic disorder. The active group received hyperbaric treatment at 1.3 atmospheres (atm) and 24% oxygen in a hyperbaric chamber. The control group received a sham treatment consisting of 1.03 atm and ambient air (21% oxygen). Both groups received 40 sessions of active or sham treatment lasting 60 minutes each, over a period of four weeks. After completion of the four-week study, families with children in the control group were offered the active intervention. The outcome was change compared to baseline after four weeks, measured on several scales/subscales: Aberrant Behavior

Checklist (ABC): Autism Treatment Evaluation Checklist (ATEC); and Clinical Global Impression-Improvement (CGI). There were no significant differences between group improvement on the ABC total score, any of the ABC subscales, or the ATEC total score. Compared to the control group, the treatment group had a significant improvement in the ATEC sensory/cognitive awareness subscale. On the physician-rated CGI total score, 30% of the children in the treatment group had a score of one (very much improved) or two (much improved), compared to 8% in the control group. On the parental-rated CGI total score, 30% of the children in the treatment group had a score of one or two compared to 15% in the control group. Among the parental-rated CGI subscales, significantly more children were rated as improved in the treatment group compared to control on two out of 18 subscales: receptive language and eye contact. A key limitation of the study was that the authors reported outcomes only directly after completion of the intervention. Whether there were any long-term effects is not known. Additional follow-up data cannot be obtained because members of the control group crossed over to the intervention after four weeks. Other limitations include lack of adjustment for multiple comparisons and unclear clinical significance of the statistically significant outcomes. Findings suggest improvements may be seen in some children with autism treated with HBOT, but when results are compared to a control group, no difference was found as measured by the three clinical instruments. Further research is needed to determine whether HBOT is an effective treatment for autism.

In December 2009, the Undersea and Hyperbaric Medical Society issued a position paper stating that the society does not recommend routine treatment of autism with HBOT, as there is very little evidence to support an effect of pressure alone or that oxygen has differing effects whether given by increasing ambient pressure or increasing the inspired fraction.

A 2016 Cochrane review by Xiong *et al.* identified one randomized, controlled trial (RCT) evaluating systemic HBOT for people with autism spectrum disorder who met reviewers' eligibility criteria, and that trial did not find significantly improved outcomes with HBOT versus sham. The authors concluded that there is no evidence that HBOT improves core symptoms and associated symptoms of ASD, adding that it is important to note that adverse effects (minor-grade ear barotrauma events) can occur. Given the absence of evidence of effectiveness, the limited biological plausibility, and possible adverse effects, the need for future RCTs of HBOT must be carefully considered.

HBOT for chronic refractory osteomyelitis. The use of HBOT for patients with chronic refractory osteomyelitis is supported by the Undersea and Hyperbaric Medical Society and the American College of Hyperbaric Medicine. Although no randomized clinical trials examining the effects of HBOT on chronic refractory osteomyelitis have been identified, the substantial majority of available human case series and non-randomized prospective trials suggest that the addition of HBOT to routine surgical and antibiotic management in previously refractory osteomyelitis is safe and improves the ultimate rate of infection resolution.

HBOT for Idiopathic Sudden Sensorineural Hearing Loss. In 2015, an evidence-based literature review was reported that addresses the controversies in the management of sudden sensorineural hearing loss and proposes a treatment algorithm based on the highest quality evidence. The authors concluded that, if the hearing loss is idiopathic in nature, patients may be offered a course of oral steroid. If systemic steroids are contraindicated and/or there is no improvement with initial oral therapy, intratympanic steroids as either primary or salvage therapy may be considered. They stated that the cost, limited availability, and lack of strong evidence for HBOT makes it impractical at present. (Lawrence, *et al*., 2015). A Cochrane review of RCTs had mixed findings. Some outcomes (i.e., improvement in hearing of all frequencies, >25% return of hearing) were better with HBOT than with a control intervention, but more than 50% return of hearing did not differ significantly between groups. The RCTs had methodologic limitations. The evidence is insufficient to determine the effects of the technology on health outcomes and is considered investigational for idiopathic sudden sensorineural hearing loss. The early implementation of HBOT in sensorineural hearing loss may lead to full recovery of hearing. The critical first 48 hours to initialize HBO treatment for maximum effectiveness is a limiting factor for the successful outcomes of this treatment.

HBOT for radiation necrosis and *osteoradionecrosis.* Given the limited number of options available to patients with these late effects of radiation therapy, results of both cohort studies and randomized trials were used in evaluating the clinical evidence. A retrospective case series of 65 patients with radiation enteritis/proctitis and 94 patients with cystitis were reported from one institution. Response was better in patients receiving 30 or more total treatments, compared with fewer treatments. According to a Cochrane Review of randomized trials, available small trials suggest that, for people with late

radiation tissue injury affecting the head, neck, anus, and rectum, HBOT is associated with improved outcomes. HBOT also appears to reduce the change of osteoradionecrosis following tooth extraction in an irradiated field.

Published clinical trials have not provided evidence to support the efficacy and safety of HBOT over current treatment options for the indications listed as investigational in this policy.

CODES

- *Eligibility for reimbursement is based upon the benefits set forth in the member's subscriber contract.*
- *CODES MAY NOT BE COVERED UNDER ALL CIRCUMSTANCES. PLEASE READ THE POLICY AND GUIDELINES STATEMENTS CAREFULLY.*
- *Codes may not be all inclusive as the AMA and CMS code updates may occur more frequently than policy updates.*
- *Code Key: Experimental/Investigational = (E/I), Not medically necessary/ appropriate = (NMN).*

CPT Codes

Code	Description
99183	Physician or other qualified health care professional attendance and supervision of hyperbaric oxygen therapy, per session

HCPCS Codes

Code	Description
A4575 **(E/I)**	Topical hyperbaric oxygen chamber, disposable
E0446 **(E/I)**	Topical oxygen delivery system, not otherwise specified, includes all supplies and accessories
G0277	Hyperbaric oxygen under pressure, full body chamber, per 30 minute interval

ICD10 Codes

Code	Description
Medically Appropriate diagnosis codes per Policy Statement IIA:	
A18.01	Tuberculosis of spine
A18.03	Tuberculosis of other bones
A42.0-A42.2	Actinomycosis (code range)
A42.81-A42.89	Other forms of actinomycosis (code range)
A42.9	Actinomycosis, unspecified
A43.0-A43.9	Nocardiosis (code range)
A48.0	Gas gangrene
A50.01-A50.09	Early congenital syphilis, symptomatic (code range)
A52.77	Syphilis of bone and joint
B36.0-B36.9	Other superficial mycoses (code range)
B47.1	Actinomycetoma
B47.9	Mycetoma, unspecified
B48.3	Geotrichosis
B48.8	Other specified mycoses
B49	Unspecified mycosis
D62	Acute posthemorrhagic anemia
E08.52	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene

Code	Description
E09.52	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.618-E10.69	Type 1 diabetes mellitus with other specified complications (code range)
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.618-E11.69	Type 2 diabetes mellitus with other specified complication
E13.52-E13.69	Other specified diabetes mellitus (code range)
G93.6	Cerebral edema
H05.021-H05.029	Osteomyelitis of orbit (code range)
I70.361-I70. 369	Atherosclerosis of bypass graft(s) of the extremities with gangrene (code range)
I70.461-I70.469	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene (code range)
I73.01	Raynaud's syndrome with gangrene
I96	Gangrene, not elsewhere classified
K12.2	Cellulitis and abscess of mouth
L02.01-L02.943	Cutaneous abscess, furuncle, and carbuncle (code range)
L03.111-L03.119	Cellulitis of other parts of limb (code range)
L03.121-L03.129	Acute lymphangitis (code range)
L03.211-L03.91	Cellulitis and acute lymphangitis (code range)
L08.1	Erythrasma
L59.9	Disorder of the skin and subcutaneous tissue related to radiation, unspecified
L98.3	Eosinophilic cellulitis (Wells)
M27.2	Inflammatory conditions of jaws
M27.8	Other specified diseases of jaws
M46.20-M46.28	Osteomyelitis of vertebra (code range)
M46.30-M46.39	Infection of intervertebral disc (pyogenic) (code range)
M86.00-M86.09	Acute hematogenous osteomyelitis (code range)
M86.10-M86.19	Other acute osteomyelitis (code range)
M86.20-M86.29	Subacute osteomyelitis (code range)
M86.30-M86.69	Chronic osteomyelitis (code range)
M86.8x0-M86.9	Other and unspecified osteomyelitis (code range)
M90.80-M90.89	Osteopathy in diseases classified elsewhere (code range)
P11.0	Cerebral edema due to birth injury
S06.1x0A-S06.1x9A	Traumatic cerebral edema (code range)
S07.0xxA, S17.9xxA,	Crushing injury (code range)
T57.3x1A-T57.3x4A	Toxic effect of hydrogen cyanide (code range)
T58.01xA-T58.94xA	Toxic effect of carbon monoxide (code range)
T65.0x1A-T65.0x4A	Toxic effect of cyanides (code range)
T66.xxxA-T66.xxxS	Radiation sickness, unspecified (code range)

Code	Description
T70.3xxA-T70.3xxS	Caisson disease (decompression sickness) (code range)
T79.0xxA-T79.0xxS	Air embolism (traumatic) (code range)
T86.820-T86.822	Complications of skin graft (allograft) (autograft) (code range)
T86.828-T86.829	Other and unspecified complications of skin graft (allograft) (autograft) (code range)
Investigational diagnosis codes per Policy Statement IIB (Codes may not be all inclusive):	
G12.21	Amyotrophic lateral sclerosis
F84.0	Autistic disorder
G51.0	Bell's palsy
T63.333A-T63.332S	Toxic effect of venom of brown recluse spider (code range)
T53.0X1A-T53.0X2S	Toxic effects of carbon tetrachloride (code range)

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*Key Article

KEY WORDS

HBOT, Systemic hyperbaric oxygen therapy, Topical hyperbaric oxygen pressurization, Topical hyperbaric oxygen therapy, Topical oxygen wound therapy, TOWT.

CMS COVERAGE FOR MEDICARE PRODUCT MEMBERS

There is currently a National Coverage Determination (NCD) for Hyperbaric Oxygen Treatment.
Please refer to the following websites for Medicare Members:
https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=12&ncdver=4&CoverageSelection=Both&ArticleType=All&PolicyType=Final&s=New+York+-+Entire+State&KeyWord=hyperbaric&KeyWordLookUp=Title&KeyWordSearchType=And&articleId=52174&ver=24&ContrId=298&ContrVer=1&bc=gAAAABAAAAAAAA%3d%3d&=