



Hyperbaric Oxygen Treatment (HBOT)

I. Policy

University Health Alliance (UHA) will reimburse for hyperbaric oxygen treatment (HBOT) when it is determined to be medically necessary and when it meets the medical criteria guidelines (subject to limitations and exclusions) indicated below.

II. Criteria/Guidelines

A. Systemic hyperbaric oxygen treatment is covered (subject to Limitations/Exclusions and Administrative Guidelines) for treatment of the following conditions:

1. Non-healing wounds of the lower extremities in patients with type 1 or type 2 diabetes who meet all the following criteria:
 - a. Patient has a wound classified as Wagner grade 3 or higher as defined in the table below:

Grade Number	Description
0	No open lesion
1	Superficial ulcer without penetration to deeper layers
2	Ulcer penetrates to tendon, bone, or joint
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
4	Wet or dry gangrene in the toes or forefoot
5	Gangrene involves the whole foot or such a percentage that no local procedures are possible, and amputation (at least at below the knee level) is indicated

- b. Patient has no measurable signs of healing after a 30-day course of standard wound therapy, which includes the following:
 - i. The following standard wound treatment measures have been accomplished for all chronic ulcers and complex wounds:
 - Evaluation of wound with documentation of measurements (length, width, and depth) at baseline and at least weekly by a licensed medical professional.
 - Photographs uploaded into the Electronic Medical Record are preferred. The photographs must convey the above measurements and be date stamped.
 - Debridement of necrotic tissue if present
 - Treatment of infection if present
 - Appropriate management of diabetes
 - Evaluation and management of peripheral artery disease and specialty referral

- ii. The following standard wound treatment measures have been accomplished for chronic ulcers:
 - For stage III or IV pressure ulcer:
 - The patient has been appropriately turned and positioned; and
 - The patient has used a support surface for pressure ulcers on the posterior trunk or pelvis (pressure reducing mattress or pad), (a support surface is not required if the ulcer is not on the trunk or pelvis); and
 - Moisture and incontinence have been appropriately managed.
 - For neuropathic ulcer:
 - The patient's diabetes is managed by a physician who is responsible for diagnosing and treating the diabetes through a comprehensive plan of care; and
 - Reduction in pressure on a foot ulcer has been accomplished with appropriate modalities.
 - For venous insufficiency ulcer:
 - Compression bandages and/or garments have been consistently applied; and
 - Leg elevation and ambulation have been encouraged.
 - 2. Acute traumatic peripheral ischemia (e.g., crush injuries, reperfusion injury, compartment syndrome)
 - 3. Decompression sickness
 - 4. Gas embolism, acute
 - 5. Cyanide poisoning, acute
 - 6. Acute Carbon Monoxide poisoning
 - 7. Necrotizing fasciitis
 - 8. Gas gangrene (i.e., clostridial myonecrosis)
 - 9. Profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed
 - 10. Soft-tissue radiation necrosis (e.g., radiation enteritis, cystitis, proctitis) and osteoradionecrosis
 - 11. Pre- and post-treatment for patients undergoing non-implant related dental surgery (including tooth extraction) of an irradiated jaw
 - a. The patient has had prior radiation to the head or neck and has received greater than or equal to a cumulative dose of 60 gray of radiation.
 - 12. Chronic osteomyelitis refractory to conventional medical and surgical management
 - 13. Central Retinal Artery Occlusion (CRAO)
- B. A treatment plan must be submitted for wounds, osteoradionecrosis, soft tissue radiation necrosis, and chronic refractory osteomyelitis.

- C. Wounds, osteoradionecrosis, and soft tissue radiation necrosis must be evaluated and documented by the treating physician for signs of healing after every 15 treatments or every 14 days of treatment (whichever comes first).
- D. Continued treatment with HBOT therapy is covered if signs of healing have been demonstrated and documented in the medical record.

NOTE:

This UHA payment policy is a guide to coverage, the need for prior authorization and other administrative directives. It is not meant to provide instruction in the practice of medicine, and it should not deter a provider from expressing his/her judgment.

Even though this payment policy may indicate that a particular service or supply is considered covered, specific provider contract terms and/or member's individual benefit plans may apply, and this policy is not a guarantee of payment. UHA reserves the right to apply this payment policy to all UHA companies and subsidiaries.

UHA understands that opinions about and approaches to clinical problems may vary. Questions concerning medical necessity (see Hawaii Revised Statutes §432E-1.4) are welcome. A provider may request that UHA reconsider the application of the medical necessity criteria in light of any supporting documentation.

III. Limitations/Exclusions

- A. HBOT is not covered for any indication not supported by scientific evidence. This includes but is not limited to:
 - 1. Acute arterial peripheral insufficiency
 - 2. Acute coronary syndromes and as an adjunct to coronary interventions, including but not limited to percutaneous coronary interventions and cardiopulmonary bypass
 - 3. Acute ischemic stroke
 - 4. Acute osteomyelitis, refractory to standard medical management
 - 5. Acute surgical and traumatic wounds
 - 6. Acute thermal burns
 - 7. Autism spectrum disorders
 - 8. Bell's palsy
 - 9. Bisphosphonate-related osteonecrosis of the jaw
 - 10. Bone grafts
 - 11. Brown recluse spider bites
 - 12. Carbon tetrachloride poisoning, acute
 - 13. Cerebral edema, acute
 - 14. Cerebral palsy

15. Cerebrovascular disease, acute (thrombotic or embolic) or chronic
16. Chronic arm lymphedema following radiotherapy for cancer
17. Chronic wounds, other than those in patients with diabetes who meet the criteria specified above
18. Compromised skin grafts or flaps
19. Delayed onset muscle soreness
20. Demyelinating diseases (e.g., multiple sclerosis, amyotrophic lateral sclerosis)
21. Early treatment (beginning at completion of radiation therapy) to reduce adverse effects of radiation therapy
22. Fibromyalgia
23. Fracture healing
24. Herpes zoster
25. Hydrogen sulfide poisoning
26. Idiopathic femoral neck necrosis
27. In vitro fertilization
28. Inflammatory bowel disease (Crohn disease or ulcerative colitis)
29. Intra-abdominal and intracranial abscesses
30. Lepromatous leprosy
31. Meningitis
32. Mental illness (i.e., post-traumatic stress disorder, generalized anxiety disorder, depression)
33. Migraine
34. Motor dysfunction associated with stroke
35. Pseudomembranous colitis (antimicrobial agent-induced colitis)
36. Pyoderma gangrenosum
37. Radiation myelitis
38. Radiation-induced injury in the head and neck excluding radiation-induced soft tissue necrosis or osteoradionecrosis
39. Refractory mycoses: mucormycosis, actinomycosis, canidiobolus coronato
40. Retinopathy, adjunct to scleral buckling procedures in patients with sickle cell peripheral retinopathy and retinal detachment

41. Sickle cell crisis and/or hematuria
 42. Spinal cord injury
 43. Traumatic brain injury
 44. Tumor sensitization for cancer treatments, including but not limited to, radiotherapy or chemotherapy
 45. Vascular dementia
- B. Topical hyperbaric oxygen therapy is not a covered benefit.

IV. Administrative Guidelines

- A. Prior authorization is required for systemic hyperbaric oxygen pressurization treatment when done in an outpatient setting.
- B. A treatment plan must be submitted for wounds, osteoradionecrosis, soft tissue radiation necrosis, and chronic refractory osteomyelitis.
- C. Documentation of previous medical and surgical interventions including outcomes must be submitted.
- D. For continuation of therapy, documentation from the medical record showing objective signs of wound healing from wounds, osteoradionecrosis, soft tissue radiation necrosis and chronic refractory osteomyelitis must be submitted.
- E. To request prior authorization, please submit via UHA's online portal. If a login has not been established, you may contact UHA at 808-532-4000 to establish one.

V. Policy History

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