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 diabetic wounds of the lower extremities in patients with type 1 or type 2 diabetes who meet all of the following criteria:
   
   a. Patient has a wound classified as Wagner grade 3 or higher as defined in the table below;
   
   b. Patient has no measurable signs of healing after a 30-day course of standard wound therapy; to include debridement of necrotic tissue and treatment of infection; and
   
   c. Patient has adequate control of their diabetes with hemoglobin A1C less than 8 or documentation of self management of blood glucose with twice daily preprandial glucose levels less than 150.
   
   d. Patient has appropriate evaluation and management of peripheral artery disease, if applicable.

2. Acute traumatic ischemia
3. Decompression sickness
4. Gas embolism, acute
5. Cyanide poisoning, acute
6. Gas gangrene (i.e., clostridial myonecrosis)

<table>
<thead>
<tr>
<th>Grade Number</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>No open lesion</td>
</tr>
<tr>
<td>1</td>
<td>Superficial ulcer without penetration to deeper layers</td>
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<tr>
<td>2</td>
<td>Ulcer penetrates to tendon, bone, or joint</td>
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<tr>
<td>3</td>
<td>Lesion has penetrated deeper than grade 2 and there is abscess, osteomyelitis, pyarthrosis, plantar space abscess, or infection of the tendon and tendon sheaths</td>
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<tr>
<td>4</td>
<td>Wet or dry gangrene in the toes or forefoot</td>
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<td>5</td>
<td>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</td>
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</tbody>
</table>
7. Profound anemia with exceptional blood loss: only when blood transfusion is impossible or must be delayed

8. Soft-tissue radiation necrosis (e.g., radiation enteritis, cystitis, proctitis) and osteoradionecrosis

9. 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.

10. Chronic osteomyelitis refractory to conventional medical and surgical management

B. A treatment plan must be submitted for diabetic wounds, osteoradionecrosis, and soft tissue radiation necrosis.

C. Diabetic 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.

E. **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. Compromised skin grafts or flaps
2. Acute osteomyelitis, refractory to standard medical management
3. Necrotizing soft-tissue infections
4. Acute thermal burns, surgical wounds, and traumatic wounds
5. Spinal cord injury
6. Traumatic brain injury
7. Severe or refractory Crohn’s disease
8. Brown recluse spider bites
9. Bone grafts
10. Carbon tetrachloride poisoning, acute
11. Cerebrovascular accident, acute (thrombotic or embolic) or chronic
12. Fracture healing
13. Hydrogen sulfide poisoning
14. Intra-abdominal and intracranial abscesses
15. Lepromatous leprosy
16. Meningitis
17. Pseudomembranous colitis (antimicrobial agent-induced colitis)
18. Radiation myelitis,
19. Sickle cell crisis and/or hematuria
20. Demyelinating diseases, (e.g., multiple sclerosis, amyotrophic lateral sclerosis)
21. Retinal artery insufficiency, acute
22. Retinopathy, adjunct to scleral buckling procedures in patients with sickle cell peripheral retinopathy and retinal detachment
23. Pyoderma gangrenosum
24. Acute arterial peripheral insufficiency
25. Acute coronary syndromes and as an adjunct to coronary interventions, including but not limited to percutaneous coronary interventions and cardiopulmonary bypass
26. Idiopathic sudden sensorineural hearing loss
27. Refractory mycoses: mucormycosis, actinomycosis, canidiobolus coronato
28. Cerebral edema, acute
29. Migraine
30. In vitro fertilization
31. Cerebral palsy
32. Tumor sensitization for cancer treatments, including but not limited to, radiotherapy or chemotherapy
33. Delayed onset muscle soreness
34. Early treatment (beginning at completion of radiation therapy) to reduce side effects of radiation therapy; and
35. Autism Spectrum Disorders
36. Bell’s Palsy

B. Topical hyperbaric oxygen therapy is considered investigational and therefore 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. To request prior authorization, please go to UHA’s website: http://www.uhahealth.com/forms/form_request_auth.pdf and submit to:

Via Fax: 1-866-572-4384
C. A treatment plan must be submitted for diabetic wounds, osteoradionecrosis, chronic refractory osteomyelitis, and soft tissue radiation necrosis.

D. Documentation describing standard treatment must be submitted including failure of therapy.

E. For continuation of therapy, documentation from the medical record showing objective signs of wound healing from diabetic wounds, osteoradionecrosis, chronic refractory osteomyelitis, and soft tissue radiation necrosis must be submitted.

V. Policy History

Policy Number: M.MIS.10.120301
Current Effective Date: 03/01/2013
Original Document Effective Date: 03/01/2012
Previous Revision Dates: 07/01/2013

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Note: the addition of chronic osteomyelitis as a covered indication was added by HMSA in 03/2013. The justification has been primarily based on case series reviews. See HMSA policy for references.