

XV Jornadas N. Medicina Maritima, 18-10-2013 Cadiz



Usos y limitaciones de la oxigenación hiperbárica (OHB/HBOT) en la actualidad: perspectivas desde la evaluación de tecnologías, y la medicina basada en la evidencia.

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OHB ¿para quien en 2013?

- Cuales son las indicaciones
- Robustez de las mismas
- Implicaciones

OHB ¿para quien en 2013?

Cuales son las indicaciones:

- Lógica fisiopatológica.
- Experiencia clínica: series clínicas.
- Quienes han hecho las listas:
 - Sociedades científicas
 - Aseguradoras
 - Organismos reguladores
 - Otros
- Como se han hecho las listas
- Evolución histórica

[Robustez de las mismas]

[Implicaciones]

Indicaciones cubiertas por MEDICARE

- 20.29 – Hyperbaric Oxygen Therapy
- (Rev. 48, Issued: 03-17-06; Effective/Implementation Dates: 06-19-06) CIM 35-10 For purposes of coverage under Medicare, hyperbaric oxygen (HBO) therapy is a modality in which the entire body is exposed to oxygen under increased atmospheric pressure.
- A. Covered Conditions: Program reimbursement for HBO therapy will be limited to that which is administered in a chamber (including the one man unit) and is limited to the following conditions:
 - 1. Acute carbon monoxide intoxication,
 - 2. Decompression illness,
 - 3. Gas embolism,
 - 4. Gas gangrene,
 - 5. Acute traumatic peripheral ischemia. HBO therapy is a valuable adjunctive treatment to be used in combination with accepted standard therapeutic measures when loss of function, limb, or life is threatened.
 - 6. Crush injuries and suturing of severed limbs. As in the previous conditions, HBO therapy would be an adjunctive treatment when loss of function, limb, or life is threatened.
 - 7. Progressive necrotizing infections (necrotizing fasciitis),
 - 8. Acute peripheral arterial insufficiency,
 - 9. Preparation and preservation of compromised skin grafts (not for primary management of wounds),
 - 10. Chronic refractory osteomyelitis, unresponsive to conventional medical and surgical management, 11. Osteoradionecrosis as an adjunct to conventional treatment,
 - 12. Soft tissue radionecrosis as an adjunct to conventional treatment,
 - 13. Cyanide poisoning,
 - 14. Actinomycosis, only as an adjunct to conventional therapy when the disease process is refractory to antibiotics and surgical treatment,
 - 15. Diabetic wounds of the lower extremities in patients who meet the following three criteria:
 - a. Patient has type I or type II diabetes and has a lower extremity wound that is due to diabetes;
 - b. Patient has a wound classified as Wagner grade III or higher; and
 - c. Patient has failed an adequate course of standard wound therapy.
- The use of HBO therapy is covered as adjunctive therapy only after there are no measurable signs of healing for at least 30 days of treatment with standard wound therapy and must be used in addition to standard appropriate off-loading, and 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 at least 30 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.

No cubiertas por MEDICARE

- 20.29 – Hyperbaric Oxygen Therapy
- B. Noncovered Conditions
- All other indications not specified under §270.4(A) are not covered under the Medicare program. No program payment may be made for any conditions other than those listed in §270.4(A).
- No program payment may be made for HBO in the treatment of the following conditions:
 - 1. Cutaneous, decubitus, and stasis ulcers
 - 2. Chronic peripheral vascular insufficiency
 - 3. Anaerobic septicemia and infection other than clostridial
 - 4. Skin burns (thermal).
 - 5. Senility.
 - 6. Myocardial infarction.
 - 7. Cardiogenic shock.
 - 8. Sickle cell anemia.
 - 9. Acute thermal and chemical pulmonary damage, i.e., smoke inhalation with pulmonary
 - 10. Acute or chronic cerebral vascular insufficiency.
 - 11. Hepatic necrosis.
 - 12. Aerobic septicemia.
 - 13. Nonvascular causes of chronic brain syndrome (Pick's disease, Alzheimer's disease, Korsakoff's disease)
 - 14. Tetanus.
 - 15. Systemic aerobic infection.
 - 16. Organ transplantation.
 - 17. Organ storage.
 - 18. Pulmonary emphysema.
 - 19. Exceptional blood loss anemia.
 - 20. Multiple Sclerosis.
 - 21. Arthritic Diseases.
 - 22. Acute cerebral edema.

“The 7th European Consensus Conference on hyperbaric Medicine, Lille.”
(ECC7) 2004.

INDICACIÓN	NIVEL DE EVIDENCIA	
Intoxicación por monóxido de carbono (ICO)	B	
Síndrome de aplastamiento	B	
Prevención de la osteorradionecrosis después de extracción dental	B	
Osteoradionecrosis de mandíbula	B	
Cistitis radica	B	
Accidente por descompresión	C	
Embolia gaseosa	C	
Infección bacteriana anaeróbica o mixta	C	
Pie diabético	B	
Compromiso en injertos de piel y músculo cutáneos		C
Osteoradionecrosis de otros huesos	C	
Proctitis/enteritis radioinducido	C	
Lesión de tejidos blandos, radioinducido	C	
Sordera súbita	C	
Ulcera isquémica	C	
Osteomielitis crónica refractaria	C	
Neuroblastoma en estadio IV	C	
Encefalopatía anóxica		C
Radionecrosis de laringe	C	
Lesión radioinducida del SNC	C	
Reimplante de extremidades	C	
Quemaduras de 2º grado y >20% de la superficie	C	

“The 7th European Consensus Conference on Hyperbaric Medicine, Lille.” (ECC7).

- **Indicaciones aceptadas, según nivel de evidencia:**
- **Nivel A:** Doble ciego, aleatorio, muestras grandes
- **Nivel B:** Doble ciego, aleatorio de una sola muestra o pequeños estudios
- **Nivel C:** Series clínicas, opinión o consenso de expertos

Aspectos metodológicos y de robustez:

- Validez de las series clínicas.
 - Validez externa: *generalizabilidad*, estimación de efecto poblacional. **Selección de casos**
 - Validez interna: control de sesgos. **Calidad metodologica del diseño**
 - Validez de ‘constructo, o conceptual’.
- Calidad de la evidencia **versus** fuerza de las recomendaciones

¿Qué hacer ante la evidencia inadecuada?

- NICE
- Aseguradoras
- Proveedores libres
- Profesionales libres
- Sociedades científicas y profesionales