Undersea Oxygen Clinic LLC
Principles of Hyperbaric Medicine

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Phone (813) 533-7093

PRINCIPLE FACULTY:
- Enrico Camporesi, M.D.
- Donald Vierling, M.D.
- Chris Morrison, M.D.
- Joseph Dituri, PhD, CDR, U.S. Navy Saturation Diving Officer (ret)
- Mario Caruso, CHT-A, DMT, EMT-P
- Paul M. Caruso, CHT, DMT, EMT-P

WHO SHOULD ATTEND:
- Physicians / Practitioners
- Nurses
- Hyperbaric Technicians - DMT / EMT
- Other Allied Health Professionals

TOPICS:
- History
- Gas Laws / Math / Physics
- Chamber Jargon / Safety
- Clearance to dive / TM visualizing
- Intro to the Drug Oxygen
- Contraindications
- Adverse Reactions
- Review Laws and Math
- AGE / DCS
- Startup/Shutdown Checklist
- CO Poisoning
- Clostridial Myonecrosis
- Routine Treatment
- Necrotizing Infections
- Sensorineural Hearing Loss
- Burns
- Anemia
- Arterial Insufficiencies (Retinal Occlusion)
- Emergency Procedures (EP)
- Treatment with Basic EP
- Arterial Insufficiencies (Wounds)
- Treatment with Advanced EP
- Compromised Grafts and Flaps
- Crush Injury
- Delayed Radiation Injury
- Osteomyelitis
- Intracranial Abscess
- Fire in the Chamber
- Off-Label Indications
- Hyperbaric Research
- Weekly/Monthly/Semi-Annual/Annual Checklists
- Hazardous Marine Life

TERMINAL OBJECTIVE:
Participants should be able to describe the philosophies of the physics, physiology, pathophysiology and the medical aspects of compressing patients and observers within the hyperbaric environment ensuring safe treatment protocol. By the end of this course the student should be able to identify DCI and determine proper course of action given a particular symptom which in turn improves overall patient outcomes and decreases the professional practice gaps identified for this activity. Students should also be able to identify the proper controlling actions for recompression chamber emergencies and discuss other illnesses which can be treated in a chamber along with protocols used for HBOT.

For jointly provided activities: “This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Undersea and Hyperbaric Medical Society and Undersea Oxygen Clinic LLC. The Undersea and Hyperbaric Medical Society is accredited by the ACCME to provide continuing medical education for physicians.”
**UHMS Mission Statement**
The Continuing Medical Education mission of the Undersea and Hyperbaric Medical Society is to develop and promote evidence-based educational activities that improve the scientific knowledge, competence and/or performance within the scope of undersea and hyperbaric medicine, including wound healing. The primary aim is to improve health care delivery and quality of patient care in diving and hyperbaric medicine practice. The target audience of this effort are physicians and allied health professionals, both nationally and internationally.

**CME Purpose**
The primary purpose of the UHMS Physician CME program is to educate physicians in all disciplines, both nationally and internationally, with the principles and practices of undersea and/or hyperbaric medicine. The secondary purpose is to educate allied health professionals and medical administrators who have educational interests or needs in undersea or hyperbaric medicine. Ultimately, these activities should enhance health care delivery and quality of patient care.

This course has been designed and written in such a way to provide physicians and other allied health professionals with introductory training in hyperbaric medicine practices, both using didactic and hands-on practicums. Successful completion will ensure that they possess adequate knowledge and skills to work in a hyperbaric center. Medical school curriculums do not teach hyperbaric medicine in any substantive way, therefore the majority of physicians only possess very basic knowledge on how to adequately identify, diagnose, and ultimately properly treat indications that have been shown to benefit from hyperbaric oxygen therapy. Other medical professionals also are not taught the use of hyperbaric medicine; therefore there’s a general lack of knowledge about hyperbaric oxygen therapy in the medical community. Obviously, this effects how patients are treated and may in turn contribute to less than adequate outcomes.

Our course was designed to address this knowledge gap. Our didactic lectures and practicums address a wide variety of topics that will prepare physicians and other allied health professionals, to enter the field of hyperbaric medicine. Physicians, and other medical professionals, require such knowledge to treat conditions that possibly be benefited by the proper application of hyperbaric oxygen (and other concurrent treatment modalities). Physicians are required to properly identify, diagnose, create a treatment plan, document; then write orders for hyperbaric treatments. Physicians are also charged with overseeing the hyperbaric treatments ordered. In addition, there’s a great need for research and clinical trials. Hyperbaric physicians should be encouraged to participate in scholarly activities to the greatest extent possible.

Allied health professionals work under the direction of a trained hyperbaric physician. One of their primary responsibilities is to ensure that patients are always adequately supervised while receiving hyperbaric oxygen therapy, and report any changes to the hyperbaric physician. Enhancing the competence of physicians and providers will result in improved performance and (most importantly) patient outcomes in hyperbaric cases.
Undersea Oxygen Clinic LLC  
Principles of Hyperbaric Medicine (40–Hours)

Each day will be ~10 hours long and contain the following information:  
(The Course Director reserves the right to change the order of subjects, but not the content, in order to enhance learning depending upon the individual group situation)

**Day 1**
- 0800-0900 – Intro / Housekeeping
- 0900-1000 – History
- 1000-1100 – Gas Laws
- 1100-1200 – Math
- 1200-1300 – LUNCH
- 1300-1400 – Chamber Jargon/Safety
- 1400-1500 – Practical #1 – Walk the system / draw the system
- 1500-1600 – Practical #2 – Clearance to dive / TM visualizing
- 1600-1700 – Intro to the Drug Oxygen
- 1700-1800 – Contraindications
- 1800-1900 – Adverse Reactions
- 1900 – Dismissed with Homework (Review Day 1 and Read Ahead Day 2)

**Day 2**
- 0800-0900 – Review Laws and Math
- 0900-1000 – AGE
- 1000-1100 – DCS Part 1
- 1100-1200 – DCS Part 2
- 1200-1300 – LUNCH
- 1300-1400 – Practical #3 – Startup/Shutdown Checklist
- 1400-1500 – CO Poisoning
- 1500-1600 – Clostridial Myonecrosis
- 1600-1700 – Practical #4 – Routine Treatment
- 1700-1800 – Necrotizing Infections
- 1800-1900 – Sensorineural Hearing Loss
- 1900 – Dismissed with Homework (Review Days 1+2 & Read Ahead Day 3)

**Day 3**
- 0800-0900 – Review Days 1+2
- 0900-1000 – Burns
- 1000-1100 – Anemia
- 1100-1200 – Arterial Insufficiencies (Retinal Occlusion) / Emergency Procedures (EP)
- 1200-1300 – LUNCH
- 1300-1400 – Practical #5 – Treatment with Basic EP
- 1400-1500 – Arterial Insufficiencies (Wound) #1
- 1500-1600 – Arterial Insufficiencies (Wound) #2
- 1600-1700 – Practical #6 – Treatment with Advanced EP
- 1700-1800 – Compromised Grafts and Flaps
- 1800-1900 – Crush Injury
- 1900 – Dismissed with Homework (Review Day 1-3 and Read Ahead Day 4)

**Day 4**
- 0800-0900 – Review Days 1-3
- 0900-1000 – Delayed Radiation Injury
- 1000-1100 – Osteomyelitis
- 1100-1200 – Intracranial Abscess
- 1200-1300 – LUNCH
- 1300-1400 – Practical #7 – Fire in the Chamber
- 1400-1500 – Off-Label Part 1
- 1500-1530 – Off-Label Part 2 / Hyperbaric Research
- 1530-1630 – Practical #8 – Weekly/Monthly/Semi-Annual/Annual Checklists
- 1630-1700 – Hazardous Marine Life / Continuing Education Intro
- 1700-1730 – Physician on Doctor Review
- 1730-1900 – Final Exam / Conclusion
- 1900 – Dismissed

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