



# READYING YOUR HYPERBARIC SERVICE FOR ACCREDITATION

*by Kenneth Capek RRT, CHT, MPA*

The Undersea and Hyperbaric Medical Society (UHMS) is the organization responsible for conducting voluntary accreditation processes for hyperbaric centers. The UHMS is an international, non-profit organization that functions as the primary source of information regarding hyperbaric medicine and diving information. The accreditation process uses measured benchmarks of performance that a center must meet in order to be approved as an accredited center. In general, the process involves looking at important indicators considered to be necessary for the provision of high quality patient care such as physician and technical staff education and credentialing, the quality and maintenance of equipment, safety and risk management and overall operational procedures. In the *Sept/Oct* issue of *Focus*, I gave a general overview of the accreditation process. The following is a more in-depth examination of the process and the essential sources of information needed to achieve a successful accreditation.

The content and areas covered by the survey are detailed in the "Clinical Hyperbaric Facility Accreditation Manual" obtained from the UHMS. This manual contains standards and guidelines that are used to examine a hyperbaric center's operation to determine accreditation acceptability. Some of the sections covered in this manual include; governance, administration, operations, maintenance, chamber and facility construction and environmental systems, patient rights and education, quality improvement, infection control, human resources. The reason this sounds like a mini Joint Commission survey is because it is structured similarly and addresses many of the same Joint Commission standards. For example, in the hyperbaric center you would utilize the same process improvement activities and program that is used hospital-wide. This program would include areas such as monitoring patient satisfaction, high complexity, low volume or high-risk procedures, completion of required documentation, and treatment complications or adverse reactions. Problems identified must have a resolution plan and then be re-visited to determine effectiveness. Another important area for the surveyors is qualifications of the physician and technical staff. Hyperbaric physicians require proper initial training and must maintain their skill level by obtaining a number of continuing education credits. We require 12 CME's every two years. The physicians must be "credentialed" to perform specific department functions such as, myringotomy, chest tube insertion, TCOM test interpretation and treatment supervision. Although not required, a board-specialty can be

achieved in hyperbaric medicine. The nursing and technical staff must also receive proper initial training and maintain their proficiency by performing competency testing, safety drills and continuing education. Registered nurses and technologists are recommended to take the certification exam given by the National Board of Diving and Hyperbaric Medical Technology (NBDHMT) to become either a certified hyperbaric registered nurse (CHRN) or certified hyperbaric technologist (CHT). Both certifications require twelve continuing education credits to be obtained every two years. For more information about credentials contact the NBDHMT at their web site; <http://www.nbdhmt.org/index.html>.

Clearly when working with 100% oxygen and high-pressure vessels such as a hyperbaric chamber, safety is a major area of focus. For this area of the survey there are a few excellent sources that must be used. The National Fire Protection Association (NFPA) is an organization whose standards are applied in the accreditation process. These standards focus on various environmental safety issues especially regarding fire safety. Every hyperbaric facility should have a copy of NFPA 99, Chapter 19 (and NFPA 99, Chapter 20 of the 2005 edition) available. This section of the document covers hyperbaric facilities and describes three classes of hyperbaric chamber; Class A is a multi-place (multiple occupancy), Class B (single occupancy) and Class C (animal occupancy only). Large Class A chambers are given the most attention due to their complexity, operation and building requirements but Class B requirements are found throughout this document. The focus of this document is environmental and facility standards. The need for fire extinguishers and smoke hoods for the evacuation of patients and staff is addressed. Other sections cover the type of sprinkler head required and room design. Each hyperbaric facility must have a designed "safety officer" responsible for all safety practices and policies. This is the individual who will determine what items may be allowed inside a chamber or not. A more in-depth analysis of the NFPA standards and other related topics can be found in a book by W.T. Workman, entitled "Hyperbaric Facility Safety: A Practical Guide". Also from the Best Publishing Company, this book covers hyperbaric facility safety and chamber maintenance and accident analysis. It also has a large section on hyperbaric staff training requirements, which is international in scope.

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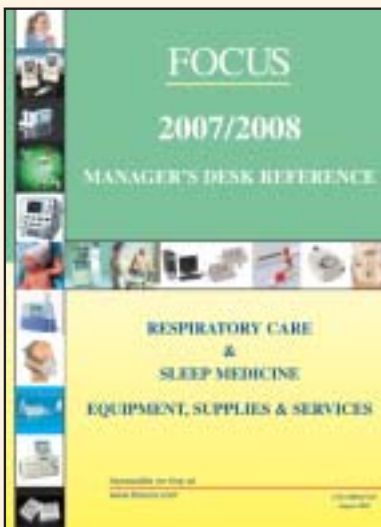
Another important source is a book from the Best Publishing Company entitled "Hyperbaric Nursing". This is an excellent resource to use for writing the required department interventions that guide staff in managing patient care practices for situations and events that arise. As an example, an intervention is a step-by-step set of instructions on how to manage a hypoglycemic patient, confinement anxiety, or an assortment of emergency procedures. This book also includes an in-depth examination of patient assessment methods as related to nutrition, pain and others. Patient education is another important area surveyor's review, which this book addresses. Do you have discharge instruction information for patients with decompression sickness and carbon monoxide poisoning and are they in printed in multiple languages that reflect your community?

Once you purchase your accreditation survey manual and review its contents you will have a better idea of what is expected and the preparation time needed. It could range from three months to a year to get everything in place and the survey team will want to see some existing evidence of compliance prior to their visit. The survey itself is usually a two-day process although it may be extended and the team usually consists of three surveyors; an experienced hyperbaric physician (the Team Chief), a Certified Hyperbaric Registered Nurse (CHRN), and a Certified Hyperbaric Technologist (CHT). There are three levels of accreditation awarded; full accreditation, full accreditation with distinction, both of which are for a period of three years, and deferred accreditation, which is good for up to 12 months, in which time the center must successfully address specific issues identified during the survey. As with any accreditation survey, there is a great deal of preparation time and energy spent to achieve a successful outcome. There is also the satisfaction and pride received when the goal of accreditation is achieved.

*Ken Capek, RRT, CHT, MPA is Director of Respiratory Care and Hyperbaric Oxygen Therapy at Englewood Medical Center in Englewood, NJ. He appears regularly in Focus and can be reached at [Ken.Capek@ehmc.com](mailto:Ken.Capek@ehmc.com)*

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now be conducted effortlessly by computer-aided tracking of the variables already measured by the ventilator. Protocols that depend on observation and feedback from trials of spontaneous breathing must be informed by reliable indicators. When first described 15 yrs ago, the RSBI was clearly a step forward in extracting information that reflects the demand/capability balance. However, although very useful, experience has shown us the imperfection of its predictive power. By helping noninvasively to evaluate the flexibility and reserve of the ventilatory pump, the variation data suggest another avenue toward improved predictors of extubation success. Just as importantly, we now have the capacity to effortlessly and noninvasively evaluate variation of key ventilation pattern components. Aided by modern technology, numerous important and unsolved problems we confront in daily practice should yield to careful observations by the clinician and to insightful physiologic reasoning.

*Dr. Marini, MD, Professor of Medicine at the Univ of Minnesota, is a clinician-scientist whose investigative work has concentrated in the cardiopulmonary physiology and management of acute respiratory failure. In the majority of his research, he has been positioned at the interface between basic physiology and clinical medicine so as to develop insights into advancing clinical practice.*