



Creating a Revolution in Hyperbaric Medicine

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Objective:

Hyperbaric medicine is specialized research area, but access to its literature has been difficult and important materials scattered around the world. Duke University Medical Center Library & Archives had an opportunity to make such materials more accessible through a digital repository when the Undersea and Hyperbaric Medical Society donated its library to Duke and a partnership was developed with the Rubicon Foundation.

Methods:

The society (UHMS) donated its collection of hyperbaric materials to the Medical Center Library & Archives (MCLA), and along with an agreement for the library to provide reference and document delivery services to society members. The collection consists of government documents from around the world, reprints of articles, original manuscripts, images, books, journals, and other documents relating to diving and hyperbaric medicine. The MCLA has established guidelines for adding materials to its collections and has developed creative ways for making print reports accessible through the Web. Papers from key society leaders and major figures in the field were given to Archives, and they have created Web-based finding aids providing access to these unique resources. The Rubicon Foundation was created to focus on locating hyperbaric information resources and making digital versions of important resources available.

Results and Conclusions:

Duke University Medical Center Library & Archives (MCLA) are now able to locate and provide copies of documents to society members and those interested in the field. By partnering with the Rubicon Foundation, MCLA will be able to make electronic copies of many difficult to find materials available through a digital repository. Due to the visibility and stability of the repository, Rubicon and UHMS continue to identify and successfully gain permission to add other national and international resources to the digital collection. An outgrowth of this work has been discussions with the society and other groups about making runs of medical journals available in digital format through the repository and PubMed Central.



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Undersea & Hyperbaric Medical Society



- ~ Purpose
 - ~ Protect the health of divers
 - ~ Improve the scientific basis of hyperbaric oxygen therapy
- ~ Founded as Undersea Medical Society 1967
- ~ International - 2,500 members, 50 countries
- ~ UHMS Library
 - ~ Books, Journals, Reprints, Reports, Artifacts, Theses
 - ~ Manuscripts, Personal Papers

Rubicon Foundation



Focus on hyperbaric medicine and diving

- ~ Undertake projects that:
 - ~ Contribute to dynamic between research, exploration, science and education
 - ~ Improve resources for students, professionals, the general public
 - ~ Electronic libraries and internet-based tools for sharing knowledge
 - ~ Preserve valuable natural resources

Controlled Vocabulary for Metadata

- ✓ Rubicon Foundation – expert terminology, folksonomy
- ✓ Terms from Bennett and Elliott's *Physiology and Medicine of Diving* 5th ed. 2003
- ✓ LIBRARY of CONGRESS Subject Headings
- ✓ NLM MeSH

Hyperbaric Medicine

- ✓ Habitator see Ecovision
- ✓ HBO
- ✓ Head Injuries see Craniocerebral Trauma
- ✓ Hearing
- ✓ Head Protective Devices
- ✓ Helmet see Head Protective Devices
- ✓ Helium
- ✓ Helmet see Head Protective Devices
- ✓ Henry's Law
- ✓ High-Frequency Ventilation
- ✓ High Pressure
- ✓ High Pressure Neurological Syndrome
- ✓ HIF Function
- ✓ Hypocretic Pressure
- ✓ Hyperbaric
- ✓ Hyperbaric Chambers
- ✓ Hyperbaric Medicine
- ✓ Hyperbaric Oxygen Therapy
- ✓ Hyperbaric Oxygenation
- ✓ Hyperoxia
- ✓ Hyperventilation
- ✓ Hypoglycemia
- ✓ Hypothermia
- ✓ Hypovolemia
- ✓ Hypoxemia see Anoxia
- ✓ Hypoxia see Anoxia

Medical Center Library & Archives

- ~ UHMS collection donated -- March 2005
 - ~ Materials integrated into collections
 - ~ Made searchable in the online catalog
 - ~ MeSH and LC headings
- ~ UHMS Contract with MCL&A
 - ~ Annual fee to provide services to members
 - ~ Single library contact person
 - ~ In-depth reference assistance
 - ~ Photocopy services – online requests
- ~ Manuscript collections
 - ~ Archival processing and preservation
 - ~ Creation of Web-based finding aids
- ~ Duke MedSpace – DSpace platform
 - ~ Rubicon digitization project
 - ~ Technical and government reports, hyperbaric journals, theses, workshop materials
 - ~ Creation of thesaurus – expert folksonomy with MeSH and LC controlled vocabulary
- ~ Extensive reprint file
 - ~ Removed duplicates, cataloged reports
 - ~ Removed materials already in Duke libraries