Cost analysis of HBOT for radiation cystitis

The normobaric oxygen paradox
HBOT for sickle-cell disease crisis
Brown-Sequard syndrome from DCS
Are dental cements weakened by pressure cycling?
Airways resistance and scuba in divers with asthma
PURPOSES OF THE SOCIETIES

To promote and facilitate the study of all aspects of underwater and hyperbaric medicine

To provide information on underwater and hyperbaric medicine

To publish a journal and to convene members of each Society annually at a scientific conference

SOUTH PACIFIC UNDERWATER MEDICINE SOCIETY

OFFICE HOLDERS

President
Mike Bennett <president@spums.org.au>

Past-President
Chris Acott <cacott@optusnet.com.au>

Secretary
Karen Richardson <secretary@spums.org.au>

Treasurer
Shirley Bowen <treasurer@spums.org.au>

Education Officer
David Smart <education@spums.org.au>

Public Officer
Andrew Fock <a.fock@alfred.org.au>

Chairman ANZHMG
David Smart <david.smart@dhhs.tas.gov.au>

Committee Members
Peter Smith <executive@spums.org.au>
Denise Blake <denise_blake@health.qld.gov.au>
Simon Mitchell (co-opted) <sj.mitchell@auckland.ac.nz>

Webmaster
Glen Hawkins <webmaster@spums.org.au>

ADMINISTRATION

Membership
Steve Goble <admin@spums.org.au>

MEMBERSHIP

For further information on SPUMS and to complete a membership application, go to the Society’s website: <www.spums.org.au>

The official address for SPUMS is:
c/o Australian and New Zealand College of Anaesthetists, 630 St Kilda Road, Melbourne, Victoria 3004, Australia

EUROPEAN UNDERWATER AND BAROMEDICAL SOCIETY

OFFICE HOLDERS

President
Peter Germonpré <peter.germonpre@eubs.org>

Vice-President
Costantino Balestra <costantino.balestra@eubs.org>

Immediate Past President
Alf Brubakk <alf.brubakk@eubs.org>

Past President
Noemi Bitterman <noemi.bitterman@eubs.org>

Honorary Secretary
Joerg Schmutz <joerg.schmutz@eubs.org>

Member at Large 2011
Fiona Sharp <fiona.sharp@eubs.org>

Member at Large 2010
Jean-Michel Pontier <jean-michel.pontier@eubs.org>

Member at Large 2009
Andreas Møllerloken <andreas.mollerloken@eubs.org>

Liaison Officer
Phil Bryson <phil.bryson@eubs.org>

ADMINISTRATION

Honorary Treasurer & Membership Secretary
Patricia Wooding <patricia.wooding@eubs.org>
16 Burselm Avenue, Hainault, Ilford Essex, IG6 3EH, United Kingdom
Phone & Fax: +44-(0)20-85001778

MEMBERSHIP

For further information on EUBS and to complete a membership application go to the Society’s website: <www.eubs.org>

DIVING and HYPERBARIC MEDICINE

<www.dhmjournal.com>

Editor-in-Chief:
Michael Davis <editor@dhmjournal.com>

C/o - Hyperbaric Medicine Unit
Christchurch Hospital, Private Bag 4710
Christchurch, New Zealand
Phone: +64-(0)3-364-0045 or (03)-329-6857
Fax: +64-(0)3-364-0817 or (03)-329-6810

European Editor:
Peter Müller <peter.mueller@eubs.org>

Editorial Assistant
Nicky McNeish <editor@dhmjournal.com>

Journal distribution:
Steve Goble <admin@dhmjournal.com>

Submissions to the Journal should be sent to: <submissions@dhmjournal.com>

Diving and Hyperbaric Medicine is published jointly by the South Pacific Underwater Medicine Society and the European Underwater and Baromedical Society
DIVER EMERGENCY SERVICES PHONE NUMBERS

AUSTRALIA
1800-088200 (in Australia, toll-free)
+61-8-8212-9242 (International)

SOUTHERN AFRICA
0800-020111 (in South Africa, toll-free)
+27-10-209-8112 (International, call collect)

NEW ZEALAND
0800-4DES-111 (in New Zealand, toll-free)
+64-9-445-8454 (International)

EUROPE
+39-06-4211-8685 (24-hour hotline)

SOUTH-EAST ASIA
+852-3611-7326 (China)
+10-4500-9113 (Korea)
+81-3-3812-4999 (Japan)

The DES numbers (except UK) are generously supported by DAN

DAN Asia-Pacific DIVE ACCIDENT REPORTING PROJECT
This project is an ongoing investigation seeking to document all types and severities of diving-related accidents. Information, all of which is treated as being confidential in regard to identifying details, is utilised in reports on fatal and non-fatal cases.
Such reports can be used by interested people or organisations to increase diving safety through better awareness of critical factors.
Information may be sent (in confidence unless otherwise agreed) to:
DAN Research
Divers Alert Network Asia Pacific
PO Box 384, Ashburton VIC 3147, Australia
Enquiries to: <research@danasiapacific.org>

DIVING INCIDENT MONITORING STUDY (DIMS)
DIMS is an ongoing study of diving incidents. An incident is any error or occurrence which could, or did, reduce the safety margin for a diver on a particular dive. Please report anonymously any incident occurring in your dive party. Most incidents cause no harm but reporting them will give valuable information about which incidents are common and which tend to lead to diver injury. Using this information to alter diver behaviour will make diving safer.

The Diving Incident Report Form can be downloaded from, or an on-line form accessed at the DAN AP website: <www.danasiapacific.org>

DISCLAIMER
All opinions expressed in this publication are given in good faith and in all cases represent the views of the writer and are not necessarily representative of the policies or views of SPUMS or EUBS or the editor and publisher.
CONTENTS
Diving and Hyperbaric Medicine Volume 42 No. 2 June 2012

Editorial
65 The Editor’s offering
66 The President’s page

Original articles
67 The ‘normobaric oxygen paradox’: does it increase haemoglobin?
David De Beis, Sigrid Theunissen, Jacques Devriendt, Peter Germonpré, Pierre Lafere, Joseph Valsamis, Thyl Snoeck, Philippe Meeus and Costantino Balestra
72 Effect of a single pool dive on pulmonary function in asthmatic and non-asthmatic divers
Dragana Ivkovic, Marija Markovic, Bozica Suzic Todorovic, Costantino Balestra, Alessandro Marroni and Milos Zarkovic
78 The effect of environmental pressure changes on the retentive strength of cements for orthodontic bands
Meenal N Gulve, Nitin D Gulve, Renu Shinde and Swapnil J Kolhe
82 Hyperbaric oxygen therapy for vaso-occlusive crises in nine patients with sickle-cell disease
Jérôme Stiemann, Edouard Letellier, Nazmiye Aras, Marc Borne, Louis Brinquin and Olivier Fain

Technical report
85 Hyperbaric critical care patient data management system
Peter Kronlund, Daniel Olsson and Folke Lind

Case reports
88 MRI features of spinal cord decompression sickness presenting as a Brown-Sequard syndrome
Pierre Louge, Emmanuel Gempp and Michel Hugon
92 A cost-analysis case study of radiation cystitis treatment including hyperbaric oxygen therapy
David Smart and Margaret Wallington
98 A case of spinal epidural haematoma during breath-hold diving
Lucio Tremolizzo, Mirko Patassini, Massimo Malpieri, Carlo Ferrarese and ldebrando Appollonio
101 Cerebral venous air embolism treated with hyperbaric oxygen: a case report
Pieter A Bothma, Andreas E Brodbeck and Bruce A Smith

Critical appraisal
104 The addition of hyperbaric oxygenation to specialised wound care for chronic diabetic foot ulcers improved healing and quality of life
Michael Bennett

Continuing professional development
109 Breath-hold diving
David Cooper and Margaret Walker

Letters to the Editor
105 HBO Evidence website
Michael Bennett
105 Safety of deep apneic diving
Jochen D Schipke, Thomas Muth and Sinclair Cleveland
106 Reply: Safety will increase with knowledge
Erika Schagatay
108 Diving medicine for scuba divers
Carl Edmonds

The world as it is
111 New hyperbaric facilities for the Prince of Wales Hospital, Sydney
Rob Turner
112 Diving-related fatalities and decompression illness in the Asia-Pacific region 2010
John Lippmann

SPUMS notices & news
113 Diploma of Diving and Hyperbaric Medicine
114 Summary minutes of the SPUMS Executive Committee Meeting 12 November 2011 at the Prince of Wales Hospital, Randwick
116 Australian and New Zealand Hyperbaric Medicine Group Chairman’s report, April 2012
118 ANZCA Certificate in Diving and Hyperbaric Medicine

EUBS notices & news
120 38th EUBS Annual Scientific Meeting 2012
121 EUBS General Assembly 2012
121 Candidates for Vice-President and Member at Large 2012
122 Courses and meetings
124 Instructions to authors (short version)

Diving and Hyperbaric Medicine is indexed on MEDLINE, SciSearch® and Embase/Scopus
Printed by Snap Printing, 166 Burwood Road, Hawthorn, Victoria 3122, <hawthorn@snap.com.au>