Reply from Dr Christopher J Acott

Thank you for the opportunity to reply to Mr Bloede's letter. Whilst I cannot add much, some points need to be emphasised.

The original Air2 leaked and was responsible for some OOA or low-air situations even with the divers regularly checking their contents gauges (I personally am included in these data). There have been no more reports received about this problem in the past five years.

The original Air2 could not be used with a dump cable in the deflator hose. Even if it now can be used, any emergency situation that requires one diver to remove their second stage from their mouth for buoyancy control is dangerous, because it is associated on many occasions with a rapid ascent. The donor in the management of an OOA situation must maintain any buoyancy compensator auto inflation/deflation device in a readily available position. This has been highlighted in the Diving Incident Monitoring Survey (DIMS) data.

A lack of servicing was highlighted in the DIMS data but this is also a problem of 'octopus' regulators in general. Because they are rarely used there is no need to service them! Unfortunately, a lack of proper gear maintenance and dive planning are common contributing factors in the DIMS reports. DIMS also showed that in the OOA and low-air situations a failure to check the contents gauge was the main cause.¹

From the DIMS data I do not believe that an Air2 or similar device employing a combination of a second stage and inflation/deflation device is safe even in 'no stop' recreational diving. The management of any emergency situation must use the 'KISS' principle and having a dual role for any piece of equipment is dangerous.

Reference

1 Acott CJ. Incident reporting: out of air and diving safety. In: Cimsit M, Aktas S, Aydin S, eds. Proceedings of the XXth Annual Meeting of the European Underwater and Baromedical Society on Diving and Hyperbaric Medicine. Istanbul: Hyperbaric Medicine and Research Centre [HITAM], 1994: 32-41

Dr Christopher J Acott 30 Park Ave, Rosslyn Park, SA 5072, Australia

E-mail: <cacott@optusnet.com.au>

Key words

Letters, scuba, equipment, emergency ascent

The Abacus Project, Canada

Dear Editor,

Thank you again for providing the means through the *SPUMS Journal* to bring the Abacus Project to the attention of researchers and practitioners interested in dive safety. I appreciate being given permission to reproduce our *SPUMS Journal* article. The paper is available as a PDF file, which includes a revised membership application form for SPUMS that fits on a single page when printed. The SPUMS web site URL on the application page is hot-linked.

Recently, the UCBC sponsored a cold-water diving safety symposium as part of Underwater BC 2003. The Vancouver Aquarium and Marine Science Centre donated a booth to the Abacus Project, and we had tremendous interest in the results from the public. We distributed 800 copies of the article and a summary sheet of the results. The amount of interest took us by surprise.

I have stayed pretty neutral in public on my views about whether the results indicated diving is a high- or low-risk activity. Only one person thought the rate of decompression illness was high. Several family members of divers commented they found the results reassuring. Just about everyone seems to find the incidence lower than they would have guessed.

Have you heard anything or had any comments or reactions from the Journal subscribers?

Reference

1 Ladd G, Stepan V, Stevens L. The Abacus Project: establishing the risk of recreational scuba death and decompression illness. SPUMS J 2002; 32: 124-128

Gary Ladd 330–1200 Burrard Street, Vancouver BC, Canada V5W 3P1 **Phone:** +1-604-682-5467

E-mail: <Gary@PsychoDiver.com>

Editor's note:

The authors have copies of all the documents they developed, examples of correspondence, protocols, etc., in other words a manual of sorts, available for anybody interested. They had hoped that their investigation would spark debate over the methodology and/or create interest in doing similar studies elsewhere. The interest generated in British Columbia by this research project is in somewhat stark contrast to the response generated amongst our nearly 1000 subscribers to the majority of articles in this journal. Is there anyone out there?

Key words

Letters, epidemiology, recreational diving, accidents

SPUMS Notices

Minutes of the SPUMS Executive Committee Meeting held in Sydney on 26 October 2002

Opened: 0950hr

Present: Drs R Walker (President), G Williams (Immediate Past-President), C Meehan (Secretary), M Davis (Editor), D Doolette (Education Officer), M Bennett, S Mitchell, D Walker (Committee Members). Dr S Mitchell was present during the afternoon only.

Apologies: Dr B Trytko (Treasurer), Dr D Smart (ANZHMG Representative)

1. Minutes of the previous meeting (May 2002)

Moved that the minutes be accepted as a true record.

Proposed R Walker, seconded G Williams, carried.

2. Matters arising from the minutes

- 2.1 Update on the SPUMS administration, report presented by Dr C Meehan on behalf of Steve Goble.
 - There was discussion about the SPUMS Journal on CD. The CD will be advertised on the SPUMS web site. The cost of the CD will be \$25 for members and \$160 for non-members inclusive of GST. The CD will be updated every two years. There was some discussion about an online version of the Journal in the future. A membership drive was again discussed and Dr Bennett agreed to formulate a membership package. This will be circulated to the Committee for discussion. Committee members will endeavour to promote membership in their own areas.
- 2.2 Update on NZ Chapter closure given by Dr Mike Davis. The financial information has been handed over to Dr Trytko. There is approximately \$5,000 remaining in the account. These funds will be transferred to SPUMS. This will finalise closure of the NZ Chapter. The Society owns books resident in the NZ Naval Hospital in Auckland. A formal letter will be sent to Commander Alison Drury, Senior Medical Officer, New Zealand Navy donating them to the Hospital.
- 2.3 Update from ANZHMG, supplied by Dr D Smart. Dr M Bennett spoke about this on behalf of Dr D Smart. The next HTNA meeting will be in

- Hobart during the last week of August 2003.
- Update from new Editor, Dr M Davis. A report was supplied to the meeting by Dr M Davis, including several points for discussion. There are ongoing problems with papers not finalised in time by those presenting at meetings. Maybe abstract for the meeting. Mike to draft new letter for members re presenting at meetings and then writing up a paper for the Journal. Problem when some of the presentations are on research not finalised, and wouldn't be ready to finalise paper. Idea that all SPUMS diplomas get letter to formally present it at the next ASM. Abstracts possibly of presentations that are not really for papers. Editor will decide. Conveners need to work with Editor to make sure that the most is got from the ASM for publishing in the Journal. Six points were presented for discussion:
 - 2.4.1 Need to establish a New Zealand account for day-to-day expenses controlled by the Editor. This account would have eftpos and require two signatures on cheques. The old account in NZ to be closed and the money still within it transferred to new account for use for the Journal. As originally proposed a proper budget will be presented for the 2004 budget onwards.
 - 2.4.2 Request the President write to all presenters at the 2002 ASM who have not yet submitted manuscripts asking them to do so promptly. This has been discussed previously.
 - **2.4.3** Share with NZMA the running costs of the office where the Journal is produced. Agreed in principle.
 - 2.4.4 Cost of changing to colour publication. Enhance photos, and maybe promote advertising. Discussion re appropriateness of advertising in the Journal. Trial. Re-discuss in 12/12 at the next face to face in Australia.
 - **2.4.5** Advertising space for DAN-SEAP to be free of charge. Editor to determine reasonable market rates for advertising in the Journal.
 - **2.4.6** As discussed.
- 2.5 Update on UHMS in Sydney given by Dr M Bennett. The dates of the conference are 25–28 May 2004. It is planned to start the SPUMS ASM two days later. The planned dates would be 31 May to 5 June approximately.
- **2.6** Letter to TSANZ re respiratory fitness to dive, asthma and diving. No response at this stage and the letter will be resent.
- 2.7 Letter Dr M Le May was discussed.
- **2.8** Update given by the Education Officer, Dr D Doolette.

3. Annual Scientific Meetings

- 3.1 2002 ASM, Iririki Island, Vanuatu. Final figures presented. There was an overall loss of \$7,000 at this meeting. This was due to the number of registrants being considerably reduced and because of SPUMS having sole use of the resort.
- 3.2 2003 ASM, Palau. In view of the recent unrest in Asia, travel to Palau is now recommended via Cairns instead of Manilla.
- **3.3** 2004 ASM, Dr G Williams gave a presentation on a suitable venue in Noumea.

4. Treasurer's report

This was supplied by Dr B Trytko and circulated at the meeting.

5. Correspondence

5.1 Email from Dr Hamish Turnbull was circulated. Dr R Walker will reply.

6. Other business

- 6.1 Pre-requisite for the SPUMS award for the HTNA to be that the winning paper be submitted for publication in the Journal.
- **6.2** Minutes of the SPUMS AGM in May 2002 were circulated.
- **6.3** Committee contact details were updated.
- 6.4 IMCA, The International Marine Contractors Association represents offshore, marine and underwater engineering companies. An International course for Medical Examiners of Divers will be held in the Dutch Antilles 9–14 February 2003.

Closed: 1720hr

South Pacific Underwater Medicine Society Diploma of Diving and Hyperbaric Medicine

Requirements for candidates

In order for the Diploma of Diving and Hyperbaric Medicine to be awarded by the Society, the candidate must comply with the following conditions:

- 1 The candidate must be a medically qualified financial member of the Society.
- 2 The candidate must supply evidence of satisfactory completion of examined course(s) in Diving and Hyperbaric Medicine at an approved institution.
- 3 The candidate must have completed the equivalent (as determined by the Education Officer) of at least six

- months' full-time clinical training in an approved Hyperbaric Medicine Unit.
- The candidate must submit a written research proposal in a standard format for approval by the Education Officer before commencing their research project.
- 5 The candidate must produce, to the satisfaction of the Education Officer, a written report on the approved research project, in the form of a scientific paper suitable for publication.

Additional information

The candidate must contact the Education Officer to advise of their intended candidacy, seek approval of their courses in Diving and Hyperbaric Medicine and training time in the intended Hyperbaric Medicine Unit, discuss the proposed subject matter of their research, and obtain instructions before submitting any written material or commencing a research project.

All research reports must clearly test a hypothesis. Preference will be given to reports of original basic or clinical research. Case series reports may be acceptable if thoroughly documented, subject to quantitative analysis, and the subject is extensively researched and discussed in detail. Reports of a single case are insufficient. Review articles may be acceptable if the world literature is thoroughly analysed and discussed, and the subject has not recently been similarly reviewed. Previously published material will not be considered.

It is expected that all research will be conducted in accordance with the joint NHMRC/AVCC statement and guidelines on research practice (available at http://www.health.gov.au/nhmrc/research/general/nhmrcavc.htm). All research involving humans or animals must be accompanied by documentary evidence of approval by an appropriate research ethics committee. It is expected that the research project and the written report will be primarily the work of the candidate.

The Education Officer reserves the right to modify any of these requirements from time to time.

The Education Officer's address is:

Dr David Doolette, Department of Anaesthesia and Intensive Care, University of Adelaide,

Adelaide, South Australia 5005, Australia.

Phone: +61-(0)8-8303-6382. **Fax:** +61-(0)8-8303-3909.

E-mail: <David.Doolette@adelaide.edu.au>

Key words

Qualifications, underwater medicine, hyperbaric oxygen, research

ACCEPTED INDICATIONS FOR HYPERBARIC THERAPY

The SPUMS Australian and New Zealand Hyperbaric Medicine Group and the ANZ College of Anaesthetists Special Interest Group in Diving and Hyperbaric Medicine

September 2000 (reviewed October 2002)

BROAD INDICATION	SPECIFIC INDICATION	RECOMMENDED REVIEW THRESHOLD (NUMBER OF TREATMENTS)
Bubble injury	Decompression illness	15
zazzi iijai j	Arterial gas embolus	10
	(diving/iatrogenic/misadventure)	10
Acute ischaemic conditions	Compromised flaps and grafts/ microvascular ischaemias	40
	Crush injury	20
	Compartment syndromes	20
	Post-operative	20
	Reperfusion injuries	20
	Acute acoustic trauma	20
Infective conditions	Clostridial myonecrosis	20
	Non-clostridial myonecrosis/	20
	necrotizing fasciitis/cellulitis	
	Malignant otitis externa	50
	Refractory mycoses	30
	Pneumatosis cystoides intestinalis	30
	Refractory osteomyelitis	60
	Intracranial abscess	40
Radiation tissue damage	Osteoradionecrosis:	
	established	60
	prophylactic	30
	Soft tissue radionecrosis:	
	established	60
	prophylactic	30
Problem wounds	Microvascular chronic ischaemic ulc diabetic ulcers/gangrene/decubitus	
	Venous ulcers	30
	Frostbite	30
	Surgical incisions	30
	Spider bite	50
	Pyoderma gangrenosum	50
Toxic gas poisoning	Carbon monoxide (mod/severe)	10
	Smoke inhalation	10
	Cyanide	10
	Hydrogen sulphide	10
Ocular ischaemic pathology	Cystoid macular oedema	50
	Retinal artery/vein occlusion	30
Miscellaneous	Thermal burns	20
	Exceptional blood loss anaemia	10
	Tumour control in association	
	with radiotherapy	30

NOTES:

- 1 The purpose of this list is to document the conditions for which the organisations above believe hyperbaric oxygen therapy is indicated. These recommendations are based on review of the literature and clinical experience. These conditions are limited to those where the evidence for the efficacy of HBO is at least as strong as currently accepted therapeutic alternatives.
- 2 This list is made available by the organisations above for the use of individual hyperbaric medicine facilities in formulating admission and discharge policy. The list constitutes recommendations only and does not mandate clinical practice.
- 3 It is proposed that this list be reviewed by a joint committee of members of the ANZHMG and ANZCA SIG on an annual basis. Submissions will be possible through these organisations and all available evidence

- at the disposal of this joint committee will be considered.
- 4 The maximum recommended number of treatments for each condition is a guide to therapy and should not be regarded as a required minimum for adequate treatment. In occasional cases, these figures may be exceeded for valid clinical reasons.
- 5 The ANZHMG and ANZCA SIG support clinical research into the efficacy of HBO in these and other conditions. Patients with conditions other than those above should be regarded as experimental and treatment undertaken in that context. These organisations hold that such treatment should be administered with the approval of a local ethics committee and involve no charge for professional or facility services.

SPUMS Diplomas

The following Diploma theses have been accepted since November 2002:

Measurement of fatigue following 18 msw dry chamber dives breathing air or enriched air nitrox

Richard Harris, Adelaide

Undersea Hyperb Medicine 2003 (in press)

Predictors of middle ear barotrauma associated with hyperbaric therapy

Jan Lehm, Sydney

SPUMS J, 2003 (accepted for publication)

Blood sugar level reductions with hyperbaric oxygen therapy

Barbara Trytko, Sydney *SPUMS J* 2003; 33: 62-69

Hyperbaric oxygen treatment and survival from necrotizing soft tissue infections

David Wilkinson, Adelaide

Publication in preparation.

Congratulations to these four diplomats.

The database of randomised controlled trials in hyperbaric medicine developed by Dr Michael Bennett and colleagues at the Prince of Wales Diving and Hyperbaric Medicine Unit is at:

<www.hboevidence.com>

SPUMS Journal CD

The SPUMS Journal, volumes 1-30, is available on CD.

To read and print these documents Adobe Acrobat Reader (version 3 or later) is required. This may be downloaded free of charge from the Adobe web site <www.adobe.com>

The CD is available to members for Aust \$25 (incl. GST or overseas mailing). The cost to non-members and institutions is Aust \$90 inclusive. Supplies are limited Cheques or money orders should be made payable to: 'South Pacific Underwater Medicine Society'. Credit card facilities are not available for this.



Contact:

Steve Goble, SPUMS Administrative Officer, C/o ANZ College of Anaesthetists, 630 St Kilda Road, Melbourne, Victoria 3004, Australia.

The Australian and New Zealand College of Anaesthetists Foundation Certificate Holder in Diving & Hyperbaric Medicine

Call for applications

The Australian and New Zealand College of Anaesthetists plans to offer a Certificate in Diving & Hyperbaric Medicine on the basis of eighteen months' experience in an ANZCA accredited hospital based Hyperbaric Medicine Unit. The Training Program will be introduced to provide senior trainees and Fellows of ANZCA and other equivalent specialist Colleges with broadly based experience in the management of diving & hyperbaric patients who fulfil the indications and criteria for hyperbaric oxygen therapy. The Certificate will be overseen by the ANZCA Certificates Committee. It is anticipated that the initial examination will be held on an as needed basis.

Foundation appointments as Certificate Holders will be available to experienced individuals from the specialist Colleges in Australia and New Zealand and other areas in which ANZCA examines, who practise in Diving & Hyperbaric Medicine. (ANZCA Professional Document. TEI - Guidelines for hospitals seeking College approval of posts for vocational training in diving & hyperbaric medicine). ANZCA Council has approved the establishment of a Certificate of Diving & Hyperbaric Medicine. Foundation Certificate Holders will be admitted by 30th June 2003.

Those eligible must meet the following criteria:

- 1 The candidate must hold Fellowship of the Australian and New Zealand College of Anaesthetists or an appropriate specialist qualification or a PhD/MD in an area relevant to hyperbaric medicine.
- 2 The candidate must have had substantial involvement in a Department of Diving & Hyperbaric Medicine and be in current practice with a minimum of 2 clinical sessions/week. Confirmation is required by the relevant hospital that the candidate has been involved in specialist Diving & Hyperbaric Medicine Practice.
- 3 The candidate must have a DipDHM awarded by the South Pacific Underwater Medicine Society.
- 4 The candidate must have adequate airway skills with a minimum of 6 months' experience in anaesthesia or has proven and demonstrated airway skills.
- 5 The candidate participates in a Continuing Medical Education and Quality Assurance Programme (ANZCA MOPS or equivalent).
- 6 The candidate contributes to the field of Diving & Hyperbaric Medicine by:
- a development of professional activity in this field;
- b regular contributions to undergraduate/postgraduate education in this field and/or by:
- c publications in scientific journals and/or contributions to scientific meetings.

Obligations of Foundation Certificate Holders will include: participation in ongoing professional activity in this field, including Maintenance of Professional Standards in Diving and Hyperbaric Medicine; potential involvement as Diving

& Hyperbaric Medicine Examiners; payment to ANZCA of appropriate annual dues which will supplement those of their primary specialty.

Applications will be reviewed by the Certificates Committee and appointments made by College Council. Applicants should submit curriculum vitae, together with accompanying documentation to support the requirements above.

Enquiries regarding applications may be directed to:

Dr Robert M Wong, Chairman DHM SIG

Phone: +61-(0)8-9431-2233 Mrs Joan Sheales, CEO **Phone:** +61-(0)3-9510-6299 **Fax:** +61-(0)3-9510-6931

Applications should be marked 'Confidential', and submitted no later than 30 June 2003, and addressed to: Criteria for Foundation Certification for the Certificate in Diving & Hyperbaric Medicine of the SIG of ANZCA, The Australian and New Zealand College of Anaesthetists, 'Ulimaroa', 630 St Kilda Road,

Melbourne,

Victoria 3004, Australia.

The candidate must fulfil the following criteria:

- 1 Is in current practice of Diving & Hyperbaric Medicine with a minimum of two clinical sessions per week in diving and hyperbaric medicine department.
- 2 Has accumulated at least 18 months' (FTE) clinical experience in diving and hyperbaric medicine in a hospital-based facility and has covered the clinical work in the ANZCA Training Program of the DHM SIG.
- 3 Has a fellowship of a specialist College or is in possession of an MD/PhD in a relevant and appropriate area of study.
- 4 Is in possession of a DipDHM awarded by the South Pacific Underwater Medicine Society.
- 5 Has adequate airways skills minimum of 6 months' anaesthetics experience or has proven and demonstrated airway skills.
- 6 Is involved in medical education of medical students/ RMOs/registrars/nurses.
- 7 Is enrolled in ANZCA MOPS program or equivalent.
- 8 The candidate contributes to the field of Diving & Hyperbaric Medicine by:
- a development of professional activity in this field;
- b regular contributions to undergraduate/postgraduate education in this field and/or by;
- c publications in scientific journals and/or contributions to scientific meetings.

Note: The criteria expire after 30 June 2003. From that date, all candidates will have to present for the Certificate Examination conducted by ANZCA.

Book reviews

Hyperbaric surgery: perioperative care

Dirk Jan Bakker and Frederick S Cramer

488 pages, hardback ISBN 1-9605360-8-9

Flagstaff, Arizona: Best Publishing Company, 2002 Available from Best Publishing Company, P O Box 30100,

Flagstaff, Arizona 86003-0100, USA.

Ph: (+1) 928 527 1055; Fax: (+1) 928 526 0370

E-mail: <divebooks@bestpub.com>

Copies can be ordered online at <www.bestpub.com> Price US\$154.00, postage and packing extra

This hyperbaric surgery tome is dedicated to Professor Dr. med. Ite Boerema, the recognised pioneer in the field. He conducted extensive research on 'surgery in an operating room with high atmospheric pressure' and in the 1950s performed open-heart surgery under hyperbaric conditions. He was the organiser of the first International Congress on Hyperbaric Medicine in Amsterdam in 1963.

The authors are both surgeons and inform us that this book is the first of its kind to write about hyperbaric surgery and that they would 'like to show the way surgeons are thinking when using HBOT [hyperbaric oxygen therapy] in their daily practice.' They remind us that 'not much surgery is done nowadays under hyperbaric conditions,' but that surgeons have always been very much involved in HBOT and that there are still many surgical indications for HBOT.

The book is a compilation of classic hyperbaric medicine topics, with each chapter written by one of twenty 'distinguished international experts' from six different countries. They hope to show that 'HBOT has a definite and respected place in medicine and is not a therapy in search of a disease.' The book is intended for 'the practising surgeon who has the availability of a hyperbaric chamber'.

The chapters are thorough and often draw on greater than one hundred references. The book starts with an interesting history of hyperbaric medicine and surgery and then, amazingly, dives straight into a chapter on air embolism. This is followed by the role of HBOT in the surgical management of chronic refractory osteomyelitis, before returning to the next logical chapter, on the physiological and pharmacological basis of HBOT.

What follows then is a bubbly trail of conventional HBOT chapters covering the core topics, including osteoradionecrosis, crush injuries and problem wounds, each with a surgical slant. Amazingly, for a hyperbaric surgery text, there is a whole chapter on 'clinical aspects of decompression disorders'. There seems to be some repetition, with one chapter on HBOT in the management

of non-healing wounds and another on HBOT as an adjunct to surgical management of the problem wound.

I found the chapter entitled 'When HBO meets the ICU: intensive care patients in the hyperbaric environment' very useful with good checklists for intubated patients and information on everything from infusions to ventilators. The brief chapter on frostbite addressed mechanisms and the role of HBOT and was also useful. The book is illustrated throughout with excellent colour photographs, which clearly illustrate the benefit of HBOT.

Hyperbaric surgery? Definitely not a treatment in search of a disease, but perhaps surgeons in search of a cause. Hyperbaric medicine has become a specialty in its own right run by hyperbaric specialists, and is progressively evidence based. Just as operating within hyperbaric chambers has slipped into the history books so too has the direct involvement of surgeons in HBOT other than as a referral base. This book does not really 'show us the way surgeons are thinking when using HBOT,' but rather it is another general hyperbaric text with a few good chapters.

Sandy Inglis

Key words

Book reviews, hyperbaric oxygen, textbook

On-site management of scuba diving and boating emergencies

Wesley Yapor

262 pages, hardback ISBN 0-930536-02-X

Flagstaff, Arizona: Best Publishing Company, 2002 Available from Best Publishing Company, P O Box 30100, Flagstaff, Arizona 86003-0100, USA.

Ph: (+1) 928 527 1055; Fax: (+1) 928 526 0370

E-mail: <divebooks@bestpub.com>

Copies can be ordered online at <www.bestpub.com> Price US\$14.95, postage and packing extra

This A5-sized book is presented as a manual covering commonly encountered problems a diver may face both on the water and under it. It is attractively covered in orange and red, encouraging me to review it while on vacation diving and boating. Unfortunately, it does not fulfil its stated aims and was disappointing in many areas. The line drawings are dull, and the text uninteresting with no bullet points or key-point summaries, which limits its usefulness on a boat or in a crisis. The inclusion of some anecdotes of incidents or case studies would have brightened the dullness.

Chapters are titled: equipment, medical examination, medical management, underwater emergencies, surface emergencies, boating emergencies, and travel-related conditions.

The equipment chapter starts with a description of a first-aid kit that reveals the major fault of the book: it is long on generality and short on specifics. The kit includes an 'oxygen tank' and covers its use in one paragraph. I looked at the section on underwater emergencies to correct this deficiency and found the statement '...deliver oxygen by mask until emergency personnel arrive.' This is the extent of discussion of the use of oxygen, so the reader does not learn the importance of oxygen in the treatment of decompression illness or gain a rudimentary knowledge of oxygen equipment and delivery. Even though the book is for a non-medical readership, I would regard this as essential to the stated aim. The rest of the chapter is similarly vague or brief about equipment and its use.

The chapters on medical examination and management provide adequate descriptions, although a standard first-aid manual would be of more practical use. The chapter on underwater emergencies is remarkably brief on the prevention and management of decompression illness.

Diver rescue on the surface and underwater is covered reasonably well, but then the book wanders into dangerous irrelevance by including methods of estimating longitude and latitude. The latitude estimation is stated to cover 60 degrees North to 60 degrees South, but actually covers only the northern hemisphere. Even putting the correct dates in the nomogram, I was unable the find my latitude closer than 5 degrees while knowing the right answer and while not lost at sea. Covering travel medicine in 40 pages is an impossible task, even without the inclusion of irrelevant material such as how to secure a spinal victim on the floor of an aircraft during turbulence.

In summary, I would recommend that readers take on their boats and dive trips the local equivalents of the New Zealand St John's First Aid Manual, Boatmasters Course manual and Padi dive manual and not purchase this book.

Graham McGeoch

Key words

Book reviews, diving, accidents, first aid

Mending the bends: assessment, management, and recompression therapy

David Merritt

76 pages, soft cover ISBN 0-930536-05-4

Flagstaff, Arizona: Best Publishing Company, 2002 Available from Best Publishing Company, P O Box 30100, Flagstaff, Arizona 86003-0100, USA.

Ph: (+1) 928 527 1055; Fax: (+1) 928 526 0370

E-mail: <divebooks@bestpub.com>

Copies can be ordered online at <www.bestpub.com> Price: US \$19.95, postage and packing extra

It is not clear even after reading this book whom the targeted audience is. The title would suggest it was written for medical practitioners yet the anecdotal style, lack of depth and scant references would appear to be more suitable to the avid non-medically-qualified diver.

The initial chapters give a very brief overview of diving physics, the mechanical effects of pressure, air diving, toxic inhaled gases and alterations in cardiopulmonary performance at depth yet leave the reader dissatisfied in that no topic has been dealt with in any degree of complexity.

Whilst appreciating the author is trying to inform the uneducated, to suggest that all patients who present with a squeeze (barotrauma), no matter where it is or how small it may seem, are at increased risk of decompression sickness (DCS) and arterial gas embolism is untrue. Recreational divers are well informed and will soon lose faith in a medical practitioner who considers a provisional diagnosis of DCS when they present after an aborted dive (and less than one minute bottom time) secondary to a middle ear barotrauma.

For an introductory manual the discussion of oxygen toxicity is confusing. Whilst stating that oxygen treatments at 60 fsw are at 2.8 ATA the author also states that in a dry chamber, oxygen can usually be tolerated up to 2 ATA. There is no further discussion as to the differences seen in dry and wet exposures and no advice as to the safety and efficacy of the US Navy Table 6 recompression table. Most practitioners would not routinely calculate the unit pulmonary toxicity dose (UPTD) unless the patient had received considerable oxygen prior to recompression or if faced with an extended table. The patient's clinical condition, response to treatment, residual signs and awareness of possible pulmonary oxygen toxicity guide recompression, not a single UPTD score.

The chapter on the hazards of the undersea environment is simplistic and glib and does not contribute any information relevant to the management of DCS. The advice to routinely use antibiotics in the treatment of a near-drowned victim is not consistent with that of experts in this field.

The chapters on DCS are again simplistic and leave the reader dissatisfied. The advice that any pain distal to the axilla or the groin can be safely treated as type I DCS and any pain proximal to those points as type II DCS would lead the reader to believe a comprehensive neurological examination was a waste of time! The author does provide detail on the conduct of a neurological examination but this is brief and provides no information as to the neurological signs the examiner should be looking for.

The discussion on treatment tables, 'What table do I use,' provides a rationale for each US Navy treatment table beginning with air tables and finishing with an oxygen soak.

There is no detailed discussion as to what is the most commonly used table nor why the oxygen tables are used preferentially. To the uninitiated, air tables or even in-water recompression may appear to be the most appropriate treatment regime.

In consideration of drug therapy for DCS the author makes the comment that no drug or combinations of drugs have been proved by controlled double-blind studies in humans to be effective. He then states 'that anecdoctal reports don't count (they do, but I had to put in that disclaimer),' which may imply a lack of scientific rigour in his management approach. I know of no specific study that has proved that steroids reduce brain and spinal cord swelling as well as reduce the inflammatory response seen in vascular and tissue injuries as a result of DCS as suggested by the author when recommending their routine use. Certainly, within Australia neither is aspirin the mainstay in management.

The book does include the diving accident treatment flow charts and a number of US Navy treatment tables.

Overall, this book does not live up to its title and would not provide the level of detail required by a medical practitioner to manage a patient with decompression sickness. There are many excellent diving medicine textbooks available, that are mandatory reading for those interested in the specialty. Unfortunately, this book is not one of those.

Robyn Walker

Key words

Book reviews, scuba diving, accidents, decompression illness, treatment

Description of a diving machine

Karl Heinrich Klingert

51 pages, hardback, case bound with dust jacket ISBN 0-954383-40-0

UK: Historical Diving Society, 2003

Available from Historical Diving Society www.thehds.com

Ph: +44-(0)1737-249961 E-mail: <info@thehds.com>

Price GBP18.00, postage and packing extra (UK GBP3,

Europe GBP4. elsewhere GBP6)

This excellent publication is the third monograph to be published by the Historical Diving Society. Introduced by Michael Jung, the leading authority on Klingert's work, this monograph comprises the first English translations of Klingert's two very rare publications: Description of a Diving Machine for Use in Rivers and A Brief Supplement to the History and Description of a Diving Machine, Together With the Explanation of a Lantern or Lamp Which

Burns in any Vitiated Air, and in Water.

Michael Jung gives a well-written and informative history of Klingert's life. He tells us that Karl Heinrich Klingert was born on 16 January 1760 in Breslau. Now the city of Wroclaw in modern Poland, Breslau was the capital of Silesia, which in 1772 became a province of Prussia. Situated some 560 kilometres from the sea, the only water in Breslau available for an inventor of diving equipment is the river Oder and its tributaries; this makes Klingert's inventions all the more remarkable. For the uninitiated I'd better explain that in 1797 Karl Klingert published a description of a surface-supplied, semi-atmospheric diving apparatus complete with a means of communicating with the surface. Even if you have not heard of him, it is likely that you will have seen a picture of his apparatus.

In *Description of a Diving Machine for Use in Rivers*, Klingert describes in detail the manufacture and instructions for use of his diving machine. The diving machine consists of a large helmet and an under-cylinder both constructed of tin plate. The helmet is joined to the cylinder by a leather jacket, the sleeves of which extend to just above the elbow. Leather breeches extend from the under-cylinder to just above the knees. Connected to the bottom of the under-cylinder is an iron frame that prevents the leather breeches from being pushed against the body by water pressure.

Two hoses are attached to the helmet, one provides air from the surface and the other is a speaking tube enabling the diver to communicate directly with the surface. The diver is weighted by a series of weights hung from hooks on the under-cylinder.

When one reads the descriptions of late-18th-century equipment and methods of manufacture and combines it with a look at the classical picture of the diver in confident pose holding an axe, it is easy to dismiss the whole thing as the unworkable ramblings of a dreamer. If this is the case, readers may be surprised to learn that on 24 June 1797 a dive was conducted using Klingert's diving apparatus in approximately 4 metres of water for 13 minutes, during which time the diver 'sawed through a tree standing upright at the bottom of the river.'

In the second of Klingert's publications he describes two means of making the diver more independent. One is utilising the equipment already described attached to a large cylinder of air that has a platform for the diver to stand on. A large handle winds a piston in and out at the bottom of the cylinder to control buoyancy.

His second method of making the diver more independent is virtually an early design for scuba. He proposes a large, open helmet fitted snugly over the shoulders and held down by a harness and weights. Air is supplied to the helmet from a cylinder of compressed air slung at the hip, the supply valve being manually operated by the diver. However, the invention that caught my imagination is a means of underwater illumination. Klingert designed a lantern that consists of a cylinder of compressed air with a control valve at the top and a miner's lamp attached to the valve. A brass ring at the top of the glass supports an inverted glass cone that keeps the water out of contact with the hot glass. A tube then leads exhaust gases from the top of the lamp down the side of the lamp to prevent water ingress. This lamp could be used underwater or in mines and would burn for over three hours. Of course, to construct these items Klingert also had to design and build cylinders capable of being pressurised and a pump with which to compress the air. Both of these he describes in the supplement.

In hardcover and comprising just 51 pages, this is an excellent little book. Jung's introduction gives a fascinating insight into the genius of a man who was always thinking and inventing not just diving equipment but many more items, including a battery-powered clock.

Klingert's two publications with the original copperplates have been translated into English without losing the language of the period. Both of these pieces show that Klingert was not just a thinker but he was also a doer; as Mechanic to the Royal Prussian Government he could follow through on his ideas and actually manufacture the equipment he designed.

The Historical Diving Society (HDS) is to be applauded for its efforts in translating, editing and publishing this excellent text. Klingert's diving apparatus was one of the milestones of diving equipment development, and thanks to the dedication of societies such as the HDS these milestones are being recorded before it is too late. For anyone with the remotest interest in diving history, mechanical history or general history this book is a must. It is a limited edition, so you will need to be quick.

Steve Goble

Key words

Book reviews, history, scuba

THE HISTORICAL DIVING SOCIETY Annual Conference, Saturday 18 October 2004



To be held at the Lecture Theatre of Portsmouth University (Langstone Centre), Langstone, Portsmouth.

Tickets cost £20. Purchase in advance from: The Secretary, Historical Diving Society, 25 Gatton Road, Reigate, Surrey, RH2 0HB. E-mail: <mjf@lglodge.freeserve.co.uk>

CEO/President

Divers Alert Network (DAN) America

Divers Alert Network (DAN) America seeks a world-class expert in dive safety to assume the position of President of this non-profit 200,000-member association of recreational divers.

The mission of DAN is to give expert medical information and advice for the diving public, to provide emergency medical advice and assistance for medical diving injuries, and to work to prevent injuries and promote diving safety. (See <www.diversalertnetwork.org> for extensive organisational information.)

The CEO/President in this position is responsible for:

- the organisation's effective management including all headquarters operations located in Durham, North Carolina and a staff of 80;
- in conjunction with the Board and CFO, overseeing the management of two for-profit subsidiaries wholly owned by DAN America;
- effectively maintaining DAN's close association with Duke University Health Systems and other diving organisations worldwide.

Duke University is an Equal Opportunity/Affirmative Action Employer.

Qualifications include:

- reputation as a world-class expert in diving safety;
- a minimum degree of PhD or MD;
- demonstrated leadership experience in complex nonprofit and/or membership organisations, including sound fiscal management;
- a strong background in managing, motivating and developing programs and funding sources for research and educational purposes;
- excellent communication skills in writing and in addressing public and professional audiences.

DAN seeks an individual who possesses energy, initiative, excellent people skills and the capacity to think strategically.

Search is conducted by Tuft & Associates, Inc.

Send resume or CV to:

Mimi Letchinger, 5000 S. East End Ave., 24C, Chicago, IL 60615, USA or **E-mail:** <MIMILETCH@aol.com>

ALLWAYS DIVE EXPEDITIONS





ALLWAYS DIVE EXPEDITIONS

168 High Street
Ashburton, Melbourne
Vic. Australia 3147
TEL: (03) 9885 8863
Fax: (03) 9885 1164
TOLL FREE: 1800 338 239
E-mail:
<allwaysdive@atlasmail.com.au>



Contact us for all your travel requirements within Australia and overseas.

Ask about our low cost air fares to all destinations

SPUMS 2004 Annual Scientific Meeting

Noumea - New Caledonia

Venue - Le Meridien Noumea

May 30th – June 6th 2004

(meeting to run June $1^{st} - 5^{th}$ inclusive)

SPUMS meeting to follow UHMS Sydney 2004

Convener

Dr Guy Williams
P.O. Box 190, Red Hill South, VIC 3937 AUSTRALIA
Phone: +61-(0)3-5981-1555
Fax: +61-(0)3-5981-2213

E-mail: <guyw@surf.net.au>

Travel Arrangements

Allways Dive Expeditions
168 High Street, Ashburton, VIC, 3147 AUSTRALIA
Phone: +61-(0)3 -9885-8863

Fax: +61-(0)3-9885-1164
Toll Free: 1800338239
E-mail: <Allwaysdive@bigpond.com.au>

HTNA ANNUAL MEETING 2003

Dates: 27 to 30 August, 2003

Venue: Hotel Grand Chancellor, Hobart, Tasmania **Guest Speakers:** David Elliott, Valerie Flook and Ian Millar

Contact: Corry van den Broek

E-mail: <corry.vandenbroek@dhhs.tas.gov.au>

UNDERSEA and HYPERBARIC MEDICINE SOCIETY

37th Annual Scientific Meeting Preliminary Notice

Dates: 24 to 27 May, 2004

Venue: Four Seasons Hotel, Circular Quay, Sydney **Contact:** International Conferences & Events (ICE)

E-mail: <uhms@iceaustralia.com>

ASM web site: http://www.iceaustralia.com/uhms2004

EUROPEAN UNDERSEA BAROMEDICAL SOCIETY

2003 Scientific Meeting

Dates: 27 to 31 August, 2003 **Venue:** University of Copenhagen The Panum Institute Blegdamsvej 3 C

2200 Copenhagen N, Denmark

Contact: EUBS 2003, c/o Department of Anaesthesiology Centre of Hyperbaric Medicine, Righospitalet Blegdamsvej 9, DK-2100, Copenhagen, Denmark

Phone: +45-(0)3-5454-3467 **E-mail:** <hbo@rh.dk>

EUBS congress web site: http://www.hbo.dk
EUBS web site: http://www.eubs.org

PACIFIC RIM MEDICO-LEGAL CONFERENCE 2003

Dates: 27 September to 4 October, 2003

Venue: Heron Island, Great Barrier Reef, Australia

ROYAL AUSTRALIAN NAVY MEDICAL OFFICERS UNDERWATER MEDICINE COURSE 2003

Dates: 24 November to 5 December, 2003

Venue: HMAS Penguin

The Medical Officer's Underwater Medicine Course seeks to provide the medical practitioner with an understanding of the range of potential medical problems faced by divers. Considerable emphasis is placed on the contra-indications to diving and the diving medical, together with the pathophysiology, diagnosis and management of the more common diving related illnesses.

Cost: \$1578.00 (tbc)

For information and application forms contact: The Officer in Charge, Submarine & Underwater Medicine Unit, HMAS PENGUIN, Middle Head Rd, Mosman, 2088 NSW

Phone: +61-(0)2-9960-0572 **Fax:** +61-(0)2-9960-4435

E-mail: <Sarah.Sharkey@defence.gov.au>

ROYAL ADELAIDE HOSPITAL HYPERBARIC MEDICINE COURSES 2003

Medical Officers Course

July/August 2003

Basic 21/7/03 to 25/7/03 Advanced 28/7/03 to 1/8/03 October/November 2003

Basic 27/10/03 to 31/10/03 Advanced 3/11/03 to 7/11/03

Cost:

Basic Diving Medicine Course: \$825.00

Advanced: \$825.00

DMT Full Course

October 2003 3 weeks, 13/10/03 to 31/10/03 DMT Refresher Course

July/August 2003 2 weeks, 21/7/03 to 1/8/03 **October 2003** 1 week, 20/10/03 to 24/10/03

For further information or to enrol contact:

The Director, Hyperbaric Medicine Unit Royal Adelaide Hospital, North Terrace

South Australia 5000. **Phone:** +61-(0)8-8222-5116 **Fax:** +61-(0)8-8232-4207

ANZCA ANNUAL SCIENTIFIC MEETING 2004 Diving & Hyperbaric SIG

Dates: 1 to 5 May, 2004

Venue: Perth Concert Hall and Duxton Hotel, Perth, WA **Contact:** Katie Clarke, Congress West, 3/12 Thelma Street,

West Perth, WA 6872 **Phone:** +61-8-9322-6906 **Fax:** +61-8-9322-1734

Email: <conwes@congresswest.com.au>

FREMANTLE HOSPITAL DEPT OF DIVING & HYPERBARIC MEDICINE DIVING MEDICAL EXAMINATION FOR RECREATIONAL DIVERS

A three-day course will be conducted for medical practitioners who wish to perform medical examinations for recreational divers in accordance with Australian Standard AS 4005.1. RACGP CME credit hours applied for

Dates: 28 to 30 November 2003

Venue: Fremantle Hospital, Alma Street, Fremantle, WA **Contact:** Mrs Beth Karlsson, Administrative Assistant

Phone: +61-(0)8-9431-2233 **Fax:** +61-(0)8-9431-2235

DIVING MEDICAL CENTRE (AUSTRALIA)

A 3-day Diving Medical Examiner's Course will be conducted by the Diving Medical Centre (Australia) in Queensland over Easter 2004.

Dates: 10 to 12 April, 2004 Venue: To be advised

This course is approved by SPUMS to teach doctors to examine recreational divers, dive masters and instructors to the Australian AS4005.1 standard.

The course has been approved by the RACGP for $120\,\mathrm{CPD}$

points (Group 1).

Contact: Dr Bob Thomas, Brisbane **Phone:** +61-(0)7-3376-1056 for details

CLINICAL MANAGEMENT of DIVING ACCIDENTS

An advance course for medical practitioners

TRIAGE AND MANAGEMENT OF DIVING ACCIDENTS

an International Workshop

Dates: 10 to 14 November, 2003 **Venue:** Patong, Thailand

Contact: Professor David Elliott, 40 Poetworth Road,

Haslemere, Surrey GU27 2HX **Fax:** +44-(0)1428-658678 **E-mail:** <davidelliott@aol.com>

10TH INTERNATIONAL CONFERENCE ON EMERGENCY MEDICINE (ICEM 2004)

Speakers are invited for this meeting in Cairns in 2004

Dates: 6 to 10 June, 2004

Venue: Cairns Convention Centre, Queensland

Web site: <www.icem2004.im.com.au>

Contact: Conference Secretariat, Intermedia Convention and Event Management, P O Box 1280, Milton, Queensland

4064, Australia

Phone: +61-(0)7-3858-5535 **Fax:** +61-(0)7-3858-5510 **E-mail:** <icem2004@im.com.au>

Instructions to authors

The SPUMS Journal welcomes contributions (including letters to the Editor) on all aspects of diving and hyperbaric medicine. Manuscripts must be offered exclusively to the SPUMS Journal, unless clearly authenticated copyright exemption accompanies the manuscript. All manuscripts, including SPUMS Diploma theses, will be subject to peer review. Accepted contributions will be subject to editing.

Contributions should be sent to:

The Editor, SPUMS Journal, C/o Office 137, 2nd Floor, Christchurch Hospital, Private Bag 4710, Christchurch, New Zealand. E-mail: <spumsj@cdhb.govt.nz>

Requirements for manuscripts

Documents are acceptable on disk or by e-mail. The preferred format is Word 6 for Windows. Two printed copies of all text, tables and illustrations should also be mailed. All articles should include a title page, giving the title of the paper and the full names and qualifications of the authors, and the positions they held when doing the work being reported. Identify one author as correspondent, with their full postal address, telephone and fax numbers, and e-mail address supplied. The text should be subdivided into the following sections: an Abstract of no more than 250 words, Introduction, Methods, Results, Discussion, Acknowledgements and References. Acknowledgments should be brief. References should be in the format shown below. Legends for tables and figures should appear at the end of the text file after the references.

The printed copies and electronic files should be double-spaced, using both upper and lower case, on one side only of A4 paper. Headings should conform to the format in the *Journal*. All pages should be numbered. Underlining should not be used. Measurements are to be in SI units (mm Hg are acceptable for blood pressure measurements) and normal ranges should be included.

The preferred length for original articles is 3,000 words or less. Inclusion of more than five authors requires justification as does more than 30 references per major article. Case reports should not exceed 1,500 words, with a maximum of 10 references. Abstracts are also required for all case reports and reviews. Letters to the Editor should not exceed 400 words (including references, which should be limited to five per letter). Legends for figures and tables should be less than 40 words in length.

Illustrations, figures and tables should NOT be embedded in the wordprocessor document, only their position indicated. All tables are to be in Word for Windows, tabseparated text rather than using the columns/tables option or other software, and each saved as a separate file. They should be double spaced on separate sheets of paper. No

vertical or horizontal rules are to be used. Illustrations and figures should be separate documents in JPG or TIFF format.

Photographs should be glossy, black-and-white or colour. Slides should be converted to photographs before being sent. Colour reproduction is available only when it is essential for clinical purposes and may be at the authors' expense. Indicate magnification for photomicrographs.

Abbreviations should only be used in brackets after the complete expression, e.g., decompression illness (DCI) can thereafter be referred to as DCI.

References

The Journal reference style is the 'Vancouver' style (*Uniform requirements for manuscripts submitted to biomedical journals*, updated October 2001. http://www.icmje.org/index.html).

In this system references appear in the text as superscript numbers. ^{1,2} The references are numbered in order of quoting. Index Medicus abbreviations for journal names are to be used (<http://www.nlm.nih.gov/tsd/serials/lji.html>). Examples of the format for quoting journals and books are given below.

- 1 Anderson T. RAN medical officers' training in underwater medicine. *SPUMS J* 1985; 15: 19-22
- 2 Lippmann J, Bugg S. *The diving emergency handbook*. Melbourne: JL Publications, 1985

There should be a space after the semi-colon and after the colon, and no full stop after the page numbers. Titles of quoted books and journals should be in italics. For those using referencing software, the format is the same as the *British Journal of Anaesthesia*. Accuracy of the references is the responsibility of authors.

Consent

Studies on human subjects must comply with the Helsinki Declaration of 1975 and those using animals must comply with National Health and Medical Research Council Guidelines or their equivalent. A statement affirming Ethics Committee (Institutional Review Board) approval should be included in the text. A copy of that approval should be available if requested.

Copyright

Authors must agree to accept the standard conditions of publication. These grant the SPUMS Journal a non-exclusive licence to publish the article in printed form in the SPUMS Journal and in other media, including electronic form. Also granting the right to sub-licence third parties to exercise all or any of these rights. The South Pacific Underwater Medicine Society Journal agrees that in publishing the article(s) and exercising this non-exclusive publishing sub-licence, the author(s) will always be acknowledged as the copyright owner of the article.

South Pacific Underwater Medicine Society (SPUMS) Journal Volume 33 No. 2 June 2003

DIVER EMERGENCY SERVICES PHONE NUMBERS

AUSTRALIA

1-800-088-200 (in Australia) +61-8-8212-9242 (International)

The toll-free number 1-800-088-200 can only be used in Australia

NEW ZEALAND

0800-4-DES111 or 09-445-8454 (in New Zealand)

+64-9-445-8454 (International)

The toll-free number 0800-4-DES111 can only be used in New Zealand

The DES numbers in both countries are generously supported by DAN-SEAP

PROJECT STICKYBEAK

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 regards to identifying details, is utilised in reports and case reports on non-fatal cases. Such reports can be freely used by any interested person or organisation to increase diving safety through better awareness of critical factors.

Information may be sent (in confidence) to:
Dr D. Walker
P.O. Box 120, Narrabeen, N.S.W. 2101.

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 any incident occurring in your dive party, but do not identify anyone. 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.

To obtain or to return Diving Incident Report forms write to: DIMS.

30 Park Avenue, Rosslyn Park, South Australia 5072, Australia.

PROJECT PROTEUS

The aim of this investigation is to establish a data base of divers who dive or have dived with any medical contraindications to diving. At present it is known that some asthmatics dive and that some insulin dependant diabetics dive. What is not known is how many. How many with these conditions die is known. But how many dive safely with these conditions is not. Nor is the incidence of diving accidents in these groups known.

This project is under the direction of Dr Douglas Walker and Dr Mike Bennett. The investigation has been approved by the Ethics Committee of the Prince of Wales Hospital, Randwick, approval number 01/047.

If you are in such a group please make contact. All information will be treated as CONFIDENTIAL. No identifying details will appear in any report derived from the data base.

Write to: Project Proteus
PO Box 120, Narrabeen, New South Wales 2101, Australia.
E-mail <diverhealth@hotmail.com>

DISCLAIMER

All opinions expressed are given in good faith and in all cases represent the views of the writer and are not necessarily representative of the policy of SPUMS.

CONTENTS

Editorial

61 The Editor's offering

Original articles

62 Blood sugar changes in diabetic patients undergoing hyperbaric oxygen therapy
Barbara Trytko and Michael H Bennett

70 Children and diving: medical aspects. Eight years' sports medical follow-up of the first scuba diving club for children in Belgium

Guy Vandenhoven, Francis Collard and Etienne Schamp

Children and scuba diving

- 74 Editorial. Children and diving: a paediatric perspective Anita Cvitanovich and Paul Langton
- 75 Decompression sickness in a 14-year-old diver Michael Davis
- 77 Assessing children's fitness for scuba diving Robyn M Walker
- 78 How old is old enough? Robyn M Walker
- 81 Children in diving: how young is too young?
 Simon Mitchell
- 83 Children and diving: the recreational-diving training perspective

Drew Richardson

SPUMS Annual Scientific Meeting 2002

91 Post-travel illness

Trish Batchelor

98 Rebreathers

Steve Goble

Articles reprinted from other journals

103 Comparative efficacy of insect repellents against mosquito bites [Abstract]

Mark S Fradin and John F Day

104 A POEM a week for the BMJ Richard Smith

106 Hyperbaric Medicine in South Africa

Frans Cronje

Critical appraisal

105 The use of hyperbaric oxygen therapy did not decrease disability following ischaemic stroke

Benjamin Kliot and Michael H Bennett

Erratum

77 Robyn Walker

Letters to the Editor

- 107 Thoughts regarding airintegrated versus separatesecond-stage octopus supplies Kirk J Bloede
- 108 The Abacus Project, Canada Gary Ladd

SPUMS notices & news

- 109 Minutes of the SPUMS Executive Committee Meeting held in Sydney on 26 October 2002
- 110 Diploma of Diving and Hyperbaric Medicine requirements
- 111 Accepted indications for hyperbaric therapy
- 112 SPUMS Diplomas
- 113 ANZCA Foundation Certificate Holder in Diving & Hyperbaric Medicine

Book reviews

- 90 Children and scuba diving: a resource guide for instructors and parents
 - International PADI, Inc.
- 114 Hyperbaric surgery:
 perioperative care
 Dirk Jan Bakker and Frederick S
 Cramer
- 114 On-site management of scuba diving and boating emergencies

 Wesley Yapor
- 115 Mending the bends: assessment, management, and recompression therapy David Merritt
- 116 Description of a diving machine Karl Heinrich Klingert

Courses and meetings

118 Courses and meetings

Instructions to authors

120 Instructions to authors