



European Baromedical Association
for nurses, operators and technicians



EBAss is all of you!

Message from the President

by Angeliki Chandrinou, President of EBAss

Dear members,

Welcome to an exciting year for EBAss. We are happy to announce our second Safety Manager Course from 2-4 October, 2018 in Barcelona.

The course and examinations will be delivered in English but there will be support offered by Spanish speaking personnel for those who require clarification of points. So, don't hesitate to submit your interest and book your seat for three days full of workshops and academic programme.

An online form where you can show your interest of participation is now open on our website www.ebass.org.

Other activities on the EBAss planner will take place in Durban this September,

at the 2nd Tricontinental Scientific Conference on Diving and Hyperbaric Medicine. Have a great Spring!



Angeliki Chandrinou
EBAss President

Words from the Editor

by Damianos Tzavellas, General Secretary, President of EBAss Communication Committee

Dear reader,

This issue is published after six months, in which period of course many things have happened in our association. I will highlight the successful completion of the 1st Safety Manager course, organized by members of the EBAss Board of Directors, as well as the General Assembly and 2 meetings of the Board of Directors.



EBAss
Newsletter

January-March
2018

Calendar of Events



🕒 **UHMS, Annual Scientific Meeting**, 28-30 June 2018, Disney's Coronado Springs Resort, Lake Buena Vista, Florida. <https://www.uhms.org>

🕒 **HTNA, 26th Annual Scientific Meeting**, 16-18 August 2018, Bali, Indonesia. <http://www.spums.org.au>

🕒 **2nd Tricon Scientific Conference (EUBS, SAUHMA, SPUMS)**, 23-29 September 2018, Durban, South Africa <http://www.tricon2018.org>

🕒 **EBAss Safety Manager course**, 2-3 October, 2018, Barcelona, Spain www.ebass.org

🕒 **EBAss General Assembly and meeting for the Board of Directors**, 05-06 October 2018, Barcelona, Spain

🕒 **British Hyperbaric Association Annual Scientific Meeting and AGM**, 2018, Rugby, UK <http://www.ukhyperbaric.com>

🕒 **20th International Congress on Hyperbaric Medicine**, 13-16 September 2020, Rio de Janeiro. <http://www.eubs.org>

Lots of new studies related to technical, nursing and safety areas appeared again in our PubMed search, 8 of which are included in this issue. We have also prepared lots of interesting articles but, due to limited space of the newsletter, some of them will have to wait until next time to be published, which hopefully will be before the coming July.

Feel free to send news from your hyperbaric facility or articles related to hyperbaric oxygen for publication at our newsletter. You can also send comments for current or previous issues at info@ebass.org

Enjoy your reading!!



EBAss News

EBAss activities of the last 6 months

- ✓ The 1st Safety Manager course by EBAss was successfully held in Porto, Portugal
- ✓ EBAss General Assembly and meeting of the Board of Directors took place in Porto, Portugal.
- ✓ EBAss online meeting of the Board of Directors took place in March 2018.
- ✓ The 1st announcement for the 2nd Safety Manager course is now available online at the EBAss website.
- ✓ An online database is currently being developed at the EBAss website for networking between European hyperbaric

personnel. Please go online at (<http://ebass.org/hyperbaric-centers-europe/>) and place your facility with a person in contact.

- ✓ The exchange program of hyperbaric personnel is re-activated. More information will be announced soon.
- ✓ Translation of GA minutes in French, Spanish and Italian.

Welcome of new members

We would like to welcome onboard and thank for their support, the following personnel who joined EBAss during the last year

1. Orchard Jennifer - UK
2. Jewel James - UK
3. Brewer Catherine - UK
4. Sartain Tudor - UK
5. Turner James - UK
6. Mundell Natasha - UK
7. Domini Kisty - UK
8. White Doreen - UK
9. Di Napoli Alberto - I
10. Dugonjić Mario - HR
11. Moreal Antoni Moréno - SP
12. Bright Kevin - IE
13. Caetano Orlando - PT

EBAss Accredited centres for 2017

The following centres are EBAss accredited to run training courses for Chamber Operators, Nurses, ICU Nurses or Attendants (not nurse), specialized to work under Hyperbaric conditions.

1. HBO Cyprus - Cyprus
2. DDRC Professional Services - UK
3. Murneau Hyperbaric Unit - Germany
4. Haux Life Support Germany - Germany
5. Haux Life Support Netherlands - Netherlands
6. Centro Di Medicina Iperbarica, PADOVA - Italy
7. Hyperbaric Health - Australia

General Assembly (GA) of the 22nd October 2017

by EBAss

Our last GA was a meeting full of creative discussions and interactions between members. The Presidents of the Committees presented their reports with tasks-to-do and activities of the last year.

At a snapshot, the General Secretary presented the situation of EBAss memberships (full individual, associate/corporate, etc) and the Treasurer presented the EBAss accounts with a proposal for the 2018 budget distribution. An EBAss member, Mr Manuel Preto (Portugal), joined the Board of Directors after he placed his candidature and was voted by the participants of the GA. Welcome onboard Manuel!!

From the important decisions that were made, it was agreed to start the process of transition from EBAss to EBAss UK (charity).

The President of the Communication Committee highlighted in his report the importance of empowering networking strategies for hyperbaric personnel. He suggested to reactivate the exchange program and to create an online database with contacts (name, hyperbaric unit, email address) from hyperbaric personnel. Translation of documents and announcements in lan-

guages other than English seemed to be an issue so far, due to limited voluntary time offered by active EBAss members.

However, it is still active and any volunteers please send us an email at info@ebass.org.

Our webmaster reported the creation of an online registration form for memberships which is now connected to an online payment. It was also highlighted the increased interest of website visitors from Portugal and Spain.

The report from the Education Committee focused on the outcomes of the 1st Safety Manager course which finished 2 days before the GA. There was an overall acceptance of the course contents and structure with positive feedback by the participants. Many credits of this success are granted to our local organizers, Manuel Preto and his colleagues at the Porto Hyperbaric Unit. Thank you!!!

The President of the Safety Committee pointed out in his report the issue of certification for defibrillators who are intended for use



under hyperbaric conditions. Some models are certified to work only up to 200 kPa which could be an issue in case of a cardiac incident at 300 kPa (e.g. Comex 30 profile). He also suggested that Safety Managers should have the last word concerning what equipment is



brought inside the chamber by physicians and nurses.

Finally, the report from the Accreditation committee presented similar numbers of in-dates certificates for ECHCO and ECHRN compared to numbers of previous years.

For more information, please find the minutes of the GA at the members area of our website.

Recent Publications

abstracts of articles related to Hyperbaric Nurses and Technicians, excl. medical indications or interventions

keywords: Hyperbaric, oxygen

search machine: Medline

period of search: 6/2017 - 9/2017

1. Health effects of hyperbaric exposure on chamber attendants: a literature review.

Pougnat R. et al, Int Marit Health. 2018; 69(1):58-62

RESULTS:

Eight articles studied decompression illness (DCI). The incidence of DCI ranged from 0 to 37 per 100,000 sessions in hyperbaric chambers (SHC). The incidence of injuries ranged from 0 to 412 per 100,000 SHC. The most prevalent cause of accidental death was fire: 77 deaths (patients and attendants) between 1923 and 1996. Dysbaric osteonecrosis has been reported in one study only.

2. An approach to treating a patient with a HeartMate IITM left ventricular assist device in a multiplace hyperbaric chamber: a case report.

Orwig D. et al., Undersea Hyperb Med. 2018 Jan-Feb;45(1):89-93

CONCLUSION:

This case is the second reported patient in the literature with an LVAD that was successfully treated in a multiplace

hyperbaric chamber. As LVADs become increasingly popular to manage heart failure, more patients with these devices will present for hyperbaric treatments. With a few modifications, an LVAD patient can be safely and successfully treated in a hyperbaric chamber.

3. Analysis of factors related to failure in the pressure test: a six-year experience in Taiwan.

Tseng WS et al., Undersea Hyperb Med. 2018 Jan-Feb;45(1):33-39

CONCLUSION:

Our results suggest that pressure testing to a depth of 60 fsw is effective in disqualifying personnel entering diving and submarine service. Recent infection of the upper respiratory tract, allergic rhinitis and cigarette smoking are risk factors for middle ear barotrauma, resulting in failure of the pressure test.

4. An anti-barotrauma system for preventing barotrauma during hyperbaric oxygen therapy.

Song M. et al., Undersea Hyperb Med. 2018 Jan-Feb;45(1):19-25

CONCLUSION:

This study was conducted to test a novel technology that can be used to measure transmembrane pressures, and provide chamber attendants with real-time feedback regarding the patient's equalization status prior to the onset of pain or injury. This ABT device can provide objective feedback reflecting eardrum condition to the patient and the chamber operator during HBO₂ therapy.



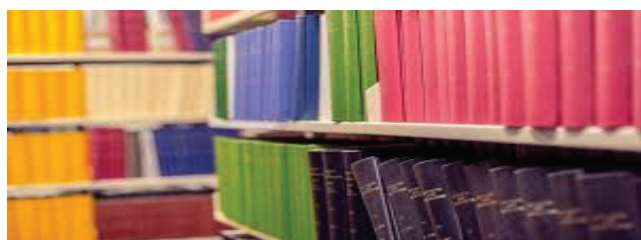
5. Transcutaneous oximetry: variability in normal values for the upper and lower limb.

Blake DF et al., Diving Hyperb Med. 2018 Mar 31;48(1):2-9

CONCLUSION:

The broad dispersion in PtcO₂ in our healthy cohort reflects the inherent biologic variability in dermal perfusion

and oxygen delivery, making it difficult to define narrow, rigid 'normal' values. Thus, we cannot recommend a single PtcO₂ value as 'normal' for the upper or lower limb. A thorough patient assessment is essential to establish appropriateness for hyperbaric oxygen therapy, with TCOM used as an aid to guide this decision and not as an absolute.



6. Perceptions of hyperbaric oxygen therapy among podiatrists practicing in high-risk foot clinics.

Henshaw FR et al., *Int Wound J.* 2018 Jan 3. doi: 10.1111/iwj.12874. [Epub ahead of print]

CONCLUSION:

Podiatrists cited logistical issues such as location of facilities as well as poor communication pathways, lack of delegation and lack of follow up when patients presented for hyperbaric treatment. In general, podiatrists had an understanding of the premise of hyperbaric oxygen therapy and evidence to support its use but could only provide very limited citations of key papers and guidelines to support their position. Podiatrists stated that they felt a patient was lost from their care when referred for hyperbaric oxygen and that aftercare might not be adequate. Improved referral and delegation pathways for patients presenting for hyperbaric oxygen, as well as the provision of easily accessible evidence to support this therapy, could help to increase podiatrists' confidence in deciding whether or not to recommend their patients for hyperbaric oxygen therapy.

7. Dried salted plum consumption ameliorates hyperbaric oxygen therapy-induced otalgia severity at the first chamber ses-

sion: a prospective randomized controlled study.

Meng FC et al., *Undersea Hyperb Med.* 2017 Nov-Dec;44(6):551-557

CONCLUSION:

ried salted plum consumption does not decrease the incidence of MEB, but may ameliorate the severity of first chamber session HBO₂-induced otalgia.

8. Health care worker decompression sickness: incidence, risk and mitigation.

Clarke R., *Undersea Hyperb Med.* 2017 Nov-Dec;44(6):509-519.

CONCLUSION:

Inadvertent exposure to radiation, chemical agents and biological factors are well recognized hazards associated with the health care delivery system. Less well appreciated yet no less harmful is risk of decompression sickness in those who accompany patients as inside attendants (IAs) during provision of hyperbaric oxygen therapy. Unlike the above hazards where avoidance is practiced, IA exposure to decompression sickness risk is unavoidable. While overall incidence is low, when calculated as number of cases over number of exposures or potential for a case during any given exposure, employee cumulative risk, defined here as number of cases over number of IAs, or risk that an IA may suffer a case, is not. Commonly, this unique occupational environmental injury responds favorably to therapeutic recompression and a period of recuperation. There are, however, permanent and career-ending consequences, and at least two nurses have succumbed to their decompression insults. The intent of this paper is to heighten awareness of hyperbaric attendant decompression sickness. It will serve as a review of reported cases and reconcile incidence against largely ignored individual worker risk. Mitigation strategies are summarized and an approach to more precisely identify risk factors that might prompt development of consensus screening standards is proposed.



SAFETY MANAGER COURSE

FOR HYPERBARIC PERSONNEL

After a very successful 1st Safety Manager course in 2017 at Porto it is our pleasure to invite you to our 2ND SAFETY MANAGER COURSE IN BARCELONA, SPAIN FROM OCTOBER 2-4, 2018.

This 3 day course (from 09.00-17.00 each day) is designed to provide experienced hyperbaric personnel with the knowledge and skills needed to fulfill the criteria for the role of the Safety Manager. The curriculum includes classroom instructions and practical exercises.

Admission criteria

The requirements are completion of an introductory course in Hyperbaric Medicine and working experience in facilities that deliver Hyperbaric Oxygen Therapy. Applications are therefore considered from physicians, nurses, operators and technicians. Priority will be given to nurses and operators that have already been certified under the EBAss/ECB scheme of ECHRN and ECHCO.

Objective

The course's objective is to prepare the participant for the role of the Safety Manager in Hyperbaric facilities. Main points of the role are based on a "Global" approach to management of safety and education within the team, including:

- the implementation of effective Safety Management and Quality Assurance systems with the use of guidelines, clinical protocols and internal audits that comply with local, national and European directives as well as with evidence based practices.
- the application of risk assessment and incident/accident reporting procedures within the Hyperbaric Centre.
- the acceptance and monitoring of effective education programs; including requirements for Clinical Practice Development of the hyperbaric team.

Course Description

This 3-day course (from 09.00-17.00 each day) is designed to provide experienced hyperbaric personnel with the added knowledge and skills needed to fulfil the criteria for the role of the Safety Manager. The emphasis will be on the review of European Norms that are related to hyperbaric technology (e.g. EN 14931, EN 14971, EN 16081), presentation of the European Code of Good Practice with reference to clinical practice, staff and patient education, infection control policies, firefighting systems and strategies, documentation, risk analysis and general principles in safety management such as safety culture.



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Language

The official language of the course is English.

All study material as well as exams will be given in English.

There will be support offered by Spanish speaking personnel for those who require clarification of points.

Course location

Location - Barcelona, Lectures and Practical sessions will take place at the Hospital Moises Broggi

Dates

2-4 of October 2018

Registration fee

Members of EBAss benefit from reduced registration rates. Please make sure your membership is up to date.

Submission of interest: Until June 29th 2018

Early Bird Rated (Until July 31st 2018): 450 EURO for EBAss members, 550 EURO for non EBAss members.

Late Registration Fees (From August 1st 2018): 550 EURO for EBAss members, 650 EURO for non EBAss members.

Fees are refundable upon cancellation up to 45 days before each course's starting date.

Registration is completed after payment of the full fee amount.

Fees will cover: Course syllabus, Certificate of Attendance, coffee and lunch breaks with snacks.

Accommodation

Participants are responsible for their travel and accommodation arrangements.

Successful completion of this course is demonstrated by attendance for the 3 days, a score of 70% on the final test (30 minutes time), practical assessments and submission of a completed anonymous course evaluation. Participants who wish to be certified will also need to sit an online test following successful completion of the course. For more information or interest to attend please contact us at info@ebass.org



Attention!!

The registration form for becoming a new EBAss member or renew your existing membership you can find online at <http://ebass.org/registration-form/>

The process for members to join the Board of Directors can be found in part IV of the EBAss statutes at <http://ebass.org/statutes/>

Corporate members



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