

MAGAZINE

Table of contents

Editorial

Klaus Seidenstücker.....138

News

Data and dates138

From the Maritime Organizations139

IMHA/IMHF cooperation.....140

Research projects/short communications.....141

Particulars

New Faces within IMHF142

Book Review

Helen Sampson: “Sea-Time”143

CME

Debriefing part I.....144

Editorial

Dear Colleagues,

welcome to another issue of YOUR journal *International Maritime Health!*

Yes, it is 'Health' – not medicine only. In its statute the International Maritime Health Foundation – publisher of this journal – states its objective as “to act for the development of science, to increase and disseminate knowledge of maritime medicine and adjacent fields ...”. As ‘adjacent fields the statute lists “naval, underwater and hyperbaric, diving, occupational, travel, tropical medicine ... and maritime psychology”.

The foundation pursues its objectives – among other activities – through publishing this journal “as an input ... to improvement of safety, hygiene at work and health of seafarers and other persons who work at sea ...” (offshore workers included, passengers excluded?).

Before we stray afar into areas only partially connected to the maritime environment, we must, however, focus on areas more directly contributing to seafarer health and wellbeing and to that of other populations exposed to the sea!

We need the input from areas such as sociology, technology/engineering, population and educational sciences, ergonomics, toxicology to only name a few.

You can find an interesting example in the book review in this magazine: the contribution of ethnography giving a vivid description of the (deteriorating) conditions for life and work at sea. Tim Carters article opens the new category of book review in this magazine.

Another is the expedition into education (CME). We understand that presently there are no generally valid procedures for international credentialing such education in our area of expertise. We nevertheless want to venture into that area with an article series on debriefing. It is at the same time a try to give an idea how quality can be assured outside established medical structures and how pathways¹ could be developed given the specific conditions at sea.

Thanks for reading and stay tuned with us!

Klaus Seidenstücker
Editor IMH magazine

News

DATA AND DATES

(contributed by Klaus Seidenstücker):

In a recent press release on the occasion of the International Day of Women in Seafaring (IMO, 18. 05.) the president of the German Shipowners Association, Dr. Gaby Bornheim, informed that the *female share in manning ships* in Germany had risen from 5.8% in 2022 to 7.1% in 2024. The worldwide share would be 2% in 2024.

2024 memorizes the deaths of two famous world explorers:

Marco Polo, 1254–1324 and Vasco da Gama, 1469–1524!

¹ See the reports published in previous magazines. Int Marit Health 2023; 74 (3): 226–234; Int Marit Health 2024; 75 (1): 70–71 and 74–77

FROM THE MARITIME ORGANIZATIONS (contributed by Nebojša Nikolić):

The Lloyd's Register Foundation

Turning the World Risk Poll into action: ongoing funding call

Lloyd's Register Foundation is offering funding for organisations who can use their 2021 World Risk Poll data for research and practical interventions to improve safety.

Following the announcement of the first cohort of projects to be awarded grants from the "Turning the 2021 World Risk Poll into Action" funding call, Lloyd's Register Foundation is making further funding available on an ongoing basis for organisations who can use World Risk Poll data for research and practical interventions to improve safety. Now that the dataset for the 2021 Poll is complete, they want to maximise its impact and ensure the findings are widely disseminated and used. The World Risk Poll covers a broad range of topics, and Lloyd's Register Foundation aim to fund multiple projects that utilise different areas of the 2021 findings. Applications for up to £250,000.00 will be considered.

The Seafarers' Charity

The experience of working at sea can be quite different for women than it is for their male colleagues, despite filling the same roles, following the same work patterns, and operating in the same working environments. Seafarers' Charity is inviting those who missed their webinar on Psychological Safety at Sea, to watch it on the Nautical Institute's YouTube channel at: https://www.youtube.com/watch?v=ZiFIS_f0jfM

This important discussion explores the challenges faced by women working at sea and how to create safer workplaces:

- the meaning of a psychologically safe workplace that supports women and creates the conditions that are favourable for women's career progression, their happiness and retention at sea
- how open discussions, training and thought leadership can positively transform company culture
- the support and resources available for women working at sea that champion their health, wellbeing and success

ITF Seafarer's Trust

The Seafarers' Trust vision is to be the leader in promoting and improving the wellbeing of seafarers worldwide. They launched the study to help them to understand current practice around shore leave and guide their efforts to improve seafarers' welfare and wellbeing in ports.

The questionnaire is intended to enhance understanding of access to shore leave, identify potential barriers and guide their grant-making strategy regarding port based welfare.

Study is accessible at: <https://www.seafarerstrust.org/>

WHO

World Health Assembly agreement reached on wide-ranging, decisive package of amendments to improve the International Health Regulations

In an historic development, the World Health Assembly, the annual meeting of its 194 member countries, on 1st June 2024 agreed a package of critical amendments to the International Health Regulations (2005) (IHR), and made concrete commitments to completing negotiations on a global pandemic agreement within a year, at the latest. These critical actions have been taken in order to ensure comprehensive, robust systems are in place in all countries to protect the health and safety of all people everywhere from the risk of future outbreaks and pandemics.

These decisions represent two important steps by countries, taken in tandem with one another on the final day of the Seventy-seventh World Health Assembly, to build on lessons learned from several global health emergencies, including the COVID-19 pandemic. The package of amendments to the Regulations will strengthen global preparedness, surveillance and responses to public health emergencies, including pandemics.

"The historic decisions taken today demonstrate a common desire by Member States to protect their own people, and the world's, from the shared risk of public health emergencies and future pandemics", said Dr Tedros Adhanom Ghebreyesus, WHO Director-General. "The amendments to the International Health Regulations will bolster countries' ability to detect and respond to future outbreaks and pandemics by strengthening their own national capacities, and coordination between fellow States, on disease surveillance, information sharing and response. This is built on commitment to equity, an understanding that health threats do not recognize national borders, and that preparedness is a collective endeavour".

IMO

IMO champions maritime decarbonization at Global Supply Chain Forum

At the world's first Global Supply Chain Forum (21–24 May), organized by UN Trade and Development (UNCTAD) and the Government of Barbados in Bridgetown, IMO Secretary-General Mr. Arsenio Dominguez named decarbonization as one of two major challenges currently facing the maritime industry, along with geopolitics.

During a high-level panel, Mr. Dominguez highlighted how attacks on commercial vessels in the Red Sea area is affecting efforts to cut emissions in shipping.

He said: "Even though we have made a lot of progress to become greener, the industry has been forced to increase greenhouse gas emissions in order to safely continue to supply to the world. So by sailing around the Cape of Good Hope [to avoid threats in the Red Sea], we emit three times more than expected."

However, he emphasized the "resilience" of the maritime sector in the face of crises, and applauded IMO's pathway to net zero shipping by around 2050. This includes setting legally binding technical and economic measures to cut emissions, which are due for global adoption in late 2025 as part of the 2023 IMO Strategy on Reduction of GHG emissions from ships. "We're focusing on the positives. We're working with other sectors, particularly the energy sector, to see how they can develop and supply energy at a price that will not create a negative impact on states, and particularly small island developing states," Mr. Dominguez added.

A PROMISING AND COMPLEMENTARY COOPERATION FOR THE FUTURE

by Jon Magnus Haga

The International Maritime Health Association (IMHA) and the International Health Foundation (IMHF) recently signed an agreement on cooperation. This is most welcoming news!

Whilst the two organizations have similar aims, they work in different fields, which are complementary to each other.

IMHA is a membership organisation and plays an important role in taking care of membership interests.

IMHF is a foundation devoted to scientific activities, including publication in the International Maritime Health journal and magazine and workshops of its *Expert Panel*.

Whereas IMHA has a Board of Directors where members are elected by a General Meeting, IMHF has no general meeting, as it has no members. However, it has a Management Board that is supervised by a Board of Governors, responsible to the authorities for conducting their activities in accordance with the statutes.

We think that the cooperation between a membership organisation and a foundation sharing aims, will become both complementary and fruitful in the future. Whilst the cooperation will be beneficial to both organisations, it will first and foremost be beneficial to the work for improving seafarers' health and wellbeing.

In order to promote close cooperation, the IMHF will welcome one representative from IMHA its Board of Governors. As a visual symbol of the cooperation the front page of the International Maritime Health Journal will be adjusted so that IMHA's logo – again – will find its rightful place.

We welcome IMHA on board!

Short Communications:



TWO IMHF-EP MEMBERS APPOINTED TO CONDUCT RESEARCH FOR THE MARITIME CHARITIES GROUP (MCG)!

Dr. Joanne McVeigh and **Alison Kay** from Rothesay Consulting have been appointed to conduct research on the size and demographic profile of the UK seafarer population. The aim is to enable the UK's maritime welfare charities to develop a deeper understanding of current and future welfare needs of seafarers and their dependants and plan service provision for the next decade.

Constituents of the MCG are: ITF Seafarers' Trust, Lloyd's Register Foundation, Merchant Navy Welfare Board (MNWB), Nautilus International, The Seafarers' Charity (TSC), Seafarers Hospital Society, The TK Foundation and Trinity House – some of which are supporting or co-operating with the IMHF.

The first step of the project will be in-depth consultations with MCG members to identify key issues to focus on and potential sources of data.

We wish Joanne and Alison “always a fair wind and following seas” and expect that the project will provide interesting submissions to our journal!



SEAFARERS INTERNATIONAL RESEARCH CENTRE'S NEW RESEARCH PROJECT

Cardiff University is researching the important areas of seafarers' health and their access to healthcare. All active seafarers working on board cruise or cargo-related ships are invited to take part in either a confidential online questionnaire, or an interview (they can choose). The questionnaires and further information can be accessed with the following link:

<https://www.cardiff.ac.uk/seafarers-international-research-centre>

Organizations, institutions/institutes wishing to contribute to this effort by distributing information about the study, and how to access it, to their seafaring clientele please accept thanks from **Professor Helen Sampson** and her team in advance. Please address any questions to her at sirc@cf.ac.uk.

Particulars

NEW FACES AT THE IMHF BOARDS

by Klaus Seidenstücker



Alf Magne Horneland

As opposed to a membership association a foundation pursues its objectives through the establishment of funds and their administration. Like associations a foundation is built along legal demands of its nation of residency. To ensure rightful handling of the funds trusted to the foundation, IMHF founders have established a Management Board (MB) supervised by a Board of Governors (BoG). Board members have a tenure of five years. After that time, they are either prolonged or replaced by successors. As IMHF was launched in 2018 the five-year term ended in 2023. Early in that year Alf Magne Horneland – until then president of the Management Board – handed over to Nebojša Nikolić (see Int Marit Health 2023; Vol 74 (2): 139–140).

By the end of 2023 *Jan Sommerfelt Pettersen*, chairperson of the IMHF Board of Governors declared that he wished to step down. He was followed by *Alf Magne Horneland* in January 2024.

Also, in January *Krzysztof Korzeniewski* retired from his position as a member of the management board. *Marta Grubmann-Nowak* has handed her responsibility as secretary of the MB to *Jon Magnus Haga* and will hand over her job as treasurer of IMHF-MB to *Joanna Szafran-Dobrowolska* in June this year. She will then focus on her job as editor in chief (EIC) of this journal.



Jan Sommerfelt Pettersen

Born in Oslo in 1958 Jan spent much of his younger years in Bergen, where his father worked for the Royal Norwegian Navy.

He started medical school at Bergen University in 1978 where he graduated in 1984 and then served his conscription as a ship's medical officer on board of a frigate. Afterwards he worked as general practitioner and in 1993 applied for a parttime job as chief medical teacher of the Navy.

In 2000 Jan was promoted Captain and took the position of Surgeon General of the Navy and in 2013 of the Norwegian Armed Forces with the rank of Admiral. In both positions he chaired the NATO Naval Medical Expert Panel.

After retirement in 2018 Jan held several advisory positions in the Norwegian Maritime Administration. Since 2022 he is special advisor to the CEO of the Bergen Health Trust (Haukeland University Hospital) working on civil-military cooperation and health preparedness. He was instrumental in setting up the Norwegian Centre of Maritime Medicine (NCMM, later Norwegian Centre of Maritime and Diving Medicine, NCMDM) from 2000 to 2005 and became the chairperson of its board. Since 1993 Jan was a member of the Norwegian Association of Maritime Medicine (NAMM) and its president from 1995 to 2023. During this time, he was editor of the association's journal "Documentum Navale". In 2020 he published the book "Maritime Medical History – Seen from Norway (in Norwegian).

In 2018 Jan supported the creation of the International Maritime Health Foundation (IMHF) to carry this journal into a sustainable future and was the chairperson of its Board of Governors for the five years to follow.

Since his retirement he is grooming his hobbies which are his maritime medical library and his historical studies, his dogs to keep in the fresh every day and of course more than anything else his three children!

At this occasion we wish to thank Jan for his relentless commitment to maritime medicine and hope to have him alongside as an experienced advisor for many more years!



Krzysztof Korzeniewski

was born in Poland in 1967. After school he joined the armed forces and received his medical education at the Military Medical Academy in Lodz where he graduated in 1993. His first missions as medical and humanitarian aid officer was with the United Nations Interim Force in Lebanon (UNIFIL) for 12 months in 1999 and 2001. Since 2004 Krzysztof participated in 30 operations in Iraq, Afghanistan, Chad, Central African Republic, Kuwait and Kosovo totalling in ten years 'abroad'. He finished his military service two years ago and retired with the rank of colonel.

Krzysztof is a specialist in dermatology and venerology, epidemiology, maritime and tropical medicine. He received his doctoral degree in 2002 and his habilitation in 2008. The title of professor of medical sciences was awarded to him in 2018. Since 2009 he has been the head of the Department of Epidemiology and Tropical Medicine at Gdynia – belonging to the Military Institute of Medicine/National Research Institute in Warsaw. He also holds the position of professor at the Institute of Maritime and Tropical Medicine (University Gdansk) since 2021.

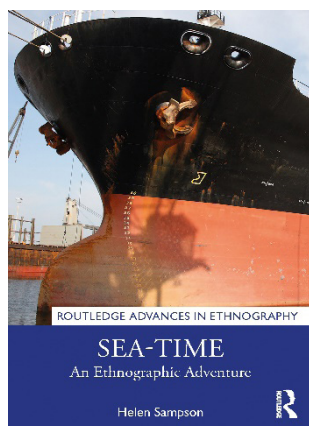
Krzysztof is the President of the Polish Society of Maritime, Tropical and Travel Medicine (PSMTTM) since 2019.

His numerous research projects focused on health hazards in different climatic and sanitary environments. Health problems of travellers in subtropic and tropic areas, as well as soldiers deployed to foreign countries. Numerous publications resulted from his research in these areas as well from the care for people returning home. A special treat are his two photo albums depicting his journeys to Africa and his encounter with the pygmy people in Central Africa!

Krzysztof lives with his wife in Gdynia, Poland. He has two daughters. His hobbies: “travelling, adventure, getting to know the world and the people”.

Krzysztof presently is on mission again to Africa. We wish him a safe voyage and are looking forward to some inspiring articles in this journal reflecting his time there.

Book Review



HELEN SAMPSON: SEA-TIME: AN ETHNOGRAPHIC ADVENTURE

Routledge 2024.

ISBN 978981032576060 Paperback £35.99

ISBN 9781032576107 Hardback £130

ISBN 9781003440123 eBook £35.99

Review by Prof. em. Tim Carter

This book provides a clear, revealing, and compassionate insight into the world of today's seafarers, from a perspective that will be new to many readers. Sampson records her findings from a long period of detailed studies in which she has travelled as a researcher on a wide range of cargo ships and used her skills in ethnographic research methods to record her findings and to draw out a compelling and easy to read picture of the lives, attitudes, hopes and fears of the global medley of seafarers who crew cargo ships in the first quarter of the twenty-first century.

In doing so she challenges many of the current practices in the maritime industry, showing how seafarers have to adapt to them and accept the terms under which they are employed. The style is rational and in no way polemic and paints a picture of employment that is often precarious, sometimes tedious but frequently frenetic and above all skilled. At the same time the research shows the interpersonal skills needed to both live and work within the confines of an ocean-going ship.

The chapters are carefully constructed and the perceptions of time and its meaning to seafarers is a continuing theme of the book. The first six are structured around a single voyage where the main research questions address the interactions between those on board and the dealings needed at each port of call. This voyage description includes flashbacks her to previous voyages used to provide additional insights. Later chapters build on points raised earlier, specifically covering:

- the meaning of time to seafarers, and how flexible this is;
- gender-related issues as they affect females in a traditionally macho culture;
- how much of the fun and positive social interaction has gone from today's seafaring compared with that in the late twentieth century as the autonomy of the crew has been reduced by intrusive company communications and regulatory requirements;
- the decline in standards of accommodation and spaces for eating and socialising in order to maximise cargo space and minimise build costs, this being exacerbated by poor maintenance and the quality of fittings (with an appendix making practical suggestions about how living conditions could be improved).

The book closes with conclusions that incorporate an indication that the author's investigations at sea have now reached their end. Something that will be a loss to us all.

Once I started reading, I found the book hard to put down, especially as I found a quote in the first chapter from something that I had written in 1975 about the pros and cons of permanent engagement of seafarers but which I had long forgotten. Sampson's work, as presented in this volume should serve as a primer for anyone starting in maritime management. It is also a text that validates, for those familiar with the maritime sector, how good qualitative research can yield at least as much of a understanding of the lives and risks of seafarers as the rows and columns of the quantitative investigator.

CME

MARITIME MEDICINE – HOW DO WE LEARN? DE-BRIEFING – REVISITED. (PART 1)

DELIBERATIONS ON RESPONSIBILITY, QUALITY, HOW TO AVOID ERROR AND TO ESTABLISH STATE OF ART IN THE MARITIME ENVIRONMENT.

(by Klaus H. Seidenstuecker)

The December 2017 issue of this journal had an article on debriefing of medical teams on board of cruise ships after emergencies by Professor Eilif Dahl². The title suggests a small target population and a special situation. In fact, however, it touches upon the very essence of a learning society and professional improvement. It is worth to get attention way beyond the emergency response team and the confines of a cruise ship.

Population at sea has increased with emerging business opportunities like offshore industry (oil&gas, renewable energy, maritime exploration, prospecting, mining, farming etc.) and with sea-based tourism. This development implies the reemergence of medical care at sea. For many years the focus of maritime healthcare was on preventative issues. In the years to come, maritime medicine will again have to address the challenges of patient care aboard seagoing platforms distant from established medical structures ashore. There will be a demand for long range rescue as well as onboard medical teams equipped and trained to render state of art medical management of any incident for hours or days. Such situations require a broad expertise and special skills. Opportunities to generate such expertise in the academic environment – except for the navies – are widely lacking. The development and implementation of the necessary and comprehensive postgraduate training for professionals still awaits accomplishment. Until such curricula will be accepted and established as mandatory prerequisite for sea duty, we need to look for alternative ways to bridge the gap and improve the situation. Meanwhile it might be practical to revert to “learning by doing”. On site exercise as well as simulation training are one step in depicting reality and learn. Debriefing is a substantial tool within such a learning process. Not only should it be applied in the training situation, it should also be a mandatory part at the end of each medical incident and even at the end of each working day. Beyond its role of an individual or team learning tool it can – if systematically established – also help in company quality management as well as in the development of pathways for the medical management applicable to conditions at sea.

The following three-part article intends to create an understanding for debriefing, to encourage discussion on options to enhance knowledge and skills through human resource management (HRM) tools in general and debriefing as one of them – especially in the field of medical care in the maritime environment, a professional area that widely lacks specific educational or training structures.

Definitions:

“A debriefing is a meeting where someone such as a soldier, diplomat or astronaut is asked to give a report on an operation or task that they have just completed”³:

² Dahl E. Debriefing of the medical team after emergencies on cruise ships. Int Marit Health 2018; 68 (1): 183–186, doi: 10.5603/IMH2017.0034.

³ Collins Aerospace: English Dictionary: Debriefing definition and meaning (no longer available on the internet).

“Debriefing is

- a report of a mission or project,
- a structured process following an exercise or (immersive) event, that reviews actions taken ... and evaluates the contributions of various participants”⁴.

“The post scenario debriefing is important to maximize learning and facilitating change on an individual and systematic level,

- modifying for the better one’s attitudes, perceptions, behaviours, actions or technical skills,
- or the organization’s culture, policies, procedures or operational mechanisms”⁵.

Debriefing is an important and powerful tool of quality control and improvement; especially if a structure is dispersed and thinned out to an extent that it lacks standards, manpower and expertise necessary – as is the case in maritime medicine. Not to forget: it is a tool of risk management!

Debriefings originated in the military. Here they became a routine to evaluate an exercise or an operation. Military debriefings aim at assessing whether procedural rules were followed and what factors contributed – favourably or not – to the outcome. Debriefings in the military are a means of learning, improving, securing future operational success and – survival.

Military debriefings comprise aspects of manning, equipment, procedures, level of education and training, ability to adapt and recover (including logistics and maintenance), of operational concept and environment, opposing factors, limitations to your freedom of action, ways of command, control and communication.

Such debriefings often produce an after-action report that will go up the hierarchy.

Aviation adopted and adapted the method. Debriefing nowadays is part of modern crew resources management and quality control/assurance in many areas.

In a very special way it is an integral part of (psychological) crisis intervention programs.

In **psychology** debriefing has a different context and meaning though. It constitutes a diagnostic and therapeutic approach to a traumatic situation. It will not be discussed in this context.

The application of debriefing methods in **research** aims at reviewing the validity of test methods or results and will also not be addressed in this article.

Instead – as in Dahl’s article – the focus shall be on debriefing as a learning tool.

The variety of definitions suggests that debriefing is a complex issue that requires competence. This requirement comprises an amount of competence in the matters debriefed as well as competence in the procedure itself.

It deserves mention that in the military as well as in aviation the natural counterpart of debriefing is briefing which precedes a mission. Both are embedded in a larger management scheme aiming to ensure success (see Table 1).

Table 1. Debriefing in the management process (adapted from Murphy: Flawless Performance⁶)

| Phase/course | 1 | 2 | 3 |
|-------------------|------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------|
| Leadership | 1. Vision (outcome) 2. Strategy 3. Intent Plan/Guidance | | |
| Execution | > > > | 4. Briefing (Tactics) 5. Action 6. Debriefing | |
| Foundation | | >> > > > > > | 7. Standards - Training - Structures - Equipment - Manning - Procedures |

In an emergency the process usually starts – and too often ends – with the action. For a flawless execution of a task however, all other elements have to be (pre-) existent in order to achieve reliability and desired outcome. These elements have to be

⁴ Wikipedia: Debriefing. <https://en.wikipedia.org/wiki/Debriefing>; accessed April 26th, 2024.

⁵ Diekmann P, Gaba D, Rall M, Deepening the Theoretical Foundations of Patient Simulation as Social Practice. *SimulHealthc* 2: 183–193.

⁶ Murphy JD, *Flawless Execution*. Reagan Books, New York, 2005: 7–14.

developed through exercise, simulation training, expert workshops and communication within a team prior to and reviewed after any engagement. It is worth remembering that ‘anticipation is the key to survival’!⁷

The maritime (medical) environment:

In the maritime setting four levels of management must be considered:

- The individual
- The team
- The ship management (in some cases there will be the additional level of department)
- The company management

Debriefings will be most effective if exercised and promoted at all levels of management. As in the military and aviation it should be an established company culture and daily routine.

While debriefing can be done individually (self-debriefing or auto-feedback) the instrument becomes more powerful if more views on the matter are shared. Thus, more learning opportunities will be identified. A broader range of expertise will result in more suggestions for improvement. Practically on board it should start at team level (peer debriefing).⁸

The triple loop effect of experiencing a situation⁹, reflecting it and getting a feedback from other participants and ideally from higher up management creates a very intense learning process.

Various teams can be considered on board of ships. Some will be a permanent structural element some will only exist in special rolls.

The medical teams on board of passenger ships are a standing structure but will be reinforced by nonpermanent personnel from other departments in case of an emergency. Additionally, the permanent ‘core team’ is made up of constantly changing personnel. Usually, doctors stay for three months or less. Other medical personnel may stay for six months or more. Subsequently there is a constant change in team composition including cultural and educational background of those involved. If such a team should consistently and successfully manage medical emergencies a constant learning process will be needed. Educational opportunities to prepare prior to an onboard tour of duty are scarce. The necessary expertise, therefore, mainly is developed through the experience of accumulated time at sea. That is where debriefing comes in to guarantee that every chance is used to learn.

On board of cargo ships the person or team reacting to a medical situation will be nonpermanent in this roll. Above that it will be a layperson with basic first aid training and almost no medical routine at all. Their only professional feedback is radio-medical advice. However, that is seldom used for debriefing after an emergency and thus to build competence.

Rescue teams engaged in maritime casualties will be professionals – sometimes even medical professionals (paramedics or emergency physicians). Many of them – especially the medical personnel – will be volunteers. Therefore, they often are nonpermanent members of a team. In many cases debriefing of medical issues thus remains suboptimal.

The situation is aggravated by the fact that at sea we are far away from the ILO Maritime Labor Convention’s standard of a medical care ‘as equivalent as possible’ to that ashore¹⁰. Obviously at sea we simply cannot establish the same availability of highly specialized services for any given case as is standard ashore¹¹. Distance and possibly meteorological conditions stretch timelines that are the basis of ashore medical guidelines¹². Medical personnel trained to a high grade of specialization will have to re-adapt to the full range of medical eventualities and find ways how to bridge the gap between first response and the onset of clinical care. They will eventually have to develop their own ‘ad hoc’ procedures as except for the military there is little institutional expertise to develop guidelines for this environment of remote medicine.

(to be continued)

⁷ Jones S, *Coping with Piracy*. The Nautical Institute, London 2013.

⁸ Oriot D, Alinier G. *Pocket Book for Simulation Debriefing in Healthcare*. Springer Nature, Cham 2018: 13–14.

⁹ Rall M, Koppenberg J, Henninger M. *Simulationstraining zur Verbesserung der Teamarbeit und Erhöhung der Patientensicherheit*. (German) In: Moecke H, Marung H, Oppermann S (eds). *Praxishandbuch Qualitäts- und Risikomanagement im Rettungsdienst*. Medizinisch Wissenschaftliche Verlagsgesellschaft, Berlin 2013: 159–166.

¹⁰ International Labor Office, *Maritime Labor Convention 2006 (as amended)*; <https://www.ilo.org/global/standards/maritime-labour-convention/lang-en/index.html>; accessed April 26th 2024.

¹¹ Seidenstücker KH, Neidhardt S. *Qualification of Ship Doctors: a German Approach*. *IntMaritHealth* 2014; 65 (4): 181–186, doi: 10.5603/IMH.2014.0035.

¹² Fischer M, Kehrberger E, Marung H et al. *Eckpunktepapier 2016 zur notfallmedizinischen Versorgung der Bevölkerung in der Prähospitalphase und in der Klinik*. (German) *NotfallRettungsmed* 2016; 19: 387–395, doi 10.1007/s10049-016-01878-0.