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MAGAZINE
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Editorial

(by Klaus Seidenstücker)

When did the shanty disembark?

We probably all can agree that this went with the intrusion of engine-propelled ships into seafaring, the downsizing of the crew, and ever-tighter schedules. Singing on board to synchronize men at work probably dates to the galleys of the Mediterranean and the Polynesian rowboats. It still has a tradition in the Navies but hardly will be heard on merchant ships today. When it lost its meaning for choreographing work, it still had a role in consoling crewmembers with a hard day while off duty.

Why then are shanties seldom heard at sea today?

We may assume that cultural diversity with different singing traditions has a role. What probably should worry us more is the downsizing of the crew, irregularity of work patterns, and ever-tighter schedules hardly allowing shared off-hours. Another aspect is a ship design that often does not allow for the feeling of comfort, social activity, and self-esteem[1].

Do we have to worry?

Yes, we do! Those responsible for human resources management should be aware that seafarer motivation (or resilience) comes with good (comfortable) ship design, humane working schedules and procedures as well as the appreciation of the individual's contribution to the reliability and prosperity of maritime logistics. As health professionals, we have a share in it and the following magazine(s) should give some ideas on how to.

Seafarers should have an opportunity and a motivation to sing again!

Enjoy this IMH magazine and stay tuned with us!

News

(contributed by Nebojša Nikolić and Klaus Seidenstücker)

FROM WHO

WHO Director-General Dr Tedros Adhanom Ghebreyesus has determined that the upsurge of mpox in the Democratic Republic of the Congo (DRC) and a growing number of countries in Africa constitutes a **public health emergency of international concern (PHEIC)** under the International Health Regulations (2005) (IHR).

This PHEIC determination is the second in two years relating to mpox. Caused by an Orthopoxvirus, mpox was first detected in humans in 1970, in the DRC. The disease is considered endemic to countries in Central and West Africa. In July 2022, the multi-country outbreak of mpox was declared a PHEIC as it spread rapidly via sexual contact across a range of countries where the virus had not been seen before. That PHEIC was declared over in May 2023 after there had been a sustained decline in global cases.

The emergence last year and rapid spread of a new virus strain in DRC, clade 1b, which appears to be spreading mainly through sexual networks, and its detection in countries neighboring the DRC is especially concerning, and one of the main reasons for the declaration of the PHEIC.

In the past month, over 100 laboratory-confirmed cases of clade 1b have been reported in four countries neighboring the DRC that have not reported mpox before: Burundi, Kenya, Rwanda and Uganda. Experts believe the true number of cases to be higher as a large proportion of clinically compatible cases have not been tested.

The two vaccines currently in use for mpox are recommended by WHO's Strategic Advisory Group of Experts on Immunization and are also approved by WHO-listed national regulatory authorities, as well as by individual countries including Nigeria and the DRC.

[1] See: Sampson H, Sea-Time, an Ethnographic Adventure; Routledge, London 2024: 183–203

FROM ITF

Fighting for rights: ITF inspectors stand strong for seafarers in record-breaking year of shame

2023 was the worst year ever seen for seafarer abandonment — and ITF inspectors recovered nearly US$60 million in unpaid wages. The ITF's global network of inspectors recovered a shocking US$57,161,779 in unpaid wages for seafarers in 2023, as the ITF also recorded the highest level it has ever seen of abandoned vessels (129) and abandoned seafarers (1,983).

The inspectors completed a total of 9,530 ship inspections and worked on 1,188 cases — instances where an inspector assisted a seafarer without boarding a vessel — during the year, spanning every region of the world.

The ITF has a global network of more than 125 inspectors, based in over 110 ports in 55 countries worldwide. Inspectors, many of whom are former seafarers or dockers, police ships that have no collective bargaining agreement and enforce the agreements on ships that do, with those agreements covering more than 357,000 seafarers working aboard flag of convenience vessels.

Inspectors are trained to look for exploitation, overwork, and signs of forced labor and modern slavery. On many vessels, they have the right to examine wage accounts and employment contracts, and to review recorded hours of work and rest.

Under the International Labor Organization's (ILO) definition of abandonment, a seafarer can be classed as 'abandoned' when they are unpaid for two months.

Any non-payment of wages should be seen as a potential sign that a shipowner could be about to cut its crew loose.

FROM ICS

Mr. Emmanuele Grimaldi, CEO of the Italian Grimaldi Shipping Group, was recently reelected as chairman of the International Chamber of Shipping. Mr. Metin Düzgit became vice chairman.

FROM IMB

The International Maritime Bureau reports 60 cases of armed attacks on ships (piracy) in the first six months of 2024. This does not include the attacks by the Jemeni armed forces.

46 ships suffered hostile boarding, four were hijacked, and two came under fire.

Particulars

In January ***Jon Magnus Haga*** moved from his position as IMHF expert panel's (EP) chairperson to that of secretary at the foundation's Management Board (MB).

Professional Summary

Medical doctor and public health specialist with a PhD from the University of Oslo and a diverse background in prehospital emergency medicine, wilderness medicine, and public health leadership. Extensive research and clinical experience, including disaster response and healthcare strategies for traumatic events. Associate professor with a focus on global public health, maritime, and diving medicine.

Education

— **PhD:** University of Oslo, Norway (2014–2019)

Thesis on post-disaster healthcare for the parents of the 2011 Utøya terrorist attack survivors. Awarded His Majesty the King's Gold Medal.

— **MD:** University of Oslo, Norway (2003–2010)

International rotations in Argentina, Austria, Germany, and a WHO internship in Switzerland.

Professional Experience

— **Associate Professor, University of Bergen:** (March 2022 — Present)

Teaches public health and conducts research at the Norwegian Centre for Maritime and Diving Medicine.

— **Head, Norwegian Centre for Maritime and Diving Medicine**: (September 2018 — Present)

Leads research and innovation projects, supervises PhD students, runs the Norwegian Telemedical maritime assistance service (Radio Medico), and consults for the Norwegian Maritime Authority.

— **Medical Director, Norwegian Coast Guard:** (February 2013 — March 2022)

Oversaw medical operations and participated in international missions, including migrant rescue operations in the Mediterranean and chemical weapon disposals in Syria.

— **Medical Editor, Journal of the Norwegian Medical Association:** (August 2017–April 2019)

Handled editing duties for the scientific section and authored several editorials and research papers.

Professional Affiliations

— Member, International Society for Traumatic Stress Studies.

— Expert Panel Member, International Maritime Health Foundation.

Jon Magnus Haga was followed in February by **Bill Kavanagh** as the foundation's expert panel's (EP) new chairperson.

Bill is a native of the ‚Viking town' of Arklow in Ireland. He is a descendant of a seafaring family and consequently chose a career on the high seas. During his time in secondary school, he was engaged in establishing a local maritime museum and obtained a cadetship with Irish Shipping Ltd. at the age of 17. Later he obtained his diploma in Nautical Science and further professional seafarer qualifications which allowed him to travel worldwide on ships as an officer of the watch and chief mate.

At the age of 29, he obtained command on small ships and eight years later moved ashore to start a career in maritime education resulting in bachelor's and master's degrees in adult learning and development.

Bill established a new training college for fishermen in South-West Ireland before taking up a lectureship at the National Maritime College of Ireland, Munster Technological University (MTU). He was awarded a fellowship at the Nautical Institute for his contribution to maritime education. During his academic career, he has been involved in several EU projects and conferences on maritime transport. After his recent retirement, he acts as a maritime consultant and is a guest lecturer at the Jade University of Applied Sciences Maritime College in Elsfleth, Germany.

A former rugby referee he now spends his time learning Spanish. His TEDx talk can be viewed at https://youtu.be/bm9CWIr-V7xM?si=0pUAVwPKcWfXw2uN.

Bill has been instrumental in organizing IMHF-EP's workshop and conference on seafarer mental health in Cork, Ireland in 2023 and when you read this text, he already has successfully chaired seven IMHF-EP meetings. Bill is also a member of IMHF's permanent correspondence group on the establishment of terms of reference and job descriptions for the various IMHF substructures.

In June this year, **Joanna Szafran-Dobrowolska** joined our foundation's MB and will take the responsibility of IMHF's treasurer.

Joanna Szafran-Dobrowolska was born in Gdynia, Poland. From 2006 to 2012 she studied at the Medical Faculty of the University of Gdańsk. She completed the fifth year of her studies at the Cologne University Faculty of Medicine.

In 2012 she graduated as a physician and passed the State Physician's Exam, followed by an internship at the University Clinical Centre in Gdańsk. From 2013 to 2020 she completed her specialty training in internal medicine at the Clinic of Occupational, Metabolic, and Internal Diseases of the University Centre of Marine and Tropical Medicine in Gdynia. She obtained the title of Internal Medicine Specialist in 2020. Presently she works at the Clinic of Occupational, Metabolic, and Internal Diseases of the University Centre of Marine and Tropical Medicine (UCMMT) as a senior associate; moreover, since 2021 she has been the head of the admissions department of the UCMMiT in Gdynia and acts as one of the physicians providing medical advice in the Polish TMAS.

In June 2021 she started specialty training in Endocrinology and passed the subspecialty exam in April 2024. She has been a member of the Regional Medical Council in Gdańsk since 2022. Furthermore, in April 2022 she obtained her PhD title at the Faculty of Health Sciences of the Medical University of Gdańsk. The doctoral dissertation was on the prevalence of cardiovascular risk factors among seafarers.

She is the author and co-author of original and review studies and numerous presentations at conferences, with a special focus on maritime medicine in the context of cardiovascular risk and obesity among seafarers.

She is married and has two daughters, Karolina and Alicja.

Marta Grubman-Nowak left the foundation's MB in June to focus on her role as this journal's editor-in-chief.

Marta Grubman-Nowak was born in Gdynia and spent her childhood years in Sopot, Poland. For eight years she moved to Shanghai, China, where her father worked for a Chinese/Polish shipping company: an early exposure to the maritime environment!

After graduating from high school, she began her education in psychology at the University of Humanities and Social Psychology in Sopot where she obtained her master's degree. Two years of postgraduate studies followed in clinical sexology at the SWPS University of Humanities, branch in Sopot, and in Transport and Occupational Psychology at the same university, Warsaw branch. In 2015, she started full-time doctoral studies at the Faculty of Health Sciences, Medical University of Gdańsk.

Immediately after graduating, she started working as a psychologist at the Occupational Psychology Laboratory of the Occupational, Metabolic, and Internal Diseases Clinic at the Institute of Maritime and Tropical Medicine. She participated in numerous research projects regarding psychosocial workload on oil platforms, stress and quality of life at work at sea, and psychophysiological predispositions to the work of a group of customs officers from the anti-crime department.

Additionally, she participated in a project on the safety of fishermen on small fishing vessels, carried out within the Institute of Maritime and Tropical Medicine on behalf of the European Commission — Directorate General of Employment, Social Affairs and Equal Opportunities. The project consisted of evaluating a guide for fishermen regarding the main hazards in the workplace and conducting focus groups among Pomeranian fishermen.

Marta gave classes for the Medical University of Gdańsk and also participated in co-creating a postgraduate program in transport psychology — interdisciplinary studies organized by the University of Gdańsk, the Faculty of Psychology, and the Medical University of Gdańsk.

She is married and has two daughters, 10-year-old Joasia and 4-year-old Małgosia. In her free time, she draws and paints mandalas and does other creative work, such as making paper flowers or sculpting in clay. She also enjoys sports activities, recently she has been running with her Border Collie named Baree in the forest.

Retrospective

PREFACE:
by Klaus Seidenstücker

Seafaring and Medicine have their own historical track. Most of the time they existed and developed along separate paths. Seldom have they really paralleled or even become intertwined. Only when nations greatly relied on seafaring as a source of power and wealth did medical professionals find their way on board in larger numbers. There they were exposed to health issues typical for the maritime environment of their time, devoted research efforts to analyze them, and in some cases exerted a beneficial influence on health care for crew and the reliability of shipping.

When in the 20th century shipping as well as medicine each had their breathtaking advancements, they took off into absolutely different worlds. National influence on shipping subsided and it became an international business primarily serving commercial goals. The technological progress provided for ever more reliable conditions. Health risks to seafarers seemed less severe — although you might argue that their level may have stayed as proportional to work ashore as before.

At the same time, medical facilities stayed rooted in national and ashore structures. As medical practice became more sophisticated, it did no longer lend itself well to integration into a maritime environment. Except for the navies and some charity organizations nowadays there is limited interest in healthcare for seafarers. The international personnel market allowed seemingly unlimited recruitment. Its outsourcing to crewing agencies creates separate responsibilities often with a lack of feedback on health risks.

Only a few medical professionals remained tied to maritime healthcare. They see their “patients” at best occasionally when they present for their mandatory fitness examination, when they call because of some problem at a harbor practice, or when they are subject to (medical) port authority inspection, medical evacuation, or repatriation. The next day they will be on their way to a next port of call, a shore facility with little awareness of maritime conditions, or on their way home. There is hardly any individual continuity of care, nor a reliable database created to assess or influence seafarer health in general. Only very few medical facilities stay devoted to maritime medical issues. Most of them are in former “seafaring” nations that are no longer home to a larger seafaring community. Their researchers struggle to get on board and squeeze their project into an ever tighter commercial and managerial schedule. Thus, it is difficult for them to identify relevant objectives.

Ships with a crew above 100 obliged to carry a physician are exempt and usually part of the cruise business where their primary concern (and that of the company) is passengers. Except again for navies ‘ship doctor’ is not a career. For many doctors, it becomes a once-in-a-lifetime adventure or a second job during holidays, a sabbatical, or after retirement. Consequently, there is hardly any formal education or training to prepare these “professionals” for their demanding tasks nor do they routinely develop sort of a seniority (exceptions of course to prove the rule!). This does not favor understanding and cooperation between medical and maritime personnel involved. It also hampers the development of adequate structures, procedures, and equipment for the management of medical incidents at sea.

It is the role of a few professional specialty organizations to address all these problems and raise their voice to press for the implementation of international regulations providing for seafarer health protection – especially the requirements of the ILO MLC 2006, title 4. It is their responsibility to define the actual medical standard to be fulfilled. They must be the link between the maritime and the medical world.

Regarding this responsibility, the German Association for Maritime Medicine (Deutsche Gesellschaft für Maritime Medizin; DGMM) organized a workshop in Hamburg, on October 26th, 2016. Although almost eight years ago many of the recommendations address problems still awaiting solutions.

By courtesy of the German Association for Maritime Medicine (DGMM)

DGMM WORKSHOP, HAMBURG OCTOBER 26TH, 2016 "FUTURE PERSPECTIVES OF MARITIME MEDICINE"

Rapporteur: Wolfgang Toepfer, Organizer: Klaus Seidenstücker (also: translation)

INTRODUCTION

With this workshop, the DGMM intended to provide a platform for an exchange to institutional stakeholders of maritime medicine about the present state and foreseeable development of health promotion, preservation, and care in the maritime environment. The workshop should aim at proposing measures to create sustainable conditions for maritime healthcare. Focal points of activity, options for cooperation and task-sharing, and necessary organizational consequences should be derived. 22 experts took part and received an initial presentation on the inventory of the different areas of maritime health (see attachment).

There was a consensus that maritime medicine would not have its own methodology. Instead, existing methods of human science/bioscience should be adapted and assembled in capability packages (contingencies) to ensure state of art health provision and medical care within the maritime environment.

To achieve the identification of future fields of action the participants decided to address preventative and clinical aspects in two working groups. Training and education should be dealt with together with these as consequences for training and education would develop from the desired outcome in the two areas.

RESULTS FROM THE PREVENTATIVE MEDICINE WORKING GROUP.

The following fields of action were identified:

Creation of a database to facilitate adequate health research in the maritime environment.

It was felt that to date no sufficient health reporting existed in the maritime environment. Structures of data collection were fragmented and not standardized to allow scientific evaluation.

The majority held the opinion that an international and standardized data exchange, respecting personal rights as well as legitimate competitive interests of shipping and insurance companies would be advantageous for all involved as reliability usually goes with the number of data collected. However, there was hardly any effort to establish adequate structures and procedures.

Development of an adequate risk model for all employees in the maritime environment.

The predominant occupational risk models and derived threshold values do not fully reflect conditions at sea. There is no strict division between working and living spaces and no clearly defined working hours (and therefore exposure times). National regulations do not necessarily apply to work at sea.

The present practice of individual risk assessment via argument of analogy is not sufficiently supported by measurements in the maritime environment.

RESULTS FROM THE CLINICAL MEDICINE WORKING GROUP.

The group first considered the following subject matters:

The general problem of distance to ashore facilities for medical care.

A constituting characteristic of medical care in the maritime environment is the variability of space and time (time-distance relation). Under these conditions medical care at sea comparable to that ashore is feasible at best in port or very close to the coastline of areas with a highly competent rescue chain and competent medical facilities.

Variable state of training and skills of seafarers destined to deliver first aid on board. Deficits in operating up-to-date medical equipment.
Primary care for the diseased or traumatized at sea usually lies with medical nonprofessionals. They need basic training following a pragmatic approach. Their training should reflect the predominant and most relevant and severe conditions to be expected and should follow medical state of art algorithms.

The absence of a common, well-known, and legally binding concept for rescue at sea.
The group members held the opinion that the rescue services would generally follow their own concepts, that a variety of institutions and organizations are engaged with different responsibilities in an often complex and for ship crews from abroad sometimes confusing way.

The absence of data on the occurrence of disease and trauma and therefore insufficient transparency of real conditions at sea.
Systematic preparation for medical treatment at sea – including emergencies requires – next to material and infrastructural measures – also training directed towards frequency and relevance of situations to be expected.
This must be based on a solid collection of data that presently does not exist.

The potential of medical understaffing on board of cruise liners providing ever larger numbers of passenger and crew capacity.
In the face of a high proportion of old and potentially multimorbid passengers, a solid state of health cannot be expected. Resources must be adequate to cope with such preconditions as well as emerging situations (outbreaks).

The absence of acknowledged certification and credentialing programs run by medical specialty organizations is the rule in other medical specialty areas.
Presently there are no standards available that can be offered to maritime institutions for the certification of training and equipment.
Such standards can only be provided by committees well versed in the topic addressed and the working and living conditions at sea. The DGMM considers itself competent in such cases.

The absence of integration of medical and psychological expertise into the investigation of shipping accidents.
While in aviation accidents the human factor receives high attention and regularly employs medical and psychological expertise this is not the case in shipping. Thus, a systematic appreciation of that factor is hampered. The complex course of an accident and its interactions with nautical, systematic, medical, and psychological factors usually is considered in a very technical manner.
The empirically supported deduction of recommendations is consequently impossible due to small case numbers and a missing depth of data analysis.

The absence of quality standards as well as that of a structured evaluation of telemedical support services.
To provide quality management as well as improvement of telemedical services and their orientation to changing needs of shipping telemedical services should be documented and evaluated to deduct consequences with regard to suitability of responsibilities.

The following priorities were derived:
Creation of a sufficient data collection based on case reports.
Statements about quality and standards of medical care at sea can only be made on such a basis. The installment of adequate clinical care must rely on the knowledge of the probabilities of disease and trauma to occur.
Clarification of responsibilities in sea rescue.
Evaluation of telemedical services and establishment of quality standards.
Obligatory implementation of medical and psychological expertise in the investigation of shipping accidents.

CONCLUSION AND THE WAY AHEAD:

The workshop aimed at defining steps towards a sustainable future of our specialty area:
We addressed all (national) stakeholders in maritime healthcare we were aware of. We managed to get a large part assembled around our table. This alone has raised awareness of partners in the arena of existing problems as the cornerstone of coordinated action or cooperation. Thus, we hoped to create an opportunity for successful improvement and strengthening of our voice in a global environment.
Further, we looked at the variety of different areas of the maritime industry and discussed its inherent health challenges to raise awareness among the participants.
With this situational picture in mind, the workshop participants decided to further approach problems identified in two groups focusing on preventative and clinical criteria.
The consensus was the absence of evidence-based epidemiology as an indispensable prerequisite for necessary research, education, and the promotion of health and medical care for the people at sea.
A priority goal therefore is to establish a viable standard for creating an evidence base. This mainly is an issue to be addressed by maritime research institutes. However, it also needs cooperation with and consensus of holders of data as well as of responsible state regulatory agencies[2].
The German Association for Maritime Medicine understands it as a task for medical specialty organizations to bring relevant actors together and assist in the establishment of problem solutions. Reference IMHF telemedicine workshop.

Appendix:

The following areas and their health implications were highlighted in the initial presentation:

- Shipping (coastal, high seas, inland, sailing: cargo, passenger, fishery, exploration and research, naval/governmental, offshore prospecting)
- Support (piloting, telemedicine, search and rescue, classification, insurance, accident investigation, medical assistance services, ...)
- Training (IMO model courses, basic safety, crows and crisis mgmt., HELM, medical exercises, familiarization of medical personnel, rescue services including MRCC, ...)
- Ship construction and operation (ergonomics, HRM/CRM, ship of the future/autonomous shipping, future jobs, subsurface operation, navigating extreme environments, ship recycling, piracy/terrorism/organized crime)
- Maritime medicine (application, research, education; institutions/organizations)

Closing remarks:

You may not coincide with the discussion and recommendations reported above. But that is what a group of experts came up with. We found it worth bringing these to your attention as they still pertain to actual problems in maritime healthcare and may provide for initiative towards improvement.
This will finish our series of retrospectives for a while. To look back often helps to look ahead and set a course. The people working to get and keep the IMH magazine afloat hope to have delivered inspiring information and would be happy to receive your response.

[2] Tülsner j, Nikolić N, 4th IMHF Workshop on Maritime Health on Board „Telemedicine for Ships in Future", Int Marit Health 2023; 74 (1): 217–221.

Forum of the Industry

MEDICAL SUPPORT SERVICES — A WAY TO PUT REGULATIONS TO WORK.

(by Anna Brörken and Klaus Seidenstücker)

Throughout seafaring history efforts to bring social standards into the maritime environment have mostly been absent or lagged behind the development of conditions governed by economic demands[3]. National regulations imposed in the nineteenth and early twentieth centuries lacked enforcement in an increasingly international business. International regulations such as the International Labor Organization's Maritime Labor Convention (MLC 2006 as amended) were adopted to make up for this gap. Their enforcement is the responsibility of flag state registry inspectors, port state authorities, and inspectors of trade unions. However: "... there is uncertain and limited recourse to lay claim to such laws, regulations, and norms while at sea."[4] And a study conducted among Danish seafarers one-third of the participants stated that the MLC did not improve their situation at all[5].

In addition, compliance with social — and medical standards especially — has become an increasingly complex issue, that company structures of many ship operators simply cannot provide. For some time and to some degree charitable organizations stepped in[6]. Widely based on voluntary engagement, however, their options to systematically meet demands are limited (in terms of the number and complexity of cases, ever higher requirements for continuity and quality of care as demanded by the MLC mentioned above).

An increasing number of ship operators — in order to meet their responsibility — have chosen to go the way of outsourcing services as already is almost the rule with crewing, technical, and logistical support to their ships and crews (the latter being already a historical standard!).

We found that not only ship operators but also health professionals caring for seafarers should be aware of such support services bringing (hopefully) state-of-the-art health care to the deck plates. In a loose sequence, we shall present such health support services in order to foster cooperation between various actors — for the benefit of the people working and living at sea.

In May the IMH magazine's editor had the opportunity to visit *'Mental Health Support Solutions (MHSS)'* in Hamburg. MHSS specializes in counseling ship operators on company level as well as leadership and individual crewmembers on board and at sea.

MHSS provides preventative training and seminars and publishes instruction manuals on the prevention and handling of stress and depression, anxiety, PTSD, bullying, and harassment for their contractors. It supports the establishment of structures and procedures to handle psychological problems on board and renders first aid to crewmembers in distress.

MHSS operates a 24/7 hotline to provide professional and confidential psychological assistance in over 40 languages and offers on-site support upon request. MHSS psychologists provide acute stabilization after an incident to ensure that all involved can either continue their work or disembark safely.

Training is for tailored seafarers as well as office staff audiences and can be attended in person or accessed via the Internet. Examples are topics such as resilience build-up, crisis and risk management, bullying, and harassment.

Moreover, MHSS emphasizes the importance of robust social support systems, encouraging individuals to build networks and communicate their experiences openly. The aim is to convey positive habits and establish routines that empower individuals as well as communities to navigate through difficulties and challenging environments effectively.

[3] See Fink L. Sweatshops at Sea; University of Carolina Press, 2011 (ISBN 978-0807834503).

[4] See Guillot-Wright S. The changing economic structure of the maritime industry and ist adverse effects on seafarers'health care rights; Int Marit Health 2017; 68 (2):77–82.

[5] See: Frotteler ML, Jensen OC, Andriotti D, Seafarers'Views on the Impact of the Maritime Labor Convention 2006 on their living and working conditions: results from a pilot study; Int Marit Helth 2018; 69 (4): 257–263.

[6] See Grainge S. The International Seafarers'Welfare and Assistance Network (ISWAN, Int Marit Health 2024; 75 (1): 66–67 and Obermann D, Psychological First Response; Int Marit Health 2024; 75 (1):69–70.

CME

MARITIME MEDICINE — HOW DO WE LEARN? (DE-)BRIEFING — REVISITED. — PART TWO[7].

(by Klaus Seidenstücker)

Competence:

Best medical practice under such premises will 'evolve' through learning by doing and on-the-job training. Necessary standards then will evolve through the learning structures of a community (see Table 1[8]). The latter is an often neglected part of quality assurance.

The constant rotation of crew is an enemy to the build-up of competence. Institutional and procedural competence beyond the individual should step in here. Ship operators — especially those that carry responsibility for high numbers of people on board — would be well advised to establish medical care as a pillar in their management concept including professional representation at company headquarters.

There are historical markers in seafaring that affected attention to human factors at sea. One of them is the Titanic disaster which initiated a discussion about 'survival of life'. The sinking of the ferry Herald of Free Enterprise off Zeebrugge in 1987 opened a discussion on the role of 'Human Resources Management'(HRM) in operating ships. Today there is a consensus on the value of HRM in risk management and quality assurance. Education in the human element, leadership, and management (HELM) for ship officers nowadays is a requirement under Regulation II of the IMO Standards of Training, Certification, and Watchkeeping [1].

How much of this results in competence and how efficiently such competence is applied onboard remains an open question in this context.

Regarding medical care, there are various populations to be considered:

— The first is the medical non-professional who is the first responder to any medical event at sea.
— The second is the team of medical professionals onboard ships with a larger number of crew and/or passengers.
— The third is the personnel of maritime rescue services (including those manning rescue centers) — medical professionals or nonprofessionals.
— And finally, we have the personnel of maritime telemedicine centers — medical professionals altogether.

Obviously, the first group by their mandatory first aid training has not but a very basic medical training. Medical care is their secondary or tertiary role. With only occasional demand for their skills, they can hardly acquire the routine necessary to expertly manage medical issues[9].

The second group rises from a highly specialized education and an environment, designed for best medical care. At sea, they become responsible for the whole bandwidth of medicine in a non-medical setting. They must integrate into a hierarchy differing greatly from their usual experience [2]. And finally, they must cope with time-distance conditions that compromise any medical guidelines.

The third and fourth groups face the same challenges as the first two, embedded however, in different organizational structures.

The build-up of competence specific to medical care at sea lacks adequate representation within traditional educational institutions or medical training facilities. This has been the subject of dispute in this journal. The medical training courses delivered according to IMO regulations [3] (while outdated anyway) are far from delivering the skills required by the ILO MLC 2006 Title 4 standards.

A way to make up for such deficiencies is to set up within the operating system a learning culture. One that constantly draws from experience — from good or even more from bad outcomes. Such culture rests on a constant assessment of all processes and events. It must concede that 'to err is human' — usually not on purpose but culpable if repeated.

Such a culture must have debriefing as its centerpiece!

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[7] For part one (introduction, definition and the maritime environment) see Int Marit Health 2024; 75 (2):144–146.

[8] See part one!

[9] Nikolić N, Haga JM, Tülsner J et al. Medical Training of Seafarers: International Maritime Health Foundation (IMHF) Expert Panel Consensus Statement. Int Marit Health 2023; 74 (1): 15–21.

To (trans-) form a medical team into a learning and then synergistic structure by debriefing requires specific competence. The person moderating should know debriefing techniques and understand basic HRM principles and the cultural background of the participants. And finally — at least at the (medical) team level — this person must be a professional on the matters debriefed.

For reasons explained above even the most educated physicians will not be adequately prepared for the full bandwidth of medical challenges in an environment devoid of most of the sophisticated services available in highly developed medical systems. The same holds true for their leadership role within an organizational structure that has almost nothing in common with a clinical setting [4].

How can medical professionals be qualified for this task?

Obviously, the best solution would be pre-embarkation education and training.

However, worldwide only very few universities or medical schools offer syllabuses in maritime medicine; most of them do not even aim at medical care at sea. Some providers offer postgraduate training courses with a holistic approach to that field of professional engagement [5]. These focus primarily on medical expertise and HRM is at best a tiny part. Above that the limited number of providers and their main bases in Europe and the US do not achieve worldwide coverage.

La rger clinics with a simulation program will also offer training in leadership and debriefing [6]. Their approach, however, will be tailored to simulation training when the trainees will be guided through the training and the debriefing by a professional instructor (facilitator).

A better way for ship medical teams to develop the necessary skills and attitudes for their environment will be to turn to organizations where debriefing is a standard routine also in medical management. These will be aviation companies [7] or the naval medical services. These organizations will also allow one to experience the individual as well as organizational open-mindedness that is so essential for improvement through reflection and experiential learning.

Any shipping company would be well advised to allow (and provide) such training for their medical personnel — and to adopt such competence through their ranks. An established company culture will facilitate the acquisition of individual competence of a constantly changing staff on board through standing procedures and guidelines (see Table 1).

Pre-embarkation training will, therefore, only be the initial step. It needs to be complemented by an on-the-job routine to keep skills at an adequate level. This should comprise medical as well as managerial ones.

Drills onboard are a constant routine. Such drills should be used to train such skills as well as moderating techniques for team or department debriefings. Drills and their debriefings should also focus on building team coherence, trust, and an open mind for a common learning process through sharing personal observations and assessments.

As a result of the debriefing routine, the medical team should accept it as a helpful tool they would not like to miss.

Indication:

To competently and successfully conduct debriefings three questions must be answered:

Why, when, and how?

Quite similar to establishing the indication for a diagnostic or therapeutic intervention! The why is already answered above. It is:

— to learn from experience,
— to improve performance,
— to avoid repeating errors,
— to foster mutual understanding and support,
— to create team synergy and
— to build trust.

When (or how often) to (de-)brief depends on the situation and the need to adapt to exceptional demands. Basically: the larger the gap between qualification and task the more often and intense a learning process through debriefing will be required.

Three situations can be distinguished:

— An individual is new to the environment
— A team is new to the environment
— A situation has aspects that are new to an individual or the whole team or have a suboptimal outcome.

In the first case, every opportunity for feedback should be used. Even daily routine should — at the end of a day or a shift — be debriefed. The new team member should be helped to integrate. But also, the team should be open to comments from a new colleague. It should be the mutual learning process that will allow us to eventually learn also from critical incidents.

The same applies, whenever a team starts into a new tour of duty. Even if assembled from experienced seafaring medical professionals every opportunity should be used to train and debrief to develop team coherence. Especially if the team or

some of its members have not been together before it is important to develop an understanding of each other's way of thinking and behaving. Every team member also must learn what debriefing can do for them and what they have to contribute to allow everybody to improve.

Debriefing events like simulation training, exercises, and **above all: critical incidents** are mandatory. Probability is that in such cases at least some team members will have been exposed to something they never may have experienced before.

Generally debriefing should follow action without undue delay. This is even more important if an emergency is to be debriefed. There should by no means be a pause where individual members talk to each other. Everything — even emotions — should go into the debriefing and be shared by all. Such situations will benefit largely if debriefing was established as a routine for all teammates before and if debriefing is anchored in the organizational culture.

In some cases, an emergency might keep the medical team busy for an extended period. Then intermittent debriefings can be considered.

(to be continued)

1. Pockett DA. The human element. In: Navigation Accidents and Their Causes. The Nautical Institute, London 2015; xi–xii.
2. Dahl E. Social Status Versus Formal Rank of Medical and Other Officers — an Informal Survey Among Passengers and Seafarers on Cruise Ships. Int Marit Health 2004; 55 (4): 165–175.
3. International Maritime Organization 2000,
   Model Course 1.13: Elementary First Aid
   Model Course 1.14: Medical First Aid
   Model Course 1.15: Medical Care (vol. 1+2)
4. Dahl E. Social Status Versus Formal Rank of Medical and Other Officers — an Informal Survey Among Passengers and Seafarers on Cruise Ships. Int Marit Health 2004; 55 (4): 165–175.
5. Seidenstuecker KH, Neidhardt S. Qualification of Ship Doctors: A German Approach. Int Marit Health 2014; 65 (4): 181–186.
6. The Center for Medical Simulation, Debriefing Assessment for Simulation in Healthcare. https://harvardmedsim.org/debriefing-assessment-for-simulation-in-healthcare-dash/; accessed September 2nd, 2024
7. Schmidt-Sausen N. Mut zur Offenheit. Deutsches Ärzteblatt 2018; 115: 170–172.