



# IMHA

## International Maritime Health Association

### Workshop Report

#### Review of ILO Guidelines for the examination of seafarers, Appendix E 2025

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## Abstract

### Background

Seafarers are required to undergo fitness-to-work medical examinations to ensure they are physically and mentally capable of performing their duties safely and effectively in the demanding maritime environment. In 2013 the International Labour Organisation (ILO) and International Maritime Organisation (IMO) jointly published the Guidelines on the Medical Examination of Seafarers, a document which has been widely adopted by many flag states globally. Appendix E of these guidelines contains a detailed list of medical conditions and corresponding fitness recommendations.

Given the significant medical advancements and changes in seafaring practices over the years, it was proposed at the 16<sup>th</sup> International Symposium of Maritime Health in October 2023 that there be a review of Appendix E. This was supported by the ILO and IMO meeting that agreed upon the Guidelines on the Medical examination of Fishers/Fishing Vessel Personnel in February 2024. The International Maritime Health Organisation (IMHA), with support from the ITF Seafarers' Trust (ITF ST), initiated this process, first with an online survey, followed by an international workshop to review the survey results and further discuss the need for review of Appendix E of the ILO/IMO Guidelines.

### Objective

The objective of the workshop was to determine consensus on whether the ILO/IMO Guidelines for the Examination of Seafarers, Appendix E, requires review and if so, what elements of the current guidelines in Appendix E should be prioritized.

### Methods

Eighteen participants from the maritime field including physicians, regulators and academics convened at the workshop in February 2025. The results of a prior survey on the topic were presented and reviewed followed by presentations, group discussions and debates on some of the major medical categories. Participants explored the need to review Appendix E of the ILO Guidelines for the Examination of Seafarers with a focus on the medical conditions most commonly raised in the previous survey.

### Results

During the three-day workshop, discussions highlighted key areas warranting further evaluation, including obesity, vision standards, diabetes, HIV, drug and alcohol use, renal pathology, asthma, epilepsy, neurodiversity and medication use. Each of the medical conditions discussed resulted in the overall consensus that there was a need to review that element. All the participants agreed that there was a need for review of Appendix E as a whole, with possible scope for review of other elements of The Guidelines. The group emphasized the need for clearer definitions, evidence-based updates, and culturally sensitive, operationally practical revisions which can be used internationally.

## Conclusion

Following the survey, workshop, and discussions at the International Symposium of Maritime Health (ISMH) 17, there was clear consensus that Appendix E of the ILO Guidelines requires review, with potential expansion to other sections. While not all listed conditions may need revision, significant medical advancements over the past decade justify a comprehensive, evidence-based update. The inclusion of overarching guiding principles was strongly supported to help future-proof The Guidelines and ensure they remain relevant, equitable, and practical across diverse maritime sectors. Moving forward, a collaborative approach involving stakeholders—including medical professionals, seafarers, industry representatives, and regulators—will be essential, alongside structured working groups and dedicated leadership to drive the review process.

## Introduction

Seafarers operate in isolated environments where access to medical care is often limited, and their health directly impacts not only their own safety but also that of the crew, vessel, and marine environment. Consequently, both the Maritime Labour Convention, 2006 (MLC, 2006)<sup>1</sup> and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978, as amended<sup>2</sup>, mandate that all seafarers hold a valid medical certificate.

With the aim to standardize medical evaluation procedures globally, reduce inconsistencies in certification, and ensure that medical certificates are a valid indicator of a seafarer's fitness for duty the International Labour Organization (ILO), in collaboration with the International Maritime Organization (IMO), developed the *Guidelines on the Medical Examination of Seafarers*<sup>3</sup> (The Guidelines) which provide a unified framework on seafarer fitness. These guidelines were first published in 2013, replacing earlier standards from 1997, in response to evolving medical knowledge and the increasing internationalization of the maritime industry. While The Guidelines themselves are not legally binding, they are widely used by flag states as a reference to align national regulations with international standards.

The Guidelines incorporate various Appendices which define medical standards and requirements including vision (Appendix A), hearing (Appendix B), physical capability (Appendix C), medication use (Appendix D), and fitness criteria for common medical conditions (Appendix E).

Further to The Guidelines published for seafarers, in February 2024, the ILO and IMO jointly finalized The Guidelines on the Medical Examination of Fishers/Fishing Vessel Personnel.<sup>4</sup> The fishers' guidelines incorporate Appendix E of the seafarer's Guidelines without change but with the recommendation that this Appendix was reviewed in the near future. Initial discussions during the International Symposium on Maritime Health in Athens 2023 which continued during the ILO/IMO meeting in February 2024 to finalise the Fisher's guidelines, identified a potential need for review of The Guidelines based on advances in the medical field and changes in the maritime environment.

## Methods

In November 2024 a survey was sent out to all IMHA members detailing each medical condition contained in Appendix E and requesting opinion on whether The Guidelines for each condition required a change, further discussion, or no change needed. The survey was also sent to a number of shipping companies, P&I clubs, seafarer's organisations, national and international shipping chambers. The survey was open until February 2025 and the results informed which areas of Appendix E most respondents recommended needed change or discussion. The survey also included short answer questions on standards for vision, hearing, physical capability and medication use (Appendices A-D).

Following the survey, IMHA convened a workshop, sponsored by the ITF Seafarer's trust, to determine if there is sufficient requirement to review Appendix E of The Guidelines. The workshop was held at the offices of the UK Maritime and Coastguard Agency in Southampton, United Kingdom from 18-20

February 2025. Eighteen experts from various sectors of the maritime medical field, including regulatory bodies, academic institutions, and practicing physicians participated over three days.

The results of the survey were analysed and informed the topics to be included for discussion at the workshop. In the weeks leading up to the workshop, the participants were divided into four groups with each group designated a medical category and required to present a “for change” or “no change” argument to the group in debate format. This gave the participants the opportunity to research their respective medical category and present prepared findings and arguments to the rest of the participants.

Dr. Rob Verbist opened the workshop by highlighting the importance of this review and how, as regulatory frameworks like the STCW Convention undergo revision, maritime medical guidelines must be reviewed as well. The session focused on the importance of balancing stringent medical requirements with practical considerations for both seafarers and the industry.

The author of the current guidelines for the medical examination of seafarers, Dr Tim Carter, gave a presentation on its history and detailed the process that was required to implement them in 2013. He outlined some of the health and administrative issues faced including eyesight, hearing, physical capability, thresholds for action, existing national standards and minimum standards as opposed to definitive ones.

The workshop proceeded with plenary discussions on obesity, and vision standards (Appendix A) followed by debate topics of diabetes, HIV, drug and alcohol use, and renal calculi. Further group discussions were conducted on asthma, ADHD, medication use, renal failure, gallbladder disease, epilepsy and malignancy.

The workshop concluded with discussions on the way forward for review of The Guidelines and participants provided valuable insight and expert opinions on various aspects including future proofing guidelines in the face of rapid medical advancement, obtaining specialist opinion, catering to different maritime environments such as cruise ships, improving definitions used in The Guidelines and combined comorbidity risk assessment. Engagement of the relevant organisations and stakeholders in order to move this work forward, was also discussed.

## Results

### Overview of Survey Results

A total of **107 individuals** participated in the survey. Of these, **47 (44%)** fully completed all sections, whereas **60 (56%)** provided none or only partial responses.

Among the respondents, **54 (50%)** identified themselves as **seafarer’s doctors**, of whom **28 (51%)** completed the entire survey. A further **22 participants (21%)** were **seafarers or their representatives**; however, **19 (86%)** of this subgroup left the survey blank.

Participants represented **27 countries**. The largest national groups were from **Brazil, the United Kingdom, the Netherlands, and the Philippines**, although only the latter three demonstrated **greater than 50% full survey completion**. The **majority of respondents (47%)** were from **European countries**.

More than half of respondents indicated that **current standards regarding obesity, diabetes, and vision** required **revision or further discussion**. Other medical conditions for which **40% or more** of respondents suggested that **review or modification** was warranted included **medication use, alcohol and drug abuse or dependence, HIV, malignant neoplasm, cardiac events, renal or ureteric calculus, pregnancy, and epilepsy**.

## Outcome of the Workshop Discussions

The groups discussed various topics over the three-day workshop with the intention to ascertain if there was a need to review elements in The Guidelines, specifically Appendix E. Final recommendations and decisions on various topics were not within the scope of the workshop.

### Obesity

One of the main focuses on the discussions of obesity was whether there should be an inclusion of a cut off value for BMI and if indeed BMI alone was a good enough indication of obesity or whether other factors such as waist circumference should also be included. Many participants agreed that the risks associated with obesity centre around physical capability especially in emergency situations as well as complications of comorbidities associated with obesity such as diabetes, cardiovascular disease, musculoskeletal concerns and the risk of sudden incapacitation.

While some participants felt that existing protocols such as physical capability assessments address obesity adequately, others highlighted inconsistencies and gaps. For example, guidelines that do contain threshold values for BMI vary across regions, with some using a cutoff of 40 to declare someone unfit without further evaluation, while others applied step tests or conditional certifications for those with BMI over 35. The group also acknowledged that BMI alone is an imperfect measure and should be supplemented with broader assessments of physical capacity and health risks.

Several participants emphasized the importance of balancing safety with fairness and avoiding discriminatory practices. Concerns were raised about the emotional impact on workers who become obese during employment and the need for companies to support health promotion and improvement efforts, such as encouraging exercise and providing healthier food options on board. Utilisation of cardiovascular risk assessment tools was discussed. Ultimately, the discussion reflected a shared understanding that obesity is a significant issue in maritime health assessments, but any changes to guidelines must be evidence-based, equitable, and sensitive to the operational realities of seafaring life.

### Vision

Here the discussion centred mainly around monocular vision and colour vision. Aspects such as learning to compensate with monocular vision as well as current colour vision testing modalities, new photochromatic lenses and ophthalmological surgical advancements were discussed. The participants also looked at vision standards from other industries such as aviation. Participants agreed that further discussion and expert opinion was required to determine if changes should be made regarding the above aspects especially prior to making the current guidelines more lenient. It was also noted that minimum

vision requirements are included in the STCW 'A' code and therefore would require an amendment of the code before they could be changed.

## Diabetes

One of the main concerns regarding diabetics using insulin is the potential for hypoglycaemia, hypoglycaemic awareness and the dangers associated with hypoglycaemic events, especially in the remote seafaring environment. Discussions centred around whether the use of Continuous Glucose Monitors (CGM) could sufficiently reduce the risk of hypoglycaemic events at sea thereby allowing insulin using diabetics to work worldwide and if so, what, if any, restrictions should be imposed. In addition, the more widespread use of HbA1c as an indicator of long-term blood glucose levels brought about discussion as to whether this test should be included as part of all Pre-Employment Medical Examinations (PEME) and how results would need to be interpreted. The group unanimously agreed that diabetes, especially with insulin usage, warrants a review and that the term "until stabilised" in the current guidelines, requires further elaboration.

## HIV

In the years since The Guidelines were originally published there has been significant advancement in management of those living with HIV. The widespread use and availability of medications means that a person can live a relatively healthy life despite having an HIV positive status. The use of medications does however, have implications with regards to side effects, surveillance required and availability. The group agreed that a review should be undertaken to discuss these elements as well as to determine if biological parameters such as CD4 count and viral load should be included in fitness criteria. Again, it was recognised that the term "until stabilised" could be elaborated and The Guidelines also include risk of transmission and deterioration. The participants discussed including testing for HIV during PEME especially in countries with high prevalence and agreed that this opens a wider discussion on screening tests in general during PEMEs and that testing for HIV in particular will require many considerations. It was agreed that while untreated HIV positive individuals would not be fit for sea duties, there should be a review of the rest of The Guidelines pertaining to HIV.

## Drugs and Alcohol

Cannabis use has become legal in many countries posing challenges to the occupational health practitioners who need to ensure a safe workplace for all as well as raising the topic of use versus misuse. Medicinal use of cannabis poses further challenging considerations which may prompt review in terms of medication use (Section D). Other similar guidelines include biological parameters such as MCV, liver functions and specific drug or alcohol levels. The group raised the possibility of combining drug and alcohol dependence (currently separate entries in Appendix E), and in general agreed that a review of these elements is warranted.

## Renal Calculus

Renal calculus was recognised as a common medical complaint from those in the group performing PEMEs as well as TMAS providers and seafarer clinics. The concerns for presentation at sea are obstruction, renal tract infection and diagnostic uncertainty. It was recognised that one of the biggest concerns for seafarers with a history of renal calculi is the risk of recurrence, the challenge being how to quantify the risk and when to use additional imaging tests and restrictions on fitness. The group discussed whether guidelines should include screening for renal calculi for all seafarers or as mandatory for those with a previous history. It was agreed that this topic requires further review.

## Asthma

The group discussed the latest GINA guidelines for asthma with particular reference to the recommendations for continuous treatment as opposed to occasional use which would render a seafarer unfit for duty, even if well controlled. It was agreed that the age criteria of 20 years as well as the definition of hospital admission and a two year restriction would all need to be reviewed based on current best practice asthma treatment recommendations.

## ADHD

With the increase in diagnosis of neurodiversity in the last few years, it was recognised that there may need to be a review of The Guidelines. There should be a focus on functional assessment, review of medications and an opportunity to obtain a history of previous exposures to seafaring or a similar environment. It was also discussed whether other conditions on the neurodivergent spectrum such as autism should be included as separate entries. The participants agreed this area requires review with a focus on functional assessment at an individual level.

## Medications

### *Anticoagulants*

The most recent changes in medicine have been the use of New Oral Anticoagulants (non-vitamin K antagonists) which do not require INR monitoring, as well as the increasing usage of antiplatelet agents such as clopidogrel. Consideration of the risk for spontaneous bleeding, uncontrolled bleeding due to trauma and half-lives were discussed. It was also recognised that there are different medical conditions listed in Appendix E which mention anticoagulants with differing recommendations. Restrictions such as near coastal waters and vessels with medical personnel on board may also need to be considered.

### *Biological agents and immunosuppressants*

The group discussed these agents and agreed that there is a wide variety of different agents with differing side effect profiles and surveillance requirements. Considerations include the risk of infections, requirement for vaccinations, access to telemedical support and shore-based medical care as well as the

underlying condition for which these are prescribed. With such variation it is important to consider the individual circumstances.

### *Opioids and Anxiolytics*

A brief discussion was held surrounding the use of anxiolytics, particularly benzodiazepines and their possible side effects especially cognitive impairment. Factors such as country restrictions of certain medications, side effects, dependence and underlying mental health factors were considered.

The participants agreed that there was a need to review the fitness criteria for medication use (Appendix D) concurrently when reviewing Appendix E. Overarching principles such as assessment of the individual and their underlying medical condition, medication tolerance, side effects and surveillance requirements would need to be included in order to assist physicians to make decisions on fitness to work at sea.

## Renal Failure

The group discussed chronic renal failure which may become more relevant as the prevalence rises especially in the face of an aging workforce. Elements considered were inclusion of screening tests, consideration of the underlying cause as well as systemic complications associated with chronic renal failure. It was agreed that there should be consideration to include this as a standalone item in Appendix E.

## Gallbladder Disease

Participants discussed gallbladder disease especially gallstones and polyps which are common incidental findings on abdominal ultrasound and may require specialist input for advice on the likelihood of complications developing at sea. It was agreed that these conditions could be included as separate entities in future guidelines.

## Epilepsy

Epilepsy guidelines were debated, focusing on seizure-free duration, medication use, and the remote environment. While 10 years seizure-free without medication is seen as conservative, some suggest leniency for stable cases on medication. Concerns include medication side effects, compliance challenges at sea, and seizure risks from shift work or illness. Suggestions included allowing stable individuals on certain routes or with doctors on board. Overall, consensus leaned toward maintaining current standards, pending specialist input.

## Malignancy

The group agreed current malignancy guidelines don't require significant amendments but suggested clearer wording, especially around unrestricted worldwide certification. Discussions included whether follow-up requirements justify time-limited certificates, with some cancers now considered chronic and

requiring lifelong monitoring. Overall, the group leaned toward maintaining standards while improving clarity and considering long-term impacts and evolving treatment landscapes.

## Additional Topics Raised

The group discussed expanding guidelines to better address female-specific health issues, including breast conditions and gynaecological disorders, due to the rising number of female seafarers. Concerns included fairness in requiring more tests for women, lack of emphasis on female health, and the need for clearer protocols. Some suggested aligning with military practices or requiring gynaecological exams before voyages. There was consensus on updating health promotion to reflect gender diversity and support inclusion in the industry. It was also mentioned that there are some acute medical conditions in the current Appendix E which may potentially be removed as they are generally expected to be self-limiting, such as acute otitis media. Additional medical conditions such as rheumatological and dermatological conditions were requested to be included.

## Workshop Conclusions

The workshop concluded with a roundtable discussion, where participants agreed on the need to review elements of Appendix E and aspects of The Guidelines overall. Each shared insights on medical and cultural challenges in their respective countries, along with suggestions for future improvements. Participants expressed interest in optional tests like ECGs, while noting concerns around cost and interpretation. Structured referral letters for specialists were proposed to enhance consistency in fitness-to-work assessments.

There was strong support for developing guiding principles to help practitioners interpret and apply The Guidelines holistically. Recommendations included clearer definitions (e.g., “stable”), standardized risk assessment tools, and improved navigation of Appendix E. The group emphasized the importance of considering cumulative risk, functional capability, and access to care—particularly in remote versus near-coastal settings and for vessels where medical personnel are available on board.

Emerging issues such as the aging workforce, autonomous vessels, and chronic conditions were also discussed. The complexity of revising medical guidelines for seafarers was acknowledged, with emphasis on global applicability across diverse sectors, including fishing and cruise industries. Ultimately an important goal will be to “future-proof” guidelines in the face of the rapidly advancing medical field and changing maritime environment.

A panel-based approach was recommended, with smaller working groups focusing on specific medical areas and contributing to broader updates. Publishing findings in journals and presenting at conferences was suggested to promote transparency and knowledge sharing.

Finally, the group stressed the need to balance prescriptive guidance with flexibility. A “guidance to The Guidelines” was proposed to support critical thinking and comprehensive risk assessment. The workshop outcomes, along with survey results, were presented at the 17th International Symposium on Maritime Health in Rotterdam in June 2025 where broader feedback could be gathered.

## Discussion

Following initial discussions beginning at ISMH16 in Athens, through to the survey and workshop and concluding at ISMH17, it is clear that there is a consensus opinion supporting the need to review Appendix E of The Guidelines. While the limitations of the survey, such as the reach to respondents, the length and the highly technical nature may have limited the responses received, it is unlikely that further surveys would yield any more valuable information. The conditions discussed at the workshop were those primarily identified by the survey to be the most pressing for review however it is evident that while much of the recommendations may not require change, a detailed review is warranted to ensure that newly published recommendations reflect the most up to date medical practices.

Recent advancements in diagnostic and screening tools may justify a review of the tests recommended in The Guidelines. Although this was beyond the scope of the workshop, it remains relevant when considering a broader update to The Guidelines and Appendix E. To incorporate the latest medical developments and ensure accurate risk assessments, specialist input may be necessary for certain conditions. However, specialists may lack familiarity with the maritime environment, so final fitness-to-work decisions should rest with the approved examining maritime physician.

With the rapid pace of medical advancements, it was recognised that there is a need to future proof The Guidelines by including overarching principles of assessing fitness to work at sea including elements such as considerations for medication use, conducting a cumulative risk assessment and taking individual factors into account. This allows future guidelines to take into consideration the medical risk to the seafarer, the operational and safety risk to the vessel, and the growing recruitment demands of the seafaring industry all while supporting the health and wellbeing of our seafarers.

The outcome of the survey and workshop were presented to a wide audience at the 17<sup>th</sup> International Symposium of Maritime Health in Rotterdam in June 2025. The audience was asked via electronic poll to provide their opinion on whether they support review of Appendix E, the results of which clearly reflected a need for revision with all but one of over 100 people in attendance supporting the need for a review. In further discussions, the audience raised valuable points ranging from support for The Guidelines be more lenient, to concern about the safety of allowing any insulin treated seafarer to work at sea, the recognition of the additional medical care that can be provided on cruise ships and how this can be reflected in The Guidelines, the different prevalence of diseases around the world meaning that specific tests may be included on a targeted population basis, and the need for training of doctors and the consistent application of guidelines.

## Conclusion

Following the survey, the workshop and discussions at ISHM 17, it is clear that the maritime medical community feels there is a definite need to review Appendix E and possibly widen a review to include other elements of the existing Guidelines. It is recognised that while many conditions listed in Appendix E may not need change, the significant advances in medicine over the last 12-15 years necessitate at

least review with some requiring significant amendment. Moving forward, including overall guiding principles will help to “future-proof” guidelines in the face of rapid medical advances.

Involvement of all stakeholders needs to be considered including not only medical professionals but also seafarer representatives, ship owners, other maritime industries such as the cruise industry and fishers as well as regulators and governing bodies. Whether the process of review will include small working groups, specialist involvement and possibly an overall project leader will need to be taken further for discussion and funding will need to be obtained in order to move the work forward.

## Participants

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