INTERNATIONAL LABOUR ORGANIZATION

INTERNATIONAL MARITIME ORGANIZATION

Sectoral Activities Programme **ILO/IMO/JMS/2011**

Proposed revised Guidelines on the medical examinations of seafarers

Report for discussion at the Joint ILO/IMO Meeting on Medical Fitness Examinations of Seafarers and Ships' Medicine Chests
(26–30 September 2011)

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Preface

The International Labour Organization (ILO) adopted the Medical Examination of Young Persons (Sea) Convention, 1921 (No. 16), very early indeed. This was followed by the Medical Examination (Seafarers) Convention, 1946 (No. 73). These instruments have now been consolidated into the Maritime Labour Convention, 2006 (MLC, 2006). The laws of most maritime countries require that all seafarers carry a valid medical certificate.

The International Maritime Organization's (IMO) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Convention), 1978, as amended, provides that the issuance of certificates of competency is conditional upon providing satisfactory proof of having met the standards of medical fitness specified in section A-I/9 of the STCW Code, including, in certain cases, minimum standards for eyesight and hearing. Many seafarers, therefore, have to satisfy minimum standards of fitness when obtaining certificates of competency.

With national fitness standards for seafarers varying widely, the set of international guidelines adopted in 1997 (the Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers) was a first attempt towards harmonization. The increasing internationalization of shipping makes such harmonization even more desirable. Medical practitioners performing such examinations should have a clear understanding of the special requirements of seafaring life, as their professional judgement is often critical to the lives of seafarers. All concerned should be able to trust a seafarer's medical certificate as having been issued in accordance with the relevant applicable international standards.

[These Guidelines have been endorsed by the ILO Governing Body and the IMO Maritime Safety Committee to provide complementary advice to competent authorities, medical practitioners and all stakeholders of the shipping industry on the application of the MLC, 2006, the STCW Convention, 1978, as amended, and the ILO Work in Fishing Recommendation, 2007 (No. 199), with regard to safeguarding the health of seafarers and promoting safety at sea.] These Guidelines supersede the Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers, which were published by the ILO and the World Health Organization (WHO) in 1997.

Disseminating these Guidelines and ensuring their implementation should contribute towards harmonizing the standards for medical examinations of seafarers and improving the quality and effectiveness of the medical care provided to seafarers.

[The IMO and the ILO express their appreciation to the WHO for its advice and support in the preparation and adoption of these Guidelines.]

Contents

Part 1. Introduction

I. Purpose and scope of the Guidelines

1. Seafarers are required to undergo medical examinations to reduce risks to other crew members and for the safe operation of the ship, as well as to safeguard their personal health and safety.

2. The MLC, 2006, and the STCW Convention, 1978, as amended, require seafarers to hold certificates of medical fitness, detail the information to be recorded on them and indicate certain specific aspects of fitness that need to be assessed.

3. These Guidelines apply to seafarers in accordance with the requirements of the MLC, 2006, and the STCW Convention, 1978, as amended. They revise and replace the Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers, published by the ILO and WHO in 1997.

4. [When implementing and utilizing these guidelines, it is essential to ensure that the fundamental rights, protections, principles, and employment and social rights outlined in Articles III and IV of the MLC, 2006, are respected.]

5. These Guidelines are intended to provide maritime administrations with an internationally recognized set of criteria for use by competent authorities either directly or as the basis for framing national medical examination standards that will be compatible with international requirements. Valid and consistent guidelines should assist medical practitioners, shipowners, seafarers' representatives, seafarers and other relevant persons with the conduct of medical fitness examinations of serving seafarers and seafarer candidates. Their purpose is to help administrations establish criteria that will lead to equitable decisions about who can safely and effectively perform their routine and emergency duties at sea, provided these are compatible with their individual health-related capabilities, and who does not meet the applicable minimum standards.

6. These Guidelines have been developed in order to reduce the vast differences in the application of medical requirements and examination procedures and to ensure that the medical certificates which are issued to seafarers are a valid indicator of their medical fitness for the work they will perform. Ultimately, the aim of the Guidelines is to contribute to health and safety at sea.

II. Contents and use of the Guidelines

The Guidelines are arranged in the following manner:

7. Part 1 summarizes the purpose and scope of the Guidelines, their contents and the background to their preparation, and identifies the main features of a framework for medical examinations and the issue of a medical fitness certificate to seafarers.

8. Part 2 provides information relevant to competent authorities to assist with the framing of national regulations that will be compatible with relevant international instruments on the health and fitness of seafarers.

9. Part 3 suggests the information required for those who are carrying out seafarer medical assessments. This may be used directly or may form the basis for national guidelines for medical practitioners.

10. Part 4 includes a series of appendices on standards for different types of impairing conditions, recordkeeping and the contents of the medical certificate.

11. Some parts of the Guidelines are more appropriate for competent authorities than for individual medical practitioners, and vice-versa. Nevertheless, it is suggested that the whole of the Guidelines be taken into consideration to ensure that all topics and information are taken into account. The Guidelines are designed as a tool to enhance medical examinations and make them more consistent; they cannot and are not intended to replace the professional skill and judgement of recognized medical practitioners.

III. Background to the preparation of the Guidelines

12. In 1997, the ILO and WHO published the first international guidelines concerning the medical examinations of seafarers. This has been an invaluable document for maritime authorities, the social partners in the shipping industry and the medical practitioners who conduct medical examinations of seafarers. Since 1997 there have been important changes in the diagnosis, treatment and prognosis of many of the medical conditions that need to be taken into account. The 1997 Guidelines provided detailed information on the conduct of seafarer medical examinations but they did not, with the exception of vision, assist by proposing the appropriate criteria to be used when deciding whether a medical fitness certificate could be issued for other conditions.

13. The need for revision was recognized by a number of maritime authorities, by the social partners and by doctors undertaking seafarer medical examinations. This led to a resolution being adopted by the 94th (Maritime) Session of the International Labour Conference in 2006 recommending that the need for revision should be considered. The IMO, in its comprehensive review of the 1978 STCW Convention and Code, also recognized the need to include medical fitness criteria that were relevant to maritime safety, and concluded that the present Guidelines required revision.

14. The ILO and the IMO subsequently agreed to create a joint working group to develop revised Guidelines.

15. [WHO provided technical input for the preparation of these revised Guidelines.]

IV. Seafarer medical fitness examinations

16. The aim of the medical examination is to ensure that the seafarer being examined is medically fit to perform his or her routine and emergency duties at sea, and that the seafarer is not suffering from any medical condition likely to be aggravated by service at sea, to render him or her unfit for service or to endanger the health of other persons on board. Wherever possible, any conditions found should be treated prior to returning to work at sea so that the full range of routine and emergency duties can be undertaken. If this is not possible, the abilities of the seafarer should be assessed in relation to his or her routine and emergency duties and recommendations made on what the seafarer is able to do and whether any reasonable adjustments could enable him or her to work effectively. In some cases, problems will be identified that are incompatible with work at sea and cannot be remedied. Appendices A–E provide information on the disabilities and medical conditions which are not likely to prevent all routine and emergency duties being

performed, those which require adaptation or limitation to routine and emergency duties, and those which result in either short-term or longer term unfitness to work at sea.

17. Medical examination findings are used to decide whether to issue a certificate of fitness to work at sea to a seafarer. Consistent decision-making needs to be based on the application of criteria for fitness that are applied in a uniform way, both nationally and, because of the global nature of seafaring and marine transport, internationally. These Guidelines provide the basis for establishing national arrangements which are compliant with the relevant international Conventions.

18. The medical certificate is neither a certificate of general health nor of the absence of illness. It is a confirmation that the seafarer is expected to be able to meet the minimum requirements for performing the routine and emergency duties specific to their post at sea safely and effectively during the period of validity of the certificate. Hence, the routine and emergency duties must be known to the examining medical practitioner, who will have to establish, using clinical skills, whether the seafarer meets the standards for all anticipated routine and emergency duties specific to their individual post and whether any routine and emergency duties need to be modified to enable them to be performed safely and effectively.

19. The ability to safely and effectively perform routine and emergency duties depends on both a person's current degree of fitness and on the likelihood that they will develop an impairing condition during the validity period of the certificate. Criteria for performing routine and emergency duties safely will be higher where the person has critical safety duties, either as part of their routine or in emergencies. Other safety consequences also need to be considered, for instance whether a seafarer is suffering from any medical condition likely to be aggravated by service at sea, to render the seafarer unfit for such service, or to endanger the health and safety of other persons on board.

20. The examining medical practitioner should base the decision to issue a medical certificate of fitness on whether criteria for minimum performance requirements, as listed in the appendices to this document, are met in the following areas:

(i) vision (Appendix A), hearing (Appendix B) and physical capabilities (Appendix C);

(ii) impairment from the [general] use of medication (Appendix D);

(iii) presence or recent history of an illness or condition (Appendix E).

21. The consequences of impairment or illness will depend on routine and emergency duties and, in some cases, on the distance from shore-based medical facilities.

22. Thus, the examining medical practitioner needs the skills to assess individual fitness in all these areas and the knowledge to relate their findings to the requirements of the individual's routine and emergency duties at sea whenever any limitations in fitness are identified.

Part 2. Guidance for competent authorities

V. Relevant standards of and guidance from the International Labour Organization, the International Maritime Organization and the World Health Organization

23. The Guidelines have taken into account the appropriate Conventions, Recommendations and other instruments of the ILO, the IMO and WHO. Competent authorities should ensure that medical practitioners are provided with information on other relevant standards which may have been formulated after the date of adoption of these Guidelines.

ILO instruments concerning the medical examination and health of seafarers

24. Several earlier Conventions on seafarer working conditions have been consolidated in the MLC, 2006, including requirements for the issue of medical certificates (Regulation 1.2 and associated standards and guidelines) and for medical care on board ship and ashore (Regulation 4.1 and associated standards and guidelines).

25. An important objective of the MLC, 2006, is to safeguard the health and welfare of seafarers. The MLC, 2006, applies to all seafarers except where expressly provided otherwise in the Convention (Article II, paragraph 2).

IMO instruments concerning medical examination requirements for seafarers

26. The IMO STCW Convention, 1978, as amended, includes requirements for medical examinations and the issue of medical certificates.

27. Earlier versions of the STCW Convention included criteria for vision and physical capability but not for other aspects of medical assessment.

28. Every seafarer holding a certificate issued under the provisions of the STCW Convention who is serving at sea must also hold a valid medical certificate issued in accordance with the provisions of STCW Convention regulation I/9 and of section A-I/9 of the STCW Code.

WHO measures concerning seafarers' health and medical services and medical examinations of seafarers

29. [The WHO Executive Board and World Health Assembly have adopted resolutions on the health of seafarers (WHA14.51, EB29.R10, WHA15.21, EB37.R25, EB43.R23), requesting to assist nations to improve the health of seafarers, ameliorate the medical records of seafarers, and make available to seafarers services in each port where the necessary specialized medical care can be provided. Furthermore, in May 1996, a resolution of the 49th World Health Assembly (WHA49.12) on the WHO Global Strategy for Occupational Health for All urges countries to give special attention to full occupational health services for the working population, including groups at high risk, such as seafarers.]

VI. Purpose and contents of the medical certificate

30. The MLC, 2006, (Standard A1.2) and the STCW Convention, 1978, as amended, (section A-I/9, paragraph 7) specify the information that should be included as a minimum on the medical certificate. The detailed content of these Guidelines aligns with these requirements and the other more detailed provisions of the relevant international Conventions, which should be consulted when developing national procedures. The aim of the Guidelines is, wherever possible, to avoid subjectivity and to give objective criteria for decision-making.

31. The period of validity of the certificate is indicated in the MLC, 2006, (Standard A1.2, paragraph 7) and the STCW Convention, 1978, as amended, (regulation I/9). Both Conventions specify that the medical certificate will remain in force for a maximum period of two years from the date on which it is granted, unless the seafarer is under the age of 18, in which case the maximum period of validity is one year. Certificates issued in accordance with the STCW Convention, 1978, as amended, which expire during the course of a voyage will continue to be in force until the next port of call where the seafarer can obtain a medical certificate from a medical practitioner recognized by the party, provided that the period does not exceed three months. In urgent cases, the administration may permit a seafarer to work without a valid medical certificate until the next port of call where a medical practitioner recognized by the party is available, provided that the period of such permission does not exceed three months and the seafarer concerned is in possession of an expired medical certificate of recent date. In so far as a medical certificate relates to colour vision, it will remain in force for a period not exceeding six years from the date it is granted.

32. Two years is the period over which fitness should normally be assessed. However, if the examining medical practitioner considers that more frequent surveillance of a condition that may affect health or performance at sea is indicated, a certificate of shorter duration should be issued and arrangements made for reassessment. The examining medical practitioner should only issue a certificate with a duration of less than two years if they can justify their reasons in a particular case.

33. The medical practitioner should indicate on the certificate whether the person is fit for all duties worldwide within their department (deck/engine/catering/other), as indicated on their certificate; whether they can undertake all routine and emergency duties but are only able to work in specified waters, or whether adaptation of some routine and emergency duties is required. Safety-critical visual capabilities such as lookout duties should be specifically indicated.

34. If the seafarer cannot perform routine and emergency duties safely and effectively and adaptation of duties is not possible, the seafarer should be notified that they are "not fit for duty". If adaptation is possible then they should be notified that they are "fit for duty with limitations". The notification must be accompanied by an explanation of the seafarer's right to appeal and apply for a further examination by another independent medical practitioner or by an independent medical referee, as indicated in MLC, 2006, Standard A1.2, paragraph 5, and the STCW Code, section A-I/9. The referee should be empowered to issue a revised certificate of fitness based on their assessment of the person, if appropriate.

35. [Some illnesses and injuries are likely to impair the ability of a seafarer with a current medical fitness certificate to perform routine and emergency duties safely. Arrangements should be made for the seafarer to have their current fitness assessed and, if needed, a revision made to the status of their certificate after illness or injury. Seafarers may have a requirement placed on them to obtain such an examination or it may be made a condition of continuing to work at sea. Criteria for such examinations that may be considered include

more than 30 days incapacitation, disembarkation for medical reasons, hospital admission, and a requirement for new long-term medication.]

36. [Prior to work at sea it is common for cadets to undergo a period of shore-based maritime training. Before training commences it is advantageous for any person who intends to subsequently work at sea to be medically examined to confirm that they will reach the required medical fitness standards. If their fitness is in doubt, the examination will provide an opportunity for identifying any further medical investigations or treatment that may be indicated or for giving vocational guidance about career options.]

37. A medical certificate issued in accordance with the requirements of the STCW Convention, 1978, as amended, will also meet the requirements of the MLC, 2006.

VII. Right to privacy

38. All persons involved in the conduct of medical examinations, including those who come into contact with medical examination forms, laboratory results and other medical information, should ensure the right to privacy of the examinee. Medical examination reports should be marked as confidential and so treated, and all medical data collected from a seafarer should be protected. Medical records should only be used for determining the fitness of the seafarer for work and for enhancing health care; they should not be disclosed to others without prior written informed consent from the seafarer. [Personal medical information should not normally be included on certificates and other documents made available to others following the medical examination.][The seafarer should have the right of access to and receipt of a copy of his/her personal medical data.] [or] [Consideration should be given to existing international guidelines addressing seafarers' right of access to and receipt of a copy of his or her own medical records.]

VIII. Recognition of medical practitioners

39. The competent authority should maintain a list of recognized medical practitioners to conduct medical examinations of seafarers and issue medical certificates (STCW Code, section A-I/9, paragraph 4). The competent authority should consider the need for medical practitioners to be personally interviewed and for clinic facilities to be inspected before authorization to conduct medical examinations of seafarers is given. A list of medical practitioners recognized by the competent authority should be made available to competent authorities in other countries, companies and seafarers' organizations on request.

40. Where this list is restricted to medical practitioners with a specialist level of training and competence in maritime health, a degree of discretion in the interpretation of some fitness criteria may be allowed.

41. Where the list is more widely drawn and includes medical practitioners without a comparably high level of training, fitness criteria will need to be specified in more detail and closely followed.

42. In addition, the provision of an expert helpline can aid decision-making on novel or complex problems and can be a source of information that may be used to improve the quality of assessments.

43. The names of any medical practitioners whose recognition has been withdrawn during the previous 12 months should continue to be included, with a note to the effect that they are no longer recognized by the competent authority to conduct seafarers' medical examinations.

44. A medical practitioner so recognized by the competent authority:

(i) should be a qualified medical practitioner currently accredited by the medical registration authority for the place where they are working;

(ii) should be experienced in general and occupational medicine or maritime occupational medicine;

(iii) should have knowledge of the living and working conditions on board ships and the job demands on seafarers in so far as they relate to the effects of health problems on fitness for work, gained wherever possible through special instruction and through knowledge based on personal experience of seafaring;

(iv) should have facilities for the conduct of examinations that are conveniently situated for access by seafarers and enable all the requirements of the medical fitness examination to be met and conducted with respect for confidentiality, modesty and cleanliness;

(v) should be provided with written guidance on the procedures for the conduct of medical examinations of seafarers, including information on appeals procedures for persons denied a medical certificate as a result of an examination;

(vi) should understand their ethical position as examining medical practitioners acting on behalf of the competent authority, ensuring that any conflicts with this are recognized and resolved, and should obtain informed consent from the seafarer prior to any communication with others about clinical aspects of the seafarer's health;

(vii) should refer any medical problems found, when appropriate, for further investigation and treatment, whether or not a seafarer is issued with a medical certificate; and

(viii) should enjoy absolute professional independence from shipowners, seafarers, and their representatives in exercising their medical judgement in terms of the medical examination procedures. Those employed by, or contracted to, a maritime employer or crewing agency should have terms of engagement which ensure that an assessment is based on statutory standards and the issue of national certificates of fitness is recognized as independent from any advice they may give to the company or agency.

45. It is further recommended that such medical practitioners:

(i) should be provided with information on the standard of competence for seafarers designated to take charge of medical care on board ships in relevant national laws and regulations; and

(ii) should be familiar with the *International Medical Guide for Ships*, or an equivalent national medical guide for use on ships.

46. In the case of a certificate solely concerned with a seafarer's sight and/or hearing, the competent authority may authorize a person other than a certified physician to test the seafarer and issue such a certificate. In such cases, the qualifications for such authorized persons should be clearly established by the competent authority and such persons should receive information on the appeals procedure described in section IX of these Guidelines.

47. The competent authority should have in place quality assurance procedures to ensure that medical examinations meet the required standards. These should include publicized arrangements for:

(i) the investigation of complaints from shipowners, seafarers, and their representatives concerning the medical examination procedures and the authorized medical practitioners;

(ii) collection and analysis of anonymized information from medical practitioners about the numbers of examinations undertaken and their outcomes; and

(iii) the introduction, where practical, of a nationally agreed review and audit programme for examining medical practitioners' practices and recordkeeping undertaken by, or on behalf of, the competent authority. Alternatively, they could endorse appropriate external clinical accreditation arrangements for those undertaking seafarers' medical examinations, the results of which would be made available to the authority.

48. Medical practitioners who are found, as a result of an appeal, complaints or audit procedure, to be incompetent, unethical or guilty of professional misconduct should have their authorization to conduct seafarers' medical examinations for the purpose of issuing medical certificates withdrawn by the competent authority.

IX. Appeals procedures

49. The MLC, 2006 (Standard A1.2, paragraph 5) provides that seafarers that have been refused a certificate or have had a limitation imposed on their ability to work must be given the opportunity to have a further examination by another independent medical practitioner or by an independent medical referee. The STCW Code, in section A-I/9, paragraph 6, requires parties to the Convention to establish processes and procedures to enable seafarers who do not meet fitness standards or who have had a limitation imposed on them to have their case reviewed in line with that party's provisions for appeal.

50. The medical practitioner or referee undertaking the review must be independent.

51. The competent authority may, after consultation with organizations of shipowners and seafarers, delegate the arrangements for appeals, or part of them, to an organization or authority exercising similar functions in respect of seafarers generally.

52. To ensure that such a system of appeals functions successfully, it may include the following elements:

(i) the medical practitioner or referee undertaking the review should have higher or at least the same qualifications as the medical practitioner who conducted the initial examination;

(ii) [the medical practitioner or referee undertaking the review should have two advisers acceptable to the most representative organizations of shipowners and seafarers to provide practical guidance;]

(iii) the appeals procedure should not result in unnecessary delays for the seafarer or shipowner;

(iv) the same principles of confidentiality called for in the handling of medical records should apply to the appeals procedure; and

(v) quality assurance and review procedures should be in place to confirm the consistency and appropriateness of decisions taken at appeal.

Part 3. Guidance to persons authorized by competent authorities to conduct medical examinations and to issue medical certificates

X. Role of the medical examination in shipboard safety and health

53. The medical practitioner should be aware of the role of the medical examination in the enhancement of safety and health at sea and in assessing the ability of seafarers to perform their routine and emergency duties [and to live on board]:

(i) The consequences of impairment from illness while working at sea will depend on the routine and emergency duties of the seafarer and on the distance of the ship from shore-based medical care. [It may adversely affect ship operations, as both the individual and those who provide care will not be available for normal duties. Illness at sea can also put the individual at risk because of the limited care available, as ships' officers only receive basic first-aid and other medical training, and ships are only equipped with basic medical supplies. Medication used by seafarers needs to be carefully assessed as it can lead to impairment from side effects that cannot be readily managed at sea. Where medication is essential to control a potentially life-threatening condition, inability to take it may lead to serious consequences.]

(ii) [Impairment to an individual's current capability (e.g. vision defects) or intermittent or progressive impairment during the validity period of the medical certificate (e.g. sudden incapacitation) from a disability or medical condition can contribute to maritime disasters, especially in the case of those, such as lookouts and navigating officers, who undertake critical safety duties. The identification of relevant impairing conditions can contribute to reducing the frequency of such incidents.]

(iii) Infectious diseases may be transmitted to others on board. This is particularly relevant to food-borne infections in those who prepare or handle food or drinks. Screening for relevant infections may be undertaken at the medical examination or at other times. This is especially relevant in passenger vessels.

(iv) Limitations to physical capability may affect ability to perform routine and emergency duties (e.g. using breathing apparatus). They can also make rescue in the event of injury or illness difficult (e.g. obese seafarer in a confined space).

(v) The medical examination can be used to provide an opportunity to identify early disease or risk factors for subsequent illness. The seafarer can be advised on preventive measures or referred for further investigation or treatment in order to maximise their opportunities for continuing their career at sea. However, the seafarer should be made aware that it does not replace the need for other clinical contacts or necessarily provide the main focus for advice on health maintenance.

(vi) If a medical condition is identified, [any adverse] consequences may be reduced by increasing the frequency of surveillance, limiting duties to those where the medical condition is not relevant or limiting the acceptable pattern of voyages to ensure that health care is readily available.

(vii) Seafarers need to be able to adjust to living and working conditions on board ships, including the requirement to keep watches at varying times of the day and night, the

motion of the vessel in bad weather, the need to live and work within the limited spaces of a ship, to climb and lift weights and to work under a wide variety of weather conditions (see Appendix C, table B-I/9, for examples of relevant physical abilities).

(viii) Seafarers should be able to live and work closely with the same people for weeks and perhaps months on end and under occasionally stressful conditions. They should be capable of dealing effectively with isolation from family and friends and, in some cases, from persons of their own cultural background.

54. Shipping operations and shipboard duties vary substantially. For a fuller understanding of the physical demands of particular categories of work on board ships, medical practitioners should acquire knowledge of the STCW Convention, 1978, as amended, or equivalent national requirements and should consult the relevant national authority, shipping company and trade union representatives and otherwise endeavour to learn as much as possible about seafaring life.

XI. Type and frequency of medical examinations

55. For most medical conditions, the same criteria are appropriate for medical examinations undertaken at all stages of a seafaring career. However, where a condition is present that is likely to worsen in the future and thus limit a cadet's or trainee's ability to undertake the range of duties and assignments that are essential for complete training, there may be less flexibility in the application of fitness standards than for serving seafarers, in order to ensure that all training requirements can be met.

56. For older seafarers it may be appropriate to look in greater detail at their essential job requirements. Limitations on duties or distance from shore may also need to be considered [when issuing a medical certificate].

57. Examinations are normally performed every two years. Where there is a health condition that requires more frequent surveillance, they may be performed at shorter intervals. It is important to recognize that the requirement for more frequent examinations may limit the ability of a seafarer to obtain employment and lead to additional costs for the seafarer or their employer. If examinations are at intervals of less than two years, they may solely concern the condition under surveillance. In this case, any reissued certificate should not be valid for more than two years from the previous full examination.

58. Any examination requirements of employers or insurers should be distinguished from statutory fitness examinations; the seafarer should be informed if both are being assessed at the same time and should consent to this. A statutory fitness certificate should be issued if statutory standards are met, irrespective of compliance with any additional employer requirements, unless a life-threatening condition is identified in the course of such additional investigations.

59. Seafarer medical examinations may also provide an opportunity to take measures to correct or mitigate medical conditions which could adversely affect the health of seafarers and should include measures of a preventive character. Laboratory and other tests necessary to evaluate the occupational exposure at work on board ship may, when appropriate, be performed at the same time as the periodic examinations.

XII. Conduct of medical examinations

60. The following suggested procedures do not aim to replace in any way the judgement or experience of the medical practitioner. They will, however, serve as a tool to assist in the conduct of examinations of seafarers. A model medical examination form has been provided in Appendix G.

(i) The medical practitioner should determine whether there is any special purpose for the examination over and above the normal requirements (e.g. return after illness or follow-up for continuing health problem) and, if so, should conduct the examination accordingly.

(ii) The identity of the seafarer to be examined should be verified. The number of his or her discharge book, passport or other relevant identity document should be entered on the examination form.

(iii) The examinee's intended position on board ship and, as far as practicable, the physical and mental demands of this work and the anticipated voyage pattern should be established. This may give insights that enable work to continue but with limitations based on the nature of the voyage (for example, fit for coastal or harbour service only) and the job to be held.

(iv) The examinee's previous medical records, where appropriate, should be reviewed.

(v) Information should be collected from the examinee on his or her previous medical history. Point-by-point questions on the details of previous diseases and injuries should be asked and the results recorded. Details of other diseases or injuries not covered should also be recorded. After the information is collected, the examinee should sign the form to certify that to the best of his/her knowledge it is a true statement. [An individual should not be required to prove, or to bear the cost of proving, that any past or present physical or mental illness does not have any consequences for current fitness for work.]

(vi) The physical examination and the necessary additional examinations should be checked and recorded according to set procedures (see Appendix F).

(vii) Hearing, eyesight and colour vision, if necessary, should be checked and recorded. Eyesight should be in compliance with the international eyesight standards for seafarers set out in section A-I/9 of the STCW Code (see Appendix A for minimum in-service eyesight standards and Appendix B for hearing standards). In examinations, appropriate equipment should be used in the assessment of hearing capacity, visual acuity, colour vision and night blindness, particularly regarding those examinees who will be engaged in lookout duties.

(viii) Physical capability should be assessed where the medical examination identifies that it may be limited by an impairment or medical condition (see Appendix C).

(ix) [Testing for the presence of alcohol and drugs in the course of a medical examination does not form part of these international Guidelines. Where it is performed, as a requirement of national authorities or employers, the procedures used should follow national, if available, or international good practice guidelines. These should provide adequate procedural and ethical safeguards for the seafarer. Consideration should be given to the Guiding Principles on Drug and Alcohol Testing Procedures for Worldwide Application in the Maritime Industry, adopted by the Joint ILO–WHO Committee on the Health of Seafarers (Geneva, 10–14 May 1993).]

(x) The application of multiple biochemistry or haematology tests or the use of imaging techniques applied to all seafarers is not recommended, other than where indicated in Appendices A–E. Such tests should only be used where there is a clinical indication. The validity of any test used for the identification of a relevant medical condition will depend on the frequency with which the condition occurs. Use is a matter for national or local judgement, based on disease incidence and test validity. In addition, decisions about fitness based solely on the results of single or multiple screening tests in the absence of a specific diagnosis or impairment are of limited predictive value. Unless tests have very high validity, use will result in inappropriate certification of a proportion of those tested.

(xi) The medical practitioner should be aware of the need to explore any indications of mental health problems that may arise during the examination and consider their relevance to work at sea. However, there are no well-validated tests for the assessment of mental aspects of working ability that are suitable for inclusion in the medical examinations of seafarers.

(xii) The results of the examination should be recorded and assessed to determine if the seafarer is fit for the work which will be undertaken. Appendices A–E contain guidance on medical criteria used to consider whether a seafarer is fit or currently unfit for work at sea. The age and experience of the seafarer to be examined, the nature of the duties to be performed and the type of shipping operation and cargo should be taken into account.

61. There are defined numerical criteria for some aspects of vision (Appendix A) and hearing (Appendix B). Here, decisions on fitness will depend on achieving the levels of perception that are listed[, taking note of the explanatory information in the appendices]. For other conditions, the criteria have been classified in three categories, depending on the likelihood of recurrence at different stages and the severity of each condition.

(A) **Incompatible with the reliable performance of routine and emergency duties safely or effectively**:

(i) expected to be temporary (T), i.e. less than two years;

(ii) expected to be permanent (P), i.e. more than two years.

Here, a medical certificate would not normally be issued.

This category means that the medical condition is such that the seafarer may cause a danger to the safety of the vessel or to other persons on board; they may not be able to perform their routine and emergency duties on board; or their health or life may be put at greater risk than would be the case if they were on shore. The category may be used temporarily until a condition has been treated, returns to normal, or a period without further episodes indicates that the likelihood of recurrence is no longer increased. It may be used on a permanent basis where the seafarer has a condition that can be expected to render them unable to meet the standards in the future.

(B) **Able to perform some but not all routine and emergency duties or to work in some but not all waters** (R): a restricted certificate would normally be issued.

Increased surveillance needed (L): a certificate of limited duration would normally be issued.

This category may mean that the seafarer has a condition that requires more frequent medical assessment than the two-year normal interval between medical certificates – i.e. a time-limited certificate (L).

Alternatively, they may be capable of performing the routine and emergency duties required of all seafarers but need some of their own duties to be adapted because they are expected not to be able to perform some of the duties specific to the work they normally undertake. They may also be more likely to suffer serious adverse effects from working in certain climates or beyond a certain distance from onshore medical care. In these cases, the job adaptations needed are specified and the certificate is restricted (R).

Use of this category can enable seafarers to remain working despite the presence of certain health-related impairments. However, it should be used only when clearly indicated as it may lead to the possibility that an employer will choose not to engage a seafarer even for duties that are within their capabilities or where duties can readily be adjusted.

(C) **Able to perform all duties worldwide within designated department**: an unrestricted certificate of full duration would normally be issued.

This category means that the seafarer can be expected to be fit for all duties within their department on board and can fully discharge all routine and emergency duties. Minimum capability requirements will be met and there should be no increased likelihood of incapacitation or of a requirement for emergency medical treatment.

Case-by-case assessment is recommended in the appendices where a specialist view on prognosis is needed or where there is considerable diversity in capability or likelihood of recurrence or progression.

If the seafarer is found fit for the work to be performed, the medical certificate should be issued. Any restrictions concerning work (i.e. the job the seafarer will perform, the trade area, the time limit or other considerations) should be reflected on the certificate in the description of the work he or she is fit to undertake. Further information on the medical certificate is provided in Appendix G.

62. If the seafarer is found temporarily or permanently unfit for service or has limitations placed on their duties, he or she should be given an explanation of the reasons and should be advised of the right to appeal and on how to make an appeal. Additional guidance on appeals procedures is provided in section IX of these Guidelines. If "temporarily unfit", advice should be given on the need to undergo additional tests, to obtain opinions from specialists or to complete dental or other treatment, rehabilitation and/or appropriate medical care. The seafarer should be informed when to return for another examination.

63. As appropriate, the seafarer should be counselled on lifestyle (limiting alcohol intake, stopping smoking, modifying diet, losing weight, etc.) and on the dangers of and methods of prevention of malaria, hepatitis, HIV/AIDS and other communicable diseases. Printed health educational materials on drug and alcohol abuse prevention, smoking cessation, diet, communicable diseases prevention, etc. should also be provided, if available.

64. The medical examination records should be clearly marked as confidential and retained, according to national regulations, in the custody of the health establishment where the medical certificate was issued. The file should be kept confidential and should not be used for any purpose other than facilitating the treatment of seafarers and should be made available only to persons duly authorized in accordance with national data protection laws.

65. Relevant information on his/her health should be given to the seafarer on request and the seafarer should be advised to take it to the next medical examination or when he or she is treated for an illness or injury. If possible, a card indicating blood type, any serious allergies and other vital information should also be given to the seafarer to facilitate emergency treatment.

66. A copy of the medical certificate should be kept in the files of the health institution in which it was issued.

XIII. Vaccination requirements for seafarers

67. Seafarers should be vaccinated according to the requirements indicated in the WHO publication *International travel and health*[, updated periodically. Responsibility for determining who will provide immunisations and which are required should be clarified].

Appendix A

Vision standards and disorders of the eyes

Minimum in-service eyesight standards

International Conventions

All seafarers are required to have satisfactory vision and, if employed in capacities where fitness for work is liable to be affected by it, not to have defective colour vision (see MLC, 2006, Standard A1.2, paragraph 6(a)).

Those covered by the STCW Convention, 1978, as amended, are additionally required to meet the minimum in-service eyesight standards set out in STCW Code, table A-I/9 (reproduced below).

Testing

All tests needed to determine the visual fitness of a seafarer must be reliably performed by a competent person and use procedures recognized by the relevant national authority. Quality assurance of vision-testing procedures at a person's first seafarer examination is particularly important to avoid inappropriate career decisions; competent authorities may wish to specify this in detail:

– Distance vision should be tested using Snellen test type or equivalent.

– Near vision should be tested with reading test type.

– Colour vision should be tested by colour confusion plates (Ishihara [or other approved]). Supplementary investigations such as lantern tests may be used when appropriate (see the International Recommendations for Colour Vision Requirements for Transport of the International Commission on Illumination (CIE-143-2001, including any subsequent versions)). The use of colour-correcting lenses will invalidate test results and should not be permitted.

– Visual fields may initially be assessed using confrontation tests (Donders, etc.) and any indication of limitation or the presence of a medical condition where visual field loss can occur should lead to more detailed investigation.

– Limitations to night vision may be secondary to specific eye diseases or may follow ophthalmological procedures. They may also be noted during other tests or found as a result of limitations to low-contrast vision testing. Specialist assessment should be undertaken if reduced night vision is suspected.

STCW Code table A-I/9: Minimum in-service eyesight standards for seafarers

STCW Convention regulation	Category of seafarer	Distance vision aided [1]		Near/intermediate vision	Colour vision [3]	Visual fields [4]	Night blindness [4]	Diplopia (double vision) [4]
		One eye	Other eye	Both eyes together, aided or unaided				
I/11 II/1 II/2 II/3 II/4 II/5 VII/2	Masters, deck officers and ratings required to undertake look-out duties	0.5 [2]	0.5	Vision required for ship's navigation (e.g. chart and nautical publication reference, use of bridge instrumentation and equipment, and identification of aids to navigation)	See note 6	Normal visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident

STCW Convention regulation	Category of seafarer	Distance vision aided [1]		Near/intermediate vision	Colour vision [3]	Visual fields [4]	Night blindness [4]	Diplopia (double vision) [4]
		One eye	Other eye	Both eyes together, aided or unaided				
I/11 III/1 III/2 III/3 III/4 III/5 III/6 III/7 VII/2	All engineer officers, electro-technical officers, electro-technical ratings and ratings or others forming part of an engine-room watch	0.4 [5]	0.4 [5]	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/components as necessary	See note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident
I/11 IV/2	GMDSS radio operators	0.4	0.4	Vision required to read instruments in close proximity, to operate equipment, and to identify systems/components as necessary	See note 7	Sufficient visual fields	Vision required to perform all necessary functions in darkness without compromise	No significant condition evident

Notes: [1] Values given in Snellen decimal notation. [2] A value of at least 0.7 in one eye is recommended to reduce the risk of undetected underlying eye disease. [3] As defined in the International Recommendations for Colour Vision Requirements for Transport by the Commission Internationale de l'Eclairage (CIE-143-2001, including any subsequent versions). [4] Subject to assessment by a clinical vision specialist where indicated by initial examination findings. [5] Engine department personnel shall have a combined eyesight vision of at least 0.4. [6] CIE colour vision standard 1 or 2. [7] CIE colour vision standard 1, 2 or 3.

Visual correction

Persons required to use spectacles or contact lenses to perform duties should have a spare pair conveniently available on board the ship. Any need to wear visual aids to meet the required standards should be recorded on each certificate and endorsement issued.

Additional guidance

The STCW Code, in section A-I/9, paragraph 1, makes provision for parties to differentiate between new and serving seafarers, provided that this does not prejudice the safety of the seafarer or the ship, bearing in mind the different duties of seafarers. This may be relevant to seafarers with some eye conditions such as reduction or loss of vision in one eye (monocularity). Decisions on fitness need to take account of the visual function of the better eye, for example:

– Corrected vision in the remaining eye is at least 0.5.

– There has been a period of adaptation to changes in visual performance from monocularity.

– There is no diplopia or interference from images arising from the other eye.

– The cause of the monocularity is not a progressive condition that is likely to impair the remaining functioning eye.

– On questioning there is no perceived interference with safety duties.

Laser refractive surgery should not be seen as a means of meeting vision standards. If laser refractive surgery has been undertaken, recovery should be complete and the quality of visual performance, including contrast, glare sensitivity and the quality of night vision, should have been checked by a specialist in ophthalmology.

All seafarers should achieve the minimum in-service eyesight standard of 0.1 unaided (STCW Code, section B-I/9, paragraph 10). This standard may also be relevant to other seafarers to ensure visual capability under emergency conditions when visual correction may be lost or damaged.

Seafarers not covered by the STCW Convention's eyesight standards should have vision sufficient to perform their routine and emergency duties safely and effectively.

Eye disorders

If a seafarer is found to have an eye disorder that is progressive or permanent, the stability, progression and potential severity of the disease should be assessed on an individual basis. Consideration should be given to whether a seafarer is beginning their career or if the condition has developed over their career.

If a progressive or permanent eye disorder is diagnosed, the medical practitioner should assess the extent to which the condition may cause danger to the individual or mean that they cannot perform their duties safely and effectively. Consideration should be given to waiting until the condition is stabilized, or issuing a certificate of shorter duration or with restrictions on the type of duties or distance to medical care. If restrictions are not possible, the seafarer should be notified that they are not fit for duty.

Commonly progressive eye disorders include: glaucoma, maculopathy, diabetic retinopathy, retinitis pigmentosa, keratoconus, diplopia, blepharospasm, recurrent uveitis, recurrent corneal ulceration and recurrent retinal detachment.

Conditions that can result in medical emergencies requiring urgent treatment if damage to vision is to be minimized include acute glaucoma, recurrent uveitis, corneal ulceration and retinal detachment.

Appendix B

Hearing and ear disorders and speech communication

Minimum in-service hearing standards

International Conventions

All seafarers are required to have satisfactory hearing (MLC, 2006, see Standard A1.2, paragraph 6(a)).

Seafarers covered by the STCW Convention, 1978, as amended, are required to demonstrate adequate hearing and speech to communicate effectively and detect any audible alarms (STCW Code, section A-I/9, paragraph 2.2). The medical practitioner should be satisfied that they fulfil the hearing standards set by the competent authority or take account of international guidelines. They should also be able to hold a normal conversation (STCW Code, table B-I/9).

Testing

Hearing capacity for experienced seafarers should be at least 30 dB (unaided) in the better ear and 40 dB (unaided) in the less good ear within the frequencies 500, 1,000, 2,000 and 3,000 Hz (approximately equivalent to speech-hearing distances of 3 metres and 2 metres, respectively).

It is recommended that hearing examinations should be made by a pure tone audiometer. Alternative assessment methods using validated and standardized tests that measure impairment to speech recognition are also acceptable. Speech and whisper testing may be useful for rapid practical assessments. It is recommended that those undertaking deck/bridge duties are able to hear whispered speech at a distance of 3 metres at periodic examinations.

Hearing aids are only acceptable in serving seafarers where it has been confirmed that the individual will be capable of safely and effectively performing the specific routine and emergency duties required of them on the vessel that they serve on throughout the period of their fitness certificate. (This may well require access to a back-up hearing aid and sufficient batteries and other consumables.) Arrangements need to be in place to ensure that they will be reliably aroused from sleep in the event of an emergency alarm.

If noise-induced hearing loss is being assessed as part of a health surveillance programme, different criteria and test methods will be required.

It is recommended that national authorities indicate which tests for hearing are to be used, based on national audiological practices, using the above thresholds as criteria. Procedures should include the methods to be adopted in deciding if the use of a hearing aid is acceptable.

Ear disorders

Any permanent or progressively debilitating ear pathology without recovery (e.g. otosclerosis) that is expected to limit hearing performance to the extent that it may cause danger to the individual or mean that they cannot perform their duties safely and effectively or which is likely to mean that hearing standards are not met within the time period of the certificate issued should be cause for determination of unfitness.

Otitis externa or media (ICD-10 H60–H95)

Justification for action: likelihood of recurrence, infection source in food handlers, or difficulties wearing hearing protection, including danger of making condition worse.

(A) **Incompatible with reliable performance of routine and emergency duties safely or effectively** (T):

(i) until treated (T);

(ii) if chronic discharge from ear of food handler (P).

(B) **Able to perform some but not all duties** (R):

(i) based on case-by-case assessment if chronic;

(ii) able to perform all duties worldwide within designated department;

(iii) if no continuing disease and able to wear ear protection if required for job.

Ménière's disease (ICD-10 H81) is included with other forms of chronic disabling vertigo – see diseases of the nervous system in Appendix E.

Speech disorders (ICD-10 R47, F80)

Justification: limited communication may be safety critical.

(A) **Incompatible with reliable performance of routine and emergency duties safely or effectively** (T):

(i) Effective communication interfered with.

(B) **Able to perform some but not all duties** (R):

(i) If there is any need for assistance with communication, the action required should be identified on the certificate of fitness.

(C) **Able to perform all duties worldwide within designated department**:

(i) No impairment to essential speech communication.

Appendix C

Physical capability requirements

International Conventions

No seafarer should be suffering from any medical condition likely to render the seafarer unfit for service at sea (see MLC, 2006, Standard A1.2, paragraph 6(b)).

Seafarers covered by STCW Convention medical standards:

(i) must adhere to the minimum in-service eyesight standards set out in table A-I/9 and take into account the criteria for physical and medical fitness set out in section A-I/9, paragraph 2, of the STCW Code. They should also take into account the guidance given in section B-I/9 and table B-I/9 (below) of the STCW Code regarding the assessment of minimum entry level and in-service physical abilities for seafarers; and

(ii) should:

- have the physical capability, taking into account section A-I/9, paragraph 5, of the STCW Code, to fulfil all the requirements of the basic safety training as required by section A-VI/1, paragraph 2, of the Code; and
- have no medical condition, disorder or impairment that will prevent the effective and safe conduct of their routine and emergency duties on board during the validity period of the medical certificate (section A-I/9, paragraph 2.3, of the Code).

Introduction

The physical capability requirements for work at sea vary widely and have to take account of both routine and emergency duties. The functions that may require assessment include:

- strength;
- stamina;
- flexibility;
- balance and coordination;
- size – compatible with entry into confined areas;
- exercise capacity – heart and respiratory reserve; and
- fitness for specific tasks – wearing breathing apparatus.

Medical conditions and physical capability

Limitations may arise from a range of conditions, such as:

- high or low body mass/obesity;
- severely reduced muscle mass;
- musculoskeletal disease, pain or limitations to movement;
- a condition following an injury or surgery;
- lung disease;
- heart and blood vessel disease; and
- some neurological diseases.

Physical capability assessment

Physical capability testing should be undertaken when there is an indication for it, for instance because of the presence of one of the above conditions or because of other concerns about a seafarer's physical capabilities. The aspects that are tested will depend on the reasons for doing it. The following table gives recommendations for physical capability abilities to be assessed for those seafarers covered by the STCW Convention, 1978, as amended, based on the tasks undertaken at sea.

Table B-I/9. Assessment of minimum entry level and in-service physical abilities for seafarers [3]

Shipboard task, function, event or condition [3]	Related physical ability	A medical examiner should be satisfied that the candidate: [4]
Routine movement around vessel: – on moving deck – between levels – between compartments *Note 1 applies to this row*	Maintain balance and move with agility Climb up and down vertical ladders and stairways Step over coamings (e.g. Load Line Convention requires coamings to be 600 mm high) Open and close watertight doors	has no disturbance in sense of balance does not have any impairment or disease that prevents relevant movements and physical activities is, without assistance, [5] able to: – climb vertical ladders and stairways – step over high sills – manipulate door closing systems
Routine tasks on board: – use of hand tools – movement of ship's stores – overhead work – valve operation – standing a four-hour watch – working in confined spaces – responding to alarms, warnings and instructions – verbal communication *Note 1 applies to this row*	Strength, dexterity and stamina to manipulate mechanical devices Lift, pull and carry a load (e.g. 18 kg) Reach upwards Stand, walk and remain alert for an extended period Work in constricted spaces and move through restricted openings (e.g. SOLAS requires minimum openings in cargo spaces and emergency escapes to have the minimum dimensions of 600 mm x 600 mm – SOLAS regulation 3.6.5.1) Visually distinguish objects, shapes and signals Hear warnings and instructions Give a clear spoken description	does not have a defined impairment or diagnosed medical condition that reduces ability to perform routine duties essential to the safe operation of the vessel has ability to: – work with arms raised – stand and walk for an extended period – enter confined space – fulfil eyesight standards (table A-I/9) – fulfil hearing standards set by competent authority or take account of international guidelines – hold normal conversation

Shipboard task, function, event or condition [3]	**Related physical ability**	**A medical examiner should be satisfied that the candidate:** [4]
Emergency duties [6] on board: – escape – firefighting – evacuation *Note 2 applies to this row*	Don a lifejacket or immersion suit Escape from smoke-filled spaces Take part in firefighting duties, including use of breathing apparatus Take part in vessel evacuation procedures	does not have a defined impairment or diagnosed medical condition that reduces ability to perform emergency duties essential to the safe operation of the vessel has ability to: – don lifejacket or immersion suit – crawl – feel for differences in temperature – handle firefighting equipment – wear breathing apparatus (where required as part of duties)

Notes: [1] Rows 1 and 2 of the above table describe: (a) ordinary shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which may be considered necessary for the safety of a seafarer, other crew members and the ship; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of seafarers and the nature of shipboard work for which they will be employed. [2] Row 3 of the above table describes: (a) emergency shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which should be considered necessary for the safety of a seafarer, other crew members and the ship; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of seafarers and the nature of shipboard work for which they will be employed. [3] This table is not intended to address all possible shipboard conditions or potentially disqualifying medical conditions. Parties should specify physical abilities applicable to the category of seafarers (such as "deck officer" and "engine rating"). The special circumstances of individuals and for those who have specialized or limited duties should receive due consideration. [4] If in doubt, the medical practitioner should quantify the degree or severity of any relevant impairment by means of objective tests, whenever appropriate tests are available, or by referring the candidate for further assessment. [5] The term "assistance" means the use of another person to accomplish the task. [6] The term "emergency duties" is used to cover all standard emergency response situations such as abandon ship or firefighting as well as the procedures to be followed by each seafarer to secure personal survival.

The following approaches may be used to assess whether the requirements in the above table are met:

– Observed ability to do routine and emergency duties in a safe and effective way.

– Tasks that simulate normal and emergency duties.

– Assessment of cardio-respiratory reserve, including spirometry and ergometric tests. This will predict maximum exercise capacity and hence the seafarer's ability to perform physically demanding work. A large reserve will also indicate that heart and lung performance is less likely to be compromised in the next few years. The benchmark test is maximum oxygen uptake (VO2 max). This requires dedicated equipment. Step tests such as the Chester or, less reliably, the Harvard, are simpler alternatives.

– Informal testing of reserve, for instance climbing three to six flights of stairs and assessing any distress, plus the speed of pulse rate decline on stopping. This is not readily reproducible but can be used for repeat assessment at the same location by the same doctor.

– Clinical assessment of strength, mobility, coordination, etc.

Additional information may come from activities recently or regularly undertaken, as described by the seafarer, such as:

– physically demanding duties on the vessel, e.g. carrying weights or handling mooring equipment;

– attendance at a physically demanding course within the last two years, e.g. firefighting, helicopter escape or STCW basic training; and

– a confirmed personal pattern of regular strenuous exercise.

Interpretation of results

(1) Is there any evidence that the seafarer is not able to perform their routine and emergency duties effectively?

(2) Are there any observed limitations to strength, flexibility, stamina or coordination?

(3) What is the outcome of any test for cardio-respiratory reserve?

  (i) Test performance limited by shortness of breath, musculoskeletal or other pain, or exhaustion. Causes need to be investigated and taken into account in determining fitness.

  (ii) Unable to complete test.

  (iii) Completed but stressed or with poor recovery after stopping.

  (iv) Completed to good or average standard.

(4) Discuss subjective feelings during the test with the subject and also go over experiences of fitness and capability when doing normal tasks and emergency drills. Obtain corroboration from others if performance at work uncertain.

Decision-making

Information from a range of sources may be required and many of these are not easily accessed in the course of a medical examination:

(1) Is there any indication that physical capability may be limited (e.g. stiffness, obesity or history of heart disease)?

  (i) No – do not test.

  (ii) Yes – consider what tests or observations will enable the seafarer's capability to perform their routine and emergency duties to be determined. Go to (2).

(2) Do the test results indicate that capabilities may be limited?

(i) No – provided there are no underlying conditions that affect conduct of assessment. Able to perform all duties worldwide within designated department.

(ii) Yes – but duties can be modified to enable safe working, without putting excess responsibilities on others. Able to perform some but not all duties (R).

(iii) Yes – but cause of limitation can be remedied. Incompatible with reliable performance of essential duties safely or effectively (T).

(iv) Yes – but cause of limitation cannot be remedied. Incompatible with reliable performance of essential duties safely or effectively (P).

Appendix D

Fitness criteria for medication use

International Conventions

No seafarer should be suffering from any medical condition that is likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of any other persons on board (see MLC, 2006, Standard A1.2, paragraph 6(b)). It is recommended that any medication that could result in these effects be considered in the same way as a medical condition.

The standards of physical and medical fitness established by the party shall, inter alia, ensure that seafarers are not taking any medication that has side effects that will impair judgement, balance, or any other requirements for effective and safe performance of routine and emergency duties on board (STCW Code, section A-I/9, paragraph 2.5).

Background

Medication can play an important part in enabling seafarers to continue to work at sea. Some have side effects that can affect safe and effective performance of duties and some have other complications that will increase the likelihood of illness at sea.

This appendix is only concerned with continuing prescribed medication use that is identified at the medical examination. Ship operators need policies in place to reduce the impairing effects from short-term use of prescribed medication or the use of over-the-counter preparations.

The use of oral medication at sea may be prevented by nausea and vomiting, and illness may arise if an oral medication is used to suppress the harmful effects of a condition (e.g. epilepsy) or if it is used to replace essential body chemicals (e.g. hormones).

The examining doctor will need to assess the known adverse effects of each medication used and the individual's reaction to it.

The use of specific medication for some conditions listed in Appendix E is noted with the condition.

If medication is clinically essential for the effective control of a condition, e.g. insulin, anticoagulants and medication for mental health conditions, it is dangerous to stop it in an attempt to be fit for work at sea.

[The medical practitioner should be alert to the need for the seafarer to have written documentation about the medical indicators for the use of their medications. This should be in a form that can be shown to any official who may question the presence of the medication on board. This is particularly important for those medications that are controlled drugs or which may be abused.]

Medications that can impair routine and emergency duties

(1) Central nervous system depressants (e.g. sleeping tablets, antipsychotics, some analgesics, some anti-anxiety and anti-depression treatments and some antihistamines).

(2) Agents that increase the likelihood of sudden incapacitation (e.g. insulin, some of the older anti-hypertensives and medications predisposing to seizures).

(3) Medication impairing vision (e.g. hyoscine and atropine).

Medications that can have serious adverse consequences for the user while at sea

(1) Bleeding from injury or spontaneously (e.g. warfarin, asprin and some other analgesics); individual assessment of likelihood needed. Many analgesics are compatible with an unlimited certificate. Anticoagulants such as warfarin or dicoumarin normally have a likelihood of complications that is incompatible with work at sea but, if coagulation values are stable and closely monitored, work that is near to onshore medical facilities and that does not carry an increased likelihood of injury may be considered.

(2) Dangers from cessation of medication use (e.g. metabolic replacement hormones including insulin, anti-epileptics, anti-hypertensives and oral anti-diabetics).

(3) Antibiotics and other anti-infection agents.

(4) Anti-metabolites and cancer treatments.

(5) Medications supplied for use at individual discretion (asthma treatments and antibiotics for recurrent infections).

Medications that require limitation of period at sea because of surveillance requirements

A wide range of agents, such as anti-diabetics, anti-hypertensives and endocrine replacements.

Issue of medical certificates

Incompatible with the reliable performance of routine and emergency duties safely or effectively:

– on the recommendation of the examining medical practitioner, based on reliable information about severe impairing side effects;

– oral medication where there are life-threatening consequences if doses are missed because of sickness;

– evidence indicating the likelihood of cognitive impairment;

– established evidence of severe adverse effects likely to be dangerous at sea, e.g. anticoagulants.

Able to perform some but not all duties or to work in some but not all waters:

(R): medication can cause adverse effects but these only develop slowly, hence work in coastal waters will allow access to medical care.

(L): surveillance of medication effectiveness or side effects needed more frequently that full duration of certificate (see guidelines on individual conditions in Appendix E).

Able to perform all duties worldwide within designated department:

No impairing side effects; no requirements for regular surveillance of treatment.

Appendix E

Fitness criteria for common medical conditions

International Conventions

No seafarer should be suffering from any medical condition that is likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of any other persons on board (see MLC, 2006, Standard A1.2, paragraph 6(b)).

Additionally, seafarers covered by the STCW Convention, 1978, as amended, must have no medical condition, disorder or impairment that will prevent the effective and safe conduct of their routine and emergency duties on board during the validity period of the medical certificate (STCW Code, section A-1/9, paragraph 2.3).

Introduction

The medical practitioner should bear in mind that it is not possible to develop a comprehensive list of fitness criteria covering all possible conditions and the variations in their presentation and prognosis. The principles underlying the approach adopted in the table below may often be extrapolated to conditions not covered by it. Decisions on fitness when a medical condition is present depend on careful clinical assessment and analysis and the following points need to be considered whenever a decision on fitness is taken:

– The recommendations in this appendix are intended to allow some flexibility of interpretation while being compatible with consistent decision-making that aims to maintain safety at sea.

– The medical conditions listed are common examples of those that may render seafarers unfit. The list can also be used to determine appropriate limitations to fitness. The criteria given can only provide guidance for physicians and should not replace sound medical judgement.

– The implications for working and living at sea vary widely, depending on the natural history of each condition and the scope for treatment. Knowledge about the condition and an assessment of its features in the individual being examined should be used to reach a decision on fitness.

The table in this appendix is laid out as follows:

Column 1: WHO International Classification of Diseases, 10th revision (ICD-10). Codes are listed as an aid to analysis and, in particular, international compilation of data.

Column 2: The common name of the condition or group of conditions, with a brief statement on its relevance to work at sea.

Column 3: The guideline recommending when work at sea is unlikely to be indicated, either temporarily or permanently. This column should be consulted first when the table is being used to aid decisions about fitness.

Column 4: The guideline recommending when work at sea may be appropriate but when restriction of duties or monitoring at intervals of less than two years is likely to be appropriate. This column should be consulted if the seafarer does not fit the criteria in column 3.

Column 5: The guideline recommending when work at sea within a seafarer's designated department is likely to be appropriate. This column should be consulted if the seafarer does not fit the criteria in columns 3 or 4.

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
A00–B99	**Infections**			
A00–09	**Gastrointestinal infection** *Transmission to others, recurrence*	T – If detected while onshore (current symptoms or awaiting test results on carrier status); or confirmed carrier status until elimination demonstrated	Not applicable	*Non-catering department:* When satisfactorily treated or resolved *Catering department:* Fitness decision to be based on medical advice – bacteriological clearance may be required
A15–16	**Pulmonary TB** *Transmission to others, recurrence*	T – Positive screening test or clinical history, until investigated If infected, until treatment stabilized and lack of infectivity confirmed P – Relapse or severe residual damage	R, L – Consider near coastal with length of certification linked to frequency of specialist surveillance when not ill, no longer infectious but still on treatment and under specialist supervision	When investigations completed and no disease identified; or when treatment has been completed and disease resolved
A50–64	**Sexually transmissible infections** *Acute impairment, recurrence*	T – If detected while onshore, until diagnosis confirmed, treatment initiated and impairing symptoms resolved P – Untreatable impairing late complications	R – Consider near coastal if oral treatment regime in place and symptoms non-incapacitating	On successful completion of treatment
B15	**Hepatitis A** *Transmissible by food or water contamination*	T – Until jaundice resolved and liver function tests returned to normal	Not applicable	On full recovery
B16–19	**Hepatitis B, C, etc.** *Transmissible by contact with blood or other bodily fluids. Possibility of permanent liver impairment and liver cancer*	T – Until jaundice resolved and liver function tests returned to normal P – Persistent liver impairment with symptoms affecting safe work at sea or with likelihood of complications	R, L – Uncertainty about total recovery or lack of infectivity. Case-by-case decision-making based on duties and voyage patterns	On full recovery and confirmation of low level of infectivity
B20–24	**HIV+** *Progression to HIV-associated diseases or AIDS*	T – Until stabilized on treatment with CD4 level of >350 or when treatment changed and tolerance of new medication uncertain P – Non-reversible impairing HIV-associated diseases. Continuing impairing effects of medication	R, L – Time limited and/or near coastal: HIV+ and low likelihood of progression; on no treatment or on stable medication without side effects, but requiring regular specialist surveillance	HIV+, no current impairment and very low* likelihood of disease progression. No side effects of treatment or requirements for frequent surveillance

ICD-10 ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **– expected to be temporary (T)** **– expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
A00–B99 Not listed separately	**Other infections** *Personal impairment, infection of others*	T – If detected while onshore: until free from risk of transmission and capable of performing duties P – If continuing likelihood of repeated impairing or infectious recurrences	Case-by-case decision based on nature of infection	Full recovery and confirmation of low level of infectivity
C00–48	**Cancers**			
C00–48	**Malignant neoplasms** – including lymphoma, leukaemia and related conditions *Recurrence – especially acute complications, e.g. harm to self from bleeding and to others from seizures*	T – Until investigated, treated and prognosis assessed P – Continuing impairment with symptoms affecting safe work at sea or with high likelihood of recurrence	L – Time limited to interval between specialist reviews if: – cancer diagnosed <5 years ago; and – there is no current impairment of performance of normal or emergency duties or living at sea; and – there is a low likelihood of recurrence and minimal risk of requirement for urgent medical treatment R – Restricted to near coastal waters if any continuing impairment does not interfere with essential duties and any recurrence is unlikely to require emergency medical treatment	Cancer diagnosed more than 5 years ago, or specialist reviews no longer required and no current impairment or low continuing likelihood of impairment from recurrence. To be confirmed by specialist report with evidence for opinion stated
D50–89	**Blood disorders**			
D50–59	**Anaemia/Haemoglobinopathies** *Reduced exercise tolerance. Episodic red cell breakdown*	T – Distant waters, until haemoglobin normal and stable P – Severe recurrent or continuing anaemia or impairing symptoms from red cell breakdown that are untreatable	R, L – Consider restriction to near coastal waters and regular surveillance if reduced haemoglobin level but asymptomatic	Normal levels of haemoglobin
D73	**Splenectomy** (history of surgery) *Increased susceptibility to certain infections*	T – Post surgery until fully recovered	R – Case-by-case assessment. Likely to be fit for coastal and temperate work but may need restriction on service in tropics	Case-by-case assessment

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D50–89 Not listed separately	**Other diseases of the blood and blood-forming organs** *Varied recurrence of abnormal bleeding and also possibly reduced exercise tolerance or low resistance to infections*	T – While under investigation P – Chronic coagulation disorders	Case-by-case assessment for other conditions	Case-by-case assessment
E00–90	**Endocrine and metabolic**			
E10	**Diabetes – Insulin using** *Acute impairment from hypoglycaemia. Complications from loss of blood glucose control* *Increased likelihood of visual, neurological and cardiac problems*	T – From start of treatment until stabilized P – If poorly controlled or not compliant with treatment. History of hypoglycaemia or loss of hypoglycaemic awareness. Impairing complications of diabetes	R, L – Subject to evidence of good control, full compliance with treatment recommendations and good hypoglycaemia awareness Fit for near coastal duties without solo watchkeeping. Time limited until next specialist check-up. Must be under regular specialist surveillance	Not applicable
E11–14	**Diabetes – Non-insulin treated**, on other medication *Progression to insulin use, increased likelihood of visual, neurological and cardiac problems*	T – Distant waters and watchkeeping until stabilized	R – Near coastal waters and non-watchkeeping duties until stabilized R – Near coastal waters, no solo watchkeeping if minor side effects from medication. Especially when using sulphonylureas L – Time limited if compliance poor or medication needs frequent review. Check diet, weight and vascular risk factor control	When stabilized, in the absence of impairing complications
	Diabetes – Non-insulin treated, treated by diet alone *Progression to insulin use, increased likelihood of visual, neurological and cardiac problems*	T – Distant waters and watchkeeping until stabilized	R – Near coastal waters and non-watchkeeping duties until stabilized L – Time limited when stabilized, if compliance poor. Check diet, weight and vascular risk factor control	When stabilized, in the absence of impairing complications

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
E65–68	**Obesity/abnormal body mass** – high or low *Accident to self, reduced mobility and exercise tolerance for routine and emergency duties. Increased likelihood of diabetes, arterial diseases and arthritis*	T – If safety-critical duties cannot be performed, capability or exercise test (Appendix C) performance is poor P – Safety-critical duties cannot be performed; capability or exercise test performance is poor with failure to achieve improvements Note: Body mass index is a useful indicator of when additional assessment is needed. National norms will vary. It should not form the sole basis for decisions on capability	R, L – Time limited and restricted to near coastal waters or to restricted duties if unable to perform certain tasks but able to meet routine and emergency capabilities for assigned safety-critical duties	Capability and exercise test (Appendix E) performance average or better, weight steady or reducing and no co-morbidity
E00–90 Not listed separately	**Other endocrine and metabolic disease** (thyroid, adrenal including Addison's disease, pituitary, ovaries, testes) *Likelihood of recurrence or complications*	T – Until treatment established and stabilized without adverse effects P – If continuing impairment, need for frequent adjustment of medication or increased likelihood of major complications	R, L – Case-by-case assessment with specialist advice if any uncertainty about prognosis or side effects of treatment. Need to consider likelihood of impairing complications from condition or its treatment, including problems taking medication, and consequences of infection or injury while at sea	If medication stable with no problems in taking at sea and surveillance of conditions infrequent, no impairment and very low likelihood of complications Addison's disease: The risks will usually be such that an unrestricted certificate should not be issued
F00–99	**Mental, cognitive and behavioural disorders**			
F10	**Alcohol abuse** (dependency) *Recurrence, accidents, erratic behaviour/safety performance*	T – Until investigated and stabilized and criteria for fitness met. Until one year after initial diagnosis or one year after any relapse P – If persistent or there is co-morbidity likely to progress or recur while at sea	R, L – Time limited, not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: treating physician reports successful participation in rehabilitation programme; and there is an improving trend in liver function tests	After three years from end of last episode without relapse and without co-morbidity

ICD-10 ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **– expected to be temporary (T)** **– expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
F11–19	**Drug dependence/persistent substance abuse**, includes both illicit drug use and dependence on prescribed medications *Recurrence, accidents, erratic behaviour/safety performance*	T – Until investigated and stabilized and criteria for fitness met. Until one year after initial diagnosis or one year after any relapse P – If persistent or there is co-morbidity likely to progress or recur while at sea	R, L – Time limited, not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: – treating physician reports successful participation in rehabilitation programme; and – evidence of completion of unannounced/random programme of drug screening for at least three months with no positives and at least three negatives; and – continuing participation in drug screening programme	After three years from end of last episode without relapse and without co-morbidity
F20–31	**Psychosis** (acute) – whether organic, schizophrenic or other category listed in the ICD. Bipolar (manic depressive disorders) *Recurrence leading to changes to perception/cognition, accidents, erratic and unsafe behaviour*	*Following single episode with provoking factors:* T – Until investigated and stabilized and conditions for fitness met. At least three months after episode	R, L – Time limited, restricted to near coastal waters and not to work as master in charge of vessel or without close supervision and continuing medical monitoring, provided that: – seafarer has insight; – is compliant with treatment; and – has no adverse effects from medication	Case-by-case assessment at least one year after the episode, provided that provoking factors can and will always be avoided
		Following single episode without provoking factors or more than one episode with or without provoking factors: T – Until investigated and stabilized and conditions for fitness met. At least two years since last episode P – More than three episodes or continuing likelihood of recurrence. Criteria for fitness with or without restrictions are not met	R, L – Time limited, restricted to near coastal waters and not to work as master in charge of vessel or without close supervision and continuing medical monitoring providing that: – the seafarer has insight; – is compliant with treatment; and – has no impairing adverse effects from medication	Case-by-case assessment to exclude likelihood of recurrence at least five years since end of episode if no further episodes; no residual symptoms; and no medication needed during last two years

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
F32–38	**Mood/affective disorders** Severe anxiety state, depression, or any other mental disorder likely to impair performance *Recurrence, reduced performance, especially in emergencies*	T – While acute, under investigation or if impairing symptoms or side effects of medication present. At least three months on stable medication P – Persistent or recurrent impairing symptoms	R, L – Restrict to near coastal waters and not to work as master in charge of ship, only when seafarers has: – good functional recovery; – insight; – is fully compliant with treatment, with no impairing side effects; and – a low* likelihood of recurrence	Case-by-case assessment to exclude likelihood of recurrence after at least two years with no further episodes and with no medication or on medication with no impairing effects
	Mood/affective disorders Minor or reactive symptoms of anxiety/depression *Recurrence, reduced performance, especially in emergencies*	T – Until symptom free. If on medication to be on a stable dose and free from impairing adverse effects P – Persistent or recurrent impairing symptoms	R, L – Time limited and consider geographical restriction if on stable dose of medication and free from impairing symptoms or impairing side effects from medication	Case-by-case assessment after one year from end of episode if symptom free and off medication or on medication with no impairing effects
F00–99 Not listed separately	**Other disorders**, e.g. disorders of personality, attention (ADHD), development (autism) *Impairment of performance and reliability and impact on relationships*	P – If considered to have safety-critical consequences	R – As appropriate if capable of only limited duties	No anticipated adverse effects while at sea. No incidents during previous periods of sea service
G00–99	**Diseases of the nervous system**			
G40–41	**Single seizure** *Harm to ship, others and self from seizures*	Single seizure T – While under investigation and for one year after seizure	R – One year after seizure and on stable medication. Non-watchkeeping duties in near coastal waters	One year after seizure and one year after end of treatment. If provoked, there should be no continuing exposure to the provoking agent
	Epilepsy – No provoking factors (multiple seizures) *Harm to ship, others and self from seizures*	T – While under investigation and for two years after last seizure P – Recurrent seizures, not controlled by medication	R – Off medication or on stable medication with good compliance: case-by-case assessment of fitness, restricted to non-watchkeeping duties in near coastal waters	Seizure-free for at least the last ten years, has not taken anti-epilepsy drugs during that ten-year period and does not have a continuing likelihood of seizures

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	Epilepsy – provoked by alcohol, medication, head injury (multiple seizures) *Harm to ship, others and self from seizures*	T – While under investigation and for two years after last seizure P – Recurrent fits, not controlled by medication	R – Case-by-case assessment after two years' abstention from any known provoking factors, seizure-free and either off medication or on stable medication with good compliance; restricted to non-watchkeeping duties in near coastal waters	Seizure-free for at least the last five years, has not taken anti-epilepsy drugs during that five-year period, provided there is not continuing exposure to the provoking agent
G43	**Migraine** (frequent attacks causing incapacity) *Likelihood of disabling recurrences*	P – Frequent attacks leading to incapacity	R – As appropriate. If only capable of limited duties	No anticipated incapacitating adverse effects while at sea. No incidents during previous periods of sea service
G47	**Sleep apnoea** *Fatigue and episodes of sleep while working*	T – Until treatment started and successful for three months P – Treatment unsuccessful or not being complied with	L – Once treatment demonstrably working effectively for three months, including compliance with CPAP (continuous positive airway pressure) machine use confirmed. Six-monthly assessments of compliance based on CPAP machine recording Annual review	Not applicable
	Narcolepsy *Fatigue and episodes of sleep while working*	T – Until controlled by treatment for at least two years P – Treatment unsuccessful or not being complied with	R, L – Near coastal waters and no watchkeeping duties, if specialist confirms full control of treatment for at least two years Annual review	Not applicable
G00–99 Not listed separately	**Other organic nervous disease**, e.g. multiple sclerosis, Parkinson's disease *Recurrence/progression. Limitations on muscular power, balance, coordination and mobility*	T – Until diagnosed and stable P – If limitations affect safe working or unable to meet physical capability requirements (Appendix C)	R, L – Case-by-case assessment based on job and emergency requirements, informed by specialist advice	Case-by-case assessment based on job and emergency requirements, informed by specialist advice

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R55	**Syncope and other disturbances of consciousness** *Recurrence causing injury or loss of control*	T – Until investigated to determine cause and to demonstrate control of any underlying condition Event is: (a) simple faint;		Simple faint; if no incapacitating recurrences
		(b) not a simple faint; unexplained disturbance, not recurrent and without any detected underlying cardiac, metabolic or neurological cause T – Four weeks	R, L – Case-by-case decision, near coastal with no lone watchkeeping	Three months after event if no recurrences
		(c) Disturbance; recurrent or with possible underlying cardiac, metabolic or neurological cause T – With possible underlying cause that is not identified or treatable; for six months after event if no recurrences T – With possible underlying cause or cause found and treated; for one month after successful treatment	R, L – Case-by-case decision, near coastal with no lone watchkeeping	With possible underlying cause but no treatable cause found; one year after event if no recurrences With possible underlying cause found and treated; three months after successful treatment
		(d) Disturbance of consciousness with features indicating a seizure. Go to G40–41 P – For all of above if recurrent incidents persist despite full investigation and appropriate treatment		With seizure markers – not applicable
H81	**Ménière's disease** and other forms of chronic or recurrent disabling vertigo *Inability to balance, causing loss of mobility and nausea* See STCW table in Appendix C	T – During acute phase P – Frequent attacks leading to incapacity	R – As appropriate. If only capable of limited duties R, L – If frequent specialist surveillance required	Low* likelihood of impairing effects while at sea

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T90	**Intracranial surgery/injury**, including treatment of vascular anomalies or serious head injury with brain damage *Harm to ship, others and self from seizures. Defects in cognitive, sensory or motor function. Recurrence or complication of underlying condition*	T – For one year or longer until seizure likelihood low,* based on advice from specialist P – Continuing impairment from underlying condition or injury or recurrent seizures	R – After at least one year, near coastal, no lone watchkeeping if seizure likelihoods low* and no impairment from underlying condition or injury Conditional on continued compliance with any treatment and on periodic review, as recommended by specialist	No impairment from underlying condition or injury, not on anti-epilepsy medications. Seizure likelihood very low* Conditional on continued compliance with any treatment and on periodic review, as recommended by specialist
I00–99	**Cardiovascular system**			
I05–08 I34–39	**Congenital and valve disease of heart** (including surgery for these conditions) Heart murmurs not previously investigated *Likelihood of progression, limitations on exercise*	T – Until investigated and, if required, treated P – If exercise tolerance limited or episodes of incapacity occur or if on anticoagulants or if permanent high likelihood of impairing event	R – Near coastal waters if case-by-case assessment indicates either likelihood of acute complications or rapid progression L – If frequent surveillance is recommended	*Heart murmurs* – Where unaccompanied by other heart abnormalities and considered benign by a specialist cardiologist following examination *Other conditions* – Case-by-case assessment based on specialist advice
I10–15	**Hypertension** *Increased likelihood of ischemic heart disease, eye and kidney damage and stroke. Possibility of acute hypertensive episode*	T – Normally if >170 systolic or >100 diastolic mm Hg until investigated and treated in accordance with national or international guidelines for hypertension management P – If persistently >170 systolic or >100 diastolic mm Hg with or without treatment	L – If additional surveillance needed to ensure level remains within national guideline limits	If treated in accordance with national guidelines and free from impairing effects from condition or medication
I20–25	**Cardiac event**, i.e. myocardial infarction, ECG evidence of past myocardial infarction or newly recognized left bundle-branch block, angina, cardiac arrest, coronary artery bypass grafting, coronary angioplasty *Sudden loss of capability, exercise limitation. Problems of managing repeat cardiac event at sea*	T – For three months after initial investigation and treatment, longer if symptoms not resolved P – If criteria for issue of certificate not met and further reduction of likelihood of recurrence improbable	L – If excess likelihood of recurrence is very low* and fully compliant with risk reduction recommendations and no relevant co-morbidity, issue six-month certificate initially and then annual certificate R, L – If excess likelihood of recurrence is low.* Restricted to: – no lone working or solo watchkeeping; and	Not applicable

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			– operations in near coastal waters, unless working on vessel with ship's doctor Issue six-month certificate initially and then annual certificate R, L – If likelihood of recurrence is moderate* and asymptomatic. Able to meet the physical requirements or their normal and emergency duties: – no lone working or watchkeeping/ lookout; and – operating within one hour of port, unless working on vessel with ship's doctor Case-by-case assessment to determine restrictions Annual review	
I44–49	**Cardiac arrhythmias** and conduction defects (including those with pacemakers and implanted cardioverter defibrillators (ICD)) *Likelihood of impairment from recurrence, sudden loss of capability, exercise limitation. Pacemaker/ICD activity may be affected by strong electric fields*	T – Until investigated, treated and adequacy of treatment confirmed P – If disabling symptoms present or excess likelihood of impairment from recurrence, including ICD triggering	L – Surveillance needed at shorter intervals and no impairing symptoms present and very low* excess likelihood of impairment from recurrence, based on specialist report R – Restrictions on solo duties or for distant waters if low* likelihood of acute impairment from recurrence or foreseeable requirement for access to specialist care Surveillance and treatment regime to be specified. If pacemaker fitted, duration of certificate to coincide with pacemaker surveillance	Surveillance not needed or needed at intervals of more than two years; no impairing symptoms present; and very low* likelihood of impairment from recurrence, based on specialist report
I61–69 G46	**Ischaemic cerebrovascular disease** (stroke or transient ischaemic attack) *Increased likelihood of recurrence, sudden loss of capability, mobility limitation. Liable to develop other circulatory disease causing sudden loss of capability*	T – Until treated and any residual impairment stabilized and for three months after event P – If residual symptoms interfere with duties or there is significant excess likelihood of recurrence	R, L – Case-by-case assessment of fitness for duties; exclude from lone watchkeeping. Assessment should include likelihood of future cardiac events. General standards of physical fitness should be met (Appendix C). Annual assessment	Not applicable

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I73	**Arterial-claudication** *Likelihood of other circulatory disease causing sudden loss of capability. Limits to exercise capacity*	T – Until assessed P – If incapable of performing duties	R, L – Consider restriction to non-watchkeeping duties in coastal waters, provided symptoms are minor and do not impair essential duties or if they are resolved by surgery or other treatment and general standard of fitness can be met (Appendix C). Assess likelihood of future cardiac events (follow criteria in I20–25). Review at least annually	Not applicable
I83	**Varicose veins** *Possibility of bleeding if injured, skin changes and ulceration*	T – Until treated if impairing symptoms. Post-surgery for up to one month	Not applicable	No impairing symptoms or complications
I80.2–3	**Deep vein thrombosis/pulmonary embolus** *Likelihood of recurrence and of serious pulmonary embolus* *Likelihood of bleeding from anticoagulant treatment*	T – Until investigated and treated and normally while on short-term anticoagulants P – Consider if recurrent events or on permanent anticoagulants	R, L – May be considered fit for work with a low liability for injury in national coastal waters, once stabilized on anticoagulants with regular monitoring of level of coagulation	Full recovery with no anticoagulant use
I00–99 Not listed separately	**Other heart disease**, e.g. cardio-myopathy, pericarditis, heart failure *Likelihood of recurrence, sudden loss of capability, exercise limitation*	T – Until investigated, treated and adequacy of treatment confirmed P – If impairing symptoms or likelihood of impairment from recurrence	Case-by-case assessment, based on specialist reports	Case-by-case assessment, very low* likelihood of recurrence
J00–99	**Respiratory system**			
J02–04 J30–39	**Nose, throat and sinus conditions** *Impairing for individual. May recur. Transmission of infection to food/other crew in some conditions*	T – Until resolved P – If impairing and recurrent	Case-by-case assessment	When treatment complete, if no factors predisposing to recurrence

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J40–44	**Chronic bronchitis and/or emphysema** *Reduced exercise tolerance and impairing symptoms*	T – If acute episode P – If repeated severe recurrences or if general fitness standards cannot be met or if impairing shortness of breath	R, L – Case-by-case assessment More stringency for distant water duties. Consider fitness for emergencies and ability to meet general standards of physical fitness (Appendix C) Annual review	Not applicable
J45–46	**Asthma** (detailed assessment with information from specialist in all new entrants) *Unpredictable episodes of severe breathlessness*	T – Until episode resolved, cause investigated (including any occupational link) and effective treatment regime in place In person under age 20 with hospital admission or oral steroid use in last three years P – If foreseeable likelihood of rapid life-threatening asthma attack while at sea or history of uncontrolled asthma, i.e. history of multiple hospital admissions	R, L – Near coastal waters only or on ship with doctor if history of moderate** adult asthma, with good control with inhalers and no episodes requiring hospital admission or oral steroid use in last two years, or history of mild or exercise-induced asthma that requires regular treatment	Under age 20: If history of mild or moderate** childhood asthma, but with no hospital admissions or oral steroid treatment in last three years and no requirements for continuing regular treatment Over age 20: If history of mild** or exercise-induced** asthma and no requirements for continuing regular treatment
J93	**Pneumothorax** (spontaneous or traumatic) *Acute impairment from recurrence*	T – Normally for 12 months after initial episode P – After recurrent episodes unless pleurectomy or pleurodesis performed	R – Duties in harbour areas only once recovered	12 months after episode, provided no recurrence or residual impairment Post surgery – based on advice of treating specialist
K00–99	**Digestive system**			
K01–06	**Oral health** *Acute pain from toothache. Recurrent mouth and gum infections*	T – If visual evidence of untreated dental defects or oral disease P – If excess likelihood of dental emergency remains after treatment completed or seafarer non-compliant with dental recommendations	R – Limited to near coastal waters, if criteria for full fitness not met, and type of operation will allow for access to dental care without safety-critical manning issues for vessel	If teeth and gums (gums alone of edentulous and with well-fitting dentures in good repair) appear to be good. No complex prosthesis; or if dental check in last year, with follow-up completed and no problems since
K25–28	**Peptic ulcer** *Recurrence with pain, bleeding or perforation*	T – Until healing or cure by surgery or by control of helicobacter and on normal diet for three months P – If ulcer persists despite surgery and medication	R – Consider case-by-case assessment for earlier return to near coastal duties	When cured and on normal diet for three months

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K40–41	**Hernias – Inguinal and femoral** *Likelihood of strangulation*	T – Until surgically investigated to confirm no likelihood of strangulation and, if required, treated	R – Untreated: Consider case-by-case assessment for near coastal waters	When satisfactorily treated or exceptionally when surgeon reports that there is no likelihood of strangulation
K42–43	**Hernias – Umbilical, ventral** *Instability of abdominal wall on bending and lifting*	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort	Case-by-case assessment depending on severity of symptoms or impairment. Consider implications of regular heavy whole-body physical effort
K44	**Hernias – Diaphragmatic (hiatus)** *Reflux of stomach contents and acid causing heartburn, etc.*	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them	Case-by-case assessment based on severity of symptoms when lying down and on any sleep disturbance caused by them
K50, 51, 57, 58, 90	**Non-infectious enteritis, colitis, Crohn's disease, diverticulitis, etc.** *Impairment and pain*	T – Until investigated and treated P – If severe or recurrent	R – Does not meet the requirements for unrestricted certificate but rapidly developing recurrence unlikely: near coastal duties	Case-by-case specialist assessment. Fully controlled with low likelihood of recurrence
K60 I84	**Anal conditions: Piles (haemorrhoids), fissures, fistulae** *Likelihood of episode causing pain and limiting activity*	T – If piles prolapsed, bleeding repeatedly or causing symptoms; if fissure or fistula painful, infected, bleeding repeatedly or causing faecal incontinence P – Consider if not treatable or recurrent	Case-by-case assessment of untreated cases for near coastal duties	When satisfactorily treated
K70, 72	**Cirrhosis of liver** *Liver failure. Bleeding oesophageal varices*	T – Until fully investigated P – If severe or complicated by ascites or oesophageal varices	R, L – Case-by-case specialist assessment	Case-by-case, based on specialist assessment
K80–83	**Biliary tract disease** *Biliary colic from gallstones, jaundice, liver failure*	T – Biliary colic until definitely treated P – Advanced liver disease, recurrent or persistent impairing symptoms	R, L – Case-by-case specialist assessment. Does not meet requirements for unlimited certificate. Sudden onset of biliary colic unlikely	Case-by-case specialist assessment. Very low likelihood of recurrence or worsening in next two years

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K85–86	**Pancreatitis** *Likelihood of recurrence*	T – Until resolved P – If recurrent or alcohol related, unless confirmed abstention	Case-by-case assessment based on specialist reports	Case-by-case assessment based on specialist reports, very low likelihood of recurrence
Y83	**Stoma (ileostomy, colostomy)** *Impairment if control is lost – need for bags, etc. Potential problems during prolonged emergency*	T – Until stabilized P – Poorly controlled	R – Case-by-case assessment	Case-by-case specialist assessment
N00–99	**Genito-urinary conditions**			
N00, N17	**Acute nephritis** *Renal failure, hypertension*	P – Until resolved	Case-by-case assessment if any residual effects	Full recovery with normal kidney function and no residual damage
N03–05, N18–19	**Sub-acute or chronic nephritis or nephrosis** *Renal failure, hypertension*	T – Until investigated	R, L – Case-by-case assessment by specialist, based on renal function and likelihood of complications	Case-by-case assessment by specialist, based on renal function and likelihood of complications
N20–23	**Renal or ureteric calculus** *Pain from renal colic*	T – Until investigated and treated P – Recurrent stone formation	R – Consider if concern about ability to work in tropics or under high temperature conditions. Case-by-case assessment for near coastal duties	If period of > five years' observation and normal urine and renal function indicate isolated attack of renal colic
N33, N40	**Prostatic enlargement/urinary obstruction** *Acute retention of urine*	T – Until investigated and treated P – If not remediable	R – Case-by-case assessment for near coastal duties	Successfully treated; low* likelihood of recurrence
N70–98	**Gynaecological conditions** – Heavy vaginal bleeding, severe menstrual pain, endometriosis, prolapse of genital organs or other *Impairment from pain or bleeding*	T – If impairing or investigation needed to determine cause and remedy it	R – Case-by-case assessment if condition is likely to require treatment on voyage or affect working capacity	Fully resolved with low* likelihood of recurrence
R31, 80, 81, 82	**Proteinuria, haematuria, glycosuria** or other urinary abnormality *Indicator of kidney or other diseases*	T – If initial findings clinically significant P – Serious and non-remediable underlying cause – e.g. impairment of kidney function	L – When repeat surveillance required R, L – When uncertainty about cause but no immediate problem	Very low likelihood of serious underlying condition

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
Z90.5	**Removal of kidney or one non-functioning kidney** *Limits to fluid regulation under extreme conditions if remaining kidney not fully functional*	P – Any reduction of function in remaining kidney in new seafarer. Significant dysfunction in remaining kidney of serving seafarer	R – No tropical or other heat exposure. Serving seafarer with minor dysfunction in remaining kidney	Remaining kidney must be fully functional and not liable to progressive disease, based on renal investigations and specialist report
O00–99	**Pregnancy**			
O00–99	**Pregnancy** *Complications, late limitations on mobility. Potential for harm to mother and child in the event of premature delivery at sea*	T – Late stage of pregnancy and early postnatal period Abnormality of pregnancy requiring high level of surveillance	R, L – Case-by-case assessment if minor impairing effects. May consider working until later in pregnancy on near coastal vessel	Uncomplicated pregnancy with no impairing effects – normally until 24th week Decisions to be in accord with national practice and legislation. Pregnancy should be declared at an early stage so that national recommendations on antenatal care and screening can be followed
L00–99	**Skin**			
L00–08	**Skin infections** *Recurrence, transmission to others*	T – Until satisfactorily treated P – Consider for catering staff with recurrent problems	R, L – Based on nature and severity of infection	Cured with low likelihood of recurrence
L10–99	**Other skin diseases**, e.g. eczema, dermatitis, psoriasis *Recurrence, sometimes occupational cause*	T – Until investigated and satisfactorily treated	Case-by-case decision R – As appropriate if aggravated by heat, or substances at work	Stable, not impairing
M00–99	**Musculoskeletal**			
M10–23	**Osteoarthritis**, other joint diseases and subsequent joint replacement *Pain and mobility limitation affecting normal or emergency duties. Possibility of infection or dislocation and limited life of replacement joints*	T – Full recovery of function and specialist advice required before return to sea after hip or knee replacement P – For advanced and severe cases	R – Case-by-case assessment based on job requirements and history of condition. Consider emergency duties and evacuation from ship. Should meet general fitness requirements (Appendix D)	Case-by-case assessment. Able to fully meet routine and emergency duty requirements with very low likelihood of worsening such that duties could not be undertaken

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department
M24.4	**Recurrent instability of shoulder or knee joints** *Sudden limitation of mobility, with pain*	T – Until satisfactorily treated	R – Case-by-case assessment of occasional instability	Treated; very low* likelihood of recurrence
M54.5	**Back pain** *Pain and mobility limitation affecting normal or emergency duties. Exacerbation of impairment*	T – In acute stage P – If recurrent or incapacitating	Case-by-case assessment	Case-by-case assessment
Y83.4 Z97.1	**Limb prosthesis** *Mobility limitation affecting normal or emergency duties*	P – If essential duties cannot be performed	R – If routine and emergency duties can be performed but there are limitations on specific non-essential activities	If general fitness requirements are fully met (Appendix C). Arrangements for fitting prosthesis in emergency must be confirmed
	General			
T78 Z88	**Allergies** (other than allergic dermatitis and asthma) *Likelihood of recurrence and increasing severity of response. Reduced ability to perform duties*	T – Until fully investigated by specialist P – If life-threatening response reasonably foreseeable	Case-by-case assessment of likelihood and severity of response, management of the condition and access to medical care R – Where response is impairing rather than life-threatening, and reasonable adjustments can be made to reduce likelihood of recurrence	Where response is impairing rather than life-threatening, and effects can be fully controlled by long-term non-steroidal self-medication or by lifestyle modifications that are practicable at sea with no safety-critical adverse effects
Z94	**Transplants** – Kidney, heart, lung, liver (for prosthetics, i.e. joints, limbs, lenses, hearing aids, heart valves, etc. see condition-specific sections) *Possibility of rejection. Side effects of medication*	T – Until effects of surgery and anti-rejection medication stable P – Case-by-case assessment, with specialist advice	R, L – Case-by-case assessment, with specialist advice	Not applicable
Classify by condition	**Progressive conditions**, which are currently within criteria, e.g. Huntington's chorea (including family history) and keratoconus	T – Until investigated and treated if indicated P – Consider at pre-sea medical if likely to prevent completion or limit scope of training	Case-by-case assessment, with specialist advice. Such conditions are acceptable if harmful progression before next medical is judged unlikely	Case-by-case assessment, with specialist advice. Such conditions are acceptable if harmful progression before next medical is judged unlikely

ICD-10 ***(diagnostic codes)***	**Condition** ***(justification for criteria)***	**Incompatible with reliable performance of routine and emergency duties safely or effectively** **– expected to be temporary (T)** **– expected to be permanent (P)**	**Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)**	**Able to perform all duties worldwide within designated department**
Classify by condition	**Conditions not specifically listed**	T – Until investigation and treated if indicated P – If permanently impairing	Use analogy with related conditions as a guide. Consider likelihood of sudden incapacity, recurrence or progression and limitations on performing normal and emergency duties. If in doubt, obtain advice or consider restriction and referral to referee	Use analogy with related conditions as a guide. Consider excess likelihood of sudden incapacity, of recurrence or progression and limitations on performing normal and emergency duties. If in doubt, obtain advice or consider restriction and referral to referee
[Drafting Note: Text on eye, ear and communication disorders as an alternative presentation to text in Appendix A and Appendix B is below. In the final version these could be placed in the appropriate number order in the table.]				
[[ICD-10 code]	**Eye disorders**: Progressive or recurrent (e.g. glaucoma, maculopathy, diabetic retinopathy, retinitis pigmentosa, keratoconus, diplopia, blepharospasm, uveitis, corneal ulceration and retinal detachment) *Future inability to meet vision standards, risk of recurrence*	T – Temporary inability to meet relevant vision standards (Appendix A) and low likelihood of subsequent deterioration or impairing recurrence once treated or recovered P – Inability to meet relevant vision standards (Appendix A) or, if treated, increased likelihood of subsequent deterioration or impairing recurrence	R – Near coastal waters if recurrence unlikely but foreseeable and treatable with early medical intervention L – If risk of progression foreseeable but unlikely and can be detected by regular monitoring	Very low likelihood of recurrence. Progression to a level where vision standards (Appendix A) are not met during period of certificate is very unlikely
[ICD-10 code]	**Ear disorders**: Progressive (e.g. otosclerosis)	T – Temporary inability to meet relevant hearing standards (Appendix B) and low likelihood of subsequent deterioration or impairing recurrence once treated or recovered P – Inability to meet relevant hearing standards (Appendix B) or, if treated, increased likelihood or subsequent deterioration or impairing recurrence	L – If risk of progression foreseeable but unlikely and it can be detected by regular monitoring	Very low likelihood of recurrence. Progression to a level where hearing standards (Appendix B) are not met during period of certificate is very unlikely
H60–95	**Otitis – External or media** *Recurrence, risk as infection source in food handlers, problems using hearing protection*	T – Until treated P – If chronic discharge from ear in food handler	Case-by-case assessment. Consider effects of heat, humidity and hearing protection use in otitis externa	Effective treatment and no excess likelihood of recurrence
R47, F80	**Speech disorders** *Limitations to communication ability*	P – Incompatible with reliable performance of routine and emergency duties safely or effectively	R – If assistance with communication is needed to ensure reliable performance of routine and emergency duties safely and effectively Specify assistance	No impairment to essential speech communication]

ICD-10 *(diagnostic codes)*	Condition *(justification for criteria)*	Incompatible with reliable performance of routine and emergency duties safely or effectively – expected to be temporary (T) – expected to be permanent (P)	Able to perform some but not all duties or to work in some but not all waters (R) Increased frequency of surveillance needed (L)	Able to perform all duties worldwide within designated department

Notes: * Recurrence rates: Where the terms very low, low and moderate are used for the excess likelihood of a recurrence. These are essentially clinical judgements but, for some conditions, quantitative evidence on the likelihood of recurrence is available. Where this is available, e.g. for seizure and cardiac events, it may indicate the need for additional investigations to determine an individual's excess likelihood of a recurrence.

Quantitative recurrence levels approximate to:

– Very low: recurrence rate less than 2 per cent per year;
– Low: recurrence rate 2–5 per cent per year;
– Moderate: recurrence rate 5–20 per cent per year.

** Asthma severity definitions:

Childhood asthma:

– *Mild*: Onset age >ten, few or no hospitalizations, normal activities between episodes, controlled by inhaler therapy alone, remission by age 16, normal lung function.
– *Moderate*: Few hospitalizations, frequent use of reliever inhaler between episodes, interference with normal exercise activity, remission by age 16, normal lung function.
– *Severe*: Frequent episodes requiring treatment to be made more intensive, regular hospitalization, frequent oral or IV steroid use, lost schooling, abnormal lung function.

Adult asthma:

Asthma may persist from childhood or start over the age of 16. There is a wide range of intrinsic and external causes for asthma developing in adult life. In late-entry recruits with a history of adult onset asthma, the role of specific allergens, including those causing occupational asthma, should be investigated. Less specific inducers such as cold, exercise and respiratory infection also need to be considered. All can affect fitness for work at sea.

– *Mild intermittent asthma*: Infrequent episodes of mild wheezing occurring less than once every two weeks, readily and rapidly relieved by beta agonist inhaler.
– *Mild asthma*: Frequent episodes of wheezing requiring use of beta agonist inhaler or the introduction of a corticosteroid inhaler. Taking regular inhaled steroids (or steroid/long-acting beta agonists) may effectively eliminate symptoms and the need for use of beta agonist treatment.
– *Exercise-induced asthma*: Episodes of wheezing and breathlessness provoked by exertion, especially in the cold. Episodes may be effectively treated by inhaled steroids (or steroid/long-acting beta agonist) or other oral medication.
– *Moderate asthma*: Frequent episodes of wheezing despite regular use of inhaled steroid (or steroid/long acting beta agonist) treatment requiring continued use of frequent beta agonist inhaler treatment, or the addition of other medication, occasional requirement for oral steroids.
– *Severe asthma*: Frequent episodes of wheezing and breathlessness, frequent hospitalization, frequent use of oral steroid treatment.

Appendix F

Suggested format for recording medical examinations of seafarers

Name (last, first, middle): _____

Date of birth (day/month/year): ../../….

Sex: __ Male __ Female

Home address: _____

Method of confirmation of identity, e.g. Passport No./Discharge book No.: _____

Department (deck/engine/radio/food handling/other): _____

Routine and emergency duties (if known): _____

Type of ship (e.g. container, tanker, passenger, fishing): _____

Trade area (e.g. coastal, tropical, worldwide): _____

Examinee's personal declaration (Assistance should be offered by medical staff)

Have you ever had any of the following conditions?

Condition	Yes	No
1. Eye/vision problem		
2. High blood pressure		
3. Heart/vascular disease		
4. Heart surgery		
5. Varicose veins/piles		
6. Asthma/bronchitis		
7. Blood disorder		
8. Diabetes		
9. Thyroid problem		
10. Digestive disorder		
11. Kidney problem		
12. Skin problem		
13. Allergies		
14. Infectious/contagious diseases		
15. Hernia		
16. Genital disorder		
17. Pregnancy		
18. Sleep problem		
19. Do you smoke, use alcohol or drugs?		
20. Operation/surgery		
21. Epilepsy/seizures		
22. Dizziness/fainting		

Condition	Yes	No
23. Loss of consciousness		
24. Psychiatric problems		
25. Depression		
26. Attempted suicide		
27. Loss of memory		
28. Balance problem		
29. Severe headaches		
30. Ear (hearing, tinnitus)/nose/throat problem		
31. Restricted mobility		
32. Back or joint problem		
33. Amputation		
34. Fractures/dislocations		

If you answered "yes" to any of the above questions, please give details:

Additional questions	Yes	No
35. Have you ever been signed off as sick or repatriated from a ship?		
36. Have you ever been hospitalized?		
37. Have you ever been declared unfit for sea duty?		
38. Has your medical certificate even been restricted or revoked?		
39. Are you aware that you have any medical problems, diseases or illnesses?		
40. Do you feel healthy and fit to perform the duties of your designated position/occupation?		
41. Are you allergic to any medication?		

Comments:

Additional questions	Yes	No
42. Are you taking any non-prescription or prescription medications?		

If yes, please list the medications taken, and the purpose(s) and dosage(s):

I hereby certify that the personal declaration above is a true statement to the best of my knowledge.

Signature of examinee: _____ Date (day/month/year): ../../….

Witnessed by (signature): _____ Name (typed or printed): _____

I hereby authorize the release of all my previous medical records from any health professionals, health institutions and public authorities to Dr _____ (the approved medical practitioner).

Signature of examinee: _____ Date (day/month/year): ../../….

Witnessed by (signature): _____ Name (typed or printed): _____

Date and contact details for previous medical examination (if known): _____

Sight

Use of glasses or contact lenses:

Visual acuity

	Unaided			**Aided**		
	Right eye	**Left eye**	**Binocular**	**Right eye**	**Left eye**	**Binocular**
Distant						
Near						

Visual fields

	Normal	**Defective**
Right eye		
Left eye		

Colour vision

☐ Not tested ☐ Normal ☐ Doubtful ☐ Defective

Hearing

	Pure tone and audiometry (threshold values in dB)					
	500 Hz	**1 000 Hz**	**2 000 Hz**	**3 000 Hz**	**4 000 Hz**	**6 000 Hz**
Right ear						
Left ear						

Speech and whisper test (metres)

	Normal	**Whisper**
Right ear		
Left ear		

Height: _____ (cm) Weight: _____ (kg)

Pulse rate: _____/(minute) Rhythm: _____

Blood pressure: Systolic: _____ (mm Hg) Diastolic: _____ (mm Hg)

Urinalysis: Glucose: _____ Protein: _____ Blood: _____

	Normal	Abnormal
Head		
Sinuses, nose, throat		
Mouth/teeth		
Ears (general)		
Tympanic membrane		
Eyes		
Ophthalmoscopy		
Pupils		
Eye movement		
Lungs and chest		
Breast examination		
Heart		
Skin		
Varicose veins		
Vascular (inc. pedal pulses)		
Abdomen and viscera		
Hernia		
Anus (not rectal exam)		
G-U system		
Upper and lower extremities		
Spine (C/S, T/S and L/S)		
Neurologic (full/brief)		
Psychiatric		
General appearance		

Chest X-ray

☐ Not performed ☐ Performed on (day/month/year): ../../….

Results:

Other diagnostic test(s) and result(s):

Test: Result:

Medical practitioner's comments and assessment of fitness, with reasons for any limitations:

Vaccinations status recorded: ☐ Yes ☐ No

Appendix G

Medical certificate for service at sea

The minimum requirements for medical certificates are specified in STCW Code, section A-I/9, paragraph 7. These form a suitable framework for all seafarer medical certificates. Certificates meeting the criteria will also meet the requirements of the Maritime Labour Convention, 2006. Only information directly relevant to the functional requirements of the seafarer's duties should be included. Details of any medical conditions identified or test results, other than those listed, should not be recorded on the certificate.

1. Authorizing authority and the requirements under which the document is issued

2. Seafarer information

2.1. Name: *(last, first, middle)*

2.2. Date of birth: *(day/month/year)*

2.3. Gender: *(male/female)*

2.4. Nationality

3. Declaration of the recognized medical practitioner

3.1. Confirmation that identification documents were checked at the point of examination: *Yes/No*

3.2. Hearing meets the standards in STCW Code, section A-I/9: *Yes/No*

3.3. Unaided hearing satisfactory? *Yes/No*

3.4. Visual acuity meets standards in STCW Code, section A-I/9? *Yes/No*

3.5. Colour vision meets standards in STCW Code, section A-I/9? *Yes/No*
(testing only required every six years)

3.5.1. Date of last colour vision test:

3.6. Fit for lookout duties? *Yes/No*

3.7. No limitations or restrictions on fitness? *Yes/No*

If "yes", specify limitations or restrictions:

3.8. Is the seafarer free from any medical condition likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of other persons on board? *Yes/No*

3.9. Date of examination: *(day/month/year)*

3.10. Expiry date of certificate: *(day/month/year)*

4. Details of the issuing authority

4.1. Official stamp (including name) of the issuing authority

4.2. Signature of the authorized person

5. Seafarer's signature – *Confirming that the seafarer has been informed of the content of the certificate and of the right to a review in accordance with paragraph 6 of section A-I/9 of the STCW Code.*

6. [The certificate should indicate that it is issued to meet the requirements of both the STCW Convention, 1978, as amended, and the Maritime Labour Convention, 2006.]

7. [It is recommended that the certificate is in a format which minimizes the likelihood of alteration of its contents or fraudulent copy.]

Appendix H

Extract from the Maritime Labour Convention, 2006

Regulation 1.2 – Medical certificate

Purpose: To ensure that all seafarers are medically fit to perform their duties at sea

1. Seafarers shall not work on a ship unless they are certified as medically fit to perform their duties.
2. Exceptions can only be permitted as prescribed in the Code.

Standard A1.2 – Medical certificate

1. The competent authority shall require that, prior to beginning work on a ship, seafarers hold a valid medical certificate attesting that they are medically fit to perform the duties they are to carry out at sea.
2. In order to ensure that medical certificates genuinely reflect seafarers' state of health, in light of the duties they are to perform, the competent authority shall, after consultation with the shipowners' and seafarers' organizations concerned, and giving due consideration to applicable international guidelines referred to in Part B of this Code, prescribe the nature of the medical examination and certificate.
3. This Standard is without prejudice to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW). A medical certificate issued in accordance with the requirements of STCW shall be accepted by the competent authority, for the purpose of regulation 1.2. A medical certificate meeting the substance of those requirements, in the case of seafarers not covered by STCW, shall similarly be accepted.
4. The medical certificate shall be issued by a duly qualified medical practitioner or, in the case of a certificate solely concerning eyesight, by a person recognized by the competent authority as qualified to issue such a certificate. Practitioners must enjoy full professional independence in exercising their medical judgement in undertaking medical examination procedures.
5. Seafarers that have been refused a certificate or have had a limitation imposed on their ability to work, in particular with respect to time, field of work or trading area, shall be given the opportunity to have a further examination by another independent medical practitioner or by an independent medical referee.
6. Each medical certificate shall state in particular that:
   (a) the hearing and sight of the seafarer concerned, and the colour vision in the case of a seafarer to be employed in capacities where fitness for the work to be performed is liable to be affected by defective colour vision, are all satisfactory; and
   (b) the seafarer concerned is not suffering from any medical condition likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of other persons on board.
7. Unless a shorter period is required by reason of the specific duties to be performed by the seafarer concerned or is required under STCW:
   (a) a medical certificate shall be valid for a maximum period of two years unless the seafarer is under the age of 18, in which case the maximum period of validity shall be one year;
   (b) a certification of colour vision shall be valid for a maximum period of six years.
8. In urgent cases the competent authority may permit a seafarer to work without a valid medical certificate until the next port of call where the seafarer can obtain a medical certificate from a qualified medical practitioner, provided that:
   (a) the period of such permission does not exceed three months; and
   (b) the seafarer concerned is in possession of an expired medical certificate of recent date.

9. If the period of validity of a certificate expires in the course of a voyage, the certificate shall continue in force until the next port of call where the seafarer can obtain a medical certificate from a qualified medical practitioner, provided that the period shall not exceed three months.

10. The medical certificates for seafarers working on ships ordinarily engaged on international voyages must as a minimum be provided in English.

Extract from the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended

Regulation I/9

Medical standards

1. Each Party shall establish standards of medical fitness for seafarers and procedures for the issue of a medical certificate in accordance with the provisions of this regulation and of section A-I/9 of the STCW Code.

2. Each Party shall ensure that those responsible for assessing the medical fitness of seafarers are medical practitioners recognized by the Party for the purpose of seafarer medical examinations, in accordance with the provisions of section A-I/9 of the STCW Code.

3. Every seafarer holding a certificate issued under the provisions of the Convention, who is serving at sea, shall also hold a valid medical certificate issued in accordance with the provisions of this regulation and of section A-I/9 of the STCW Code.

4. Every candidate for certification shall:

   (1) be not less than 16 years of age;

   (2) provide satisfactory proof of his/her identity; and

   (3) meet the applicable medical fitness standards established by the Party.

5. Medical certificates shall remain valid for a maximum period of two years unless the seafarer is under the age of 18, in which case the maximum period of validity shall be one year.

6. If the period of validity of a medical certificate expires in the course of a voyage, then the medical certificate shall continue in force until the next port of call where a medical practitioner recognized by the Party is available, provided that the period shall not exceed three months.

7. In urgent cases the Administration may permit a seafarer to work without a valid medical certificate until the next port of call where a medical practitioner recognized by the Party is available, provided that:

   (1) the period of such permission does not exceed three months; and

   (2) the seafarer concerned is in possession of an expired medical certificate of recent date.

Extract from the Seafarers' Training, Certification and Watchkeeping Code

Section A-I/9

Medical standards

1. Parties, when establishing standards of medical fitness for seafarers as required by regulation I/9, shall adhere to the minimum in-service eyesight standards set out in table A-I/9 and take into account the criteria for physical and medical fitness set out in paragraph 2. They should also take into account the guidance given in section B-I/9 of this Code and table B-I/9 regarding assessment of minimum physical abilities.

   These standards may, to the extent determined by the Party without prejudice to the safety of the seafarers or the ship, differentiate between those persons seeking to start a career at sea and those seafarers already serving at sea and between different functions on board, bearing in mind the

different duties of seafarers. They shall also take into account any impairment or disease that will limit the ability of the seafarer to effectively perform his/her duties during the validity period of the medical certificate.

2. The standards of physical and medical fitness established by the Party shall ensure that seafarers satisfy the following criteria:

   (1) have the physical capability, taking into account paragraph 5 below, to fulfil all the requirements of the basic training as required by section A-VI/1, paragraph 2;

   (2) demonstrate adequate hearing and speech to communicate effectively and detect any audible alarms;

   (3) have no medical condition, disorder or impairment that will prevent the effective and safe conduct of their routine and emergency duties on board during the validity period of the medical certificate;

   (4) are not suffering from any medical condition likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health and safety of other persons on board; and

   (5) are not taking any medication that has side effects that will impair judgement, balance, or any other requirements for effective and safe performance of routine and emergency duties on board.

3. Medical fitness examinations of seafarers shall be conducted by appropriately qualified and experienced medical practitioners recognized by the Party.

4. Each Party shall establish provisions for recognizing medical practitioners. A register of recognized medical practitioners shall be maintained by the Party and made available to other Parties, companies and seafarers on request.

5. Each Party shall provide guidance for the conduct of medical fitness examinations and issuing of medical certificates, taking into account provisions set out in section B-I/9 of this Code. Each Party shall determine the amount of discretion given to recognized medical practitioners on the application of the medical standards, bearing in mind the different duties of seafarers, except that there shall not be discretion with respect to the minimum eyesight standards for distance vision aided, near/immediate vision and colour vision in table A-I/9 for seafarers in the deck department required to undertake lookout duties. A Party may allow discretion on the application of these standards with regard to seafarers in the engine department, on the condition that seafarers' combined vision fulfils the requirements set out in table A-I/9.

6. Each Party shall establish processes and procedures to enable seafarers who, after examination, do not meet the medical fitness standards or have had a limitation imposed on their ability to work, in particular with respect to time, field of work or trading area, to have their case reviewed in line with that Party's provisions for appeal.

7. The medical certificate provided for in regulation I/9, paragraph 3, shall include the following information as a minimum:

   (1) **Authorizing authority** and the requirements under which the document is issued

   (2) **Seafarer information**

      (2.1) Name: *(last, first, middle)*

      (2.2) Date of birth: *(day/month/year)*

      (2.3) Gender: *(male/female)*

      (2.4) Nationality

   (3) **Declaration of the recognized medical practitioner**

      (3.1) Confirmation that identification documents were checked at the point of examination: *Yes/No*

      (3.2) Hearing meets the standards in section A-I/9: *Yes/No*

      (3.3) Unaided hearing satisfactory? *Yes/No*

      (3.4) Visual acuity meets standards in section A-I/9? *Yes/No*

(3.5) Colour vision* meets standards in section A-I/9? *Yes/No*

(3.5.1) Date of last colour vision test:

(3.6) Fit for lookout duties? *Yes/No*

(3.7) No limitations or restrictions on fitness? *Yes/No*

If "yes", specify limitations or restrictions:

(3.8) Is the seafarer free from any medical condition likely to be aggravated by service at sea or to render the seafarer unfit for such service or to endanger the health of other persons on board? *Yes/No*

(3.9) Date of examination: *(day/month/year)*

(3.10) Expiry date of certificate: *(day/month/year)*

* Note: Colour vision assessment only needs to be conducted every six years.

(4) **Details of the issuing authority**

(4.1) Official stamp (including name) of the issuing authority

(4.2) Signature of the authorized person

(5) **Seafarer's signature** – C*onfirming that the seafarer has been informed of the content of the certificate and of the right to a review in accordance with paragraph 6 of section A-I/9.*

8. Medical certificates shall be in the official language of the issuing country. If the language used is not English, the text shall include a translation into that language.

Section B-I/9

Guidance regarding medical standards

Medical examination and certification

1. Parties, in establishing seafarer medical fitness standards and provisions, should take into account the minimum physical abilities set out in table B-I/9 and the guidance given within this section, bearing in mind the different duties of seafarers.
2. Parties, in establishing seafarer medical fitness standards and provisions, should follow the guidance contained in the ILO–WHO publication *Guidelines for Conducting Pre-sea and Periodic Medical Fitness Examinations for Seafarers*, including any subsequent versions, and any other applicable international guidelines published by the International Labour Organization, the International Maritime Organization or the World Health Organization.
3. Appropriate qualifications and experience for medical practitioners conducting medical fitness examinations of seafarers may include occupational health or maritime health qualifications, experience of working as a ship's doctor or a shipping company doctor or working under the supervision of someone with the aforementioned qualifications or experience.
4. The premises where medical fitness examinations are carried out should have the facilities and equipment required to carry out medical fitness examinations of seafarers.
5. Administrations should ensure that recognized medical practitioners enjoy full professional independence in exercising their medical judgement when undertaking medical examination procedures.
6. Persons applying for a medical certificate should present to the recognized medical practitioner appropriate identity documentation to establish their identity. They should also surrender their previous medical certificate.
7. Each Administration has the discretionary authority to grant a variance or waiver of any of the standards set out in table B-I/9 hereunder, based on an assessment of a medical evaluation and any other relevant information concerning an individual's adjustment to the condition and proven ability to satisfactorily perform assigned shipboard functions.
8. The medical fitness standards should, so far as possible, define objective criteria with regard to fitness for sea service, taking into account access to medical facilities and medical expertise on

board ship. They should, in particular, specify the conditions under which seafarers suffering from potentially life-threatening medical conditions that are controlled by medication may be allowed to continue to serve at sea.

9. The medical standards should also identify particular medical conditions, such as colour blindness, which might preclude seafarers holding particular positions on board ship.

10. The minimum in-service eyesight standards in each eye for unaided distance vision should be at least 0.1.*

11. Persons requiring the use of spectacles or contact lenses to perform duties should have a spare pair or pairs, as required, conveniently available on board the ship. Any need to wear visual aids to meet the required standards should be recorded on the medical fitness certificate issued.

12. Colour vision testing should be in accordance with the *International Recommendations for Colour Vision Requirements for Transport*, published by the Commission Internationale de l'Eclairage (CIE 143-2001, including any subsequent versions) or equivalent test methods.

* Value given in Snellen decimal notation.

Table B-I/9. Assessment of minimum entry level and in-service physical abilities for seafarers [3]

Shipboard task, function, event or condition [3]	Related physical ability	A medical examiner should be satisfied that the candidate [4]
Routine movement around vessel: – on moving deck – between levels – between compartments *Note 1 applies to this row*	Maintain balance and move with agility Climb up and down vertical ladders and stairways Step over coamings (e.g. Load Line Convention requires coamings to be 600 mm high) Open and close watertight doors	has no disturbance in sense of balance does not have any impairment or disease that prevents relevant movements and physical activities is, without assistance, [5] able to: – climb vertical ladders and stairways – step over high sills – manipulate door closing systems
Routine tasks on board: – use of hand tools – movement of ship's stores – overhead work – valve operation – standing a four-hour watch – working in confined spaces – responding to alarms, warnings and instructions – verbal communication *Note 1 applies to this row*	Strength, dexterity and stamina to manipulate mechanical devices Lift, pull and carry a load (e.g. 18 kg) Reach upwards Stand, walk and remain alert for an extended period Work in constricted spaces and move through restricted openings (e.g. SOLAS requires minimum openings in cargo spaces and emergency escapes to have the minimum dimensions of 600 mm x 600 mm – SOLAS regulation 3.6.5.1) Visually distinguish objects, shapes and signals Hear warnings and instructions Give a clear spoken description	does not have a defined impairment or diagnosed medical condition that reduces ability to perform routine duties essential to the safe operation of the vessel has ability to: – work with arms raised – stand and walk for an extended period – enter confined space – fulfil eyesight standards (table A-I/9) – fulfil hearing standards set by competent authority or take account of international guidelines – hold normal conversation

Shipboard task, function, event or condition [3]	**Related physical ability**	**A medical examiner should be satisfied that the candidate** [4]
Emergency duties [6] on board: – escape – firefighting – evacuation *Note 2 applies to this row*	Don a lifejacket or immersion suit Escape from smoke-filled spaces Take part in firefighting duties, including use of breathing apparatus Take part in vessel evacuation procedures	does not have a defined impairment or diagnosed medical condition that reduces ability to perform emergency duties essential to the safe operation of the vessel has ability to: – don lifejacket or immersion suit – crawl – feel for differences in temperature – handle firefighting equipment – wear breathing apparatus (where required as part of duties)

Notes: [1] Rows 1 and 2 of the above table describe: (a) ordinary shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which may be considered necessary for the safety of a seafarer, other crew members and the ship; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of seafarers and the nature of shipboard work for which they will be employed. [2] Row 3 of the above table describes: (a) emergency shipboard tasks, functions, events and conditions; (b) the corresponding physical abilities which should be considered necessary for the safety of a seafarer, other crew members and the ship; and (c) high-level criteria for use by medical practitioners assessing medical fitness, bearing in mind the different duties of seafarers and the nature of shipboard work for which they will be employed. [3] This table is not intended to address all possible shipboard conditions or potentially disqualifying medical conditions. Parties should specify physical abilities applicable to the category of seafarers (such as "deck officer" and "engine rating"). The special circumstances of individuals and for those who have specialized or limited duties should receive due consideration. [4] If in doubt, the medical practitioner should quantify the degree or severity of any relevant impairment by means of objective tests, whenever appropriate tests are available, or by referring the candidate for further assessment. [5] The term "assistance" means the use of another person to accomplish the task. [6] The term "emergency duties" is used to cover all standard emergency response situations such as abandon ship or firefighting as well as the procedures to be followed by each seafarer to secure personal survival.