



Training in Medical First Aid and Medical Care Aboard Ship

Merchant Navy Training Board

4th edition – April 2010

Introduction

The mandatory requirements for training and proficiency in medical first aid and for persons in charge of medical care on board ship, and the standards of competence to be achieved, are set out in Regulation VI/4 of the Annex to the STCW Convention, as amended in 1995, and Section A-VI/4 of the STCW Code. The Maritime and Coastguard Agency (MCA) has agreed with the Merchant Navy Training Board (MNTB) that the specifications described in this document will satisfy those requirements for approved training undertaken in the United Kingdom.

Health and Safety: Conduct of training

All training centres must adhere to applicable regulations made under the Health and Safety at Work etc Act 1974 and take proper account of the advice given in associated guidance documents and 'Approved Codes of Practice'.

Under the 1992 Management of Health and Safety at Work Regulations, centres are required to make assessments of any potential risks to the health and safety of staff and trainees that may be associated with their activities. They are also required to identify, implement, monitor and review effective measures for minimising and controlling them. In addition, centres will be required to make effective arrangements for dealing with any emergency, incident or accident that may occur during the course of training.

Note to the 4th Edition

This edition includes amendments to Section Two and Section Three related for 'medical first aid' and 'training of medical care on board ship' courses. The key changes include: removal of the sea time and reduction in age for the entry requirements to the above two courses. Additionally, for entry to 'training for updating of medical care on board ship' course includes removal of the five year certificate requirement as agreed by the MNTB and MCA in July 2009. There are no further changes.

Conditions for approval of short courses

- 1 The training centre is responsible for ensuring that trainees meet the entry requirements for the relevant training programme and other conditions for the issue of a certificate (where applicable).
- 2 The same person must not undertake the training and assessment of an individual candidate.
- 3 The training centre must advise the headquarters of the Maritime and Coastguard Agency (Seafarers Standards Branch) if there is any change (e.g. in facilities, equipment, staff) that is likely to affect the conduct of the training and/or assessment.
- 4 The Maritime and Coastguard Agency's local area Marine Office must be kept informed of the dates, timing and venue of training programmes so that the Marine Office can monitor the training at their convenience.
- 5 Certificates shall be issued only to those trainees who successfully complete the training programme and meet other requirements for the issue of the certificate.
- 6 All certificates shall be issued in the form approved by the MCA, having regard to the specimen certificate included with this document. Centres should confirm with the MCA that the certificate they intend to issue meets this requirement.
- 7 Full records of all certificates issued to trainees must be retained by the centre and kept in such a way that authenticity or confirmation of issue of a certificate can be verified at a later stage if necessary.
- 8 A record of the original approval given by MCA, plus a record of subsequent visits made by MCA, must be maintained by the centre as part of the quality standards system for approved short courses.

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Section One

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Training for medical first aid on board ship

Scope	<p>This training is intended for seafarers who are designated to provide medical first aid on board ship, in accordance with:</p> <ul style="list-style-type: none">- Regulation VI/4 of the Annex to the STCW Convention and Section A-VI/4 (1 – 3) of the STCW Code- the Merchant Shipping (Training and Certification) Regulations 1997.
Objectives	<p>On completion of the training, the trainees will:</p> <ul style="list-style-type: none">- be able to apply immediate first aid in the event of an accident or illness on board- have knowledge of reference materials and first aid and medical equipment on board and understand their use in the management of accidents and medical emergencies. <p>These objectives are reflected in unit A12 of the marine national occupational standards.</p>
Entry standards	<p>Before commencing training, trainees must be at least 16 years of age.</p> <p>There are no pre-requisites in terms of prior training. Trainees who hold a certificate in <i>Elementary First Aid</i> issued in accordance with Section A-VI/1 of the STCW Code (or an equivalent recognised by the MCA) must undertake this training in full in order to update and extend their knowledge and skills in current medical first aid procedures.</p>
Course intake limitations	<p>The number of trainees on each course will depend upon the availability of instructors, equipment and facilities available for conducting the training. In order to ensure that each trainee has sufficient opportunity to participate in practical exercises and demonstrations, the number of trainees should not exceed 12 per instructor or lecturer.</p>
Staff requirements	<p>All training and instruction should be given, and assessments carried out, by suitably qualified personnel e.g.:</p>

- i* registered nurse
- ii* registered medical practitioner
- iii* paramedic
- iv* qualified as first aider or medic under the Offshore Installations and Pipeline Works (First-Aid) Regulations
- v* a person suitably qualified and experienced in first aid holding a MCA approved STCW certificate in Medical First Aid or other certificate issued by a national body which can be shown meet or exceed these requirements.

All trainers and assessors must:

- i* understand the specific objectives of the training and be familiar with the medical stores statutorily required to be carried on board ship;
- ii* have an awareness of the operational environment on board merchant ships and an understanding of the national and international arrangements and procedures for medical care on board whilst ships are at sea, including radio medical advice;
- iii* be able to demonstrate the currency of any professional registration or first aid qualification
- iv* be able to demonstrate first aid and medical knowledge relevant to the objectives of the training, through a log book or portfolio of relevant professional development activity

In addition, staff should have:

- i* a knowledge of instructional techniques and of training methods and practice at least to a level of IMO Training for Instructors;
- ii* an understanding of assessment methods and practice;
- iii* have gained practical instructional and assessment experience under the

supervision and to the satisfaction of experienced instructors/assessors.

Centres must have procedures in place to enable staff to update knowledge of medical first aid in accordance with current professional practice.

Outcomes

The outcomes to be achieved are set out in Table A-VI/4-1 of the STCW Code (see *Annex A*) and Unit A12 of the marine national occupational standards. All candidates will be required to present sufficient evidence that the criteria specified have been met through practical demonstrations, oral questioning and other appropriate means.

Training plan

For those following planned training schemes approved by the MNTB leading to first certificates of competency, it is intended that this training should form an integral part of the overall training plan and be complementary to other studies. The training may be undertaken in progressive stages during college-based phases and the intervening periods of sea service. For such candidates, it is not appropriate to specify the duration of the learning provided achievement of the specified standard (outcomes) is properly assessed and recorded.

Alternatively, for candidates who are not following a planned and structured training programme, the training may be provided as a full time block course, normally of 28 hours duration spread over four days. Some establishments may have manpower, equipment and facilities such that the standards may be achieved over a different time-scale. Any departure from the above guidelines is subject to the approval the MCA.

Guidance on the content of training is given at *Annex B*.

Conduct of training

Training and assessment must be undertaken by persons qualified in accordance with the provisions of Section A I/6 of the STCW Code.

Active participation in practical training is essential. It also enables candidates' ability, as required by Table A-VI/4-1 of the STCW Code, to be demonstrated and assessed.

Facilities and equipment	<p>Facilities and equipment used for training must be suitable for the practical demonstrations and exercises to be undertaken in accordance with the specific objectives of the training. A list of equipment and facilities considered to be essential is given at <i>Annex C</i>.</p>
Assessment	<p>Centres must devise appropriate instruments of assessment, for consideration as part of the approval process, having due regard to the requirements of column 2 of Table A-VI/4-1 of the STCW Code and the methods for demonstrating competence shown in column 3 of that table (see Annex A).</p> <p>An assessment plan should be given to the candidate at the start of the training.</p> <p>A variety of sources of evidence may be used but must include evidence of candidates' ability, under realistic conditions, to apply relevant knowledge and understanding to the operation and use of the equipment. Direct observation, oral questioning, simulation and role play would be considered ideal approaches to generating much of the evidence required.</p> <p>Accurate records should be made of the assessment instruments used. Records of candidates' achievements must be kept and retained for subsequent verification.</p>
Quality standards	<p>The arrangements for delivering the training and assessing competence must be continuously monitored through a quality standards system to ensure achievement of defined objectives.</p> <p>Centres are required to maintain a quality standard through documented procedures that shall be inspected and monitored by the MCA at intervals not exceeding five years.</p> <p>The quality standards system and evaluation arrangements may be part of a centre's overall quality assurance system.</p>
Documentation	<p>Achievement of the desired standard of competence will be attested to by a certificate issued by the centre, in the format shown in <i>Annex D</i>, and, where appropriate, will be recorded as part of formal assessment procedures.</p> <p>A certificate cannot be issued prior to approval of the training by the MCA.</p>

Approval

Centres offering training and assessment must be approved by the MCA. All approvals will be subject to the general conditions set out on page iii.

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STCW Code: Table A-VI/4-1
Specification of minimum standard of proficiency in medical first aid

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
Competence	Knowledge, Understanding and Proficiency	Methods for Demonstrating Competence	Criteria for Evaluating Competence
Apply immediate first aid in the event of accident or illness on board	<p>First -aid kit</p> <p>Body structure and function</p> <p>Toxicological hazards on board, including use of the <i>Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG)</i> or its national equivalent</p> <p>Examination of casualty or patient</p> <p>Spinal injuries</p> <p>Burns, scalds and effects of heat and cold</p> <p>Fractures, dislocations and muscular injuries</p> <p>Medical care of rescued persons</p> <p>Radio medical advice</p> <p>Pharmacology</p> <p>Sterilisation</p> <p>Cardiac arrest, drowning and asphyxia</p>	Assessment of evidence obtained from practical instruction	<p>The identification of probable cause, nature and extent of injuries is prompt, complete and conforms to current first-aid practice</p> <p>Risk of harm to self and others is minimised at all times</p> <p>Treatment of injuries and the patient's condition is appropriate, conforms to recognised first-aid practice and international guidelines</p>

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Guidelines on course structure and content

The duration of the course will depend on the background and prior knowledge and experience of course participants. However, where potential candidates have limited prior experience, it is unlikely that the stated objectives can be achieved in less than 28 hours, normally spread over four days if the training is provided as a full-time block course.

Assessments should be designed to establish a candidate's competence in accordance with Table A-VI/4-1 of the STCW Code. This assessment will include appropriate oral questioning to establish that a candidate has knowledge and understanding of the relevant principles and procedures that underpin competent performance and which cannot be readily inferred from practical demonstration.

Training to achieve the objectives set out on page 3 and the outcomes in the STCW Code should be structured around the guidelines in this Annex. The training should be progressive with alternating periods of instruction in principles and procedures and practical exercises. At least 40% of the course should be devoted to practical exercises, using simulated casualties where necessary and appropriate.

Module 1: Scene Management

- Theory: Assessment of the situation
 Recognition and management of dangers
 Raising the alarm
 Principles and priorities of first aid
 Assessment of the casualty
 Dealing with the aftermath
- Practical: Recognition of dangers
 Scene and casualty assessment (simulation)

Module 2: Resuscitation

- Theory: Anatomy and physiology of the respiratory and circulatory system
 Recognition of hypoxia and asphyxia
 Management of choking
 Primary assessment of the casualty – DR ABC
 Chain of Survival
 Basic Life Support - resuscitation techniques in accordance with the Resuscitation Council (UK) Guidelines
 Use of Adjuncts in Basic Life support – face shield, face mask, oropharyngeal airway
- Practical: Perform basic life support on a resuscitation manikin
 Use of adjuncts on a training manikin
 Perform back slaps and abdominal thrusts on a training manikin

Module 3: The Unconscious Casualty

Theory: Causes, recognition and management of the unconscious casualty
Primary and secondary assessment
Observation of the casualty

Practical: Primary and secondary assessment on a simulated casualty
The recovery position on a simulated casualty
Assessment of level of consciousness
Observation of pupils

Module 4: Shock

Theory: Causes, recognition and management of shock

Practical: Positioning a casualty in shock, including modifications necessary because of specific injuries.

Module 5: Bleeding

Theory: Anatomy and physiology of the circulatory system
Recognition and management of arterial, venous and capillary bleeding
Fundamentals of bleeding control – pressure and elevation

Practical: Use of first aid dressings to achieve fundamentals of treatment
Use of alternatives to first aid dressings to achieve fundamentals of treatment
Identification of pressure points used in indirect pressure
Dressing a wound where there is a retained foreign body

Module 6: Wounds and Injuries

Theory: Skin function
Causes, recognition and management of types of wounds
Causes, recognition and management of injuries including open and closed chest injury, open and closed abdominal injury, impalement, crush, amputation and eye injury, blast injuries.

Practical: Protruding object wound dressing
Stump dressing
Eye irrigation and use of eye pad
3 sided flap valve dressing
Positioning of the casualty appropriate to injury (conscious, in shock and unconscious)

Module 7: Burns

Theory: Causes, recognition and management of burns (heat and cold)
Severity and complexity of a burn
Use of special burns dressings
Prevention of complications

Practical: Use of dressings

Module 8: Head Injury

Theory: Causes of head injury
Associated injuries and complications
Recognition and management of concussion and compression
Observation of the casualty
Management of head wounds

Practical: Dressing techniques
Observation of the level of consciousness
Observation of the pupils
Monitoring other observations

Module 9: Fractures and Dislocation

Theory: Anatomy and physiology of the musculo-skeletal system
Causes, types, recognition and management of fractures
Immobilisation and methods available
Complications associated with specific fractures – jaw, skull, pelvis, femur, rib.
Complications associated with dislocation

Practical: Simple immobilisation of upper and lower limbs using triangular bandages
Immobilisation using splints
Dressing and immobilisation of protruding bone

Module 10: Soft Tissue Injury

Theory: Causes, recognition and management of sprains and strains

Practical: Compression bandaging

Module 11: Spinal Injury

Theory: Causes, recognition and management of spinal injuries.
Recognition of neurological deficit
Airway management in cervical spine injury
Immobilisation techniques
Casualty handling

Practical: Spinal recovery position
Jaw thrust and chin lift on training manikin

Log rolling of simulated casualty
Use of cervical collars
Use of stretchers and immobilisation techniques

Module 12: Poisoning

- Theory: Definition, causes, recognition and management of poisoning
Scene and casualty assessment
Specific poison management
Sources of information
Reference materials on dangerous goods cargoes
Causes, recognition and treatment of bites and stings
- Practical: Role play exercises/demonstrations to reinforce the above with particular reference to identifying and accessing information that is relevant to specific circumstances

Module 13: Temperature Extremes

- Theory: Causes, recognition and management of hypothermia, heat exhaustion and heat stroke.
- Practical: Assessing skin temperature

Module 14: Care of the Rescued Casualty

- Theory: Effect of temperature extremes – hypothermia, heat exhaustion, heat stroke
Sunburn, Frostbite, Immersion Foot
Rescue from the water including rescue collapse
Emotional aspects of rescue
Recognition and management of drowning, near drowning and secondary drowning
Recognition and management of dehydration
- Practical: Role play

Module 15: Medical emergencies

- Theory: Causes, recognition and management of medical emergencies e.g. chest pain, asthma, hypoglycaemia and seizures.
- Practical: Positioning a casualty according to medical condition

Module 16: Casualty Handling

- Theory: Basic principles of casualty and manual handling
Equipment available on board
Consideration of the condition of the casualty
- Practical: Exercises to demonstrate the principles of casualty handling

Module 17: Communications

Theory: Raising the alarm on board
Reporting on the casualty's condition
Accident reporting and record keeping
Communicating with the casualty and assistance
Radio Medical Advice

Practical: Reporting on simulated casualty situation

Module 18: Equipment and Information

Theory: Equipment and pharmaceuticals available on board
Sources of Information on board, including the *Ship Captain's Medical Guide*

Practical: Familiarisation with equipment and information sources as available

Module 19: Health and Hygiene

Theory: Means of sterilisation and disinfection
Management of body fluid spillages
Blood borne infection
Prevention of contamination including use of gloves
Immunisation
Medications available on board for use in a first aid situation –
GTN, salbutamol inhaler, pain relief

Practical: None

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Equipment required for the conduct of training

Publications

Current editions and amendments of the following publications should be available for reference by those undergoing training:

- i. Ship Captain's Medical Guide
- ii. International Maritime Dangerous Goods (IMDG) Code including within the supplement Medical First Aid Guide for Use in Accidents involving Dangerous Goods (MFAAG)
- iii. Voluntary Services First Aid Manual
- iv. Relevant Merchant Shipping Notices

Equipment

- i. Medical equipment listed in Annex 1 of MSN 1768 (M + F) or subsequent amendments under the following headings:
 - Resuscitation equipment
 - Dressing and suturing equipment
 - Instruments
 - Immobilisation and setting equipment
- ii. First Aid Kits (as specified in Annex 1 of MSN 1768 (M + F) or subsequent amendments for vessels with a crew of ten or more)
- iii. Stretcher equipment (as recommended in Annex 1 of MSN 1768 (M + F) or subsequent amendments)
- iv. A minimum of one resuscitation manikin : four trainees
- v. Audio visual aids as appropriate.

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Section Two

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Training for medical care on board ship

Scope	<p>This training is intended for seafarers who are designated to take charge of medical care on board ship, in accordance with:</p> <ul style="list-style-type: none">- Regulation VI/4 of the Annex to the STCW Convention and Section A-VI/4 (4–6) of the STCW Code- the Merchant Shipping (Training and Certification) Regulations 1997.
Objectives	<p>On completion of the training, the trainees will have sufficient knowledge of the types of ships' medical equipment and stores and their use to be able to:</p> <ul style="list-style-type: none"><i>i</i> diagnose medical problems on board ship<i>ii</i> provide medical care to the sick and injured while they remain on board<i>iii</i> participate in co-ordinated schemes for medical assistance to ships. <p>These objectives are reflected in unit A16 of the marine national occupational standards.</p>
Entry standards	<p>Before commencing training, trainees must:</p> <ul style="list-style-type: none"><i>i</i> be 16 years of age<i>ii</i> have received MCA approved or recognised training in Medical First Aid on Board Ship (in accordance with Section A-VI/4-1 of the STCW Code), and has been issued with a certificate.
Course intake limitations	<p>The number of trainees on each course will depend upon the availability of instructors, equipment and facilities available for conducting the training. In order to ensure that each trainee has sufficient opportunity to participate in practical exercises and demonstrations, the number of trainees should not exceed 12 per instructor or lecturer.</p>

Staff requirements

All training and instruction should be given, and assessments carried out, by suitably qualified personnel e.g.:

- i* registered nurse
- ii* registered medical practitioner
- iii* paramedic
- iv* qualified as medic under the Offshore Installations and Pipeline Works (First-Aid) Regulations

A person suitably qualified and experienced in first aid and holding a MCA approved STCW certificate in Medical First Aid or other certificate issued by a national body which can be shown meet or exceed these requirements may be involved only in those aspects of the training dealing with medical first aid.

All trainers and assessors must:

- i* understand the specific objectives of the training and be familiar with the medical stores statutorily required to be carried on board ship;
- ii* have an awareness of the operational environment on board merchant ships and an understanding of the national and international arrangements and procedures for medical care on board whilst ships are at sea, including radio medical advice;
- iii* be able to demonstrate the currency of any professional registration or first aid qualification
- iv* be able to demonstrate first aid and medical knowledge relevant to the objectives of the training, through a log book or portfolio of relevant professional development activity

In addition, staff involved should be aware of the operational environment on board merchant ships and have:

- i* a knowledge of instructional techniques and of training methods and practice at least to a level of IMO Training for Instructors;

- ii* an understanding of assessment methods and practice;
- iii* gained practical instructional and assessment experience under the supervision and to the satisfaction of experienced personnel.

Centres must have procedures in place to enable staff to update knowledge of medical first aid and medical care in accordance with current professional practice.

Outcomes	The outcomes to be achieved are set out in Table A-VI/4-2 of the STCW Code (see <i>Annex A</i>) and unit A16 of the marine national occupational standards. All candidates will be required to present sufficient evidence that the criteria specified have been met through practical demonstrations, oral questioning and other appropriate means.
Training plan	<p>For those following planned training schemes approved by the MNTB leading to first certificates of competency, it is intended that this training should form an integral part of the overall training plan and be complementary to other studies. The training may be undertaken in progressive stages during college-based phases and the intervening periods of sea service. For such candidates, it is not appropriate to specify the duration of the learning provided achievement of the specified standard (outcomes) is properly assessed and recorded.</p> <p>Alternatively, for candidates who are not following a planned and structured training programme, the training may be provided as a full time block course, normally of 35 hours duration spread over five days. Some establishments may have manpower, equipment and facilities such that the standards may be achieved over a different time-scale. Any departure from the above guidelines is subject to the approval the MCA.</p> <p>Guidance on the content of training is given at <i>Annex B</i>.</p>
Conduct of training	Training and assessment must be undertaken by persons qualified in accordance with the provisions of Section A I/6 of the STCW Code.

Active participation in practical training is essential. It also enables candidates' ability, as required by Table A-VI/4-2 of the STCW Code, to be demonstrated and assessed.

Facilities and equipment

Facilities and equipment used for training must be of a type approved under Merchant Shipping Regulations and be suitable for the practical demonstrations and exercises to be undertaken in accordance with the specific objectives of the training. A list of equipment and facilities considered to be essential is given at *Annex C*.

Assessment

Centres must devise appropriate instruments of assessment, for consideration as part of the approval process, having due regard to the requirements of column 2 of Table A-VI/4-2 of the STCW Code and the methods for demonstrating competence shown in column 3 of that table (see *Annex A*).

An assessment plan should be given to the candidate at the start of the training.

A variety of sources of evidence may be used but must include evidence of candidates' ability, under realistic conditions, to apply relevant knowledge and understanding to the operation and use of the equipment. Direct observation, oral questioning, simulation and role play would be considered ideal approaches to generating much of the evidence required

Accurate records should be made of the assessment instruments used. Records of candidates' achievements must be kept and retained for subsequent verification.

Quality standards

Arrangements for delivering the training and assessing competence must be continuously monitored through a quality standards system to ensure achievement of defined objectives.

Centres are required to maintain a quality standard through documented procedures that shall be inspected and monitored by the MCA at intervals not exceeding five years.

The quality standards system and evaluation arrangements may be part of a centre's overall quality assurance system.

Documentation

Achievement of the desired standard of competence will be attested to by a certificate

issued by the centre, in the format shown in *Annex D*, and, where appropriate, will be recorded as part of formal assessment procedures.

A certificate cannot be issued prior to approval of the training by the MCA.

Approval

Centres offering training and assessment must be approved by the MCA. All approvals will be subject to the general conditions set out on page iii.

Annex A to
specification for training for
persons in charge of medical care on board ship

STCW Code: Table A-VI/4-2

Specification of minimum standard of proficiency for persons in charge of medical care on board ship

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
Competence	Knowledge, Understanding and Proficiency	Methods for Demonstrating Competence	Criteria for Evaluating Competence
Provide medical care to the sick and injured while they remain on board	<p>Care of casualty involving;</p> <p>.1 head and spinal injuries</p> <p>.2 injuries of ear, nose, throat and eyes</p> <p>.3 external and internal bleeding</p> <p>.4 burns, scalds and frostbite</p> <p>.5 fractures, dislocations and muscular injuries</p> <p>.6 wounds, wound healing and infection</p> <p>.7 pain relief</p> <p>.8 techniques of sewing and clamping</p> <p>.9 management of acute abdominal conditions</p> <p>.10 minor surgical treatment</p> <p>.11 dressing and bandaging</p> <p>Aspects of nursing:</p> <p>.1 general principles</p> <p>.2 nursing care</p>	<p>Assessment of evidence obtained from practical instruction and demonstration</p> <p>Where practicable, approved practical experience at a hospital or similar establishment</p>	<p>Identification of symptoms is based on the concepts of clinical examination and medical history</p> <p>Protection against infection and spread of diseases is complete and effective</p> <p>Personal attitude is calm, confident and reassuring</p> <p>Treatment of injury or condition is appropriate and conforms to accepted medical practice and relevant national and international medical guides</p> <p>The dosage and application of drugs and medication complies with manufacturers' recommendations and accepted medical practice</p> <p>The significance of changes in patient's condition is promptly recognised</p>

Competence	Knowledge, Understanding and Proficiency	Methods for Demonstrating Competence	Criteria for Evaluating Competence
Provide medical care to the sick and injured while they remain on board	Diseases, including: <ul style="list-style-type: none"> .1 medical conditions and emergencies .2 sexually transmitted diseases .3 tropical and infectious diseases Alcohol and drug abuse Dental care Gynaecology, pregnancy and childbirth Medical care of rescued persons Death at sea Hygiene Disease prevention, including: <ul style="list-style-type: none"> .1 disinfection, disinfestation, de-ratting .2 vaccinations Keeping records and copies of applicable regulations: <ul style="list-style-type: none"> .1 keeping medical records .2 international and national maritime medical regulations 		
Participate in co-ordinated schemes for medical assistance to ships	External assistance, including: <ul style="list-style-type: none"> .1 radio medical advice .2 transportation of the ill and injured, including helicopter evacuation .3 medical care of sick seafarers involving co-operation with port health authorities or out-patient wards in port 		Clinical examination procedures are complete and comply with instructions received The method and preparation for evacuation is in accordance with recognised procedures and is designed to maximise the welfare of the patient Procedures for seeking radio medical advice conform to established practice and recommendations

Guidelines on course structure and content

All of those undergoing this training will have received approved or recognised training in *Medical First Aid on Board Ship* (in accordance with Section A-VI/4-1 of the STCW Code) or *Medical Care on Board Ship* (in accordance with Section A-VI/4-2 of the STCW Code), and been issued with a certificate.

Training to achieve the objectives set out on page 23 and the outcomes in the STCW Code should be structured around the guidelines in this Annex, with emphasis being directed towards the following general principles:

- techniques for providing treatment and medical care to sick or injured seafarers while they remain on board
- proper use of the medical equipment and supplies carried aboard merchant ships
- sources of information, with particular reference to the advice and procedures contained in the Ship Captain's Medical Guide
- procedures for participation in co-ordinated schemes for medical assistance to ships including Medical Advice by Radio.

Training should be progressive with alternating periods of instruction in principles and procedures and practical exercises. At least 30% of the course should be devoted to practical exercises, using simulated casualties where necessary and appropriate.

Assessments should be designed to establish a candidate's competence in accordance with Table A-VI/4-2 of the STCW Code. This assessment will include appropriate oral questioning to establish that a candidate has knowledge and understanding of the relevant principles and procedures that underpin competent performance and which cannot be readily inferred from practical demonstration.

Module 1: Communication

Theory: Obtaining Radio Medical Advice
 Liaison with hospitals and medical facilities
 Liaison with port authorities
 Record keeping and documentation including medical records,
 log books and drug registers.
 Patient reassurance
 Medical terminology
 Awareness of medical section of the International Code of
 Signals
 National and international medical regulations

Practical: Role play

Module 2: Making a Diagnosis

- Theory: Recognising an acutely ill patient
Taking and recording a case history
Simple clinical examination and interpretation of findings
Observation of the patient and interpretation of findings
Observation of body waste and interpretation of findings
Observation of vital signs and interpretation of findings
Reporting including verbal description of findings
- Practical: Case study / role play
Taking and recording temperature, pulse, blood pressure and respiratory rate
Use of an aneroid sphygmomanometer and stethoscope

Module 3: The Cardio Vascular and Respiratory Systems

- Theory: Anatomy and physiology of the cardio vascular system
Anatomy and physiology of the respiratory system
Causes, recognition and management of cardiovascular conditions including angina, heart attack and stroke
Causes, recognition and treatment of respiratory conditions including acute bronchitis, pneumonia, pleurisy, pneumothorax and asthma.
Recognition of life threatening medical conditions of the cardio vascular and the respiratory system.
Identification of the causes of chest pain.
Taking a history of the respiratory and cardiovascular system
Physical examination of the respiratory and cardio vascular system
Collection and observation of sputum
Basic life support and airway management techniques
Use of oxygen
- Practical: Taking and recording radial and carotid pulse, and apex beat.
Use of GTN in all forms (familiarisation only)
Airway management with the aid of a training manikin using head tilt, chin lift, jaw thrust
Airway management and breathing with the aid of a training manikin using devices including oropharyngeal airway, face mask, bag-valve-mask manual resuscitator, and mechanical resuscitator
Use of suction devices (equipment familiarisation)
Use of respiratory inhaler devices (equipment familiarisation)
Use of oxygen administration equipment (equipment familiarisation)
Auscultation of breathing using a stethoscope
Simple chest physiotherapy

Module 4: The Abdomen

- Theory: Anatomy and physiology of the gastro intestinal, female reproductive and genito urinary systems
Causes, recognition and management of abdominal conditions including:
- gastro oesophageal reflux, peptic ulcer, diarrhoea and vomiting, appendicitis, peritonitis,
 - lower and upper urine tract infection, renal calculi, urinary retention
 - complications of pregnancy, miscarriage, ruptured ectopic pregnancy and childbirth.
- Recognition of life threatening medical conditions of the abdomen.
Taking an abdominal history
Physical examination of the abdomen
Collection and observation of vomit, faeces and urine
- Practical: Auscultation of bowel sounds using a stethoscope
Collection of a urine specimen and urinalysis using reagent strips
Bladder catheterisation of male and female anatomical models
Use of a pregnancy testing kit (equipment familiarisation)

Module 5: ENT , Dental and Ophthalmic

- Theory: Anatomy and physiology of the ear, nose, throat, mouth and eye
Causes, recognition and management of facial pain including dental conditions, sinusitis, trauma
Causes, recognition and management of oral conditions including infection and dental
Causes, recognition and management of ear, nose and throat conditions including tonsillitis, otitis externa and media, sinusitis and epistaxis
Causes, recognition and management of ophthalmic conditions
Examination of an eye – sight test, pupil reactions, use of fluroscein staining
Removal of a foreign body from the eye
- Practical: Physical examination of the mouth, throat and ear.
Pupil observation
Use of devices to control major nose bleed (equipment familiarisation and use of anatomical models)

Module 6: Communicable Diseases

- Theory: The infection process including causative agents and transmission
Prevention and control of infection, general and specific to on board, including sanitation, basic hygiene, immunisation, prophylaxis, monitoring, isolation and education.
Sexually transmitted infections
Use of antibiotics

Guidance in MGN 257(M) – Prevention of Infectious Disease at Sea by Immunisation and anti Malaria medication
Disinfection and sterilisation procedures
Methods of taking, and recording of temperature
Sources of current information

Practical: Take an oral temperature using a standard clinical thermometer
Use low reading thermometers (equipment familiarisation)
Hand washing technique

Module 7: Wounds and Injuries

Theory: Primary and secondary treatment of wounds, burns, musculo - skeletal and other injuries, including revision of appropriate first aid
Methods of cleaning, assessing, closing, protecting and monitoring of wounds
Types of wounds and the wound healing process
Management of wound infection including prophylaxis and use of antibiotics

Practical: Use of dressings in medical stores
Familiarisation with suture materials
Wound closure using adhesive suture strips, interrupted skin sutures and skin stapler (simulation and equipment familiarisation)
Removal of wound closures (simulation and equipment familiarisation)
Procedures to control bleeding (simulation and equipment familiarisation)

Module 8: Medication

Theory: Storage and availability
Classification including legal, group and names, non proprietary (generic) and proprietary
Prescribing, recording and monitoring use
Safety aspects
Sources of information including MSN1768 (M + F)
Methods of administration
Dosage calculation
Injection techniques for intra muscular and subcutaneous administration, including immunisation and infiltration of local anaesthetic

Practical: Intramuscular injection technique (simulation)
Sub cutaneous injection technique (simulation)
Infiltration of local anaesthetic (simulation)
Use of intravenous infusion (equipment familiarisation)
Use of a rectal infusion set (equipment familiarisation)
Giving rectal suppositories (equipment familiarisation)
Disposal of sharps
Dosage calculations

Module 9: Equipment and Information

Theory: Medical stores available on board
Sources of information on board

Practical: Familiarisation with Ship Captain's Medical Guide and other publications

Module 10: Patient Management - General

Theory: General principals of patient care
Pain management
Casualty handling and transportation
Evacuation procedures, including helicopter evacuation
Managing death on board including treatment of a dying person, recognising death and procedures after death including corpse management.

Practical: Familiarisation with stretchers

Module 11: Patient Management - Specific

Theory: Management of a rescued person including dehydration, seasickness, effect of heat and cold
Management of drowning
Recognition and management of substance misuse

Practical: None

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Equipment required for the conduct of training

Publications

Current editions and amendments of the following publications should be available for reference by those undergoing training:

- i.* Ship Captain's Medical Guide – one copy for use by each person undergoing training
- ii.* International Maritime Dangerous Goods (IMDG) Code including within the supplement the Medical First Aid Guide for Use in Accidents involving Dangerous Goods (MFAG)
- iii.* Voluntary services first aid manual – one copy for use by each person undergoing training
- iv.* MSN 1768 (M + F) or subsequent amendments – one copy for use by each person undergoing training
- v.* Other relevant Merchant Shipping Notices

Demonstration equipment and visual aids

- i.* Medical equipment listed in Annex 1 and 2 of MSN 1768 (M + F) or subsequent amendments
- ii.* First Aid Kits as specified in Annex 3 of MSN 1768 (M + F) or subsequent amendments
- iii.* A minimum of one resuscitation manikin : four trainees
- iv.* Audio visual aids
- v.* Simulation models as required to achieve practical competence

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Section Three

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Training for updating of medical care on board ship

Scope	<p>This training is intended for masters and other persons in charge of medical care on UK-flag vessels who are required to undertake refresher training in Proficiency in Medical Care on Board Ship every five years, in accordance with:</p> <ul style="list-style-type: none">- EC Directive 92/29 EC- Part 6 of the MCA Training and Certification Guidance – MGN 96 (M).
Objectives	<p>On completion of the training, the trainees will have updated their knowledge of the types of ships' medical equipment and stores and their use and be able to:</p> <ul style="list-style-type: none"><i>i</i> diagnose medical problems on board ship<i>ii</i> provide medical care to the sick and injured while they remain on board<i>iii</i> participate in co-ordinated schemes for medical assistance to ships.
Entry standards	<p>Before commencing training, trainees must either have received approved or recognised training in <i>Proficiency in Medical Care On Board Ship</i> (in accordance with Section A-VI/4-2 of the STCW Code) or hold a certificate of <i>Updated Proficiency in Medical Care On Board Ship</i>.</p>
General requirements	<p>Approval of refresher training will be regarded as an extension of the approval given to centres for the full programme of training in <i>Proficiency in Medical Care On Board Ship</i>. The general requirements as regards the qualifications and experience of staff, trainee numbers, conduct of training, facilities and equipment and quality standards specified for the full programme will be equally applicable to refresher training.</p>
Outcomes	<p>The outcomes to be achieved are set out in Table A-VI/4-2 of the STCW Code (see Annex A to the specification for training for persons in charge of medical care on board ship in Section Two).</p>

Candidates will be required to present sufficient evidence that the criteria specified have been met through practical demonstrations, oral questioning and other appropriate means.

Training plan

The training may be provided as a full time block course, normally of 21 hours duration spread over three days. Some establishments may have manpower, equipment and facilities such that the standards may be achieved over a different time-scale. Any departure from the above guidelines is subject to the approval the MCA.

Guidance on the content and structure of training is given at *Annex A*.

Assessment

Centres must devise appropriate instruments of assessment, for consideration as part of the approval process, having due regard to the requirements of column 2 of Table A-VI/4-2 of the STCW Code and the methods for demonstrating competence shown in column 3 of that table (see Annex A to the specification for training for persons in charge of medical care on board ship in Section Two).

An assessment plan should be given to the candidate at the start of the training.

Documentation

Achievement of the desired standard of competence will be attested to by a certificate issued by the centre, in the format shown in *Annex B*.

A certificate cannot be issued prior to approval of the training by the MCA.

Approval

Centres offering training and assessment must be approved by the MCA. All approvals will be subject to the general conditions set out on page iii.

Guidelines on refresher training

Scope and content

The scope and content of the training will be similar to that of the basic training in Proficiency in Medical Care (see Column 2 of Table A-VI/4-2 reproduced at Annex A) but treated as refresher and updating for seafarers who have a basic knowledge of medical first aid and the care of sick or injured persons on board.

The emphasis of the training should be directed towards the following general principles:

- proper use of the equipment (with particular attention to new equipment) and medicines that are available on board
- sources of information and up to date techniques for providing medical care on board
- procedures for participation in co-ordinated schemes for medical assistance to ships including Medical Advice by Radio
- revision of key points and fundamentals of first aid/medical care including:
 - recognition, diagnosis and treatment of the seriously ill adult
 - common medical conditions associated with the respiratory, cardiac and abdominal systems
 - appropriate life saving procedures for various life threatening situations
 - protection against infection and the spread of diseases
 - procedures for arranging the evacuation of a patient
 - the importance of documentation and record keeping.
 - on-going care and supervision until expert attention is available

The training should be based on the advice and procedures contained in the *Ship Captain's Medical Guide* and consist of alternating periods of instruction in principles and procedures and practical exercises - at least 50% of the course should be devoted to practical exercises.

Duration

The duration of the course will depend on the background and prior knowledge and experience of course participants. However, assuming that candidates are in possession of a valid medical care certificate, it is unlikely that the stated objectives can be achieved in less than 21 hours, normally spread over three days.

If the training centre decides that additional revision/basic training needs to be undertaken during or prior to the course, it is for the centre to determine the extent of any such additional revision/training in order to ensure achievement of the standards required for Medical Care on Board Ship.

Annex B to
specification for refresher training for
persons in charge of medical care on board ship

SPECIMEN CERTIFICATE FOR SPECIALISED MARINE TRAINING

(to be produced and registered locally by the Issuing Authority)

No: <i>[Issuing Authority to allocate]</i>	
Issuing Authority	Address and contact details
Tel:	Fax:
UPDATED PROFICIENCY IN MEDICAL CARE ON BOARD SHIP	
This is to certify that <i>[full name of candidate]</i>	
Date of Birth []	
Discharge Book No []	
or other national ID	
has successfully completed a programme of refresher training approved by the Maritime and Coastguard Agency to update knowledge and procedures laid down in:	
STCW 95 Regulation VI/4, para. 2 and STCW Code Section A-VI/4-2	
This Certificate is issued under the authority of the Maritime and Coastguard Agency of the United Kingdom of Great Britain and Northern Ireland, an executive agency of the Department for Transport.	
Signature of Principal or Authorised Representative of the Centre Approved to Provide the Training _____	Issuing Authority Stamp and Date
Signature of person to whom this certificate was issued _____	
Enquiries concerning this certificate should be addressed to the Issuing Authority at the address above.	