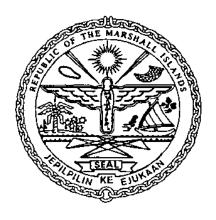
REPUBLIC OF THE MARSHALL ISLANDS



Medical Care Aboard Ship and Ashore

Medicine Chest Requirements, Recordkeeping, Responsibilities, and Training for Medical Care

MARITIME ADMINISTRATOR

Aug/2021 MN 7-042-1

TABLE OF CONTENTS

RPO	SE		3
PLIC	CABI	LITY	4
QUI	REM	IENTS	4
1.0	7	Vessel Medicine Chests	4
	1.1	Requirement for Carriage	4
	1.2	Content of Medicine Chest	4
	1.3	Carriage Requirements for Medicines and Medical Supplies	5
	1.4	Medicines for Ships Carrying Dangerous Cargoes	6
	1.5	Medicines for Passenger Ships	7
	1.6	Equivalencies	7
	1.7	Controlled Drugs	7
	1.8	Medicine Supply, Labeling, Re-supply, Replacement, and Storage	8
	1.9	Disposal of Medicines and Medical Supplies	8
	1.10	Carriage of Defibrillators	9
2.0	I	nspection and Certification Requirements	10
3.0	F	Recordkeeping Requirements	11
	3.1	Inventory of Medicines	11
	3.2	Seafarer Injury and Illness Medical Record	12
	3.3	Ship Master's Report Form	12
	3.4	Medical Log	13
	3.5	Controlled Drugs Register	13
	3.6	Electronic Records	13
4.0	F	Responsibilities and Training	14
5.0	I	nternational Health Regulations	15
6.0		G	
		_	
	2.0 1.0 3.0 4.0 5.0 6.0 7.0 PEN	PLICABIA QUIREM 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 1.10 2.0 I 3.0 I 3.1 3.2 3.3 3.4 3.5 3.6 4.0 I 5.0 I 6.0 I 7.0 I PENDIX	1.1 Requirement for Carriage 1.2 Content of Medicine Chest 1.3 Carriage Requirements for Medicines and Medical Supplies



REPUBLIC OF THE MARSHALL ISLANDS

MARITIME ADMINISTRATOR

Marine Notice

No. 7-042-1

Rev. Aug/2021

TO: ALL SHIPOWNERS, OPERATORS, MASTERS AND OFFICERS OF MERCHANT SHIPS, AND RECOGNIZED ORGANIZATIONS

SUBJECT: Medical Care Aboard Ship and Ashore

References: (a) MLC, 2006, Maritime Labour Convention, 2006, as amended

- (b) IHR, (2005), *International Health Regulations*, 2005
- (c) IMO Circular MSC/Circ.1042, List of contents of the "Emergency Medical Kit/Bag" consideration for its use on Ro-Ro Passenger Ships not normally carrying a medical doctor, issued 28 May 2002, as supplemented by IMO Circular MSC/Circ.1172, Identification of Passenger ships, other than Ro-RO Passenger Ships, which should benefit from being equipped with the emergency medical kit/bag, issued 23 May 2005
- (d) IMDG Code Supplement, Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG), 2014 Edition
- (e) WHO International Medical Guide for Ships (IMGS), Third Edition 2008
- **(f) WHO** <u>Quantification Addendum</u>: International Medical Guide for Ships, Third Edition 2010
- (g) International Maritime Health: 60, v 1-2, 2009, <u>Guidance to the International Medical Guide for Ships, 3rd edition</u>: Interim advice regarding the best use of the medical chest for ocean-going merchant vessels without a doctor onboard, Medical University of Gdansk, 7 May 2009
- (h) RMI Maritime Regulations (MI-108)

PURPOSE

The Maritime Labour Convention, 2006, (MLC, 2006) establishes standards for medical care on board ship and ashore. These standards are reflected in the Republic of the Marshall Islands (RMI) Maritime Regulations (MI-108), §7.42.

This Marine Notice adopts, as guidance, the *Quantification Addendum: International Medical Guide for Ships*, 3rd Edition, (IMGS) published by the World Health Organization (WHO) and specifically addresses:

• **Ship's Medicine Chest:** the kinds and amounts of medicines, medical supplies and equipment that should be considered for a ship's medicine chest, and requirements for their re-supply, replacement, and disposal;

- **Recordkeeping:** requirements for inventorying and recording medicines, including controlled drugs;
- **Seafarer Injury and Illness Medical Record** (MI-105MR): introduction of the form to facilitate the exchange of medical information between ship and shore;
- Ship Master's Report Form (MI-105G): to record each medical case managed on board; and
- **Responsibilities/Training:** owner/operator, Master and others with responsibilities for medical care.

This Notice supersedes version Jun/2020. Amendments to §4.4 remove the Administrator's requirement for refresher training every five years for persons in charge of medical care or first aid aboard a vessel. The reason for these changes were to align the Administrator's requirements with those of the International Convention on Standards of Training, Certification and Watchkeeping, 1978 (STCW Convention). Corresponding amendments have also been made to MI-118 and MI-105A.

APPLICABILITY

This Notice applies to all vessels registered in the RMI.

REQUIREMENTS

1.0 Vessel Medicine Chests

1.1 Requirement for Carriage

All vessels must carry a medicine chest containing:

- .1 medical supplies and equipment (See §1.3, below, and Appendix A); and
- .2 the latest edition of applicable publications, forms, and charts (See Appendix B).

1.2 Content of Medicine Chest

- .1 Except for ships carrying dangerous goods, the content of a ship's medicine chest is not mandated through any statutory requirement to which the Administrator is a party.
- .2 Guidance on the medicines and medical supplies that should be maintained on board is provided in the International Medical Guide for Ships and its Quantification Addendum published by the World Health Organization (WHO). This guidance, reproduced below in Appendix A, is well-accepted by the international maritime community and is recommended by MLC Guideline B4.1.1.4 for consideration when determining the contents of the medicine chest and medical equipment

1.3 Carriage Requirements for Medicines and Medical Supplies

.1 All Vessels

- a. All vessels must stock their medicine chests so that the inventory (types, dosage and quantities of medicines, medical supplies and equipment) is appropriate to the particular vessel's route, operation and number of persons on board.
- b. All vessels greater than 500 gross tons must, in addition to any other requirement, provide commercially available first aid kits for their engine room and galley.

.2 Vessels with a Doctor on Board

- a. Vessels, including passenger ships, carrying 100 or more persons and ordinarily engaged on international voyages of more than three days' duration are required to carry a qualified medical doctor responsible for providing medical care.
- b. For mobile offshore drilling units and mobile offshore units (as defined in MI-293), the requirement for a doctor on board may be met with a qualified medic or nurse where the unit is within helicopter range to shore medical services and facilities.
- c. The exact inventory of medicines, medical equipment and supplies should be determined by the ship owner or operator in consultation with a qualified medical practitioner, such as the ship's doctor or pharmacist.

.3 Vessels without a Doctor on Board

- a. The Administrator requires its vessels **without a doctor on board** to establish the contents of their medicine chest, using as guidance the RMI Ship-Specific Medicine Chest Inventory Guidelines. (See Table 1, below.)
- b. The types, amounts and quantities indicated by these tables are expected to vary based on the **vessel route**, **operation**, **and the number of persons on board**.
- c. If there is any question about the appropriate types or quantities of medicines or supplies to be carried, the Administrator highly recommends the medicine chest contents be established by the ship owner or operator in consultation with a qualified medical practitioner or pharmacist.

Table 1

RMI Ship-Specific Medicine Chest Inventory Guidelines for Vessels

Without a Doctor On Board

Vessel	WHO Category
Oceangoing ships	Category A
Coastal, Great Lakes or nearby foreign ports with voyages not more than 24 hours from port of call	Category B
Fishing vessels on extended voyages more than seven (7) days on voyages of seven (7) days or less and in close proximity to a port of call	Category B Category C
Yachts on voyages more than 60 miles from safe harbor on voyages 60 miles or less from safe harbor	Category B Category C
Ro-Ro Passenger Ships not normally carrying a medical doctor	Category B and Emergency Medical Kit per MSC/Circ.1042, as supplemented by MSC/Circ.1172
Mobile and immobile floating production, storage and offloading units (FPSOs) and floating storage units (FSUs)	Seek advice of qualified medical practitioner or pharmacist to establish inventory

1.4 Medicines for Ships Carrying Dangerous Cargoes

- .1 Ships, including ferries, carrying dangerous cargoes or their residues, must additionally comply with the International Maritime Dangerous Goods (IMDG) Code and the guidance in the latest edition of *Medical First Aid Guide for Use in Accidents Involving Dangerous Goods* (MFAG).
 - a. Medicines and equipment already available in the IMGS list may be counted toward the MFAG numerical requirement, if appropriate.
 - b. They should be stored and registered together with the regular medicines and medical supplies carried on board.
- .2 Where a cargo, classified as dangerous, has not been included in the most recent edition of MFAG, the necessary information on the nature of the substances, the risks involved, the necessary personal protective devices, the relevant medical procedures, and specific antidotes should be made available to the seafarers via the ship's occupational safety and health policies.

.3 For a listing of medicines and supplies, refer to MFAG, which is required to be maintained on board and can be found in the IMDG Code Supplement. This Supplement may be purchased from the International Maritime Organization (IMO) at: http://www.imo.org/Publications/Pages/Home.aspx.

1.5 Medicines for Passenger Ships

- .1 There is a high risk of a medical emergency occurring aboard any passenger ship even for those cruising just for a few hours. To facilitate care of passengers on these types of ships that do not normally carry a medical doctor, particularly ro-ro passenger ships, an Emergency Medical Kit should be carried. See IMO Circulars MSC/Circ.1042, as supplemented by MSC/Circ.1172, for additional guidance.
- .2 The Emergency Medical Kit (or Bag) should be labeled:

"The medicines in this bag are to be used by a qualified medical practitioner or a registered general nurse, a qualified paramedic or ship personnel in charge of medical care on board under the direct supervision of either a medical practitioner on board the ship or under telemedical advice/prescription by a Telemedical Advice Service (TMAS)."

1.6 Equivalencies

In recognition that other administrations have established standards for ships' medicine chests, the RMI must consider these standards to comply with the Administrator's requirements, provided the inventories are effectively equivalent to or exceed the WHO (and IMO for IMDG) standards.

1.7 Controlled Drugs

- .1 Controlled drugs are graded according to the harmfulness attributed to it when misused. There are three drug categories:
 - a. Class A includes heroin, morphine, and opium;
 - b. Class B includes barbiturates and codeine; and
 - c. Class C includes, among other drugs, anabolic steroids.
- .2 A ship must not carry excess quantities of Class A or Class C drugs unless authorized by the Administrator. Morphine Sulphate is the only Class A drug authorized to be carried aboard RMI-flagged ships.
- .3 Some countries do not allow the controlled drugs sales to ships not registered in that country. Shipmanagers are encouraged to become familiar with the controlled drug distribution laws in the countries where their ships are trading and to communicate directly with the cognizant authorities to

learn of the options available for the procurement and delivery of controlled drugs to ships operating in these areas.

.4 Controlled drugs must be kept in the Master's safe or behind a double-lock system.

1.8 Medicine Supply, Labeling, Re-supply, Replacement, and Storage

- .1 All medicines must be supplied in standard small packages¹, and to the extent possible, in single dose portions. The prescribed active ingredients and strengths must be observed or an equivalent Anatomical Therapeutic Chemical provided if the prescribed active ingredient is not available.
- .2 Medical instructions and, if necessary, the medicine labeling² is to be in English and a language understood by the crew, if not English.
- .3 Sufficient reference material or product use and identification cards related to the medicines carried must be available on board the vessel.
- .4 Medicines and medical equipment must be re-supplied as necessary.
- .5 Medicines with expiration dates must be replaced as soon as possible and in any case within three months of expiry. Once replaced, expired medicines should be removed from the vessel and disposed of in accordance with §1.9, below. It should be noted that some countries impose fines on ships entering their territory with expired medicinal items on board.
- .6 All medicines must be stored in accordance with the manufacturer's recommendation.
- .7 All medicines and medical devices must be stored under lock and key, except for first aid kits per §1.3.1, above.

1.9 Disposal of Medicines and Medical Supplies

Medicines and medical supplies must be disposed of properly in accordance with all applicable local and national laws and regulations of the State in which disposal is occurring and any applicable international requirements.

^{1.} Because ships obtain medicines from different countries, it is not possible to recommend exact pack sizes. In most instances, the closest pack size should be stocked. It is recommended, to the extent possible, that medicines stocked are in aluminum blister packaging as they provide better protection from the harsh storage conditions on board a vessel. These normally come with batch/lot numbers printed on the label, and can be checked by the competent authority of the country in which the supplying pharmacy is based to ensure that they are not substandard or counterfeit.

^{2.} It is recommended that labels include: 1) the generic name; 2) indications; 3) contraindications or warnings; 4) route of administering and dosage; 5) batch or lot number; 6) expiration date; 7) contact details of the supplying pharmacy; 8) special instructions for storage, if any; and 9) special marking stating that it is a controlled substance, if applicable.

- .1 Disposal of Non-Controlled Medications and Medical Supplies
 - a. Expired medicines and medical supplies should be returned to the supplier where possible, or sent to an approved shoreside contractor for disposal.
 - b. If disposal is not possible, expired medicines and medical supplies may be incinerated at sea where a vessel has in place a written waste disposal policy and a program that includes incineration at appropriate temperatures by exclusively authorized personnel. Records of these incinerated medicines and medical supplies must be kept as part of the medical inventory.
 - c. There are licensed pharmaceutical distribution centers that handle the supply and disposal of prescription and non-prescription medications for marine vessels on a global basis. The Administrator recommends using these companies for a vessel that regularly encounters problems with locating shoreside facilities able to accept these wastes.

.2 Disposal of Controlled Drugs

- a. There are various methods to dispose of controlled drugs lawfully. They include:
 - i. giving them to a person who may lawfully supply them, such as a qualified doctor or pharmacist;
 - ii. incineration;
 - iii. waste encapsulation; and
 - iv. inertization.
- b. Whatever disposal method for a controlled drug is used by an RMI-flagged vessel, the following conditions must be met:
 - i. The method used must be properly implemented; and
 - ii. the entire process from unpacking through to the controlled drug's final destruction must be witnessed by at least two persons and documented in the Controlled Drugs Register (see §3.5, below).

1.10 Carriage of Defibrillators

.1 There is no statutory requirement under international or national legislation for ships to carry defibrillators. It is a matter for individual operators to decide whether to include a defibrillator with the medical stores or doctor's bag.

.2 If a defibrillator is carried, there must be procedures to ensure regular equipment maintenance (in accordance with manufacturer's instructions), and adequate training for the first aid providers. This must include patient care after defibrillation, bearing in mind that immediate hospitalization may not be possible.

2.0 Inspection and Certification Requirements

- 2.1 MLC Standard A4.1.4(a) requires regular inspection by the competent authority of the ship's medicine chest which must be conducted at regular intervals not exceeding 12 months. Shipowners may rely upon the inspection and certification of medicine chests by a pharmacist or pharmacy providing this service that has been approved by the competent authority in which they are located.³
- 2.2 Inspection and certification of the medicine chest can be carried out on board or remotely. Where physical attendance on board is not feasible, the Master must:
 - .1 Ensure that the medicines have not expired and they and their supplies packaging are not damaged;
 - .2 Ensure that the medical equipment is usable and free from damage.
 - .3 Provide to the inspecting entity the updated medicine list required in §3.1, below.
 - .4 Provide information to the entity conducting the inspection whether the ship falls into WHO Category A, B, or C based on ship type and distance from shore (see section 1.3.3, Table 1, above) and whether the medicine chest is stocked in accordance with the recommendations contained in Appendix A of this Notice or with other guidance. In either case, the recommendations/guidance on which the medicine chest is based is to be identified and forwarded to the entity conducting the inspection.
 - .5 Confirm with the inspecting entity the number of persons allowed on board by the safety equipment certificate.
 - .6 Inform the inspecting entity whether the vessel carries dangerous goods or chemicals.
- 2.3 The Master must instruct the inspecting entity to review the information provided in §2.2, above.
 - .1 If the review shows the medicine chest is stocked so that the inventory is appropriate to the particular vessel's route, operation, and number of

^{3.} Although not required, it is highly recommended to use a specialized marine pharmacist or pharmacy.

- persons on board, then documentation certifying this must be obtained from the inspecting entity.
- .2 This documentation must include a statement that all required contents of the medicine chest are present and will not expire during the period covered by the issued documentation. The documentation (which could be in certificate form) must also include, to the extent possible:
 - a. IMO Number:
 - b. Name of Vessel;
 - c. Registry of Vessel;
 - d. Unique serial number or ID code on the document; and
 - e. Issuing and expiry dates.
- .3 The document or certificate must be signed and stamped by the entity conducting the inspection and it must show their full name and title.
- 2.4 If the review results show that the medicine chest is not appropriate to the particular vessel's route, operation and number of persons on board, the Master must take corrective action. Master must obtain signed and stamped documentation from the entity conducting the inspection once the medicine chest is deemed appropriate. The entity conducting the inspection must include their full name on the document.
- 2.5 Flag State annual inspections must also be used to verify that medicine chests are adequate and have been certified within the last 12 months.

3.0 Recordkeeping Requirements

3.1 Inventory of Medicines

A medicines and medical supplies list must be maintained on board all RMI-flagged vessels.

- .1 The list must be regularly updated and contain for each item the expiry date, storage conditions, quantities remaining after purchase or use, and disposal information.
- .2 The medicine chest must be inventoried no less than once a year. All items contained in the medicine chest should have an expiration date and should be re-supplied as necessary by the expiry date.

3.2 Seafarer Injury and Illness Medical Record

- .1 The Master or designated and certified onboard "medical care provider" must complete the form MI-105MR, *Injury and Illness Medical Record* to the extent possible whenever a seafarer's treatment aboard a vessel needs to be rendered on shore.
 - a. The form's purpose is to facilitate the exchange between the vessel and shore about a seafarer's medical condition and related information in cases of illness or injury.
 - Ship owner or operator forms that serve the same purpose and are part
 of an electronic recordkeeping system may be used instead of
 MI-105MR.
- .2 The information must be kept confidential and only used to facilitate the treatment of seafarers and may be:
 - a. used to transmit information in the evacuation of a seafarer;
 - b. provided to shoreside medical personnel either filled out in part or full, as applicable, or forwarded to shoreside medical personnel as a blank form to be completed and returned to the vessel on examination of the seafarer;
 - c. provided in copy to the seafarer upon request;
 - d. kept with the seafarer's medical records while on board the vessel or ashore by the Ship owner when the seafarer leaves the ship; and
 - e. forwarded as a copy to the RMI Maritime Administrator when filing a MI-109-1, Report of Personal Injury or Loss of Life.
- .3 The Seafarer Injury and Illness Medical Record must be kept by the Ship owner for a period of two years.

3.3 Ship Master's Report Form

- .1 Assisted by the ship's doctor or crew members assigned to basic medical duties, the Master must complete the MI-105G, Ship Master's Report Form for each medical case managed on board that is the result of a seafarer being injured or ill for 72 hours or more in duration, or requires medical advice or assistance from a medical facility or practitioner ashore. This form is to be filed in the ship's medical log with the MI-105MR, Seafarer Injury and Illness Medical Record.
- .2 The Ship Master's Report must be kept by the Ship owner for a period of two years.

3.4 Medical Log

Each vessel must keep a medical log book wherein must be entered every case of illness or injury happening to any member of the crew, passenger or other persons engaged in the business of the vessel; the nature thereof; and the medical treatment.

3.5 Controlled Drugs Register

- .1 A register of controlled drugs must be maintained by the Master.
- .2 Controlled drugs must be entered in the controlled drugs register on reception by the vessel. The information logged must include the type, quantity, supplier name and date received.
- .3 The following must also be recorded in the Controlled Drugs Register:

Table 2 – Controlled Drugs Register

Table 2 Controlled Drugs Register
Dose given
Туре
Ordered by (name)
Administered by (name)
Patient (who received dose)
Date and Time
Lost or spoiled doses
Date and time when this occurred
Reason: e.g., broken ampoule, drug prepared, but not injected, etc.
Inventories
Update after each use
Make a running count of remaining stocks
Conduct a count, at least weekly, of remaining ampoules, tablets, etc. in store
Check this weekly count against records of use and the running count
Disposal - Record information on disposal including
Method
Drug type
Amount
Date and time
Receipts
Witness documentation, including signatures (e.g., control signature form)

.4 The register of controlled drugs must be kept for two years after the last entry date.

3.6 Electronic Records

All records required under this section may be kept and managed electronically.

4.0 Responsibilities and Training

- 4.1 The vessel owner or operator is ultimately responsible for the contents of the medicine chest on board a vessel and, therefore when putting it together should seek qualified medical consulting, particularly when considering travel to areas with certain medical risks (e.g., malaria).
- 4.2 The Master is responsible for keeping and managing medical supplies kept on board to ensure that the medications are properly dispensed and that records are kept of their disposition. This responsibility may be delegated to a properly trained and certified crew member.
- 4.3 The Administrator requires vessels which do not carry a medical doctor to have on board:
 - .1 one certified seafarer "Medical Care Person in Charge" responsible for medical care and administering medicine as part of their regular duties; and
 - .2 one certified seafarer "Medical First Aid Provider" designated to undertake the duties of providing immediate first aid in case of injury or illness aboard ship.
 - .3 A single individual may serve in both capacities, provided he or she holds the two certifications.
- 4.4 Seafarers in charge of medical care or first aid must report to the Master on health-related conditions on board, and must present the medical logbook to the Master on request.
 - .1 Seafarers on board who are designated to provide medical care or first aid must have training as required by STCW. This training should be based on the contents of the most recent editions of the IMGS, MFAG, and the medical section of the *International Code of Signals* (published by the IMO). Refer to MI-118 for details on certification requirements.
 - .2 This certification is not required of ship's doctors or nurses, nor will it be issued to them. It is to be the responsibility of the shipowner or operator to verify the validity of medical certificates.
- 4.5 The Master or other persons designated with responsibilities for medical care or first aid must make full use of all available (24 hours per day) medical advice by radio or radiotelephone. Seafarers with these responsibilities must be instructed in using the vessel's medical guide and the medical section of the most recent edition of the *International Code of Signals*. This will enable them to understand the type of information needed by the advising doctor as well as the advice received.

4.6 However well-trained, crew members are not medically qualified. A doctor should always be consulted about serious illness or injury, or when any doubt exists about the action to take in treating a patient.

5.0 International Health Regulations

- 5.1 The International Health Regulations (2005) (IHR (2005)) are an agreement between 196 countries, including all WHO Member States, to work together for global health security. On 15 June 2007, the WHO IHR (2005), introduced an amended certification procedures for ships. The certificates are entitled Ship Sanitation Control Exemption Certificate/Ship Sanitation Control Certificate ("Ship Sanitation Certificates" or "SSC"). The SSC replace the previous Deratting/Deratting Exemption certificates ("DC/DEC") provided by the 1969 Regulations.
- 5.2 The IHR (2005) provides a code that includes procedures and practices for preventing the transboundary spread of infectious disease. Prior to arrival in port, IHR (2005), Article 37 generally requires that the Master of a ship arriving from a foreign port provide a State that is a Party to IHR with a Maritime Declaration of Health (MDH) The MDH contains a series of health-related questions that address illness, death, and sanitary measures on board, to which a Master must attest.
- 5.3 The IHR (2005), <u>Annex 8</u> contains a model MDH for use by RMI-registered vessels that call on ports where an MDH is required.
- 5.4 Helpful guidance for preparing and performing ship inspections, completing the certificates, and applying public health measures within the IHR (2005) is also in the WHO <u>Handbook for Inspection of Ships and Issuance of Ship Sanitation</u>

 Certificates.

6.0 Pest Management

- 6.1 The presence of insects, rodents, and other pests must be controlled to prevent the transmission of illness and disease to seafarers and other persons on board a vessel.
- 6.2 It is important to note that very few pesticides are suitable for use against all kinds of pests that may occur on board or in different parts of the ship. It is necessary to consider the pesticides individually and utilize them according to the manufacturer's instructions, and as recommended in the IMDG Code Supplement, Revised Recommendations on the Safe Use of Pesticides in Ships.
- 6.3 In developing a pest control strategy, cruise ships and commercial yachts also may want to consider recommendations regarding pest control contained in §8 of the United States Centers for Disease Control and Prevention, *Vessel Sanitation Program Operations Manual*.

^{4.} The RMI is a party to the IHR (2005), it entered into force on 15 June 2007.

7.0 Mosquito Protection

- 7.1 Ships regularly trading to mosquito-infested ports must have appropriate devices (e.g., nets, screens) as prophylaxes against mosquitoes. They must also carry mosquito and anti-malarial medications.
 - .1 The quantity and formulation (depending on area of travel) of the antimalarial medications must be adequate to protect all crew before, during, and after the vessel's arrival and departure in a malaria endemic area.
 - .2 Mosquito repellant quantities must be sufficient for at least one per crew member.
- 7.2 The WHO provides International Health Regulations and the *Guide to Ship Sanitation* which have design guidelines for controlling insects in:
 - .1 sleeping quarters,
 - .2 mess rooms,
 - .3 dining rooms,
 - .4 indoor recreational areas, and
 - .5 food spaces.
 - .6 Control measures that may be employed by the master and crew are also provided.
- 7.3 MN 7-044-1, Accommodations, Recreational Facilities, Food, Catering and Water, also addresses the requirement for such devices.
 - .1 Table I in Appendix A lists the types and quantities of anti-malarial medications to be carried.
 - .2 The quantity and formulation of anti-malarial medications (depending on the travel area) must be adequate to protect the whole crew before, during, and after the vessel's arrival or departure from the malaria endemic area.

Appendix A – Inventory Guidelines

for Medicines and Medical Supplies for Ships Without a Doctor On Board

Table I: Recommended Quantities of Medicines for Ships Without a Doctor On Board (WHO Quantification Addendum for use in conjunction with the *International Medical Guide for Ships*, 3rd Edition)

Category A: Oceangoing ships. Stock levels are based on a six months supply.

Category B: Vessels engaged in coastal trade or going to nearby ports that travel no more than 24 hours from port of call. Stock levels are based on a six months supply.

Category C: Fishing vessels and private craft usually traveling no more than a few hours from home port or a port of call. The assumed duration of each trip is up to three to four weeks.

Name	Form ⁵	Strength	Indication ⁶	Quantities per 10 Crew ⁷			Notes
Traine	TOTH			A	В	С	Tioles
Acetylsalicylic acid	tab	300mg	pain, fever, blood clots	50	50	-	
Aciclovir	tab	400mg	herpes simples/zoster	70+	35+	ı	
Adrenaline	amp	1 mg/ml	anaphylaxis	10+	5+	5+	
Amoxicillin + clavulanic acid	tab	875mg/125mg	infections	20	10	-	
Artemether	amp	80mg/ml	malaria treatment	12+	12+	-	
Artemether + Lumefantrine	tab	20mg/120mg	Malaria treatment	24+	24+	1	double if crew size > 30
Atropine	amp	1.2mg/ml	MI/organophosphate poisoning	10+	5+	ı	double quantity if carrying organophosphates
Azithromycin	tab	500mg	infections	10+	5+	-	
Ceftriaxone	amp	1g	Infections	15	5+	-	
Cetirizine	tab	10 mg	Hay fever/hives/dermatitis	30+	30+	ı	
Charcoal, activated	powder		Poisoning	120g+	120g+	-	
Ciprofloxacin	tab	250mg	Infections	20+	10+	-	double if crew size >30
Cloves, oil of	liq		toothache	10ml	10ml+	-	
Dexamethasone	amp	4mg/ml	Severe asthma/anaphylaxis	3	1	-	
Diazepam	tab	5mg	alcohol withdrawal	50+	20+	-	

^{5.} amp=ampoule; crm=cream; inh=inhalation; liq=liquid; lot=lotion; oint=ointment; tab=tablet

^{6.} AF=atrial fibrillation; HTN=hypertension; MI=myocardial infarction

^{7.} Quantities marked with a '+' are suggested quantities irrespective of crew size.

Name	Form ⁵	Strength	Indication ⁶	Quantities per 10 Crew ⁷			Notes
ranic	1 01111	Strength	maleation	A	В	С	110103
Docusate with senna	tab	50mg/8mg	constipation	30+	-	-	
Doxycyline	tab	100mg	infections	10	-	-	
Ethanol, hand cleanser	gel	70%	hand cleaning	500ml	500ml+	100ml+	
Ethanol	liq	70%	disinfect instruments	500ml	100ml	-	
Fluorescein	eye strips	1%	Detect corneal damage	20+	20+	-	
Frusemide	amp	40mg/4ml	Pulmonary oedema	5+	5+	-	
Glucagon	amp	1mg	hypoglycaemia	1+	1+	-	
Haloperidol	amp	5mg/ml	psychosis/severe agitation	5	5+	-	
Hydrocortisone	crm	1%	allergy/inflammatory skin	2x30g	1x30g	-	one (1) tube per patient
Ibuprofen	tab	400 mg	inflammation/pain	100	50	50+	
Isosorbide dinitrate	tab	5 mg	angina/MI	10	10	5+	
Lignocaine	amp	1%, 5ml	suturing/minor surgery	5	5	-	
Loperamide	tab	2mg	diarrhea	30	30	10+	
Mebendazole	tab	100mg	intestinal worms	6+	6+	-	
Metroprolol	tab	100mg	HTN/AF/angina/migraine	60+	-	-	
Metronidazole	tab	500 mg	infections	30+	20+	-	
Miconazole	crm	2%	Fungal skin infections	2x30g	1x30g	-	double quantities if females on board
Midazolam	amp	5mg/ml	epileptic fits	10+	5+	-	
Misoprostol	tab	200ug	Post-partum hemorrhage	3+	3+	-	only if females on board
Morphine (Controlled Substance)	amp	10mg/ml	severe pain	10	10	-	
Morphine (Controlled Substance)	liq	1mg/ml	severe pain in patients able to eat and drink	100ml+	100ml+	-	double if crew size > 30
Naloxone	amp	0.4mg/ml	Opiate overdose	10+	5+	-	
Omeprazole	tab	20mg	Reflux, peptic ulcers	30+	30+		double if crew size > 30
Ondanestron	tab	4mg	vomiting, sea-sickness	10	10	10+	
Oral rehydration solution	powder	sachet	Dehydration due to diarrhea	151(75)	101(50)	21(10)+	quantities in brackets are number of sachets based on sachets made up to 200ml
Oxymetazoline	nasal drop	0.50%	nasal obstruction/drain sinuses	2	1	-	one (1) bottle per patient
Paracetamol	tab	500mg	pain and fever	100	50	25	
Permethrin	lot	1%	lice	200ml+	100ml+	=	double if crew size > 30
Permethrin	lot	5%	scabies	300ml+	100ml+	-	100ml per patient
Povidone iodine	liq	10%	disinfect skin/wounds	100ml	100ml	100ml+	
Povidone iodine	oint	10%	disinfect skin/wounds	1x25g	1x25g	-	

Name	Form ⁵	Strength	Indication ⁶	Quantities per 10 Crew ⁷			Notes
Tranic	Tom			A	В	С	11000
Prednisone	tab	25mg	asthma/inflammatory conditions	30+	30+	ı	
Salbutamol	inh	100ug/dose	asthma/bronchitis/emphysema	1	1	ı	one (1) inhaler per patient
Sodium chloride	liq	0.9%,1litre	fluid replacement	5+	1	ı	
Tetracaine (amethocaine)	eye drop	0.50%, 1ml	eye examination	20+	20+	ı	
Tetracycline	eye ointment	1%	minor eye infections	2	1	1+	one (1) tube per patient
Vitamin K	amp	10mg/ml	reverse warfarin or similar	2+	2+	ı	
Water for injection	amp	5ml	reconstitute injection	15	5+	1	only used to reconstitute cefriaxone
Zidovudine + lamivudine	tab	300mg/150mg	needle-stick injury prophylaxis	56+	56+	ı	
Zinc Oxide	Paste/ ointment	20%	irritated skin	200g+	100g+	100g+	4x25g or3X30gtubes per 100g

Table I (Continued) Supplies and Equipment (International Medical Guide for Ships, 3rd Edition)

Category	Recommended Item				
RESUSCITATION EQUIPMENT					
	Portable oxygen set, complete, containing:	1			
	• 1 oxygen cylinder, 2 1/200 bar	1			
Appliance for the administration	• 1 spare oxygen cylinder, 2 1/200 bar	1			
of oxygen	Pressure regulating unit and flow meter with tubes such that ship's industrial oxygen can also be used	1			
	3 disposable face masks of choice; including simple face mask and non-rebreathing mask	3			
Oropharyngeal airway	Guedel airway (Mayo-tube): sizes medium and large	2			
Mechanical aspirator	Manual aspirator to clear upper airways, including 2 catheters	1			
Bag and mask resuscitator	Ambubag (or equivalent); supplied with large, medium and small masks	1			
Cannula for mouth-to-mouth	Brook Airway, Lifeway, pocket face mask or equivalent				
resuscitation	Brook An way, Erieway, pocket face mask of equivalent	1			
	DRESSING MATERIAL AND SUTURING EQUIPMENT				
Adhesive dressings	Assorted wound-plaster or plaster strips, water-resistant	200			
Eye pads	Eye pads	3			
Sterile gauze compresses	Sterile gauze compresses, 5x5 cm, sterile	100			
Sterne gauze compresses	Sterile gauze compresses, 10x10 cm, sterile	100			
Gauze roll	Gauze roll, 5cm and 90cm or 60cm x 100 m, non-sterile	1			
Gauze dressing with non-adherent surface	Non-adherent gauze dressing, square, 10 cm	100			

Rev. Aug/2021 19 of 23 MN 7-042-1

Category	Recommended Item	Quantity
Vaseline gauze	Paraffin gauze dressing, 10 x 10 cm, sterile	50
Bandage	Elastic fixation bandage, 4 m x 6 cm	3
Sterile compression bandages	First-aid absorbent gauze-covered cotton pad sewn into a cotton bandage (ambulance dressing), small/medium/large	5
Tubular gauze for finger bandage	Tubular gauze bandage for finger bandage with applicator, 5 m	1
Adhesive elastic bandage	Adhesive elastic bandage, 4 m x 6 cm	10
Triangular sling	Triangular sling	5
Sterile sheet for burn victims	Sterile sheet for burn patients	1
Honey or burn kit for dressing burns	1 kg	1
Adhesive sutures or zinc oxide bandages	Adhesive tape, waterproof, skin-friendly, 5 x 1.25 cm	10
Q-tips	Q-tips (wooden)	100
Safety pins	Safety pins (stainless steel) 12 pcs	50
Butterfly sutures	Butterfly sutures, Steristrips® or Leukostrip®, sterile	20
Skin adhesive	2-octyl cyanoacrylate liquid, 0.5 ml	2
Suturing equipment	Sutures, absorbable with curved non-traumatic needs, 1-O, 3-O, & 4-O or 5-O	10 each
C1	Disposable examination gloves	50
Gloves	Surgical gloves sizes, 6.5, 7.5, 8.5, sterile, in pairs	3 of each size
	INSTRUMENTS	
Disposable scalpels	Scalpel, sterile, disposable	20
Stainless-steel instrument box	Instrument box (stainless steel)	1
g :	Operating scissors, straight (stainless steel)	1
Scissors	Bandage scissors (stainless steel)	1
E	Splinter forceps, pointed (stainless steel)	3
Forceps	Teeth tissue forceps (stainless steel)	1
Needle holder	Needle holder, Mayo-Hegar, 1800 mm, straight	1
Haemostatic clamps	Haemostatic clamp, Lahlstead mosquito, 125 mm, stainless steel	3
Disposable razors	Razor, disposable	50
•	EXAMINATION AND MONITORING EQUIPMENT	
Disposable tongue depressors	Tongue depressors, disposable	100
Reactive strips for urine analysis	Reactive strips for urine analysis: blood/glucose/protein/nitrite/leukocytes, 50 paper strips	100
Microscope slides	Microscope slides	100
Stethoscope	Stethoscope	1
Aneriod sphygmomanometer	Sphygomamanometer (blood pressure set), preferably automatic	1
Standard thermometer	Thermometer, digital if possible	1
Rectal thermometer	Thermometer, digital if possible	1
Hypothermic thermometer	Thermometer 32°-34°, digital if possible	1
Penlight	Penlight + blue cover	1

Rev. Aug/2021 20 of 23

Category	Recommended Item	Quantity
Magnifying glass	a x 8 loupe	1
Marker	Waterproof indelible marker	1
	EQUIPMENT FOR INJECTION, INFUSION, AND CATHETERIZATION	
	Syringes, Luer connection, 2 ml, sterile, disposable	50
	Syringes, Luer connection, 5 ml, sterile, disposable	50
Equipment for injection	Hypodermic subcutaneous needle, Luer connection, 16 x 0.5 mm, sterile, disposable	20
	Hypodermic intramuscular needle, Luer connection, 40 x 08 mm, sterile, disposable	20
	Needles, 19G, blunt, "drawing up" type	20
	Intravenous infusion cannula 16G (1.2 mm) and 22G (0.8 mm), Luer-lock connection, sterile non-recap type	10 each
Equipment for infusion	Intravenous giving set, Luer-lock connection, sterile	3
	Tourniquet, blood-taking type to be used with intravenous infusion cannula	1
	Penile sheath set with condom catheter, tube, and bag	2
D1 11 1 :	Short-term urine catheter with soft-eye straight tip Thieman No. 12 and No. 16 or equivalent, sterile,	2
Bladder drainage equipment	individually packed, prelubricated or with additional lignocaine/chlorhexidine lubricant	
	Urine collecting bag and tube	2
	GENERAL MEDICAL AND NURSING EQUIPMENT	
Eye protection	Plastic goggles or full-face masks	2
Plastic apron	Disposable	20
Kidney dish	Kidney dish, stainless steel, 825 ml	2
Plastic backed towels	Towels, plastic backed, absorbent 600 x 500 mm	10
Safety box	Safety box for sharps disposal, 5 l	1
Mask	Mask, duckbill type, disposable	50
Tape measure	Tape measure, vinyl coated, 1.5 m	1
Draw sheets	Draw sheet, plastic 90 x 180 cm	2
Bedpan	Bedpan, stainless steel	1
Hot-water bottle	Hot-water bag	1
Urine bottle	Urinal, male (plastic)	1
Ice bag	Cold/Hotpack Maxi	1
Aluminum foil blanker	Aluminum foil blanket	1
Condoms	Male condoms	100
Wash bottle	Plastic wash bottles, 250 ml	1
Plastic bottle	Bottle, 1 litre, plastic with screw top	3
Dressing tray	Stainless steel dressing tray, 300 x 200 x 30 mm	1
Plastic apron	Apron, protection, plastic, disposable	20
Bowl	Bowl, stainless steel, 180 ml	3
Specimen jars	Jars, plastic, with lids and labels, 100 ml	10
Plaster-of Paris bandage	Bandages, POP, 5 cm and 10 cm x 2.7m	12 each
Stockinet	Sizes for arm and leg splints, 10 m roll	1 each
Cotton wool	Cotton wool roll, 500 g	10
Alcohol swabs	70 % alcohol swabs for skin cleansing prior to injection	200

Category	Recommended Item	Quantity			
Nail brush	Nail brush	1			
Thermometer for refrigerator	Thermometer for refrigerator	1			
Mortuary transfer bag	Mortuary transfer bag	1			
IMMOBILIZATION AND TRANSPORTATION EQUIPMENT					
	Malleable finger splint	1			
Malleable splints	Malleable forearm/hand splint	2			
	Malleable splint leg	2			
Cervical ridge collar	Cervical rigid collar variable size for neck immobilization	1			
Stretcher	Stretcher equipment allowing immobilization and crane or helicopter lifting	1			

Rev. Aug/2021 22 of 23

Appendix B – Publications, Forms, and Charts

Publications, Forms, and Charts to Be Carried

The following publications, forms and charts must be carried on board each vessel in the quantities indicated. The forms and charts may be electronic forms.

PUBLICATION, FORMS, AND CHARTS	QUANTITY Per Vessel
International Medical Guide for Ships (IMGS) (hard copy of most recent edition)	1
Quantification Addendum, International Medical Guide for Ships, 3 rd Edition, World Health Organization, 2010 (hard copy)	1
Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAG) (hard copy of most recent edition; carry if transporting dangerous goods)	1
Cards for telemedical advice (fill in before calling for radiomedical advice)	10 cards up to 40 persons 20 cards for 41-100 persons
Cards or Charts for tracking temperature	10 cards up to 40 persons 20 cards for 41-100 persons
Ship Master's Report Form	10 cards up to 40 persons 20 cards for 41-100 persons
Injury and Illness Medical Record (MI-105MR)	10 cards up to 40 persons 20 cards for 41-100 persons
Medical logbook	1
Controlled drugs register	1