



# THE REPUBLIC OF LIBERIA

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Office of  
Deputy Commissioner  
of Maritime Affairs

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### **Marine Operations Note 08/2009**

**Subject: Guidance for the International Medical Guide for Ships 3<sup>rd</sup> edition**

- Ref: (a) WHO International Medical Guide for Ships 3<sup>rd</sup> edition  
(b) Joint Statement of WHO Collaborating Centres for the Health of Seafarers and the International Maritime Health Association  
(c) Liberian Marine Notice TEC-005

Dear Shipowners/Operators and Masters,

Attached is interim guidance published by experts from the International Medical Health Association and the WHO Collaborating Centres for the Health of Seafarers regarding the best use of the medical chest for ocean-going merchant vessels without a doctor onboard contained in the "International Medical Guide for Ships 3<sup>rd</sup> edition.

Ships carrying Dangerous Goods Code shall also follow the current guidance provided in the MFAG supplement to the IMDG Code.

The Liberian Administration requires that ships comply with either the guidance found in the "International Medical Guide for Ships" or a similar national standard such as MSN 1768 (M&F) from the UK's Maritime And Coast Guard Agency as a basis for establishing minimum medical supplies and equipment required to be carried. Provided, these inventories are effectively equal to WHO standards and the attached interim guidance, they shall be considered in compliance with Administration requirements.

As noted in the attached, the aim of the Interim Advice is:

- to provide an aid for decision making for quantities required for seagoing and coastal vessels
- to add items named in the textbook of the IMGS 3<sup>rd</sup> edition but missing in the list of medicines or equipment
- to add page numbers from the medical textbook to the list of medicines for easier use.

We understand that some vessels may still have on board medical equipment meeting the requirements of the International Medical Guide for Ships 2<sup>nd</sup> edition. This medical equipment may not match the medical guide and medical equipment in the IMGS 3<sup>rd</sup> edition. Owners and operators should ensure their vessels medical chest is updated in accordance with the IMGS 3<sup>rd</sup>

edition. Until the medical chest is updated vessels should have on board copies of both the IMGS 2<sup>nd</sup> edition and IMGS 3<sup>rd</sup> editions.

The medical equipment shall be maintained and used in accordance with the instruction in the edition appropriate to the equipment carried on board.

If you have any questions, please email [safety@liscr.com](mailto:safety@liscr.com).

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# **Guidance to the International Medical Guide for Ships 3rd edition: Interim advice regarding the best use of the medical chest for ocean-going merchant vessels without a doctor onboard**

## **Joint Statement of WHO Collaborating Centres for the Health of Seafarers and the International Maritime Health Association - 2009 Version**

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## **Background**

Diagnosis and treatment of the sick and injured onboard is a challenge to seafaring. This has always been true despite recent developments in telemedicine. Where no doctor is on board -as it is the case in most merchant ships- a non-medical person holds the responsibility for medical care. He has to rely on his medical training, written information, and -if appropriate- shore based radiomedical or telemedical advice. This information will help him to make best use of the medical chest and equipment on board. Appropriateness of the information available, adequacy, uniformity and quality of the medical chest and equipment is a key to the safeguard of the seafarer's health at his work-place.

The WHO International Medical Guide for Ships (IMGS) was first published in 1967. The IMGS has widely been used in the maritime world. The second edition<sup>1</sup>, written in 1988 was recently replaced by the third edition<sup>2</sup> in 2007. Immediately after the publication of the current IMGS a discussion on the best use of the tool and on further needs developed among experts from the WHO Collaborating Centres<sup>3</sup> for the Health of Seafarers and the International Maritime Health Association<sup>4</sup>.

During a workshop of the INTERNATIONAL MARITIME HEALTH ASSOCIATION (IMHA) in Athens,

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1 International Medical Guide for Ships (2<sup>nd</sup> Edition). World Health Organization, Geneva.1988.

2 International Medical Guide for Ships (3<sup>rd</sup> Edition). World Health Organization, Geneva. 2007.

3 <http://www.who.int/collaboratingcentres/> The WHO collaborating centres are institutions such as research institutes, parts of universities or academies, which are designated by the Director-General of the World Health Organization to carry out activities in support of the Organization's programmes.

4 <http://www.imha.net/> IMHA is the sole international association concerned exclusively with Maritime Health. It is an association of professionals from a wide range of disciplines who are committed to improving the health of seafarers by developing better approaches to health protection, health promotion and health treatment.

Greece, November 14<sup>th</sup>-15<sup>th</sup> 2008 the concerns were summarized as follows: “*Flag states that do not have national requirements for the contents of the medical chest have in the past relied on a list that has been provided by WHO in the International Medical Guide for Ships (2<sup>nd</sup> Edition, 1988). This list provided information on the quantities to be carried on board. It is not a formal international instrument but the Guide is noted as a source of information in the non-statutory part of the relevant ILO Convention. Port State Control Inspectors use the IMGS list as the minimum requirement for medical supplies. The medication list is now very out of date and when WHO recently published a new edition of the Guide it included updated lists of recommended medications that were derived from the WHO Essential Medications List and of medical equipment taken from The Inter-agency Emergency Health Kit 2006. While this was a rational approach for the WHO to ensure that well validated treatments were available it did not take into account the need for remedies for minor ailments at sea – the sort that can impair ability to work without being dangerous, nor did it cover all the medical equipment that was needed in maritime situations. More significantly WHO did not consider that they could specify quantities of medications to be carried as there was a lack of information on use and effectiveness of medications at sea. In the absence of such data WHO considered that quantities should be related to voyage pattern and to political / managerial decisions rather than being stated by WHO. This lack of specification is not causing immediate problems where the flag state of the ship has its own national regulations or guidelines but it has led to great difficulties for maritime pharmacists called on to check and restock medical chests on ships from countries, including many of those with major open ship registries, that have no national lists. Pharmacists cannot continue to work to the outdated list and quantities in the old International Medical Guide, while they have no benchmarks for quantities required from the new one, nor the authority to make consistent decisions on the quantities to supply*”.

WHO Collaborating Centres for the Health of Seafarers and IMHA agreed that there are a number of topics where improvements are needed. The aim is to produce a knowledge-base to specify the contents of medical chests and the medical textbook. While this is a long-term approach requiring research efforts it was also agreed upon the need to produce an interim guidance on the medical chest to the current users of the IMGS even in the absence of further evidence. Symptom-oriented algorithms for diagnosis and treatment as a supplement to the current IMGS 3<sup>rd</sup> edition will follow soon.

In this paper the authors, who are experts from the International Medical Health Association and the WHO Collaborating Centres for the Health of Seafarers publish recommendations to the medical chest as given in the IMGS 3<sup>rd</sup> edition. This is an interim advice to be available to ship-owners, -masters and maritime authorities and pharmacists for use on merchant ships not carrying a medical doctor of those flags that do not follow the EU Directive 92/295 and do not have national requirements. The readers and users of the interim advice need to be aware that the expert group does not judge on the content of the current list as published by the World Health Organization in the 3<sup>rd</sup> edition of the IMGS.

The aim of the *Interim Advice* as given below **is**

- to provide an aid for decision making for quantities required for seagoing and coastal vessels
- to add items named in the textbook of the IMGS 3<sup>rd</sup> edition but missing in the list of medicines or equipment
- to add page numbers from the medical textbook to the list of medicines for easier use.

The *Interim Advice* as given below **is not**

- mandatory for ship-owners, suppliers or port health authorities. It is to the flag states responsibility to specify national requirements in a legally binding way.
- meant to substitute a qualified medical consulting. Owners and operators carry the final responsibility for the content of the medical chests on board of the ship. Owners and operators will need to seek qualified medical consulting for the content and quantities carried on board. The particularities of the voyage will need to be considered by the consultant, like travel to malaria risk areas.

The authors of the *Interim Advice* are solely responsible for the content of all additions made to *The List of Recommended Medicines and Equipment of the International Medical Guide for Ships 3<sup>rd</sup> edition, pages 430-46*. We appreciate the comments of the maritime community to this publication which will be continuously revised. All comments and suggestions need to be directed to the corresponding author. Please mail to Clara.Schlaich@bsg.hamburg.de

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5 Council Directive 92/29/ eec of 31 March 1992 on the minimum safety and health requirements for improved medical treatment on board vessels.

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## How to use the proposed list of recommended medicines and equipment of the International Medical Guide for Ships 3<sup>rd</sup> edition, pages 430-461

- The *Interim Advice* is **only** to be used in conjunction with the International Medical Guide for Ships 3<sup>rd</sup> edition<sup>2</sup> as published by WHO in 2007.
- All items suggested from WHO in the original list on pages 430 to 461 are included.
- Any additions to the original list (items and comments) are made visible by the use of italic letters. Reference pages from the medical textbook to the list of items which justify the additions are given.
- Running numbers have been given to the list of medicines and equipment including added items.
- Drugs, forms, books and equipment which are mentioned in the textbook but have not been displayed in the list of medicines are added to the list in alphabetical order.
- Reference pages to the medical textbook are given for all items to ease the use of the list.
- If an item may be omitted under special circumstances this is mentioned in italic letters in the last column.
- Suggestions for quantities have been included. Quantities are calculated on the basis of the following assumptions: Ocean-going merchant vessels without a doctor onboard. Maximum duration of travel of 3 weeks. Crew sizes of 10, 20, 30 or 40 persons.
- For merchant vessels without a doctor onboard engaged in coastal trade or going to nearby foreign ports, and not more than 24 hours away from a port of call, for fishing boats and private craft: Quantities may be adapted or omitted on the advice of a qualified medical practitioner or pharmacist with regards to the destination, medical facilities ashore, number of crew members and cargo.
- **For dosage, contra-indications, unwanted effects, radiomedical advice and further remarks the users needs to refer to original text of the IMGS 3<sup>rd</sup> edition.**
- Recommended quantities will not always reflect the standard packs in a given country. In this case the recommendation is for the nearest available dispensing sales pack above the minimum required quantity.
- Owners and operators may substitute exact equivalents on the advice of a qualified medical practitioner or pharmacist, provided they are satisfied that an equivalent level of treatment is assured.
- Specific items will not be available in certain countries, for example Chlorpyrifos was banned in the European Communion (Directive 98/8 eec of March 16<sup>th</sup> 1998). The pharmacist will have to supply an analogous drug in corresponding quantities. The same is true for items which have transport restrictions and can not be delivered locally.
- For ships carrying dangerous goods according to the IMDG Code<sup>6</sup>: Medicines and equipment already available in the IMGS list may be counted toward the Medical First Aid Guide (MFAG) numerical requirement, if appropriate.

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<sup>6</sup> Medical First Aid Guide (MfAG) for use in accidents involving dangerous goods. International Maritime Organization, London, 2004.

**Ocean-going merchant vessels without a doctor onboard.  
Maximum duration of travel of 3 weeks.  
Crew sizes of 10, 20, 30 or 40 persons.**

**Only to be used in conjunction with the International Medical Guide for Ships  
3<sup>rd</sup> edition**

Running numbers are given to the alphabetical list of medicines and equipment. <i>Items which have been added by authors appear in alphabetical order and are written in italic letters.</i>	<i>Quantities for the recommended minimum number of items for ocean-going vessels are based on an estimated 3 weeks inventory for a crew complement of 10 to 40 persons.</i>	<i>Comments in italic letters refer to added items which are mentioned in the textbook but have not been displayed in the list of medicines. Remarks on items which may be omitted under special circumstance are given. For dosage, contra-indications, doctor consulting, unwanted effects and remarks refer to IMGS 3 rd ed. p. 430-461 and textbook</i>
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**MEDICINES, p. 431 – 450**

Item No.	Recommended Item Dosage form, Strength	<i>per</i> 10	<i>per</i> 20	<i>per</i> 30	<i>per</i> 40	Indications (on board ships) <i>Added comments</i>
1	Acetylsalicylic acid 300mg tablet	100	200	300	400	- high dose (600-900mg): to reduce pain, fever, inflammation - low dose (100-150mg) to inhibit formation of blood clots in angina pectoris, myocardial infarction, stroke <i>See pages 17-25 and 113-116, 133-135, 137, 138</i>
2	Aciclovir 400mg tbl.	35	35	70	70	- treatment of primary or recurrent herpes simplex virus infection; - may be useful for severe varicella and herpes zoster infection (doctor should be consulted) <i>See pages 125-126, 198-199, 256</i>
3	Adrenaline 1:1000 ampoule 1ml = 1 mg	10	10	10	10	- to raise blood pressure in anaphylaxis - to dilate airways in severe asthma or anaphylaxis <i>See pages 145-147</i>
4	Amethocaine ( <i>tetracaine hydrochloride</i> ) 0.5% eye drops, single-use vial 1ml	20	20	20	20	for eye examination and procedures <i>See pages 33-34</i>
5	Amoxicillin + clavulanate tablets 875mg/125mg	15	30	30	45	- to treat infections responsive to this antibiotic <i>See pages 7-776, 140-144, 181-183, 204, 216-217, 221-223, 262 and 288</i>
6	<i>Antimalarial prophylaxis (prevention) tablets</i>	<i>Quantity dependent of crew number, risk of acquiring malaria in a given port and duration of dwell in risk area. Seek medical advice</i>				<i>Prophylaxis and treatment of Malaria as recommended by <a href="http://www.who.int/malaria/publications.html">www.who.int/malaria/publications.html</a> or <a href="http://www.cdc.gov/travel/regionalmalaria/index.html">www.cdc.gov/travel/regionalmalaria/index.html</a> See pages 265-269</i>
7	Artemether Ampoule 1 ml = (80mg)	5	5	5	5	Treatment of severe malaria. <i>See pages 265-269</i> required only for voyages to areas where malaria transmission is a risk
8	Artemether + Lumefantrine tablets 20mg + 120mg	24	24	48	48	Treatment of malaria. <i>See pages 265-269</i> required only for voyages to areas where malaria transmission is a risk

9	Atropine ampoule 1.2 mg/ml	10	10	10	10	- to treat slow heart rate in myocardial infarction - to treat organophosphate insecticide poisoning <i>See pages 96, 136</i>
10	Azithromycin tablet 500mg	3	3	6	6	- to treat infections responsive to this antibiotics <i>See pages 141-144, 195-207, 260, 274, 277, 281</i>
11	Ceftriaxone ampoule 1g powder for injection (dissolve in water for injection)	15	30	45	60	- to treat infections responsive to this antibiotic <i>See pages 16, 141-144, 153, 160-161, 172, 175, 187, 194, 195-207, 269-270</i>
12	Cetirizine tablet 10mg	30	30	30	30	- to treat allergy symptoms in hay fever, hives, allergic dermatitis, etc. <i>See page 145</i>
13	Charcoal, activated 50g in 300 ml purified water	2	2	2	2	to absorb ingested poisons. <i>See pages 93-96</i>
14	Ciprofloxacin tablet 250mg	40	40	40	40	- to treat infections responsive to this antibiotic <i>See pages 77, 156-157, 181-183, 195-207, 221-223, 262 and 277</i>
15	Cloves, oil of 10 ml	1	1	1	1	Toothache, <i>see pages 287-289</i>
16	Dexamethasone ampoule 4mg/ml	5	5	5	5	- to treat life-threatening and severe asthma - to treat anaphylaxis - to treat severe allergic reactions
17	Diazepam tablets 5mg	50	50	100	100	to treat alcohol withdrawal. <i>See pages 235-239.</i>
18	Docusate with Senna tablet 50mg +8mg	20	20	40	40	- to avoid straining in patients with anal fissure and haemorrhoids - to prevent constipation caused by opioid use <i>See pages 168-169</i>
19	Doxycycline tablet 100mg	20	20	40	40	as recommended in IMGS3 for the specific infection <i>See pages 195-207, 209-210, 221-223, 271-272.</i>
20	Ethanol 70%, hand cleanser gel 250ml	2	4	6	8	an alternative to hand-washing when hands are not obviously soiled
21	Ethanol 70%, liquid Liquid 500 ml	1	1	2	2	to disinfect instruments and surfaces
22	Fluorescein 1%, strips or single use vials 1 ml	20	20	20	20	to detect damage to cornea: damaged area stains yellow/green <i>See pages 33-34</i>
23	Fruzemide Ampoule 4ml = 40mg	5	5	5	5	to treat severe fluid retention in lungs (pulmonary oedema) due to cardiac failure, <i>see pages 15, 136</i>
24	Glucagon, ready to use ampoule 1mg amp	1	1	1	1	to treat low blood sugar (hypoglycaemia) due to insulin when oral intake is impossible and intravenous glucose cannot be given. <i>See pages 123, 125.</i> <i>It is recommended to carry a glucose measuring instrument on board.</i>
25	Haloperidol Ampoule 1 ml= 5mg	5	5	10	10	- to treat psychotic hallucinations and delusions - to treat severe agitation and aggressiveness <i>See pages 126-132.</i>
26	Hydrocortisone 1% cream Cream (20 -30 gramm)	2	4	6	8	to treat allergy and some other inflammatory skin conditions. <i>See pages 169, 212-213, 219-221</i>
27	Ibuprofen coated tablet 400 mg	50	100	150	200	-to treat inflammation - to reduce mild-to-moderate pain, especially if associated with inflammation <i>See pages 17-25.</i>
28	<i>Insect repellent lotions for skin. Vials for personal use DEET 20-35% formulation or Picaridin or p-menthane-3,8-</i>	<i>One vial per person in areas of risk of acquiring a disease transmitted by mosquitoes in a given port</i>				<i>Consider diseases transmitted by mosquitoes as Dengue Fever p 258-259, Malaria p. 265-269, Yellow fever p 284</i> <i>See also pages 363-364 for mosquito control in</i>

	<i>diol</i>					<i>general</i>
29	Isosorbide dinitrate tablet 5mg <i>sublingual</i> .	20	20	40	40	- to treat angina pectoris (chest pain) - to treat myocardial infarction
30	Lignocaine 1% (without adrenaline) Ampoule 5ml	5	5	10	10	for local anaesthesia when suturing wounds or performing minor surgery <i>See pages 71-74, 216-219</i>
31	Loperamide tablet 2mg	30	60	90	120	to treat symptoms of diarrhoea <i>See pages 156-157</i>
32	Mebendazole tablet 100mg	10	10	20	20	- to treat intestinal worm infections not effective for tapeworm infection or hydatid disease <i>See pages 281-284</i>
33	Metoprolol tablet 100mg	30	60	60	60	- to treat hypertension (high blood pressure) - to treat atrial fibrillation (irregular or rapid heart rate) - to treat angina pectoris (chest pain) - to prevent migraine <i>See pages 133-137</i>
34	Metronidazole tablet 500mg	30	30	30	30	to treat infections responsive to antibiotics <i>See pages 160-163, 172, 203-204</i>
35	Miconazole 2% cream	2	4	6	8	to treat fungal skin infections <i>See pages 203-204, 214</i> <i>If women on board, supply also Miconazole vaginal cream.</i>
36	Midazolam ampoule 1ml (= 5mg)	5	5	10	10	to terminate epileptic fits. <i>See pages 121, 128-130</i>
37	Misoprostol tablet 200µg	3	3	3	3	to prevent post-partum haemorrhage. <i>Page 192</i> <i>If women on board</i>
38	Morphine (injectable) ampoule 1 ml = 10mg	10	20	30	40	- to reduce severe pain - to reduce pain not relieved by other analgesics <i>See pages 17-25.</i>
39	Morphine (oral) liquid 1mg/ml <i>100ml bottle</i> <i>or 10 tablets with 10 mg</i>	1	1	1	1	to reduce severe pain likely to last several days in patients able to eat and drink <i>See pages 17-25</i>
40	Naloxone Ampoule 1 ml (=0.4mg)	10	10	10	10	to reverse effects of opioids, especially in case of overdose <i>See pages 123, 240</i>
41	Omeprazole tablets 20mg	30	30	60	60	- to treat gastro-oesophageal reflux - to treat peptic ulcer disease <i>See pages 152, 163-167 and 173</i>
42	Ondansetron tablet 4mg or <i>Scopolamin transdermal patches see page 347.</i>	10 5	10 5	20 10	20 10	- to prevent vomiting - to prevent seasickness <i>See page 347.</i> <i>Caution: Scopolamine treatment causes sedation, see remarks on page 347</i>
43	Oral rehydration salts sachets of powder for reconstitution	10	10	20	20	to prevent or treat dehydration, especially due to diarrhoea, <i>see pages 257-258 and 347</i>
44	Oxymetazoline 0.5% (or equivalent) drops or <i>spray</i>	4	5	6	7	- to treat nasal obstruction due to allergies or viral infection - to improve sinus drainage in sinusitis
45	Paracetamol Tablets 500mg	100	200	300	400	to reduce pain and fever (but not inflammation) <i>See pages 17-25</i>
46	Permethrin 1% lotion <i>250 ml</i>	1	1	2	2	to eliminate hair, pubic, and body lice <i>See pages 219-221</i>
47	Permethrin 5% Lotion, vial of <i>250 g</i>	1	1	2	2	to treat scabies <i>See pages 219-221</i>
48	Povidone iodine ointment 10%	2	3	4	5	to disinfect skin and wounds



	25 to 50 g					See pages 67- 77, 215-219
49	Povidone iodine solution 10% 30 to 120ml	2	3	4	5	to disinfect skin and wounds See pages 67- 77, 215-219
50	Prednisone tablet 25mg	30	30	60	60	- to treat severe asthma - to treat other inflammatory conditions (on medical advice) See pages 125-126, 145-147
51	<i>Petroleum jelly</i> 50 g to 100 g (vaseline)*	2	3	4	5	-to treat chapped skin. See page 212, 261 for lubricating rectal thermometer
52	Salbutamol aerosol inhaler 0.1mg/dose	1	2	3	4	- to treat asthma - to treat chronic bronchitis - to treat emphysema - to treat other lung diseases See pages 145-147
52a	<i>Volume spacer</i> <i>for salbutamol inhaler</i>	1	1	1	1	To make inhaling salbutamol more effective See page 146
53	Sodium chloride 0.9% infusion plastic-bottle 1 litre or 2x 500ml plastic bottle	5	5	5	5	for fluid replacement Can also be used for sterile eye irrigation, see page 38
54	<i>Sodium chloride 0.9% infusion</i> <i>plastic-bottle 10 ml</i>	2	2	2	2	For sterile eye bathing and application of wet compresses, see page 38
55	Tetracycline 1% ointment Eye – ointment 5 g	2	4	6	8	to treat minor eye infections; to prevent infections following damage to the cornea. See pages 33-34, 40-42, 261.
56	<i>Tetanus Immunoglobulin</i> <i>ampoule. (keep at 2-8°C)</i>	1	1	1	1	Part of wound care if state of vaccination is unknown, see page 68
57	<i>Tetanus toxoid vaccination</i> <i>ampoule (keep at 2-8°C)</i>	1	1	1	1	Part of wound care if state of vaccination is unknown, see page 68
58	<i>Tramadol</i> <i>tablets 50 mg .</i>	50	50	50	50	Against moderate pain; See pages 22-23 In severe pain use morphine; See pages 17-25
59	Vitamin K (Phytomenadione) Ampoule 1 ml= 10mg	2	2	2	2	to reverse excessive or unwanted effects of warfarin or related drugs. See pages 96, 173
60	Water for injection Ampoules 5ml	20	30	40	50	reconstitution of injectable drugs provided as powders
61	Zidovudine plus Lamivudine tablets, 300mg+150mg  <i>Consider adding further or using other antiviral substance following current guidelines</i>  <a href="http://www.who.int/hiv/pub/pr&lt;br/&gt;ophylaxis/pep_guidelines/en/in&lt;br/&gt;dex.html">http://www.who.int/hiv/pub/pr ophylaxis/pep_guidelines/en/in dex.html</a>  <a href="http://www.liv.ac.uk/hiv/quidelines.ht&lt;br/&gt;m">www.liv.ac.uk/hiv/quidelines.ht m</a>  <a href="http://www.cdc.gov/mmwr/pre&lt;br/&gt;view/mmwrhtml/rr5409a1.htm">http://www.cdc.gov/mmwr/pre view/mmwrhtml/rr5409a1.htm</a>	<i>Carry at least 60 tablet.</i>				Prophylaxis against HIV infections after needle-stick injury. One tablet daily twice daily for four weeks. See page 252
		<i>Qualified medical advise needed for general risk assessment on board</i>				<i>In case of exposure immediately seek radio-medical advice for risk assessment in individual person.</i>
		<i>Omit only if very low risk of infection with exposure on board .</i>				
		<i>Add further or other antivirals following guidelines with moderate to high risk for infection in case of exposure.</i>				
62	Zinc oxide 20% paste or ointment 50-100 g	5	5	5	5	protection of irritated skin

## EQUIPMENT p. 451 -461

Item No.	Recommended item	per 10	per 20	per 30	per 40	Category Added comments
<b>1. RESUSCITATION EQUIPMENT</b>						
1.1	Portable oxygen set, complete containing:	1	1	1	1	appliance for the administration of oxygen <i>See pages 4-5</i>
1.1a	1 oxygen cylinder, 2l/200bar	1	1	1	1	<i>Ready to use. See pages 4-5</i>
1.1b	1 spare oxygen cylinder, 2l/200bar	1	1	1	1	<i>See pages 4-5. If no additional equipment from the MFAG on board consider to increase amount of oxygen to 4 X 10l</i>
1.1c	Pressure regulating unit and flow meter with tubes such that ship's industrial oxygen can also be used	1	1	1	1	<i>See pages 4-5</i>
1.1d	3 disposable face masks of choice: including simple face mask and non-rebreathing mask	1	2	3	4	<i>See pages 4-5</i>
1.2a	Guedel airway (Mayo-tube): size medium	1	1	1	1	Oropharyngeal airway, <i>see pages 4-5, 315</i>
1.2b	Guedel airway (Mayo-tube): size large	1	1	1	1	Oropharyngeal airway, <i>see pages 4-5, 315</i>
1.3a	Manual aspirator to clear upper airways	1	1	1	1	Mechanical aspirator, <i>see pages 4-5</i>
1.3b	Catheters for aspirator,	2	2	2	2	Mechanical aspirator, <i>different sizes; see pages 4-5</i>
1.4	Ambubag or equivalent; supplied with small, medium, and large masks	1	1	1	1	Bag and mask resuscitator <i>including oxygen reservoir bag and oxygen tubing, see pages 4-5</i>
1.5	Brook Airway, Lifeway, pocket face mask or equivalent	1	1	1	1	Cannula for mouth-to-mouth resuscitation, <i>see pages 4-5</i>
<b>2. DRESSING MATERIAL AND SUTURING EQUIPMENT</b>						
2.1	Assorted wound-plaster or plaster strips, water resistant – <i>slim and broad</i>	200	200	200	200	adhesive dressings
2.2a	Sterile gauze compresses, 5cm x 5cm, sterile	50	50	100	100	Sterile gauze compresses
2.2b	Sterile gauze compresses, 10 cm x 10cm	50	50	100	100	Sterile gauze compresses
2.3	Gauze roll, 5cm and 60 or 90 cm x 100 m, non-sterile	1	1	1	1	Gauze roll <i>60 cm / 90 cm may be substituted by gauze roll of smaller size</i>
2.4	Non-adherent gauze dressing, square 10cm	10	20	30	40	Gauze dressing with non-adherent surface
2.5	Paraffin gauze dressing, 10 x 10 cm, sterile	40	40	40	40	Vaseline gauze
2.6	Elastic fixation bandage, 4 m x 6 cm	3	6	9	12	Bandage
2.7a	First-aid absorbent gauze-covered cotton pad sewn onto a cotton bandage (ambulance dressing) small	5	5	10	10	Sterile compression bandages.
2.7b	First-aid absorbent gauze-covered cotton pad sewn onto a cotton bandage (ambulance	5	5	10	10	Sterile compression bandages

	dressing) medium					
2.7c	First-aid absorbent gauze-covered cotton pad sewn onto a cotton bandage (ambulance dressing) large	5	5	10	10	Sterile compression bandages
2.8a	Tubular gauze bandage for finger bandage, 5m	1	1	1	1	Tubular gauze for finger bandage <i>See pages 43-58</i>
2.8b	Applicator for finger bandage	1	1	1	1	<i>See pages 43-58</i>
2.9	Adhesive elastic bandage 4 m x 6 cm	10	10	10	10	Adhesive elastic bandage
2.10	Triangular sling	5	5	5	5	Triangular sling. <i>See pages 43-58 and 77</i>
2.11	Sterile sheets for burn patients	2	2	4	4	Sterile sheet for burn victims. <i>Different sizes See pages 79-83</i>
2.12	Honey for dressing burns 1kg, (only purified 1000 g)	1	1	2	2	<i>Only if honey for medical purposes available Otherwise use a hydrogel-burnkit. See pages 79-83</i>
2.13	Adhesive tape, waterproof, skin-friendly, 5 x 1.25 cm	3	3	6	6	Adhesive sutures or zinc oxide bandages
2.14	Q-tips (wooden)	100	100	100	100	Q-tips
2.15	Safety pins (stainless steel), 12 pieces	1	1	2	2	safety pins
2.16	Butterfly sutures, Steristrip® or Leukostrip®, sterile	50	50	50	50	Butterfly sutures. <i>See pages 69-74</i>
2.17	2-octyl cyanoacrylate liquid, 0.5ml	1	1	1	1	Skin adhesive for closing small wounds. <i>See pages 69-74.</i>
2.18 a	Sutures, absorbable with curved non-traumatic needles, 1 – 0,	3	3	6	6	Suturing equipment. <i>See pages 71-74. Replace with non-absorbable sutures for easier use See page 71</i>
2.18 b	Sutures, absorbable with curved non-traumatic needles, 3 – 0,	3	3	6	6	Suturing equipment. <i>See pages 71-74. Replace with non-absorbable sutures for easier use, See page 71</i>
2.18 c	Sutures, absorbable with curved non-traumatic needles, 4 - 0 or 5 - 0	3	3	6	6	Suturing equipment. <i>See pages 71-74. Replace with non-absorbable sutures for easier use, See page 71</i>
2.19a	Disposable examination gloves, size M	100	100	100	100	Gloves
2.19b	Disposable examination gloves, size L	100	100	100	100	Gloves
2.19c	Surgical gloves size 6.5, sterile in pairs	3	4	5	6	Gloves (sterile)
2.19d	Surgical gloves size 7.5, sterile, in pairs	3	4	5	6	Gloves (sterile)
2.19e	Surgical gloves size 8.5, sterile, in pairs	3	4	5	6	Gloves (sterile)
2.20	Eye pads	1	2	3	4	<i>See pages 36, 38.</i>
<b>3. INSTRUMENTS</b>						
3.1	Scalpel, sterile, disposable	10	10	10	10	Disposable scalpels <i>See pages 71-74, 216-219.</i>
3.2	Instrument box (stainless steel)	1	1	1	1	Stainless-steel instrument box.
3.3	Operating scissors, straight (stainless steel)	1	1	1	1	Scissors
3.4	Bandage scissors (stainless steel)	1	1	1	1	Scissors
3.5	Splinter forceps, pointed (stainless steel)	1	1	1	1	Forceps
3.6	Teeth tissue forceps (stainless steel)	1	1	1	1	Forceps. <i>See pages 71-74, 216-219.</i>
3.7	Needle holder, Mayo-Hegar	1	1	1	1	Needle holder. <i>See pages 71-74.</i>

	180mm, straight					
3.8	Haemostatic clamp, Halstead mosquito, 125mm, stainless steel	2	2	2	2	Haemostatic clamps
3.9	Razor, disposable	5	5	5	5	Disposable razors
<b>4. EXAMINATION AND MONITORING EQUIPMENT</b>						
4.1	Tongue depressors, disposable	100	100	100	100	Disposable tongue depressors
4.2	Reactive strips for urine analysis: blood/ glucose/ protein/nitrite/leukocytes	50	50	100	100	Reactive strips for urine analysis, <i>see pages 311-312, 324.</i>
4.3	Microscope slides	12	12	12	12	Microscope slides, <i>See pages 265-269</i>
4.4	Stethoscope	1	1	1	1	Stethoscope
4.5	Sphygmomanometer (blood pressure set), preferably automatic	1	1	1	1	Aneroid sphygmomanometer, <i>see pages 305-307</i>
4.6a	Standard thermometer, digital if possible	2	2	3	3	Standard thermometer, <i>see pages 302-304</i>
4.6b	Rectal thermometer, digital if possible	1	1	1	1	Rectal thermometer, <i>see pages 302-304</i>
4.7	Thermometer 32°-34°C, digital if possible	1	1	1	1	Hypothermic thermometer, <i>preferable range 26°C to 42°C to differentiate between severe-moderate-mild hypothermia; see pages 343-344.</i>
4.8	Penlight + blue cover	1	1	1	1	Penlight (blue light) to detect damage to cornea. <i>See pages 33-34</i>
4.9	<i>Waterproof indelible marker</i>	1	1	1	1	<i>see page 29.</i>
4.10	<i>Magnifying glass (a x 8 loupe)</i>	1	1	1	1	<i>See pages 33-34.</i>
<b>FORMS AND BOOKS</b>						
4.11	<i>Temperature cards / charts</i>	10	10	10	10	<i>Use as master copy from page 302</i>
4.12	<i>Cards for telemedical advise</i>	10	10	10	10	<i>Use as master copy. Should be filled in before calling radiomedical advise</i>
4.13	<i>Medical logbook</i>	1	1	1	1	<i>See p. 455</i>
4.14	<i>Controlled drug register</i>	1	1	1	1	<i>Controlled drug register</i>
4.15	<i>International Medical Guide for Ships 3rd</i>	1	1	1	1	<i>Hard-copy</i>
4.16a	<i>Forms from Annex A Ship master's report form</i>	10	10	10	10	<i>Use as master copy (see pages 455 - 461) file in medical log p. 455</i>
4.16b	<i>Forms from Annex A Ship's identity and navigational status form</i>	10	10	10	10	<i>Use as master copy (see pages 455 - 461)</i>
4.16c	<i>Forms from Annex A Patient health status form</i>	10	10	10	10	<i>Use as master copy (see pages 455 - 461)</i>
4.16d	<i>Forms from Annex A Primary physician's report form</i>	10	10	10	10	<i>Use as master copy (see pages 455 - 461)</i>
4.17	<i>Vaccination requirements</i>	1	1	1	1	<i>International travel and Health, current edition (WHO)</i>
4.18	<i>Malaria prophylaxis and treatment</i>	1	1	1	1	<a href="http://www.who.int/malaria/publications.html">www.who.int/malaria/publications.html</a> or <a href="http://www.cdc.gov/travel/regionalmalaria/index.html">www.cdc.gov/travel/regionalmalaria/index.html</a> <i>See Page 266</i>
<b>5. EQUIPMENT FOR INJECTION, INFUSION, AND CATHETERIZATION</b>						
5.1	Syringes, Luer connection, 2ml, sterile, disposable	10	20	30	40	Equipment for injection, <i>see pages 324-329</i>
5.2	Syringes, Luer connection, 5ml, sterile, disposable	10	20	30	40	Equipment for injection, <i>see pages 324-329</i>
5.3	Syringes, Luer connection, 10 ml, sterile, disposable	10	10	20	20	Equipment for injection, <i>see pages 324-329</i>

5.4	Hypodermic subcutaneous needle, Luer connection, 16x0.5mm (23 G or 25 G), sterile, disposable	20	30	40	50	Equipment for <i>subcutaneous</i> injection, see pages 324-329
5.5	Hypodermic intramuscular needle (19G or 21G), Luer connection, 40x0.8mm, sterile, disposable	20	30	40	50	Equipment for <i>intramuscular</i> injection, see pages 324-329
5.6	Needles, 19G or 21G, blunt, "drawing up" type	20	30	40	50	Equipment for drawing the medicine into the syringe, see pages 324-329
5.7a	Intravenous infusion cannula 16G (1.7mm) or 19G, Luer-lock connection, sterile, non-recap type + <i>mandarin</i>	5	5	10	10	Equipment for intravenous fluid infusion, see page 326
5.7b	Intravenous infusion cannula 22G (0.8mm) or 21G, Luer-lock connection, sterile, non-recap type+ <i>mandrin</i>	5	5	10	10	Equipment for intravenous fluid infusion, see page 326
5.8	Intravenous giving set, Luer-lock connection, steril +3-way valve/ connection	5	5	10	10	Equipment for intravenous infusion, see pages 324-329,
5.9	Tourniquet, blood-taking type, to be used with intravenous infusion cannula	1	1	1	1	Equipment for infusion, see pages 324-329
5.10a	Penile sheath set with condom catheter, tube, and bag	1	1	1	1	Bladder drainage equipment, see page 308-309
5.10b	<i>Indwelling urine catheter 14 CH</i>	1	1	1	1	<i>Bladder drainage equipment, see pages 319- 321</i>
5.11a	Short-term urine catheter with soft-eye straight tip Thieman No. 12 , or equivalent	2	2	2	2	Bladder drainage equipment, see pages 319-321
5.11b	Short-term urine catheter with soft-eye straight tip Thiemann No 16, or equivalent	2	2	2	2	Bladder drainage equipment, see pages 319-321
5.11c	Complete sterile urine catheterization set with lubricant, drapes, cotton swabs, skin disinfection, forceps, sterile container	2	2	2	2	Bladder drainage equipment, see pages 319-321
5.12	Urine collecting bag and tube	2	2	2	2	Bladder drainage equipment, see pages 319-321
<b>6. GENERAL MEDICAL AND NURSING EQUIPMENT</b>						
6.1	Plastic goggles or full-face mask	1	1	1	1	Eye protection
6.2	Disposable plastic apron	10	10	10	10	Plastic apron
6.3	Kidney dish, stainless steel, 825ml	1	1	2	2	Kidney dish
6.4	Towels, plastic backed, absorbent, 600x500mm	10	10	10	10	Plastic backed towels
6.5	Safety box for sharps disposable, 5l	1	1	1	1	Safety box Size of 1-5 liters may be chosen
6.6	Mask, duckbill type, disposable	50	50	100	100	Mask
6.7	Tape measure, vinyl coated, 1.5m	1	1	1	1	Tape measure
6.8	Draw sheet, plastic 90x180cm	1	1	1	1	Draw sheet
6.9	Bedpan, stainless steel	1	1	1	1	Bedpan
6.10	Hot-water bag	1	1	1	1	Hot-water bottle
6.11	Urinal, male (plastic)	1	1	1	1	Urine bottle
6.12	ColdHotpack maxi	1	1	1	1	Ice bag

6.13	Aluminum foil blanket	1	1	1	1	Aluminium foil blanket
6.14	Male condoms	100	200	300	400	Condoms, <i>assorted sizes</i>
6.15	Plastic wash bottle, 250ml	1	1	1	1	Wash bottle
6.16	Bottle, 1l plastic with screw top	1	1	1	1	Plastic bottle
6.17	Stainless steel dressing tray 300x200x30mm	1	1	1	1	Dressing tray
6.18	Bowl, stainless steel, 180ml	1	1	1	1	Bowl
6.19	Jars, plastic, with lids and labels 100ml	10	20	30	40	Specimen jars
6.20a	Bandages, POP, 5cmx2.7m	6	6	6	6	Plaster-of-Paris bandages, <i>may be omitted if splints are carried</i>
6.20b	Bandages, POP, 10cmx2.7m	6	6	6	6	Plaster-of-Paris bandages, <i>may be omitted if splints are carried</i>
6.21a	Stockinet sizes for arm splints 10m roll	1	1	1	1	Stockinet <i>See pages 43-58</i>
6.21b	Stockinet sizes for leg splints 10m roll	1	1	1	1	Stockinet. <i>See pages 43-58</i>
6.22	Cotton wool roll 500g	1	1	2	2	Cotton wool. <i>See pages 43-58</i>
6.23	Alcohol swabs	100	100	100	100	70% alcohol swabs for skin cleansing prior to injection
6.24	Nail brush	1	1	1	1	Nail brush
6.25	Thermometer for refrigerator	1	1	1	1	<i>If Tetanus vaccine and Immunoglobulin are on board</i>
6.26	Mortuary transfer bag	1	1	1	1	<i>see pages 334 – 336</i>
<b>DISINFECTANTS, DISINSECTANTS</b>						
6.27	Water disinfection set including measure kit/ test stripes for pH and for residual chlorine	1	1	1	1	<i>To disinfect potable water tanks with chlorine effectively. See pages 359-360.</i>
6.28	Disinfectant solution for medical instruments, 1000 ml: 3 % aqueous phenolic solution	1	1	1	1	<i>For disinfection of used instruments* and thermometers, see page 331. *Caution: All items entering the skin or are in direct contact with mucous membranes should be single use (i.e. injection needles, urinary catheters).</i>
6.29	Disinfectant for surfaces and floor, 1000 ml concentrate: 2% cetrimide solution or 3% aqueous phenolic solution	1	1	1	1	<i>For disinfection of contaminated surfaces, hard-surface objects and floors (non-food-handling area), see page 331.</i>
6.30	Disinfectant for surfaces and floor 1000 ml concentrate: sodium hypochlorite 100mg/ litre	2	2	2	2	<i>For disinfection of food-handling area: cutlery, dishes, plates, glasses), see page 331</i>
6.31	Chlorpyrifos 5g/l in Bait stations or gels	20	20	20	20	<i>To use against cockroaches in food storage and preparation area, see pages 362-365</i>
6.32	Chlorpyrifos-methyl 7-10 g/l Spray – 1 piece	10	10	10	10	<i>To use against cockroaches in other areas than food storage and preparation area See pages 362-365</i>
6.33	Insecticide spray Permethrine, natural pyrethrins or chlorpyrifos-methyl	1	2	3	4	<i>For space spraying, not for skin See pages 362- 365</i>
<b>7. IMMOBILIZATION AND TRANSPORTATION EQUIPMENT</b>						
7.1	Malleable finger splint	1	1	1	1	Malleable splints ( <i>small</i> ). <i>See pages 43-58.</i>
7.2	Malleable forearm/ hand splint	2	2	2	2	Malleable splints ( <i>medium</i> ). <i>See pages 43-58.</i>
7.3	Malleable splint legs	2	2	2	2	Malleable splints ( <i>large</i> ). <i>See pages 43-58.</i>
7.4	Stretcher	1	1	1	1	<i>Stretcher equipment (a system for trauma management, i.e. immobilization and stretcher equipment most suited for treatment in the vessel</i>

						<i>concerned. Preferably allowing crane/helicopter lifting. See page 7</i>
7.5	<i>Cervical rigid collar variable size</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>for neck immobilisation. See pages 7, 45</i>