

## Radio medical advice

This is available by radio telegraphy, or by direct contact with the doctor by radio telephony from a number of ports in all parts of the world. Details of world wide services can be found in the Admiralty List of Radio Signals (ARLS) Vol 1. Satellite telecommunications using facsimile and voice have facilitated this direct contact. Additionally, it may, on occasion, be obtained from other ships in the vicinity who have a doctor on board. In either instance it is better if the exchange of information is in a language common to both parties. Coded messages are a frequent source of misunderstanding and should be avoided as far as possible. However, the medical section of the International Code of Signals should be used whenever appropriate.

Telemedicine systems are in development, exploiting digital image handling and telecommunications technology. As yet they are experimental, expensive and of limited benefit, however, in the near future robust, well supported, effective and affordable systems will emerge.

It is very important that all the information possible is passed on to the doctor and that all his advice and instructions are clearly understood and fully recorded. A comprehensive set of notes should be ready to pass on to the doctor, preferably based on the appropriate format below (one is for illnesses; the other for injuries). Have a pencil and paper available to make notes and remember to transcribe these notes to the patient's and to the ship's records after receiving them. It is a good idea to record the exchange of information by means of a tape recorder if one is available. This may then be played back to clarify written notes. Some countries may not be aware of the contents of your ship's medical chest and it will save time and bother if you have a list of drugs and appliances available (MSN 1726). When contacting British or other doctors who may be aware of the standards required in British ships, be prepared to notify them of the category of medical stores carried and whether there are any deficiencies likely to affect treatment in the particular case.

It may be necessary, under certain circumstances, to withhold the name of the patient when obtaining medical advice in order to preserve confidentiality. In such cases the patient's name and rank may be submitted later in writing to complete the doctor's records. Age, sex and ethnic origin are more important than the patient's name.

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### Information to be ready when requesting RADIO MEDICAL ADVICE

Complete the appropriate form or notes before asking for assistance. Give the relevant information to your radio medical adviser. Get any advice you are given down in writing as you receive it, and repeat back to your adviser to avoid misunderstanding.

#### A. In the case of illness

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|---|---|
| 1.0 <i>routine particulars about the ship</i>   | 3.10 list any known allergies   |
| 1.1 name of ship  | 3.11 has the patient been taking any alcohol or do you think he is on drugs?  |
| 1.2 call sign/MMSI/INMARSAT number  |   |
| 1.3 date and time (GMT)   | 4.0 <i>results of examination of the ill person</i>   |
| 1.4 position, course, speed   | 4.1 temperature, pulse and respiration  |
| 1.5 last port of call   | 4.2 describe the general appearance of the patient  |
| 1.5.1 port of destination is .....<br>and is ..... hours/days away  | 4.3 describe the appearance of the affected parts   |
| 1.5.2 nearest port is .....<br>and is ..... hours/days away   | 4.4 what do you find on examination of the affected parts (swelling, tenderness, lack of movement, and so on)?  |
| 1.5.3 other possible port is .....<br>and is ..... hours/days away  | 4.5 what tests have you done and with what result (urine, other)?   |
| 1.6 local weather (if relevant)   |   |
|   | 5.0 <i>diagnosis</i>  |
| 2.0 <i>routine particulars about the patient</i>  | 5.1 what do you think the diagnosis is?   |
| 2.1 name of casualty (optional)   | 5.2 what other illnesses have you considered (the differential diagnosis)?  |
| 2.2 ethnic origin   |   |
| 2.3 rank  | 6.0 <i>treatment</i>  |
| 2.4 job on board (occupation)   | 6.1 list ALL the medicines/tablets/drugs which the patient has taken or been given since the illness began and give the dose(s) and the times given or how often given (see 3.9 above). Do not use the term 'standard antibiotic treatment'. Name the antibiotic given. |
| 2.5 age   | 6.2 how has the patient responded to the treatment given?   |
|   | 7.0 problems  |
| 3.0 <i>particulars of the illness</i>   | 7.1 what problems are worrying you now?   |
| 3.1 when did the illness first begin?   | 7.2 what do you think you need to be advised on?  |
| 3.2 how did the illness begin (suddenly, slowly, ..... )?   |   |
| 3.3 what did the patient first complain of?   | 8.0 other comments  |
| 3.4 list all his complaints and symptoms  | 9.0 comments by the radio doctor  |
| 3.5 describe the course of his present illness from the beginning to the present time   |   |
| 3.6 give any important past illnesses/injuries/operations   |   |
| 3.7 give particulars of known illnesses which run in the family (family history)  |   |
| 3.8 describe any social pursuits or occupations which may be important (social and occupational history)  |   |
| 3.9 list all medicines/tablets/drugs which the patient was taking before the present illness began and give the dose(s) and how often taken (see 6.1 below) |   |

**B. In the case of injury**

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| <ul style="list-style-type: none"> <li>1.0 <i>routine particulars about the ship</i></li> <li>1.1 name of ship</li> <li>1.2 call sign/MMSI/INMARSAR number</li> <li>1.3 date and time (GMT)</li> <li>1.4 course, speed, position</li> <li>1.5 last port of call</li> <li>1.5.1 port of destination is .....<br/>and is ..... hours/days away</li> <li>1.5.2 nearest port is .....<br/>and is ..... hours/days away</li> <li>1.5.3 other possible port is .....<br/>and is ..... hours/days away</li> <li>1.6 local weather (if relevant)</li> <br/> <li>2.0 <i>routine particulars about the patient</i></li> <li>2.1 name of casualty (optional)</li> <li>2.2 ethnic origin</li> <li>2.3 rank</li> <li>2.4 job on board (occupation)</li> <li>2.5 age</li> <br/> <li>3.0 <i>history of the injuries</i></li> <li>3.1 exactly how did the injuries arise?</li> <li>3.2 how long ago was that?</li> <li>3.3 what does the patient complain of?<br/>(list the complaints in order of<br/>importance or severity)</li> <li>3.4 give important past illnesses/ injuries/<br/>operations</li> <li>3.5 list ALL medicines/tablets/drugs which<br/>the patient was taking before the<br/>present injury (injuries) and give doses<br/>and how often taken</li> <li>3.6 list any known allergies</li> <li>3.7 has the patient been taking any<br/>alcohol or do you think he is on drugs?</li> <li>3.8 does the patient remember everything<br/>that happened, or did he lose<br/>consciousness even for a short time?</li> </ul> | <ul style="list-style-type: none"> <li>3.9 if he lost consciousness, describe when,<br/>or how long, and the depth of<br/>unconsciousness. Use AVPA (see<br/>Chapter 4) or GCS</li> <br/> <li>4.0 <i>results of examination</i></li> <li>4.1 temperature, pulse and respiration</li> <li>4.2 describe the general condition of the<br/>patient</li> <li>4.3 list what you believe to be the<br/>patient's injuries in order of<br/>importance and severity</li> <li>4.4 did the patient lose any blood? If so,<br/>how much?</li> <li>4.5 what tests have you done and with<br/>what result (urine, other)?</li> <br/> <li>5.0 <i>treatment</i></li> <li>5.1 describe the first-aid and other<br/>treatment which you have carried out<br/>since the injuries occurred</li> <li>5.2 list ALL the medicines/tablets/drugs<br/>which the patient has taken or been<br/>given, and give the dose(s) and the<br/>times given or how often given. Do<br/>not use the term 'standard antibiotic<br/>treatment'. Name the antibiotic given</li> <li>5.3 how has the patient responded to the<br/>treatment?</li> <br/> <li>6.0 <i>problems</i></li> <li>6.1 what problems are worrying you now?</li> <li>6.2 what do you think you need to be<br/>advised on</li> <br/> <li>7.0 <i>other comments</i></li> <br/> <li>8.0 <i>comments by the radio doctor</i></li> </ul> |
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**Medivac service by helicopter**

Do not ask for a helicopter unless the patient is in a serious situation and never for trivial illness or for your convenience. Remember that, apart from the expense of helicopter evacuation, the pilot and crew often risk their lives to render assistance to ships at sea and their services should be used only in a genuine emergency.

The normal procedure is as follows.

Contact the coast radio station (details in ARLS Vol 1), ask for medical advice and they will normally transfer your call to a doctor. Give the doctor all the information you can so that he can make an assessment of the seriousness of the situation. He will normally give advice on immediate care of the patient. After the link call is over, the doctor will advise the Search and Rescue (SAR) authority on the best method of evacuation and, should helicopter evacuation be thought desirable, the SAR authority will make the necessary arrangements and will keep in touch with the ship.

Do not expect a helicopter to appear right away. There are certain operational matters to consider and although the service is always manned, delay may ensue. Remember that the range of a helicopter is limited, depending on the type in service, and you may be asked to rendezvous nearer land. In bad weather and at extreme ranges it may be necessary to arrange for another aircraft to overfly and escort the helicopter for safety reasons and this aircraft may have to be brought from another base. Arrangements may have to be made for a refuelling stop to be made at say an oil rig so that the helicopter can make the pickup and then fly back without further stops.

All this takes time, and, as it is done with the utmost efficiency, do not keep calling to ask where the helicopter is.

More detailed information is available from the Merchant Ship Search and Rescue Manual (MERSAR) or Volume 3 of the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR).

When helicopter evacuation is decided upon:

- It is essential that the ship's position should be given to the rescuers as accurately as possible. A fix plus the bearing (magnetic or true) and distance from a fixed object, like a headland or lighthouse, should be given if possible. The type of ship and colour of hull should be included if time allows.
- Give details of your patient's condition and report any change in it immediately. Details of his mobility are especially important as he may require to be lifted by stretcher.
- Inform the bridge and engine room watches. A person who is capable of communicating correctly and efficiently by radio should be nominated to communicate with the helicopter.
- Helicopters are fitted with VHF and/or UHF RT. They cannot normally work on the MF frequencies, although certain large helicopters can communicate on 2,182 kHz MF. If direct communication between the ship and the assisting helicopter cannot be effected on either VHF or 2,182 kHz, it may be possible to do so via a lifeboat if one is in the vicinity. Alternatively a message may be passed via a Coast Radio Station or Rescue Co-ordination Centre (RCC) on 2,182 kHz, or on VHF.
- Passenger ships are required to carry radio equipment operating on the aeronautical frequencies 121.5 MHz and 123.1 MHz. These frequencies are reserved for distress and urgency purposes and can be used to communicate with the helicopter.
- The ship must be on a steady course giving minimum ship motion. Relative wind should be maintained as follows:  
For helicopter operating area
  - Aft – 30° on Port Bow.
  - Midships – 30° on Starboard Bow.
  - Forward – 30° on Starboard Quarter.

If this is not possible the ship should remain stationary head to wind, or follow the instructions of the helicopter crew.

- An indication of relative wind direction should be given. Flags and pennants are suitable for this purpose. Smoke from a galley funnel may also give an indication of the wind but in all cases where any funnel is making exhaust, the wind must be at least two points off the port bow.
- Clear as large an area of deck (or covered hatchway) as possible and mark the area with a large letter 'H' in white. Whip or wire aerials in and around the area should, if at all possible, be struck.
- All loose articles must be securely tied down or removed from the transfer area. The downwash from the helicopter's rotor will easily lift unsecured covers, tarpaulins, hoses, rope and gash etc., thereby presenting a severe flying hazard. Even small pieces of paper if sucked into a helicopter engine, can cause the helicopter to crash.
- From the air, especially if there is a lot of shipping in the area, it is difficult for the pilot of a helicopter to pick out the particular ship he is looking for from the many in sight, unless that ship uses a distinctive distress signal which can be clearly seen by him. One such signal

is the orange coloured smoke signal carried in the lifeboats. This is very distinct from the air. A well trained Aldis lamp can also be seen, except in very bright sunlight when the lifeboat heliograph could be used. The display of these signals will save valuable time in the helicopter locating the casualty, and may mean all the difference between success and failure.

- On no account must the winch wire be allowed to foul any part of the ship or rigging, or the helicopter be made fast to the ship.
- The winch wire should be handled only by personnel wearing rubber gloves. A helicopter can build up a charge of static electricity which, if discharged through a person handling the winch wire, can kill or cause severe injury. The helicopter crew will normally discharge the static electricity before commencing the operation by dipping the winch wire in the sea or allowing the hook to touch the ship's deck. However, under some conditions sufficient static electricity can build up during the operation to give unprotected personnel a severe shock.
- When co-operating with helicopters in SAR operations, ships should not attempt to provide a lee whilst helicopters are engaged in winching operations as this tends to create turbulence.
- The survivor is placed in the stretcher, strapped in such a manner that it is impossible for him to slip or fall out, and both stretcher and crewman are winched up into the helicopter. If the patient is already in a Neil-Robertson type stretcher this can either be lifted straight into the aircraft or placed in the rigid frame stretcher.
- At all times obey the instructions of the helicopter crew. They have the expertise to do this job quickly and efficiently.

#### **Preparation of the patient for evacuation:**

- Place in a plastic envelope the patient's medical records (if any) together with any necessary papers (including passport), so that they can be sent with him.
- Add to the medical record, in the envelope, notes of any treatment given to the patient. See that he is tagged if morphine has been given to him.
- If possible ensure that your patient is wearing a lifejacket before he is moved to the stretcher.

### **Ship-to-ship transfer of doctor or patient**

This is a seamanship problem which demands high standards of competence for its safe and efficient performance. There should be no need to advise professional seamen concerning this operation, but this guide may occasionally be in the hands of yachtsmen or small craft operators to whom a few reminders may be appropriate.

A very large tanker or other ship under way at sea may require 30 minutes or more to bring her main propulsion machinery to stand-by, so use your daylight signalling apparatus or VHF as soon as possible. Loaded, large tankers require several miles to take off their headway and are difficult to manoeuvre close to small craft.

Light (unloaded) ships of any type and high-sided passenger ships will make considerable leeway when stopped and must be approached with caution. Some ships may have to turn their propellers very slowly during the operation.

Keep clear of the overhang of bows or stern, especially if there is any sea running. Also beware of any permanent fendering fitted at sides. The general rule is that the ship with the higher freeboard will provide illumination and facilities for boarding and will indicate the best position.

Do not linger alongside for any reason; as soon as the operation is completed use full power to get your craft clear. There may be a suction effect that will hold you alongside and which may be dangerous if you do not use full power. For your own safety, make sure you are seen and your actions are communicated to the Master of the larger ship and act promptly on his instructions.

See section above: 'Preparation of the patient for evacuation'

### Communicating with doctors

As a matter of courtesy as well as of information, a letter or form should always be sent with any patient who is going to see a doctor. The crew member will be a stranger to the doctor and there may be a language difficulty. A written communication in a foreign language is often easier to understand than a spoken one. The letter should include routine particulars about the crew member (name, date of birth) and about the ship (name of ship, port, name of agent, owner). The medical content of the letter should follow a systematic approach and should give the doctor a synopsis of all that is known about the person which may be relevant, including copies of any information from doctors in previous ports. This is why the use of a form for this purpose is particularly valuable because the doctor can then be requested to write back to the Master on the form.

**Medical Report:—Confidential**      **3** Doctor's Copy      **2** Medical Records Copy      **1** Master Copy

<b>Part I</b> To be completed by Master or his Deputy	1 Ship's name	2 Port of call	3 Date
	4 Surname of patient	Other name(s)	5 Date of birth
	6 Nationality & Language(s)	7 Job Description	8 Discharge book number
	9 Date illness/injury occurred	10 Date work ceased on board	11 Date work resumed on board
12 Details about the illness/injury and treatment on board. (Set type detailed description or log entry if necessary)			
14 Ship Master's signature			15 Ship agent Address Tel No
<b>Part II</b> To be completed by Examining Doctor	15 To the doctor: Please see this patient and then fill in the form. Retain back copy and return other copies to the Master (or agent).		
	16 Diagnosis		
	17 Treatment: Please specify exactly all medicines to be taken (the generic name of the medicine, the dose, the frequency of the dose, the way it is to be taken, and any other treatments required).		
	18 Should he see another doctor?      No      Yes      What?      What any precautions necessary for crew members?		
	Estimated duration of illness (days)      [ ]		
	19 Fit for normal work now      [ ]      Date: / /		
	Fit for normal work from      [ ]		
	Fit for restricted work      [ ]      What restrictions?      [ ]		
	20 Limit for work      [ ]      For how many days?      [ ]		
	Rec rest necessary      [ ]      For how many days?      [ ]		
Recommended to be signed off      [ ]			
— and be repatriated      [ ]      Is air transport recommended?      Yes      No			
— and go to hospital      [ ]			
21 The patient has been — date      [ ]      Charge      [ ]      Payment received?      Yes      No			
— in the doctor's office      [ ]			
— on board      [ ]      Summary      [ ]			
— elsewhere      [ ]			
22 Doctor's name and address; and Tel No			
Doctor's signature: _____			
<b>Part III</b> Master or Agent	23 Port of discharge		24 Date
	25 Name and address of next of kin (relationship) or friend		26 Domestic
	27 Name of hospital or place where crew member is staying		
	28 Disposition of effects		

ONLY TO BE FILLED IN BY PATIENT