INTERNATIONAL LABOUR ORGANISATION

JOINT ILO/WHO COMMITTEE ON THE HEALTH OF SEAPARERS

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Geneva
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MEDICAL AND FIRST-AID TRAINING FOR SHIP PERSONNEL

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International Labour Office
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INTRODUCTION

The International Labour Conference, at its 55th (Maritime) Session in 1970, adopted a resolution in which it invited the Governing Body of the International Labour Office, in collaboration with the World Health Organization, to convene an early session of the Joint ILO/WHO Committee on the Health of Seafarers. The resolution suggested a number of items for inclusion in the agenda of such a session. The Conference also had before it a draft resolution on medical care aboard ship, submitted by the Workers' delegate of the United States, which it decided to refer to the Governing Body of the International Labour Office, inviting it to consider the possibility of referring the matter to the Joint ILO/WHO Committee on the Health of Seafarers. The text of the resolution is appended to the present report as Annex I.

At its 182nd Session (March 1971), the Governing Body considered the resolution adopted by the 55th (Maritime) Session of the Conference, and decided to invite the Director-General of the ILO to collaborate fully with WHO with a view to giving effect to the resolution requesting the convening of an early session of the Joint ILO/WHO Committee on the Health of Seafarers.

In conformity with this decision, and after discussions had been held between the ILO and WHO at the secretariat level, the Governing Body decided, at its 189th Session (February-March 1973), to convene the Fifth Session of the Joint ILO/WHO Committee on the Health of Seafarers to meet in September 1973.

When deciding the agenda of this session of the Joint Committee, the Governing Body took into account, in consultation with WHO, a request from the Inter-Governmental Maritime Consultative Organization (IMCO) that consideration be given by the Joint Committee to the problem of the medical examination of seafarers serving on board vessels carrying dangerous chemicals in bulk.

The agenda of the Fifth Session of the Joint Committee was therefore fixed by the 189th Session of the Governing Body, after consultations had been held with WHO, as follows:
1. Medical and first-aid training for ship personnel.

2. Preventive care of teeth and mouth and emergency dental facilities for seafarers in ports.

3. Medical examinations of crew members on tankers carrying chemicals in bulk.

Information reports on -

4. Existing medical centres for seafarers.

5. General survey of problems connected with immersion hypothermia.

In order to collect the necessary information for the preparation of the reports, a questionnaire was sent on 4 July 1972 to the governments of member States of the ILO in respect of the first three points on the agenda. The text of the questionnaire is appended to the present report as Annex II.

At the time of preparing the present report, replies had been received from the governments of the following seventy countries: Argentina, Australia, Austria, Barbados, Belgium, Bulgaria, Burma, Cameroon, Canada, Colombia, Cuba, Cyprus, Dahomey, Denmark, Egypt, Finland, France, Gabon, Federal Republic of Germany, Ghana, Greece, Guinea, Guyana, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kenya, Khmer Republic, Kuwait, Lebanon, Malta, Mauritius, Morocco, Netherlands, New Zealand, Nigeria, Norway, Panama, Peru, Philippines, Poland, Romania, El Salvador, Senegal, Sierra Leone, Singapore, Spain, Sudan, Sweden, Switzerland, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukrainian SSR, USSR, United Kingdom, Venezuela, Viet-Nam, Yugoslavia, Zaire and Zambia. Of these, the governments of Norway, Spain and the United Kingdom indicated that the shipowners' and seafarers' organisations had been consulted in the preparation of the replies.

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The inclusion of this item in the agenda is directly connected with the draft resolution concerning medical care on board ship submitted to the 55th (Maritime) Session of the Conference by the United States Workers' delegate, and which the Conference requested should be referred to the Joint Committee.
The information thus received, together with other information available to the ILO or to WHO, is analysed in Chapter I of the present report under the respective headings of the questionnaire.

A number of governments complied with a request to furnish the Office with copies of the training programmes at various levels, and a selection of the texts is reproduced in Annexes III to VII.
Responsibility for providing medical care on board ship

While no information was requested on this subject, a number of governments include data concerning it in their replies. These are the governments of Cuba, Dahomey, India, Indonesia, Iraq, Israel, Italy, Jamaica, Japan, Netherlands, New Zealand, Philippines, Poland, Spain, Sweden, Switzerland, Turkey, Ukrainian SSR, United Kingdom and Yugoslavia. From these it would appear that in respect of those countries on which information is available, neither doctors nor full-time medical or nursing personnel are usually engaged on board cargo vessels, although they are usually carried on passenger vessels. In the vessels of some countries, however, a doctor is engaged when the number of personnel on board exceeds a certain figure (Italy, New Zealand, Spain, Turkey and the United Kingdom), and/or in vessels engaged in deep-sea voyages.

In those ships where medical or nursing personnel are not employed, the responsibility for providing medical care falls to the master or one of the deck officers. Certain countries provide details concerning this question, which are summarised below.

The Government of Cuba indicates that on board small vessels, a specialised sick-bay attendant is engaged who may, if the crew complement is large, work full time, or, if it is small, part time. In the case of larger crews, more highly qualified personnel are carried, i.e. qualified nurses or medical students who follow special courses. In large ships, a doctor is engaged. In order to promote the interest of future doctors in this type of work, medical students are engaged on board ship. In Dahomey, where only fishing vessels are registered, the skipper on board trawlers is responsible for medical care. Ghana states that it does not possess vessels in which the engagement of medical or nursing personnel is compulsory, and no such staff are therefore employed. In India and Indonesia, medical and nursing personnel are usually engaged only on board passenger ships. However, in the latter country the Djakarta Lloyd Company also engages a doctor on each of its cargo vessels voyaging across the ocean. In Iraq there is a doctor on board ships of more than 6,000 tons deadweight. Israel states that its cargo vessels have no medical personnel, and that the second mate is in charge of first aid and medical treatment. Passenger vessels of that
country carry a ship's surgeon and a certificated sick-bay attendant. According to Italian legislation, it is compulsory to have a doctor on board ships engaged in long-distance navigation when the number of persons on board (crew and passengers) exceeds 150. On ships which do not carry a doctor, the second mate is responsible for medical care; he is helped by technical publications such as the Guida pratica - Medicina e chirurgia, published by the Seafarers' Sickness and Accident Fund (Cassa Marittima Tirrena).

In Japan, vessels above a certain tonnage, mother vessels of fishing fleets and ocean-going vessels designated by the Minister of Transport are obliged to carry a doctor on board. No provisions exist in the Mariners' Law of that country concerning nursing personnel, but this Law provides that a health supervisor must be engaged on board ocean-going vessels, fishing vessels of more than 3,000 gross tons, fishing vessels whose period of absence from ports lasts for more than a certain time, etc. The health supervisor is a crew member who has passed a national examination which includes first-aid and nursing practice. Applicants for this national examination undergo four weeks' training. On board Netherlands ships, medical care is mainly entrusted to the deck officers, and more particularly to the chief mate. New Zealand ships do not have medical or nursing personnel on board. However, section 142 of the Shipping and Seamen Act of 1952 lays down that ships having more than 100 persons on board must carry a qualified medical practitioner. In Norway, doctors with the usual medical training and authorised sick-bay attendants are employed on board passenger vessels. In the Philippines, licensed doctors and/or registered sick-bay attendants are usually employed on passenger vessels.

Ships' doctors serve on Polish merchant ships making voyages lasting more than three months, on the liner S/S "Stefan Batory" and on certain fishing vessels (factory, refrigerator and mother ships). An Order of the Ministry of Health and Social Welfare and the Ministry of Shipping to lay down rules for the recruitment and assignment of ships' doctors to various types of vessels has recently been approved, and should be published in the very near future. Spanish legislation provides for the embarkation of a doctor or a sick-bay attendant in vessels which carry a certain number of crew members. Sweden states that only the largest passenger vessels carry doctors and nursing personnel, and that navigating officers are generally responsible for all medical treatment on board other vessels. On Swiss vessels, doctors or sick-bay attendants are not included in the crew complement; deck officers are responsible for first aid. In Turkey, according to
the Regulations concerning Medical Care of Passengers on Board, ships with less than a total of 200 persons on board must carry a qualified medical assistant, and those with more than 200 must carry a physician. In the Ukrainian SSR, first aid on board ships carrying 40 or more crew members is provided by doctors engaged on board, whereas on ships carrying less than 40 crew members this work is carried out by medical assistants; on board vessels operating in port or in the vicinity of a port, first aid is provided by senior officers and captains who receive the necessary training in port hospitals. United Kingdom legislation requires that vessels carrying more than 100 persons must carry a fully qualified doctor; on all foreign-going vessels other than those required to carry a doctor, the master is responsible for medical matters, and he is required to have had both training in first aid and more advanced medical training. In Yugoslavia, medical care on board ships not carrying a doctor is provided by the second mate.

Programmes
(a) Please indicate whether special training is provided in your country for medical and nursing personnel on board ship

The great majority of governments replying to this question state that no special training is provided to medical or nursing personnel on board ship. These are the governments of Australia, Barbados, Belgium, Burma, Cameroon, Canada, Colombia, Cyprus, Dahomey, Denmark, Egypt, Finland, Gabon, Federal Republic of Germany, Ghana, Greece, Guinea, Guyana, India, Indonesia, Iraq, Ireland, Israel, Jamaica, Japan, Kenya, Kuwait, Lebanon, Malta, Mauritius, Morocco, Netherlands, New Zealand, Nigeria, Norway, Panama, Peru, Philippines, Romania, El Salvador, Senegal, Sierra Leone, Singapore, Spain, Sudan, Sweden, Switzerland, Tanzania, Thailand, Trinidad and Tobago, Tunisia, Turkey, United Kingdom, Venezuela, Viet-Nam, Yugoslavia, Zaire and Zambia. However, certain governments indicate that in their countries training in naval medicine or in first aid at sea is provided either to medical or to nursing personnel or to both.

In Argentina, this training is provided to doctors as well as to nursing personnel, and appropriate certificates are issued. In Bulgaria, medical and nursing personnel working on board ship follow a special course at a hospital specialised for workers employed in waterways. In Colombia, nursing personnel are required to possess an appropriate qualification, together with a certificate issued by the General Directorate of Merchant Marine and Ports. While no training is provided to ships’ doctors in Cuba, nursing personnel for ships are trained at special schools; the
Government reports that there were 54 candidates for the relevant examination in 1972, and that there will be 60 in 1973. In France, special training is given to physicians which leads to the granting of a certificate as ship's doctor. According to the legislation of the Federal Republic of Germany, a ship's doctor must be qualified to carry out his functions. Before being engaged in this capacity, he must submit a certificate authorising him to carry out such duties, and a certificate of aptitude for sea life. Italian legislation provides that no person may be engaged as a ship's doctor unless he has passed the relevant examination. Such examinations are held every five years and include oral, written and practical tests; the syllabus appears in Annex VIII to the present report.

In the Khmer Republic, training in first aid at sea is given to medical and nursing personnel.

In Poland, six-week courses in maritime and tropical medicine for ship's doctors are held at the Maritime Medicine Institute in Gdansk; in addition, facilities are available for doctors to specialise in maritime and tropical medicine. The Government of Romania states that no special training in naval medicine is given to the medical and nursing personnel of that country. For employment on board ship, personnel are recruited from among doctors and nurses having completed ordinary studies. Nursing personnel, however, complete their training by studying, during voyages, publications (provided by hospitals and clinics) dealing with first aid in case of sickness or accident. At the end of the practical training carried out ashore and the theoretical training carried out on board ship, nursing personnel pass an examination. Medical personnel receive advanced training through courses organised by the Ministry of Health.

In the Ukrainian SSR, doctors who work on board ship must undergo a year's internship training to specialise as ship's doctors; similar training is given to nursing personnel for service on board ship. Ships' medical officers of the USSR are sent on training courses every two to three years in order to improve their skills, the courses themselves lasting between two and three months; normal remuneration is paid during the period of the courses. In Yugoslavia, appropriate courses are arranged from time to time.

(b) Please indicate whether relevant training is given to crew members responsible on board ship for: (i) first aid, and (ii) more advanced medical treatment.

The great majority of governments replying to this question indicate that training in first aid is provided
on board ship either to all personnel, or to deck officers only, or to the master alone. In certain cases, training is available but not compulsory. Training in more advanced medical treatment is sometimes mentioned as being given to crew members. For instance, the following countries indicate that instruction in first aid is provided to a greater or lesser extent as part of the course for a deck officer's or master's certificate: Belgium, Bulgaria, Canada, Denmark, Ghana, India, Iraq, Ireland, Italy, Morocco, Netherlands, New Zealand, Philippines, Singapore, Spain, Sweden, Tanzania, Trinidad and Tobago, Ukrainian SSR, United Kingdom, Viet-Nam and Yugoslavia. The following governments state that training in first aid is given to all deck officers and engineers: Argentina, Australia, Burma, Gabon, Federal Republic of Germany, Sudan and Zaire. A few countries report that training in first aid is provided to all officers and to some crew members (Finland, France, Greece and Norway). Egypt and Indonesia indicate that training in first aid is provided to all crew members. Training for the crew members responsible for first aid on board ship is provided in Guinea, Guyana, Israel, Kenya, Mauritius, Nigeria, Romania and Zambia.

Additional information is supplied by certain governments in connection with this point. Thus in Denmark, training for deck officers includes training in first aid for a period of some 40 hours, on the basis of an approved first-aid manual. Ship master trainees receive instruction for an additional 40 hours in the treatment and diagnosis of diseases. The instruction is provided on the basis of the "Seafarers' Manual of Medicine", and includes instruction in the use of radio medical services. Coastal and home-trade masters receive special instruction in first aid. The Government of Egypt states that training in more advanced medical treatment is a requirement for promotion of officers. In Finland, the curricula of the courses for future officers at the Institutes of Navigation include training in health care for one hour per week; this covers not only first aid but also more advanced medical treatment. Three-day refresher courses are also held for crews in the deck department. In India, it is expected that training in more advanced medical treatment will be given as a result of the establishment of two new courses in first aid and medical treatment for first mates and masters respectively. First-aid training is given to ratings following pre-sea training for the deck and engine-room departments in other Indian training establishments. In Italy, nautical schools for future deck officers provide
training in anatomy, first aid and medicine; this training is given for one hour a week during one year.

In Japan, where medical care on board ocean-going ships is entrusted to a crew member who has passed a national examination as health supervisor, the training for obtaining a certificate of health supervisor lasts for four weeks. Ship personnel in Norway receive training as follows: second mate: 20-hour course in first aid; ship master: 40 hours' instruction in health subjects; second engineer: 10 hours' instruction in health subjects; chief engineer: 20 hours' instruction in health subjects; ships' cooks: 36 hours' instruction in hygiene and health subjects.

For Polish students at the Nautical Colleges at Gdynia and Szczecin (officer cadets) there is a special 50-hour course in first aid for navigators, and a 32-hour course for engine-room, electrical and radio department staff. Training in the use of the ship's medicine chest, on board vessels where there is no doctor, is given to officers responsible for such duties. In addition, lectures on first aid and occupational health are included in refresher courses for officers, seamen and fishermen. In Singapore, a First Aid at Sea Certificate and the Ship Captain's Medical Training Certificate are issued by the Ministry of Health in collaboration with the Marine Department and the Singapore Polytechnic. The training which leads to the issue of these certificates is organised on the same lines as that of the United Kingdom, and is closely related to The ship captain's medical guide. Students are also advised to consult the International medical guide for ships, which may ultimately become the accepted text for Singapore-registered vessels. In Sweden, the training of deck officers includes 50 hours' first aid (40 hours for the mate's examination and 40 hours for the master's examination). In Turkey, the programme of the nautical schools for deck and engine-room officers includes hygiene. In the USSR, in agreement with the master of the vessel, the ship's medical officer runs courses for the crew in first aid and procedures in the event of sudden injury or illness; these courses are in accordance with the special programme of training for persons engaged in medical duties. In Yugoslavia, fourth-year students at the school for deck officers are trained in health matters. Until 1972, this course was held three times a week, but since then it has been given twice a week. Schools for engineers give similar training.

(c) Please indicate whether training in first aid is given to other crew members

In general, the governments of those countries which indicate that medical care on board ship is a responsibility
of the master or of the mates, reply to this question by stating that training in first aid is given only to masters and mates. This is the case for Ghana, Italy, Malta, Mauritius, Netherlands, New Zealand, Romania, Tunisia, Turkey, United Kingdom and Zaire. However, in a large number of cases, such training is given to all members of the crew who require it for their duties on board ship: Argentina, Australia, Belgium, Canada, Denmark, Egypt, Finland, France, Federal Republic of Germany, India, Indonesia, Ireland, Japan, Morocco, Nigeria, Spain, Sweden and Yugoslavia. Certain governments indicate that training in first aid is given on board ship during voyages, either by the ship's doctor where there is one, or by the master or one of the mates: Bulgaria, Cuba, Norway, Philippines and Poland. The Government of Singapore states that at present medical training is not included in the syllabus for the training of ratings, but may be included when facilities are available.

Methods of training

(d) Please indicate whether the above training is given on board ship or ashore

Almost all governments report that this training is given ashore. This is the case in Argentina, Australia, Belgium, Burma, Canada, Colombia, Cuba, Denmark, Finland, France, Gabon, Federal Republic of Germany, Ghana, Greece, Guinea, Guyana, India, Indonesia, Iraq, Israel, Italy, Japan, Kenya, Khmer Republic, Mauritius, Morocco, Netherlands, New Zealand, Singapore, Sudan, Sweden, Switzerland, Thailand, Trinidad and Tobago, United Kingdom, Yugoslavia, Zaire and Zambia.

In some countries, part of the training is given ashore and part on board ship. Bulgaria indicates that training of medical and nursing personnel and of masters and first mates, is given ashore, training of other personnel being given on board ship. Egypt states that some medical training is given on board ship, under the supervision of the master. Ireland reports that basic first-aid training and training in the use of first-aid equipment is given on board those ships which carry a catering officer holding an ambulance certificate. In Norway, training is generally given in the schools, but practical training is given on board ship by the chief mate. In the Philippines, first-aid lectures are delivered by the captain and officers as part of their weekly safety meetings aboard ship while at sea. In Poland and Romania, while the courses mentioned in the replies to question (b) are given ashore, ships' doctors give theoretical and practical training in first
aid during voyages. Spain states that generally the courses mentioned above are carried out ashore, but short courses are also given on board ship. Nigeria indicates that all training is given on board ship.

(e) If such training is given ashore, please indicate whether it includes practical training or experience in hospitals.

The governments which indicate that hospital training is given in their countries are those of Argentina, Burma, Colombia, Cuba, Denmark, Guinea, Guyana, India, Iraq, Ireland, Israel, Italy, Japan, Mauritius, Morocco, Poland, Romania, Singapore, Spain, Sweden, Trinidad and Tobago and the Ukrainian SSR.

Certain other governments amplify their replies on this point. Thus in Australia, training may be conducted in hospitals, but the practice is not widespread. In Finland, students in the nautical colleges make occasional visits to the hospitals. In France and Gabon, the training includes practical work but no experience in hospitals. At the nautical academies of Hamburg and Lübeck in the Federal Republic of Germany, practical and theoretical training is given in hospitals, and efforts are being made to extend this practice to all such courses. In the Netherlands, before obtaining a first mate's certificate, applicants may follow a period of training in a hospital on a voluntary basis. In New Zealand, no practical training in hospital is conducted at present, but it is intended to provide such advanced training to masters and mates within the near future.

(f) Please indicate to what extent this special training is part of the vocational training.

All the governments replying to question (b) above which indicate that some form of first-aid training is provided to crew members, also reply in the affirmative to this question. This is the case for Argentina, Australia, Belgium, Bulgaria, Burma, Canada, Denmark, Egypt, Finland, France, Gabon, Federal Republic of Germany, Ghana, Greece, Guinea, Guyana, India, Indonesia, Iraq, Ireland, Israel, Italy, Kenya, Mauritius, Morocco, Netherlands, New Zealand, Nigeria, Norway, Poland, Romania, Singapore, Spain, Sudan, Sweden, Tanzania, Trinidad and Tobago, Turkey, Ukrainian SSR, USSR, United Kingdom, Viet-Nam, Yugoslavia, Zaire and Zambia. Exceptions are Japan and the Philippines.
(g) Please indicate to what extent this training is given at different stages during the seafarer's career and to what extent in refresher courses.

From the information contained in the replies of governments to this point, it would appear that it is common for first-aid training to be given in the course of instruction for obtaining a first certificate, and that more advanced medical instruction accompanies courses in higher stages of training, e.g. in Colombia, Cuba, Denmark, Egypt, Finland, India, Indonesia, Ireland, Netherlands and Sweden. However, in certain countries, special types of refresher courses are given. Thus in Denmark, special one-week courses in the transport of chemicals, including a medical section, are offered. In Ghana, New Zealand and Singapore, first-aid certificates have a validity of three years. As candidates for certain officers' certificates must, to be eligible, possess a valid first-aid certificate, attendance at refresher courses is often required in order to keep the certificates up to date.

In Norway, refresher courses are provided by certain ship-owners, and in Poland the courses for officers, seamen and fishermen include instruction by doctors in occupational health and first-aid care. In Sweden, no refresher courses in first aid and medical treatment are held, but advanced courses have recently been arranged on an experimental basis; these concentrate on the prevention of accidents for personnel working in ships carrying oil and bulk chemicals. A few hours of these courses are specially devoted to first aid and medical treatment in connection with the accidents which can occur on such ships. A committee, studying the training of sea-going personnel, is considering the organisation of courses on medical care and health services. Basic training for ratings will have to be adapted to changed situations and to the introduction of new types of dangerous cargo. In view of these developments, training in toxicology will be added to the curriculum. In the United Kingdom, there are no statutory requirements for refresher courses, although masters are encouraged to take one.

Other provisions for medical care

(h) Please indicate to what extent radio medical advice is available.

Most of the governments replying to this question indicate that medical advice by radio is available to ships at sea through the national coastal radio stations. These include Argentina, Australia, Belgium, Bulgaria, Burma, Cameroon, Canada, Colombia, Cuba, Denmark, Egypt, Finland, France, Gabon, Federal Republic of Germany, Ghana, Greece,
A few other governments report that in view of the limited power of such stations, communications with ships at sea are possibly only within a certain range; these include Kuwait and Senegal. Some other governments indicate that while there is no medical radio service in their own countries use is made of the CIRM (Centro Internazionale Radio Medico), with headquarters in Rome, and of the CROSS (Centre Régional d'Organisation de Secours et de Sauvetage) with headquarters in Cherbourg. These include Gabon, India and Iraq.

(i) Please indicate whether there are special medical centres or services for seafarers on land

Several governments, in reply to this question, give details of the arrangements in force in their countries for the medical treatment of seafarers ashore. Thus in Argentina, the main shipping companies have their own hospitals for seafarers employed by them. In Australia, while no special medical centres for seafarers are established, medical officers are appointed in all ports to carry out examinations in conformity with the Navigation Act. In Belgium (Antwerp), there is a medical service for the merchant marine, whose task is to carry out medical examinations of seafarers when required and to give advice concerning medical assistance on board ship. In Bulgaria, special medical services for seafarers are available at the special transport hospitals. These services are responsible for all activities relating to the treatment of diseases, prophylaxis, hygiene and precautions against epidemic diseases. In Colombia, medical services for seafarers are the same as those available for all workers, although the "Flota Mercante Grancolombiana" provides its own medical assistance to its seafarers in all ports of call. Special medical services for seafarers have been established in Cuba only in places where the number of seafarers warrants such centres. No special centres have been established in Dahomey; medical attendance is provided by a doctor approved by the shipowner, often at the National Hospital in Cotonou (Centre National Hospitalier). There are three special medical centres for seamen in various ports of Egypt, where medical treatment is provided free of charge to seamen. Similar facilities exist in France and Gabon. In the Federal Republic of Germany, special seafarers' medical centres have been established in Hamburg, Bremen,
Bremerhaven and Kiel, and in Greece, at the Piraeus and other ports, there are seafarers' homes. In Guinea, no special medical centres for seafarers have been established so far, but a centre which will provide medical examinations and treatment for seafarers only is being equipped at the present time. Special medical centres or services for seafarers exist in several Indian ports, where seamen on articles receive treatment; hospitalisation facilities are available in the seamen's clinics and other hospitals throughout the country. In Indonesia, at the ports of Tanjung Priok and Tanjung Perak, there is a port health centre, which is available to all port personnel and to seafarers. It is expected that additional centres will be built in other Indonesian ports. All crew members may obtain medical care and hospitalisation at any port in Iraq, and in Ireland health services are provided for eligible seafarers on the same basis as for other classes of the population. In Israel, the port of Haifa has a special medical centre for Israeli seafarers, which forms a part of the health insurance coverage of seamen. The three Italian seafarers' sickness and accident funds (Cassa Marittima Tirrena, Meridionale and Adriatica) operate many health centres both at home and abroad, where many types of medical assistance can be obtained. In Jamaica, the services of both government and private hospitals are available for the special treatment of seafarers, but no special centres for seafarers as such have been established. There are thirty-eight hospitals and medical centres for seafarers in Japan; in addition, many doctors who are familiar with the special circumstances of maritime employment have been designated to care for seafarers by the proper authority. At Kampong Som in the Khmer Republic, a medical centre is attached to the port administration, while in Kuwait, fully equipped medical centres for seafarers exist in every port. In Malta there are no special medical centres for seafarers, but seafarers make use of the ample facilities available to the general population; in one private hospital, a ward is reserved for seafarers. In Mauritius there are no special medical centres for seafarers, sick or injured seamen being examined by the company's doctor and referred to various clinics at the expense of the shipowner. In every port of Morocco there is a medical centre for seafarers. In New Zealand a health clinic has been established in Auckland, and similar clinics may soon be introduced for seafarers in other ports.

Special medical centres for seafarers in Norway have been established in Oslo (with a subcentre in Drammen), Tonsberg, Porsgrunn, Kristiansand, Stavanger, Haugesund, Bergen and Trondheim. These centres are administered by the Central Board for Medical Services for Seamen, which has four members representing respectively the Health Directorate, the Directorate for Seamen, the Norwegian Federation of Seamen and the Employers' Association for the Shipping
Industry. The primary task of these centres is to carry out examinations of the state of health and colour vision of seamen in conformity with the regulations, and in this connection to consider the cases of seamen who have been refused, permanently or temporarily, permission to take employment on board ship, or granted it subject to restrictions. The centres are also required to prepare and present the medical evidence in connection with appeals lodged by seamen against decisions declaring them unfit. As a natural part of their activities, the medical centres give socio-medical assistance to persons who for medical reasons have been refused permission to resume employment on board ship. Other tasks undertaken by the centres include the giving of advice to local enrolment authorities as well as to public and private institutions and organisations respecting the health of seamen, epidemiological work, etc. The centres also to a certain extent undertake the treatment of seamen who apply to them for medical aid after having been signed off owing to illness. They do not as a rule provide medical care to seamen who fall ill while staying at their place of residence; such cases are taken care of by the regular health service. The Directorate for Seamen intends as soon as possible to establish, in close cooperation with the Central Board for Medical Services for Seamen, separate centres for seamen within each of the country's enrolment districts. As part of this work, plans are at present being made to set up such centres in Fredrikstad, Arendal, Alesund, Kristiansand, Bodø and Tromsø. Medical examinations in conformity with the above-mentioned regulations must, when carried out abroad, take place at a Norwegian health centre for seamen, where such a centre exists, or be made by a physician who has been authorised by a Norwegian consulate to issue the certificates concerned. Norway today has its own health centres for seamen in London, Rotterdam and New York. Running costs of the centres in Norway are covered by the fees which the shipowners are required to pay for such examinations under the provisions of the Seamen's Act. In addition, a sum is appropriated in the national budget as a contribution to the socio-medical activities of these centres.

Panama states that health centres exist in several ports at which coastal vessels call. In Poland, special harbour clinics have been set up to provide medical care for seafarers and fishermen. The Maritime Medicine Institute in Gdansk, which is the training centre for the maritime health services, exercises technical and specialised supervision and carries out scientific research. Under the auspices of this Institute and the district harbour clinic in Gdynia, WHO has set up an international seamen's centre. In certain ports of Romania there are dispensaries for seamen, and where these do not exist, medical treatment is provided by health units. In Singapore there is a government
clinic situated just outside the port area catering mainly for seafarers. In Spain, seamen's homes (Casas del Mar) or other institutions where these homes are not established provide medical treatment to seafarers through the special social security scheme for seafarers. In Sweden, health services and medical examinations for seamen ashore are handled by seamen's doctors, who receive special training and acquire experience of the working conditions of seafarers. In Gothenburg, the largest Swedish port, a health centre for seamen has been set up and six seamen's doctors are now working there. Seamen's doctors have been appointed in all Swedish ports and in many foreign ports. In the majority of Black Sea ports of the Ukrainian SSR, specialised medical assistance to crew members is rendered by seamen's hospitals with polyclinical departments or similar institutions. In the United Kingdom, all seafarers, British and foreign, are entitled under the national health service to free medical treatment while in the United Kingdom; the British Shipping Federation provides medical attention on a more limited scale. The Seamen's Hospital Group in London provides special facilities for seafarers. In Venezuela, no medical centres for seafarers exist, but in the centres operated by the compulsory social security scheme seafarers are given priority treatment in view of the special nature of their employment. In the large ports of Yugoslavia, health institutions contain special sections for seafarers. There are also clinics for skin and venereal diseases. In Zaire, a special medical service for seafarers operates in Matadi.
CHAPTER II

SUMMARY OF INFORMATION RECEIVED AND PROPOSED POINTS FOR DISCUSSION

It has been seen that in most countries in respect of which information is available, neither doctors nor full-time medical or medical-nursing personnel are carried on cargo vessels except, in some countries, where the number of persons on board exceeds a certain figure; and that, in most cases, where medical or nursing personnel are not employed, responsibility for providing care falls to the master or one of the deck officers.

As a consequence, in most cases no special training is provided for medical or nursing personnel on board ship, except in twelve countries, where it is given to medical or nursing personnel, or both.

It has also been noted that in most countries, training in first-aid care is given either to all personnel or to deck officers or to masters, but that it is not compulsory in all cases; in some countries, training in advanced medical treatment is also given. In 22 countries, training in first aid is given during the course leading to the granting of deck officers' or masters' certificates. In seven countries, first-aid training is given to all deck and engineer officers, and in another four, to all officers and to some crew members, whereas in two countries, it is given to all crew members. In eight countries, appropriate training is given to crew members who are responsible for providing first-aid care on board ship. More advanced medical training is provided to certain crew members (usually masters and/or chief or second mates) in five countries. In 14 other countries, special provisions exist concerning training in first aid and medical assistance.

It has also been seen from the information received from governments that in 18 countries, first-aid training is given to members of the crew who require it for the performance of their duties, and in another five countries, such instruction is given on board ship by the ship's doctor (if any) or by the master or another officer.

It would appear further that in 38 countries, first-aid training is given ashore (in 22 of these in hospitals), and in another eight, partly ashore and partly on board ship.

All the governments which report the existence in their countries of facilities for the medical and first-aid training of crew members responsible for such duties on board ship, also state that this type of instruction forms a part of the vocational training provided.
In most countries, first-aid training is given as part of the course for a first officer's certificate, whereas more advanced medical instruction accompanies later stages of training. In some countries, refresher courses are given to enable qualified seafarers to keep their first-aid certificate up to date. From the replies of governments, it would appear that in most countries, medical advice by radio is available to ships at sea, either through the services of national radio stations, those of neighbouring countries, the CIRM in Rome, or the CROSS in Cherbourg.

Finally, it has also been seen that in a number of countries, special facilities have been set up to provide medical care to seafarers, and that in others, seafarers can use the facilities available to the general public.

* * *

It will of course be for the Joint Committee itself to decide, on the basis of information contained in the present report and otherwise available to the members, whether it wishes to make a recommendation or recommendations concerning the matters under discussion here. While a wide diversity appears to exist in the various countries in respect of the provision of medical and first-aid training to ship personnel, particularly as regards the types of training programmes available, the methods employed, and other provisions for medical care, there are nevertheless certain general trends perceivable in each of these areas. The Committee may also wish to bear in mind the obvious connection between the provision of adequate medical and first-aid training to ship personnel on the one hand, and the efficient use of the International Medical Guide for Ships and the international labour Recommendations concerning the contents of medicine chests on board ship and medical advice by radio to ships at sea, on the other matters to which the Committee has given careful attention at previous sessions and in respect of which its conclusions have been widely accepted and implemented throughout the world. The view may also be held that less diversity appears to exist in respect of preferred methods of first-aid and medical training of ship personnel in the various countries than was the case in respect of the suggested contents of medicine chests and medical guides when the Committee first took up these matters for discussion. The secretariat would therefore venture to suggest that the Committee may wish to discuss any one or all of the following matters during its consideration of this question:

(a) assessment of the present situation on the basis of the information provided and identification of the main remaining problems;
(b) measures to solve these problems that should be adopted:

(i) on board ship;

(ii) by shipowners and seafarers' organisations;

(iii) by public authorities in member States;

(c) action that should be undertaken by the ILO and separately and jointly - by WHO to help in the implementation of (b); and

(d) any other recommendations it cares to make concerning this matter.
ANNEX I

RESOLUTION CONCERNING MEDICAL CARE ABOARD SHIP
SUBMITTED BY THE WORKERS' DELEGATE OF THE UNITED STATES
TO THE 55TH (MARITIME) SESSION OF THE
INTERNATIONAL LABOUR CONFERENCE
(Geneva, October 1970)

In a civilized society, seamen have the same rights — and the same needs — as others.

We do not believe that we must be bound by maritime history and the traditions of the sea to the view that whereas most seafarers always have been without adequate medical care on board their vessels, appropriate means and programmes cannot be developed to overcome this deficiency.

We believe that international activities and co-operative undertakings among nations can improve the quality of life at sea in respect to medical care, and to all other matters affecting life and work at sea for all of the more than 750,000 men and women now sailing in the merchant fleets of the world.

We reaffirm our determination to sustain the effort which is necessary to provide seafarers with conditions of life and work as close as possible to those enjoyed by workers on shore.

We believe that international attention in the area of seafarers' health and welfare must continue to expand.

We are conscious of the distinction that must be drawn between medical practice by seafarers, and vocational training for seafarers in the field of medicine and first-aid practice, so as to provide adequate on-board medical care for the sick and injured on vessels which do not carry a doctor.

The merchant seaman is isolated from medical attention while serving on the high seas.

We urge attention and a remedy to the situation on the vast majority of vessels in the merchant fleets of the world which, in the absence of a doctor, deprives seafarers of adequate medical care and first aid when they may often need it most.

We respectfully urge consideration of an international standard of on-board medical care for all merchant vessels, so that there shall be a reasonable minimum standard of
Medical and first-aid training required among the nations of the world for seafarers certified in medical and first-aid practice.

We respectfully request the United States Workers' delegation and Government and Employers' delegations and the ITF (International Transport Workers' Federation) Service Group to seek the initiation of such a standard jointly with the International Labour Organisation through the Joint ILO-WHO Committee on the Health of Seafarers, and by other appropriate means, in consultation with governments, international organisations, national organisations and agencies as practicable.

We offer the following objectives:

1. To acquaint the medically qualified personnel aboard ship with the fundamentals underlying the proper management of the more common illnesses and injuries encountered at sea.

2. To impart to the medically qualified personnel aboard ship not only the "how" of treatments and procedures but also the "why".

3. To teach the medically qualified personnel aboard ship how to handle emergencies so as to minimise complications and suffering.

4. To broaden the capacity of the medically qualified personnel aboard ship for understanding the complexities of the human body and its response to disease.

5. To instill in the medically qualified personnel aboard ship the need for maintaining high standards not only in giving care to patients but also in environmental sanitation and in personal hygiene.

The following offers an outline of a recommended curriculum of 1080 hours for training these medically qualified personnel.

Length of Programme

Nine (9) months, consisting of didactic, practical and clinical work.

Instructional Staff

1. Chiefs of services and their associates in the following services: medicine; general surgery; orthopaedics; urology; ophthalmology; otolaryngology; dermatology; obstetrics and gynecology; dental; psychiatry; pathology.
2. Environmental health and safety officers.
3. Guest speakers.

<table>
<thead>
<tr>
<th>Subjects and Hours</th>
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<tbody>
<tr>
<td>Unit A. Anatomy and physiology</td>
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<tr>
<td>Unit B. Environmental health and preventive medicine</td>
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<tr>
<td>Unit C. Medical and surgical conditions (orthopedics; medicine; surgery; urology; dermatology; ophthalmology; otolaryngology; dental; obstetrics and gynecology; psychiatry; practical application; review and examination)</td>
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<td>Unit D. Patient care</td>
<td>330</td>
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<td>Unit E. Pharmacology</td>
<td>95</td>
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<tr>
<td>Unit F. Clinical laboratory</td>
<td>75</td>
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<tr>
<td>Unit G. Disaster control</td>
<td>55</td>
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<tr>
<td>Unit H. Medically qualified personnel responsibilities</td>
<td>20</td>
</tr>
<tr>
<td>Unit I. Practical experience in surgical techniques</td>
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<tr>
<td>Unit J. Other training</td>
<td>138</td>
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</table>
ANNEX II

QUESTIONNAIRE ON ITEMS ON THE AGENDA

I. Medical and first-aid training for ship personnel

Programmes

(a) Please indicate whether special training is provided in your country for medical and nursing personnel on board ship.

(b) Please indicate whether relevant training is given to crew members responsible on board ship for:

   (i) first aid; and

   (ii) more advanced medical treatment.

(c) Please indicate whether training in first aid is given to other crew members.

Methods of training

(d) Please indicate whether the above training is given on board ship or ashore.

(e) If such training is given ashore, please indicate whether it includes practical training or experience in hospitals.

(f) Please indicate to what extent this special training is part of the vocational training.

(g) Please indicate to what extent this training is given at different stages during the seafarer's career and to what extent in refresher courses.

Other provisions for medical care

(h) Please indicate to what extent radio medical advice is available.

(i) Please indicate whether there are special medical centres or services for seafarers on land.

Please include with your reply copies of existing training programmes at various levels which may be available, as well as any additional information concerning the manner and method of putting them into effect.
II. Dental care

Please indicate what facilities exist in your country, ashore, for the dental care of seafarers (of both a preventative and curative nature).

III. Medical examinations

Please indicate whether medical examinations are given to crew members on tankers carrying chemicals in bulk.
ANNEX III

BELGIUM

Syllabus for the Training of Deck Officers in First Aid and Medical Care

First year:

(a) Theoretical courses: Principles of the biology and physiology of the human body. Life. Elementary genetics. Basic composition of living matter. Biological laws and properties. Biological defence mechanisms. The principal physiological systems; circulation, respiration, digestion, the renal system and reproduction. Internal secretion glands and hormonal correlations. Study of the muscular system. Physiology of physical effort and training. Fatigue. The sense organs. Health:

- personal hygiene
- prevention of accidents and diseases
- elementary knowledge of: the venereal diseases tropical diseases contagious diseases

Care for drowned persons and artificial respiration.

(b) Practical courses: Applications of the subjects dealt with under (a).

Second year: practical medicine

Third year: practical medicine

General considerations on bacteria and contagious diseases.

Vaccines and serums; disinfection.

Modern medicines.

External medicine on board ship; wounds and their complications, fractures, sprains, haemorrhages, burns, etc.

Internal medicine; contagious and non-contagious diseases, diagnosis and treatment.

Venereal diseases. Treatment.

Tropical diseases. Treatment.

Pestilential diseases; diagnosis and treatment; international regulations and prophylaxis; conventions.

Radio medical consultation.

Diagnosis of death. Procedure to be followed in the event of death.

Injections.

Wound stitches.

Rescue measures; artificial respiration.

The master's legal obligations and liabilities respecting the practice of medicine on board his ship.

Syllabus for the Training of Second-Class Engineers in First Aid and Hygiene

1. Personal hygiene:
   bodily care
   diet, vitamins
   drink, abuse and alcoholism
   clothing
   hygiene in the tropics.
2. General physiology of the main systems together with basic anatomy.

3. Life aboard ship:
   - ventilation
   - lighting
   - heating
   - drinking water.

4. First aid in case of accident:
   - poisoning
   - wounds
   - burns
   - haemorrhages
   - fractures
   - sprains
   - dislocations
   - infections of the eyes and ears
   - general health disorders
   - artificial respiration
   - evidence of death.

5. Venereal diseases:
   - blennorrhagia
   - syphilis
   - soft chancre.
ANNEX IV

BULGARIA

Syllabus for the Training of Ships' Doctors

First day

1. Development of the merchant shipping fleet and ocean-going fishing fleet of the Bulgarian People's Republic.
2. Development and prospects of medicine afloat.
3. Main duties of the ship's doctor.
4. Position of the ship's doctor in the administrative structure of the Bulgarian merchant fleet.

Second day

1. Medical facilities on board ship: layout of premises, reference material.
2. Returns and statistics to be compiled.

Third day

1. Anti-epidemic measures on board ship while at sea. Main principles of prevention of contagious diseases.
2. Disinfection, disinsectisation and deratisation (at sea and in port). Types of products and methods of use.
Fourth day

1. Occupational safety and health on board ship. Regulations concerning cargoes involving health hazards.

2. Sickness and injury among crew members.

3. Medical certification of fleet crews, pre-voyage examinations, fitness for employment in tropical regions.

4. Principles to be followed by the ship's doctor in issuing medical certificates to crew members and in limiting sickness and traumatisms.

Fifth day


2. Differential diagnosis of acute symptoms in the abdominal region.

3. Selected chapters of "Internal Diseases".


5. Emergencies arising out of internal diseases.

Sixth day

1. Emergencies - eye diseases.

2. Emergencies - ear, nose and throat diseases.

3. Early diagnosis and initial treatment of venereal diseases.

4. Skin diseases.

5. Disorders of the nervous system.

Seventh day

1. Emergency stomatological treatment on board ship.

2. Obstetrics and gynaecology on board ship.

3. Tropical medicine - malaria, tropical parasitoses; treatment and prevention.

4. Psychological and psychiatric problems of crew members.
Eighth day

1. Radio consultations on medical questions. Preparation of questions and answers. Introduction to the international radio code.

2. Main problems of medical care during and after shipwreck.

3. Preparation of reports by ship's doctor.
ANNEX V

FINLAND

Syllabus of the Basic Vocational Training for Seamen

Health education

16 weeks - 1 hour weekly

| Outline of human anatomy and of the functions of the human body | 2 |
| Personal hygiene; cleanliness, appropriate clothing, work, rest | 3 |
| First aid: | |
| bandaging in different cases of injury | 3 |
| restoration of respiration | 2 |
| Communicable diseases | 1 |
| Venereal diseases | 2 |
| Tropical hygiene | 1 |
| Abuse of intoxicants | 1 |
| Written tests and their return to students | 1 |

Syllabus of Training in First Aid
Given to Candidates for Deck Officers' Certificates

Preparatory course - health care

34 hours - 1 hour weekly

Mates' course - health care

34 hours - 1 hour weekly


Chief mates' course - health care

34 hours - 1 hour weekly


Syllabus of the Refresher Course in Medical Treatment for Deck Officers

3 days - 22 hours

<p>| Preventive health care | 1 |
| Purpose of first aid. Circulatory system. | 1 |
| Wounds and first aid. Stopping of the flow of blood | 1 |
| Training in bandaging | 2 |
| Fractures and first aid | 1 |
| Training in splinting | 2 |
| Burns. Frostbite. Accidents caused by electricity. Injuries caused by radiation | 1 |
| Shock and first aid | 1 |</p>
<table>
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<tr>
<td>Intoxications. Injuries caused by cauterisation. Corpus straneum</td>
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<td>Restoration of respiration by means of the mouth-to-mouth method.</td>
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<td>External heart massage and restoration of respiration.</td>
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<tr>
<td>Saving of a drowned person</td>
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<tr>
<td>Practical exercises for the above item</td>
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<td>Acute unconsciousness caused by certain diseases. Removal of the</td>
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<td>injured person from the place of accident. Transport positions,</td>
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<td>provisional stretchers</td>
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<td>Maintenance of ship's pharmacy</td>
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<tr>
<td>Cure of communicable diseases</td>
<td>2</td>
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<tr>
<td>First aid in cerebral haemorrhage, thromboses</td>
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<tr>
<td>Supervision of medical aspects of occupational safety and</td>
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<td>supervision of occupational hygiene</td>
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<tr>
<td>Use of alcohol and its consequences</td>
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<tr>
<td>Venereal diseases and their treatment</td>
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</table>
ANNEX VI

FRANCE

Syllabus for the Training of Masters in Hygiene and Medical Care

Hygiene

I. Medical facilities on board ship

Medical duties of officers in the merchant marine:
Appointment of specialised medical personnel.
Facilities on board ship for treating the sick and injured: sick-bays.
Regulations governing the provision, maintenance and supervision of medical and pharmaceutical supplies.
Medicines for internal use (instructions for use).
Medicines for external use (instructions for use).
Bandages. Equipment and utensils. Disinfectants.

II. The human body

Outline of the main systems of the human body and their operation.

III. The patient

Questioning. Examination. Main symptoms likely to be presented.

IV. Medical consultations by radio

V. Emergencies

Traumatic shock.
Wounds. Bites and stings.
Haemorrhages.
Burns.  Frostbite.
Fractures.
Sprains.  Dislocations.
Ruptured muscles.
Angina pectoris.
Coronary thrombosis.
Asthma.
Poisoning.  Food poisoning.
Absorption of toxic, caustic or poisonous products.
Acute alcoholic poisoning.  Delirium tremens.
Poisoning by toxic gases and fumes.
Accidental ionising irradiations.
Mental derangement.
Care for the shipwrecked.
Care for the drowned and electrocuted.

VI.  Contagious diseases

VII.  Venereal diseases
Blennorrhagia.
Syphilis.
Soft chancre.
Nicolas-Favre disease.
VIII. Infections and parasitic diseases

Typhoid fever. Scabies and pediculosis. Influenza.
Tuberculosis. Chickenpox.

IX. Other disorders liable to be detected

Tracheo-bronchitis and bronchitis. Pneumonia.
Pleurisy. Spontaneous pneumothorax.
Stomatitis. Dental decay.
Dental neuralgia.
Haemorrhoids. Hernia.
Hepatic colics. Jaundice.
Cystitis. Orchitis.
Paraphimosis.
Bruises. Wounds.
Disorders of the ear: otitis externa; otitis media.
Foreign bodies in the auditory meatus.
External suppurations: piles, carbuncles, whitlows. Hot abscesses: phlegmons; lymphangitis; adenitis.
Varicose veins. Phlebitis.
Vaccinations: post-vaccinal complications.
Shingles.
Tetanus.
X. Death on board

Signs of death. Procedure to be followed.

XI. Prevention of accidents and diseases. Principles of hygiene

Physical standards required for various services and specialisations, and importance of periodical check-ups.


Personal hygiene. Cleanliness of body and clothing.


Storage and inspection of drinking water. Diet and its effects.

Different types of foodstuffs. Vitamins.

Fresh food and preserved food. Different ways of preserving food. Drink and its abuse.

XII. Practical work

Asepsis. Anti-sepsis. Sterilisation of instruments. Disinfection of a wound, use of antiseptics. Applying an ordinary dressing (gauze, cottonwool, bandage); applying a prepared dressing; applying a wet dressing.

Roll bandages; spiral bandages; reverse bandages; bandaging of the arm, forearm, thigh and leg.


Compresses. Points of application: neck, arm, thigh; tourniquet.

Dislocations and sprains. Methods of securing.


Subcutaneous injection and intramuscular injection.

Assembly, filling and cleaning of syringes and needles; injection technique. Subcutaneous injection of isotonic solution of sodium chloride. Assembly and operation of the device.

Murphy drip injection; assembly and operation of the device.

Stomach lavage: assembly and operation of the device.

Extraction of a foreign body from the eye: turning back the upper eyelid. Instillation.

Painting of the throat: use of a tongue-depressor.

Incision: how to hold the lancet.

Taking temperature. Temperature charts and curves.

Taking the pulse.

Detection of albumen and sugar in the urine. Insertion and withdrawal of a draw-sheet.


Syllabus for the Training of Engineers, Electricians and Electronics Specialists in Hygiene and First Aid

I. Emergency care

(1) Traumatic shock


(2) Wounds

Degree of seriousness. Complications (short and

(3) Burns

Degree of seriousness. Complications. First aid. Burns by acid or base.

(4) Accidental haemorrhages (external and internal)

Degree of seriousness. Compression points. Tourniquet. Compression bandage. Special forms of haemorrhage (nose bleeding; vomiting and spitting of blood). Internal haemorrhages; signs assisting diagnosis.

(5) Fractures and dislocations


(6) Unconsciousness


(7) Special cases of asphyxia

Drowning; electrocution; toxic gases and fumes; first aid; prevention.

(8) Heat stroke

(9) Transport of injured persons

II. Hygiene

Definition. Importance. Hygiene on board ship.

(1) General hygiene

(a) Air. Chemical and physical characteristics. Reactions of the human body to variations in these characteristics.

(2) **Contagious diseases**
Causes and prophylaxis.

(3) **Personal hygiene**
(a) Bodily cleanliness.
(b) Hygiene and clothing.

(4) **Food and drink**
(b) Water on board ship (supply; conservation; distribution; purification; analysis).
(c) Hygiene and the digestive system.

(5) **Work**
**Fatigue. Overwork**

(6) **Hygiene and the nervous system**

(7) **Occupational hygiene**
(a) General hygiene in working premises; work; staffing.
(b) Occupational diseases:

Poisoning and diseases caused by chemical agents.

Diseases caused by physical agents (ultraviolet, light and infra-red rays, ionising radiations).

Accidents.

(8) **Social diseases**
Tuberculosis; alcoholism; venereal diseases; cancer. Responsibilities of the individual towards himself, his shipmates, his family and the community.
Syllabus for the Training of Ratings in Accident Prevention and First Aid

I. Accident prevention

Definition of occupational accidents

(1) Causes of occupational accidents
   (a) Basic causes: physiological, psychological, technical, seasonal;
   (b) immediate causes.

(2) Consequences of occupational accidents
For the sailor, for the employer and for the community.

(3) Ways of avoiding accidents. Remedies for basic causes. Remedies for immediate causes
Supervision of installations and operations on board ship.

(4) Safety consciousness

II. First aid

(a) Theory
Elementary anatomy and physiology.
Sprains, dislocations, fractures. Procedure to be followed.
Wounds, burns; principles of treatment.
Haemorrhages, hemostasia.
Asphyxias in general (causes, types, apparent death, methods of resuscitation).
Shocks (brief survey).
Electrocution.
Survival if shipwrecked.
Occupational poisoning (carbon monoxide, lead, carbon tetrachloride, etc.).
(b) **Practical**

Bandages: function, types, application to different parts of the body.

The tourniquet: nature, function, precautions in use.

Fractures: various methods of immobilisation.

Syncope, congestion, burns: first aid.

Asphyxias: treatment according to cause.

Rescuing, taking on board and carriage on a stretcher of injured and asphyxiated persons.

Saving and resuscitation of a drowned person, mouth-to-mouth method.
ANNEX VII

NETHERLANDS

Certificate Examination Requirements concerning Medical Care on Board Ship

1. Third mate's certificate

General description

Knowledge and proficiency in giving first aid and treatment to accident victims on board sea-going vessels, as instructed in the manual which under the Shipping Act shall be available on board sea-going vessels of the deep-sea trade.

Detailed requirements

The subjects in which candidates are examined are based on the knowledge required for the uniform first-aid certificate. These subjects are to be supplemented and modified in view of the fact that it is not required by law that a physician should be available on board sea-going vessels and that the first aid given to accident victims on board ships also includes some emergency treatment. Therefore the following points should be paid attention to:

Understanding of the difference between the medical conditions on board sea-going vessels and in ports. In this respect a vessel in the port can be bracketed with an enterprise ashore.

Holders of the third mate's certificate should be able to provide emergency treatment for a couple of hours. The equipment of lifeboats with medical appliances necessary in the event of a person falling overboard.

Knowledge of cases of poisoning that may occur on board ship, especially in connection with the cargo.

The transport of accident victims on board sea-going vessels.

The preparation and giving of injections, both subcutaneously and intramuscularly.

The preparation and application of an ice bag and an enema.
Knowledge of the medicines and dressings that may be necessary for the treatment referred to above, in so far as they shall be on board under the Ratings Decree.

Proficiency in the application thereof.

2. Second mate's certificate

General description

Knowledge of and proficiency in giving first aid and treatment in the event of accident and diseases on board sea-going vessels, as instructed in the manual which under the Shipping Act shall be available on board sea-going vessels of the deep-sea trade.

Detailed requirements

In addition to the knowledge required for the third mate's certificate, specifically in addition to the requirements for the uniform first-aid certificate:

General pathology. Understanding of the concepts: bacteria, contamination, infections (local and general), infectious diseases, incubation period. The body's capacity to resist infection and the way in which this capacity can be enhanced. Some understanding of the concept of prophylaxis. Some knowledge of the ways in which bacteria can enter the body and some examples thereof. Some understanding of quarantinable diseases from the International Sanitary Regulations point of view and of the measures to be taken in this respect. Some understanding of vaccination and serum treatment.

Specific pathology. Some knowledge of the possible nature of acute abdominal diseases and the attending symptoms; the way in which these diseases should primarily be treated. Some knowledge of the emergency treatment of patients suffering from infectious diseases. Some knowledge of the nursing of accident patients and of patients who are ill. Some knowledge of the medicines and dressings that may be necessary for the treatment referred to above, in so far as they shall be on board under the Ratings Decree. Some knowledge of the action of these medicines.

3. Chief mate's certificate

General description

To give medical assistance on board sea-going vessels as instructed in the manual which under the Shipping Act
shall be on board sea-going vessels of the deep-sea trade. To apply for radio medical advice. Knowledge of hygiene on board ships. Nursing of the sick and accident patients on board ship.

**Detailed requirements**

In addition to the knowledge required for the second mate's (and consequently also for the third mate's) certificate:

To be able to make an orientating anamnesis. To be able to perform a general physical examination. To be able to register the pulse rate, temperature and respiration. To record the development of the disease.

Main symptoms - nursing and treatment of the most prevalent infectious diseases. Main symptoms and treatment of patients suffering from acute abdominal diseases. Some knowledge of acute heart diseases. Main symptoms and treatment of the most prevalent venereal diseases as well as of the prevention thereof. Significance of the blood test according to Wassermann.

Some knowledge of the treatment of patients suffering from acute mental disorders on board sea-going vessels. Understanding of the sexual problems of seafarers. Understanding of the problems connected with alcohol consumption, particularly on board and in foreign ports. Some knowledge of nutrition on board ships, particularly with a view to overnourishment and the need for vitamins.

A proper understanding of hygiene on board ship, in particular with regard to water, nutrition, ships' galleys, pantries and other rooms, rooms destined for cargo and for propulsion. An adequate knowledge of the personal hygiene of all the crew members. Knowledge of the nursing and treatment of the sick and of accident patients on board ship. An adequate understanding of the isolation to be observed with regard to the nursing and treatment of patients suffering from infectious diseases, and in particular from quarantinable diseases.

To be able to make an application for radio medical advice by means of both radiotelegraphy and radiotelephony. Knowledge of medicines and dressings which under the Ratings Decree shall be available on board ships of the deep-sea trade. A general understanding of the action of these medicines.
4. Mate's certificate (home trade)

**General description**

To give medical assistance on board ships of the home trade as instructed in the manual which under the Shipping Act shall be available on board these ships. Radio medical advice. Knowledge of hygiene on board ships. Nursing of the sick and of accident victims on board ships.

**Detailed requirements**

These candidates are in principle required to have the same knowledge as required for the chief mate's certificate. Generally speaking, however, the ships of the home trade will be able to reach an emergency port more quickly or will be able to hand over the patients to a ship with better medical facilities. This factor, as well as the fact that these candidates have had less preliminary training than those going in for the chief mate's certificate, will be taken into account at their examination.

5. Mate's certificate (home trade within a limited area)

**General description**

To give medical assistance on board ships of the home trade within a limited area, as instructed in the manual which under the Shipping Act shall be available on board these ships. Radio medical advice. Knowledge of hygiene on board ships. Nursing of the sick and of accident patients on board ship.

**Detailed requirements**

These candidates are in principle required to have the same knowledge as required for the mate's (home trade) certificate. However, they will only be required to give medical assistance for a comparatively short time. This factor will be taken into consideration when examining the candidates, as well as the fact that most candidates have only had a very concise preliminary training.

6. Mate's certificate (deep-sea tugs)

**General description**

To give medical assistance on board ships, as instructed in the manual which under the Shipping Act shall be available

**Detailed requirements**

These candidates have to satisfy the same requirements as the candidates for the chief mate's certificate. However, these mates should be able to give advice by short-distance radiotelegraphy, to the crew on board the vessel being towed, on emergency treatment to be given if necessary. Because of the slow operating speed of tugs the voyages will often take a long time, so that in some cases the treatment will have to be continued for a considerable period before better medical facilities are available. It will be taken into account that the candidates for this certificate, generally speaking, have not had much preliminary training.

7. **Mate's certificate (coastal tugs)**

**General description**

To give emergency medical treatment on board coastal tugs, as instructed in the manual which under the Shipping Act shall be available on board coastal tugs. Radio medical advice. Knowledge of the nursing of the sick and of accident patients.

**Detailed requirements**

The requirements for this certificate are the same as those for the third mate's certificate, with the addition of the radio medical advice and the emergency treatment of the sick and the nursing which may be necessary during the short period elapsing before the ship calls at a port and the patients can be transported to a hospital. The preliminary training of the candidates is taken into account when they are examined.
ANNEX VIII

ITALY

Examination Syllabus for the Certification of Ships' Doctors

Written examination

First paper. General and special hygiene with particular reference to conditions at sea. Epidemiology and prophylaxis of contagious and parasitical diseases and diseases due to food.


Practical examination

First part. Clinical practice: examination of a patient and discussion of the case. The commoner diseases of childhood are also covered.

Second part. Surgical practice: examination of a patient and discussion of the case. The commoner forms of emergency action are also covered.

Third part. Obstetrics: examination of an obstetric case and discussion. Attendance at childbirth.

Fourth part. Taking of pathological material and performance of macroscopic, microscopic, bacteriological and serological tests for the diagnosis of the main infections and parasitical diseases. Performance of the main chemical and microscopic analyses.

Description, and if necessary performance, of tests to ascertain the quality and suitability of the main forms of food and drink: water, cereals, flour, milk, wine, meat, tinned foods, etc.

Testing of water chlorination equipment.

Oral examination

1. Subjects covered by the first written examination.

2. Italian legislation affecting the duties and functions of a ship's doctor; State Health Ordinance; international
Examination in foreign languages

Reading, translation and conversation, in which the candidate must give evidence of a first-class knowledge of English and of one of the following languages: French, Spanish, German, Portuguese, Russian and Arabic.