EDUCATING/TEACHING STUDENTS OF MARITIME STUDIES ABOUT MEDICINE FOR SEAFARERS

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Abstract. Life on board ships is very demanding. Seafarers live and work together in a confined and isolated environment and may be away from home for months at a time. Sailing increases the chances of sustaining serious injury or loss of health. Medical assistance on board is provided by doctors only on large passenger ships (transatlantic and cruise ships) and with the exception special purpose ships such as research ships or off-shore vessels designed for divers. Merchant navy ships do not have a doctor on board. There is often no immediate access to medical care. Therefore, according to international conventions, all crew members must know how to provide first aid. If the provision of medical care involves more complex procedures or if there are doubts as to proper treatment, the vessel may request radio medical advice or helicopter transport. At the Faculty of Maritime studies in Split, Medical First Aid is mandatory for all graduate students (as a course on its own or as part of a course), while Medicine for Seafarers is a mandatory course for the students of Nautical Engineering, Marine Engineering, and Marine Electrical Engineering and Information Technologies. The course in Medicine for Seafarers includes Medical First Aid and Medical Care. During the course, it is very important to keep in mind that one is teaching medicine to lay persons with no medical background and with no or very scarce knowledge of medical issues.

Key words: education, first aid, medical care, students of Maritime studies

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1 INTRODUCTION

Maritime professions have been considered dangerous since the beginning of sailing until today. Throughout history, ships of various European navies often boarded physicians as crew members. However, physicians were rarely found on board merchant navy ships and the trend persists to this day.

Although injuries and poisoning account for most of the health problems on board merchant ships, contagious diseases may pose a serious threat, bringing into danger not only the health of other seafarers but also the safety of the ship and, where carried, passengers. It is particularly important that seafarers concerned with the preparation of food do not suffer from conditions which may be transmitted to others through their work. Therefore seafarers should know the basic concepts of how infectious diseases are transmitted.

Ships carrying 100 or more persons and ordinarily engaged on international voyages of more than three days’ duration shall carry a qualified medical doctor who is responsible for providing medical care. According to the Maritime Labour Convention (MLC, 2006; Standard A4.1- Medical care on board ship and ashore), ships that do not carry a medical doctor shall be required to have either at least one seafarer on board who is in charge of medical care and administering medicine as part of their regular duties or at least one seafarer on board competent to provide medical first aid. Persons in charge of medical care on board who are not medical doctors shall have satisfactorily completed training in medical care. Hence, what must be made available is medical equipment, a person trained to use it and ready access to information on the prevention, diagnosis and treatment of a disease. Normally this is in the form of a manual and is supported by international arrangements for access to radio medical advice all over the world.

In the Republic of Croatia, according to the above Convention (MLC 2006) and national laws and regulations, all ships shall carry a medicine chest, medical equipment and a medical guide, the specifics of which shall be prescribed and subject to regular inspection by the competent authority; the national requirements shall take into account the type of ship, the number of persons on board and the nature, destination and duration of voyages and relevant nationally and internationally recommended medical standards.

2 ABOUT THE FACULTY OF MARITIME STUDIES IN SPLİT

The basic activity of the Faculty of Maritime Studies is the establishment and performance of university undergraduate, graduate and post-graduate studies in compliance with the Bologna declaration, as well as the organization and performance of highly professional and scientific research in the area of maritime affairs.

Undergraduate (Bachelor's Degree) and graduate (Master's Degree) university studies are: Nautical Engineering, Marine Engineering, Marine Electrical Engineering and Information Technologies, Maritime Management, and Maritime Yacht and Marina Technologies.

The study programmes of the Faculty belong to the scientific area of technical sciences, scientific field of traffic and transport technologies, under the branch of maritime traffic.

The programmes imply the study of basic and elective courses with the continuous updating of the process of education. The objective and the purpose of all study programmes is the education of maritime experts according to international standards and regulations as well as the implementation of the principle of life-long education as the basic element of European higher education.

A specific feature of the studies is comparability with study programmes of similar higher education institutions in the world and the European Union, significant multidisciplinarity and intertwining of science and profession.

The Faculty of Maritime Studies is equipped with the most sophisticated educational equipment that meets the requirements of world maritime organizations. There are the nautical, marine engine room and GMDSS simulators, well-equipped information technology rooms, an electrical engineering laboratory and a first aid room.

The Faculty staff also performs seafarer training for the certifications required on board. The teaching consists of theoretical and practical parts as well as special training programme on the most up-to-date training devices and simulators used worldwide.

There are around 1400 students enrolled at the Faculty in all of its programmes and undergraduate and graduate studies.

3 MARITIME LABOUR CONVENTION (MLC 2006)

The Maritime Labour Convention is a very important document with which we have to acquaint the students of the Faculty of Maritime Studies. The purpose of this Convention is to protect the health of seafarers and ensure their prompt access to medical care on board ship and ashore.

Contents of this Convention are:

- Minimum requirements for seafarers to work on a ship,
2. The competent authority shall adopt a standard

1. Each Member shall ensure measures to provide

The Convention lays down the following:

- health protection, medical care, welfare and social
  security protection,
- Compliance and enforcement.

The protection and care shall, in principle, be pro-

vided at no cost to the seafarers.

Each Member shall ensure that seafarers on board

ships in its territory who are in need of immediate

medical care are given access to the Member’s medical

facilities on shore.

The requirements for on-board health protection

and medical care set out in the Code include standards

for measures aimed at providing seafarers with health

protection and medical care as comparable as possible

to that which is generally available to workers ashore.

In terms of medical care on board ships and ashore,

the Convention lays down the following:

1. Each Member shall ensure measures to provide

health protection and medical care, including es-

sential dental care, for seafarers working on board a

ship that flies its flag, which:

(a) ensure the application to seafarers of any gen-

eral provisions on occupational health protec-

tion and medical care relevant to their duties,
as well as of special provisions specific to their work
on board ship;
(b) ensure that seafarers are given health protec-
tion and medical care as comparable as possible
to that which is generally available to workers ashore,
including prompt access to the necessary medicines, medical equipment and facilities for diagnosis and treatment, and to medical information and expertise;
(c) give seafarers the right to visit a qualified med-

ical doctor or dentist without delay in ports of call, where practicable;
(d) ensure that, to the extent consistent with the

Member’s national law and practice, medical care and health protection services while a sea-

farer is on board ship or landed in a foreign port

are provided free of charge to seafarers; and
(e) are not limited to treatment of sick or injured

seafarers but include measures of a preventive character such as health promotion and health education programmes.

2. The competent authority shall adopt a standard

medical report form for use by the ships’ masters

and relevant onshore and on-board medical personal-

The form, when completed, and its contents shall be kept confidential and shall only be used to facilitate the treatment of seafarers.

3. Each Member shall adopt laws and regulations estab-

lishing requirements for on-board hospital and

medical care facilities and equipment and training

on ships that fly its flag.

4. National laws and regulations shall as a minimum

provide for the following requirements:

(a) all ships shall carry a medicine chest, medical
equipment and a medical guide, the specifics of

which shall be prescribed and subject to regu-

lar inspection by the competent authority; the

national requirements shall take into account

the type of ship, the number of persons on

board and the nature, destination and duration

of voyages and relevant national and interna-
tional recommended medical standards;
(b) ships carrying 100 or more persons and ordi-
narily engaged on international voyages of

more than three days’ duration shall carry a

qualified medical doctor who is responsible for

providing medical care; national laws or regu-
lations shall also specify which other ships

shall be required to carry a medical doctor, tak-
ing into account, inter alia, such factors as the
duration, nature and conditions of the voyage

and the number of seafarers on board;
(c) ships which do not carry a medical doctor shall

be required to have either at least one seafarer

on board who is in charge of medical care and

administering medicine as part of their regular
duties or at least one seafarer on board compe-
tent to provide medical first aid; persons in

charge of medical care on board who are not

medical doctors shall have satisfactorily com-
pleted training in medical care that meets the re-

quirements of the International Convention on

Standards of Training, Certification and

Watchkeeping for Seafarers, 1978, as amended

("STCW"); seafarers designated to provide medi-
cal first aid shall have satisfactorily completed

training in medical first aid that meets the re-

uirements of STCW; national laws or regula-
tions shall specify the level of approved training

required taking into account, inter alia, such fac-
tors as the duration, nature and conditions of the
voyage and the number of seafarers on board;
and
(d) the competent authority shall ensure by a pre-

arranged system that medical advice by radio

or satellite communication to ships at sea, in-

cluding specialist advice, is available 24 hours a
day; medical advice, including the onward
transmission of medical messages by radio or satellite communication between a ship and those ashore giving the advice, shall be available free of charge to all ships irrespective of the flag that they fly.

4 THE LEGISLATION AND EDUCATION IN CROATIA RELATED TO THE TRAINING OF SEAFARERS IN FIRST AID AND MEDICAL CARE

All national documents about maritime affairs are in accordance with the Maritime Labour Convention (MLC 2006) and international conventions. The STCW Convention from 1978 is a very important convention from the maritime health professional's point of view. It is the convention regulating the pre-sea medical and periodic examinations of seafarers, despite being very general in its approach. It also set up the standards for emergency medical training requirements for different groups of personnel on board. Training in medical emergency procedures and medical care is another very important issue for the STCW Convention. The training requirements differ according to position on board.

All ships shall carry a medicine chest, medical equipment and a medical guide. At national level there is the Ordinance on the minimum requirements and conditions for providing medical care on board vessels, boats and yachts (Official Gazette of the Republic of Croatia, No 14/2008) which takes into account the type of ship, the number of persons on board and the nature, destination and duration of voyages and relevant national and international recommended medical standards.

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) requires that all maritime officers get a certificate in First Aid and in Medical Care on Board Ships. The company designates the officer in charge of the ship's pharmacy and healthcare of the crew on board in line with its company policy. In practice, the level of knowledge acquired through seafarer training (Table 1) is often inadequate for any more complicated interventions or first aid treatment.

The training/education of students of the Faculty of Maritime Studies is in accordance with the most recent editions of the International Medical Guide for Ships, the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods, the Document for Guidance – An International Maritime Training Guide, and the medical section of the International Code of Signals as well as similar national guides.

5 OUR EXPERIENCE

Undergraduate students are mostly focused on learning the necessary minimum in order to pass the exam and obtain a certificate at the end of the course. Students who work and study have shown a much greater interest in the material presented since they are aware of the fact that they will sooner or later need to be able to apply it in practice.

It takes vast amounts of experience and effort to bring medical topics closer to students of technical sciences and to make them interested in the field. At the same time, it is very important to keep in mind during the course that one is teaching medicine to laypersons with no medical background and with no or very scarce knowledge of medical issues.

Table 1 Medical training for seafarers

<table>
<thead>
<tr>
<th>Certificate of Qualification</th>
<th>STCW number</th>
<th>Hours</th>
<th>Mandatory participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic First Aid D2-STCWVI/4</td>
<td>8</td>
<td>All crew members</td>
<td></td>
</tr>
<tr>
<td>Certificate on qualification to provide medical first aid D19-STCW VI/4</td>
<td>21</td>
<td>All crew members</td>
<td></td>
</tr>
<tr>
<td>Qualified to provide medical care on board ship D19-STCW VI/4</td>
<td>45</td>
<td>officers</td>
<td></td>
</tr>
</tbody>
</table>
REFERENCES


