



TEACHER'S MANUAL

Course:
Medical training for Mariners

TEACHER'S MANUALS

The purpose of the teacher's manuals is to assist teachers in organizing and introducing training courses. It is not the intention of teacher's manual to provide teachers with a rigid teaching package which they are expected to "follow blindly", because national educational systems, groups size and the cultural backgrounds of trainees in maritime subjects vary considerably from country to country. The teacher can choose suitable parts for target group and can even make changes that is needed to achieve the learning outcomes.

The teacher's manual has been designed to give ideas how to you use material developed in the OnBoard Med –project. Teacher's manuals content is: objects, content, target group and student's amount, implementation and learning methods, assessment, learning process (summary) and tips for the teacher.

Medical training for Mariners, 2 ectS (54 hours)

OBJECTIVES

The main content that the participant will gain knowledge of is being able to take care of the acutely ill patient. Also the severe attack of illness or minor injuries a person can encounter. Gaining knowledge about recognizing symptoms, to provide existing treatment according ships pharmacy and maintain the patient's vital signs until more advanced help can be given. To have knowledge about contacting Tele Medical Assistance Service (TMAS) and being able to evacuate the patient when the medical care onboard is not enough. The course focus is competence, knowledge, understanding and proficiency. The competence will be for the mariners to take immediate action upon encountering an accident or other medical emergency and the assessment of needs of casualties and threats to own safety, the ship and to the patient. Medical training for Mariners will include also training of such non-technical skills as: leadership, decision-making, management of stress and fatigue, teamwork, communication both in the group and to TMAS, be able to recognize the psychological and crisis reactions among both passengers and mariners, situational awareness and team-based coordination and cooperation, be able to prioritize injuries according to proven methods.

TARGET GROUP AND STUDENT AMOUNT:

Mariners and ship nurses, maximum 12 in classroom for practical parts, e-learning unlimited.

CONTENT

At the end of this course students will be able to:

- Successfully provide emergency healthcare in team, students understand process essence and take decisions according to their competence.
- Recognizes and assess life-threatening conditions among patients.
- Recognizes and assess non-urgent conditions among patients.
- Perform ABCDE to all patients.
- Classify and identify healthcare priorities in emergency situation stage, plan, organize and perform emergency care based on patient assessment and patients needs.
- Assess, provide and maintain patients vital functions.
- Perform cardiopulmonary resuscitation if needed and use a defibrillator (AED).
- Assess the stage of respiratory failure; examine functions of ventilation and oxygenation.
- Demonstrate and use manual methods to prevent airway obstruction. Use instrumental methods to prevent airway obstruction: oropharyngeal airway, laryngeal tube, laryngeal mask. Provide non-invasive ventilation using methods and equipment of non-invasive ventilation, ventilation with Ambu bag.
- Provide patient health care in cases of different immobilization and fracture situations.
- Organize and provide emergency health care in specific situations: diabetes, cardiovascular, cerebrovascular, breathing problems, head and spinal, abdominal pain, urinary problems, ear/nose/throat, dental, ears and eyes diseases, hypothermia, burns, drowning, childbirth, wounds.
- Be able to recognize the psychological and crisis reactions among both passengers and seafarer.
- Interpret laboratory examinations; associate them with certain clinical situation as needed on board.

IMPLEMENTATION

E- learning - lecture - skill labs - simulation - exercise

ASSESSMENT

- presentations and E-learning - completed
- exercise: pass - fail
- practical training: pass- fail, has to be 70% right to pass

LEARNING METHODS

eLearning is learning utilizing electronic technologies to access educational material outside a traditional classroom. eLearning can be f. ex. online videos, lectures, discussions, teacher consultation, e-testing.

Exercise is an activity carried out for a specific purpose in online or face to face and can be individual or group exercise. F. ex. pre tasks, classroom exercise, model answer questions.

Lecture: an educational and theoretical talk to the students which should be interactive. When the instructor incorporates engagement triggers and breaks the lecture at least once per class to have students participate in an activity that lets them work. The engagement triggers capture and maintain student attention and allow students to apply what they have learned or give them a context for upcoming lecture material. Lecture can be online, video lecture or face to face.

Skill lab provide students with an opportunity to learn and develop the skills essential to nursing / maritime practice within a supportive and safe environment.

Simulation is a form of experiential learning. Where teacher sets problems, events or scenario that can be used for training students, how to behave in authentic situation within a supportive and safe environment. It includes introduction, simulation and debriefing.

SUMMARY

CONTENTS	TIME	LEARNING METHODS and MATERIAL	ASSESSMENT
First aid <ul style="list-style-type: none"> - ABCDE assessment, CPR and AED. 	10 h	e-learning (pp) Skill lab (ABCDE assessment and practice in group. Basic life support, Cardio-pulmonary resuscitation = CPR simulation (scenarios 1-3) https://www.redcross.fi/learn-first-aid/first-aid-instructions/cardio-pulmonary-resuscitation-cpr	Completed Fail/pass Fail/ pass fail/pass
Severe attack of illness or minor injuries. <ul style="list-style-type: none"> - diabetes - cardiovascular - cerebrovascular - breathing problems - fracture - head and spinal - abdominal pain - urinary problems - ear/nose/throat / eyes diseases - hypothermia - burns - drowning - childbirth - wounds - Be able to recognize the psychological and crisis reactions among both passengers and seafarer 	40 h	e-learning Skill lab Simulation, one scenarios for every topic	Completed Fail/pass Fail/pass

Ships pharmacy	3 h	Pharmacology theory according to every country's own regulations. Skill labs in groups	Fail/pass Fail/pass
TMAS (Tele Medical) and evacuate	1 h	e-learning Skill labs in groups	Completed fail/pass

TIPS FOR TEACHER

- Start course with reading presentations with e-learning, first the Introduction presentation.
- Let student read selected presentations in different subjects.
- Student doing exercises that are connected to the presentations.
- Make own task from the different presentations, example in the end of document.
- Use **videos** from course in practical exercises.
- Use **Medical dictionary for Mariners** so students will be recognize the words.
- In classroom lecture there will be maximum 12 student well prepared.
- Theory and exercises in classroom with subjects from course, do exercises, simulation scenarios, skill lab instructions, watch video.
- Start with concept ABCDE both theory and exercises on a simulation Sim Man 3G or other manikins available.
- Continue with ship pharmacy, both theory and exercises. Touch, look, feel the different medicine.
- Theory and exercise the subject Acute illnesses.
- Theory and exercise fractures, head and spinal, abdomen, eyes/ear/dental.
- Use **scenarios from patients list** that are available in course.
- Complete the course with different exercises, online, written or oral test.
- This course is NOT approved and cannot be used in the present form. The course must be held at an approved training unit (according to STCW).
- REQUIREMENTS Adequate teachings qualifications according to national regulations.

LEARNING PROCESS

Introduction:



Preventive measures to avoid illness and accidents.

Tele Medical advice.

Knowledge about the technical and monitor system.

Give immediate care and appropriate guidance.

Knowledge of the hygiene and sanitary procedures.

After the hole course Medical training for Mariners, the participant has gained insight into what it means to take responsibility for the medical part aboard a ship.

Introduction:



Read presentations, lectures on-line, videos.

Testing knowledge on-line, pretest.

Lectures in school

Skill labs

Final simulation

LEARNING PROCESS

EXAMPLE OF THE DICTIONARY TO USE

Medical English dictionary for Mariners

A

ABCDE = a systematic way of investigating the patient, according to airway, breathing, circulation, disability, exposure.

Airway = is the pathway through which air flows into your lungs, windpipe.

Angiodysplasia = a malformed blood vessel in the stomach

Angina pectoris = pain in heart because of a blood clot

Anterior = in the front

Arteria = a blood vessel that carries blood with oxygen

Anorectal = around the anus and lower part of the intestines

Ascites = a build of fluid in the abdomen

AVPU = a scale to assess consciousness

Auscultation = the method of using a stethoscope and listening

EXAMPLE OF A EXERCISE IN COURSE

Medical first aid guide for use in Accident involving dangerous goods (MFAG) in Mariners course

1. Start to read the presentation for MFAG under Mariners course
2. After reading do the task below.
3. Select a disease state from table and read about it to the end.
4. Select a disease state from appendices and read about it to the end.
5. Do some notes for yourself about what is **the problem, the symptoms and treatment both first aid and medicine to use** for the specific permit you selected.
6. You can select one more permit to read about if you want to.
7. Select also one of the specific substance from the list in book, what is the substance, what are the symptoms if you are exposed to the substance and what are the first aid and medicine to use? Make notes to yourselves.

Notes for yourselves:

Course leader:

Anna Lundberg, lecturer, Amb.nurse, MnSc, Phd student, Åland University of Applied Sciences.

Course co-workers:

Sanna Ojala, Senior lecturer, MnSc, Rn, Turku University of Applied Sciences

Raivo Portsmuth, Project manager, maritime specialist, Estonian Nautical school.

Sergejs Masinenkovs, lecturer in Nautical Science, Latvian Maritime Academy.



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