1. Course Title: Medical Care on Board

2. Scope With reference to convention Imo Model Course:

This course is designed to equip individual with skills, knowledge and attitudes required to -

- 01. Contribute to medical first aid
- 02. Contribute to Care of casualties
- 03. Contribute to Nursing care
- 04. Take precautions to prevent Wounds, wound healing and infection
- 05. Knowledge about Techniques of sewing and clamping, Dressing and bandaging
- 06. Knowledge about Medical conditions and emergencies
- 07. Knowledge about Tropical and infectious diseases Sexually transmitted diseases
- 08. Knowledge about Alcohol and drug abuse and psychiatry
- 09. Contribute to Environmental control on board ship
- 10. Apply occupational health and safety precautions & measures.

in accordance with maritime industry standards.

3. Objective:

After completing the course, the candidates should be able to acquire the knowledge, skills and attitude for the Medical care of the ill and injured, Hygiene, Disease prevention, Medical Care Of rescued persons, including distress, hypothermia and cold exposure, Alcohol and drug abuse and psychiatry, take precautions to prevent Wounds, wound healing and infection, emergencies, precautions to prevent pollution of the environment.

4. Course Outline Shore base & On board Training:

Sl No	Knowledge, understanding and proficiency	Hour
	Competence 1. Provide medical care to the sick and injured while the remain on board	
1	First aid- revision	6.0
1.1	Revision of basic and intermediate knowledge	
1.2	Additional Knowledge	
2.0	Care of casualties	7.0
2.1	Head and spinal injuries	
2.2	injuries of ear, nose, throat and eyes	
2.3	External and internal bleeding	
2.4	Burns, scalds and frostbite	
2.5	Fractures, dislocations and muscular injuries	
2.6	Wounds, wound healing and infection	
2.7	Pain relief	
2.8	Techniques of sewing and clamping	
2.9	Management of acute abdominal conditions	
2.10	Minor surgical treatment	
2.11	Dressing and bandaging	
3.0	Aspects of nursing	3.5
3.1	General nursing principles	
3.2	Nursing care	
4.0	Diseases	5.0
4.1	Medical conditions and emergencies	
4.2	Sexually transmitted diseases	

4.3	Tropical and infectious diseases						
5.0	Alcohol and drug abuse and psychiatry	3.0					
6.0	Dental care	3.5					
7.0	Gynecology and pregnancy						
8.0	Medical Care Of rescued persons, including distress, hypothermia	3.0					
	and cold exposure						
9.0	Death at sea	1.0					
10.0	Environmental control on board ship	2.0					
10.1	Hygiene						
11.0	Disease prevention	2.0					
11.1	Disinfection, disinfestations and de-ratting						
11.2	Vaccinations						
12.0	Keeping of records						
12.1	Records of signs, symptoms and medicines given						
12.2	Inventory control of medicines						
12.3	National and international regulation						
13.0	Medicines and medical equipment	4.0					
14.0	Surgical equipment, instruments and supplies	4.0					
	Competence 2: Participate in co-ordinate schemes for medical						
	assistance to ships						
15.0	External assistance	3.0					
15.1	Radio medical advice						
15.2	Transportation of the ill and injured						
15.3	Medical care of the ill and injured						
	Total	49.5					

${\bf 5.\ Competence\ Standard/Course\ Syllabus\ Checked\ with\ up-to-date\ STCW/IMO\ Model\ Course:}$

Sl No	Knowledge, Understanding And Proficiency					
	Competence 1. Provide medical care to the sick and injured while the remain on board					
1	First aid- revision	6.0				
1.1	Revision of basic and intermediate knowledge					
	.1 revises the knowledge and associated practical skills contained in the basic and itermediate					
	levels of medical training as specified in appendices 1 and 2 of section 17 of the IMOALO					
	Document for Guidance, 1985, paying special attention to:					
	- body structure and functions					
	-toxicological hazards on board ship with special reference to oil tankers, chemical tankers					
	and gas tanker carriers					
	-the examination of patients					
1.2	Additional Knowledge					
	.1 describes and carries out simple laboratory tests for:					
	-the use and evaluation of urine testing sticks					
	-the collection of blood for smears with respect to malaria					
	.2 explains the concepts of clinical examination and medical history-taking under seagoing					
	conditions					
2.0	Care of casualties	7.0				
2.1	Head and spinal injuries					
	.1 recognizes the symptoms of heed and spinal injuries					
	.2 describes how to care for an unconscious casualty and emphasizes that no anesthetic of					
	sedative should be used.					

.3 describes and demonstrates for a case of suspected spinal fracture:	
^ ^	
- how the patient is rescued	
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-use of fluorescence stain for comeal ulcers	
External and internal bleeding	
- recognizes the symptoms	
- identifies the cause	
- explains the dangers	
- describes and demonstrates the appropriate treatment	
- use of tourniquet/pressure points	
Burns, scalds and frostbite	
.1 recognizes the signs of burns, scalds and frostbite	
.2 states the possible complications that can arise from such injuries	
.3 defines a burn	
.4 explains the difference between a first-degree, second-degree or third-degree burn and a	
scald	
.5 for the further treatment of a bum:	
- states the need and importance of sterile dressings	
- describes shock prophylaxis	
- explains the need and importance of fluid balance	
- calculates fluid requirement	
- describes antibiotic prophylaxis	
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** * *	
-conset (or simple) -complicated	
	- how the patient is transported - the treatment to be applied injuries of ear, nose, throat and eyes .1 recognizes the symptoms of injuries to the ear, nose, throat and eyes .2 describes the appropriate treatment to be applied to such injuries .3 for injuries to the ear, nose and throat: -describes the diagnosis -identifies possible causes .4 for injuries to the eye region and extemal eye: -describes and demonstrates the use of moistened cotton bud or loop for the removal of loose foreign bodies -use of fluorescence stain for comeal ulcers -describes the correct aftercare to be applied External and internal bleeding .1 for external and internal bleeding: - recognizes the symptoms - identifies the cause - explains the dangers - describes and demonstrates the appropriate treatment - use of tourniquet/pressure points Burns, scalds and frostbite .1 recognizes the signs of burns, scalds and frostbite .2 states the possible complications that can arise from such injuries .3 defines a burn .4 explains the difference between a first-degree, second-degree or third-degree burn and a scald .5 for the further treatment of a burn: - states the need and importance of sterile dressings - describes shock prophylaxis - explains the need and importance of fluid balance - calculates fluid requirement - describes how tissue can be damaged by frostbite .6 explains the difference between burns and frostbite .7 describes how tissue can be damaged by frostbite .8 describes and demonstrates appropriate procedures for: - immediate first aid - further treatment - Fractures, dislocations and muscular injuries: - procedures for diagnosis - practical treatment .2 lists and describes the types of fracture as: - open (or compound) - closed (or simple)

	-immobilization of the injured part	-
	-the prevention of infection	
	.4 describes the special requirements for the treatment of pelvic and spinal injuries	
	.5 describes the cause and symptoms of, and demonstrates the treatment for:	
	-sprains	
	-strains	
	-dislocations	
	required performance	
2.6	Wounds, wound healing and infection	
	.1 recognizes and lists the different kinds and types of wound as:	
	- abrasions	
	- avulsions	
	- contusions	
	- incisions	
	- lacerations	
	- punctures	
	.2 describes and demonstrates the different techniques required for wound treatment	
	.3 describes the approximate course of wound healing	
	.4 lists the measures to prevent infection as:	
	- aseptic procedures	
	- correct cleaning of the wound	
	- stopping of bleeding	
	- correct procedures for wound dressing	
	- immobilization	
	- prevention of tetanus	
	.5 states for an infected wound:	
	- that inflammation is an indication of infection	
	- sources of infection	
	- procedures for treatment	
	.6 demonstrates the treatment procedures to be used for infected wounds	
	Required performance:	
2.7	Pain relief	
2 •1	.1 states the general principles of pain relief and anesthesia and applies simple procedures	
	.2 describes the simple procedures of non-medicinal relief as:	
	- psychological	
	- relaxation	
	- positioning	
	- positioning - cooling	
	- cooling - warmth	
	.3 describes the medicinal treatment:	
	- methods available	
	- methods of application	
	- risks of abuse	
	- characteristics of remedies	
2.0	.4 describes non-invasive anesthesia and lists the methods used	
2.8	Techniques of sewing and clamping	
	.1 applies simple technical measures to stop bleeding and close wounds	
	.2 describes and demonstrates the arrest of bleeding by:	

	- surgical means	
	- the use of a ligature	
	.3 describes and demonstrates the surgical treatment of a wound by:	
	-the application and removal of sutures	
	setting and removing clamps	
2.9	Management of acute abdominal conditions	
2.9	.1 recognizes the signs and symptoms of acute abdominal conditions, including:	
	- peritonitis	
-	*	
-	- intestinal obstruction	
-	- acute urinary retention	
-	- abdominal trauma	
	.2 describes and applies emergency treatment	
	.3 recognizes the need for radion medical advice and describes the procedures used	
2.10	Minor surgical treatment	
	.1 states that for surgical instruments:	
-	- sterile pre-packaging can be used	
-	- instruments can be sterilized by boiling in water for twenty minutes	
	.2 demonstrates the correct preparations necessary for casualty and equipment before	
	applying minor surgical treatment	
	.3 demonstrates the use of minor surgical treatment for localised skin infections and injuries	
2.11	Dressing and bandaging	
	.1 states that dressings are sterile gauze or lint with alayer of cotton wool as aped to cover a	
	wound or injury	
	.2 states the main functions of bandages as:	
-	- the application of pressure to stop bleeding	
-	- keeping a dressing in its correct position	
-	- providing support	
-	- preventing movement	
	.3 demonstrates the use of simple dressings and bandages for injuries to:	
	-head	
	-limbs	
	-torso	
	.4 demonstrates the use of tubular gauze dressings and bandages	
3.0	Aspects of nursing	3.5
3.1	General nursing principles	
	.1 describes general nursing principles as:	
	- observation of patient condition	
	- observation of patient behavior	
	- observing and noting cardinal symptoms of:	
	• skin	
	• respiration	
	• excretion	
	• pulse	1
	blood pressure	
	body temperature	
	-maintaining accurate and up-to-date records of cardinal symptoms and other clinical information	
	.2 demonstrates the application of nursing principles and the deeping of clinical and medical	•

	records	
3.2	Nursing care	1
	.1 describes and applies simple nursing care for:	
	- the control of pain	
	- the giving of injections	
	- the washing and cold sponging of the patient	
	- passing a catheter	
4.0	Diseases	5.0
4.1	Medical conditions and emergencies	
	.1 recognizes medical emergencies involving:	
	- disorders of the mental and central nervous system	
	- disorders of the digestive system and abdominal organs	
	- diseases of the heart, cardiovascular and respiratory systems	
	- diseases of the genitor-urinary system	
	- diseases of the eyes, skin and ear, nose and throat	
	- diseases of the muscular-skeletal system and joints	
	- poisoning and allergic reactions	
	- emergency resuscitation procedures	
	.2 use of O ₂ resuscitators	
	- parts of the resuscitator	
	- operation of resuscitator	
	- changing cylinders	
	- CPR with resuscitator	
	- after use care and servicing	
	.3 applies measures and corrective treatments to deal with medical emergency conditions	
	.4 demonstrates the use of IMGS or similar national guide with radio medical advice until	
	more expert help is available or the patient recovers	
4.2	Sexually transmitted diseases	
	.1 recognizes the most important venereal diseases	
	.2 applies basic medical treatment and counseling	
4.3	Tropical and infectious diseases	
	.1 recognizes infectious diseases and describes their characteristics, including:	
	- Diseases caused by viruses (influenza, pneumonia, etc.)	
	- Diseases caused by bacteria (salmonellosis, typhoid, cholera, etc.)	
	- Diseases caused by parasites (dysentery, malaria, etc.)	
	- tropical diseases in addition to malaria	
	.3 states that particular emphasis should be placed on the causes, treatment and prevention of	
	gastrointestinal illnesses aboard ship.	
	.4 describes preventative measures and procedures	
5.0	Alcohol and drug abuse and psychiatry	3.0
	.1 recognizes the misuse of alcohol and signs of alcohol dependence	
	.2 describes potentially addictive drugs and narcotics	
_	.3 lists the most frequently encountered addictive substances, and describes their effects on	1
	the individual	
	.4 describes and demonstrates appropriate countermeasures to take	
	.5 describes withdrawal damage	
	.6 recognizes the importance of alcohol and drug counseling	1
	.7 identifies and lists where such counseling can be obtained	
	.8 demonstrates important aspects of counseling	

	.9 explains that situational disturbances and psychiatric problems may be influenced by:	
-	- factors peculiar to seafaring	
-	- psychological consequences of separation	
6.0	Dental care	3.5
	.1 describes basic dental care	
	.2 describes the principles of oral hygiene	
	.3 applies appropriate emergency treatment, including	
	temporary fillings	
7.0	Gynecology and pregnancy	2.0
	.1 describes for a pregnancy:	
	- signs	
	- side effects	
	- complications	
	.2 describes miscarriage	
	.3 identifies and describes diseases and disorders peculiar to women	
8.0	Medical Care Of rescued persons, including distress, hypothermia and cold	3.0
	exposure	
	.1 describes and applies the procedures for dealing with rescued persons	
	.2 recognizes the special problems in respect of rescued persons and identifies the	
	causes of and the treatment for:	
	- hypothermia - precautions against heat loss and the	
	effects of wind and humidity	
	- congregation - cold injury, immersion foot, etc	
	- seasickness - the causes and therapy needed	
	- dehydration and nutrition in rescue situations -frequent err ors and hazards	
	- sun bum - cause, therapy, prophylaxis and effects	
	- hypoxia/gassing on ships and entry into enclosed	
	space	
9.0	Death at sea	1.0
	1 recognizes and describes the general principles of care	
	of the dying or dead persons, including	
	- signs of death	
	- examination of the corpse	
	- recording time of death	
	- keeping a corpse on board	
10.0	- burial at sea	•
10.0	Environmental control on board ship	2.0
10.1	Hygiene	
	.1 describes the main principles of shipboard hygiene and	
	health education aboard ship	
	2 applies the main principles to:	
	- potable water	
	. chlorination	
	. hardening of water from evaporator	
	. reverse osmosis	
	- sewage disposal	
	- ventilation and air-conditioning	
	- food hygiene and galley hygiene	
	. food handler	

	. defrosting of frozen food	
	. food poisoning	
11.0	Disease prevention	2.0
11.1	Disinfection, disinfestations and de-ratting	
	.1 describes the general principles and applies the	
	procedures for protection against the transmission of	
	disease and the control of epidemic	
	.2 states the regulations regarding waste and sewage disposal garbage	
	disposal manual	
	3 defines and applies methods for:	
	- disinfection	
	- de-ratting	
11.2	Vaccinations	
	.1 describes the general principles regarding the protection	
	of persons by vaccinations	
	.2 describes the different kinds of vaccination required for	
	seafarer	
12.0	Keeping of records	0.5
2.1	Records of signs, symptoms and medicines given	
	.1 describes the general principles regarding the keeping	
	of medical record	
	.2 describes, in particular, the keeping and contents of:	
	- a medical log	
	- a dangerous drugs register	
	- reports to port health authorities	
	- communications to medical doctors in port	
12.2	Inventory control of medicines	
	.1 describes expiry dates on packaging of medicines and	
	drugs and the need for timely supply of replacement	
12.3	National and international regulation	
	.1 states that international and national health regulations	
	apply to seafarers, including recommendations from	
	WHO, IMO and ILO	
13.0	Medicines and medical equipment	4.0
	.1 lists the contents of the ship's medicine chest	
	.2 states for the medicines and drugs contained in the	
	Chest:	
	- dosage level	
	- beneficial action	
	- side effects	
	.3 lists and demonstrates the use of the medical equipment	
	Carried aboard ship	
	4. states procedures for destruction of date-expired	
	medicine	
	5. describes how hospital waste should be disposed of	
14.0	Surgical equipment, instruments and supplies	4.0
	1 describes and applies appropriate measures of	
	Disinfection and sterilization	
	2 demonstrates the uses of the surgical equipment and	

	instruments available on board ship for appropriate	
	application	
	Competence 2: Participate in co-ordinate schemes for medical assistance to ships	
15.0	External assistance	3.0
15.1	Radio medical advice	
	.1 applies and demonstrates the general principles of radio	
	medical advice, including:	
	- GMDSS	
	- the use of the appropriate check list section of the	
	Interactional Code of Signals	
15.2	Transportation of the ill and injured	
	1 identifies the problems involved in the transport of the ill	
	and injure	
	.2 uses only approved stretcher	
	.3 describes the procedures for evacuation by helicopter	
	and by pilot boat / life boat	
15.3	Medical care of the ill and injured	
	.'I describes the procedures for co-operating with port	
	health authorities and out-patient wards in ports	
	.2 identifies possible problems with language and cultural	
	differences	
	.3 describes the detailed medical records that must be kept	
	and demonstrates their use	
	Total	49.5

6. Entry Standard, Selection Criteria of Students:

Trainees or students wishing to gain entry into this course should possess the following requirements:

- Age: be not less than 16 years of age.
- Education & Training: must have valid seafaring documents.

7. Intake limitation, with specific mention Instructor-student ratio:

The number of trainees should not exceed 24 and the practical training should be undertaken in small groups of more than eight.

8. Qualification and experience of instructors:

Minimum qualification of any instructor or assessor must be Class- I Deck/Engine Officers with tanker knowledge.

- **9. Qualification and experience of assessors:** Minimum qualification of any instructor or assessor must be Class-I Deck/Engine Officers with tanker knowledge.
- 10. Details Facilities & Equipment, materials and resources available for the training; Visual aids lecture Notes, Library facilities, Rental documents, Workshops Training Equipment: Navigational, Engineering, Communication, Seamanship etc:
 - 04. Projectors and slides
 - 05. Multimedia and videos
 - 06. Advanced audio visual systems
 - 07. Well-equipped First aid room
 - 08. Dummy patient
 - 09. Medical model Room

11. Conduct of Training with number of classroom lectures, practical work use of simulator, video etc:

Period → Day ↓	0900-0945	0945-1030	1030-1115	1115- 1145	1145-1230	1230-1315	1315-1400	1400- 1500	1500-1545	1545-1630	1630-1715	1715-1800	
1#Day	First aid-rev	First aid-revision		n Care of casualties Tea Break		es	Launch Break	First aid-rev	First aid-revision		uipment, and		
2 nd Day	Care of casualties		y Care of casualtie			I	irst aid-revisio	n		Care of casu	alties	Surgical eq instruments supplies	
3rd Day	Diseases				Aspects	of nursing	Diseases		Aspects of n	ursing	External ass	sistance	
4 th Day	Diseases						Alcohol and drug abuse and psychiatry		Dental care		External ass	sistance	
5 th Day	Alcohol and psychiatry	l drug abuse ar	ıd		Dental care	7	Death at sea]	Gynecology pregnancy	and	Disease pre	vention	
6 th Day	Medicines	and medical	equipment		Environment board ship	al control on	Keeping of records		Medical Car persons, incl distress, hyp and cold exp	oothermia	Medical Car rescued per including di hypothermia exposure	sons, istress,	
7th Day	Medicines and medical equipment	Assessment											

12. Total duration of Training; Duration of Practical's:

Training period is of 06 days, (45.5 Hours)

- a. Theory 32 Hours
- b. Practical -13.5 Hours

13. Assessment procedure, whether independent of instruction or continuous performance evaluation:

Course end assessment shall be carried out to ensure adequate knowledge, understanding & competence of the candidate.

A variety of source of evidence are used which include evidence of candidate's ability, under realistic condition. Short answers, multiple choice, fill in the blanks and true/false type questions in a written test are used for assessment includes direct observation, oral questioning and role play.

.14. Formats of certificate to be issued with correct reference to STCW and reference to approval and authorization by the Department of Shipping and contact point of the issuing institution for verifying authenticity:

15. Maintenance of records in Data-base for facilitation of checking including assessments:

NMI will maintain a data-base of all the students who have completed the course. The following records for each individual will be kept so as to ensure that the certificate is issued to a candidate who have met the requirements as laid down by the governing authority regarding issuance of a certificate on Bridge Resource Management.

• Application form

ধারীর স্বাক্তর /Signature of the holder

- Assessment papers after completion of course
- Attendance Sheet
- Attested Xerox copy of the issued certificates & licenses
- A registered data-base in hard copy and soft form

16. Internal Quality Standard System if any. Students Impressions, past results:

The institute maintains quality standard system ISO 9001:2008, Certified by DNV GL

17. Course notice served, course conducted as per course notice, progression report served:

Will be complied as per DOS Instruction.

18. Attendance of Students and Instructors:

Students and Instructor attendance sheet attached.



			TRAIN	ING RECORD		
	Instructor:					
	Venue:					
	Subject:					
	Brief description or	n training mater	ial:			
			A	ttendance:		
	Name & rank	Sign	Name & ran	k Sign	Name & rank	Sign
NOOP-Printed	Signature Management Rep					gnature rincipal
NMI-QP-	F-04-R1 (10/2013)	Pre MR	pared by:	Reviewed by: PRICIPAL	Approved by: DG(DOS)	Page 1 o
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