NATO STANDARD

AAMedP-1.12

MEDICAL TRAINING AND EQUIPMENT REQUIREMENTS FOR SEARCH AND RESCUE (SAR) AND COMBAT SEARCH AND RESCUE (CSAR) MISSIONS

Edition B, Version 1

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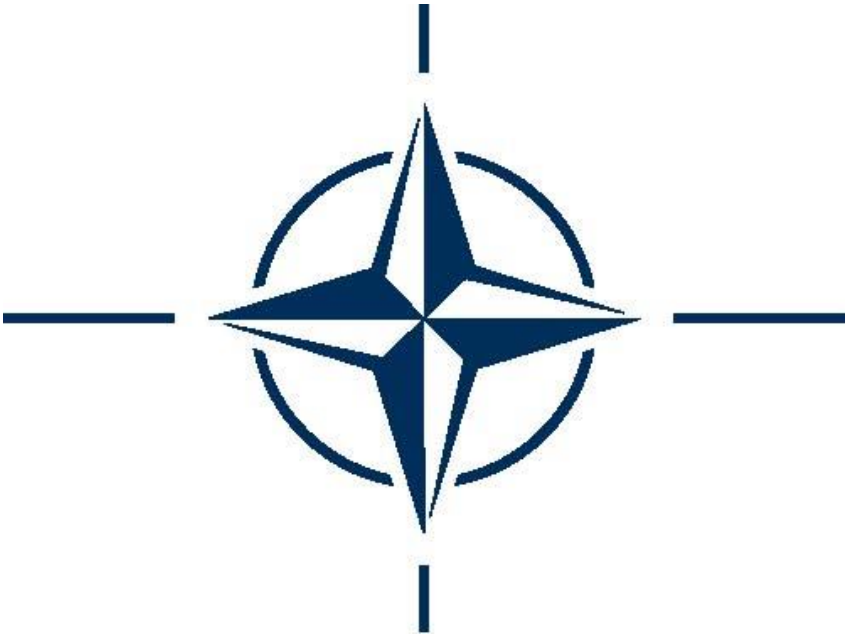

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NATO LETTER OF PROMULGATION

13 February 2024

1. The enclosed Allied Aeromedical Publication AAMedP-1.12, Edition B, Version 1, MEDICAL TRAINING AND EQUIPMENT REQUIREMENTS FOR SEARCH AND RESCUE (SAR) AND COMBAT SEARCH AND RESCUE (CSAR) MISSIONS, which has been approved by the nations in the Military Committee Air Standardization Board (MCASB), is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 3745.

2. AAMedP-1.12, Edition B, Version 1, is effective upon receipt and supersedes AAMedP-1.12, Edition A, Version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents

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4. This publication shall be handled in accordance with C-M(2002)60.

Dimitrios SIGOULAKIS
Lieutenant General, GRC (A)
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Documents Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
CAN	Canada considers Advance Life Support (ALS) medicine as an extended role and therefore not all medications listed in Annex B.2.8 are carried by SAR/CSAR personnel.
FRA	- France reserves the right to carry out certain Search and Rescue/Combat Search and Rescue (SAR/CSAR) missions on aircraft of opportunity not configured for aeromedical evacuation (AEROMEDEVAC) or with paramedical personnel not authorised to hold and use certain medicinal therapies (special forces). - France does not use the infusion warmer. - Survival/Personal Recovery training is not given to French medical and paramedical personnel other than those belonging to the special forces. Some medical teams are required to take a sea survival course (Helicopter underwater escape training (HUET)), or a course at the Naval Aviation Survival and Rescue Training Centre (CESSAN). - France considers that obstetrics and paediatrics are outside the scope of this training.
HUN	Hungarian Defence Forces (HDF) have no CSAR Service. The HUN SAR Service is not able to provide emergency medical care within CBRN environment. The most of the SAR personnel has no competency for special extended medical care. The HUN SAR Service does not possess some of the listed medical equipment/emergency medicines (e.g. plaster cutter, antibiotic ointment).
LTU	LTU is not intend to perform combat search and rescue (CSAR) operations.
MNE	The Air Force of Montenegro is not able to conduct full training for medical personnel. SAR personnel are nonmedical personnel, qualified for CLS and first aid.
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Documents Database for the complete list of existing reservations.	

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CHAPTER 1 INTRODUCTION

1.1 AIM

The Aim of this standard is to establish the scope of training and medical equipment for medical personnel participating in Search and Rescue (SAR) or Combat Search and Rescue (CSAR) activities. The documents will ensure the standardization of training procedures and medical equipment provided by participating NATO Nations in these activities.

1.2 GENERAL

The standardized list of training topics for medical SAR/CSAR personnel assists in Allied co-operation and mutual support, maximizing the effectiveness of treatment given by SAR/CSAR personnel.

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ANNEX A MEDICAL TRAINING OF PERSONNEL INVOLVED IN SEARCH AND RESCUE (SAR) OR COMBAT SEARCH AND RESCUE (CSAR) MISSIONS

A.1 GENERAL

1. The training detailed below provides the minimum competence required to meet the requirements of basic medical care of the casualty including basic life support and in so doing will enable basic lifesaving treatment. This treatment will be required both before and during flight (SAR or CSAR) to the point of handover to a higher echelon of medical care.

2. In addition to the medical training required, medical personnel will also require non-medical survival training to acquit the CSAR task in particular. This additional training is to be provided at the respective Nation's individual discretion and in accordance with the operational requirement.

3. While the medical training topics are designed to provide medical personnel with the minimum competences to manage both military and civilian SAR missions, Nations may utilize medical personnel with extended skill sets, at their discretion, to provide care to Advanced Life Support standards. An extended training and equipment inventory is detailed below to support this group.

4. Nations are to ensure that personnel remain competent and confident to practice to the level of training provided and are to ensure that continuation training, periodic re-validation and if necessary, re-certification are all undertaken in line with National professional guidelines.

A.2 MEDICAL TRAINING

A.2.1 Basic Medical Training Syllabus.

The following topics will be taught during the training of SAR/CSAR personnel:

a. Basic physiology of flight and aero-medical implications for casualty care.

b. Principles of first aid and basic life support. Additionally, paediatric immediate life support and pre-hospital paediatric life support should be taught if the anticipated patient casualty population includes children.

c. Emergency Treatment:

(1) Cardio-Pulmonary Resuscitation:

(a) Airway management (airway assessment, exhaled air ventilation, insertion of nasal/ oropharyngeal airways and needle thorax decompression).

(b) External chest compression.

(c) Use of automated and semi-automated defibrillators.

(d) Principles and techniques of manual ventilation.

(e) Recognition and treatment of complications of manual and mechanical assisted ventilation.

(2) Direct and indirect control of bleeding (application and management of pressure dressings, tourniquets, digital pressure techniques, use of haemostatic dressings).

(3) Treatment of haemorrhagic shock.

(4) Treatment of drowning, both in the conscious and unconscious patient.

(5) Hypoxia (secondary to altitude and trauma) and oxygen therapy.

(6) Principles of pain management and its implications.

(7) Suction techniques[1].

(8) Administration and use of therapeutic oxygen (including bag valve mask).

(9) Anaphylaxis, both recognition and treatment.

d. Injuries:

(1) Thoracic. Thoracic injury management (rib fractures, pneumothorax, haemothorax, mediastinal injury).

(2) Spinal. Spinal fracture management, to include patient handling, immobilization techniques, and use of the equipment carried (such as spinal board, scoop stretcher, extraction device).

(3) Ocular Injury. Basic management of ocular injury.

(4) Abdominal Injury. Basic management of abdominal injury.

(5) Genito-urinary injury. Basic management of genitourinary injury.

(6) Burns. Basic principles and management of burn injuries.

[1] Including naso-gastric tube placement

(7) Fractures. Management including splinting techniques, , reduction of fractures/dislocations (where appropriate), appropriate analgesia and observation of the fractured limb.

(8) Head. Basic management of head and maxillofacial injuries (including dental injury).

(9) Thermal. Including management of hyperthermia, hypothermia, freezing and non-freezing cold injury.

(10) Wounds. Including management of ballistic and blast injuries and of wound contamination.

(11) Multiple injuries (secondary survey techniques, assessment of vascular and neurological deficit in limbs, early and late complications of multiple injuries, head injury, coma and trauma scales).

(12) Allergic reactions, bites, stings, envenomations (specific to the mission).

e. Recognition of Life Extinct (ROLE). Signs of ROLE and subsequent actions.

A.2.2 Extended Medical Training Syllabus.

In addition to the preceding topics, the following subjects are to be taught at the Nation's discretion dependent upon the scope and role of their SAR/CSAR personnel (including as applied to paediatrics as well as adults if the anticipated casualty population includes children):

a. Pregnancy. Including precipitous delivery techniques, correct positioning and the management of common complications.

b. Casualty Administration:

(1) Handling of mass casualties and use of triage techniques (in accordance with STANAG 2879/AMedP-1.10).

(2) Use of medical equipment.

c. Resuscitation. Advanced life support (and advanced paediatric life support if applicable, including:

(1) Airway. Airway management including intubation, pharyngeal airway adjuncts, emergency surgical airway and chest decompression[2].

(2) Circulation. Management of haemorrhagic shock[3].

(3) Ventilation. The principles and techniques of ventilation.

d. Analgesia. The control of pain using analgesic preparations.

e. Environment. The provision of emergency medical care within a CBRN environment.

f. Advanced life support techniques and training at national discretion.

A.3 NON-MEDICAL TRAINING

Personnel undertaking SAR medical duties will require non-medical training appropriate to the environments it is anticipated they may operate in (such as winch training, mountain safety/survival, underwater escape training and dingy drills). For those assigned to CSAR duties, further training appropriate to role will be required (such as escape and evasion, conduct after capture, and land survival training appropriate to the climate).

[2] Including needle decompression, finger/tube thoracostomy
[3] Including blood/blood product transfusion

ANNEX B MINIMUM MEDICAL EQUIPMENT/DRUGS SCALE FOR SEARCH AND RESCUE (SAR) AND COMBAT SEARCH AND RESCUE (CSAR) MISSIONS

B.1 GENERAL

1. This Annex lists the minimum scale of equipment and drugs to be carried ready for use in the event of patient transportation by NATO military SAR or CSAR aircraft. Extended role equipment and drugs are shown in ***bold italics*** and use is dependent on the training and expertise of personnel; they may be added to the minimum list at each Nation's discretion. The equipment and drugs listed complement the clinical management training minima presented at Annex A. The individual item quantities to be carried are dependent upon the mission and the aircraft casualty-carrying capacity.

2. The standardization of a minimum medical equipment/drug list will ensure acceptable inter-allied interoperability in support of SAR and CSAR missions.

B.2 EQUIPMENT

B.2.1 Airway Management

a. Manual suction device.

b. Oro-pharyngeal airway.
Naso-pharyngeal airway
Supraglottic airway device
Endo-tracheal tube
Securing tape
Magill's forceps
Surgical airway kit.

B.2.2 Ventilation Support

c. Bag valve mask set.
Mechanical ventilator system.

d. Oxygen source.
Oxygen regulator.
Flow meter.

e. Oxygen mask.
Oxygen tubing.

f. Chest drain with Heimlich/flutter type valve.

g. Occlusive chest dressings with flutter valve.

h. Angiocatheters (IV catheter – for chest decompression).

B.2.3 Circulation Support

a. Tourniquets.

b. Intravenous catheters.
Intravenous fluid administration lines[4].
Intravenous fluid.

c. Fluid bag warmers.

d. Compression and haemostatic bandages/dressings.

e. ***Tranexamic acid***.

f. ***Basic surgical kit and sutures for chest drain and other haemorrhage control***.

B.2.4 Assessment and Monitoring Equipment

a. Stethoscope.

b. Sphygmomanometer (non-mercury).

c. Pulse oximeter
Integrated BP/pulse/oximetry device.

d. Portable light source.

e. Thermometer (capable of monitoring normo- and hypo-thermic patients).

f. ***Automated or semi-automated defibrillator***.

g. Glucometer.

B.2.5 Fracture Stabilization

a. Adjustable stiff cervical collars.

b. Spinal stabilization board.
Vacuum stretcher system.

c. Splint set.

d. Femur splintage system.

[4] Tubing for blood/blood products, if carried

e. Triangular bandages.
Plastic splints.

B.2.6 Analgesia

a. Oral analgesia.

b. Transmucosal analgesia.

c. Intravenous +/- intramuscular analgesia.

B.2.7 Additional Equipment

a. Scissors or trauma shears.

b. Plaster cutter.
Ring cutter.

c. Rigid eye shield.

d. Adhesive and duct tape.

e. Sterile gauze pads.

f. Gauze bandages.

g. Burns dressings.

h. Lubricant jelly.
Nasogastric tubes.
Foley catheters.

i. Antibiotic ointment.

j. Syringes.
Needles.
Sharps disposal container.
Intravenous cannulae[5].

k. Surgical gloves.

l. Chemical warmers (hypothermia treatment).
Reflective blankets (hypothermia prevention).

m. Emesis bags.

[5] Intra-osseous cannulae/admin kit, if within scope of team's training

B.2.8 ALS & Emergency Drugs

a. Adrenaline (Epinephrine): both for cardiac and anaphylaxis.

b. Amiodarone.

c. Naloxone.

d. Diazepam or similar anticonvulsant.

e. Dexamethasone or similar.

f. Ondansetron or similar (antiemetic).

B.2.9 Patient Transport

a. Stretchers.

b. Stretcher harness.

c. Winch capable stretcher system.

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