# **NATO STANDARD**

# AMedP-8.5

# MINIMUM TEST REQUIREMENTS FOR LABORATORY UNITS OF IN THEATRE MILITARY MEDICAL TREATMENT FACILITIES (MTFs)

Edition A Version 2
OCTOBER 2017



NORTH ATLANTIC TREATY ORGANIZATION

**ALLIED MEDICAL PUBLICATION** 

Published by the NATO STANDARDIZATION OFFICE (NSO)
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# NORTH ATLANTIC TREATY ORGANIZATION (NATO)

## NATO STANDARDIZATION OFFICE (NSO)

### NATO LETTER OF PROMULGATION

17 October 2017

- 1. The enclosed Allied Medical Publication AMedP-8.5, Edition A, Version 2 MINIMUM TEST REQUIREMENTS FOR LABORATORY UNITS OF IN THEATRE MILITARY MEDICAL TREATMENT FACILITIES (MTFs), has been approved by the nations in the Military Committee Medical Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2571.
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Edvardas MAŽEIKIS Maior General, LTUAF

Director, NATO Standardization Office



# **RESERVED FOR NATIONAL LETTER OF PROMULGATION**

# **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 Document Database for the complete list of existing reservations.

# **RECORD OF SPECIFIC RESERVATIONS**

[nation]	[detail of reservation]
DNK	DNK does not consider the ability to perform manual readings WBC at R2LM to be a necessary requirement.
	DNK does not consider the ability to perform cardiac test and muscle damage markers at naval R2LM to be a necessary requirement.
FRA	2.1 France reserves the right to express the results of biological or biochemical tests in international units (IU) of the WHO International System of Units (SI) whenever conventional units (UC) are mentioned in the standard covered by STANAG 2571, i.e. AMedP 71. A conversion table UC-WHO SI could be added to AMedP 71 for convenience.
	2.2 The measurement of haematocrit and hemoglobinemia at the level of Role 1 at an early stage in management makes it "optional" rather than strictly "necessary" as a basis since it is linked to the conditions surrounding the medical deployment and to the therapeutic purposes.
HRV	Approximate tests (multitest - tapes) will be used for the purposes of laboratory diagnostics at ROLE 1 capabilities.
	For the purposes of laboratory diagnostics at the ROLE 2 LM MTF general laboratory unit will be used for performing hematological tests, biochemical tests of blood and urine, determining blood group and Rh factor, blood gas analysis, acid-base status and coagulogram. Microbiological laboratory with the possibility of serological and cooling chambers for storing samples remains as an option.
ITA	ITA Navy considers the measurement of hematocrit and hemoglobinemia at the level of Role 1, at an early stage in management, "optional" rather than "strictly" necessary.
SVK	To date, the Armed Forces of the Slovak Republic do not have the required capabilities in the extent and quality required. With a view to the fact that the ARmed Forces of the Slovak Republic currently have medical assets and capabilities of ROLE1 and ROLE2, The Slovak republic bwill not seek to meet the requirements posed medical assets of ROLE2LM and ROLE3.

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 Document Database for the complete list of existing reservations.

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### CHAPTER 1 INTRODUCTION

### 1.1. RELATED DOCUMENTS

MC 326/3 STANAG 2228 -AJP-4-10 (B) STANAG 2061 STANAG 2517 STANAG 2543 STANAG 2348 STANAG 2132

### 1.2. PRELIMINARY REMARKS

NATO with its new participants now has 29 member nations and many MTFs. NATO has various operations in different geographic areas which are currently taking place at the same time. NATO forces should be able to work together in a multinational environment to provide best medical care to their deployed forces.

Considering the fact that there will be need of Health interoperability, the technical and nomenclature standards to be used for the exchange of medical data and health information between the deployable (Military) Health Information Systems (MHIS) of NATO members were agreed by Previous NATO documents. It was also agreed national systems can use their own standards but these systems must have the ability to transfer data to other national or NATO systems using the standards. Transfer of electronic information between nations, for the purpose of providing direct patient care or the transfer of population health information to the NATO commander will not be possible due to the fact that there is considerable variability in the health data, semantics, and technical information system architectures within NATO.

### 1.3. AIM

The aim of this Allied Medical Publication (AMedP) is to define the minimum requirements for providing laboratory services to personnel in theatre MTFs.

### 1.4. GENERAL

1. When a patient of one involved nation is treated in a theatre MTF of another nation, a laboratory record will be prepared for each patient according the standards annexed to this STANAG. This record will accompany the patient upon transfer between MTFs, and will be forwarded to the patients' national military medical authority when the patient is discharged from the MTF.

- 2. All laboratory records of a patient prepared according to this STANAG should be transferred to the patients' national military medical authorities in case of national demand. It is primarily a national responsibility to provide for an efficient medical support system including laboratory units. General medical support principles and policies for NATO are provided in MC 326 and doctrine is provided in AJP-4.10. Medical support must meet standards acceptable to all participating nations and provide a standard of medical care as close as possible to prevailing peacetime standards, taking into account the operational environment.
- 3. Nations are responsible for assigning the proper number of laboratory staff to conduct these tasks.
- 4. Pathology and other specialized clinical laboratory services are not included in this AMEDP. AMEDP-8.5 includes only the routine laboratory tests and the parameters which are used in theatre MTFs.

# ANNEX A MINIMUM TEST REQUIREMENTS OF MILITARY TREATMENT FACILITIES

	Sample	Role 2B	Role 2E	Role 3
HAEMATOLOGY	•			
Leukocytes (WBC) (Automated)	Blood		✓	✓
Erythrocytes (RBC) (Automated)	Blood		✓	✓
Hemoglobin (Hb)	Blood	✓	✓	✓
Hematocrit (Hct)	Blood	✓	✓	✓
Mean Corpuscular Volume (MCV)	Blood		✓	✓
Mean Corpuscular Hemoglobin	Blood		✓	✓
(MCH)				
Mean Corpuscular Hemoglobin	Blood		✓	✓
Concentration (MCHC)				
Red Cell Distribution Width (RDW)	Blood		✓	✓
Mean Platelet Volume (MPV)	Blood		✓	✓
Platelets (PLT)	Blood		✓	✓
WBC diff (Automated)	Blood		✓	✓
WBC diff Manual Differential	Blood		✓	✓
(Manually): Segs. Bands, Lymphs,				
Atypical Lymphs (if present), Eos,				
Basos, RBC Morphology, WBC				
Morphology, Plt Estimate (only by				
request for abnormal CBCs)				
BIOCHEMISTRY				
Ions				
Sodium (Na)	Blood	✓	✓	✓
Potassium (K)	Blood	✓	✓	✓
Chloride (CL)	Blood	✓	✓	✓
Ionised calcium (iCa)	Blood	✓	✓	✓
Renal function				
Blood urea nitrogen (BUN) or Urea	Blood	✓	✓	✓
Creatinine	Blood	✓	✓	✓
Liver Function				
Gamma GT	Blood			✓
ALT/GPT	Blood			✓
AST/GOT	Blood			✓
Alk. Phosphase (ALP)	Blood			✓
Total Bilirubin (TBil)	Blood			✓
Pancreatic function				
Amylase	Blood			✓
Plasmatic Biochemistry				
Glucose	Blood	✓	✓	✓

Lactate	Blood	✓	✓	<b>✓</b>
Inflammatory tests				
CRP	Blood	✓	✓	✓
Coagulation				
Activated Partial thromboplastin time	Plasma			✓
(APTT)				
Partial thromboplastin time (PTT)	Plasma			✓
INR	Plasma			✓
D-Dimer	Plasma			✓
Blood gas				
pH	Blood	✓	✓	✓
PCO <sub>2</sub>	Blood	✓	✓	✓
PO <sub>2</sub>	Blood	✓	✓	✓
HCO₃	Blood	✓	✓	✓
Base Excess (BE)	Blood	✓	✓	✓
O <sub>2</sub> Saturation	Blood	✓	✓	✓
Anion gap	Blood	✓	✓	✓
Cardiac tests and muscle damage				
markers				
Total creatine kinase (CK)	Blood			✓
CKMB Qual	Blood	✓	✓	✓
Troponine I Qual (cTnI)	Blood	✓	✓	✓
Hormones				
Pregnancy test (HCG)	Blood			✓
Transfusion				
Blood group, Rh	Blood	✓	✓	✓
Crossmatch	Blood	✓	✓	✓
Urine				
Specific Gravity (Density)	Urine		✓	✓
pH	Urine		✓	✓
Leucocytes	Urine		✓	✓
Nitrite	Urine		✓	✓
Protein	Urine		✓	✓
Glucose	Urine		✓	✓
Ketone	Urine		✓	✓
Urobilinogen	Urine		✓	✓
Bilirubin	Urine		✓	✓
Blood	Urine		✓	✓
Sediment	Urine		✓	✓
Pregnancy test (hCG)	Urine		✓	✓

• All tests with a check mark are necessary, while the rest of them both included and not included in the table are optional.

- Since no test is necessary for Role 1 MTF, Role 1 has not been included in the Table.
- Since all microbiology tests were also optional in version A, they have been removed also from the table.

**AMedP-8.5(A)(2)**