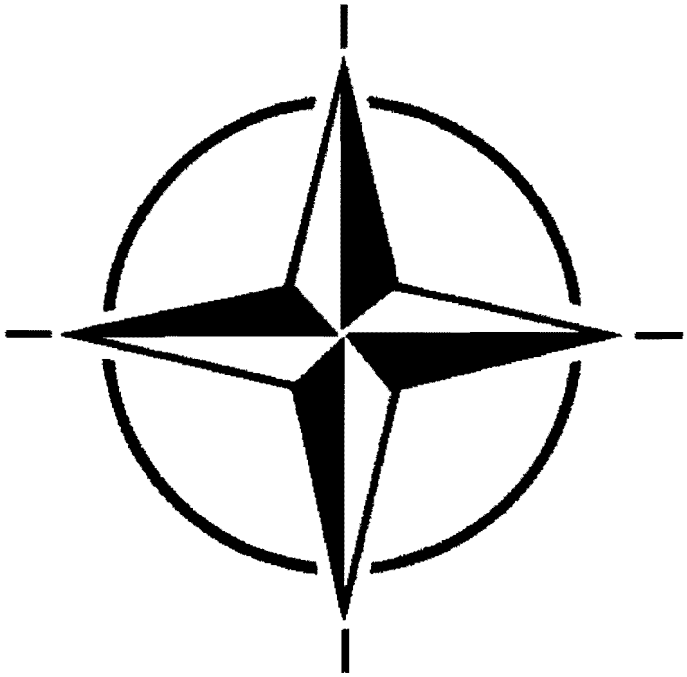

National Military Strategies for Vaccination of NATO Forces AMedP-23

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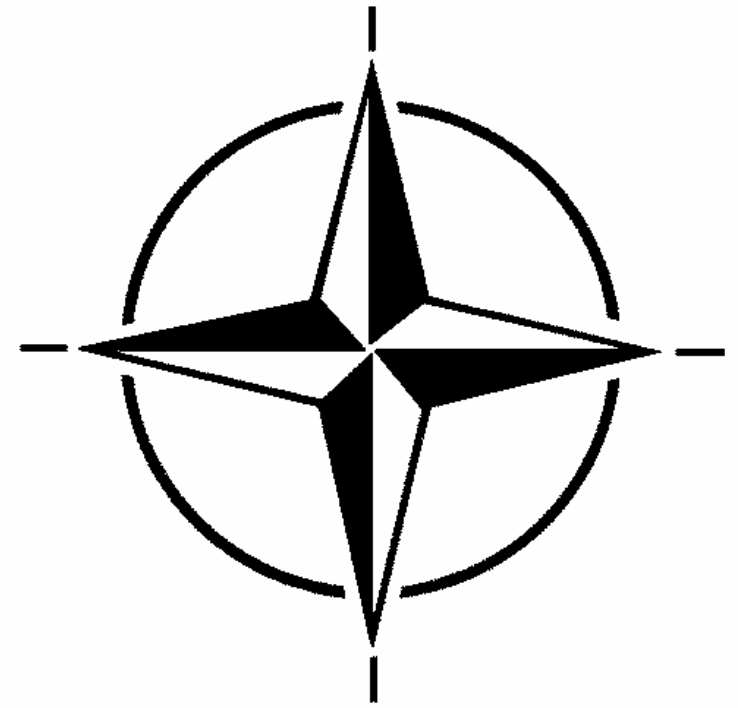

National Military Strategies for Vaccination of NATO Forces AMedP-23

December 2008

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NORTH ATLANTIC TREATY ORGANISATION

NATO STANDARDIZATION AGENCY (NSA)

NATO LETTER OF PROMULGATION

16 December 2008

1. AMedP-23 – NATIONAL MILITARY STRATEGIES FOR VACCINATION OF NATO FORCES is a NATO/PfP UNCLASSIFIED publication. The agreement of NATO nations to use this publication is recorded in STANAG 2037.

2. AMedP-23 is effective on receipt.

Juan A. MORENO
Vice Admiral, ESP(N)
Director, NATO Standardization Agency

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RESERVED FOR NATIONAL LETTER OF PROMULGATION

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RECORD OF CHANGES

Change Date	Date Entered	Effective Date	By Whom Entered

(INTENTIONALLY BLANK)

RECORD OF RESERVATIONS BY NATIONS

CHAPTER	RECORD OF RESERVATIONS BY NATIONS
2	ROU

RECORD OF SPECIFIC RESERVATIONS

NATION	SPECIFIC RESERVATIONS
ROU	- (a) Chapter 2, sect.205, para.205.1, subpara.205.1.1- Vaccination against Japanese Encephalitis - Cutrrently, Romania is not able to assure storage and handling of vaccine against Japanese Encephalitis. - (b) Chapter 2, sect.205, para.205.1, subpara.205.1.5 - Vaccination against Rabies - In accordance with national regulation this vaccine are used post-exposure.

TABLE OF CONTENTS

CHAPTER 1

INTRODUCTION

101. GENERAL

101.1 The word "vaccination" is used in the broad sense adopted by the World Health Organization. It covers all procedures known as "immunisation", "inoculation" and "vaccination".

102. AIM

102.1 The aim of this publication is to provide information on:

102.1.1 national responsibilities for the vaccination of their forces, and

102.1.2 national capabilities for vaccinations

103. AGREEMENT

103.1 Participating nations agree that:

103.1.1 vaccinations against certain infectious diseases are an essential precaution and a keystone of operational readiness;

1.3.1.2 their armed forces should be protected by vaccination against disease threats and in line with this publication;

103.1.3 vaccination plans must be coordinated to ensure personnel have adequate protection before traveling or deploying to a threat area;

103.1.4 each nation is responsible for establishing their mandatory and voluntary vaccination requirements; and

103.1.5 individual nations are not limited to the vaccines detailed in this publication and may wish to vaccinate against additional diseases based on current risk assessment.

104. REQUIREMENTS

104.1 A comparative table on vaccines used by the NATO nations appears in Annex A of this publication. This data is for information purposes only. For the table to remain accurate, each nation is to submit to the Custodian (Canada) necessary amendments to the Annex, with date of validity, whenever its vaccination program changes.

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CHAPTER 2

VACCINATION OF NATO PERSONNEL AGAINST ENDEMIC AND EPIDEMIC DISEASE THREATS

201 GENERAL

201.1 All vaccines require a certain amount of time to induce a protective immune response in recipients.

201.2 To ensure that the vaccination program does not interfere with deployment or training, medical planners must be aware of the number of personnel deploying, timing of deployments, the expected duration of deployment, and replacement / reinforcement plans.

202 IMPLEMENTATION

202.1 Medical intelligence briefings, by designated staff given to operational and medical planners on the endemic and epidemic disease threats in an operational area, are essential.

202.2 Nations are responsible for identifying and securing vaccines, and for ensuring that vaccines are transported and held prior to use in accordance with manufacturers instructions. Nations should ensure that vaccines meet their own regulatory standards.

202.3. Most vaccines are given in series of primary and booster doses, and often entail differing schedules to induce immunity. Nations that are likely to contribute rapidly deployable forces must identify these units and should ensure that these personnel have been vaccinated well in advance of likely deployments, or ensure that these units can be adequately vaccinated at short notice.

202.4 Vaccination plans must be coordinated to ensure personnel have adequate protection before traveling or deploying to a threat area.

203 RECORDS KEEPING

203.1 Vaccinations administered are to be documented in the individual's medical records and in a vaccination record carried by the individual or the individual’s unit during deployment. For each specific vaccine given, the record must detail the date of administration, the vaccine lot number, and the dose. A record of adverse events following vaccination must also be kept. Individual nations may wish to use more comprehensive recording procedures.

203.2 Nations must be able to identify to NATO medical planners, if requested, the percentage of their deploying force that has been vaccinated in accordance with this Allied Medical Publication.

204. STANDARD VACCINES

204.1 NATO forces should have adequate immunity against the following diseases:

204.1.1 Diphtheria,

04.1.2 Measles,

204.1.3 Mumps,

204.1.4 Pertussis,

204.1.5 Polio,

204.1.6 Rubella, and

204.1.7 Tetanus.

204.2 Immunity can result from previous illness from these diseases or from vaccinations given in national childhood vaccination programs or in military vaccination programs.

205 CONDITIONAL VACCINES

205.1 NATO forces, when operational and travel parameters are such that they may be exposed to the following diseases, should be vaccinated prior to exposure to these diseases:

205.1.1 Hepatitis A

205.1.2 Hepatitis B

205.1.3 Japanese Encephalitis

205.1.4 Meningococcal Meningitis

205.1.5 Rabies

205.1.6 Typhoid fever

205.1.7 Yellow fever

205.2 Individual nations are not limited to the above vaccines and may wish to vaccinate against additional diseases based on current risk assessment, such as influenza, adenovirus, cholera, tick-borne encephalitis, tuberculosis, varicella, etc. in accordance with their national vaccination policies.

206 MANDATORY VERSUS VOLUNTARY IMMUNIZATION PROGRAMS

206.1 Some NATO nations have wholly or partially voluntary vaccination programs and others have wholly or partially mandatory vaccination programs. Ensuring a minimum immunization status across all NATO nations can likely only be achieved through a mandatory vaccination program in all NATO nations; however, on this specific aspect, it is not possible to require that all programs be mandatory. Each nation is responsible for establishing their mandatory and voluntary vaccination requirements. Nations and Task Force commanders will always maintain responsibility for their troops health.

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CHAPTER 3

VACCINATION OF NATO PERSONNEL AGAINST BIOLOGICAL WARFARE AGENTS

301 GENERAL

301.1 The following documents are related to immunisation of NATO personnel against biological warfare (BW) agents:

301.1.1 AJP-3.8. Allied Joint Doctrine for NBC Defence (formerly ATP-59B);

301.1.2 AMedP-6. NATO Handbook on Medical Aspects of Defensive Operations;

301.1.3 AMedP-7. Concepts of Operations of Medical Support in CBRN Environments; and

301.1.4 AMedP-8. Medical Planning Guide for the Estimation of NBC Battle Casualties

302 THE THREAT

302.1 BW agents, when properly weaponised and released, are capable of producing mass casualties. Such weapons are grouped amongst the weapons of mass destruction. A BW attack against unprotected forces could result in a 99% mortality rate in a worst-case scenario. There is evidence of growing proliferation, and it is believed that several countries are seeking an offensive biological and toxin weapon capability. There are numerous BW agents with the potential to be weaponised; examples of such agents are listed in AMedP-6(C) Volume II Biological - NATO Handbook on Medical Aspects of Defensive Operations. BW agents can be produced using fairly simple technology at relatively low cost. They are easy to weaponise and do not necessarily need complex delivery systems.

302.2 Infectious and toxic BW agents have a range of incubation periods and effects. The use of a biological weapon may not be immediately obvious, and hence suspicion of its use may come some time after BW agent release. Cases may be diagnosed at great distance from the release point and certain diseases caused by these agents may then be secondarily spread from person to person. The initial symptoms of disease caused by BW agents are often influenza-like and may be confused with endemic illness, delaying the true diagnosis and the realisation that a biological weapon has been used.

302.3. BW agents in various devices could be employed strategically, tactically, or as a terrorist weapon. Biological weapons may be used by nations; state sponsored terrorist groups; well organised independent terrorist groups; or small individual terrorist organisations. The potential for NATO forces to be exposed to biological weapons is therefore increasing.

303 DEFENCE AGAINST BW AGENTS

303.1 The aim of defence against biological weapons is to ensure that exposed personnel continue to be operationally effective, thus allowing their units and formations to fulfil their military tasks and achieve their operational mission. CBRN defence is detailed further in AJP-3.8: Allied Joint Doctrine for NBC.

303.2 Medical countermeasures (MedCM) effective against BW agents include pre- or post-exposure use of antibiotics; antivirals; immunoglobulins; antitoxins; and active immunity through vaccination. Advantages and disadvantages of these MedCM include:

303.2.1 Antibiotics. Antibiotics may be cheap, effective and readily available. Without accurate and timely intelligence, detection, and diagnostic systems, the use of antibiotics for prophylaxis against bacterial agents is limited. Some antibiotics should not be given long term, which limits their usefulness as a prophylactic measure. Antibiotics offer no protection against viruses or toxins;

303.2.2 Antivirals. Antiviral prophylaxis or treatment of viral infections is presently limited due to efficacy, cost, and adverse events. Most antivirals are not indicated for pre-exposure prophylaxis and are useful for post-exposure prophylaxis in only a few diseases on a case-by-case basis. Antivirals do not protect against bacteria or toxins.

303.2.3 Immunoglobulins. Immunoglobulins can be produced for specific agents and may provide passive immunity to the recipient. They are normally given as post-exposure prophylaxis but, under certain circumstances, could be administered for pre-exposure prophylaxis.

303.2.4 Antitoxins. Antitoxins, a subset of immunoglobulins, counter a specific toxin. Their availability is limited and have the potential for significant side effects. Antitoxins are thus reserved for confirmed exposures and early symptomatic cases, rather than for routine prophylaxis.

303.2.5 Vaccination. The protection given by active immunisation against specific threat agents may greatly reduce the effectiveness of that agent as a weapon. The degree of immunity, and thus protection, is not complete in all circumstances in all individuals. Genetic manipulation of the agent, or a high infective dose, may allow the infection to overwhelm immune defences but, in these circumstances, the partial immunity may help to reduce morbidity and mortality. Vaccinations in certain situations may be administered post-exposure to prevent disease, to reduce the need for other MedCM, or to reduce morbidity.

303.3 Vaccinations are an integral part of MedCMs used to protect military forces against BW agents, having the advantages that protection is independent of recognition of an attack by detection or surveillance systems, and vaccines do not need to be taken as a regular medication. When vaccines are administered routinely or in the immediate pre-deployment phase, there is a reduction of the logistical burden during the operational phase.

304 OPERATIONAL PLANNING

304.1 Generic Planning

304.1.1 The risk from exposure to potential BW agents on short notice deployment may trigger the routine vaccination of key personnel. Routine briefing on the threat by intelligence staffs to both operational and medical planners is essential.

304.1.2 If a suitable vaccine is available to counter a likely BW agent, a decision whether to commence a vaccination program should be made based on a risk assessment balancing the risk of exposure to that BW agent, the impact of the illness, and the risks and benefits arising from vaccination.

304.2 Specific Medical Planning

304.2.1 To ensure a satisfactory MedCM program is put in place, medical planners require certain information. Numbers of personnel deploying, timing of the deployments and readiness states must be made known to medical planners, as well as the likely duration of the deployment and any reinforcement plans. The location of such units and other pre-deployment commitments should be considered to ensure the implementation of a vaccination program does not seriously interfere with other operational or training aspects of the unit.

304.2.2 NATO medical planners will need to be made aware of which units and elements are likely to deploy from individual nations to make up any contingency force.

305 IMPLEMENTATION

305.1 Timing of BW Vaccinations

305.1.1 All vaccines require time to induce an immune response in the recipient. Different vaccines employ different vaccination schedules and differing times to develop immunity. Most vaccines must be given as a series of doses to achieve immunity. Any BW vaccination program should be carried out in a timely fashion to ensure personnel have a significant degree of immunity before they deploy to the threat area. Provided immunity can be achieved rapidly, it may be possible to vaccinate troops when they receive warning of deployment to the threat area. Nations that supply rapidly deployable forces to NATO must be able to easily identify such units and these units may be offered pre- vaccination or vaccination at short notice in accordance with their national policy.

305.1.2 Some BW vaccines take a long time to induce immunity, and so it may be possible that some forces will be required to deploy before adequate immunity can be achieved. Nations that are likely to contribute rapidly deployable forces should identify the units comprising these forces and ensure that these personnel could be vaccinated well in advance of likely deployment if an appropriate threat exists. In such cases it may be preferable to vaccinate such rapidly deployable units routinely with nationally acceptable BW vaccines, where available, in a manner similar to public health vaccines such as hepatitis A, yellow fever and tetanus. Another alternative for rapidly deploying troops facing a threat from certain BW agents is the use of prophylactic antibiotics until protection is achieved through pre- or post-exposure vaccination.

306 RECORD KEEPING

306.1 It is vital that individual medical records are kept, for each specific vaccine given, detailing the date of administration, the vaccine lot number, and the dose. A record of adverse events following vaccination must also be kept. This is the minimum acceptable level of record keeping and it is a national responsibility. Individual nations may however wish to use more comprehensive record standards.

306.2 Nations must be able to identify to NATO medical planners the percentage of their deploying force that has been vaccinated against specific agents if so requested.

307 BW VACCINES AND VACCINATION PROGRAMS

307.1 BW vaccines should be safe, efficacious, and, ideally, have an internationally recognised product licence. However, if the military need is great, individual nations may consider the option of using an unlicensed product in times of emergency.

307.2 A unified approach to BW protection among the deployed forces of multinational force, including vaccination, should be considered, as it is undesirable to have only some members of the Alliance forces protected. Personnel susceptible to a BW agent could place mutually supporting but vaccinated troops at tactical risk and threaten the operational effectiveness of the entire force.

307.3 There are convincing arguments for mandatory BW vaccination. However, this may not be ethically or legally acceptable to all nations. BW vaccination programs will ideally be based on informed decision making. Forces liable to be deployed at short notice may be offered routine BW vaccination where BW vaccines have a long duration to immunity, in accordance with national policy. BW vaccines with a short duration of immunity could be given routinely or in the immediate pre-deployment phase. Some BW vaccines may be given as part of the post-exposure therapy or post-outbreak management where exposure to certain BW agents has been confirmed.

308 FUTURE RESEARCH AND DEVELOPMENT

308.1 There are a large number of BW agents, but a limited range of BW vaccines with military utility. There is a need to develop vaccines against a wide range of BW agents, and Research & Development (R&D) work must be carried out to an internationally acceptable regulatory standard.

308.2 Nations may have active R&D programs for BW vaccines, based on their national requirement. Some nations may have similar requirements and could benefit from other nations' progress. Where acceptable, nations should be made aware of other members' BW vaccine R&D programs. The NATO CBRN MED WG and the BioMedAC Panel provide useful fora for nations to brief CBRN medical planners and operational requirement staff on their R&D programs.

309 VACCINE PRODUCTION AND STOCKPILING

309.1 Vaccine production should be in a GMP (Good Manufacturing Practice) compliant facility. There are a limited number of vaccine production facilities that currently produce BW vaccines. There is no centrally held stockpile of BW vaccine. It is therefore a national responsibility to identify and secure stockpiles of BW vaccine. Nations should ensure that any BW vaccine they intend to use meets their own legal or regulatory standards.

309.2 Some BW vaccines are held at the site of manufacture. It is a national responsibility to ensure that BW vaccines are transported and held prior to use in accordance with the manufacturer's storage instructions, and the licence provisions.

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ANNEX A VACCINATION PRACTICES IN NATO FORCES

VACCINATION PRACTICES IN NATO FORCES

STANDARD VACCINES	BEL	BGR	CAN	CZE	DEU	DNK	ESP	EST	FRA	GBR	GRC	HUN	ISL	ITA	LTU	LUX	LVA	NLD	NOR	POL	PRT	ROU	SVK	SVN	TUR	USA
Diphtheria	NB	NB	NB	ND	NB	B	N	NB	B	NB	N	NB		B				B	B	A D	ND	N			NB	BN
Measles	N	N	NB	N	NB	N	N *SP1*	N	N	NB	N	N		B				B	B	N	N	N			NB	BN
Mumps	N	N	NB	N	NB	N	N *SP1*	N	N	NB	N	N		B				B	B	N	N	N			R	BN
Pertussis	N	N	N	ND	N	N	N	N	N	N	N	N		N				N	N	N	N	N			N	BN
Polio live attenuated oral				N		N	NDH	N				D		N						N	ND	N			N	N
Polio inactivated	NAD	N	NBD	ND	NB	ND		AD	B	NB	D	N		D				B	ND	D						BN
Rubella	N	N	NB	N	NB	N	N *SP1*	N	B *FR1*	NB	N	N		B				B	B	N	N	N			R	BN
Tetanus	NB	NB	NB	NB	NB	B	B	NB	B	NBD	N	NB		NB		B		B	B	ABD	B	NAD			NB	BN
CONDITIONAL VACCINES	**BEL**	**BGR**	**CAN**	**CZE**	**DEU**	**DNK**	**ESP**	**EST**	**FRA**	**GBR**	**GRC**	**HUN**	**ISL**	**ITA**	**LTU**	**LUX**	**LVA**	**NLD**	**NOR**	**POL**	**PRT**	**ROU**	**SVK**	**SVN**	**TUR**	**USA**
Hepatitis A	ADH	BD	B	AD	B	AD	D	ADH	B	B	D	DH		B				B	D	ABD	D	AD			DR	BN
Hepatitis B	NAD H	NBD	NB	NAD H	NB	AD	NDH	ADH	B	H	D	NBH		HBN				B	D	ADR	D H	NAD HN			NDR	BHN
Japanese Encephalitis	D		D	D	AD	AD	D	D	D	D				D				AD	D	H	D					AD
Meningococcal Meningitis																										
[serogroups A, C]	N *BE1*	D	N *CA1*	ABD		AD	D	AD	B	N UK 1		B						N *NL1*	D			D			B	
[serogroups A,C,Y,W135]	D		BD		AD					D	D	D		B				AD			D					BN
Rabies	H		DH	D	ADH	H	H	AD	H	HD	H	DH		H		H		AD	DH	AD	H				DH	AH
Typhoid, live attenuated oral														B						BD						
Typhoid, inactivated parenteral	AD	D	D	AD	AD	AD	B	AD	B	B	D	B		D				B	D		B	DH			D	AD
Yellow fever	AD	D	D	D	AD	AD	D	AD	B	B	D	D		D				AD	AD	A D	D	D			A D	AD *US1*

VACCINATION PRACTICES IN NATO FORCES

OTHER VACCINES	BEL	BGR	CAN	CZE	DEU	DNK	ESP	EST	FRA	GBR	GRC	HUN	ISL	ITA	LTU	LUX	LVA	NLD	NOR	POL	PRT	ROU	SVK	SVN	TUR	USA
Adenovirus (4&7)																										**US-2**
BCG (tuberculosis)	HR	N		NH				N	N	B	B	N							NB	N	N	N			N	
Cholera			D		D **DE-1**	D		D		D	D	D		D					D	A D	D					
Influenza (Seasonal)	R	R	BD	AH	B	R	RH	B	B		R	H		H				DR	D	D	D	H			DR	B
Tick-borne Encephalitis	D		D	DH	AD	AD	D	B		D		DH		D				AD	D	D						
Varicella-Zoster			NB		N					H																

Notes:

A = Alert Forces

B = Basic immunization, including Alert and Deployment (* = planned; ** = seronegative females only; *** = not conscripts, ‡ conscripts only)

D = Deployment or travel to risk areas

N = National Child Immunization Program

H = High risk occupational groups

R = Recommended / voluntary

BE1, CA1, NL1, UK1 = meningitis C in National Child Immunization Program

FR-1 = Females only if seronegative

US-1 = Yellow Fever B (Marine Corps), AD (Army, Air Force, Navy)

SP-1 = MMR for focused outbreaks of measles

DE-1 = *Oral vaccine only on D*

IT-1 = HepAB, e-IVP only for volunteer forces (not conscripts)

US-2 = Adenovirus (4&7) when FDA-licensed vaccine available

HUN, BEL & OTHERS = uses HiB in N (Natl Child Imm Program)