

**NATO STANDARD**

**AMedP-1.21**

**SAFETY STANDARDS  
FOR DEPLOYED DENTAL CARE**

**Edition A, Version 1**

**FEBRUARY 2021**



**NORTH ATLANTIC TREATY ORGANIZATION**

**ALLIED MEDICAL PUBLICATION**

Published by the  
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**NORTH ATLANTIC TREATY ORGANIZATION (NATO)**

**NATO STANDARDIZATION OFFICE (NSO)**

**NATO LETTER OF PROMULGATION**

24 February 2021

1. The enclosed Allied Medical Publication AMedP-1.21, Edition A, Version 1, SAFETY STANDARDS FOR DEPLOYED DENTAL CARE, which 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 6544.
2. AMedP-1.21, Edition A, Version 1, is effective upon receipt.
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4. This publication shall be handled in accordance with C-M(2002)60.



Zoltán GULYÁS  
Brigadier General, HUNAF  
Director, NATO Standardization Office

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## RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
DEU	DEU legislation and guidelines - being more stringent than the ones described in AMedP-1.21 - in principle need to be followed when DEU personnel is involved. That especially includes - but is not limited to - Annex C 2 (patient rights) and Annex E 2 (radiology).
<p>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.</p>	

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<b>CHAPTER 1 INTRODUCTION</b>
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**1.1. AIM**

The aim of this Allied Medical Publication (AMedP) is to describe the minimum standards on patient and occupational safety as well as health and environment protection in deployed military dental facilities. Its objective is to ensure quality outcomes during the dental care process by reducing risks throughout the entire deployment.

This document does not supersede more stringent national and local guidelines.

**1.2. GENERAL**

Ensuring the safety of persons and the environment throughout the whole medical care process is an integral part of the force health protection concept.

Experience from previous military and humanitarian deployments confirms that preventive measures and the implementation of internationally recognized standards and protocols are essential to ensure personnel and environmental safety during and after deployments.

From the early moments of any deployment within a multinational framework, the implementation of recognized standards guarantees a continuum of safety between the care provided in the homeland and that provided during and after operations.

Based on the standards described in the annexes of this document, a risk assessment should be conducted according to the method proposed in the Allied Joint Medical Force Health Protection Doctrine (AJMedP-4), Chapter 2, documented at the beginning of each deployment and frequently reviewed.

The main ways to control a hazard are described as the "hierarchy of control" in which the control measures must be considered in the following order:

1. Elimination: Remove the hazard whenever possible.
2. Substitution: Replace the hazard with a less hazardous alternative.
3. Isolation: Confine the hazard to an isolated space.
4. Engineering controls: Modify equipment, systems and processes to minimize exposure to the hazard.
5. Administrative controls: Implement policies and procedures that inform or alter the way work is done in order to reduce exposure to the hazard.
6. Personal protective equipment (PPE): Wear PPE to reduce exposure to the hazard.

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<b>CHAPTER 2    DETAILS OF THE AGREEMENT</b>
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**2.1.    AGREEMENT**

Participating nations agree to meet the minimum standards outlined in this AMedP.

**2.2.    PRINCIPLE DOMAINS**

- a.    Personnel protection.
- b.    Infection prevention control (IPC).
- c.    Patient safety.
- d.    Work environment.
- e.    Dental radiology.

**2.3.    IMPLEMENTATION**

This AMedP is considered implemented when a nation has issued the necessary orders or instructions to the forces concerned, putting the principles and protocols of this agreement into effect.

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<b>CHAPTER 3    DEFINITIONS</b>
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**Risk:** the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard.

**Hazard:** any situation, condition, or thing that may be source of potential damage, harm or adverse health effects on someone or something under certain conditions.

**Infectious agent:** biological agent responsible for an infectious disease, including bacteria, viruses, protozoa, parasites and prions.

**Contagion:** transmission of an infectious disease by direct contact with the infected person or by an intermediate material element.

**SAL (Sterility Assurance Level):** probability of an item being non sterile after it has been exposed to a validated terminal sterilization process.

**Quality assurance:** part of quality management focused on providing confidence that quality requirements will be fulfilled (ref: ISO 9000 2015).

**Radiology:** diagnostic imaging of anatomic structures by means of ionizing or non-ionizing radiation.

**Ionizing radiation:** radiation with enough energy to ionize an atom.

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<p><b>ANNEX A - PERSONNEL PROTECTION</b></p>
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1. Principle:

Personnel protection ensures that health care providers remain physically and mentally fit to fulfill the capabilities needed to provide quality dental care and dental/oral-maxillofacial surgery on each role deployed on NATO operations (see AMedP-1.17).

2. Details:

Education/Training

Health care providers must receive appropriate education and training in all aspects of procedural and equipment safety.

Personal protective equipment

Well-fitted PPE is an important means of reducing the risk of harm to both patients and personnel and, as such, must be available at all times. PPE is the last step in the hierarchy of control and should never be the only method used to reduce exposure.

Ergonomics

Guidelines on best practices in ergonomics, including the design and set-up of workspaces, should be provided as their implementation contributes to increase productivity, to the prevention of illness and injuries and to the well-being of staff.

Working environment

Environmental conditions must be maintained within a range that ensures the proper functioning of equipment and materials as well as the optimal performance of personnel.

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<p><b>ANNEX B – INFECTION PREVENTION CONTROL</b></p>
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1. Principles:

Infection prevention controls must be put in place in the dental setting to minimize the risk of transmission of infectious diseases.

The risk assessment should include the following steps:

- identify any potential source of contagion;
- identify all activities likely to cause any contagion;
- evaluate the contagion risk by considering the modes of transmission, and the type and frequency of exposure.

2. Details:

Prior to any treatment, all instruments, surfaces and materials should be free from infectious agents that might pose a risk of cross infection.

A recognized documented process must be implemented to ensure that reusable material is made safe for further use. This process includes the following steps:

- cleaning: by manual washing with detergent or by washing machine. At the end of the cleaning process, all instruments and surfaces must be free of visible contaminants (soils and microorganisms);
- disinfection: by contact with a bactericidal, virucidal and fungicidal solution for a sufficient time to reduce the number of microorganisms on inert surfaces to an acceptable level. Disinfection must be used in situations where terminal sterilization is not possible. Detergent or disinfectant with aldehydes should not be used;
- conditioning: by a packaging adapted to the criticality of the device and an intelligible labeling allowing the traceability of the sterilization process, especially the expiry date;
- terminal sterilization: by destroying all microorganisms and their pathogenic products. A SAL  $10^{-6}$  is the standard for medical devices (probability of 1 in 1.000.000 that a device is not sterile at the end of the process).

- storage: by storing sterilized items in a clean, dry dedicated area which protects them from environmental contamination and any circumstances that may reduce the package efficiency.

The use of disposable or single-use equipment is a good alternative to disinfection/sterilization of reusable equipment.

PPE should be worn to protect from sharps, splashes, skin contact and inhalation.

A hazardous waste management plan must be established to minimize risks of spreading infectious diseases and environmental pollution.

A protocol is required for any identifiable source of exposure to a blood borne pathogen (BBP). This protocol must be easily comprehensible, regularly updated and all personnel must know how to access it quickly.

The quality assurance program must include periodic checks scheduled in accordance with national and local regulations as well as the manufacturer's instructions.

There is a clear need to maximize the separation of decontamination work from clinical activity within the constraints of space and room availability.

<b>ANNEX C - PATIENT SAFETY</b>
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1. Principles:

In addition to the undeniable benefits of modern medicine, it is widely recognized that health care can also lead to negative consequences for patients. This annex is part of an integrated approach and includes factors not covered in other annexes that may result in avoidable harm to the patient, both in terms of physical and mental health.

2. Details:

ETHICS

The patient's interest must be a priority and attention must be given to ensure that everyone has access to equal care without discrimination based on military or individual characteristics.

PATIENT RIGHTS

Patient confidentiality and dignity must be respected.

Patients must be treated as individuals.

Patients must have access to all the information they want or require in a way they can understand. Risks, benefits, delay before procedure, alternative treatments, including the option of no treatment, should be communicated.

Patients' concerns and expectations should be considered to the extent that resources and circumstances permit.

Patient's informed consent is required for all types of dental care except in a life-threatening situation.

PPE

PPE must be available and appropriate for all patients.

PPE must be used in accordance with principles of universal precautions.

### CLINICAL RECORD MANAGEMENT

Patients' medical and dental histories must be recorded or updated.

Patients' health should be reassessed and considered appropriate for any treatment considered.

An individual clinical record must be established and updated at each patient visit.

Health care providers are responsible for maintaining accurate, complete, and timely records of health care rendered and products dispensed. Each step of the treatment must be legibly documented and free of ambiguity to ensure the continuity of care rendered by other health professionals.

### KNOWLEDGE & SKILLS

Health care providers must provide a high-level of care and must maintain professional knowledge and skills through continuing professional education to help ensure they are able to apply safe practices and optimize patient outcomes.

Health care providers must work within their scope of practice.

### INDEMNITY

Health care providers are responsible for ensuring that they have appropriate indemnity cover for their scope of practice.



<p><b>ANNEX D - WORK ENVIRONMENT</b></p>
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1. Principles:

To the extent possible, all reasonable precautions must be taken to protect staff, patients and any other persons present in the dental facility.  
It is necessary to:

- provide and maintain safe equipment and devices;
- provide personnel with information, training, and supervision about safe work practices;
- ensure personnel understand the work-related hazards and how to protect themselves from them;
- ensure personnel adhere to safe work practices and procedures.

A health and safety orientation process is required for personnel who are new to a specific dental facility or returning to a work place where risks or safety processes have changed during his/her absence.

2. Details:

The risk assessment must be conducted in such a way that all of the following environmental aspects are considered suitable for the health, safety and well-being of persons and for all activities carried out within the dental facility:

- appropriately safe operational environment;
- appropriate electricity supply, taking into account the potential incompatibilities of electrical systems from different origins;
- appropriate water supply meeting standards required for medical care and according equipment requirements;
- optimal utility management, including suitable lightning, warming, noise level, air conditioning, and ventilation;
- appropriate workflow and ergonomics to prevent fatigue and musculoskeletal disorders;
- appropriate handling and disposal of hazardous waste before being handed over to the supply chain;

- appropriate handling, storage, and labeling of hazardous materials and substances;
- appropriate management of medical emergencies;
- dental facilities must have access to an emergency kit nearby. Up-to-date first aid training is strongly recommended for all health care providers working in the dental facility;
- appropriate fire detection equipment, fire-fighting means, and evacuation plan;
- appropriate procedures for the management of military emergencies such as armed attacks or explosive threats.

<p><b>ANNEX E - DENTAL RADIOLOGY</b></p>
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1. Principles:

The following standards are intended to ensure:

- high-quality images providing relevant diagnostic information with the lowest possible exposure of personnel and patients to ionizing radiation.
- secured storage, transfer and sharing of images in order to ensure the continuum of care while guaranteeing patient confidentiality.

2. Details:

All exposures to ionizing radiations must be justified.

The radiation protection principles ALARA (as low as reasonably achievable) and ALADA (as low as diagnostically acceptable) should always be applied.

Controlled area(s) must be established.

Only qualified and competent personnel should prescribe, take and interpret diagnostic images.

All images must be adequately labeled with patient identification information and stored under conditions that guarantee their confidentiality and integrity.

There must be protocols that ensure the secured and confidential transfer of the images to any patient's national dental record.

A quality assurance program should be followed. This should be in accordance with national and local regulations as well the manufacturer's instructions.

3. Related document:

FDI (Fédération Dentaire Internationale) policy statement about *Radiation Safety in Dentistry ed. SEP 2014*

<http://www.fdiworldddental.org/resources/policy-statements-and-resolutions/radiation-safety-in-dentistry>

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