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Report of the Project Team for Smart Defence Project 1.1045

Volume 1

Historical Record

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**Report of the Project Team for Smart Defence
Project 1.1045**

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Executive Summary

Following the international response to the 2014 outbreak of Ebola virus disease in West Africa, the International Military Staff (IMS) of the North Atlantic Treaty Organisation (NATO) proposed a Smart Defence project to enhance the Alliance's ability to respond to a biological outbreak. The United States agreed to lead the project, and the U.S. Army Office of the Surgeon General served as the office of primary responsibility. The project, ultimately titled Smart Defence 1.1045 (SD 1.1045), involved 16 nations and multiple NATO commands and activities. Through interactions with multiple NATO Centres of Excellence, the Allied Command Transformation (ACT), and various working groups under the NATO Standardization Office, the SD 1.1045 project team integrated bio-response activities into NATO exercises, including tactical medical and chemical, biological, radiological, and nuclear (CBRN) exercises, as well as the Trident Juncture 2018 operational and strategic exercise.

Over the course of SD 1.1045, the project team also developed an assessment process, produced a concept for bio-response, assessed national capabilities to perform required tasks to respond to an outbreak, identified capability enhancements and new capabilities for development and monitoring within NATO, and integrated lessons identified from exercises. Finally, the project team developed an operational level concept of operations for a response to a biological outbreak.

This document serves as the historical record of the activities of SD 1.1045, and delivers the results of those activities to the Committee of Chiefs of Military Medical Services (COMEDS), the ACT, the Allied Command Operations (ACO), and the IMS. Volume 1 summarises the historical record of the project, and Volume 2 presents the concept of operations for response to a biological outbreak.

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1. Introduction

A. Background

Following the international response to the 2014 outbreak of Ebola virus disease in West Africa, the International Military Staff (IMS) of the North Atlantic Treaty Organisation (NATO) proposed a Smart Defence (SD) project to improve the Alliance's responsiveness to biological outbreaks of natural origin or intentional use (referred to as bio-responsiveness). In 2016, the United States (USA) agreed to serve as lead nation for this project, and the U.S. Army Office of the Surgeon General assumed leadership in conjunction with the Joint Staff Surgeon. The project evolved through time from SD 2.96, to SD 1.45, to SD 1.045, and ultimately to its final designation as SD 1.1045.

Smart Defence is a concept of shared responsibility to develop capability within the NATO Alliance "in a more cost-efficient, effective and coherent manner. Allies are encouraged to work together to develop, acquire, operate and maintain military capabilities to undertake the Alliance's core tasks."¹ Smart Defence projects are overseen by the Allied Command Transformation (ACT) and supported by participating nations and NATO commands and agencies. The SD 1.1045 project team included representatives of 16 participating nations,² ACT, NATO Headquarters, and the NATO Defence Health Surveillance Capability (DHSC).

B. Purpose and Objectives

The purpose of SD 1.1045 is to increase NATO responsiveness to biological outbreaks (natural or intentional) up to the level of bio safety level (BSL)-4 by pooling existing capabilities in national inventories to increase the capacity, improve effectiveness, and create a structure amongst Allies for response to biological outbreaks. The desired response from Alliance members is support to NATO and to nations, upon request. An additional aim is to improve coherence of education, training, and exercise over the whole range of responsiveness actions. The capability to provide such outbreak response to NATO, nations, or international organisation and nongovernmental partners, is important for solidarity. While the project integrated significantly into NATO exercises, the purpose

¹ "Smart Defence," North Atlantic Treaty Organisation, https://www.nato.int/cps/en/SID-92D4EB92-8C07135F/natolive/topics_84268.htm?, accessed March 21, 2019.

² Participating nations included Austria, Belgium, Canada, the Czech Republic, France, Germany, Great Britain, Hungary, Italy, Luxembourg, the Netherlands, Portugal, Poland, Spain, Switzerland, and the United States.

of the project was not to initiate training and education changes, although such changes may be one result of the project.

C. Process

The project team modified and simplified the USA's process for Capability Based Assessments³ to determine capability requirements and potential gaps. The team prepared an overarching concept for bio-response and developed a list of bio-response tasks as well as a list of required capabilities. Each nation then assessed its ability to perform the identified tasks under a variety of specific conditions.

Concurrent with the assessment process, the project team worked with NATO commands and activities to integrate bio-response concepts into existing NATO exercises. The team prepared a concept of operations (CONOPS) for a bio-response at an operational level and tested the CONOPS by integrating it into a large-scale NATO command post exercise.

D. Document Organisation

This document is organised into two volumes. Volume 1 contains five chapters. Chapter 2 provides a brief overview of the history of SD 1.1045. Chapter 3 describes the analytic framework for the project, including the strategic concept development, capability assessment, and recommendations for capability enhancements or new capabilities. Chapter 4 presents an overview of exercise integration to test bio-response concepts and capabilities as they emerged from the project. Lastly, Chapter 5 is an overview of findings and recommendations of SD 1.1045. Volume 2 contains a CONOPS for a NATO bio-response.

³ Chairman of the Joint Chiefs of Staff, *Charter of the Joint Requirements Oversight Council (JROC) and Implementation of the Joint Capabilities Integration and Development System (JCIDS)*, Instruction 5123.01H (Washington, DC: CJCS, August 31, 2018), D-1.

2. History of Smart Defence 1.1045

A. West Africa Ebola Response

During the Ebola outbreak in West Africa in 2014–2016, multiple NATO nations provided response capabilities. However, the nations' responses occurred outside of a NATO framework. In the aftermath of the international response, the IMS at NATO proposed a Smart Defence project to increase NATO responsiveness to a biological outbreak up to BSL-4 through a pooling of national capabilities.

B. Initiation of the Smart Defence Project

The Smart Defence project began within NATO and ACT as SD 2.96, a tier 2 effort⁴ without a lead nation. In 2016, the United States agreed to lead the effort, and the project was elevated to tier 1, now with a lead nation, partners, and the initiation of effort, and renamed SD 1.45.

The first formal meeting of the SD 1.45 project team occurred August 4–5, 2016 at Ramstein Air Force Base in Germany. There were 13 participants representing Belgium, France, Germany, the United Kingdom (UK), Italy, and the United States, along with ACT, the Centre of Excellence for Military Medicine, and DHSC. Participants exchanged information on national capabilities, and reviewed and agreed to a general analytic framework for the project, described in Chapter 3.

C. SD 1.1045 Activities

The project team continued its work through a series of meetings, through integration with the NATO Chemical, Biological, Radiological, and Nuclear Medical Working Group (CBRN Med WG) and the Biological Medical Expert Panel (BioMedEP), and through the use of table-top exercises and live training exercises as mechanisms for testing bio-response concepts and capabilities as they emerged from the project. Ultimately, 16 nations, ACT, NATO Headquarters, and DHSC participated in the project. Table 1 summarises meetings of the SD 1.1045 project team, and Table 2 summarises the exercises used to test SD 1.1045 concepts and capabilities. The analytic processes are discussed more thoroughly in Chapter 3, and exercise integration is described further in Chapter 4.

⁴ A tier 2 Smart Defence project is a validated project without a lead nation. Once a lead nation is named and effort begins, the project is elevated to tier 1. See Volume 2, Figure 1, of this document for descriptions of phased responses.

Table 1: Smart Defence Project 1.1045 Meetings

Date	Location	Host
August, 2016	Ramstein, Germany	USA
January, 2017	Munich, Germany	DHSC
June, 2017	Munich, Germany	Bundeswehr
January, 2018	Brussels, Belgium	NATO IMS Medical Advisor
June, 2018	Lichfield, UK	UK Surgeon General
June, 2019	Amsterdam, Netherlands	Netherlands Ministry of Defence

Table 2: Exercises Used to Test SD 1.1045 Concepts and Capabilities

Exercise Name	Location	Date
Clean Care 2016	Tisa, CZE	17–23 September, 2016
Vigorous Warrior 2017	Lehnin/Rostock, DEU	4–17 September, 2017
Trident Juncture 2018	Naples, ITA Stavanger, NOR	14–23 November, 2018
Vigorous Warrior 2019	Cincu, ROU	1–12 April, 2019

3. Smart Defence 1.1045 Project Framework

A. Overview

The Smart Defence project team agreed to an overall framework for the project at the first meeting in August 2016. The project team would develop and propose an operational and strategic framework, identify tasks required to successfully perform a NATO bio-response under that framework, determine necessary capabilities to perform the tasks, and assess the capabilities and determine shortfalls. Ultimately, the team would develop an initial pool of national capabilities organised by task and condition and, based on the identified capability shortfalls, propose new capabilities and enhancements to existing capabilities. This framework is shown in Figure 1.

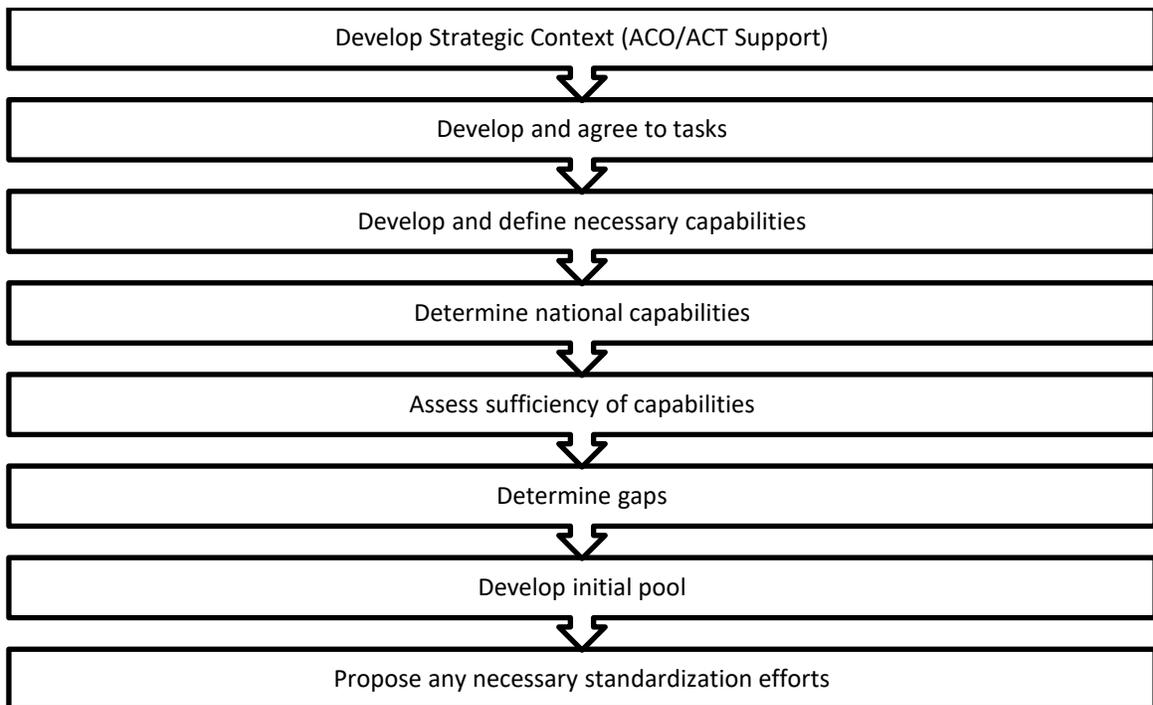


Figure 1: Analytic Framework of SD 1.1045

B. Strategic Concept Development

During the January 2017 meeting, members of the SD 1.1045 project team began preparing an overarching concept of bio-response to guide the future work of the team. The project team initially proposed to evaluate bio-responsiveness in the context of an out-of-area non-Article 5 engagement involving humanitarian assistance, which would arguably demonstrate the heaviest medical support demand and high logistics demands not involving direct combat support. The evaluation would then expand to a semi-permissive or

non-permissive non-Article 5 operation, and then an Article 5 operation, documenting any differences through the process. Ultimately, in consultation with the ACT medical advisor, the project team placed its work in the context of an Article 5 operation, which allowed integration of the project into ongoing NATO exercises as discussed in Chapter 4.

To further develop the strategic and operational context, the project team produced a NATO concept for bio-response. The concept allowed consensus on the NATO bio-response and provided a consistent framework for further analysis and outputs of SD 1.1045. The concept sought to leverage existing NATO doctrine to the maximum extent possible. The medical aspects of CBRN defence are well described in NATO standardization publications and could be adapted to meet the requirements of bio-response. Also, current NATO and national capabilities for CBRN defence served as the starting point for developing a bio-response capability.

The concept for bio-response identified a number of potential indicators that would trigger a NATO response, including:

- A single suspected case of an uncommon disease;
- Single or multiple cases of a suspected common disease or syndrome that does not respond to treatment as expected;
- Clusters of a similar illness occurring in the same time frame in different locales; and
- Unusual clinical, geographical, seasonal, or temporal presentation of a disease and/or unusual transmission rate.

Key to the concept is agreement that a NATO response as described in SD 1.1045 would be triggered only for an outbreak of biological origin that reaches operational significance (i.e., is a potential risk to the deployed force). The full concept for NATO bio-response is shown in Appendix A.

C. Capability Assessment

Capability assessment was the primary effort of the project team for much of SD 1.1045. This assessment began with the creation of a list of required tasks for an effective bio-response and a list of required capabilities to perform those tasks successfully. From these foundational documents, the participating nations assessed their ability to perform the identified tasks under a variety of conditions relevant to a bio-response.

1. Task List

The project team began developing a list of required tasks during the first meeting. This list evolved over time, but forms the basis of all further analysis, the concept for bio-response, and the concept of operations developed over the course of the Smart Defence

project. Ultimately, the project team agreed that 21 tasks were essential to outbreak response and management. These tasks are listed below and defined in Appendix B.

- Perform deployment health surveillance
- Perform operational epidemiology
- Perform national outreach, reach-back, and fusion
- Perform forensic functions
- Perform medical C4I and decision support
- Provide medical situational awareness
- Prepare medical risk assessment
- Perform strategic communications
- Conduct military and civilian cooperation
- Employ laboratory assets
- Support clinical diagnosis
- Perform sample management
- Perform medical evacuation
- Perform patient management
- Employ medical countermeasures
- Conduct infection prevention and control
- Conduct isolation, quarantine, and restriction of movement
- Sustain medical support operations
- Manage contaminated clinical waste
- Provide fatality management
- Provide psychosocial support

2. Capabilities

NATO defines capability as “the ability to create an effect through employment of an integrated set of aspects categorised as doctrine, organisation, training, materiel, leadership development, personnel, facilities, and interoperability.”⁵ The project team developed a list of required capabilities, including:

⁵ *NATOTerm*, NATO Terminology Database, NATO Standardization Office (record 27626; accessed April 3, 2019), <https://nso.nato.int/natoterm/>.

- Hazard assessment
- Diagnostics
- Tactical MEDEVAC
- Strategic MEDEVAC
- Medical treatment facilities
- Outbreak investigation
- Personal protection
- Medical situational awareness
- Hazard management
- Infectious waste management
- Medical logistics
- Medical countermeasures
- Isolation
- Information management and knowledge management
- Fatality management
- Public health
- Animal care
- Medical advisor
- Mental health

3. Task Survey

A key output of SD 1.1045 is a listing of national capabilities to pool in support of an outbreak. To support that outcome, the project team prepared a survey of the participating nations' capabilities to perform the tasks identified under varying conditions.⁶ For instance, nations evaluated “perform patient management” under a variety of isolation conditions ranging from “standard, enteric, or droplet precautions” to “multiple patients requiring strict or airborne precautions” across the roles of care.⁷ Other tasks such as “support clinical diagnosis” varied by role of care. The results of that survey provide an initial inventory of capabilities that NATO commands may use within the NATO Defence Planning Process

⁶ Although there were 16 participating nations, only 7 returned completed task surveys.

⁷ STANAG 2228, *AJP-4.10(C): Allied Joint Doctrine for Medical Support*, 2-13–2-14

to formalise capabilities. The task survey is provided in Appendix C, and the survey results are in Appendix D.

D. New Capabilities

In the course of SD 1.1045, the project team identified several key capabilities not described in NATO and without NATO Capability Codes. Capability Codes provide guidance to the nations for capability development, and a means of tracking progress toward capability improvement. This document proposes four new or significantly altered capabilities to ACT. They are:

- Deployable Medical Bio-Laboratory
- Medical Isolation Treatment Facility
- Medical Outbreak and Incident Investigation Teams (3 variants)
- Medical Isolation Evacuation Systems (3 variants)

Appendix E contains the full description of each capability code as submitted to ACT, and Appendix F includes proposed changes to existing capability codes to enhance their bio-response capabilities.

E. Capability Enhancements

To maintain consistency with NATO's medical modular approach, the project team mapped the capabilities listed above to the bio-response tasks and to the medical modules described in AMedP-1.7.⁸ That mapping is in Appendix G. The project team then reviewed the modular capabilities in AMedP-1.7 for their adequacy to meet the requirements of a NATO bio-response and proposed potential enhancements to those capability descriptions. In general, the capability statements for most modules require modification to describe the capability needed to investigate and manage an outbreak. This may be as simple as describing personal protective equipment requirements, or as significant as describing the capability required for strict isolation of highly infectious patients. Proposed enhancements to the assessed modules are listed in Appendix H.

⁸ NATO, *Capability Matrix*, AMedP-1.7(A), (Brussels: January 2016).

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4. Exercise Integration

A. Background

From the outset of the SD 1.1045 project, ACT promoted the use of live training and table-top (TTXs) exercises as mechanisms for testing bio-response concepts and capabilities as they emerged from the project. Under the umbrella of Concept Development and Experimentation (CD&E), ACT facilitated the integration of bio-response play into exercises for which it had responsibility or influence during the project period. These included the Trident Juncture Command Post Exercise in 2018 (TRJE18 CPX) and the Vigorous Warrior training exercise in 2017 and 2019 (VW17 and VW19, respectively). Additionally, the SD 1.1045 project team used the BioMedEP as a venue for a number of TTXs that explored various scenarios and triggers for the use of bio-response capabilities with subject matter experts. The latter included the first SD 1.1045 TTX in September 2016, designed to generate inputs to the scenarios and exercise play in the Clean Care 2016 live training exercise. This integration accomplished the overarching goal of integrating bio-response into NATO education, training, and exercises.

B. Clean Care 2016 (Tisa, CZE)

The Clean Care exercise series is a biennial NATO CBRN medical training exercise, with participation by CBRN defense units. Clean Care is developed and supported by the Medical Training Team (MTT) of the CBRN Medical Working Group, and is linked to CBRN defense capabilities through the Joint CBRN Defence Capability Development Group Training and Exercise Panel (TEP).

Clean Care 2016 was conducted 17–23 September, 2016 in Tisa, CZE. It was immediately preceded by the September meeting of the BioMedEP in Prague, CZE, which itself closely followed the first SD 1.1045 project team meeting in August 2016. Because there was significant overlap among individuals attending these three events, the Exercise Clean Care planning team believed it would be a good venue to develop an initial understanding of the issues and problems in NATO's general approach to biological response.

To that end, bio-response play in Clean Care 2016 had two components:

- A TTX conducted among the subject matter experts of the BioMedEP. This TTX was designed to explore a variety of operational medical issues specific to biological outbreaks, with particular emphasis on triggers for decisions and use of specialised capabilities. The output of this TTX was a health risk assessment and health brief for use in the subsequent live exercise.

- Biological patient play in the Clean Care LIVEX, to train clinical diagnosis and management of contagious (Lassa fever) patients, and to exercise management of a small number of patients in a non-Article 5 crisis response scenario.

In combination, these two events allowed the SD 1.1045 project team to clarify the scope of the project, to identify major issues and problems in bio-response, and to begin delineation of key bio-response tasks and capabilities.

C. Vigorous Warrior 2017 (Lehnin/Rostock, DEU)

The Vigorous Warrior exercise series is a biennial NATO military medical training exercise. Vigorous Warrior is organised and executed by the NATO Centre of Excellence for Military Medicine. While this exercise is focused on battlefield trauma care, the 2017 and 2019 iterations of this exercise included a limited amount of CBRN medical play as well as SD 1.1045 bio-response play as part of the embedded CD&E activities.

Vigorous Warrior 2017 was held 4–17 September in Lehnin, Germany. Bio-response experimentation in this exercise had two components:

- A TTX on bio-response conducted with the leaders of most of the participating units in the training audience. Since an Allied response to a biological outbreak in an operational environment will be integrated into existing medical force structure, this TTX explored the intersection of specialised bio-response capabilities and conventional medical capabilities.
- A three-day live training exercise focused on the deployment of specialised bio-response capabilities and interoperability between them. This portion of the exercise was conducted in a separate geographic location (Rostock, Germany) than the main Vigorous Warrior exercise, and was based on a separate scenario and events/injects. Participating units included:
 - Mobile Hospital Isolation Unit (CZE)
 - Rapidly Deployable Outbreak Investigation Team (SVK) with augmentation from a Public Health Response Team (USA)
 - CBRN reconnaissance and decontamination capability (ROU)
 - Ground and rotary wing medical evacuation (ITA)
 - Deployable biological laboratory (HUN)

The major lesson identified (LI) from the TTX was that Role 2 medical treatment facilities are highly vulnerable if presented with a highly contagious infectious disease patient. While Role 2s would not ordinarily be responsible for managing these patients, in the early stages of a disease outbreak, before the outbreak has been detected in the population and before clinical or laboratory diagnosis is made, it is very likely that some

of these patients would arrive at a Role 2 facility. In such cases, most of the participants believed that an affected Role 2 facility's trauma care capability would be severely degraded. This LI became the basis for subsequent live Role 2 experimentation in Vigorous Warrior 2019.

The Vigorous Warrior 2017 live bio-response exercise play provided focused training for the participating units and tested execution of a number of the tactical level bio-response tasks identified in the SD 1.1045 project. This exercise identified several best practices related to sample collection and management, as well as some recommendations for minor improvements to materiel. Collected observations suggested that the areas with the greatest need for improvement were in doctrine, training, and interoperability.

To further the objectives of the SD 1.1045 project, the live portion of the exercise demonstrated that modularity, interoperability, and multinational personnel augmentation within and between the participating bio-response units was generally smooth. This was supported by a common mission and common subject matter expertise. However, the relationship between bio-response capabilities and conventional medical capabilities needed increased attention to facilitate familiarization and integration in the event bio-response capabilities are deployed. Integration of bio-response play into the main body of the exercise therefore became a major objective of the SD 1.1045 project team for Vigorous Warrior 2019.

D. Trident Juncture 2018 (Naples, ITA and Stavanger, NOR)

The Trident Juncture series of exercises is intended to train forces for future NATO missions and serves as the evaluation and certification venue for the enhanced NATO response force. Sponsored by ACT, the exercise encompasses the strategic, operational, and tactical levels and includes both live and CPX elements. The SD 1.1045 project was one of several transformational activities (TACTs) included in the Trident Juncture 2018 CPX, which focused on the planning and conduct of a NATO Article 5 operation. Bio-response play in the CPX took place at the NATO Joint Force Headquarters in Naples, ITA and at the NATO Joint Warfare Centre in Stavanger, NOR from 14–23 November 2018.

Trident Juncture 2018 provided the SD 1.1045 project with the unique opportunity to explore bio-response at an operational level, and to observe cooperation and collaboration between NATO and the host nation. The primary project objective, therefore, was to test the draft SD 1.1045 CONOPS with the Joint Medical (JMed) staff in Naples, with particular emphasis on execution of the following tasks:

- Establish situational awareness requirements and process;
- Develop a strategic communications plan;

- Recommend and coordinate the use of medical countermeasures and/or public health measures to control a contagious disease outbreak;
- Recommend and coordinate restrictions of movement as necessary; and
- Support sustainment of medical operations.

The SD 1.1045 TACT was a small part of the overall exercise and, based on guidance from the exercise developers, was designed to be challenging but not overwhelming for the JMed staff to manage, given their responsibilities within the exercise as a whole. In consideration of these factors, the SD 1.1045 project team provided the JMed staff with on-site access to a group of subject matter experts from the BioMedEP, as well as exercise control and support staff in Naples and in Stavanger. Nonetheless, the exercise was ultimately unsuccessful in validating more than a small portion of the CONOPS, for a number of reasons.

Key findings from the Trident Juncture CPX were:

- Recognition of the postulated outbreak and management of outbreak response was inhibited at the operational level because of:
 - Shortfalls in medical reporting throughout the chain of command, leading to inadequate disease surveillance;
 - Unrecognised trigger events and disease patterns; and
 - Unrecognised potential for the outbreak to have significant operational impact on future military operations.
- NATO and many individual nations do not currently have well-defined plans for the management of outbreaks of highly contagious infectious disease in deployed forces. This finding reinforces the ACO's original identification of this capability gap, and further justifies ACT's initiation of the SD 1.1045 project.
- Biological incidents and outbreaks do not lend themselves to resolution via algorithm-driven action plans or flow charts. Rather, there must be broad-based training at all levels, to promote flexibility and agility of response. This included training for command-level leadership.
- Opportunities for CIV-MIL cooperation were largely unexplored, despite host nation interest, efforts of the bio TACT team, and delineation in the exercise specification. As with other SD 1.1045 objectives in the exercise, this was primarily due to a lack of situational awareness and information flow.

E. Vigorous Warrior 2019 (Cincu, ROU)

Exercise Vigorous Warrior 2019 was held from 1–12 April 2019 in Cincu, ROU. This exercise provided the final opportunity to exercise SD 1.1045 tasks and capabilities during

the time-frame project. Consequently, bio-response play in this exercise was pervasive and ambitious, with three components:

- A TTX with the JMed component of the training audience prior to live exercise play. The 2019 iteration of the Vigorous Warrior exercise was the first time it incorporated a command element into the training audience, and as such it provided an unexpected opportunity to again test the SD 1.1045 CONOPS. To facilitate that test, the SD 1.1045 team provided the JMed staff with familiarization training on the bio-response capabilities participating in the exercise and on the CONOPS itself, followed by a walkthrough of an abbreviated version of the scenario and events developed previously for the Trident Juncture CPX.
- A live experiment with two participating Role 2 facilities (EST and USA), as a follow-on to the Vigorous Warrior 2017 TTX. This experiment was intended to validate the LI regarding Role 2 vulnerability in the event of highly contagious infectious disease patient presentation, and to determine the best means of mitigating that vulnerability.
- Broad integration of bio patient play within the controlling events and injects for the live exercise, promoting interaction between the specialised bio-response assets, conventional medical capabilities, and civilian/non-governmental organisations. This play included:
 - Presentation of highly contagious infectious disease casualties to Role 1 and Role 2 medical facilities, with subsequent management of those patients through to preparation for strategic evacuation;
 - Investigation of suspected disease cases at an internally displaced persons camp, requiring CIV-MIL cooperation at the component command and tactical levels;
 - Strategic air evacuation of a patient, involving units from several nations. This included preparation of the patient for evacuation at the CZE Mobile Hospital Isolation Unit, ground transit to an airfield within the GBR air transportable isolator, handover of the patient to the ITA air evacuation team, and ITA fixed wing transport of a patient manikin to Rome; and
 - Outbreak management by the JMed staff, including the development of a common operational picture, establishment of information reporting protocols and procedures, patient regulating, and generation of advice to the commander.

Bio-response capabilities participating in Vigorous Warrior 2019 included:

- Mobile Hospital Isolation Unit (CZE)

- Public Health Response Team (USA)
- Deployable biological laboratory (HUN)
- Rapidly Deployable Outbreak Investigation Team (ITA)
- Deployable Air Isolation Transport Team (GBR)
- Ground MEDEVAC in bio-containment (ROU)
- Fixed wing STRATEVAC (ITA)

The outputs of this exercise relevant to the SD 1.1045 project are still emerging. However, first impressions suggest:

- The concern over Role 2 vulnerability first identified in Vigorous Warrior 2017 was validated during the Role 2 experiment. That vulnerability is not, however, as pervasive as initially suspected. Rather, because the Role 2 staffs quickly identified that the patients were potentially highly infectious and took action to limit the exposure of facilities to the patient while still providing care. As a result, the impact on the Role 2 is primarily due to exposure and subsequent loss of staff to quarantine or illness, and secondarily due to the potential loss of equipment during aerosol generating procedures. Role 2s will be more vulnerable to contact hazards than aerosol hazards. Overall, the best way to address this vulnerability is through the provision of personal protective equipment packages, training and education, and improvements to situational awareness.
- The bio-response CONOPS should include more specific instructions to command level medical staff on the altered or additional staff procedures needed to establish and maintain a robust common operating picture. These instructions should include requirements for enhanced reporting, collaboration between specialised bio-response capabilities, dissemination of case definitions and public health guidance, and collaboration with civilian authorities and non-governmental organisations. The importance of situational awareness as an enabler of successful bio-response cannot be over-emphasised.
- NATO command-level medical staff are unlikely to be familiar with the unique capabilities of specialised bio-response assets, particularly as these capabilities will vary by contributing nation. Staff should endeavor to familiarise themselves with these assets—in person if possible—during the planning phase or in the early phases of deployment.
- Management of MEDEVAC assets capable of transporting bio patients in containment—specifically tracking and allocation of those assets—is very challenging in a multinational environment.

5. Findings and Recommendations

The activities of SD 1.1045 have improved the understanding of NATO nations' capabilities to respond to a biological outbreak of operational significance and provide a framework for applying those capabilities in an Alliance response. The CONOPS developed through the work of the project team provides planning and execution guidance for Medical Advisors, Medical Directors, and medical staff faced with a potential outbreak during operations. This CONOPS was tested and refined through two NATO exercises involving operational-level medical staffs. Volume 2 of this report contains the CONOPS.

Through the integration of SD 1.1045 activities into tactical exercises, the project team improved training on the management of highly contagious patients and conducted experimentation to test potential means of improving medical treatment facilities' ability to safely manage those patients while sustaining operations. Future exercises at national and NATO levels can further refine options that maintain the primary function of deployed medical capability to manage trauma and minor illness while enhancing the capability to respond to an outbreak.

The project team identified a series of enhancements to existing medical capabilities to improve their ability to respond to and manage an outbreak. The project team also identified the need to continue improvements in medical reporting systems to make them more responsive to the requirements of outbreak management. Perhaps most importantly, the team identified and described a set of new capabilities and draft capability codes for specialised clinical diagnostic capabilities, isolation capabilities, outbreak investigation capabilities, and medical evacuation capabilities. Developing and standardizing these specialised capabilities could significantly improve NATO's capability to respond to, investigate, and manage an outbreak of operational significance.

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Appendix A. NATO Concept for Bio-Response

CONCEPT PAPER

SMART DEFENCE 1.1045

RESPONSIVENESS TO BIOLOGICAL OUTBREAKS

Lead Nation: USA

Participating Nations: AUT, BEL, CHE, CZE, DEU, FRA, GBR, HUN, ITA, LUX, NLD

The SD 1.1045 project team consisting of the nations identified above produced this concept to guide the further activities of SD 1.1045 and to provide an operational framework. It is included in this report as part of the historic record of the SD 1.1045 project team and to provide a framework for future capability assessment and development.

Introduction

Background

An outbreak of an infectious disease (natural or intentional) within a NATO military force has the potential to reduce in-theatre operational end strength, negatively impact the ability of the Alliance to project power, create a logistics burden that may overwhelm the current force on the ground, and overwhelm the ability of the medical forces to provide the appropriate routine medical care necessary to support the operational force. The consequences of disease outbreaks will be complicated by many factors, including the lack of information, the level of disease surveillance being conducted and reported, incubation times of the infectious agent, and potential civilian considerations. The net result will be militarily significant to the force on the ground and will generate a request for resources to meet increasing medical support requirements.

Bio-response encompasses outbreak investigation, outbreak response, and recovery or redeployment of bio-response medical assets. Individual NATO member nations have established bio-response capabilities to a varying extent. However, NATO does not maintain a dedicated, deployable, and cohesive Alliance bio-response capability that can limit the impact of disease outbreaks on the conduct of Allied operations and the achievement of military objectives. The generation of this capability at the NATO level will increase the collective capacity for bio-response, improve its effectiveness, and create an Alliance structure to facilitate its implementation.

Aim

Smart Defence Project 1.1045 seeks to increase NATO responsiveness to biological outbreaks by pooling existing national and Alliance capabilities in five broad categories: outbreak investigation, diagnostics, evacuation, isolation, and patient management. Relevant capabilities include early warning and detection, initial assessment and consultation via rapidly deployable outbreak investigation teams, deployable diagnostics and analysis, isolation, treatment, and recommendations to support patient management. Intra-theatre and inter-theatre transportation and evacuation via ground and air capability for patients or samples are critical for success. Reach-back to national non-deployable treatment and laboratory capabilities may be required, as well as additional military lift to meet an expanded logistics requirement. Optimally, when the operational environment permits, NATO's bio-response capability should be implemented in collaboration with civilian health and medical response organisations.

A second aim of this project is to improve and integrate education, training, and exercises across the whole range of bio-response.

Scope

NATO's bio-response capability is intended to mitigate the health and/or operational risks of deliberate, natural, or accidental exposure of a deployed NATO military or contractor force to biological warfare agents, emerging, endemic, imported, engineered, or agricultural diseases, and/or "bio-mimickers"—up to and including pathogens requiring maximum infection control—when those risks cannot be managed by a single nation or by the deployed medical task force. The range of threats, missions, and operational levels for which a bio-response capability is needed is shown in the figure below. This capability should allow NATO to respond to disease outbreaks in a civilian setting, at the formal request of a host nation, or to augment a civilian-led response.

Current operating environments often lead to numerous interactions between deployed military personnel and the civilian population of the countries where NATO forces are conducting operations. Consequently, outbreaks of infectious disease within NATO operating areas will generate numerous CIV/MIL public health issues that will require the engagement of NATO's bio-response capability to effectively manage. Examples include the expansion of the population at risk and the potential for outbreaks to spread as military operating areas expand; the complication of civilian response efforts in non-permissive environments due to enemy action and civil unrest; and possible mutual aid requirements of military and civilian capabilities.

This project envisions the establishment of a cohesive, comprehensive bio-response capability with modular components that can be tailored to meet the requirements of a specific operation. Initially, this capability should be able to effectively manage diseases with small numbers of patients using standard, enteric, or droplet precautions, with an evolution in capability to allow management of single patients requiring strict or airborne precautions. Future bio-response capabilities should be developed to manage multiple patients requiring the highest level of containment and infection control.

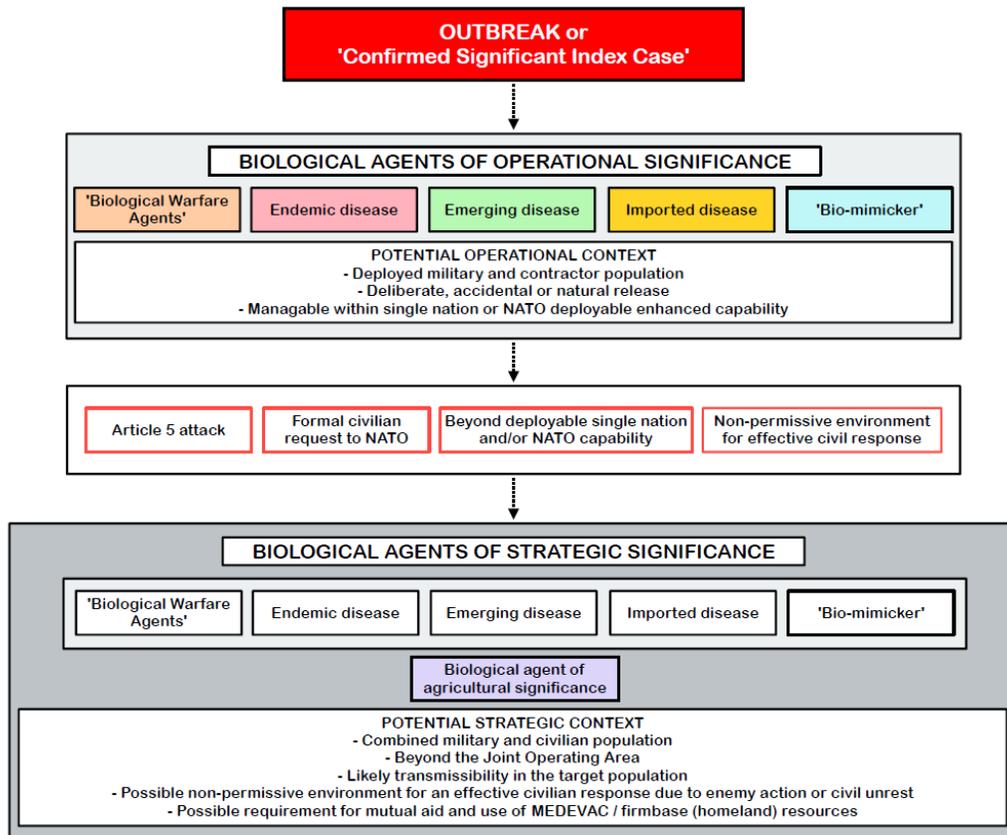
A bio-response capability would be requested by the Joint Force Commander, should an outbreak of infectious disease be judged a potential risk to the deployed force. The decision to request bio-response capability and the specific modules required depend heavily on circumstance and the information available to support medical advice and decision-making. Potential triggers for the application of bio-response include:

- A single suspected case of an uncommon disease;
- Single or multiple cases of a suspected common disease or syndrome that does not respond to treatment as expected;
- Clusters of a similar illness occurring in the same time frame in different locales;

- Unusual clinical, geographical, seasonal, or temporal presentation of a disease and/or unusual transmission rate.

Other triggers may include an unexplained increase in incidence of an endemic disease, unusual illness that affects a large disparate population or is unusual for a population or age group, or unusual pattern of illness or death among animals or humans.

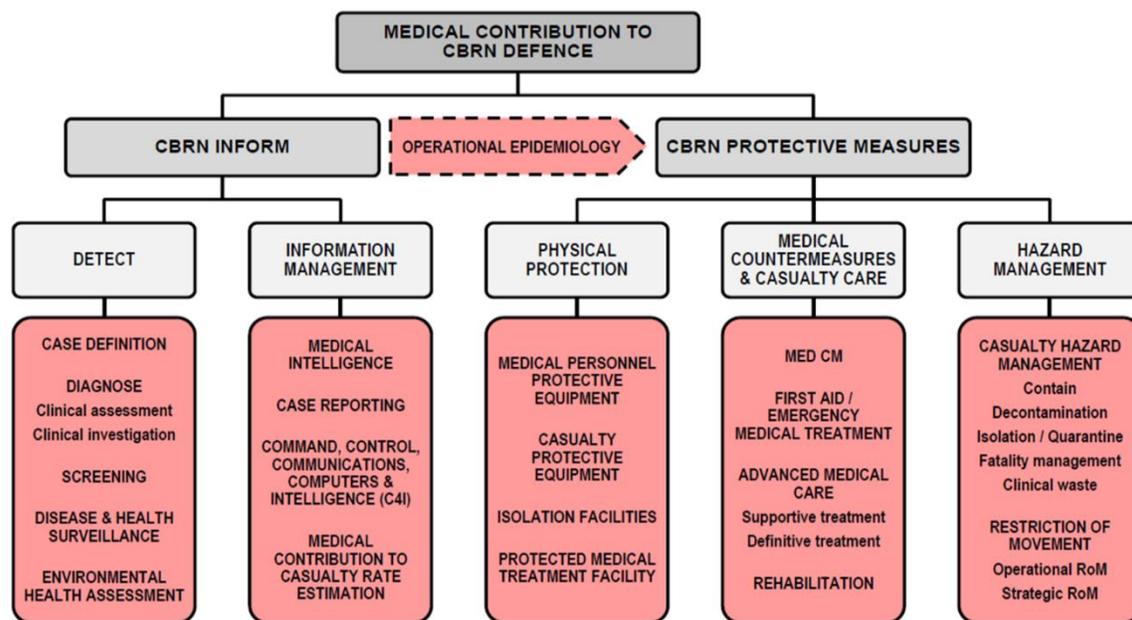
In the early stages of an infectious disease outbreak, the availability of triggering information will be very limited and it may take some time before that information can be consolidated, assessed, and used to support outbreak investigation and response. In the meantime, the outbreak can spread unabated. For this reason, requested components of bio-surveillance will need to be deployed into the theatre of operation quickly to effectively contain the outbreak and minimise its impact.



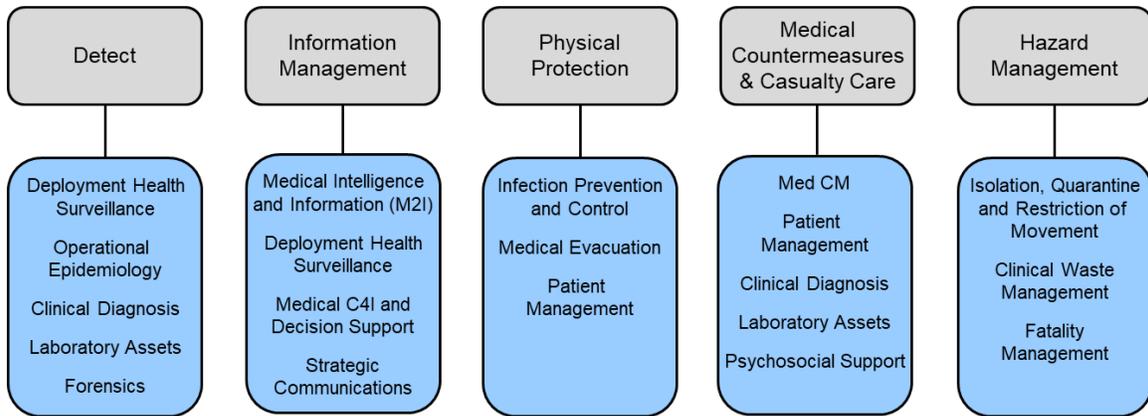
Conceptual Framework

Current NATO and national capabilities for CBRN defence can serve as the starting point for developing a bio-response capability. The medical aspects of CBRN defence are well described in NATO standardization publications and can be adapted to meet the requirements of bio-response.

The *NATO Comprehensive CBRN Defence Concept* (MC 0603) identifies five enabling components of CBRN defence: 1) detection, identification, and monitoring; 2) information management; 3) physical protection; 4) medical countermeasures and casualty care; and 5) hazard management. Together, these five components enable NATO forces to accomplish the mission and maintain freedom of action in a CBRN environment. Each of these components has significant medical aspects and requires the use of medical capabilities coordinated at the tactical and operational level. The figure below, introduced in *AMedP-7.1: Medical Management of CBRN Casualties*, depicts the five CBRN defence components and the medical aspects of each. Many of the medical aspects of these five enabling components are directly relevant to bio-response and can serve as the basis for generating a comprehensive bio-response capability.



Many of the medical aspects of CBRN defence are directly relevant to bio-response and can serve as the basis for generating a comprehensive bio-response capability. A mapping of key bio-surveillance capabilities to the five enabling components is provided in the following figure, and discussed in the sections that follow.



Response to militarily significant outbreaks of infectious disease is a process, beginning with the detection of an outbreak and a command decision to respond and concluding when the outbreak is waning and the population at risk is recovering. It includes three phases: outbreak investigation, outbreak response, and recovery. Outbreak investigation comprises confirmation of the outbreak, assessment of its cause and potential spread, identification and characterization of the causative pathogen, development of a case definition, sample collection and analysis, and implementation or expansion of disease surveillance and reporting. Outbreak response is intended to manage existing patients and prevent disease from spreading in a manner that minimises health and operational risks to the force; it includes patient regulating, use of medical countermeasures, supportive care, evacuation, infection control, quarantine and isolation, and operational/strategic restriction of movement. At the operational level, recovery includes the lessons learned process, identification of capability gaps, and corresponding efforts to improve bio-response capabilities for future contingencies.

While this process is generally linear, there is significant overlap between these three phases and many of the five components shown above are applicable in more than one phase, in terms of the tasks involved and the associated capabilities needed to execute them.

Detection, identification, and monitoring

The goals of detection, identification, and monitoring are to detect CBRN hazards at the earliest possible opportunity and to provide timely alerts to commanders and forces so that appropriate avoidance and response actions can be initiated. Medical forces have a primary role in this component of CBRN defence through health and disease surveillance, especially for biological agents. Successful detection by this means requires standardised, widespread, and systematic health monitoring of personnel. It also requires the communication of disease and health surveillance data and the integration of those data with information generated from environmental sampling and analysis, diagnostic testing, and medical intelligence collection activities.

In a bio-response context, detection of a suspected disease outbreak is the first step in an outbreak investigation process that includes confirmation and assessment, characterization of the causative agent, development of a case definition, and ongoing monitoring and surveillance of populations at risk. Related tasks include:

- Perform deployment health surveillance
- Perform operational epidemiology
- Perform national outreach, reach-back, and fusion
- Perform forensic functions
- Perform medical C4I and decision support
- Prepare medical risk assessment
- Conduct military and civilian cooperation
- Employ laboratory assets
- Support clinical diagnosis

Information management

Information management is defined in STANAG 2525 (AJP-6), *Allied Joint Doctrine for Communications and Information Systems*, as “the organisation and control of information to support coalition missions, consultation, decision-making processes, and operational requirements.” The role of medical information in CBRN situational awareness is crucial and may be more urgent and more high profile than the role that medical information typically plays in conventional operations.

Operational and medical command decisions in response to a militarily significant outbreak of disease are dependent on information. Timely, accurate, and comprehensive medical information and decision support tools will be needed to assess the medical and operational impact of CBRN incidents, to determine the appropriate medical response, to evaluate courses of action, and to provide the best possible advice to the commander. Related tasks include:

- Perform deployment health surveillance
- Perform operational epidemiology
- Perform national outreach, reach-back, and fusion
- Perform forensic functions
- Perform medical C4I and decision support
- Prepare medical risk assessment

- Perform strategic communications
- Conduct military and civilian cooperation
- Employ laboratory assets
- Support clinical diagnosis
- Perform sample management

Physical protection

Physical protection generally consists of individual protective equipment, collective protection (COLPRO), and equipment and materiel protection. Individual protection and COLPRO are intended to protect individuals from exposure to a variety of CBRN agents or effects and to allow them to continue to perform tasks in a CBRN environment. Equipment and materiel protection minimises the contamination of critical equipment and materiel and the associated need for decontamination.

During an outbreak of disease, physical protection includes personal protective equipment (PPE), or standard precautions, which serves as the basic level of infection control to reduce the risk of infection in a medical setting. In addition, casualty protective equipment (CPE) may be needed during the transport of infectious disease casualties to protect them from exposure to contamination and to allow provision of medical care with minimal risk to medical personnel or the environment. Depending on the estimated number of casualties and/or the transmissibility of the disease, the establishment of cohort isolation wards or separate medical treatment facilities (MTFs) for the care of casualties may be warranted. Related tasks include:

- Perform medical evacuation
- Perform patient management
- Conduct infection prevention and control

Employ medical countermeasures

The medical countermeasures and casualty care component of medical CBRN defence includes the use of pre- and post-exposure prophylaxis; delivery of first aid, emergency medical care, and advanced medical care; patient regulating; laboratory support; and sustainment of operations and facilities. These same capabilities would be included in any medical response to an outbreak of disease. Related tasks include:

- Perform national outreach, reach-back, and fusion
- Perform forensic functions
- Perform medical C4I and decision support

- Conduct military and civilian cooperation
- Employ laboratory assets
- Support clinical diagnosis
- Perform sample management
- Perform medical evacuation
- Perform patient management
- Employ medical countermeasures
- Conduct infection prevention and control
- Conduct isolation, quarantine, and restriction of movement
- Sustain medical support operations
- Manage contaminated clinical waste
- Provide psychosocial support

Hazard management

Hazard management refers to those measures taken collectively to limit the operational impact of CBRN incidents. Hazard management is based on avoidance, control of spread, exposure control, and decontamination. In a CBRN environment, medical forces are responsible for casualty hazard management.

In a bio-response context, casualty hazard management is intended to control the spread of contagious disease through the isolation of infected personnel, quarantine of potentially exposed but otherwise healthy personnel, and tactical or strategic restrictions on the movement of personnel within and into/out of outbreak regions. Casualty hazard management also includes limiting the health risks associated with clinical waste and handling of fatalities. Related tasks include:

- Perform sample management
- Conduct infection prevention and control
- Conduct isolation, quarantine, and restriction of movement
- Manage contaminated clinical waste
- Provide fatality management

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Appendix B. Tasks and Definitions

The listing of tasks associated with each bio-response component is intended to support the identification of medical capabilities needed to perform them. Many of the tasks must be performed in support of multiple components; in such cases, multiple capabilities may be required.

Perform deployment health surveillance

Conduct continuous and systematic collection, analysis, interpretation, and dissemination of health-related data with respect to deployed NATO forces. Rapidly detect public health incidents or outbreaks that could affect NATO operational capacities or objectives, and monitor the progression of those incidents or outbreaks over time.

Perform operational epidemiology

Investigate disease outbreaks to determine their source, nature, and magnitude. The information provided can be used to improve medical treatment for existing cases and to support the implementation of public health and physical control measures to prevent additional cases. Operational epidemiology may also be an important component of forensic investigation of a biological incident known or suspected of being deliberately caused.

Perform national outreach, reach-back, and fusion

Request support from designated reach-back experts, teams, laboratories (including NATO, partner, and host nation assets), or other facilities as needed to augment in-theatre capabilities or knowledge. Establish any necessary support agreements to enable reach-back. Disseminate reach-back analysis results to appropriate medical units and theatre organisations.

Perform forensic functions

If attribution is desired, use specialist sample collection units and appropriate reach-back laboratories to apply chain-of-custody procedures in the collection, handling, transport, and analysis of samples. Reach-back and forensics efforts must adhere to differing national and cultural standards for the collection, management, and use of medical information and clinical samples.

Perform medical C4I and decision support

Provide medical advice to the Joint Force Commander and direct medical units in the performance of bio-response tasks. Provide medical staff and MEDAD with the tools and information needed to understand the causation, nature, and progression of disease outbreaks and the potential impact of control measures. Support development of bio-response courses of action, to include assessment of operational risk.

Provide medical situational awareness

Generate an overall picture of the health of the force by informing medical staff of relevant results from clinical diagnoses, clinical sampling, laboratory diagnoses and environmental analysis results, and operational epidemiology, including contextual information necessary to interpret the results and their potential impact on operations, such as background disease rates, characteristics of the disease and its causative agent, military and civilian vulnerability to infection, current and planned force dispositions and locations, and capabilities for medical diagnosis, force and civilian health surveillance, and medical countermeasures.

Prepare medical risk assessment

Systematically identify, locate, assess, and document occupational and environmental infectious disease hazards to both military and civilian populations, and communicate the health threats and potential operational impact posed by those hazards to the commander.

Perform strategic communications

Coordinate and use NATO communications activities and capabilities, including public diplomacy, public affairs, information operations, and psychological operations as appropriate, at the strategic, operational, and tactical levels to provide NATO forces, host nation civilians, international and non-governmental organisations, and National governments and populations with the information needed to support bio-response objectives and operations.

Conduct military and civilian cooperation

Liaise with NGOs, IOs, the host nation's medical system, other multinational medical forces, and NATO medical personnel.

Employ laboratory assets

Use one or more laboratories to support environmental hazard analysis, clinical diagnosis, medical treatment decisions, operational epidemiology, and forensics investigations. Disseminate laboratory results to appropriate medical and operational units.

Support clinical diagnosis

Assess disease in military personnel and eligible civilians to support medical decisions. Establish presumptive or use existing case definitions. Includes identifying causative agents.

Perform sample management

Collect, anonymise (as necessary), transport, track, store, and dispense clinical and environmental samples using chain of custody as necessary. Consider the following sample types: body fluids, tissue samples, powders, and other environmental samples (food, vectors, water, soil, etc.). This would include veterinary and vector sampling. Good infection control practices and use of personal protection will be required.

Perform medical evacuation

Provide medically supervised enroute care from point of presentation to a medical facility during tactical and strategic medical evacuation utilizing appropriate infection control practices. May include movement by ground, intra-theatre air (fixed-wing or rotary), and strategic air assets. Evacuation assets will require patient isolation capability and/or enhanced personal protection equipment for crew, management of clinical waste, and decontamination after use.

Perform patient management

Assess, triage, and treat infectious or contagious patients across all levels of care through acute and convalescent phases of illness. All interactions with infectious or contagious patients will require good infection control practices.

Employ medical countermeasures

Use available pre- and post-exposure prophylaxis, and immediate and continuing therapy as part of the delivery of first aid, emergency medical care, and advanced medical care. Identify any particularly vulnerable subpopulations to be targeted for priority or exemption. Confirm that units follow standard procedures for recording the use of medical countermeasures.

Conduct infection prevention and control

Prevent loss or degradation of equipment and supplies from the effects of pathogens, including body fluids of infected casualties. Remove and neutralize infectious materials on equipment. Includes individual equipment, sensitive equipment, aircraft, watercraft, and facilities. Also includes the cleaning and sanitization of multi-use medical equipment. All decontamination operations must involve good personal protection practices.

Conduct isolation, quarantine, and restriction of movement

Establish isolation wards or separate MTFs for the care of contagious casualties. Quarantine suspected contacts/exposed personnel until they are determined to be free of infection. Consider implementing restriction of movement between exposed and unexposed personnel at either the unit or theatre level. Personnel interacting with isolated individuals must use good infection control and personal protection practices.

Sustain medical support operations

Sustain operation of medical treatment facilities providing isolation and quarantine. Provide security and sustainment for those facilities, and for personnel held therein. Manage the stockpiling, distribution, and resupply of medical countermeasures and other medical and non-medical materiel and consumables required by medical units for treating infectious or contagious patients, with particular focus on low-density, high demand medical equipment (e.g., ventilators) and non-medical items that will be required in increased amounts (e.g., water).

Manage contaminated clinical waste

Collect, safeguard, and safely dispose of potentially large volumes of waste contaminated with blood and other body fluids, cultures and stocks of infectious agents from laboratory work, or waste from contagious or potentially contagious patients. Use of disease-specific personal protective equipment and incinerators may be required.

Provide fatality management

Safely perform initial processing and storage, post mortem radiographic or invasive examination, decontamination, and dignified disposal of potentially contagious human remains in accordance with National regulations and practice. Use of disease-specific personal protective equipment and fatality protective equipment may be required.

Provide psychosocial support

Foster resilience and prevent pathological sequelae in the medical team and patients by helping them and their families to cope with the stress of the illness and resume their normal lives. Use an integrated approach to encourage community acceptance and reintegration of survivors and medical personnel.

Appendix C. National Bio-Response Task Survey

Name:

Country:

The primary purpose of SD 1.45 is to identify a pool of national capabilities to form a NATO response to a biological incident. The SD 1.45 project team has concentrated on defining the tasks that must be performed in a response and the capabilities needed to perform those tasks. Most tasks identified are performed routinely but may require enhanced capabilities in the face of a highly contagious infectious disease.

This survey is organised by task and is designed to capture all lines of effort of capability development: Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, and Interoperability, with an overall national assessment. In some cases, such as evacuation, the task is further broken down into subtasks, such as forward, tactical, and strategic.

For each element, try to rate capability as yes, no, or partial (Y/N/P). Please expand on “P” answers in the remarks. Each task provides an opportunity for remarks and comments. Comments could include: an organisation exists, but is ad hoc rather than a standing organisation, or that doctrine exists nationally or follows NATO doctrine, etc. Please consider the following guidance as you prepare your responses.

- Doctrine. Rate the task and condition “Y” if there is sufficient national or NATO doctrine, and include the reference in the remarks. Rate the task and condition “P” if national or NATO doctrine exists but only partially addresses the task.
- Organisations. Rate task and condition “Y” if there is a standing organisation responsible for the task and “P” if there is a more informal structure, such as taking staff from a national laboratory.
- Training. Rate “Y” if national or NATO training fully addresses the task and condition and “P” if it partially addresses the task.
- Material. Rate “Y” if all needed material is routinely available, to include repair parts and expendables such as reagents for diagnostic systems. Rate “P” if only some material is available or must be prepared for each event. Explain in remarks.

- Leadership. Rate “Y” if appropriate leadership development is available to support the task.
- Personnel. Rate “Y” if trained personnel are available to support capability. Rate “P” if only some required personnel are available and trained.
- Facilities. Rate “Y” if you have national or NATO facilities adequate to support the other DOTMLPFI requirements of the task. “P” if facilities exist but do not fully support the DOTMLPFI requirements.
- Interoperability. Rate “Y” if NATO standards fully support interoperability (largely data and information sharing) and “P” if capabilities supporting the task are partially addressed within NATO standards or follow other international standards. Discuss in remarks.

Try to assign an overall rating to your ability to perform the task under the described conditions. “Y” ratings for all DOTMLPFI requirements should equate to a “Y” (Green) overall rating and “N” ratings for all DOTMLPFI requirements to an “N” (Red) overall rating. Most other combinations will be “P” (Amber).

In some cases, this survey asks whether a task can be performed by a deployed military capability or if that ability is a national capability. Consider a deployed military capability to be a function within your military structure that can deploy from your home nation and perform the task in an operational theatre. A national capability may be either a defence or “whole of government” capability that would not normally deploy to an operational theatre. In some cases, such as deployment health surveillance, your nation may largely rely on a NATO capability; if so, please add this in the remarks.

There are no “wrong” answers to this survey. This survey fundamentally asks about capabilities beyond the minimum called for in NATO doctrine. The ability of nations to exceed the minimum and how best to apply those abilities is the question posed by SD 1.45. This baseline assessment will enable an understanding of national abilities to exceed minimum capability and assist in describing a reasonable NATO response.

Bio-Response Tasks

Perform deployment health surveillance

Conduct continuous and systematic collection, analysis, interpretation, and dissemination of health-related data with respect to deployed NATO forces. Rapidly detect public health incidents or outbreaks that could affect NATO operational capacities or objectives, and monitor the progression of those incidents or outbreaks over time.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Perform operational epidemiology

Investigate disease outbreaks to determine their source, nature, and magnitude. The information provided can be used to improve medical treatment for existing cases and to support the implementation of public health and physical control measures to prevent additional cases. Operational epidemiology may also be an important component of forensic investigation of a biological incident known or suspected of being deliberately caused.

WITHIN NATO FORCES

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

WITHIN CIVILIAN POPULATION

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Perform national outreach, reach back, and fusion

Request support from designated reach-back experts, teams, laboratories (including NATO, partner, and host nation assets), or other facilities as needed to augment in-theatre capabilities or knowledge. Establish any necessary support agreements to enable reach-back. Disseminate reach-back analysis results to appropriate medical units and theatre organisations.

Condition	D	O	T	M	L	P	F	I	Overall
National capability									

REMARKS

Perform forensic functions

If attribution is desired, use specialist sample collection units and appropriate reach-back laboratories to apply chain-of-custody procedures in the collection, handling, transport, and analysis of samples. Reach back and forensics efforts must adhere to differing national and cultural standards for the collection, management, and use of medical information and clinical samples.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Perform medical C4I and decision support

Provide medical advice to the Joint Force Commander and direct medical units in the performance of bio-response tasks. Provide medical staff and Medical Advisor with the tools and information needed to understand the causation, nature, and progression of disease outbreaks and the potential impact of control measures. Support development of bio-response courses of action, to include assessment of operational risk.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Provide medical situational awareness

Generate an overall picture of the health of the force by informing medical staff of relevant results from clinical diagnoses, clinical sampling, laboratory diagnoses and environmental analysis results, and operational epidemiology, including contextual information necessary to interpret the results and their potential impact on operations, such as background disease rates, characteristics of the disease and its causative agent, military and civilian vulnerability to infection, current and planned force dispositions and locations, and capabilities for medical diagnosis, force and civilian health surveillance, and medical countermeasures.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Perform medical intelligence and information (M2I) activities⁹

Generate and maintain a full picture of the health status of the force and potential health-related risks in the area of operations. With the support of informed medical experts and following a defined M2I process,¹⁰ direct the collection, synthesis, and evaluation of information from all relevant sources to mitigate health risks and enable informed decision-making at all levels. Needed information may include relevant results from clinical diagnoses, clinical sampling, laboratory diagnoses, and environmental sample analysis, as well as the contextual information needed to interpret that information and its potential impact on operations. In a bio-response context, M2I capabilities will be closely related to those providing health risk assessments, deployment health surveillance, and operational epidemiology.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Prepare medical risk assessment

Systematically identify, locate, assess, and document occupational and environmental infectious disease hazards to both military and civilian populations, and communicate the health threats and potential operational impact posed by those hazards to the commander.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

⁹ This task was included in the list of tasks at the time nations were surveyed, although it was ultimately dropped from the final list of 21 tasks defined in Appendix B.

¹⁰ The definition of an M2I process is an anticipated outcome of SD project 2.114, the purpose of which (as defined in the SD monthly report) is “to improve coordinated access to and exchange of high quality unclassified medical intelligence and information (M2I) among NATO and partners to mitigate health risks and enable informed decision making at all levels.”

Perform strategic communications

Coordinate and use NATO communications activities and capabilities, including public diplomacy, public affairs, information operations, and psychological operations as appropriate, at the strategic, operational, and tactical levels to provide NATO forces, host nation civilians, international and non-governmental organisations, and National governments and populations with the information needed to support bio-response objectives and operations.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Conduct military and civilian cooperation

Liase with NGOs, IOs, the host nation’s medical system, other multinational medical forces, and NATO medical personnel.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability									
National capability									

REMARKS

Employ laboratory assets

Use one or more laboratories to support environmental hazard analysis, clinical diagnosis, medical treatment decisions, operational epidemiology, and forensics investigations. Disseminate laboratory results to appropriate medical and operational units.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable military capability (Please describe in remarks)									
National capability									

REMARKS

Support clinical diagnosis

Assess disease in military personnel and eligible civilians to support medical decisions. Establish presumptive or use existing case definitions. Includes identifying causative agents.

NOTE: For the purpose of this survey, primarily consider the ability to use in vitro diagnostic equipment and procedures.

Condition	D	O	T	M	L	P	F	I	Overall
At Role 2									
At Role 2 Enhanced									
At Role 3									
National capability									

REMARKS

Perform sample management

Collect, anonymise (as necessary), transport, track, store, and dispense clinical and environmental samples using chain of custody as necessary. Consider the following sample types: body fluids, tissue samples, powders, and other environmental samples (food, vectors, water, soil, etc.). This would include veterinary and vector sampling. Good infection control practices and use of personal protection will be required.

Condition	D	O	T	M	L	P	F	I	Overall
At Role 1									
At Role 2									
At Role 2 Enhanced									
At Role 3									
National capability									

REMARKS

Perform medical evacuation

Provide medically supervised enroute care from point of presentation to a medical facility during tactical and strategic medical evacuation utilizing appropriate infection control practices. May include movement by ground, intra-theatre air (fixed-wing or rotary), and strategic air assets. Evacuation assets will require patient isolation capability and/or enhanced personal protection equipment for crew, management of clinical waste, and decontamination after use.

FORWARD EVACUATION (Air and Ground)

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									
Enroute Care-- Standard, enteric, or droplet precautions									
Enroute Care-- Single patient requiring strict or airborne precautions									
Enroute Care-- Multiple patients requiring strict or airborne precautions									

REMARKS

TACTICAL EVACUATION (Air and Ground)

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									
Enroute Care-- Standard, enteric, or droplet precautions									
Enroute Care-- Single patient requiring strict or airborne precautions									
Enroute Care-- Multiple patients requiring strict or airborne precautions									

REMARKS

STRATEGIC AIR EVACUATION

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									
Enroute Care-- Standard, enteric, or droplet precautions									
Enroute Care-- Single patient requiring strict or airborne precautions									
Enroute Care-- Multiple patients requiring strict or airborne precautions									

REMARKS

Perform patient management

Assess, triage, and treat infectious or contagious patients across all levels of care through acute and convalescent phases of illness. All interactions with infectious or contagious patients will require good infection control practices.

ROLE 1

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 2

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 3

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 4

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

Employ medical countermeasures

Use available pre- and post-exposure prophylaxis, and immediate and continuing therapy as part of the delivery of first aid, emergency medical care, and advanced medical care. Identify any particularly vulnerable subpopulations to be targeted for priority or exemption. Confirm that units follow standard procedures for recording the use of medical countermeasures.

Condition	D	O	T	M	L	P	F	I	Overall
Pre-deployment									
At Role 2									
At Role 2 Enhanced									
At Role 3									
National capability									

REMARKS

Conduct infection prevention and control

Prevent loss or degradation of equipment and supplies from the effects of pathogens, including body fluids of infected casualties. Remove and neutralize infectious materials on equipment. Includes individual equipment, sensitive equipment, aircraft, watercraft, and facilities. Also includes the cleaning and sanitization of multi-use medical equipment. All decontamination operations must involve good personal protection practices.

ROLE 1

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 2

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 3

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 4

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

Conduct isolation, quarantine, and restriction of movement

Establish isolation wards or separate MTFs for the care of contagious casualties. Quarantine suspected contacts/exposed personnel until they are determined to be free of infection. Consider implementing restriction of movement between exposed and

unexposed personnel at either the unit or theatre level. Personnel interacting with isolated individuals must use good infection control and personal protection practices.

ROLE 1

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 2

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 3

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

ROLE 4

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Single patient requiring strict or airborne precautions									
Multiple patients requiring strict or airborne precautions									

REMARKS

Sustain medical support operations

Sustain operation of medical treatment facilities providing isolation and quarantine. Provide security and sustainment for those facilities, and for personnel held therein. Manage the stockpiling, distribution, and resupply of medical countermeasures and other medical and non-medical materiel and consumables required by medical units for treating infectious or contagious patients, with particular focus on low-density, high demand medical equipment (e.g., ventilators) and non-medical items that will be required in increased amounts (e.g., water).

Condition	D	O	T	M	L	P	F	I	Overall
At Role 2									
At Role 2 Enhanced									
At Role 3									
National capability									

REMARKS

Manage contaminated clinical waste

Collect, safeguard, and safely dispose of potentially large volumes of waste contaminated with blood and other body fluids, cultures and stocks of infectious agents from laboratory work, or waste from contagious or potentially contagious patients. Use of disease-specific personal protective equipment and incinerators may be required.

Condition	D	O	T	M	L	P	F	I	Overall
At Role 2									
At Role 2 Enhanced									
At Role 3									
National capability									

REMARKS

Provide fatality management

Safely perform initial processing and storage, post mortem radiographic or invasive examination, decontamination, and dignified disposal of potentially contagious human remains in accordance with National regulations and practice. Use of disease-specific personal protective equipment and fatality protective equipment may be required.

Condition	D	O	T	M	L	P	F	I	Overall
Standard, enteric, or droplet precautions									
Requiring strict or airborne precautions									
Requiring strict or airborne precautions with invasive postmortem									

REMARKS

Provide psychosocial support

Foster resilience and prevent pathological sequelae in the medical team and patients by helping them and their families to cope with the stress of the illness and resume their normal lives. Use an integrated approach to encourage community acceptance and reintegration of survivors and medical personnel.

Condition	D	O	T	M	L	P	F	I	Overall
Deployable Capability									
National capability									

REMARKS

Appendix D. Task Survey Results

The following pages contain the results of the task survey of nations. The project team sent the survey to the participating nations, and seven nations responded. The project team reviewed and clarified responses during the January 2018 meeting. The results are organised by task name, any additional descriptors, and conditions. For instance, in Item 3, the task “Perform operational epidemiology” is furthered described as “Within NATO forces,” with the condition of “Deployable military capability.” Nations evaluated their capability in doctrine, organisation, training, material, leadership, personnel, facilities, and interoperability, as well as their overall capability across all elements. In some cases, nations provided only an overall assessment, leaving the individual elements blank. The task “Perform medical intelligence and information activities” was included in the list of tasks at the time nations were surveyed, although it was ultimately dropped from the final list of 21 tasks defined in Appendix B. To document the survey results as received, responses to all tasks are included below.

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
1 Perform deployment health surveillance											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Partial	Yes	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Partial	Yes	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
2 Perform deployment health surveillance											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
3 Perform operational epidemiology											
Within NATO forces											
Deployable military capability											
Nation 1		Partial	Partial	No	No	Partial	No	No	No	No	No
Nation 2		Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Yes	Partial
Nation 3		Partial	Yes	Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Partial	Yes	Partial	Partial	Yes	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
4	Perform operational epidemiology										
	Within NATO forces										
	National capability										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
5	Perform operational epidemiology										
	Within civilian population										
	Deployable military capability										
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		Yes	Partial	Partial	Partial	Yes	Partial	Partial	Yes	Yes	Partial
Nation 3		Partial	Yes	Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4		No	No	No	No	No	No	No	No	No	No
Nation 5											Partial
Nation 6											Partial
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
6	Perform operational epidemiology										
	Within civilian population										
	National capability										
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4		No	No	No	No	No	No	No	No	No	No
Nation 5											Partial
Nation 6											Yes
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
7 Perform national outreach, reach back, and fusion											
National capability											
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		Yes	Yes	Yes	Yes	Yes	Partial	Yes	No		Partial
Nation 3		Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes		Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
8 Perform forensic functions											
Deployable military capability											
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5											Partial
Nation 6											Partial
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
9 Perform forensic functions											
National capability											
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5											Partial
Nation 6											Yes
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
10 Perform medical C4I and decision support											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Partial
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
11 Perform medical C4I and decision support											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Yes
Nation 7		Partial	Partial	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
12 Perform medical intelligence and information activities											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		No	No	No	No	No	No	No	No	No	No
Nation 5											Yes
Nation 6											Partial
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
13 Perform medical intelligence and information activities											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5											Yes
Nation 6											Yes
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
14 Provide medical situational awareness											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Partial	Partial	Partial	Yes	Partial	Partial	Yes	Yes	Partial
Nation 3		Partial	Partial	Partial	Yes	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
15 Provide medical situational awareness											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
16 Prepare medical risk assessment											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Partial	Yes	Partial	Yes	Yes	Yes	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
17 Prepare medical risk assessment											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
18 Perform strategic communications											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Partial	Partial	Partial	Yes	Yes	Yes	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
19 Perform strategic communications											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Yes
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
20 Conduct military and civilian cooperation											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Partial	Partial	Partial	Yes	Yes	Yes	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
21 Conduct military and civilian cooperation											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
22 Employ laboratory assets											
Deployable military capability											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Yes	Yes	Partial	Partial	Yes	Partial	Yes	Yes	Partial
Nation 3			Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
23 Employ laboratory assets											
National capability											
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 2			Yes	Yes	Partial	Partial	Yes	Partial	Yes	Yes	Partial
Nation 3			Yes	Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
24 Support clinical diagnosis											
At Role 2											
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			Yes	No	Partial	Partial	Yes	Partial	No	Yes	Partial
Nation 3			No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Partial	Partial	Partial	Yes
Nation 6											Partial
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
25 Support clinical diagnosis											
At Role 2 Enhanced											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Yes	No	Partial	Partial	Yes	Partial	No	Yes	Partial
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
26 Support clinical diagnosis											
At Role 3											
Nation 1											
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7			Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
27 Support clinical diagnosis											
National capability											
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
28 Perform sample management											
At Role 1											
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		No	No	No	No	No	No	No	No	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		No	No	No	No	No	Partial	No	Partial	Partial	Partial
Nation 6											Partial
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
29 Perform sample management											
At Role 2											
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		No	No	No	No	No	No	No	No	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Partial
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
30 Perform sample management											
At Role 2 Enhanced											
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Partial
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
31 Perform sample management											
At Role 3											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6										Partial	
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
32 Perform sample management											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6										Yes	
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
33 Perform medical evacuation											
Forward evacuation (air and ground)											
Standard, enteric, or droplet precautions											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6										Yes	
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
34 Perform medical evacuation											
Forward evacuation (air and ground)											
Single patient requiring strict or airborne precautions											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Partial	Partial	Yes	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
35 Perform medical evacuation											
Forward evacuation (air and ground)											
Multiple patients requiring strict or airborne precautions											
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Partial	No	Yes	No	Yes	No	No
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
36 Perform medical evacuation											
Forward evacuation (air and ground)											
Enroute Care--Standard, enteric, or droplet precautions											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
37	Perform medical evacuation										
	Forward evacuation (air and ground)										
	Enroute Care--Single patient requiring strict or airborne precautions										
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
38	Perform medical evacuation										
	Forward evacuation (air and ground)										
	Enroute Care--Multiple patients requiring strict or airborne precautions										
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Partial	No	Yes	No	Yes	No	No
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
39	Perform medical evacuation										
	Tactical evacuation (air and ground)										
	Standard, enteric, or droplet precautions										
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
40 Perform medical evacuation											
Tactical evacuation (air and ground)											
Single patient requiring strict or airborne precautions											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
41 Perform medical evacuation											
Tactical evacuation (air and ground)											
Multiple patients requiring strict or airborne precautions											
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Partial	No	Yes	No	Yes	No	No
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
42 Perform medical evacuation											
Tactical evacuation (air and ground)											
Enroute Care--Standard, enteric, or droplet precautions											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
43	Perform medical evacuation										
	Tactical evacuation (air and ground)										
	Enroute Care--Single patient requiring strict or airborne precautions										
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Yes	Yes	Yes	Yes	Yes	Yes	Partial
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
44	Perform medical evacuation										
	Tactical evacuation (air and ground)										
	Enroute Care--Multiple patients requiring strict or airborne precautions										
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Partial	No	Yes	No	Yes	No	No
Nation 4			Yes	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
45	Perform medical evacuation										
	Strategic air evacuation										
	Standard, enteric, or droplet precautions										
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6			Partial	Yes	Partial	Yes	Partial	Yes	Yes	Yes	Yes
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
46	Perform medical evacuation										
	Strategic air evacuation										
	Single patient requiring strict or airborne precautions										
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	No	No	Yes	Yes	Yes	Yes	No	No
Nation 4		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
47	Perform medical evacuation										
	Strategic air evacuation										
	Multiple patients requiring strict or airborne precautions										
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	No	No	Yes	Yes	Yes	Yes	No	No
Nation 4		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
48	Perform medical evacuation										
	Strategic air evacuation										
	Enroute Care--Standard, enteric, or droplet precautions										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
49	Perform medical evacuation										
	Strategic air evacuation										
	Enroute Care--Single patient requiring strict or airborne precautions										
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	No	No	Yes	Yes	Yes	No	No	No
Nation 4		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
50	Perform medical evacuation										
	Strategic air evacuation										
	Enroute Care--Multiple patients requiring strict or airborne precautions										
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	No	No	Yes	Yes	Yes	No	No	No
Nation 4		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
51	Perform patient management										
	Role 1										
	Standard, enteric, or droplet precautions										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Partial	Partial	Partial	Yes	Yes	Partial	Partial	Yes	Yes	Partial
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
52 Perform patient management											
Role 1											
Single patient requiring strict or airborne precautions											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Partial	Partial	Partial	Partial	Yes	No	Yes	No	No
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5			Partial	Partial	Partial	Yes	Yes	Partial	Partial	Yes	Partial
Nation 6											Partial
Nation 7			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
53 Perform patient management											
Role 1											
Multiple patients requiring strict or airborne precautions											
Nation 1			No	No	No	No	No	No	No	No	No
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Partial	Partial	No	No	No	No	Partial	No	No
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5			Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 6											Partial
Nation 7			No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
54 Perform patient management											
Role 2											
Standard, enteric, or droplet precautions											
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
55 Perform patient management											
Role 2											
Single patient requiring strict or airborne precautions											
Nation 1		Yes	Yes	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
56 Perform patient management											
Role 2											
Multiple patients requiring strict or airborne precautions											
Nation 1		Partial	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	Yes	Partial	Yes	Partial	Yes	Yes	Partial	Partial
Nation 4		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
57 Perform patient management											
Role 3											
Standard, enteric, or droplet precautions											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
58 Perform patient management											
Role 3											
Single patient requiring strict or airborne precautions											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
59 Perform patient management											
Role 3											
Multiple patients requiring strict or airborne precautions											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	Yes	Partial	Yes	Partial	Yes	Yes	Partial	Partial
Nation 4		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
60 Perform patient management											
Role 4											
Standard, enteric, or droplet precautions											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
61	Perform patient management										
	Role 4										
		Single patient requiring strict or airborne precautions									
	Nation 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Yes
	Nation 7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
62	Perform patient management										
	Role 4										
		Multiple patients requiring strict or airborne precautions									
	Nation 1	Partial	Partial	Partial	No	No	No	No	No	No	No
	Nation 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Yes
	Nation 7	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
63	Employ medical countermeasures										
		Pre-deployment									
	Nation 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 3	Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Yes
	Nation 7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
64 Employ medical countermeasures											
At Role 2											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Partial	Partial	Yes	Yes	Yes	Yes	Yes	Partial
65 Employ medical countermeasures											
At Role 2 Enhanced											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Partial	Partial	Yes	Yes	Yes	Yes	Yes	Partial
66 Employ medical countermeasures											
At Role 3											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Partial	Partial	Yes	Yes	Yes	Yes	Yes	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
67	Employ medical countermeasures										
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Partial	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
68	Conduct infection prevention and control										
Role 1											
Standard, enteric, or droplet precautions											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Partial	Yes	Partial	Partial	Partial	Partial
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
69	Conduct infection prevention and control										
Role 1											
Single patient requiring strict or airborne precautions											
Nation 1		Yes	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	Partial	Partial	Yes	No	Yes	No	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		No	No	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 6											No
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
70	Conduct infection prevention and control										
	Role 1										
		Multiple patients requiring strict or airborne precautions									
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	No	No	No	No	No	Partial	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		No	No	No	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 6											
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
71	Conduct infection prevention and control										
	Role 2										
		Standard, enteric, or droplet precautions									
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
72	Conduct infection prevention and control										
	Role 2										
		Single patient requiring strict or airborne precautions									
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
73	Conduct infection prevention and control										
	Role 2										
		Multiple patients requiring strict or airborne precautions									
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	No	No
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	Yes	Partial	Yes	Partial	Yes	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
74	Conduct infection prevention and control										
	Role 3										
		Standard, enteric, or droplet precautions									
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
75	Conduct infection prevention and control										
	Role 3										
		Single patient requiring strict or airborne precautions									
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
76	Conduct infection prevention and control										
	Role 3										
		Multiple patients requiring strict or airborne precautions									
	Nation 1										
	Nation 2	No	No	No	No	No	No	No	No	No	No
	Nation 3	Partial	Partial	Yes	Partial	Yes	Partial	Yes	Partial	Partial	Partial
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Partial
	Nation 7	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
77	Conduct infection prevention and control										
	Role 4										
		Standard, enteric, or droplet precautions									
	Nation 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Yes
	Nation 7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
78	Conduct infection prevention and control										
	Role 4										
		Single patient requiring strict or airborne precautions									
	Nation 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Nation 6										Yes
	Nation 7	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
79	Conduct infection prevention and control										
	Role 4										
	Multiple patients requiring strict or airborne precautions										
Nation 1		Partial	Partial	No	No	No	No	No	No	No	No
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
80	Conduct isolation, quarantine, and restriction of movement										
	Role 1										
	Standard, enteric, or droplet precautions										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Partial	Yes	Partial	Partial	Partial	Partial
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
81	Conduct isolation, quarantine, and restriction of movement										
	Role 1										
	Single patient requiring strict or airborne precautions										
Nation 1		Partial	Yes	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Yes	No	Yes	No	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		No	No	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 6											No
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
82	Conduct isolation, quarantine, and restriction of movement										
	Role 1										
		Multiple patients requiring strict or airborne precautions									
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	No	No	No	No	Partial	No	No	No
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		No	No	No	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 6											
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
83	Conduct isolation, quarantine, and restriction of movement										
	Role 2										
		Standard, enteric, or droplet precautions									
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
84	Conduct isolation, quarantine, and restriction of movement										
	Role 2										
		Single patient requiring strict or airborne precautions									
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
85	Conduct isolation, quarantine, and restriction of movement										
	Role 2										
		Multiple patients requiring strict or airborne precautions									
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Yes	Partial	Yes	Partial	Yes	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		No	No	No	No	No	No	No	No	No	No
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
86	Conduct isolation, quarantine, and restriction of movement										
	Role 3										
		Standard, enteric, or droplet precautions									
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Partial
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
87	Conduct isolation, quarantine, and restriction of movement										
	Role 3										
		Single patient requiring strict or airborne precautions									
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
88	Conduct isolation, quarantine, and restriction of movement										
	Role 3										
	Multiple patients requiring strict or airborne precautions										
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Partial	Yes	Partial	Yes	Partial	Yes	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											No
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
89	Conduct isolation, quarantine, and restriction of movement										
	Role 4										
	Standard, enteric, or droplet precautions										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
90	Conduct isolation, quarantine, and restriction of movement										
	Role 4										
	Single patient requiring strict or airborne precautions										
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
91	Conduct isolation, quarantine, and restriction of movement										
	Role 4										
	Multiple patients requiring strict or airborne precautions										
Nation 1		Partial	Partial	No	No	No	No	No	No	No	No
Nation 2		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 6											Yes
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
92	Sustain medical support operations										
	At Role 2										
Nation 1		Partial	Partial	No	No	Partial	Partial	Partial	Partial	No	No
Nation 2		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Partial
Nation 6											No
Nation 7		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
93	Sustain medical support operations										
	At Role 2 Enhanced										
Nation 1		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Partial
Nation 6											No
Nation 7		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
94 Sustain medical support operations											
At Role 3											
Nation 1											
Nation 2		No	No	No	No	No	No	No	No	No	No
Nation 3		Partial	Yes	Yes	Partial	Yes	Partial	Partial	Yes	Partial	
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Nation 5											Partial
Nation 6											No
Nation 7		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
95 Sustain medical support operations											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Partial
Nation 6											Yes
Nation 7		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
96 Manage contaminated clinical waste											
At Role 2											
Nation 1		Partial	Partial	No	No	Partial	Partial	Partial	Partial	No	No
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Yes	Partial
Nation 5											Partial
Nation 6											Partial
Nation 7		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
97 Manage contaminated clinical waste											
At Role 2 Enhanced											
Nation 1			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 2			Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3			Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5											Partial
Nation 6											Partial
Nation 7			Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial	Partial
Task Descriptor Condition Doctrine Organisations Training Material Leadership Personnel Facilities Interoperability Overall											
98 Manage contaminated clinical waste											
At Role 3											
Nation 1											
Nation 2			No	No	No	No	No	No	No	No	No
Nation 3			Partial	Yes	Yes	Partial	Yes	Partial	Partial	Yes	Partial
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5											Partial
Nation 6											Partial
Nation 7			Partial	Partial	Yes	Partial	Partial	Partial	Partial	Partial	Partial
Task Descriptor Condition Doctrine Organisations Training Material Leadership Personnel Facilities Interoperability Overall											
99 Manage contaminated clinical waste											
National capability											
Nation 1			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 3			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4			Yes	Yes	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Nation 5											Yes
Nation 6											Yes
Nation 7			Yes	Yes	Yes	Partial	Yes	Partial	Partial	Partial	Partial

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
100 Provide fatality management											
Standard, enteric, or droplet precautions											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											Partial
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
101 Provide fatality management											
Requiring strict or airborne precautions											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Yes	Yes	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											No
Nation 7											
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
102 Provide fatality management											
Requiring strict or airborne precautions with invasive postmortem											
Nation 1		No	No	No	No	No	No	No	No	No	No
Nation 2		Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial	Partial
Nation 3		Partial	Partial	Partial	Partial	Partial	Yes	Partial	Partial	Partial	Partial
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 5											Yes
Nation 6											No
Nation 7											

Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
103 Provide psychosocial support											
Deployable military capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		Yes	Yes	Yes	Yes	No	No	Partial	No	No	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5											Yes
Nation 6											Yes
Nation 7		Yes	Yes	Partial	Yes	Partial	Yes	Yes	Yes	Yes	Partial
Task	Descriptor	Condition	Doctrine	Organisations	Training	Material	Leadership	Personnel	Facilities	Interoperability	Overall
104 Provide psychosocial support											
National capability											
Nation 1		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 2		No	Yes	Yes	Yes	Yes	Yes	No	Partial	No	Partial
Nation 3		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Nation 4		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Partial	Partial
Nation 5											Yes
Nation 6											Yes
Nation 7		Yes	Yes	Partial	Yes	Partial	Yes	Yes	Yes	Yes	Partial

Appendix E. Proposed New Capability Codes

SMART DEFENCE 1.1045 BIO- RESPONSIVENESS & CBRN MEDICAL ROADMAP



CAPABILITY CODES AND STATEMENTS

Draft –dated 25 Jun 10

CAPABILITY CODE	CAPABILITY STATEMENT
MED-BIOLAB	Deployable Medical Bio-Laboratory
MED-ISOLTF	Medical Isolation Treatment Facility
MED-DOIIT Variant Group	
MED-DOIIT-CIIT	Medical Chemical Incident Investigation Team
MED-DOIIT-RDOIT	Rapid Deployable Outbreak Investigation Team
MED-DOIIT-RIIT	Medical Radiological Incident Investigation Team
MED-TISOL Variant Group	
MED-TISOL-TACP	Tactical CBR Medical Evacuation System
MED-TISOL-TACN	Tactical Transportable Isolator
MED-TISOL-STRAT	Strategic (Air) Transportable Isolator

Capability Code: MED- BIOLAB

Capability Name: Deployable Medical Bio-Laboratory

CC Cross Reference: MED-ISOLTF; MED-DOIT-RDOIT

Reference Docs: AJP- 4.10 (STANAG 2228); AJMedP- 5 (STANAG 2562);
AJMedP- 7 (STANAG 2596); AD 83- 1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

1.01 Capable of safely receiving, processing, analysing and packaging clinical diagnostic samples up to bio safety level 3 (BSL-3).

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of receiving, processing and tracking of clinical diagnostic samples.
- 2.02 Capable of analysing samples and identifying biological agents to support in-theatre provisional and/or confirmed diagnosis.
- 2.03 Capable of safely carrying out other enhanced diagnostic tests to support clinical management.
- 2.04 Capable of packaging samples for shipping to Reference Laboratories.
- 2.05 Capable of safely maintaining biological safety and security up to handling hazard groups 3 or 4 agents.
- 2.06 Capable of maintaining laboratory standards in accordance with ISO 15189 and 15190.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of sample tracking using approved IT systems.
- 3.02 Capable of the effective employment and control of Medical Communication and Information System.
- 3.03 Capable of integrating into CBRN Information Management with anonymised data.
- 3.04 Capable of integrating with established MTF and clinical laboratory.
- 3.05 Capable of tactical deployment under cold or extreme hot weather conditions, and under austere conditions.
- 3.06 Capable of deploying to theatre with a minimum of 3 days of supply.
- 3.07 Capable of processing 150 samples before resupply.
- 3.08 Capable of maintaining chain of custody on receipt of samples.
- 3.09 Capable of enabling the safe and legal shipment of dangerous goods across national borders.
- 3.10 Capable of managing clinical waste.
- 3.11 Capable of providing CBRN collective protection (COLPRO) for critical elements of MTF such as surgery.
- 3.12 Capable of providing an appropriate level of CBRN Defence in accordance with ACO Force Standards.

3.13 Capable of an appropriate level of IED preparedness in accordance with STANAG 2294/ACIEDP-01 Counter Improvised Explosive Device (C-IED) Training Requirements.

Capability Code: MED- ISOLTF

Capability Name: Deployable Medical Isolation Treatment Facility

CC Cross Reference: MED-BIOLAB

Reference Docs: AJP- 4.10 (STANAG 2228); AJMedP- 5 (STANAG 2562);
AJMedP- 7 (STANAG 2596); AD 83- 1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

- 1.01 Capable of triaging, assessing and providing secondary healthcare in support of an infectious disease outbreak and/or any highly contagious patients, within the constraints of the revised theatre (outbreak) holding policy.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of receiving a surge of infectious disease patients.
- 2.02 Capable of initial triage and resuscitation of highly contagious patients including airborne and strict precautions.
- 2.03 Capable of providing medical and emergency surgical care, and appropriate medical intensive care. A surgical team should be available in case of an emergency surgical procedure being required.
- 2.04 Capable of a holding capacity at a minimum of 4 and up to 200 nursed beds by a modular method of 4 beds per module. Modules to aggregate to a maximum of 200 beds and deaggregate. Modules will be stand alone or augment R2 and R3 MTFs. The required numbers of modules are based on number of infected patients.
- 2.05 Capable of supporting clinical diagnostics and laboratory functions up to Biosafety Level-3 (BLS3) including blood product provision.
- 2.06 Capable of preparing patients for medical evacuation using transportable isolators.
- 2.07 Capable of incorporating and/or being augmented by additional medical modules in accordance with the Modular Approach to Medical Support per STANAG 2228.
- 2.08 Capable of supporting the implementation of quarantine or restriction of movement.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.
- 3.02 Capable of the effective employment and control of Medical Communication and Information System.
- 3.03 Capable of providing organic life support and CIS capability.
- 3.04 Capable of tactical deployment under cold or extreme hot weather conditions, and under austere conditions.
- 3.05 Capable of deploying to theatre with a minimum of 3 days of supply.
- 3.06 Capable of deploying to theatre with a minimum of 10 days of medical supply.
- 3.07 Capable of managing clinical waste.

- 3.08 Capable of providing CBRN collective protection (COLPRO) for critical elements of MTF such as surgery.
 - 3.09 Capable of providing an appropriate level of CBRN Defence in accordance with ACO Force Standards.
 - 3.10 Capable of an appropriate level of IED preparedness in accordance with STANAG 2294/ACIEDP-01 Counter Improvised Explosive Device (C-IED) Training Requirements.
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Variant Group: Medical Deployable Outbreak and Incident Investigation Teams
MED-DOIIT (3 Capability Codes)

Reference Docs: AJP-4.10 (STANAG 2228); AJMedP-5 (STANAG 2562); AJMedP-7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AMedP-7.4 (STANAG 2551); AD 83-1

VARIANT GROUP COMMON STATEMENTS

VARIANT COMMON DESCRIPTION

- 1.01 Capable of providing reachback advice and/or rapidly deploying to an area of operations in order to support the investigation of a suspected or confirmed outbreak or CBRN / hazardous materials incident to provide operational and clinical advice, enhance deployed medical capabilities and support patient care.

COMMON PRINCIPAL STATEMENTS

- 2.01 Capable of supporting the Commander's operational risk assessment.
- 2.02 Capable of providing operational advice to maintain operational effectiveness and prevent illness including risk communication.
- 2.03 Capable of providing clinical advice to save life and minimise long term consequences.
- 2.04 Capable of providing specialist assessment of patients and interpreting clinical investigations.
- 2.05 Capable of collecting, processing and packaging samples to support the investigation of the cause for the outbreak or incident.
- 2.06 Capable of analysing clinical samples, or enhancing in-theatre diagnostics, as appropriate.
- 2.07 Capable of accessing reachback advice and services.
- 2.08 Capable of enhancing patient treatment with specialist medical countermeasures and supportive care.

COMMON ENABLING STATEMENTS

- 3.01 Capable of linking to a standard NATO medical information management system.
- 3.02 Capable of integrating into CBRN Information Management with anonymised data.
- 3.03 Capable of establishing secure (classified or unclassified) communications to conduct reachback consultation with national medical, scientific and CBRN experts.
- 3.04 Capable of deploying On Order at 48 hours notice to move and capable of providing advice before deployment.
- 3.05 Capable of tactical deployment under cold or extreme hot weather conditions, and under austere conditions supported by in-theatre force protection.
- 3.06 Capable of deploying to theatre with a minimum of 3 days of supply.
- 3.07 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection, if required.
- 3.08 Capable of maintaining chain of custody on receipt of samples.
- 3.09 Capable of maintaining good laboratory practices (GLP) in accordance with ISO 17025, as practicable.

- 3.10 Capable of enabling the safe and legal shipment of dangerous goods across national borders.
 - 3.11 Capable of managing clinical waste.
 - 3.12 Capable of providing an appropriate level of CBRN Defence in accordance with ACO Force Standards.
 - 3.13 Capable of an appropriate level of IED preparedness in accordance with STANAG 2294/ACIEDP-01 Counter Improvised Explosive Device (C-IED) Training Requirements.
 - 3.14 Capable of integrating the theatre JISR capability to permit effective collection tasking, cross-cueing of other collection capabilities and dissemination of collected information to users.
-

Variant Group:	Medical Deployable Outbreak and Incident Response Teams MED-DOIT
Capability Code:	MED-DOIT-RDOIT
Capability Name:	Rapid Deployable Outbreak Investigation Team
CC Cross Reference:	MED-DIR; MED-PMT; CBRN-SIBCRA; CBRN-JAT
Reference Docs:	AJP- 4.10 (STANAG 2228); AJMedP- 5 (STANAG 2562); AJMedP- 7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AMedP- 7.4 (STANAG 2551); SRD AMedP-7.4-1; AD 83- 1
Linkage with CRR12:	Replaces Med-DOIT

CAPSTONE CAPABILITY STATEMENTS

- 1.01 Capable of providing reachback advice and/or rapidly deploying to an area of operations in order to support the investigation of a suspected or confirmed outbreak to provide operational and clinical advice, enhance deployed medical capabilities and support patient care.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of establishing a health baseline for the applicable area of operation.
- 2.02 Capable of performing operational epidemiology to establish causation and mitigate the effects.
- 2.03 Capable of providing advice on infection prevention and control including appropriate levels of personal protective equipment.
- 2.04 Capable of collecting, processing and packaging environmental and clinical samples, and other evidence of suspected illnesses and infectious diseases and identifying possible sources of the outbreak such as inadvertent release of toxic materials, exposure to environment and industrial hazards (EIH) and endemic diseases.
- 2.05 Capable of analysing clinical samples, and other evidence of suspected illnesses and infectious diseases and identifying possible sources of the outbreak such as inadvertent release of toxic materials, exposure to environment and industrial hazards (EIH) and endemic diseases.
- 2.06 Capable of enhancing in-theatre clinical laboratory diagnostics up to bio safety level-3 (BSL-3) or accessing reachback laboratories to provide timely analysis of samples.

- 2.07 Capable of accessing reachback biomedical (microbiological, virology, public health, toxicology, radiological) advice and services.
- 2.08 Capable of enhancing patient treatment with specific biological medical countermeasures including vaccines and antimicrobials, as appropriate.

Medical Deployable Outbreak and Incident Investigation Teams

Variant Group: MED-DOIT

Capability Code: MED-DOIT-CIIT

Capability Name: Medical Chemical Incident Investigation Team

CC Cross Reference: MED-DIR; MED-PMT; CBRN-SIBCRA; CBRN-JAT

Reference Docs: AJP- 4.10 (STANAG 2228); AJMedP- 5 (STANAG 2562); AJMedP- 7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AMedP-7.4 (STANAG 2551); SRD AMedP-7.4-2; AD 83- 1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

- 1.01 Capable of providing reachback advice and/or rapidly deploying to an area of operations in order to support the investigation of a suspected or confirmed chemical incident to provide operational and clinical advice, enhance deployed medical capabilities and support patient care.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing specialist toxicological assessment of patients and interpreting clinical investigations.
- 2.02 Capable of collecting, processing and packaging environmental and clinical samples to support the investigation of the suspected or confirmed chemical incident.
- 2.03 Capable of enhancing in-theatre clinical toxicology diagnostics or accessing reachback laboratories to provide timely analysis of samples.
- 2.04 Capable of accessing reachback clinical and environmental toxicological advice and services.
- 2.05 Capable of enhancing patient treatment with specific antidotes, as appropriate.

Variant Group: Medical Deployable Outbreak and Incident Investigation Teams
MED-DOIIT

Capability Code: MED-DOIIT-RIIT

Capability Name: Medical Radiological Incident Investigation Team

CC Cross Reference: MED-DIR; MED-PMT; CBRN-SIBCRA; CBRN-JAT

Reference Docs: AJP- 4.10 (STANAG 2228); AJMedP- 5 (STANAG 2562);
AJMedP- 7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AMedP-
7.4 (STANAG 2551); SRD AMedP-7.4-3; AD 83- 1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

- 1.01 Capable of providing reachback advice and/or rapidly deploying to an area of operations in order to support the investigation of a suspected or confirmed radiological / nuclear incident to provide operational and clinical advice, enhance deployed medical capabilities and support patient care.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing radiation protection advice including control measures to the operational commander including risk communication.
- 2.01 Capable of supporting triage and providing specialist radiological assessment of patients and interpreting clinical investigations and dosimetry.
- 2.02 Capable of collecting, processing and packaging environmental and clinical samples to support the investigation of the suspected or confirmed radiological / nuclear incident.
- 2.03 Capable of enhancing in-theatre clinical radiological diagnostics (dose estimation and effect prediction) or accessing reachback laboratories and networks to provide timely analysis of samples.
- 2.04 Capable of accessing reachback clinical and environmental radiological advice and services.
- 2.05 Capable of enhancing patient treatment with specific radiological medical countermeasures including stable iodine, cytokine therapy and decorporating agents, as appropriate.
-

Variant Group: Transportable Isolator MED-TISOL (3 Capability Codes)

Reference Docs: AJP-4.10 (STANAG 2228); AAMedP-1.1 (STANAG 3204); AJMedP-2 (STANAG 2546); AAMedP-2.2 (STANAG 6529); AJMedP-5 (STANAG 2562); AJMedP-7 (STANAG 2596); AAMedP-7.1 (STANAG 2461); AD 83-1

VARIANT GROUP COMMON STATEMENTS

VARIANT COMMON DESCRIPTION

- 1.01 Capable of providing trained medical personnel, and individual or collective (reverse) protection to enable safe medical evacuation of CBRN patients including contamination and highly contagious diseases.

COMMON PRINCIPAL STATEMENTS

- 2.01 Capable of transporting clean, contaminated and/or contagious patients.
- 2.02 Capable of delivering an appropriate level of patient care and monitoring during medical evacuation.
- 2.03 Capable of providing trained medical team for medical evacuation.
- 2.04 Capable of being decontaminated externally.
- 2.05 Capable of being safely disposed and/or regeneration after mission.

COMMON ENABLING STATEMENTS

- 3.01 Capable of deployment under cold or extreme hot weather conditions, and under austere conditions.
- 3.02 Capable of providing an appropriate level of passive protection of crew, passengers and patients.
- 3.03 Capable of being moved by a maximum of four persons.
- 3.04 Capable of providing an appropriate level of CBRN Defence in accordance with ACO Force Standards.
- 3.05 Capable of an appropriate level of IED preparedness in accordance with STANAG 2294/ACIEDP-01 Counter Improvised Explosive Device (C-IED) Training Requirements.
- 3.06 Capable of integrating the theatre JISR capability to permit effective collection tasking, cross-cueing of other collection capabilities and dissemination of collected information to users.

Variant Group: Transportable Isolator MED-TISOL

Capability Code: MED-TSIOL-TACP

Capability Name: Tactical CBR Medical Evacuation System

CC Cross Reference: MED-R2ISOL; MED-AMB; MED-HME; AVN-HUL; AVN-HTM; AVN-HTH; TCC-L; TCC-M

Reference Docs: AJP-4.10 (STANAG 2228); AAMedP-1.1 (STANAG 3204); AJMedP-2 (STANAG 2546); AMedP-2.2 (STANAG 6529); AJMedP-5 (STANAG 2562); AJMedP-7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AD 83-1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

1.01 Capable of providing physical protection to enable safe forward and tactical medical evacuation of a clean or CBRN patient in a CBRN environment.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of protecting patient(s) from external CBRN hazards.
- 2.02 Capable of protecting crew, medical personnel and passengers from a contaminated and/or contagious patient, as required.
- 2.03 Capable of protecting partially decontaminated patient from any residual personal contamination, as required.
- 2.04 Capable of moving patient by deployed ground transportation, rotary, in-theatre fixed wing aeromedical evacuation and inland surface ways.
- 2.06 Capable of operating for at least three hours including 30 minutes for loading and unloading (i.e. two hours medical evacuation mission).
- 2.07 Capable of operating in a CBRN environment.

Variant Group: Transportable Isolator MED-TISOL

Capability Code: MED-TSIOL-TACN

Capability Name: Tactical Transportable Isolator

CC Cross Reference: MED-R2ISOL; MED-AMB; MED-HME; AVN-HUL; AVN-HTM; AVN-HTH; TCC-L; TCC-M

Reference Docs: AJP-4.10 (STANAG 2228); AAMedP-1.1 (STANAG 3204); AJMedP-2 (STANAG 2546); AMedP-2.2 (STANAG 6529); AJMedP-5 (STANAG 2562); AJMedP-7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AD 83-1

Linkage with CRR12: New Code

CAPSTONE CAPABILITY STATEMENTS

1.01 Capable of providing physical protection to enable safe forward and tactical medical evacuation of a highly contagious patient.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of managing and transporting safely a non-intubated litter/stretchers patient.
- 2.02 Capable of protecting crew, medical personnel and passengers from a highly contagious patient including airborne and strict precautions.
- 2.03 Capable of moving patient by deployed ground transportation, rotary, in-theatre fixed wing aeromedical evacuation and inland surface ways.
- 2.04 Capable of operating for at least three hours including 30 minutes for loading and unloading (i.e. two hours medical evacuation mission).

Variant Group:	Transportable Isolator MED-TISOL
Capability Code:	MED-TSIOL-STRAT
Capability Name:	Strategic (Air) Transportable Isolator
CC Cross Reference:	MED-R2ISOL; MED-MEA; TCC-L; TCC-M; TCC-H
Reference Docs:	AJP-4.10 (STANAG 2228); AAMedP-1.1 (STANAG 3204); AJMedP-2 (STANAG 2546); AMedP-2.2 (STANAG 6529); AJMedP-5 (STANAG 2562); AJMedP-7 (STANAG 2596); AMedP-7.1 (STANAG 2461); AD 83-1
Linkage with CRR12:	New Code

CAPSTONE CAPABILITY STATEMENTS

- 1.01 Capable of providing individual or collective negative pressure protection system, trained medical personnel, aeromedical certified equipment, maritime certified equipment and transport platform to undertake a safe strategic medical evacuation of a highly contagious patient(s).

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of managing and transporting safely a highly contagious litter/stretchers patient.
- 2.02 Capable of protecting crew, medical personnel and passengers from a highly contagious patient including airborne and strict precautions.
- 2.03 Capable of moving patient by a deployable fixed wing aeromedical evacuation and maritime transport, or interoperable with identified Allied transport platform.
- 2.04 Capable of providing the required aeromedical certified equipment and maritime certified equipment to execute the strategic evacuation of litter/stretchers or ambulatory patients using a strategic transport.
- 2.05 Capable of providing in-flight or maritime medical treatment and patient monitoring for litter/stretchers or ambulatory patients up to Level 2 critical care (i.e. single organ failure, non-intubated/non-ventilated patient care).

- 2.06 Capable of long-range data communication to transmit patient status.
 - 2.07 Capable of providing cold storage for medicines and blood products.
 - 2.08 Capable of operating for at least 12 hours.
-

Appendix F. Proposed Enhancements to Existing Capability Codes

SUSTAIN (S) MEDICAL SUPPORT (S.5)

Capability Code: **MED-MEA**

Capability Name: **Aeromedical Evacuation - Fixed Wing Augmentation**

CC Cross Reference: **TCC-M, TCC-L**

Reference Docs: **AJP-4.10; AJMedP-5; AAMedP-1.1; AD 83-1; AMedP-7.6; ACIEDP- 01**

Linkage with CRR16: **MED-MEA**

- 1.01 Capable of providing deployable trained medical personnel and aeromedical certified equipment to undertake in-theatre fixed wing aeromedical evacuation.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing the required aeromedical certified equipment to execute the in-theatre aeromedical evacuation of minimum 4 patients requiring ventilation support or 12 litter/stretchers or ambulatory patients using a fixed wing transport aircraft.
- 2.02 Capable of providing flight trained medical team for in-theatre fixed wing aeromedical evacuation.
- 2.03 Capable of providing in-flight medical treatment and patient surveillance for litter/stretchers or ambulatory patients.
- 2.04 Capable of long range data communication to transmit patient status.
- 2.05 Capable of providing cold storage for medicines, blood/plasma and organs.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.

- 3.02 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection.
- 3.03 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.
- 3.04 Capable of integrating within the overall theatre JISR capability to enable effective collection tasking, cross-cueing of other collection capabilities and dissemination of collected information to users.
- 3.05 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-HME**

Capability Name:**Aeromedical Evacuation - Rotary Wing Augmentation**

CC Cross Reference: **AVN-HTH, AVN-HTM, AVN-HUL**

Reference Docs:**AJP-4.10; AJMedP-5; AMedP-7.6; AAMedP-1.1; AD 83-1; AD 83-1**

Linkage with CRR16: **MED-HME**

- 1.01 Capable of providing deployable trained medical personnel and aeromedical certified equipment to undertake in-theatre rotary wing aeromedical evacuation.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing the required aeromedical certified equipment to execute the in-theatre aeromedical evacuation of minimum 4 litter/stretchers or ambulatory patients, including capability to transport patients requiring ventilation support, using a transport helicopter.
- 2.02 Capable of providing a flight trained medical team for in-theatre rotary wing aeromedical evacuation missions.
- 2.03 Capable of providing in-flight medical treatment and patient surveillance for litter/stretchers or ambulatory patients.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of operating in cold or extreme hot weather conditions (see AECTP- 230), and under austere conditions.
- 3.02 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection.
- 3.03 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-AMB**

Capability Name:**Ground Ambulance Unit**

CC Cross Reference: **MED-R3, MED-R2E, MED-R2B-Land**

Reference Docs:**AJP-4.10; AJMedP-5; AMedP-7.6; AD 83-1; AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-AMB**

- 1.01 Capable of ground medical evacuation (MEDEVAC) between Casualty Exchange Point and medical treatment facilities and casualty staging units.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of evacuating a minimum of 40 stretcher cases in a single lift to/from multiple locations and medical treatment facilities and casualty staging units in accordance with medical timelines.
- 2.02 Capable of providing medical treatment including ventilation and patient surveillance during transportation.
- 2.03 Capable of incorporating/organizing/commanding additional non-medical assets to provide MEDEVAC support to mass casualty events.
- 2.04 Capable of operating on paved and unpaved roads.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.
- 3.02 Capable of the effective employment and control of Medical Communication and Information System.
- 3.03 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.04 Capable of deploying into theatre with a minimum of three days of supply.

- 3.05 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.06 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-CSU**

Capability Name:**Casualty Staging Unit (CSU)**

Reference Docs:**AJP-4.10; AJMedP-5; AMedP-7.6; AD 83-1; AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-CSU**

- 1.01 Capable of holding stabilised patients and providing limited medical care to patients prior to evacuation from the area of operations.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of holding stabilised patients prior to evacuation from the area of operations with a nursed bed capacity of 25 beds.
- 2.02 Capable of providing limited medical care delivered by a primary healthcare provider.
- 2.03 Capable of being augmented by additional modules/wards as required.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.
- 3.02 Capable of linking to a standard NATO medical information management system.
- 3.03 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.04 Capable of deploying into theatre with a minimum of three days of supply.
- 3.05 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.06 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.
- 3.07 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.08 Capable of being augmented by a medical modular isolation treatment facility

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-DIR**

Capability Name:**Medical Director and Appointed Staff**

Reference Docs:**AJP-4.10; AJMedP-5; AMedP-7.6; AMedP-1.6 & 1.7 & 1.8; AD 83-1; ATP-3.8.1;**

ACIEDP-01

Linkage with CRR16: **MED-DIR**

- 1.01 Capable of developing and setting theatre medical policies, plans and directives, coordinating and synchronizing theatre level medical activities and monitoring and assessing the health situation of personnel, based on a joint and multinational approach.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of developing and setting medical policies, plans and directives for the theatre of operations.
- 2.02 Capable of monitoring and assessing the medical situation of deployed troops and the health situation in theatre.
- 2.03 Capable of providing an embedded patient evacuation coordination cell (PECC), to coordinate all MEDEVAC issues on a 24/7 basis.
- 2.04 Capable of coordinating and deconflicting medical support to the forces in theatre.
- 2.05 Capable of coordinating all the health force protection related actions to include management of a biological outbreak of operational significance.
- 2.06 Capable of establishing and maintaining medical liaison with relevant local authorities, international organisations and non-governmental organisations.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of the effective employment and control of Medical Communication and Information System.
- 3.02 Capable of tracking of medical assets and capabilities, including aeromedical evacuation assets.

- 3.03 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.04 Capable of operating only as part of a larger unit or an installation from which it may draw logistic support and force protection.
- 3.05 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment .
- 3.06 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code: **MED-DOIT**

Capability Name: **Deployable Outbreak Investigation Team**

CC Cross Reference: **CBRN-BIODET-PLT, CBRN-LAB-BIO**

Reference Docs: **AJP-4 .10; AJMedP-5; AAMedP-1.1; AD 83-1; AMedP-7 .6; AMedP-7.7; ACIEDP-01;
ATP-3.8.1**

Linkage with CRR16: **MED-DOIT**

- 1.01 Capable of rapidly deploying in an area of operations to collect, analyse and assess evidence of suspected illnesses and/or infectious diseases and CBRN events.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of establishing a health baseline for the applicable area of operation.
- 2.02 Capable of collecting and analyzing evidence of suspected illnesses and infectious diseases and identifying possible sources of the outbreak such as inadvertent release of toxic materials, exposure to environment and industrial hazards (EIH) and endemic diseases.
- 2.03 Capable of establishing and maintaining liaison with other civilian and/or military organisations.
- 2.04 Capable of legally facilitating the shipment of dangerous goods across national borders.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of linking to a standard NATO medical information management system.
- 3.02 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.03 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection.
- 3.04 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3 .8.1 in order to be able to operate in a CBRN environment.

- 3.05 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.
- 3.06 Capable of integrating within the overall theatre JISR capability to enable effective collection tasking, cross-cueing of other collection capabilities and dissemination of collected information to users.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-LOG**

Capability Name:**Medical Logistics Company**

Reference Docs:**AJP-4.10; AJMedP-5; AAMedP-1.1; AD 83-1; AMedP-7.6**

Linkage with CRR16: **MED-LOG**

- 1.01 Capable of organizing and operating the reception, storage and issue of the full range of medical equipment and consumables.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of receiving, classifying and issuing 100 tonnes of medical supply daily, and storing up to 400 tonnes of medical supply.
- 2.02 Capable of supervising and monitoring the transportation of medical supplies.
- 2.03 Capable of loading, unloading and moving ISO containers, pallets and loose material using organic material handling equipment.
- 2.04 Capable of storing medical supplied that require refrigeration and liquid gases in accordance with good distribution practices.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of contributing to the Recognised Logistics Picture (RLP) by asset tracking using standard NATO automatic information systems.
- 3.02 Capable of linking to a standard NATO medical information management system.
- 3.03 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.04 Capable of deploying into theatre with a minimum, of three days of supply.
- 3.05 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.06 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-PMT**

Capability Name:**Preventative Medicine Team**

Reference Docs:**AJP-4.10; AJMedP-5; AAMedP-1.1; AD 83-1; AMedP-7.6; ATP-3.8.1; ACEIDP-01**

Linkage with CRR16: **MED-PMT**

- 1.01 Capable of identifying, observing (surveillance), monitoring and reporting of risks and threats to the health of personnel at theatre level, based on a joint and multinational approach.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of identifying risks and threats to the health of personnel deployed in a joint operational area.
- 2.02 Capable of identifying necessary preventive and controlling measures and advising commanders on their implementation.
- 2.03 Capable of planning, organizing and performing epidemiological and environmental survey.
- 2.04 Capable of advising on and auditing the quality of air, water and food.
- 2.05 Capable of monitoring hygiene and sanitation in a deployed environment.
- 2.06 Capable of establishing and maintaining liaison with other civilian and/or military organisations.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of linking to a standard NATO medical information management system.
- 3.02 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.03 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection.

- 3.04 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.05 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Variant Group: **Role 2 Basic MED-R2B (3 Capability Codes)**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AJMedP-1.6 & 1.7 & 1.8; AD 85-8; ATP-3.8.1; ACEIDP-01**

VARIANT GROUP COMMON STATEMENTS

- 1.01 Capable of providing general and emergency medical and primary surgery care including Damage Control Surgery and surgical procedures for emergency surgical cases.

COMMON PRINCIPAL STATEMENTS

- 2.01 Capable of providing general and emergency medical and primary surgery care including reception triage and advanced resuscitation procedures, appropriate medical intensive care and post-operative care, executed by at least one surgical team with the capacity of operating 4 critically wounded patients and 4 Cat B/C patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.02 Capable of providing 1 surgical team with the capacity of operating 4 critically wounded patients and 4 Cat B/C patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.03 Capable of incorporating and/or being augmented by additional medical modules in accordance with the Modular Approach to Medical Support, as mentioned in AJP-4.10.
- 2.04 Capable of providing 2 post-operative beds and supporting equipment.
- 2.05 Capable of providing basic laboratory and imaging functions.
- 2.06 Capable of providing Damage Control Surgery and surgical procedures for emergency surgical cases to achieve life, limb and function saving medical treatment.
- 2.07 Capable of providing a short term casualties holding capacity of minimum 12 nursed beds until they can be returned to duty or evacuated.
- 2.08 Capable of supporting Forces during manoeuvre.

COMMON ENABLING STATEMENTS

- 3.01 Capable of personnel tracking using-standard NATO information systems.
- 3.02 Capable of operating an emergency area to separately receive and isolate infectious patients while maintaining protection of staff.
- 3.03 Capable of incorporating and/or being augmented by additional isolation capability for managing patients requiring strict isolation.

- 3.04 Capable of providing organic life support and CIS capability.
 - 3.05 Capable of the effective employment and control of Medical Communication and Information System.
 - 3.06 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
 - 3.07 Capable of deploying to theatre with a minimum of three days of supply.
 - 3.08 Capable of deploying to theatre with a minimum of 10 days of medical supply.
 - 3.09 Capable of providing CBRN collective protection (COLPRO) for critical elements of MTF such as surgery.
 - 3.10 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
 - 3.11 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.
-

Variant Group:**Role 2 Basic MED-R2B**

Capability Code:**MED-R2B-LAND**

Capability Name:**Role 2 Basic Land Medical Treatment Facility**

CC Cross Reference:**MED-R2E, MED-R3, MED-ST, MED-MEA, MED-HME, MED-AMB**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6 & 1.7 & 1.8; AD 83-1; AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-R2B-LAND**

SUSTAIN (S)

MEDICAL SUPPORT (S.5)

- 1.01 Capable of providing a land-based facility for Damage Control Surgery and surgical procedures for emergency surgical cases by providing general and emergency medical (including surgery) care.

PRINCIPAL CAPABILITY STATEMENTS

- 2.09 Capable of providing a land-based facility for Damage Control Surgery and surgical procedures for emergency surgical cases by providing all seven core modules required for general and emergency medical and surgery care.
- 2.10 Capable of providing a holding capacity for temporary care of 6 to 12 beds.
- 2.11 Capable of post-operative capacity of 2 beds with the capability of providing high to medium dependency care for 4 to 6 hrs.
- 2.12 Capable of being augmented by additional transportation assets to support the movements of 12 patients in 24 hours.

Variant Group:**Role 2 Basic MED-R2B**

Capability Code:**MED-R2B-HM**

Capability Name:**Role 2 Basic High Mobility Medical Treatment Facility**

CC Cross Reference:**MED-R2E, MED-R3, MED-ST, MED-MEA, MED-HME, MED-AMB**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6 & 1.7 & 1.8; AD 83-1; AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-R2B-HM**

- 1.01 Capable of providing a highly mobile facility for Damage Control Surgery and surgical procedures for emergency surgical cases by providing general and emergency medical (including surgery) care.

ENABLING CAPABILITY STATEMENTS

- 3.10 Capable of being transported to theatre using in-theatre tactical aircraft or R/W assets.
- 3.11 Capable of being quickly installed and dismantled using organic transport and HME assets and capable of being augmented by additional transportation assets to support the movements of 6 patients in 24 hours.

Variant Group:**Role 2 Basic MED-R2B**

Capability Code:**MED-R2B-AFLOAT**

Capability Name:**Role 2 Basic Afloat Medical Treatment Facility**

CC Cross Reference:**MED-R2E, MED-R3, MED-ST, MED-HME**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6 & 1.7 & 1.8; AD 83-1; AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-R2B-AFLOAT**

- 1.01 Capable of providing general and emergency medical and primary surgery care including Damage Control Surgery and surgical procedures for emergency surgical cases.

PRINCIPAL CAPABILITY STATEMENTS

- 2.09 Capable of providing afloat medical care including advanced trauma care, damage control surgery (DCS) and primary surgery, executed by at least one surgical team, appropriate high intensive care and post-operative care. Each surgical team with the capacity of operating on 4 critically wounded patients and 4 Cat B/C patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.10 Capable of providing additional 12 nursed beds for short term holding of casualties including isolation of infectious patients until they can be returned to duty or evacuated.
- 2.11 Capable of providing enhanced field laboratory functions including blood provision.

SUSTAIN (S)
MEDICAL SUPPORT (S.5)

Capability Code:**MED-R2E**

Capability Name:**Role 2 Enhanced Medical Treatment Facility**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6; AMedP-1.7;**
 AMedP-1.8; AD 83-1;
 ATP-3.8.1; ACIEDP-01

Linkage with CRR16: **MED-R2E**

- 1.01 Capable of providing general, emergency and secondary health care built around primary surgery, intensive care and nursed beds.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing medical and surgical care including advanced trauma care, damage control surgery (DCS) and primary surgery, executed by at least two surgical teams, at least 6 medical intensive care beds and medical intensive care and post-operative care. Each surgical team with the capacity of operating on 4 critically wound patients and 4 Cat B/C patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.02 Capable of a short term casualties holding capacity of at least 40 nursed beds until they can be returned to duty or evacuated.
- 2.03 Capable of providing enhanced field laboratory functions including blood provision.
- 2.04 Capable of patient decontamination.
- 2.05 Capable of maintaining standard precautions and isolating contagious patients.
- 2.06 Capable of incorporating and/or being augmented by additional medical modules in accordance with the Modular Approach to Medical Support, as mentioned in AJP-4.10.
- 2.07 Capable of operating an emergency area to separately receive and isolate infectious patients while maintaining protection of staff and non-infectious patients
- 2.08 Capable of incorporating and/or being augmented by additional isolation capability for managing patients requiring strict isolation.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.
- 3.02 Capable of providing organic life support and CIS capability.

- 3.03 Capable of the effective employment and control of Medical Communication and Information System.
- 3.04 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.05 Capable of deploying to theatre with a minimum of three days of supply.
- 3.06 Capable of deploying to theatre with a minimum of 10 days of medical supply.
- 3.07 Capable of providing CBRN collective protection (COLPRO) for critical elements of MTF such as surgery.
- 3.08 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.09 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.
- 3.10 Capable of being augmented by additional transportation assets to support the movements of 24 patients in 24 hours.

SUSTAIN (S)

MEDICAL SUPPORT (S.5)

Capability Code:**MED-R2E-AFLOAT**

Capability Name:**Role 2 Enhanced Medical Treatment Facility Afloat**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6; AMedP-1.7; AMedP-1.8; AD 83-1; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **New Code**

- 1.01 Capable of providing afloat general, emergency and secondary health care, including surgery, intensive care and nursed beds.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing afloat medical and surgical care including advanced trauma care, damage control surgery (DCS), executed by at least 2 surgical teams and appropriate medical intensive care and post-operative care. Each surgical team with the capacity of operating on 4 critically wounded patients and 4 Cat B/C patients per- day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.02 Capable of operating on a variety of naval platforms, to include but not limited to commercial shipping and military/contracted logistics ships.
- 2.03 Capable of receiving critically injured patients and providing initial prehospital triage and care.
- 2.04 Capable of providing enhanced laboratory functions including blood provision.
- 2.05 Capable of postop ICU care with holding capacity for up to 72 hours.
- 2.06 Capable to hold patients who are not time critical, within the theatre holding policy.
- 2.07 Capable of isolating patients.
- 2.08 Capable of providing medical command, control and coordination for appropriate care and relevant input to line commander.
- 2.09 Capable of establishing and maintaining liaison with other civilian and/or military organisations.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.

- 3.02 Capable of the effective employment and control of Medical Communication and Information System.
- 3.03 Capable of operating as part of a ship from which it draw logistic support and force protection.
- 3.04 Capable of deploying to theatre with a minimum of 30 days of medical supply.
- 3.05 Capable of being augmented by additional transportation assets to support MEDEVAC.

SUSTAIN (S) MEDICAL SUPPORT (S.5)

Capability Code: **MED-R3**

Capability Name: **Role 3 Medical Treatment Facility**

Reference Docs: **AJP-4.10; AJMedP-1; AJMedP-5; AMedP-7.6; AMedP-1.6; AMedP-1.7;
AMedP-1.8; AD 83-1;
AD 85-8; ATP-3.8.1; ACIEDP-01**

Linkage with CRR16: **MED-R3**

- 1.01 Capable of providing deployed theatre emergency and secondary health care, with definitive intensive care support and a range of sub-specialist clinical capabilities, within the restrictions of the theatre holding policy.

PRINCIPAL CAPABILITY STATEMENTS

- 2.01 Capable of providing a deployed secondary health care that includes primary surgical capacity executed by at least four surgical teams, at least 12 ICU beds for appropriate high intensive care, diagnostic support and post-operative care. Each surgical team with the capacity of operating on 4 critically wounded patients and 4 Cat B/G patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.
- 2.02 Capable of a modular casualties holding capacity of at least 100 nursed beds.
- 2.03 Capable of a variety of mission-tailored clinical sub-specialties.
- 2.04 Capable of patient decontamination.
- 2.05 Capable of maintaining standard precautions and isolating contagious patients.
- 2.06 Capable of providing CBRN advanced medical treatment. 2.05 Capable of establishing and maintaining liaison with other civilian and/or military organisations.
- 2.07 Capable of incorporating and/or being augmented by additional medical modules in accordance with the Modular Approach to Medical Support, as mentioned in AJP-4.10.
- 2.08 Capable of being augmented by additional transportation assets to support the movements of 48 patients in 24 hours.

ENABLING CAPABILITY STATEMENTS

- 3.01 Capable of personnel tracking using standard NATO information systems.
- 3.02 Capable of the effective employment and control of Medical Communication and Information System.
- 3.03 Capable of providing organic life support and CIS capability.

- 3.04 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.
- 3.05 Capable of deploying to theatre with a minimum of three days of supply.
- 3.06 Capable of deploying to theatre with a minimum of 10 days of medical supply.
- 3.07 Capable of being augmented by CBRN assets to support the decontamination of casualties.
- 3.08 Capable of incorporating and or being augmented by additional isolation capability for managing patients requiring strict isolation.
- 3.08 Capable of providing CBRN collective protection (COLPRO) for critical elements of MTF such as surgery.
- 3.09 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.
- 3.10 Capable of an appropriate level of IED awareness in accordance with ACIEDP-01.

**SUSTAIN (S)
MEDICAL SUPPORT (S.5)**

Capability Code: **MED-ST**

Capability Name: **Surgical Team (reinforcement)**

Reference Docs: **AJP-4.10; AJMedP-5; AMedP-7.6; AD 83-1; ATP-3.8.1**

Linkage with CRR16: **MED-ST**

1.02 Capable of providing surgical capacity within a deployed medical treatment facility.

PRINCIPAL CAPABILITY STATEMENTS

2.01 Capable of operating on 4 critically wounded patients and 4 Cat 8/C patients per day and up to a total of 12 critically wounded in 24 hours during periods of surge.

2.02 Capable of augmenting existing surgical teams in deployment medical treatment facilities.

ENABLING CAPABILITY STATEMENTS

3.01 Capable of operating in cold or extreme hot weather conditions (see AECTP-230), and under austere conditions.

3.02 Capable of operating only as part of a larger unit or on an installation from which it may draw logistic support and force protection.

3.03 Capable of providing an appropriate capability level of CBRN Defense in accordance with ATP-3.8.1 in order to be able to operate in a CBRN environment.

Appendix G. Task to Capability and Module Mapping

General

Each identified task is associated with one or more identified capabilities, which are provided by the modules described in AMedP-1.7, *Capability Matrix*. One or more modules generally make up a capability. In some cases, discussed below, there is no corresponding module in AMedP-1.7. The following section describes those tasks and capabilities associated with the corresponding module from AMedP-1.7. Capabilities marked with a √ are addressed, although not necessarily fully, by the listed modules.

This mapping provided the initial relationship between the tasks and capabilities developed by the SD 1.1045 project team and existing modular medical capabilities. It also allowed recognition of required capabilities that were not described in existing NATO products.

Perform deployment health surveillance

Associated Capabilities

- Hazard assessment ✓
- Outbreak investigation ✓
- Medical situational awareness ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Perform operational epidemiology

Associated Capabilities

- Hazard assessment ✓
- Outbreak investigation ✓
- Medical situational awareness ✓
- Information management and knowledge management ✓
- Public health

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Perform national outreach, reach-back, and fusion

Associated Capabilities

- Hazard assessment ✓
- Diagnostics
- Outbreak investigation ✓
- Medical situational awareness ✓
- Information management and knowledge management ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Perform forensic functions

Associated Capabilities

- Hazard assessment ✓
- Diagnostics
- Outbreak investigation ✓
- Medical situational awareness ✓
- Information management and knowledge management ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Perform medical C4I and decision support

Associated Capabilities

- Medical situational awareness ✓
- Information management and knowledge management ✓
- Medical advisor ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Provide medical situational awareness

Associated Capabilities

- Hazard assessment ✓
- Outbreak investigation ✓
- Medical situational awareness ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Prepare medical risk assessment

Associated Capabilities

- Hazard assessment ✓
- Outbreak investigation ✓
- Medical situational awareness ✓
- Information management and knowledge management ✓
- Public health

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Laboratory	Provide laboratory services	The module must be able to provide laboratory services to the medical support system. It keeps record of laboratory results and samples and is able to ship biological samples. It is able to respond to MASCAL.
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL.
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Perform strategic communications

Associated Capabilities

- Hazard assessment ✓
- Medical situational awareness ✓
- Information management and knowledge management ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Conduct military and civilian cooperation

Associated Capabilities

- Medical situational awareness ✓
- Medical advisor ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Employ laboratory assets

Associated Capabilities

- Diagnostics ✓
- Outbreak investigation ✓
- Medical situational awareness ✓
- Public health

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Laboratory	Provide laboratory services	The module must be able to provide laboratory services to the medical support system. It keeps record of laboratory results and samples and is able to ship biological samples. It is able to respond to MASCAL.
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL.
Command, Control, Communication, Computers and Information (C4I)	Provide command, control, communications, computers and information.	The module must be able to provide command and control using the available communication, computers and information systems to ensure the functioning of applicable modules, systems and processes. It is able to arrange contingencies for MASCAL.

Support clinical diagnosis

Associated Capabilities

- Diagnostics ✓
- Outbreak investigation ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Laboratory	Provide laboratory services	The module must be able to provide laboratory services to the medical support system. It keeps record of laboratory results and samples and is able to ship biological samples. It is able to respond to MASCAL.

Perform sample management

Associated Capabilities

- Diagnostics ✓
- Outbreak investigation ✓
- Medical logistics ✓

AMedP-1.7

Module	Capability	Module Core Capability Description
Laboratory	Provide laboratory services	The module must be able to provide laboratory services to the medical support system. It keeps record of laboratory results and samples and is able to ship biological samples. It is able to respond to MASCAL.
Preventive Medicine	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.
Rapidly Deployable Outbreak Investigation Team	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control measures and provide advice to medical authorities. It is able to respond to MASCAL.
Medical Supply	Provide medical supply and materiel	Med Supply must be able to provide drugs and medical (disposable) supply and supply coordination under supervision of a pharmacist in accordance with Good Distribution Practice. It is able to respond to MASCAL.

Perform medical evacuation

Associated Capabilities

- Tactical MEDEVAC ✓
- Strategic MEDEVAC ✓
- Personal protection
- Isolation

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Response and/or In-transit Ambulance	Provide pre-hospital emergency care and patient transport to a MTF	The Response Ambulance must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure transport, provide nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL.
Aeromedical Casualty Staging	Provide patient care in preparation for strategic aeromedical transport.	The module is able to provide care to patients and prepare them for strategic aeromedical transport. It is able to provide temporarily and limited holding support to IC teams and assist then in preparing the patient for transport. It is able to respond to MASCAL.
Forward Aeromedical Evacuation (FAE)	Provide pre-hospital emergency care and patient transport to a MTF	The FAE must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure transport, provide nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL. FAE personnel must be able to act in case of an Aircraft mishap

<p>Tactical Aeromedical Evacuation (TAE)</p>	<p>Provide pre-hospital emergency care and patient transport to a MTF</p>	<p>The TAE must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure low, medium and high care patient transport, provide required nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL. TAE personnel must be able to act in case of an AC mishap</p>
<p>Strategic Aeromedical Evacuation (SAE)</p>	<p>Provide emergency care and strategic patient aeromedical transport.</p>	<p>The SAE must be able to manage life support for severe casualties (trauma and wound injuries), ensure low, medium and high care patient transport over long distances / time and provide required / specialised nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. SAE personnel must be able to act in case of an AC mishap</p>

Perform patient management

Associated Capabilities

- Medical treatment facilities ✓
- Personal protection
- Infectious waste management ✓
- Isolation ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Emergency Area	It ensures the emergency management of critically ill or trauma patients	The module must be able to assess and manage critically ill or trauma patients. Maintain stock levels and be able to prepare patients for transfer and perform administrative tasks. It must be able to manage infectious and CBRN contaminated patients (if applicable). It is able to respond to MASCAL
Patient Holding	Provide temporary care for patients prior to surgery or transfer	The module must be able to temporarily manage critically ill patients or critically wounded casualties, provide high care nursing and, if applicable, post-operative nursing care. It is able to prepare patient for transfer. It is able to respond to MASCAL.
Ward	Provide in-patient nursing care	The ward must be able to provide patient care including post-operative patient care. It conducts administrative tasks and controls stock levels. It is able to prepare patient for in-hospital or inter hospital transfer. It is able to respond to MASCAL.
Isolation ward	Provide care to contaminated and/or infectious patients	The isolation ward must be able to provide care or transfer contaminated and or infectious patients minimizing the risk of contaminating others. It is able to handle contaminated waste. It is able to respond to MASCAL.

Employ medical countermeasures

Associated Capabilities

- Medical treatment facilities √
- Medical logistics √
- Medical countermeasures √

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Emergency Area	It ensures the emergency management of critically ill or trauma patients	The module must be able to assess and manage critically ill or trauma patients. Maintain stock levels and be able to prepare patients for transfer and perform administrative tasks. It must be able to manage infectious and CBRN contaminated patients (if applicable). It is able to respond to MASCAL
Patient Holding	Provide temporary care for patients prior to surgery or transfer	The module must be able to temporarily manage critically ill patients or critically wounded casualties, provide high care nursing and, if applicable, post-operative nursing care. It is able to prepare patient for transfer. It is able to respond to MASCAL.
Ward	Provide in-patient nursing care	The ward must be able to provide patient care including post-operative patient care. It conducts administrative tasks and controls stock levels. It is able to prepare patient for in-hospital or inter hospital transfer. It is able to respond to MASCAL.
Isolation ward	Provide care to contaminated and/or infectious patients	The isolation ward must be able to provide care or transfer contaminated and or infectious patients minimizing the risk of contaminating others. It is able to handle contaminated waste. It is able to respond to MASCAL.

Conduct infection prevention and control

Associated Capabilities

- Personal protection
- Hazard management
- Infectious waste management ✓
- Isolation ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Isolation ward	Provide care to contaminated and/or infectious patients	The isolation ward must be able to provide care or transfer contaminated and or infectious patients minimizing the risk of contaminating others. It is able to handle contaminated waste. It is able to respond to MASCAL.

Conduct isolation, quarantine, and restriction of movement

Associated Capabilities

- Personal protection
- Hazard management
- Infectious waste management ✓
- Isolation ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Isolation ward	Provide care to contaminated and/or infectious patients	The isolation ward must be able to provide care or transfer contaminated and or infectious patients minimizing the risk of contaminating others. It is able to handle contaminated waste. It is able to respond to MASCAL.

Sustain medical support operations

Associated Capabilities

- Medical logistics ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Medical Supply	Provide medical supply and materiel	Med Supply must be able to provide drugs and medical (disposable) supply and supply coordination under supervision of a pharmacist in accordance with Good Distribution Practice. It is able to respond to MASCAL.

Manage contaminated clinical waste

Associated Capabilities

- Personal protection
- Hazard management
- Infectious waste management ✓
- Medical logistics ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Medical Supply	Provide medical supply and materiel	Med Supply must be able to provide drugs and medical (disposable) supply and supply coordination under supervision of a pharmacist in accordance with Good Distribution Practice. It is able to respond to MASCAL.

Provide fatality management

Associated Capabilities

- Hazard management ✓
- Infectious waste management ✓
- Isolation ✓
- Fatality management ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Mortuary	Provide Post Mortem care	The mortuary must be able to receive and hold remains. It is able to provide post mortem care (including administrative tasks and preparing for transport). When applicable it is able to assist in autopsy and the storage and/or handling of medical waste. It is able to respond to MASCAL

Provide psychosocial support

Associated Capabilities

- Public health
- Mental health ✓

AMedP-1.7 Modules

Module	Capability	Module Core Capability Description
Mental Health	Provide mental health surveillance and management	The module must be able to provide operational Mental Health (MH) care. Manage violent mentally disturbed, depressed, suicidal, or psychotic patients. It must be able to manage substance related problems and manage acute stress reaction and PTSS/PTSD. It will advise to the Chain of Command (CoC) and provide Liaison Service to medical, nursing, and paramedical colleagues. It will offer preventive mental health outreach and when required, provides operational MH briefings to military forces. It is able to respond to MASCAL.

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Appendix H. Assessment of Modular Capabilities and Proposed Enhancements

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
Response and/or In-transit Ambulance (AMedP-1.7 p 1-2)	Provide pre-hospital emergency care and patient transport to a MTF	The Response Ambulance must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure transport, provide nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL.	Needs infection control enhancements for staff protection and patient management. Will also need to include training of crews, decontamination of all equipment after transport, logistics to replace perishables, and take into consideration turnaround time of each transportation asset after use.
Aeromedical Casualty Staging (AMedP-1.7 p 1-2)	Provide patient care in preparation for strategic aeromedical transport.	The module is able to provide care to patients and prepare them for strategic aeromedical transport. It is able to provide temporarily and limited holding support to IC teams and assist them in preparing the patient for transport. It is able to respond to MASCAL.	Needs infection control enhancements for staff protection and patient management. Will also need to include training of crews, decontamination of all equipment after transport, logistics to replace perishables, and take into consideration turnaround time of each transportation asset after use.
Forward Aeromedical Evacuation (FAE) (AMedP-1.7 p 1-2)	Provide pre-hospital emergency care and patient transport to a MTF	The FAE must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure transport, and provide nursing care and patient tracking. When applicable it must be able to manage	Needs infection control enhancements for staff protection and patient management. Will also need to include training of crews, decontamination of all equipment after transport, logistics to

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
		CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL. FAE personnel must be able to act in case of an Aircraft mishap	replace perishables, and take into consideration turnaround time of each transportation asset after use.
Tactical Aeromedical Evacuation (TAE) (AMedP-1.7 p 1-3)	Provide pre-hospital emergency care and patient transport to a MTF	The TAE must be able to manage pre hospital care and life support for severe casualties (trauma and wound injuries), ensure low, medium, and high care patient transport, and provide required nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. It is able to respond to a MASCAL. TAE personnel must be able to act in case of an AC mishap	Needs infection control enhancements for staff protection and patient management. Will also need to include training of crews, decontamination of all equipment after transport, logistics to replace perishables, and take into consideration turnaround time of each transportation asset after use.
Strategic Aeromedical Evacuation (SAE) (AMedP-1.7 p 1-3)	Provide emergency care and strategic patient aeromedical transport.	The SAE must be able to manage life support for severe casualties (trauma and wound injuries), ensure low, medium, and high care patient transport over long distances / time and provide required / specialised nursing care and patient tracking. When applicable it must be able to manage CBRN patients. It manages and maintains stock. SAE personnel must be able to act in case of an AC mishap	Needs infection control enhancements for staff protection and patient management. Will also need to include training of crews, decontamination of all equipment after transport, logistics to replace perishables, and take into consideration turnaround time of each transportation asset after use. Need to add discussion on CCAT team specifically?
Emergency Area (AMedP-1.7 p 1-4)	It ensures the emergency management of critically ill trauma patients	The module must be able to assess and manage critically ill or trauma patients. Maintain stock levels and be able to prepare patients for transfer and perform administrative tasks. It must be able to	There should be a clearly dictated isolation capability enhancement for the ER area. The group felt that this would not require additional personnel per say by

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
		manage infectious and CBRN contaminated patients (if applicable). It is able to respond to MASCAL.	proper training of existing staff, and materiel such as PPE.
Patient Holding (AMedP-1.7 p 1-4)	Provide temporary care for patients prior to surgery or transfer	The module must be able to temporarily manage critically ill patients or critically wounded casualties, provide high care nursing and, if applicable, post-operative nursing care. It is able to prepare patient for transfer. It is able to respond to MASCAL.	The enhancement here would be the isolation ward.
Ward (AMedP-1.7 p 1-5)	Provide in-patient nursing care	The ward must be able to provide patient care including post-operative patient care. It conducts administrative tasks and controls stock levels. It is able to prepare patient for in-hospital or inter hospital transfer. It is able to respond to MASCAL.	The enhancement here would be the isolation ward.
Isolation ward (AMedP-1.7 p 1-5)	Provide care to contaminated and/or infectious patients	The isolation ward must be able to provide care or transfer contaminated and or infectious patients minimizing the risk of contaminating others. It is able to handle contaminated waste. It is able to respond to MASCAL.	The patient really is not contaminated in this context, really is potentially contagious. Three levels of isolation were suggested: isolation room, isolation ward, and isolation hospital. It was strongly felt that this module needed significant description alterations. PPE levels need to be harmonised, possibly per current WHO guidelines (need input from BioMedEP). There was also discussion of matching PPE levels with clinical care capabilities (need input from BioMedEP). Also need to incorporate care for individuals in

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
			an isolation environment that may need surgical procedures such as in pregnancy, in trauma patients that may have just been exposed to an agent vs those who may have been symptomatic prior to trauma, etc. (need input from BioMedEP).
Laboratory (AMedP-1.7 p 1-7)	Provide laboratory services	The module must be able to provide laboratory services to the medical support system. It keeps record of laboratory results and samples and is able to ship biological samples. It is able to respond to MASCAL.	The group agrees that this needs to be upgraded for bioresponse capability. I think this could be subdivided into clinical assays (CBC, chemistry, UA, etc.), clinical microbiology, and molecular (PCR, sequencing). Including the RDOIT as the lab enhancement was discussed. Point of care testing was discussed briefly but there was no consensus on whether this should be part of clinical care or laboratory. Roman/German team agreed to provide initial revision text.
Medical Supply (AMedP-1.7 p 1-7)	Provide medical supply and materiel	Med Supply must be able to provide drugs and medical (disposable) supply and supply coordination under supervision of a pharmacist in accordance with Good Distribution Practice. It is able to respond to MASCAL.	It was suggested that there be strategic enhancement for MCM stockpiling.
Preventive Medicine (AMedP-1.7 p 1-8)	Provide preventive and environmental medicine	The module must be able to provide sampling services and preventive medicine advice, perform analysis,	It was discussed whether this module should be enhanced or replaced with a highly

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
		and manage rodent control and administrative/logistical functions. It is able to respond to MASCAL.	specialised replacement such as the RDOIT.
Animal care (AMedP-1.7 p 1-8)	Provide animal healthcare and ensure food and water safety.	Provide animal welfare and healthcare and ensure veterinary public health (prevent or manage outbreaks of serious animal diseases and safeguard public health from animal borne diseases or environmental related risks). Ensure the safety and security of food - water supplies of military personnel. Provide military veterinary expertise. It is able to respond to MASCAL.	It was generally felt that this may not need to stand alone but could be lumped in under the RDOIT, and augmented with additional veterinarians if necessary.
Mortuary (AMedP-1.7 p 1-8)	Provide Post Mortem care	The mortuary must be able to receive and hold remains. It is able to provide post mortem care (including administrative tasks and preparing for transport). When applicable it is able to assist in autopsy and the storage and/or handling of medical waste. It is able to respond to MASCAL	The scope here was discussed and it was felt that we clearly need to identify the need for immediate management but efforts should not be beyond immediate care of a fatality. Beyond immediate care of the fatality may need to be discussed by BioMedEP and pushed up. Question was raised should there be a reach back to bring a crematorium capability into theatre if necessary.
Rapidly Deployable Outbreak Investigation Team (AMedP-1.7 p 1-8)	Provide field and desktop investigations services and identification of causative agents	Provide identification of the causative agent of the outbreak or incident. Perform epidemiological field or desktop investigation in order to provide information to assist command and medical decisions. Advice on prevention and control	It was brought up that we should consider pulling the "sub-modules" out of the RDOIT AMedP7.7 to cover SD 1.45 modules. It was discussed that the RDOIT is really a short term answer of only 2

Module	Capability	Module Core Capability Description	Comments from January 2017 Meeting
		measures and provide advice to medical authorities. It is able to respond to MASCAL	weeks and it was felt that the longer term lab enhancement was needed to be added to the laboratory module (timeframe of enhancement, not just enhancement). It was noted the RDOIT could leave necessary diagnostic equipment in a longer term situation, but there would need to be perishable resupply, and training and replacement of RDOIT personnel. Another suggestion was RDOIT being able to reach back to request a rapid, point of care test be developed depending on the situation, which lead into the need for an operational R&D process.
Chemical, Biological, Radiation and Nuclear Medical Support (AMedP-1.7 p 1-6)	Provide medical support to manage CBRN patients	The module must be able to manage CBRN patients including recognition, safety drills including PPE selection, triage, casualty management including assessment, treatment and casualty hazard management (contain, decontamination, isolation and/or quarantine). It is able to respond to MASCAL.	It was felt that this is a complementary capability and it would be useful to break down the components of this to apply to SD 1.45.

Other Medical Capabilities

Several capabilities are not well addressed or not addressed at all in the modules described in AMedP-1.7.

Medical Situation Awareness

Tools to enable understanding by the medical advisor and commander. The project team felt a public health function could provide this capability but there is no public health module in AMedP-1.7. This capability may be addressed through C4I, although it is not discussed in the modular descriptions and therefore needs to be further evaluated.

Information Management and Knowledge Management

The project team felt this should be a part of C4I and needs to coordinate operational and strategic enhancements to include military-civilian interface. The Command, Control, Communication, Computers and Information (C4I) module certainly includes computers and communication, actual knowledge management functions are not described.

Isolation

The group elected to use the term isolation instead of the original biocontainment. Isolation throughout the continuum of care is not discussed as a module in AMedP-1.7.

Infectious Waste Management

The disposal of clinical waste, especially waste potentially containing highly contagious, highly hazardous organisms is not addressed in AMedP-1.7.

Medical Advisor

The group felt the medical advisor and commander needed the expertise to minimise confusion and mitigate interruption of typical medical care in the area of operations. The modules discuss C4I, but not the actual role of the medical advisor, and certainly not the role of the medical advisor in a biological response.

Hazard Assessment

The tools, such as epidemiological assessments, epidemic projections, and similar tools that allow a complete assessment of the outbreak. The RDOIT does provide some capability in this area.

Personal Protection

Personal protection, primarily personal protective equipment, is not addressed in the modules.

Hazard Management

Similar to waste management above, the ability to manage hazards posed by an outbreak, such as quarantine, restrictions of movement, or other actions, are not well addressed in the AMedP-1.7 modules.

Appendix I. Illustrations

Table 1: Smart Defence Project 1.1045 Meetings	4
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Appendix J. References

STANAG 2228 AJP-4.10(C)	<i>Allied Joint Doctrine for Medical Support</i>
STANAG 2481 AMedP-3.2(A)	<i>Medical Information Collection and Reporting</i>
STANAG 2529 AMedP-7.7(A)	<i>Rapidly Deployable Outbreak Investigation Team (RDOIT)</i>
STANAG 2535 AMedP-4.1(A)	<i>Deployment Health Surveillance</i>
STANAG 2542 AJMedP-1(A)	<i>Allied Joint Medical Planning Doctrine</i>
STANAG 2546 AJMedP-2(A)	<i>Allied Joint Medical Doctrine for Medical Evacuation</i>
STANAG 2547 AJMedP-3(A)	<i>Allied Joint Medical Doctrine for Medical Intelligence</i>
STANAG 2552 AMedP-1.3(A)	<i>Guidelines for a Multinational Medical Unit</i>
STANAG 2560 AMedP-1.6(A)	<i>Medical Evaluation Manual</i>
STANAG 2560 AMedP-1.7(A)	<i>Capability Matrix</i>
STANAG 2560 AMedP-1.8(A)	<i>Skills Matrix</i>
STANAG 2561 AJMedP-4(A)	<i>Allied Joint Medical Force Health Protection Doctrine</i>
STANAG 2562 AJMedP-5(A)	<i>Medical Communications and Information Systems (MedCIS)</i>
STANAG 2563 AJMedP-6(A)	<i>Allied Joint Civil-Military Medical Interface Doctrine</i>

STANAG 2571 AMedP-8.5(A)	<i>Minimum Test Requirements for Laboratory Units of in Theatre Military Medical Treatment Facilities (MTFs)</i>
STANAG 2596 AJMedP-7(A)	<i>Allied Joint Medical Doctrine for Support to CBRN Defensive Operations</i>
STANAG 2872 AMedP-1.14(A)	<i>Medical Design Requirements for Military Motor Ambulances</i>
STANAG 2873 AMedP-7.6(A)	<i>Commander's Guide on Medical Support to Chemical, Biological, Radiological, and Nuclear (CBRN) Defensive Operations</i>
STANAG 2879 AMedP-1.10(A)	<i>Medical Aspects in The Management of a Major Incident/Mass Casualty Situation</i>
STANAG 6505 AJMedP-9(A)	<i>Multinational Medical Support</i>

Appendix K. Abbreviations and Acronyms

A

ACO	Allied Command Operations
ACT	Allied Command Transformation
AE	Aeromedical Evacuation
AJP	Allied Joint Publication
AMedP	Allied Medical Publication
AOR	Area of Responsibility
AOO	Area of Operations
APOD	Air Point of Disembarkation
APOE	Air Point of Embarkation
ASU	Aeromedical Staging Unit

B

BC	Battle Casualty
BioMedEP	Biological Medical Expert Panel

C

C2	Command and Control
C3	Consultation, Command and Control
C4I	Command, Control, Communication, Computers and Information
CBRN	Chemical, Biological, Radiological and Nuclear
CBRN MedWG	Chemical, Biological, Radiological and Nuclear Medical Working Group
CC	Component Commands
CIM	Critical Incident Management
CIMIC	Civil-Military Cooperation
CIS	Communications and Information System
CJOC	Combined Joint Operations Centre
CM	Consequence Management
COA	Courses of Action
COMEDS	Committee of the Chiefs of Military Medical Services in NATO
CONOPS	Concept of Operations
CRO	Crisis Response Operations
CSU	Casualty Staging Unit

D

DHSC	Deployment Health Surveillance Capability
DNBI	Disease and Non-Battle Injury(ies)
DR	Disaster Relief

E

EIH	Environmental and Industrial Hazards
EU	European Union

F

FAE	Forward Aeromedical Evacuation
H	
HA	Humanitarian Assistance
HN	Host Nation
HNS	Host Nation Support
HQ	Headquarters
I	
ICRC	International Committee of the Red Cross
ICU	Intensive Care Unit
IDRO	International Disaster Relief Operation
IMS	International Military Staff
IO	International Organisation
J	
JALLC	Joint Analysis and Lessons Learnt Centre
JC	Joint Command
JFC	Joint Forces Command
JMed	Joint Medical
JOA	Joint Operations Area
JOC	Joint Operations Centre
JTF	Joint Task Force
L	
LN	Lead Nation
M	
MASCAL	Mass Casualty
MC	Military Committee
MEDDIR	Medical Director
MED	Medical
MEDAD	Medical Advisor
MedEvac	Medical Evacuation
MMU	Multinational Medical Unit
MOU	Memorandum of Understanding
MTF	Medical Treatment Facility
N	
NATO	North Atlantic Treaty Organisation
NBC	Nuclear, Biological and Chemical
NGO	Non-Governmental Organisation
NRF	NATO Response Force
O	
OPCOM	Operational Command
OPCON	Operational Control
OPLAN	Operation Plan
P	
PAR	Population at Risk
PECC	Patient Evacuation Coordination Cell
PfP	Partnership for Peace

R	
RDOIT	Rapidly Deployable Outbreak Investigation Team
RFI	Requests for Information
RSN	Role Specialisation Nation
RSOI	Reception, Staging, Onward Movement and Integration
S	
SC	Strategic Command(er)
SD	Smart Defence
SOP	Standing Operating Procedure
SPOE	Sea Point of Embarkation
STANAG	Standardisation Agreement
T	
TCN	Troop Contributing Nation
TOA	Transfer of Authority
W	
WMD	Weapons of Mass Destruction

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14. ABSTRACT Following the international response to the outbreak of Ebola Virus Disease in West Africa in 2014, the International Military Staff of the North Atlantic Treaty Organization (NATO) proposed a Smart Defence project to enhance the alliance's ability to respond to a biological outbreak. The United States agreed to lead the project, and the U.S. Army Office of the Surgeon General served as the office of primary responsibility. The project, ultimately titled Smart Defence 1.1045 (SD 1.1045) involved 14 nations and multiple NATO commands and activities. This paper serves as the historical record of the activities of SD 1.1045, and delivers the results of those activities to the Committee of Chiefs of Military Medical Services (COMEDS), the Allied Command Transformation, the Allied Command Operations, and the International Military Staff. Volume 1 summarizes the historical record of the project and Volume 2 presents a concept of operations (CONOPS) for a NATO response to a biological outbreak.					
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