

NATO STANDARD

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**RAPIDLY DEPLOYABLE OUTBREAK
INVESTIGATION TEAM (RDOIT)**

Edition A Version 1

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NORTH ATLANTIC TREATY ORGANIZATION

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NATO LETTER OF PROMULGATION

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CHAPTER 1 INTRODUCTION

1.1. PRELIMINARY

The aim of this standard is to outline the operational concept concerning the Rapidly Deployable Outbreak Investigation Team (RDOIT) for the investigation of outbreak(s) or incidents(s) where the intentional use of biological agents (biowarfare, bioterrorism or biocrime) cannot be excluded.

These teams can be built on a national or multinational basis.

1. Nations agree that delays in identification of the causal agent of an outbreak may amplify a critical situation that has the potential to overwhelm existing medical resources, resulting in an unnecessarily high casualty rate and mission failure
2. Nations recognize the importance of on-site medical expertise for supporting operational decision-making
3. Nations accept that a RDOIT is necessary for investigation and advice on management of outbreak(s) or unexplained natural incident(s) presumptively due to a biological warfare, bioterrorism or biocrime agent that might affect military personnel
4. Nations agree that RDOITs require approval of the chain of command to engage in such activities. When civilians are affected, it is presumed that these activities will be coordinated between military and civilian authorities
5. Nations agree RDOITs should be able to operate under international tactical/operational control, when needed

1.2. TERMS AND DEFINITIONS

The listed terms are referred to in the framework of this agreement under the following definitions:

1. Outbreak: The occurrence of greater numbers than expected cases of a disease with possible common origin, related in time and space, in humans or animals.
2. Incident: An unusual or unexpected clinical syndrome, or death, whether occurring in humans or animals, or a single case caused by an agent known or suspected to be related to biocrime, bioterrorism or biological warfare.

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CHAPTER 2 DETAILS OF THE AGREEMENT

2.1. COMPOSITION

RDOITs are national or international teams, constituted on a single-nation or multi-nation basis.

In order to meet deployment timelines, members of the RDOIT must be pre-identified.

2.2. MISSION

In order to support the Commander, these teams will be able to undertake in theatre interventions including:

1. performing provisional identification of the causative agent (basic analysis for preliminary diagnosis) of the outbreak or incident
2. carrying out epidemiological investigations either on the field or by accessing and interpreting medical and hygiene surveillance data
3. performing sampling on any relevant material, (e.g. clinical and post mortem, both human and animal, food and drinking water, or environmental, if needed)
4. providing information to assist command and medical decision for the clinical triage, management and treatment
5. providing advice to medical authorities in order to improve situational awareness
6. advising on prevention and control measures, including restriction of movement, thereby improving force protection.

Before deployment, RDOITs will liaise with other CBRN assets already deployed to provide advice to medical assets already in theatre.

These teams are not primarily intended for forensic purposes but can be tasked to initiate chain of custody procedures for sample collection and handling if an event is believed to be resultant from a biological attack.

2.3. CAPABILITIES

2.3.1. General

The lead nation supplying the RDOIT is responsible for the composition, planning, and preparation of the team.

The contributing nations must provide an appropriate level of training, experience and force health protection of its members.

The RDOIT will be able to move and will be provided with appropriate physical security and transportation by theatre assets, even if Restriction of Movement (RM) has been established, if cleared by the Task Force Commander and in close consultation with highest NATO Medical Advisor and local health authorities.

The RDOIT footprint should be maintained as small as possible. This can be achieved by identifying the mission-specific requirements on the RDOIT before deployment and sending teams tailored to the mission, only including the needed capabilities, within operational constraints.

While having the competence for investigation of any epidemiological event, RDOITs should be reserved as a priority for events with a possible or suspected un-natural origin.

2.3.2. Personnel

Team leader:

In the preparatory phase, one of the team members will be designated as team leader. The team leader's task is to command the planning and execution of the RDOIT mission. The team leader function requires a scientific or medical background.

Technical expertise:

A high level of expertise is required in order to provide commanders with valuable and timely advice.

Expertise in human and animal health should include the following competencies:

- a. epidemiology and preventive medicine
- b. infectious diseases
- c. public health and food and water safety
- d. microbiology (bacteriology, virology, parasitology) including basic microbiological identification
- e. handling and packaging of infectious material

Optional competencies could include:

- f. tropical medicine
- g. entomology
- h. forensics/pathology
- i. toxicology
- j. chemical and radiological expertise

The team could also include staff for sample courier services and for field deployment of the team facility, if needed.

21. If RDOIT is required to initiate chain of custody procedure, presence of law officers could be necessary, according to national regulations.

2.3.3. Technical

The RDOIT will be self-contained and have the capability to:

1. carry out epidemiological investigations.
2. perform sampling of any relevant material (e.g.: from humans, animals, vectors, drinking water, food), both for immediate specialized and delayed analysis. Sampling will include live invasive sampling when needed as well as autopsies. This includes capabilities to refrigerate or freeze samples.
3. escort samples as fast as possible to a reference laboratory in safe conditions, according to international regulations for the transportation of biological samples (e.g.: International Air Transport Association and World Health Organization). The courier role is a priority.
4. perform preliminary diagnosis as fast as possible (team to carry the appropriate equipment and supplies).
5. apply biosafety procedures as appropriate.
6. provide advice in securing the area of the incident site.
7. identify, review and advise on basic infection prevention and control measures. These may include but not be limited to: appropriate medical treatment or prophylaxis, healthcare worker safety, isolation and quarantine measures, appropriate protective apparel, and appropriate waste disposal.

Nations are responsible for identifying and providing the minimal requirements and validated procedures.

2.4. PROCEDURES

2.4.1. Triggering mechanism

The deployment of a RDOIT will be initiated upon request by the Theatre Commander or higher-level authority through the chain of command, following medical advice.

Triggering events for RDOIT deployment could be very diverse in nature, and cannot be listed in an exhaustive manner. The following examples should be considered as possible triggers:

1. data from the medical treatment facilities, such as:
 - a. identification, among military or civilians, of case(s) of an infectious disease:
 - not known to be endemic in the region of deployment
 - when incidence is much higher than usually encountered
 - spreading with such a high casualty rate that treatment facilities are likely to be overwhelmed
 - b. all cases of infectious diseases known or considered likely to be suitable for use as a BW agent, which should be regarded as suspicious.
2. sudden appearance and spreading of a zoonotic disease in humans or animals.
3. data from disease surveillance systems and related case definitions, when available.

2.4.2. Deployment

Due to the specificities of contagious biological agents and the risk of rapidly spreading epidemics, a short notice-to-move is necessary.

RDOITs should be deployable within 48 hours from time of notification and should have the ability to sustain operation for 3 days. However, when an elevated biological threat is perceived, it is recommended to have the team on stand-by to deploy within 24 hours.

2.4.3. Command and Control

Once deployed into a theatre of operations, the RDOIT will be under Operational Control (OPCON) of the Theatre Commander. The Theatre Commander will thus be responsible for base operational support, for logistic support (ground and air transport, supply), chemical biological radiological, nuclear protection and security of the RDOIT once deployed. The theatre Medical Director will coordinate the RDOIT activities through the theatre chain of command in order to ensure its safe and effective reception, staging, onward movement and integration within the multinational Joint Operations Area (JOA).

2.4.4. Reach-back laboratories

RDOIT will only perform rapid preliminary determinations, with basic field capabilities. It is likely that the nature of the disease will have to be confirmed by identification tests performed in a laboratory outside the theater. Designation of reach-back laboratory(ies) (RBL) is a prerequisite to RDOIT deployment and, agreed by the participating Nations, should be validated by the NATO chain of command.

RBL should be able to receive and process the samples collected by the RDOIT, and should also be able to provide the deployed team with scientific or technical advices as needed.

Appropriate MOAs or MOUs should be established to define the RBL functions and to ensure full and timely cooperation of the RBL at any phase of RDOIT deployment.

2.4.5. Support

Continuous technical support/re-supply (e.g.: sampling and diagnostic equipment) and laboratory assistance is required from the home base or nation and from adequate on-site deployed structures (medical command and support).

In order to perform their early investigation as fast as possible, the RDOIT should be authorized to request assistance from the analytical facilities already deployed (e.g.: field laboratories, medical treatment facilities).

Appropriate means of navigation, positioning, communication, IT support and other logistical support (e.g.: power to support cold chain and security for storage of biological samples) should be made available to the deployed RDOITs by the theatre commander.

Teams must have access to interpreters and to air and ground transport means for sample transportation to the designated reach-back laboratories.

2.4.6. Interrelations

The RDOIT should be prepared to cooperate with other theatre CBRN assets; security forces; local laboratories (clinical/microbiological, public health and environmental) and authorities; local medical personnel, to include public health officials; on-site commanders and local authorities. The RDOIT may exchange information and samples with other teams and laboratories, as appropriate and under approval of the NATO Chain of command. Teams must be provided with information from all relevant analytical facilities already deployed (e.g.: field laboratories, MTFs), epidemiological surveillance and medical information and data gathering systems.

Data generated will be reported to the relevant authorities through the chain of command. Due to the specificities of medical information and for ethical considerations, data to be exported outside the medical chain of command should previously be anonymized in accordance with medical confidentiality rules.

Generic results of RDOIT investigations must be available to all participating nations concerned (*i.e.* the contributor(s) of the RDOIT, nations which had citizens affected by the outbreak, and the lead nation in-theatre) and available to satisfy international reporting requirements. In case of risk to public health, information is to be shared with potentially impacted civilian agencies with the exemption of information protected by operational security and medical confidentiality.

2.4.7. Lessons Identification and Learning

RDOIT shall take part in the Lessons Learned process by supporting the Theatre Commander, the RDOIT participating Nations and the NATO LL competent bodies (JALLC and MilMedCoE) with its report at the end of on-site activities.”

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