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Introduction

Scenarios involving the malevolent uses of ionising radiation have since September 11, 2001 been increasingly used in emergency preparedness and resilience exercises in Europe and elsewhere. One of the most common scenarios involves the use of an improvised explosive device containing radioactive materials – also known as radiological dispersal device – deployed in an urban environment. In the Euratom 6th Framework Programme, the European Commission co-sponsored the development of a handbook for the triage, monitoring and treatment of the public exposed after a malevolent use of radiation (TMT Handbook, http://www.tmthandbook.org). This handbook addresses several potential scenarios and describes the actions to be carried out by qualified personnel at the scene and at the specialised trauma centre at the hospital.



Triage, Monitoring and Treatment of people exposed to ionising radiation following a malevolent act



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The content of the TMT handbook.



Demonstration of decontamination of people who need assistance. Photos: HPA.



The cover of the TMT handbook.



Description of immediate actions specific to the radiological emergencies to be taken at the scene mainly during the first hours after notification or discovery of an incident.

During the preparation of the handbook it became clear that there is a need to introduce a new type of first responder namely, the "radiological responder".



Staff carrying out this function would need to arrive as soon as possible after police, ambulance and firefighters, and would work together with ambulance staff and paramedics to determine the priority order with which victims will be treated and transported to the hospital based upon his/her assessment of the presence of the external contamination, combined with injuries and possibly signs of exposure to gamma radiation.

An example of the flowcharts in the handbook. This flowchart shows radiological triage based on results of external contamination monitoring.

Dissemination

A training course based on the TMT Handbook was directed primarily to representatives of national emergency response organisations with responsibility for first response in emergency situations, hospitals and wider health-care infrastructure, such as public health authorities.

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