CBRN—Managing the Threat

CBRN Medical Support of the French Groupe D'Intervention De La Gendarmerie Nationale

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Introduction: The French Groupe d'Intervention de la Gendarmerie Nationale (GIGN) is a police special force unit from the military. Its main missions are counter-terrorism, fight organized crime, and also protection and security of vital keypoints of the nation and state, in France and overseas as well. The GIGN is trained to work under chemical, biological, radiological, or nuclear (CBRN) conditions. The aim of this study is to improve CBRN medical support.
Methods: An in-depth literature analysis was conducted to the great expertise of the GIGN medical unit and of the French Service de Santé des Armées.
Results: Before a mission, the physicians of the military are key actors to train soldiers to face CBRN conditions. They define medical counter-measures including personal protective equipment (PPE) and antidote kits including Ineurope® auto-injecting syringes that contain atropine, pralidoxim, and diazepam.

During the mission, the medical units, including the GIGN, are able to move and work in contaminated areas. They can initiate the medical care of classic soldier wounds and CBRN contaminated wounds as well. The impact of the pharmaceutical and antidote kits and specific training are of great importance to accomplish the medical mission while wearing PPE. They can also strengthen CBRN decontamination modules of the Gendarmerie.
Conclusions: The CBRN risk must be considered for Special Force medical unit: training, constantly adapting the protective equipment and specific therapeutics to the risk is a major challenge.
Keywords: chemical, biological, radiological, or nuclear; decontamination; French Groupe d'Intervention; military
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Training of French Hospital Personnel in CBRN Decontamination

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In France, the hospital health plan known as the white plan contains specific sections to deal with chemical, biological, radiological, or nuclear (CBRN) risks. The training of personnel and the organization of exercises are mandatory within the plan. This training began in 2002 after the conception of a civil-military doctrine by a national steering committee. Four-day training seminars occurred at a national then zonal level, and then, were divided into two-day seminars for additional teachers. Since 2002, these additional teachers trained >30,000 people from emergency services in one-day seminars. Since 2006, additional efforts have been made under the responsibility of CESU (emergency teaching centre). First, voluntary health professionals who also are medically fit are chosen to run a decontamination area at the entrance to their hospitals. These people are trained for nine hours and receive a diploma that is valid for two years. Second, anybody working in hospitals has to be trained in emergency procedures every four years including general information on CBRN risks. These subjects must be taught in a hands-on manner with the objective of changing traditional health professionals' perceptions. Finally, training is a continuing learning and adapting process.
Keywords: chemical, biological, radiological, or nuclear; decontamination; hospital personnel; training
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Human Factors and Medicine Panel Activites—Human Protection Against CBRN

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Introduction: NATO nations continue to be concerned regarding the impact of chemical, biological, radiological, or nuclear (CBRN) attacks, both in terms of conventional force deployments, as well as the ever-increasing threat of terrorist attacks using CBRN materials against civilian populations. The Human Protection Area recently has examined, or is currently examining, Radiation Bio-effects, Risk management of exposure to chemicals under operational conditions, Chemical Agent Protection (Non-Medical), Application of Emerging Nano- and Bio-Technology to Deployable Laboratories, the State-of-the-Art in Research on Medical Countermeasures Against Biological Agents, and Integration of CBRN physical protective measures to lessen the burden on personnel.
Methods: This presentation will describe recent Human Factors and Medicine (HFM). Panel technical activities related to medical CBRN defense, with emphasis on human protection, will summarize some of the main findings from those activities.
Results: In preparation.
Conclusions: The NATO HFM Panel Technical Activities provide an opportunity for other NATO organizations to benefit from the efforts conducted with the support of the Research and Technology Agency of the Research and Technology Organization.
Keywords: chemical, biological, radiological, or nuclear; defense; Human Factors and Medicine Panel; protection
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Prediction of the Severity of Acute Radiation Syndrome Severity

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Recent decades have been characterized by a steady growth in the number of contingents exposed to various ionizing radiation sources. Compliance with all safety procedures and regulations does not exclude a possibility of radiation