cautions for infection such as changing gloves were simulated. The simulated total time to vaccinate 1,000 patients was just under four hours. Ambulance standby was arranged in case of actual illness of volunteers and in case screening uncovered any illness that would require immediate access to medical care. Security for clinic volunteers, healthcare workers, and vaccines also was simulated. Security was asked to screen for press credentials and direct all media to the designated public information officer (PIO) and to limit access to and protect the medical privacy of vaccine recipients. There was actual coverage of the simulation by local media. With these results regarding the required number of healthcare workers and required time to vaccinate 1,000 patients, numbers can be estimated for any size population depending on clinic operation hours of 12, 16, or 24 hours of operation. The number of healthcare workers required can be estimated depending on 8 or 12-hour shifts.

Keywords: clinic; healthcare workers; population; simulation; vaccination
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Systematic Review of the Decontamination of Chemically Contaminated Casualties

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Introduction: In the event of a chemical incident, whether the consequence of an accidental or deliberate release of toxic industrial chemicals or chemical warfare (CW) agents, there is a requirement for first responders to decontaminate potentially contaminated casualties. The purpose of the decontamination process is to physically remove, neutralize or destroy, or reduce to an acceptable level any chemical contaminant present, thereby reducing harm to the casualty and preventing secondary contamination of the first responders.

Objectives: The aim of this study was to determine the most effective approach to the decontamination of chemically contaminated casualties, specifically the need for and timing of decontamination and the effectiveness of: (1) clothing removal as the initial step in the decontamination process; (2) different decontaminants; and (3) different decontamination methods.

Methods: A number of specific, three-part questions were compiled to address the aims of this systematic review. The resources accessed in an effort to identify the literature available in the public domain were: (1) The Cochrane Library; (2) MEDLINE; (3) EMBASE; (4) CINAHL; (5) Science Direct; (6) ISI Web of Science; (7) ISI Proceedings; and (8) The Batelle Memorial Institute Mass-Casualty Decontamination Database. The resources accessed to identify the (potentially) classified literature not available in the public domain and the countries in which they exist were:

1. United Kingdom—Defence Science and Technology Laboratories (DSTL) Knowledge Services;
2. United States—Department of Defense (DoD) Chemical Biological Information Analysis Center (CBIAC);
3. Canada—Defence Research & Development Canada (DRDC) Defence Research Reports Database; and
4. Australia—Defence Science and Technology Organisation (DSTO) Research Library.

Commercial manufacturers also were contacted. Studies were selected for inclusion based upon their relevance to the specific three-part questions. The studies could be published or unpublished scientific papers or technical reports.

Two reviewers independently selected the studies for inclusion and extracted relevant data. These data have been abstracted into evidence tables and appropriate conclusions have been drawn in the form of a series of clinical bottom-lines for each of the specific three-part questions.

Results: The results of the completed process will be presented.

Conclusions: A systematic review has determined the most effective approach to the decontamination of chemically contaminated casualties. The outcomes can be used to formulate best practice guidelines and advise first responders on the efficacy of the processes they already have in place and any changes that might be required for improvement.

Additionally, areas where further research is required have been identified.

Keywords: assessment; chemically contaminated casualties; decontamination; review
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Destruction of Conventional and Chemical Weapons from World War I (1914–1918), Ieper, Belgium—Example of Long-term Problems after War Situations

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Six years ago, Belgian military authorities developed a Destruction Unit for ammunition remaining from World War I (WWI) in the area of Ieper, where several battles occurred. After WWI, thousands of tons of ammunition were dumped in the North Sea, at Zeebrugge, one kilometer from the coast. There are no available solutions for this problem in Zeebrugge. After the Oslo convention, dumping in the sea was forbidden. Historical stockpiles from WWI had to be destroyed. Between 1980–1996, 12,000 tons of ammunition were placed in Poelkappelle. Each year, 2,000 bombs are found, mostly by farmers. In April 2004, 70 tons of ammunition were discovered in one place. WWI was the first time chemical weapons were used on a large-scale basis.

The Explosion Services of the army can be called after finding projectiles. In the Destruction Unit, ammunition is separated into high explosive and toxic chemical (10%) weapons. A special procedure with nuclear, biological, chemical (NBC) clothing, RX apparatus, and spectrometrie is now available routinely in the Unit. There is an external and an internal disaster plan in the Destruction Unit.

One problem in case of accidents is the lack of knowledge by the medical rescue teams about the toxic effects and the treatment of war gasses (mustard gas, fosgeen, clark, etc.). Obligatory military service, the most important source of information about NBC problems during doctor and nurse education, no longer exists in Belgium.