

data collection, focusing on syndromes that may represent infections with bioterrorist agents.

Conclusion: An emergency department-based, enhanced, bioterrorism, syndrome-surveillance system can be maintained effectively for a short-term period. Additional data sources and accumulation of long-term baseline data are necessary for further system development. The guidelines for early aberration reporting and evaluation of syndrome surveillance systems also requires more research.

Keywords: bioterrorism; emergency department; enhanced; Korea; surveillance; system

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Development of a Comprehensive Bioterrorism Information System in Korea

S.J. Wang;¹ H.W. Han;² M.S. Ki³

1. Hallym University Sacred Heart Hospital, Korea
2. Korean Center for Disease Control, Korea
3. Bit Computer, Korea

Introduction: A bioterrorism surveillance system was developed in Korea for the 2002 Korea-Japan FIFA World Cup Games and has been maintained since 13 May 2002 and is being upgraded by a new system. The new system was based on the Internet and is comprised of three parts: (1) emergency department; (2) infection specialist; and (3) laboratory. The parts were separated because the parts were required for the development of a comprehensive bioterrorism surveillance and information system.

Methods: The new system required six months for development, beginning in May 2004. A unified web server and database server were developed and included a firewall. One portal site was developed through which all of the information about bioterrorism would pass. In the emergency department, a syndromic surveillance system was initiated, in which the routine and temporary enhanced surveillance systems were separated. Adding to the three parts previously described, a real-time, automatic, statistical analysis system was developed for the generation of reports, automatic text messaging from the mobile phones of essential personnel, and an automatic information gathering system from the related web sites. The new comprehensive system was implemented on 15 November 2004, and every aspect of this system was tested.

Results: The three parts previously described functioned well through the portal site. The real-time automatic statistical analysis system actually was performed in real-time and matched with those obtained from conventional statistical results. The automatic text message sending system to the mobile phones also functioned well, and it was confirmed that the members of designated hospitals received the messages. The information-gathering system from the related websites was functioning, but the amount of the contents required more work.

Conclusions: A comprehensive bioterrorism surveillance and information system was developed and the early maintenance was confirmed. Further study is needed.

Keywords: assessment; bioterrorism information system; comprehensive; development; Korea

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Terror Australis Redux: Revisiting Australian Emergency Department Preparedness for Terrorism

D. Caldicott; N.A. Edwards; A. Eliseo; C. Lee; P. Aitken
Australia

In 2003, the results of a survey examining Australian emergency department preparedness for mass-casualty incidents with contaminated casualties was presented at the 13th World Congress on Disaster and Emergency Medicine in Melbourne, Australia. At the time, many politicians in Australia considered the country to be relatively immune to the threat of terrorism from abroad.

Since then, the position of Australia on the world stage has changed. Its involvement in wars in Afghanistan and Iraq has increased its profile as a target for terrorism substantially. Has this change resulted in substantive improvements in levels of preparedness in Australian emergency departments?

A follow-up survey was sent to all emergency department directors in Australia in early 2004, with the intention of comparing the initial survey results with the current opinions and present-day, perceived levels of preparedness. The second survey collected greater detail and new information, as well as documenting the change over time since the first survey. More than 85% (n = 76) of departmental directors replied, a reflection of the ongoing level of local interest in the topic.

Details reviewed included opinions regarding the risks and the potential consequences of terrorist attacks with both conventional and weapons of mass destruction (WMD) approaches. The frequency of practice, levels of training, and amount of pharmaceuticals available and personal protective equipment present all were surveyed in detail. Policy regarding the entry of hospital staff into potential "hot zones" also was surveyed.

The second Terror Australis survey represents the most comprehensive independent analysis of hospital preparation for terrorism in any single developed country. It raises important questions regarding funding, training, and physician attitudes, all of which will need to be addressed before an event, if an effective response is to be mounted.

Keywords: Australia; mass-casualty incident; survey; Terror Australis; terrorism; update

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Preparations for Possible Bioterrorism Attack

M.C. Trotta;¹ C. Barletta;² E. Cicconetti;³ C. Nardoni;³
M. Mastrilli;³ M.G. Tatangioli⁴

1. Italy
2. Emergency Department, Sant'Eugenio Hospital, Italy
3. National Voluntary Corps for Civil Protection, Italy
4. State Department for Civil Protection, Italy

"See where the green grass grows again, and a blade of grass is for each of you."

The Heavy Rucksack by Giulio Bedeschi

The 20th century can be considered the era of developments in chemical weapons and weapons of mass destruction. Whereas in the 4th century, it was common practice to use poisoned arrows dipped in decomposing bodies, today that might seem a little old-fashioned. Between 1960

and 1999, 121 terrorist attacks using biological and chemical warfare have been registered in the Monterey Database. In the last decade, the risk of a possible attack involving large numbers of people, in particular, civilians in countries not involved in war, has reached an all-time high.

Hospital emergency units must be ready with plans and treatments in the event of a massive influx of victims. Managing these plans requires calculating the extent of the mass emergency and any peculiar clinical characteristics of the victims themselves, for example: premature diagnoses, competency of the biological agents used, procedures for decontamination, ways of protecting personnel, and specific antidotes.

The health workers in the emergency system, with the assistance of the other emergency services, represent the first line of defense against these types of attacks. The nature of the agent may only become evident after the arrival at the hospital of thousands of sick people. It is vitally important to communicate effectively with the staff regarding the pathological treatment needed for various biological agents, chemicals, and nuclear materials. Above all, there must be collaboration, with anti-poison centers, nuclear NBC forces, and other organizations tasked with responding to such an event.

A four-part protocol will be discussed: (1) risk reduction; (2) preparation; (3) response; and (4) recovery.

Keywords: bioterrorism; health workers; Italy; preparations

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A Consensus Process on the Management of Major Burns Accidents: Lessons Learned from the Café Fire in Volendam, Netherlands

L. Welling,¹ M. Boers,² D.P. Mackie,³ P. Patka,²
J.J.L.M. Bierens,² J.S.K. Luitse,¹ R.W. Kreis³

1. Academic Medical Center, Netherlands

2. VU Medical Center, Netherlands

3. Red Cross Hospital, Beverwijk, Netherlands

Introduction: The optimum response to the different stages of a major burns incident still is not established. The fire in a café in Volendam on New Year's Eve 2000 was the worst incident in recent Dutch history and resulted in mass burn casualties. The fire has been the subject of several investigations concerned with organizational and medical aspects. Based on the findings in these investigations, a multidisciplinary research group conducted a consensus study.

Objective: The aim of this study was to further identify areas of improvement in patient care after mass burns incidents.

Methods: The consensus process comprised three postal rounds (Delphi Method) and a consensus conference (modified Nominal Group Technique). The multidisciplinary panel consisted of 26 Dutch-speaking experts, working in influential positions within the sphere of disaster planning and care. In the postal surveys, consensus was reached for 66% of the statements. Six topics were discussed in the consensus conference: three in the plenary part and three during the subgroup meetings. After the conference, consensus was reached for seven statements (one subject generated two statements). In total, the panel agreed on 21 statements. These covered the following top-

ics: (1) registration and evaluation of disaster care; (2) capacity planning for disasters; (3) prehospital care of victims of burns; (4) disasters; (5) treatment and transportation priorities; (6) distribution of casualties (including interhospital transports); (7) diagnosis and treatment; and (8) education and training. A few examples of the statements are:

1. "A uniform mode of registration of the entire emergency care process is needed; it should be suitable for regular, as well as disaster, care."
2. "The government should facilitate optimal collaboration between burn centers in our country and the neighboring countries."
3. "In the current organizational structure behind the medical care in disasters, problems with the hierarchical structure and competencies occur quite often."
4. "The Advanced Trauma Life Support (ATLS) protocol is routinely used for trauma care in Dutch hospitals; in case of admittance of a burn patient, knowledge of the EMBS protocol should be present."
5. "Every rescue worker who attends the scene of the disaster should have received proper training, focused on his tasks."

Conclusion: In disaster medicine, a consensus process is a suitable tool for identifying areas of improvement in the care after mass burns incidents. The statements are useful points to improve planning for future disasters.

Keywords: burns; consensus process; disaster medicine; management; Netherlands

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Meeting the Challenge—Appointment of a Full-Time Emergency Management Coordinator in a Melbourne Healthcare Network

D.L. Dixon

Western Health, Australia

The growing risk of terrorism-related activities, advances in technology, which increases the potential hazard of major incidents, and legal obligations related to staff and patient safety have led to increased executive commitment and enthusiasm for hospital emergency planning in Australia. Historically, hospital emergency plans were based on system redundancy. Now, plans must identify contingent redundancy options, including measures to address principles of prevention, preparedness, response, and recovery in order to cope with internal and external emergencies, which may impact hospital function.

Until recently, emergency management was an often-overlooked area within hospital operations. The tragic events of 11 September 2001, and the continuing threats to national security highlighted with the Bali bombing in 2002 have ended that complacency worldwide. Now, many organizations have an active interest in strengthening their emergency management programs, however, budget limitations and lack of trained personnel often make meaningful improvements difficult.

Western Health recognizes the importance of committing resources and time to develop and implement an emergency management program, consolidating its commitment