disasters. In Katrina's aftermath, various US cities are using Websites to provide citizens with information on how to prepare, respond, and recover from disasters. This study examined how US cities are using the Web to inform citizens with chronic illnesses on how to manage disaster challenges.

Methods: Using information from health organizations, a checklist was developed of information that individuals with chronic illness need during a disaster. This checklist was used to assess how 10 cities are using the Web to inform those with chronic illnesses on how they can obtain evacuation assistance, receive post-disaster health services, and address other challenges.

Results: The findings indicated four problems in how cities provide information. First, the information provided often deals with challenges that emerge immediately following a disaster, but neglects challenges that arise during the longer process of disaster recovery. Second, the information provided does not address the challenges arising from specific chronic illnesses. Third, information providers often assume that external caregivers will be present during a disaster. Fourth, much information is inaccessible to those with hearing or sight disabilities.

Discussion: Cities should strive to provide accessible information that focuses on long-term disaster recovery challenges, addresses the challenges of particular illnesses, and recognizes that external caregivers may not be present during disasters.

Keywords: chronic illness; communication; disaster; Internet
Prehosp Disast Med 2009;24(2):s84–s85

(O76) Application of Information Technology in Disaster Medicine: Ubiquitous Health Aspect

Soon-Joo Wang
Hallym University, Seoul, Korea (South Korea)

Introduction: Medicine based on digitalized information has evolved to telemedicine, electronic health, and ubiquitous health coping with the progression of information technology. Characteristics of disasters have changed, and the creation of cyberspace is no exception. Due to the information technology (IT) revolution, information can travel beyond the limit of time and space through cyber space. This power has a huge role in prevention, relief, and recovery of disaster. The application of IT in disaster medicine, especially in the ubiquitous health aspect, was examined.

Methods: Through the search of medical literature and Internet Websites, the application of IT in disaster medicine was examined. Pubmed and Google were used for the search. The results were confirmed and evaluated by several groups of experts.

Results: Information technology fields that can be used in disaster medicine include: (1) telemedicine (to share clinical resources); (2) distance learning (just-in-time training); (3) geographic information system (GIS) mapping (real-time status of resources); (4) satellite phones; (5) Web portals; (6) vehicle tracking systems; (7) field-based patient registration and tracking systems; and (8) field deployable sensors to scan for chemical and biological agents.

Field medical support systems that can be facilitated by IT include: (1) understanding the command and control system; (2) building a public health application and management system; (3) roles of medical staff; (4) roles of a hospital; (5) triage (u-tracking system); (6) management (u-Emergency Medical Services); (7) transportation (u-Ambulance); and (8) victim identification.

Conclusions: There are many fields that can be applicable to disaster medicine using IT. Applying more application to real disaster situation will support the disaster medical system more effectively.

Keywords: disaster; disaster medicine; electronic health; information technology
Prehosp Disast Med 2009;24(2):s85

(O77) Telemedical Consultations in Field Hospital in Extreme Situations

Vladimir I. Petlakh; Vladimir M. Rozinov; Boris A. Kobrinsky
Moscow Research Scientific Institute for Pediatrics and Children's Surgery, Moscow, Russia

Introduction: Small medical brigades in field hospitals must make difficult decisions regarding diagnostics and the treatment of patients with various diseases and injuries during extreme situations.

Methods: In this study, the experiences of using telemedical consultations (TMCs) during the operation of a children's field hospital (CFH) of the All-Russia Center for Disaster Medicine in the Chechen Republic (2002) and a Russian mobile hospital in earthquake-impacted region of China (2008) were analyzed. The TMCs occurred through a system of combined access using a special satellite antenna in the CFH and a satellite phone ("Iridium") in China.

Results: A total of 64 telemedical consultations regarding 54 patients were conducted in the CFH with the medical centers of Northern Caucasus and Moscow. The network was created with four telemedical centers, and involved employees of six scientific institutes and five large hospitals. Seventy-seven percent of the TMCs were regarding patients with surgical pathologies. Treatment tactics regarding nine patients was specified after TMCs, eight patients were evacuated urgently to the specialized hospitals, and 37 patients were directed for scheduled treatment. Telemedical consultation was not completed for three patients. A total of 14 TMCs were conducted in China: two patients were evacuated to the specialized departments of local hospitals, and two cases specification of diagnoses and medical tactics.

Conclusions: The use of TMCs demonstrated high efficiency for establishing diagnoses and medical tactics, and operative decision-making regarding patient evacuation.

Keywords: children's field hospital; communications; emergency; medical aid; telemedicine
Prehosp Disast Med 2009;24(2):s85