Implementation and Use of Biosurveillance System that Continuously Monitors for Potential Environmental or Bioterrorism Events

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Research indicates that U. S. epidemiological systems monitoring public health trend changes are slow because of their dependence on historical data, and that a potential bioterrorism event may not be identified until after the event begins, thus, increasing morbidity and mortality. This project was designed to establish a regional biosurveillance system to monitor consolidated data and detect trends in real time.

Specific software was developed to aggregate data from the local Emergency Medical Services (EMS) call center into patient symptom groups consistent with those that may be experienced during the intentional dispersal of a biological or chemical agent. The software calculates trigger thresholds based on a predetermined mean values for those groups, integrating the data with the operation of a sophisticated computer-aided dispatch system and a geographical information system. Should the predetermined mean value be exceeded by the real-time activity of the EMS call center, administrative personnel are alerted by page and electronic mail. Attachments to the electronic mail provide a listing by time, address, and type of activity, and activity location map.

Beta versions of the software were tested in two urban cities to assess functionality. Following testing, initial patient symptom groups were expanded in consultation with local epidemiologists. The now operational system demonstrates that the presence of biological or chemical release can be detected more quickly by using existing datasets with trending.

The project is limited by the lack of local hospital emergency department (ED) admitting data. The inclusion of all or most ED data will be implemented by mid-2003.

Keywords: biologicals; call center; chemicals; detection; emergency medical services (EMS); monitoring; notification; public health; surveillance; systems; thresholds
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Survival in the Age of Bioterrorism: Is the Healthcare System Prepared?

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The concept of "hospital disaster planning" has evolved from preparation for natural disasters into "healthcare system disaster planning" for weapons of mass destruction. Preparation for critical events, which used to take place in a disjointed fashion, now requires maximal coordination of all available resources. Healthcare systems, a vital component of the nation's response effort, have a tremendous amount of resources including elements such as hospitals, community healthcare facilities (clinics), home healthcare services, schools of medicine, nursing, and public health, undergraduate campuses, and advanced science facilities. Through a series of Johns Hopkins Applied Physics Lab Warfare Analysis Laboratory seminars designed to analyze the issue of resource collaboration, The Johns Hopkins Office of Critical Event Preparedness and Response (CEPAR) evolved. The primary mission of this Office is to coordinate a comprehensive healthcare system disaster response, utilizing and unifying all components of the Hopkins Healthcare Enterprise. Furthermore, the Office has been charged with coordinating this healthcare system's response with federal, state, and local disaster response agencies, through collaboration and the establishment of memorandums of understanding. Other major issues that the Office of CEPAR is analyzing include critical event risk assessment, healthcare system surge capacity, communications infrastructure and redundancy, procurement and distribution of accurate and timely information, establishment of alert levels with preparation effort standards, and education and training. The culmination of these efforts will result in a regional WMD disaster response template that could be used as a national model.

Keywords: alert levels; communications; disaster; hospital; information; preparedness; surge capacity; weapons of mass destruction
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Special Forum: Conflict and Public Health

No to Violence within Violence: Concerning Domestic Violence Aggravated by War

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It is well-documented that the people of Palestine have long been living under very difficult circumstances. While the World looks at the occupation and current Intifada in political terms, the emotional, physical, and intellectual life of every Palestinian family is challenged. The deterioration of the mental health of men, women, and children is a sad legacy.

The present-day situation serves only to further wound and cut into Palestinian Society long known for it's strong family ethic and male headship. Men, who previously have been good leaders and providers for their households, are forced into intolerable situations. Curfews severely restrict their movements for months on end, causing them to be unemployed and disenabling them to bring home necessary food and provision. Accustomed to a hard working day, enjoying family for a few hours in the evening, they now not even are allowed to work in their garden or around the home, crowded by troubled wives and children the whole day through, leaving them frustrated, depressed, bored, and angry. Those who attempt to continue regular employment are harassed and intimidated daily at checkpoints. They face guns, shooting of people around them, tear gas attacks, long delays, and/or imprisonment under inhumane conditions. Some end-up housed in a Psychiatric Hospital. The