There is a well-developed *esprit de corps* within the group members, which emerges in the form of a strong professional identity and professional pride, and is demonstrated by rallying around a colleague or the group in especially trying situations. Within the team, there also exists an atmosphere of acceptance, respect, and an attitude that makes it permissible to show one's feelings and to help take care of one another. The team member-team member relationship is stronger than is the ambulance worker-patient relationship.

Providing good ambulance-based care

"Good care" in the daily ambulance-based care means that caregivers normally can devote all their attention to a single patient, and concentrate all of one's efforts on this one individual. The respondents point out that the caring for an ill or injured person is characterized by the observation that a more distinct worker-patient role emerges the nearer the ambulance is to a healthcare facility. Humility and comfort with physical nearness are necessary traits among ambulance personnel. Ambulance personnel meet three categories of patients: (1) those who have complete trust; (2) those who question the ability of the personnel; and (3) those who are unaccepting of personnel assistance. Members of the last group are described as using the ambulance as a taxi or are disrespectful to the care-givers. Missions with those patients can result in non-caring situations.

Conclusion: Ambulance-based care is a complex field requiring flexibility and humility at the time of contact with the patient. The work also calls for a great deal of experience-based knowledge. In addition, there is the existence of a team spirit implying both positive and negative effects. One must be able to rely on one's colleague in demanding situations while at the same time being aware of where the line should be drawn between good care and collegiality.

Keywords: ambulance; care; personnel; team
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Free Papers Theme 2: Public Health-1

Use of the Incident Command System Across Three Sectors of the Healthcare System in the United States

Kristine Qureshi, RN, DNSc;[1] Kristien Gebbie, DrPH, RN;[2] Kimberly Shoaf, DrPH;[3] James Soto, BS, EMT;[4] Eric N. Gebbie, MIA;[5] Stephen S. Morse, PhD[6]

1. Adelphi University School of Nursing, Garden City, New York USA
2. Columbia University School of Nursing–Center for Health Policy, New York, New York USA
3. University of California-Los Angeles, Center for Public Health and Disasters, Los Angeles, California USA
4. New York State Department of Health, Bureau of EMS, New York, New York USA
5. State University of New York at Albany, School of Public Health, Center for Public Health Preparedness, Albany, New York USA
6. Columbia University-Mailman School of Public Health, Center for Public Health Preparedness, New York, New York USA

The Incident Command System (ICS) is used across the United States (US) as a framework for the management of emergencies and disasters. While it originated from the Fire Services of California, it was quickly adopted by the other uniformed services (police and emergency medical services). Shortly thereafter, it was adapted by the hospital sector, which refers to it as the Hospital Emergency Incident Command System (HEICS). More recently, the public health sector has taken on the task of utilizing the ICS for its emergency response operations. This adaptation is now being referred to as the Public Heath Incident Command System (PHICS). Regardless of the type of agency that uses this system, the basic principles remain the same. This presentation will provide a brief overview of the ICS as it is used in the United States. Then, a specific disaster scenario will be used to illustrate how this single system is implemented by three very different sectors of the US healthcare system, namely the prehospital, hospital, and public health sectors.

Keywords: hospital emergency and incident command system (HEICS); incident command system (ICS); preparedness; public health incident command system (PHICS)
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Reverse Triage: Criteria for Immediate Inpatient Disposition for Creation of Hospital Surge Capacity

G.D. Kelen
Johns Hopkins Office of Critical Event Preparedness and Response, Baltimore, Maryland USA

Background: The ability to care for a sudden volume of patients during a significant bio-threat or other disaster has been a significant focus for healthcare systems since the attacks in New York City on 11 September 2001. History has shown that during disasters and epidemiological outbreaks, hospitals bear the brunt of caring for the sick and injured. In most hospitals, inpatient capacity is constrained on a daily basis. Thus, hospitals are as concerned with maintaining inpatient capacity as augmenting resource capabilities during surge needs. Risk-based criteria were developed that, in the event of an overwhelming disaster, allow predesignated classification of patients' suitability for immediate discharge or for transfer to an appropriate level of care.

Methods: Using evidence-based techniques combined with expert panel (EP) consensus, a War Analysis Laboratory Exercise (WALEX) was hosted in the Spring of 2004. Following literature/data gathering and evaluation, 39 expert panelists (EPs) were assembled for an 8-hour WALEX. The EPs included: (1) experienced practitioners and nurses representing a wide variety of medical fields; (2) experts in disaster management, triage, risk management, hospital administration, social work, medical law, medical ethics, patient safety; and (3) local, state, and federal government experts in public health preparedness, homeland security, and emergency medical services. Following presentations on disaster management, risk stratification, and surge capacity, the EPs were asked to: (1) determine a Disposition Classification System (DCS) for discharge/transfer, based on tolerance of risk of adverse events (AEs) within the first 72 hours following potential discharge; and (2) propose prognostic indicators (clinical variables) most predictive of AEs to use in a tool for real-time prospective risk classification of patients. An adverse event was defined as the need for a critical interven-

tion (cardiopulmonary resuscitation (CPR), thrombolytics, transfusion, intravenous medication).

Results: Category definitions of the developed DCS and the mean upper tolerance of AE risks were to develop a prognostic tool for real-time patient classification. Specific clinical variables (current vital signs, working diagnoses, co-morbidities, key laboratory results, functional status) were weighted and rank ordered by EPs for likelihood of predicting an AE within 72 hours of disposition. Details of these rankings will be presented.

Conclusion: The DCS, based on risk tolerance of AEs, allows conceptual classification of inpatients for safe disposition, allowing hospital capacity to be used for acutely ill or injured patients in a disaster.

Rank	Definition	Mean Upper Risk Tolerance of AE
1	*Minimal Risk of AE*: Suitable for Discharge Home	<4%
2	*Low Risk of AE*: Transfer to Low Acuity Facility	4–12%
3	*Moderate Risk of AE*: Transfer to Facility to Moderate Capabilities	13–33%
4	*Significant Risk of AE*: Transfer to Major Acute Care Facility Only	34–60%
5	*High Risk of AE*: Keep or Transfer to ICU Setting Only	>61%

Table 1—Category definitions of the Disposition of Classification System (DCS) developed by the expert panels (AE = adverse event; ICU = intensive care unit)

Keywords: adverse event; definition; disposition of classification system (DCS); expert panels; hospital; triage
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The Australian Capital Territory (ACT) General Practice Biothreat Preparedness Survey

A. Geysen;[1] A. Herceg;[2] C. Guest;[3] R. Bialkowski[1]
1. ACT Division of General Practice, Australia
2. Australasian Faculty of Public Health Medicine, Australia
3. ACT Health, Australia

In 2003, an outbreak of severe acute respiratory syndrome (SARS), a newly emerged infectious disease, caused a global public health emergency. In Australia, the response to SARS included specific guidelines for general practitioners (GPs). These guidelines covered patient screening, infection control procedures, and specifications regarding equipment availability.

In late 2003 and early 2004, the ACT Division of General Practice and the ACT Health (the Territory's Health Authority) conducted two concurrent, anonymous, self-completion, postal surveys of all ACT GPs. The surveys were designed to identify knowledge, attitudes, and practices of GPs around SARS and biothreat preparedness. One survey asked individual GPs questions about: (1) how they gathered information on SARS in 2003; (2) how they prefer to receive information; (3) their current practices; and (4) how they perceived the threat of SARS and other infectious agents. The second survey asked practice principals: (1) how they organized their general practice to respond to the SARS threat in 2003; (2) about any difficulties they had while implementing this response; (3) about the use of guidelines; and (4) about their current policies.

The response rate for the GP survey was 48% (184 of 381), and the response rate for the practice survey was 54% (74 of 136). Some issues raised by the survey will be discussed, as well as the ensuing recommendations. These issues included rapid communication with GPs in a public health emergency, application of guidelines in the general practice setting, occupational health and safety, continuing professional development, and GP involvement in planning for future outbreaks or public health emergencies. It is hoped that information obtained through these surveys will help the ACT and other parts of Australia improve future responses to emerging infectious disease threats.

Keywords: Australia; biothreat; general practitioners (GPs); guidelines; preparedness; severe acute respiratory syndrome (SARS); survey
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A Public Health and Disaster Mitigation Model: Case Studies from Ecuador

L. Whiteford; G. Tobin; T. Mason
Global Center for Disaster Management and Humanitarian Action, Tampa, Florida USA

Based on five years of multidisciplinary health and social science research, the following model of Chronic Exposures Health and Hazards (CEHH) was developed. The CEHH model is a schematic presentation of multifactorial variables important to the design of health disaster mitigation strategies. Using this model, public health policies and programs can be designed to reduce health consequences of acute and chronic disasters. Disasters have long-term debilitating impacts on society, which can be manifested in higher levels of contagious/communicable diseases, increased vulnerability, early death, decreased social capital, and economic stress. Mitigating such impacts will limit human vulnerability and enhance various social, economic, and political characteristics, such as personal relationships, social contacts, shared interest groups, and other community-building and public health activities.

Since 1999, an international team composed of physicians, epidemiologists, public health professionals, and applied social scientists, collaborated to investigate the effects of ongoing exposure to volcanic risk. Research was undertaken in communities located on Mount Tungurahua, Ecuador, an active volcano that has been depositing ash over the surrounding landscape for the last five years. The research used a multi-dimensional, integrated model of relationships among different health outcome measures, as assessed through structured questionnaires and in-depth ethnographic studies of local residents, interviews with public health officials and political leaders, and evaluations of regional epidemiological and clinical records.

The results of the CEHH model suggest public health interventions in four areas: (1) integrated disaster planning to include a locally-based focus, extensive local community