

The presentation also contains proposals for action in view of ensuring further developments in this field.

Keywords: citizens; disaster; emergency; Europe; telecommunications
Prehosp Disast Med 2007;22(2):s55–s56

Evidence-Based Triage—Increasing Survivability without Playing God

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Session Description: This presentation will take an in-depth look at disaster and multiple casualty triage systems. Historical models have subsequent failures failure to heed poor resource allocation and ignoring the Prime Directive of emergency medical services (EMS): Do no harm! New research has demonstrated simple methods to overcome these and other challenges which will reduce the chaos, maximize the number of survivors, and minimize or prevent wasted resources.

Learning Objectives: The objectives of this study: (1) contrast current triage methodology against current practice; (2) define the immediate, intermediate, and long term goals of triage; (3) establish the correlation between triage response and public health concerns; (4) describe an evidence-based triage system; and (5) explain the benefits of this model versus other models; and (6) discuss the benefits to the EMS system, including increased numbers of lives saved.

Keywords: evidence; evidence-based; survivability

Prehosp Disast Med 2007;22(2):s56

Rationing Resources: Ethical Issues in Disaster and Epidemic Situations

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In an epidemic situation or large scale disaster, medical and human resources may be stretched to the point of exhaustion. The current concern over a pandemic influenza crisis has every country in the world reviewing plans of action that would minimize public health morbidity and mortality as well as maximize the appropriate use of medical and human healthcare resources.

A major medical resource concern is the limited number of mechanical ventilators believed to be needed, should a pandemic influenza occur. Recent reported cases of avian influenza suggest that mechanical ventilation will be required for successful recovery of individuals ill with this strain of virus. However, should the need for ventilators exceed the available machines, how will care providers make the difficult, ethical decisions as to who should be placed, or remain, on these machines as more influenza patients arrive in need of help? Is there an ethical decision-making model that can assist providers in making the difficult choices they will most surely be called upon to make as limited resources must be used in ways that will be most beneficial?

We will present a decision-making model for clinicians that is based upon the bioethical principles of beneficence and justice. Our model begins with the basic assumptions of triage and progresses into a useful algorithm based upon utilitarian principles. Without such a model to guide clinicians, allocation of scarce resources may not be done in a just manner.

Keywords: epidemic; morbidity; mortality; resource; ventilators

Prehosp Disast Med 2007;22(2):s56

A Roadmap for Protection of Participants Mental Health during Disaster Research after the 2001 World Trade Center Event

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Post-disaster research has the potential to re-victimize survivors. A roadmap was developed and tested to assure the protection of participants during the qualitative phase of a multi-phase study of World Trade Center (WTC) evacuees on 11 September 2001.

To develop the model, the basic tenets of ethical human research conduct (autonomy, beneficence, non-maleficance, and distributive justice) were used as a foundation to assure the protection of study participants. Then, expanded areas of human subject protection were identified in the literature and mapped to these tenets. Finally, specific procedures and strategies were identified to address each of the tenets and expanded areas. Strategies included: (1) the use of legal counsel and the IRB to develop consent procedures including information about psychological risk; (2) inter-agency coordination for WTC research to assure a worthwhile study and eliminate over-recruitment of participants; (3) use of a Data Safety Monitoring Board; (4) strict delimitations to exclude the psychologically fragile; (5) the inclusion of mental health clinicians on the study team; (6) rigorous study team training; (7) pre-establishment of mental health support for participants including an on-call psychiatrist and psychiatric emergency department referral agreement; (8) pre/post study participation post-traumatic stress screening (PTSS); (9) researcher debriefing; and (10) a Community Advisory Board for the study.

To test the model, pre/post study PTSS screening scores were compared (possible range of 1–5). The mean pre-PTSS score was 2.05 (SD = 0.84). It was 1.97 (SD = 0.82) directly following participation, and 1.80 (SD = 0.79) two weeks after participation. A paired samples *t*-test indicates significantly lower PTSS scores after participation ($t(46) = -2.82, p < 0.01$).

Keywords: human research; post-traumatic stress; psychology; research model; World Trade Center

Prehosp Disast Med 2007;22(2):s56