

prehospital medicine should be acquainted with the complications of the MI and their management.

Keywords: arrhythmias; emergency; myocardial infarction; prehospital medicine

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(158) Modeling Multidimensional Networking as a Braided Cascade for Medical Capacity Sharing during Disasters

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Introduction: The “chain concept” in medical treatment resembles an automobile assembly line. It improves overall coordination and bottleneck management. In emergency and disaster medicine, however, this concept lacks both efficiency and flexibility. For obvious reasons, demand can only be forecasted and met here in terms of probability. Modern logistics provide the “network concept” in which passengers, containers, information packets, etc. are being routed using the online fastest path calculation. Is this concept feasible in emergency and disaster medicine as well?

Methods: Amsterdam hospitals started simulation modeling, for trauma department routing and inter-hospital routing in 2002. This year, students from the Amsterdam School of Technology modeled a combination of inter- and intra-hospital networking, using ED graphical simulation software for fastest path calculation.

Results: The study showed a significant improvement in both speed and efficiency, under three conditions: (1) online capacity information availability; (2) sufficient transport capacity; and (3) cooperative attitude.

Conclusions: The development and testing of network simulation models, such as the cascade model, will contribute to the understanding, and hence improvements of patient flow in emergency and disaster medicine. Development towards professional gaming can reduce disaster drill costs. Discussion is needed to learn more about views on the socio-organizational aspects.

Keywords: hospital; management; model; multidimensional network; simulation

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Oral Presentations—Theme 10: Nursing and Paramedic Issues

Session 1

Chairs: TBA

The Global Status of Nursing Research in Emergency Planning and Response

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Issues of nursing/midwifery research in emergency planning and response often lag behind exploration of other,

more easily identifiable concerns. The purpose of this presentation is to describe the global status of nursing research in the area of emergency planning and response.

An increased emphasis on mass-casualty education led to the development of the International Nursing Coalition for Mass Casualty Education (INCMCE). Hosted by Vanderbilt University, the INCMCE has met annually with funding from the US Department of Health and Human Services. This presentation is based on reports from the research subgroup of the INCMCE over the last three years, as well as an invitational consultation at the World Health Organization (WHO) held in November of 2006 at their Geneva headquarters.

Recommendations for nursing research include the: (1) design and implementation of a knowledge repository available through the Internet; (2) identification of focused research areas; (3) development of a tool for use in the field during and following emergencies; (4) promotion of funding for research in the priority areas; (5) support of a network for nurses who research emergency planning and response; (6) development of policy guidelines that would influence the nursing and midwifery research globally; and (7) consideration of the Utstein Style (as endorsed by the World Association of Disaster and Emergency Medicine (WADEM)) as a standardized framework for evaluation and research.

Nurses play an important role in successful emergency planning and response. Their contributions can be strengthened through an implementation of a global research agenda.

Keywords: global research; midwives; nurses; nursing research; planning and response

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Ambulance Crew Work: An International, Qualitative Examination of Work Flow and Patient Care

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Popular conceptions of prehospital emergency medical response conjure up images of ambulances with sirens screaming, speeding to patients with acute, life-threatening conditions. Once at the patient's side, ambulance staff perform heroic, life-saving procedures. This research looks behind such popular images and examines the day-to-day work of ambulance crews.

The first phase of this research project examines the delivery of prehospital emergency medical care of several ambulance services in the United States and United Kingdom. A social science researcher accompanied ambulance crews throughout their shifts, paying close attention to work activities, work flow, the needs and expectations of patients, and the place of prehospital care within a larger healthcare infrastructure. Ambulance crews are providing patients with chronic conditions, multiple conditions, and limited access to health care with care and entry into the healthcare system. There is a growing disconnect between the traditional focus of ambulance services (life-saving, acute care need) and the current needs of patients and care-