

Pandemics: Planning—Emergency Medical Services Perspective

Chairs: Frank Archer; R. Coutinho

Pandemic Influenza: Australian Paramedic Risk Perception Study

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As front-line health professionals, paramedics will be among the first members of the health community to face exposure during a pandemic event. In Australia, the pre-hospital workforce has had little experience in working in infectious environments such as an influenza pandemic. Currently, there are limited published studies on the perceptions of the prehospital workforce on pre-event risk, in particular, of paramedics and their partners. A collaborative national and international team led by the Australian Centre for Pre-hospital Research commenced a national study of paramedics and their partners to examine these perceptions. The results of this research will be directed toward the development of responsive health and infection control messages for paramedics and their families. Preliminary analyses highlight some important messages for the prehospital community. These messages include that among paramedics, high risk perception is associated with less confidence in the provision of adequate strategies by employers to protect them from exposure, and higher likelihood of being unwilling to work during pandemic conditions. However, knowledge about avian influenza and/or human pandemic influenza does not appear to be associated with employer confidence, levels of concern, or willingness to work in pandemic conditions (OR = 1.91; 95% CI = 1.1–3.3). Paramedics report that the information most likely to mitigate their level of perceived risk relates to the confidence in their Personal Protective Equipment and intra/inter-organization communications and alert systems. The results of this study will be described in detail and an analysis will be provided of the strategies that are in place in the Australian emergency prehospital services to respond to these messages.

Keywords: Australia; pandemic; paramedics; perceived risks; prehospital
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Ambulance Call-Taking and Dispatch Data: New Approaches to Population-Based, Infectious Disease Surveillance and Triage

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In Australia, traditional strategies for infectious disease surveillance are based on data reported from Emergency Departments and General Practice and Locum Services. To date, little attention has been paid to the potential utility of emergency prehospital call taking and dispatch data to contribute to infectious disease surveillance. In early 2006, a collaborative national and international team led by the Australian Centre for Pre-hospital Research, commenced a national study of paramedics and their partners to examine the perceptions and expectations of these groups to working and living in pandemic conditions and to examine the utility of ambulance call taking and dispatch data to inform population-based models for surveillance and triage. Using data secured from the Melbourne Ambulance Service and the Queensland Ambulance Service, researchers mapped the ability of these data to mirror data provided by the Victorian Infectious Disease Reference Laboratory on influenza-like illness (ILI). The results demonstrate the potential utility of using emergency prehospital data to complement existing infectious disease surveillance systems. In addition, these results provide a platform for the development and testing of a model of syndromic surveillance at the point of call-taking. The results from this study will be described and the importance of emergency prehospital data to public health applications will be demonstrated.

Keywords: call system; dispatch; pandemic; paramedic; prehospital; surveillance

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Session 6: New Horizons and Evaluation

Chairs: TBA

Two-Year Experience (2005–2006) in Improving Clinical Services in West Aceh after the 2004 Tsunami

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On the fifth day after the Tsunami struck Aceh Province, a medical rescue team formed as a joint collaboration between Gadjah Mada University and Sardjito Hospital arrived in Meulaboh, the second largest city in Aceh Province. Their mission was to restore services at the Cut

Nyak Dhen Hospital in Meulaboh city, which had functionally collapsed. In the following weeks, a technical team from the Department of Public Health at Gadjah Mada University arrived in Banda Aceh and supported Zainul Arifin Hospital in management assistance. Based on the plan proposed by those two teams, a recovery and development programs were arranged.

Observational evaluation of one component of the Clinical Services Program, i.e. establishing better Disaster and Medical Emergency Services was performed during 2005–2006.

Observed results of the Clinical Services Program include (1) recovery of emergency services in the Emergency Department and Operating theatre within the first week after the Tsunami; (2) improvement of response time and an increase in the number of emergency patients served; (3) establishment of an Emergency System in the form of a day-to-day ambulance services network; and (4) development of capability of setting up a Medical Rescue Team for Disaster relief.

The recovery and development program was effective and its goals were achieved, although it continues to depend on external aid. The program should be continued with the goal of achieving reliance on local resources rather than external aid.

Keywords: Aceh Health Reconstruction; Disaster Relief Program; emergency system; Gadjah Mada University; Sardjito Hospital; hospital management

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Poster Presentations—Theme 3: Emergency Medical Services (EMS) Systems

(45) 2005 Belleview and Sosoliso Air-Crash in Nigeria

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Introduction: Aviation history in Nigeria began in 1925 when the first airplane was said to have landed in Lagos, Nigeria. The growth of the aviation industry in Nigeria has led to a concomitant rise in aviation catastrophes. Since 20 November 1969, when the first fatal aviation mishap occurred, Nigeria has experienced 48 serious air crashes. Of notable memory are the ADC Boeing 727 plane crash (07 November 1996) at Ejinrin in Lagos and, more recently, the October 2005 Bellview air crash that took place in Ogun State and the December 2005 Sosoliso air crash at Port-Harcourt.

Methods: The various aviation crashes in Nigeria and repeated lapses in the management of each event are analyzed. Documented lapses from this investigation include: (1) obsolete communication equipment; (2) epileptic or non-functional radar; (3) and old and poorly maintained aircrafts with prolonged delays in responding to distress calls.

Results: The results confirmed that air crashes in Nigeria are characterized by similar lapses with no evidence of lessons learned or innovation to either mitigate against damage from such events or to improve rescue of such victims.

There is clear evidence of buck-passing from one agency to another responsible for the management of such events.

Conclusions: This presentation highlights the deficiencies in the Nigerian aviation sector with particular emphasis on the most recent air crashes and provides positive suggestions to remedy these abnormalities, with the intent of making air travel safer for all.

Keywords: aviation crashes; disaster; lessons learned; Nigeria; responses

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(46) Lessons from the Peripheries: The Role of Small Mobile Medical Teams in the Pakistan and Indonesian Earthquakes

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Nations affected by the Pakistan and Indonesian Earthquakes sought international assistance to help with the overwhelming number of casualties. Medical communities responded world-wide, resulting in the rapid proliferation and influx of medical relief teams during the acute (<72 hours) and post-acute phases. Most medical teams were deployed in centralized medical clinics or hospitals. The experiences of a Singaporean medical relief team during the post-acute phase of the Earthquakes are described in this presentation. The Singaporean team was deployed in the more inaccessible mountainous regions in Pakistan and rural villages in Indonesia. The team was comprised of small, highly mobile medical units consisting of 1–2 doctors assisted by a small number of paramedical and ancillary staff. Patients requiring medical attention were found during household visits. The patients treated had the following characteristics: (1) incapacitated by recent injuries or loss of care-givers, preventing access to more centralized medical facilities for treatment and follow-up; (2) incomplete recovery with early discharge due to lack of tertiary-care or hospital overcrowding; and (3) prior treatment by passing international medical teams with no follow-up care. Patients who required urgent or more advanced medical care were referred to appropriate medical centers. To allow for continuity of care, patients who required follow-up treatment were introduced to other healthcare groups and local administrators. Such mobile medical units could also perform outfield reviews of known patients if circumstances prevented their access to medical facilities. Coordination between the local and international, the centralized and mobile medical groups was of paramount importance.

Keywords: coordination; earthquakes; international medical response; Singapore

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