

(P2-17) “Burning Valentine,” a Simulated Evacuation Exercise of a Burn Unit (BU)*E.L. Dhondt, T. Peeters, L. Orlans*

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Background: According to the Belgian Hospital Disaster Planning Act, all hospitals are required to have written disaster plans and to routinely conduct annual disaster drills. In 2010, the management of the Military Hospital decided to organize an evacuation exercise of the newly built 24-bed BU.

Aim: To evaluate this new BU's evacuation plan and drills and the overall hospital emergency incident response and command system.

Methods and Results: It was decided to conduct a simulated evacuation exercise following an internal fire, before the BU effectively was put into use, thereby deploying fashioned simulated patients and visitors but bringing into action the regular attending medical, nursing and logistic staff. A multidisciplinary design and organizing team was launched, consisting of the hospitals disaster preparedness coordinator, the EMS-staff, external burn care, emergency incident management and operational engineering experts. The appointed objectives for evaluation were the knowledge of the regular evacuation drills, especially the clearance of an intensive care room; access to evacuation routes; visibility of safety guidelines; mission and tasks of the hospital's first response team and the medical incident manager; communication and information flow and the establishment of the hospital's coordination committee. In the mean time and following lessons learned, a number of mitigation measures have been instituted: adequate identification of evacuated rooms, new configuration of the fire detection alarm, optimized access to stairwells and elevators, adjustment of action cards and specific fire fighting training for hospital staff. Finally the decision was made not to purchase specific evacuation equipment for the movement of patients.

Conclusion: Taking advantage of the BU's provisional vacancy, a simulated hospital evacuation exercise increased the hospital emergency preparedness, awareness and response to disasters within the hospital, in particular in a critical care department, otherwise difficult to assess.

Prehosp Disaster Med 2011;26(Suppl. 1):s141
doi:10.1017/S1049023X11004614

(P2-18) ICU Surge Capacity in Australian Major Trauma Centres*O.M. Rigby*

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Introduction: Mass casualty incidents (MCIs), requiring Trauma critical care, are increasingly likely. The ability to scale operations up i.e. 'surge capacity', is vital for ensuring scarce resources are used efficiently. The number of intensive care unit (ICU) beds is one of the key resources and indicators of a hospital's capacity and thus a vital area to target when assessing a systems ability to surge its Trauma ICU capabilities.

Objective: The study attempted to assess whether ICU facilities at major hospitals in large Australian cities would be able to respond to an event on the magnitude of the Madrid tragedy. This is the first report to measure Australia's major hospitals

intensive care trauma surge capacity using Madrid as a standard. **Methods:** In this prospective, cross-sectional analysis, we conducted a survey of major urban ICU trauma centres in the 8 state and Territory Capital cities of Australia. 14 Trauma Centre ICU's were targeted. The study was composed of two parts, A & B. Part A of the study consisted of an online survey, Part B, consisted of a follow-up telephone questionnaire. Full Ethics approval was sought and obtained.

Results: There were 8 replies to the survey giving a 57% participation rate. At the time of this snap-shot survey the total number of Physically available ICU beds throughout the 8 Level I trauma centres was 52.5. All hospitals had at least 3 spare beds. This ranged from 3 to 10 beds. After accounting for the flux in beds post admissions & discharges there was a 21% increase in bed availability, which was further increased by a magnitude of 28% to an average of 10.125 beds, if all elective surgical procedures were cancelled. When using the Madrid ICU surge (29 new ICU patients) as a gold standard against which to compare, it was found the largest trauma ICU in Australia could have managed 62% of this surge. On average the 8 trauma centres would have handled only 34.75% of the Madrid ICU surge.

Conclusions: In the event of a major traumatic disaster on the scale of the Madrid atrocity, few if any of Australia's major trauma centres have the capacity to cope with the requisite surge. More research and novel ways of addressing this challenge are needed.

Prehosp Disaster Med 2011;26(Suppl. 1):s141
doi:10.1017/S1049023X11004626

(P2-19) A Modular Portable Emergency Department Expansion Setup, Experience during the H1N1 Pandemic*C.M. Little, B. Evans, M. Yaron*

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The recent H1N1 pandemic presented severe challenges to many emergency departments (ED). At our institution it caused overcapacity issues with increasing length of stay and increasing patients leaving before treatment. The emergency department space at the hospital was already fully used including hallway beds. Other clinical space could not be taken for ED expansion, as it was also maximally used.

Methods: Portable mobile ED expansion modules were developed consisting of ED supply carts, pharmacy items and a wireless ED information system (EDIS) integrated with computers on wheels. This EDIS provided internet access from anywhere in the hospital, enabling access to clinical databases, order entry for testing, medications and discharge instructions, providing full operability of ED functions. This complete assembly can be stored in a small storage area. The H1N1 pandemic allowed for practical testing of this system. This system was deployed to a nearby hospital clinic that closed at 5 pm. The expansion module operated from 6pm to 10pm staffed with two providers. Data was compared between days when the surge clinic was in operation and days it was not. Data was collected on patients seen and left without being seen rates.

Results: During the trial period of 9 days, 1323 patients were seen in the ED and 112 were seen in the modular clinic setting, representing 8.5% of the total ED volume. No technical problems were noted and the system worked as designed. We