(P2-14) Support System for Medical Command and Control at Major Incidents

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Introduction: Communication and information are cornerstones of management during major incidents and disasters. To support medical command and control, the Web-based support system called Paratus Major Incident can be used. The Paratus Major Incident system can provide management staff with online information from the incident area, and support management and patient handling at both single and mass-casualty incidents. The purpose of the Web-based information technology (IT) system is to ensure communication and information between the medical management at the scene, hospital management, and regional medical command and control (gold level).
Experiences: In the region of Östergötland, Sweden, Paratus Major Incident system is used in operating topics such as: (1) information dissemination from the incident area; (2) communication between prehospital, regional, and hospital management; (3) continuous updates between the dispatch centre and medical commanders at all levels; (4) digital log-files for medical management and patient records; (4) database used for follow-up studies and quality control.
Results: During 2,161 incidents, 746 "first incident reports" from ambulance on scene were sent to regional medical command and control within 2 minutes. Four hundred and fifty-six "verification reports" were sent within 10 minutes. During 15 incidents, the designated duty officer on regional level confirmed "major incident" directly via the digital system, thereby notifying all arriving ambulance resources and involved medical managements.
Conclusion: This Web-based IT system successfully has been used daily within prehospital management since 2005. The system includes medical command and control at the regional level and all involved hospitals in a major incident.
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(P2-15) Problems of Permanent Threat of Impact on Persons Authorized as Drivers

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Introduction: People using public transportation have to put their health and even their lives in the hands of personnel authorized to drive the vehicles. But, organizers are taking unprecedented measures to protect transportation from diverse threats. However, there is often overwhelming evidence of the weak effectiveness of pertinent measures.
Method: There is a permanent threat of possible physical and/or psychological impact on persons authorized as drivers, which leads to a possible threat to the health and lives of others. Such events can be divided into two groups: (1) pre-driving; and (2) in-driving. Anthropogenic impacts while pre-driving and in-driving periods stimulate feelings of fear, which comprises different components.
Results: In the pre-driving group, drivers face overwhelming mental health impacts. This includes fear for their lives and health, fear of responsibility for family, friends, and passengers. In the in-driving group, the variation of physical and mental impacts determines the addition of fears of other categories.
Conclusion: Integrated sensors for measuring levels of blood pressure, sweating, heart rate, respiratory rate, and changes in the retina of the eye should be implemented. This hardware and software should process information about drivers. They would provide instant alerts on changes in the indicators.
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(P2-16) Study to Assess the Cost Effectiveness of Re-Use of Expensive Disposable Items in a Neurosurgery Intensive Care Unit

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Background: Certain disposable items such as Percutaneous Tracheostomy (PT) sets and intracranial pressure (ICP) monitoring sets are expensive and a major drain on resources of public funded hospitals.
Aims: To assess the use and cost-effectiveness of reusing expensive disposables (PT& ICP sensor) in a neurosurgery intensive care unit (ICU). Another objective was to assess the importance of bedside Tracheostomy and ICP insertion in an ICU rather than in OT.
Methods: An observational, retro-prospective study was done from January 2008 to November 2010 in the neurosurgical department of JPN Apex Trauma Center. Retrospective data on surgeries performed in Neurosurgery OT were taken for the year 2008 and following introduction of PT and bedside ICP monitoring sets in ICU, prospective data were collected from November 2009 in the neurosurgery ICU. Each set was tagged according to number of times used. A procedure book was maintained, in which each case along with the set used was mentioned.
Results: Of the 1209 surgeries performed in the neurosurgical OT in 2008–2009, 257 were minor procedures (238 open tracheostomy and 19 ICP transducer placements). In 2009–10, 236 percutaneous tracheostomies were performed in the ICU. Of these, 79 (33.4%) were new and 157 (66.5%) were re-used sets. The cost of a new PT set is Rs 15,000. With re-use, the average price per set came down to Rs 5,033. In the same period, 231 disposable ICP transducers were placed with an average of 19 cases per month (range 5–28). Of these, 142 (61%) were new ICP sets and 97 (42%) were ethylene oxide (ETO) sterilized. The cost of new ICP set is Rs 35,000. With re-use, the average price per set came down to Rs 21,515.
Conclusion: Nearly 40% of minor procedures are now excluded from the Neurosurgery OT statistics, as they are being performed in the ICU. This study shows that expensive disposable items can be re-used effectively, bringing immense cost savings to hospitals.
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