

operational safety have been emphasized. But the research about emergency medical system for patients occurring in the high speed train and stations is insufficient. So author analyzed the project on development of emergency medical system for cardiac arrest in the high speed train and stations.

**Methods:** The project on development of emergency medical system for cardiac arrest in the high speed train and stations was analyzed retrospectively and the real situation was confirmed by interviewing the staffs and visiting the high speed train and stations. The education on both basic life support and PAD (public access defibrillation) for staff of the high speed train and stations was analyzed. Simulation was performed for adequate distribution and arrangement of AEDs (automatic external defibrillators) in the high speed train and stations.

**Results:** The education on both basic life support and PAD (public access defibrillation) for staff of the high speed train and stations was performed to 1323 persons from October 2008 to June 2009. Total 51 AEDs were arranged in 6 stations and 87 AEDs were arranged in the high speed train. One AEDs were arranged for successive 6 passenger car in a train. Public education by repeated video playing in the high speed train was started.

**Conclusions:** The emergency medical system for cardiac arrest in the high speed train and stations was developed by training staffs and arranging AEDs initially. The next step will be developing the disaster medical system in the high speed train.

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#### (A174) Epidemiology, Seasonality, and Geo-Distribution of Trap Gun Injuries in Anuradhapura Area

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A trap gun (TG) is a locally manufactured, illegal barreled weapon with a simple trigger mechanism. Trap guns are frequent in agricultural areas of the country. Once the gun is set, it bursts automatically upon the triggering. Since there is no present person selecting the target, the gun injures both animals and humans. A retrospective study was carried out to identify geo-spatial distribution, seasonal variation and injury patterns of TG injuries brought to Teaching Hospital Anuradhapura during 2007 to 2009. A prospective study will identify those in a more detailed manner. The abstract discusses some findings of this ongoing study and the retrospective study. In 2007 there were 107 TG injuries, and 68 in 2008. In 2009 the number increased to 126. Of the victims, 97.5% were males. The mean age was 36.98 years (SD = 11.36), with an age range of 13–69 years and an Inter Quartile Range (IQR) of 29–43 years. The majority of the injuries were lower limb injuries. A significant percentage showed compound fractures and soft tissue injuries. Amputations due to vascular injuries were low (1.5%). Of the cases, 99.5% were from peripheral rural villages. Tap gun injuries are less common during the “Yala” farming season extending from May to September, during which Anuradhapura gets less rain. Yet number of TG victims steadily increases as the “Yala” progresses. This trend continues during the initial half of “Maha” season. It gradually decreases in the latter part of “Maha”. Trap gun injuries remain below average from February

to July with the lowest number in April. The incidence of TG injuries is higher in Northwesterly administrative areas throughout the year, which share a common border with the “Wilpattu” game reserve. Further studies should be carried out to identify behavioral and socio-economical risks and economics of TG injuries.

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#### (A175) Traffic Injury Severity Prediction by Algorithm of Automatic Crash Notification System

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**Introduction:** Since 2009 automatic crash notification system (ACNS) using event data recorder (EDR) and mobile communication have been developed for early detection of traffic accident and prediction of physical injury of victims for increase of survival rate via early medical treatment. For adequate prediction of injury, authors developed the guideline and algorithm from parameters related to accident and medical situation. **Methods:** Expert survey was done about the adequate parameters related to accident and medical situation. Medical record of traffic accident admission was analyzed in a trauma center of a university hospital in Seoul, Korea. Additionally epidemiology of traffic accident death in a region was done. Afterwards data of medical record was linked to data of traffic accident insurance companies.

**Results:** The important parameters for prediction of physical injury of victims were as follows: Intercept,  $\Delta t$ , belt, age, intrus, sex, multiple, roll, ejection, narrow, height, weight, steering defect, track loc.

**Conclusions:** Prediction of physical injury severity of victims on traffic accident spot and immediate transfer of related information to adequate medical institution by automatic mobile communication can help the traffic accident victims and upgrade the trauma care system of traffic accident.

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#### (A176) Mechanical Ventilation in Disasters: “To Intubate or Not to Intubate – That is the Question!”

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The provision of mechanical ventilatory support for large numbers of casualties in disasters is a complex, controversial issue. Some experts consider this modality unsuitable for large disasters and a waste of resources better devoted to eminently salvageable victims. However, the reality has usually been that rescue teams bring with them some ventilatory capability, even if only for perioperative support. Also, there are many instances when the environment, the existing and potential capacities, allow for significant numbers of victims to be saved by providing artificial ventilation, that would otherwise have likely died. It is therefore important to discuss the issue, with all its complexity, so that the disaster preparedness and relief community fully understands its implications and makes informed, locally relevant decisions before and after disasters strike. The purpose of this presentation