ABSTRACT

Background:

Road Traffic Accidents are a leading a cause of death, hospitalization and disability throughout the world, accounting for 9% of all deaths and 16% of the burden of disability annually. Sri Lanka reported morbidity of 16.1% and a morality rate of 4% resulting from RTAs in 2007.The mortality rate subsequent to RTA reported in 2014 amounted to 6.75% indicating an increase of 68.75% during the 7 year period.

Expedient transport of RTA victims to major trauma centers facilitates treatment and reduce mortality and morbidity. However there are considerable gaps in the knowledge on the mode of transport, pre-hospital and first aid care and the association between the mode of transport and impact of RTA among patients brought to the accident and orthopedic service of the major trauma centers of Sri Lanka.

Objectives:

To assess the mode of transport, type of injury, extent of injury, impact, and associated factors of safe patient transport following RTA's at the accident service of NHSL.
To evaluate the mode of transport and associated factors on the injury severity score of the patient as gathered by secondary data.

Method

A descriptive cross sectional study was conducted among patients attending the accident and emergency service of the National Hospital of Sri Lanka. Simple random sampling was used as the sampling technique. A pretested self –administered questionnaire was used to collect data. Data collection was performed by the principal investigator by meeting and inviting the patients or in case the patient being unable to provide adequate answers by inviting the bystanders.

Data was analyzed by a computer using Statistical Package for Surveys and Solutions (IBM SPSS) version 15.0 package. Injury severity score obtained for each patient was cross analyzed to assess their association with selected factors. For description of variables descriptive statistics was used. A probability value of < 0.05 was considered as significant.

Results

From the respondents 84% (n=281) of the patients were below the age of 40 years and 69% (n=231) of patients were between the ages of 21-40 years. There were preponderance of male patients and most of the patients were daily wage earners.

58% (n=195) of patients were transferred to the hospital in three wheelers compared to 33%(n =111) of patients in four-wheelers.61% (n= 188) of the RTAs involved two wheelers while 30% (n=92) involved three wheelers. Patients receiving ore hospital care were 6% (n=20) During intra and inter hospital transfer there were skilled medical or nursing attendance in 40% (n=134) of instances and 38% (n=128) of patients received care while in the ambulance. Limb injuries amounted to 53% (n=178) of injuries.38% (n=74) of victims transported to the hospital in three-wheelers reported an injury severity score of 21 or more compared to 12% (n=13) of patients transported in four wheeler vehicles.

Conclusion

The mode of transport to hospitals and pre hospital care were found to be below desired levels with majority of patents being transported in a relatively unsafe mode i.e. three-wheelers. Pre hospital care received during intra hospital and inter hospital transfer is inadequate. A significant increase in the injury severity score of patients transported in three wheelers were observed.

Recommendations.

Strict implementation of rules of safe road use is recommended. Increasing knowledge, attitude and practice of safe road use among all strata of road users is highly desirable given the high morbidity and mortality incurred by road traffic accidents. A government sponsored ambulance service would be beneficial if implemented since there was a significant increases in the injury severity score among patients transported to the NHSL in three wheelers as compared to four wheeler vehicles. The prehospital care, care received in the ambulance during intra and inter hospital transport was found to be inadequate. Measures need to be undertaken to increase the knowledge attitude and practice among all strata of road users in pre hospital care (first aid) and safe transportation of patients. The study recommends ambulance staff to be trained in prehospital care and safe transportation of patients.

Since baseline data as to the injury severity score of the patients who participated in this research was not available this study recommends that further studies should be conducted cross analyzing injury severity score prior and after transportation to the hospital.

Key words.

Safe transportation, Pre hospital care, Injury severity score, Transport mode.