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Towards a mature trauma system in Sri Lanka

Editorial

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The publication of the Sri Lanka Journal of Trauma (SLJT) marks a significant milestone in the field of medical research and trauma care development in Sri Lanka. SLJT is an open access, peer-reviewed multidisciplinary publication committed to advancing the frontiers of trauma care. Published quarterly, this is the official Journal of National Trauma Secretariat of Sri Lanka (NTSSL). As a premier platform backed by the NTSSL, this journal is dedicated to fostering innovation, knowledge exchange, and the dissemination of cutting-edge research in injury prevention, trauma management and system development. We sincerely hope that these will contribute to the enhancement of current scientific knowledge and practices. We are following the best possible editorial process and practices to ensure quality and accuracy of scientific writing.

The recent history of organized trauma care in Sri Lanka can be traced back to the year 1965/66 with the establishment of the dedicated trauma center (Accident Service) at the Colombo General Hospital (currently National Hospital of Sri Lanka - NHSL). Since then trauma care has evolved rapidly in Sri Lanka. We have passed the initial stage and now looking forward towards a mature trauma care system which is on par with the best practices.

To evaluate a trauma system in a country, the World Health Organization (WHO) has published a maturity index (Table 1)¹. It has several defined domains. One of the most important domains is the prehospital trauma care. Sri Lanka is in a constant mechanism to upgrade itself in this area over several decades.²

One of the key areas in pre hospital care is the safe transfer of patients. To address the issue of safe pre hospital transport of patients, in the year 2007, the first pre hospital ambulance service was initiated in Sri Lanka with the introduction of toll free call number 110. This was by the Colombo Fire Department which is under the Colombo Municipal Council (CMC). It was a collaborative effort between CMC, Accident Service of NHSL and the Trauma Secretariat. However services were restricted to the CMC area. The turning point was the establishment of island wide, toll free pre hospital ambulance service "Suwasariya" in 2016 with the initial support from the government of India. It started with 88 ambulances and now expanded to 687 ambulances. Service is available island wide with an average response time of 8-12 minutes. There are few private ambulance operators also.

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Table 1 (1)

Prehospital Trauma Care

Level I	<ul style="list-style-type: none"> •No mapping of prehospital resources •No formal EMS, unavailability or duplication of prehospital services •No defined communication system
Level II	<ul style="list-style-type: none"> •Prehospital resources are identifiable •No coordination between public and private providers of prehospital care •No universal access number, weak links of communication
Level III	<ul style="list-style-type: none"> •Formal EMS present •Universal Access Number available •Coordination seen between various agencies for prehospital care delivery •Well defined communication
Level IV	<ul style="list-style-type: none"> •Formal EMS controlled by a lead agency •National universal access number •Legislative mechanism in place to govern EMS and allow universal coverage

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However the primary transfer of trauma patients, whether it is major-trauma or minor trauma, majority is by private vehicles, most commonly by three wheelers which are ubiquitous in Sri Lanka. This was confirmed by two studies done in Northern province in Sri Lanka and in Galle district in Southern part of Sri Lanka. These studies showed that 52.6% and 52.8% of trauma victims respectively were transferred by three wheelers. However, the major trauma and minor trauma transfer contribution by three wheelers is unclear. This calls for further studies on different modes of primary transfers including how the community utilizes the free ambulance service in trauma transfer.

Most of the times, trauma patients are transferred to the nearest health care facility irrespective of the level of care needed. After initial stabilization and care, secondary transfers occur to the next level of institution or sometimes to a centre where definitive care can be provided. All these inter hospital transfers (in the government sector in Sri Lanka) require a transfer form (health form) to be completed. Despite having one of the simplest transfer forms, studies have indicated incomplete documentations are common (10). The form being one of the basic documents in the health sector needs improvements.

In trauma care, initial stabilization and timely transfer of patients to a trauma center where appropriate level of care can be provided is crucial to improve outcomes. In Sri Lanka, as majority of trauma victims are brought to the hospital by private vehicles, it is important to have community education and training programmes on first response by public. The other is to develop and implement major trauma destination policy which ensure right patient is transferred to the right level of care facility at the right time. Real time tracking of ambulances by using GPS technologies will not only enable to develop hospital alert system but also will ensure efficient management of resources. This will facilitate central coordination of ambulance transfers. Further use of augmented reality and virtual reality technologies will enable to have a “connected ambulance” which further enhance the care of the injured and critically ill. These steps can help Sri Lanka to move to next level in the maturity index.

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