

## **i. ABSTRACT**

A descriptive cross sectional hospital based study was carried out to assess selected aspects of quality in ambulance care that transfers emergency patients to the National hospital of Sri Lanka. Facilities and equipments available in ambulances, knowledge, attitudes, skills and practices of the ambulance service staff in pre hospital care and emergency medicine, response time and causes for delays in ambulance transfers, information provided in the patient chart (transfer form), were looked in to.

Convenient sampling used to select 409 ambulances. All ambulances arrived to National hospital of Sri Lanka during the study period with an emergency patient were given chance to select into the study sample. The service staff arrived in those ambulances, 407 drivers, 675 minor employees, 15 doctors, 16 nurses and four EMTs were also recruited as study sample.

According to results of this study, among 409 ambulances 376 (91.9%) were from government hospitals. Ambulances from Colombo district showed highest arrival rate (35.5%), while no arrivals observed from Kilinochchi, Mannar, Muativu and Monaragala districts. From those 409 ambulances only 19 (4.6%) were community based ambulances which were from limited numbers of districts. The majority of the staff accompanied the patients in ambulances were minor employees (60.3%), while major medical staffing (3%) was very low (doctors, nurses and EMTs - 0.09 per ambulance).

Among facilities and equipments in ambulances majority of ambulances were equipped with very basic minimum facilities such as wheeled stretcher and warning siren. From all, 50 – 80% of ambulances were equipped with ABC fire extinguishers, portable hand lights, tool kit and warning reflectors. Most of the intravenous equipments were available only in less than 5% of ambulances.

The knowledge of ambulance major medical staff was relatively good. Some knowledge areas, staff has shown lesser knowledge compares to others. In skills also there were individual areas that had poor performance. Attitudes regarding training in pre hospital care and emergency medicine, all staff categories showed good attitudes, while attitudes of

cost in pre hospital care and out come of pre hospital care, most of the staff showed bad attitude.

Usage of personal protective equipments among the staff members vary, while relatively higher usage of gloves (53%) and face masks (45%), but other equipments such as caps and goggles rarely.

Causes for delays were assessed and some reasons were common among staff as reasons for delays (eg documentation takes much time at NHSL).

The information provided in the transfer form also showed wide variations, while some information we could find in the patient chart rarely, eg. Informed details (8.4%), telephone numbers of sending hospital (0.4%).

Conclusions from all these findings are that most of the ambulances were not equipped with even minimum required facilities to provide basic life support. The knowledge among major medical staff is better in providing pre hospital care, attitudes in some aspects showed better, while some areas showed bad attitudes, usage of PPE was not up to the required level among staff, and patient charts were also not up to the standards.

Finally recommendations were made to improve the existing community ambulance service, improve the ambulance facilities at least to cover requirements of basic life support ambulance, provide training programmes in pre hospital care to all health staff, adopting standard guidelines and rules regarding ambulance transfers, designing standard format for patient chart.