Original Article

Quality Care Ambulance Services: Rohtak in Haryana, an eye opener

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ABSTRACT

Objectives : To study the quality of ambulance services in medical emergencies at Pandit B D Sharma Institute of Medical Sciences, Rohtak, North India. Methodology: Type of study: Cross-sectional, by convenient sampling 50 people were included in the study. Data analysis was done by using Microsoft Excel 2007 version and proportions. Results: In present study it was seen that only 46% study subjects knew about the equipment’s present in the ambulances, 54% have received a formal training before joining this occupation. emergency drugs were present in 94% ambulances. About 70% study subjects were aware of need for checking the expiry on drugs and only 48% of ambulances have extrication services. Conclusion : ambulance services are not up to mark and there is a wide scope of improvement for better delivery of health facilities to the people in India.

Key words: Ambulance, BLS, ERS, EMS

Introduction:

Historically, Emergency Response System (ERS) is in existence since 18th century when prehospital system was developed for triage and transportation of the injured from the field site to the first aid place.1 ERS is an essential part of the overall healthcare system.2 These are known to contribute to accelerate the achievement of various Millennium Development Goals, including those relating to reducing maternal and infant mortalities. Role of ambulance services has changed significantly over the last few decades with the introduction of paramedics providing life-saving interventions and the availability of sophisticated equipment and treatments.3 The need for increased coordination in patient care and higher quality care at lower costs has made it important for emergency medical agencies to have in-place quality control or quality improvement programs which depends on key performance indicators for continuously monitoring the system’s overall performance. Strengthening of ERS has emerged as a major strategy for improving institutional care delivery under India’s National Rural Health Mission.4 In a step forward, the Government of Haryana also launched a scheme to provide referral transport service on 14th November 2009 known as “National Ambulance Services” and all the districts of Haryana are covered under the scheme. Despite of all these efforts, the work of the ambulance services is not up to the mark. Although measuring quality in EMS systems is challenging.5 Hence there is a need to develop performance indicators for maintaining their standard of services. Hence to get an idea regarding the current status of ambulance services in Haryana a pilot study was conducted at PGIMS, Rohtak based on a questionnaire.

Material and Method :

A cross sectional hospital based descriptive study was conducted at PGIMS Rohtak, Haryana, North India. 50 people were included by random sampling technique. The study was conducted over a period of three months. Data was collected by using predesigned, pretested questionnaires. 50 study subjects were given questionnaire and asked to fill and return back. The performa contained the personal details, job profile, field work and their awareness about basic amenities that should be present in ambulance for patient care.

Result and Discussion:

All fifty study subjects were male with a mean age of around 35yrs. Thirty (62%) study subjects were in government job and nineteen (38%) were in private job. About twenty-one (42%) study subjects were educated below matric, twenty-five (50%) were above matric, three (6%) were graduate and one was paramedic.

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Thirty drivers (60%) were in this kind of service for less than 5 yrs and twenty (40%) were in service for more than 5 yrs. The distance between their workplace and home was less than 5km in 50% and more than five kilometers in 50%. On asking the question on the charging the money for transferring patients it was found that ambulances were fully charging money for transferring patients in 30%, twenty-four (48%) were partly charging and eleven (22%) were not charging at all. Eighteen ambulances were moving less than 10km daily. The number of patients picked up daily were less than four in thirty-nine (78%) ambulances and more than four in eleven (22%) ambulances and the number of patients dropped daily were less than four in forty-one (82%) ambulances and less than four in nine (18%) ambulances. Only 48% of ambulances have extraction facility. Only 27 (54%) study subjects have received a formal training before joining this occupation. Similar results were also seen in a study by Fisher JD where fewer than 30% reported one-to-one training such as supervised training on the job. Regarding their capability to resuscitate in case of emergency it was found that only eighteen (36%) study subjects were trained in BLS, three (6%) in PALS, two (4%) in ACLS, four (8%) in EMT and only one was trained in both PALS and EMT. The emergency drugs were present in forty-seven (94%) ambulances. Only thirty-five (70%) study subjects were aware of need for checking the expiry on drugs and were doing regularly. It has been observed that only 23 (46%) study subjects knew about the equipments, present in the ambulances. Similar to our study, in a study from Hassan, Karnataka 71 out of 150 subjects (65%) of study subjects were aware about availability of drugs, oxygen cylinders and ECG machine and 38 (35%) were not aware.

About twenty-eight (56%) ambulance study subjects were having the contact numbers of the accepting hospitals. On answering the question regarding to whom they talk in case of emergency-twenty-two (44%) answered that they talk to the referring doctor, twenty (40%) answered that they talk to the accepting doctor, four (8%) did not know about it and two (4%) answered that they do not talk to anyone in case of emergency. On responding to the question on the accompanying person it came in to light that only in 8 (16%) ambulances the patients were usually accompanied by doctor, in 32 (64%) ambulances accompanied by paramedics, in 4 (8%) ambulances by other and in six (12%) ambulances no one accompany patient. Regarding number of death during transport, there were no death in twenty-four (48%) ambulances, one death in twelve (24%) ambulances, two deaths in five (10%) ambulances, three deaths in two (4%) ambulances, four deaths in five (10%) ambulances and more than five deaths in two (4%) ambulances.

In accordance to our data, in a study from Unnao district UP, about 27% maternal deaths happened on way a health facility. Although there are many factors responsible for mortality during the transport and one of the important parameter in emergency response time. Emergency vehicle response time standard is the most commonly used structure measure in EMS. The goal is to respond to 90% of priority 1 calls (life threatening and highly time dependent) in less than 9 minutes. Most emergency medical service systems have performance measures for responding to 911 calls within a fixed timeframe (i.e., a response time threshold), rather than measures related to patient outcomes. In a study by Katharine Evansit has been found that ambulance workers do not have adequate knowledge about how to assess capacity and treat people who either refuse treatment or lack capacity.

In context to the type of patients the ambulances carried, three ambulances (6%) carry pregnant females only, eight (16%) carry emergency cases of any specialty, three (6%) carried surgery patients, twenty-six (52%) carried patients of more than two specialty and rest three (6%) carried all types of patients. Regarding the facility in ambulances two(4%) ambulances have stature only, five (10%) were equipped with ACLS, twenty two (44%) were having oxygen facility, three (6%) were having ventilator facility, seven(14%) ambulances were equipped with oxygen and stature, two (4%) with ventilator and ACLS and one with O₂, stature and ventilator and rest nine(18%) were for simple transport with no resuscitation facilities for the patients. This is also in accordance with study by Prinja et al. in which it was found that out of the 21 ambulances assessed for infrastructure present against BLS standards, only 53% met the standards of Basic Life Support ambulance. As against the recommended BLS guideline, about 55% consumables, 34% drugs and 77% of the equipment
were available. 36% of standards for infrastructure i.e. color of ambulance, dimensions of patient’s compartment etc. were met in ambulances.

This is an eye opener because on one hand we are working for the betterment of the health of people and simultaneously there is great lack of the awareness and facilities which should be provided to the patients while transportation. The ministry of road transport and highways of govt of India had issued industry standard Constructional and functional requirements for road ambulances but still not very well followed as shown by our study.3,4,5 Although in our study the people enrolled were less but there is a need to conduct a study on larger scale so that proper measures can be taken to improve ambulance services thereby patient care.

**Conclusion:**

Our study concludes that the ambulance services are not up to mark and there is a wide scope of improvement for better delivery of health facilities to the people in India.

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**References:**