



Contents lists available at BioMedSciDirect Publications

International Journal of Biological & Medical Research

Journal homepage: www.biomedscidirect.com



Original Article

A study on awareness of 108 ambulance services at district hospital in hassan, karnataka . south india: a tertiary care hospital attached to hassan institute of medical sciences (hims).

Lokesh AJ^a, Thejeshwari HL^b, Harshwardhan^c, Siddharam SM^d

ARTICLE INFO

Keywords:

Awareness
108 ambulance services
District Hospital

ABSTRACT

Abstract: to study the functioning of 108 services in medical emergencies in district hospital, Hassan Institute of Medical Sciences, Hassan, South India. Methodology: a cross-sectional study was conducted at district hospital, HIMS, Hassan. The study was from 15 June 2011 to 15 August 2011. By convenient sampling 150 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 72.7% of study subject were aware about 108 services. 87% were dialled 108 ambulance for medical purpose. 62% were aware about facilities available inside the ambulance. 98% were satisfied about 108 ambulance services. Conclusion: In spite of the medical facilities available inside the 108 ambulance, it became only means of transport for the common man to the district hospital.

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1. Introduction

Emergency Response Service (ERS) is generally associated with medical services, police emergency and fire service. This forms the core group of services to be provided. However, many other functions can be combined to form a broader 'package' of ERS including emergencies like mountain rescue, cave rescue, mine rescue etc. Other emergencies like disaster relief and famine relief form part of the civil emergency services. Historically, Emergency Response Services (ERS) are in practice since 18th century (during the Napoleonic times) when a pre-hospital system was designed to triage and transport the injured from the field to aid stations¹. It was first started in 1928 by an American Army Officer in the United States of America. The name of the first ambulance was 'Buick Hearse'. The various numbers used in the different countries for emergency purposes are-USA - 911, Europe - 112, England - 999, India- 108. In India, 108 service was started on Aug. 15th 2005 in Andhra Pradesh in joint venture

of the State Government and the Emergency Management & Research Institute. In the Indian context, a much discussed and successful PPP model for ERS is the 108 Emergency Service being managed and operationalised by EMRI (Emergency Management and Research Institute) in many states in India like Andhra Pradesh, Gujarat, Uttarakhand, and Rajasthan with around 1300 ambulances running (as on December 2008)². EMRI was set up as a registered society with 17 members and most of them were family members of Mr. Ramalinga Raju, the then CEO of Satyam Technologies. Initial funds came from the personal funds of Shri Raju with Satyam Technologies providing technical support. With the expansion of fleet and services set to spread across more states, EMRI projected reaching a goal of 10,000 ambulances covering over a billion population by 2010. The EMRI aims to build an ERS wherein the ambulance reaches the patients/sites within 15-20 minutes and that the patient is shifted to the nearest hospital within 20 minutes thereafter². EMRI began operations in Karnataka in November 1st 2008 with 150 ambulances covering 17 of 29 districts and 72% of population³. EMRI is set to become the largest Emergency Response and Research Institution in the world.

* Corresponding Author : **Dr. Lokesh AJ**

Associate Professor
Dept. of General Medicine
Hassan Institute of Medical Sciences
Hassan, Karnataka, South India.
sagarometri@yahoo.co.in

Why the number 108?

1-0-8 is a technologically acceptable number enabling the processing of calls to occur faster. 1-0-8 functions effectively as a user friendly number because during a crisis situation the eye automatically searches the first digit on the number pad which is 1 and then moves downward to find 0. This is the exact order in which 1-0-8 is being laced. 1-0-8 is a primordial number resonating across countries, cultures, religions and is also a prime number to astrologers, astronomers, linguists and mathematicians.

The present study aims to find out the awareness and functioning of 108 ambulance services among the people of Hassan district. The main objectives are to study the awareness among people and efficiency of 108 services.

Materials and Methods:

A cross-sectional, hospital based, Descriptive study was undertaken in a district hospital, HIMS, Hassan, Karnataka, South India. In Hassan District, there are 17 ambulances, all of which are equipped with Basic Life Support (BLS) and 2 of them are also equipped with facilities required for Advanced Life Support (ALS), Ventilator. 150 people were included by random sampling technique. The study was conducted from 15 June 2011 to 15 August 2011. A data was collected by using predesigned, pretested questionnaires. Data was analysed in terms of proportions.

Results and Discussion

Out of 150 subjects, 109(72.7%) were aware about 108 services, of which 51(46.8%) got the information from Friends and media, 38(36.9%) from health workers. In present study 95(87.2%) subjects dialled 108 for the medical purpose and 11(10%) for medical, fire and police. 59(54.13%) study subjects were used the 108 service for the medical emergencies, accidents and delivery purpose. 11(10.10%) used for only medical emergencies In Gujarat state 99% were used for medical emergency(pregnancy, trauma and accidents) and 1% for police and 0.2% for fire services. In our study 71(65%) of study subjects were aware about availability of drugs, Oxygen cylinders and ECG machine and 38(35%) were not aware (Table no1,1a,1b,1c,1d).

In present study on efficiency of 108 service from the response of 109 participants, 48(44.04%) of study subjects gave the information that, the ambulance were reached to concern place 15-30 minutes of dial, 35(32.11%) within 15 minutes, 20(18.35%) in 30min-1 hour and 6(5.5%) more than 1 hour. 27(24%) were received instruction on phone and 82(76%) were not received. 33(30%) of study subjects were got first aid treatment and 76(70%) did not get. In our study 46(42.2%) of participants were reached to the district hospital within 15-30 minutes, 33(30%) were in 30min-1 hr, 17(15.6%) within 15 minutes and 13(11.92%) took more than 1 hour. 107(98%) of

study subjects were satisfied with services and less number 2(2%) were not. The reasons for satisfactions were prompt transport, life saving and immediate intervention (Table no.2,2a,2b,2 c,2d and 2e).

Table no.1c Situation in which 108 can be called (n=109)

Only Medical Emergencies	11 (10.10%)
Only Accidents	02 (1.8%)
Only deliveries	02 (1.8%)
Medical emergencies and accidents	21 (19.3%)
Medical emergencies and deliveries	11 (10%)
Accidents and deliveries	03 (2.75%)
Medical emergencies, accidents and deliveries	59 (54.3%)

Table no.1d Awareness about facilities available inside 108 (n=109)

Only drugs	21 (19.26%)
Only Oxygen cylinder	13 (11.93%)
Drugs and Oxygen cylinder	32 (29.36%)
ECG machine, Oxygen cylinder and drugs	05 (4.59%)
No idea	38 (34.86%)

Table No.2 Time taken by the 108 to reach the concern place (n=109)

< 15 minute	35 (32.11%)
15-30 minute	48 (44.04%)
30min-1 hr>	20 (18.35%)
1hr	06 (5.5%)

Table No.2a Instruction given on phone by 108 staff

Yes	27 (24.7%)
No	82 (75.3%)

Table NO.2b First Aid given by 108 staff inside the ambulance

Yes	33 (30.28%)
No	76 (69.2%)

Table No.2c Time taken to reach the district hospital

< 15 minute	17 (15.6%)
15-30minute	46 (42.2%)
30 min-1hr	33 (30.28%)
>1hr	13 (11.92%)

Table no. 2d Satisfied with 108 services

Yes	107 (98.17%)
No	02 (1.83%)

Table No.2e Reasons for satisfaction

Prompt transport	38 (34.86%)
Life saving	20 (18.35%)
immediate intervention	02 (1.83%)
Prompt transport and life saving	42 (38.52%)
Life saving and immediate intervention	01 (0.9%)
Prompt transport, life saving and immediate intervention	04 (3.6%)

Limitation: In our study sample is small so that it can not generalized on the utilization of 108 ambulance services. It is not possible to discuss the study because of non availability of similar type of studies.

Conclusion: From the above study, majority populations were aware about the existence of the 108 services and facilities available under 108, which are to be extended towards the resuscitation of the patient during emergencies. In most of the cases, the 108 ambulance has reached the concerned place within the golden hour. Delay in some cases is only due to the bad roads. We have also noted that only in a very small percentage of the cases, immediate intervention is done by the 108 staff, either on reaching the spot or inside the ambulance during the transport to the District Hospital. We also noted that, inspite of having all the necessary facilities, required to resuscitate the patients and monitor them during emergencies, only a handful of cases receive first-aid, if any at all. But all said and done, most of the people are satisfied with the 108 services because according to them 108 is just a means of transport to the District Hospital, which is free of cost.

Acknowledgement: The authors would like to thanks Dr. Jagdeesh, Dr. Geethanjali, Dr. Gowri Swaminathan and Dr. Joel Prasad G.L. for their role in data collection in this study.

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4. Annex-7-G Emergency response Centre daily report Gujarat dated 31/12/2008.

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