

The Evaluation of Cardiac Emergency Management in National Institute of Cardiovascular Diseases Hospital, Dhaka, Bangladesh

AK Saha¹, SAA Mamun², DR Das³, WA Almajidi⁴, MSA Khan⁵, SMS Hasan⁶, F Nasrin⁷

Abstract

Emergency department is one of the most important part of the hospital and also vulnerable to criticism. The reputation of a hospital rests to a large extent on the service of emergency department. The sudden and unexpected nature of the emergency produces panic and psychological disturbances to the relatives, which must be valued and borne in mind during organization and management of services. A descriptive type of cross sectional study was conducted at Emergency Department of National Institute of Cardiovascular Hospital, Dhaka to evaluate the existing facilities, waiting time for the patients for receiving treatment, emergency referral rate and availability of health personnel, overall management and patient's suggestion to improve the services of the emergency department. A total of 150 patients were interviewed by a structured questionnaire and a checklist was utilized for equipment and drugs. The mean age of the patients was 49.59 years. 38.7% patients were attended by doctors within 6-10 minutes. Shifting of the patients from emergency department to another hospital was 12%. 87.3% patients were satisfied with time to complete treatment. In emergency department 69.3% patients were satisfied with reception facility, 89.3% patients were satisfied with given treatment, 92% patients were satisfied with doctor's service and 74% patients were satisfied with the service of the support staff. About 90% patients were satisfied with overall management. The findings of cardiac emergency services obtained through check-list were fairly comparable with the opinions expressed by the patients. For further management of emergency department patients gave suggestion for arrangement of waiting room and toilet facility, X-ray and other laboratory facility should be made available for all the duty shifts, drugs should be supplied adequately and on regular basis. They suggested for augmentation of the equipments, drugs and security and other facilities and recruitment of some trained service providers. According to the patients the Emergency Department is well-studied to manage most of the cardiac emergencies. However, specific problems identified by different stakeholders need to be critically appraised by the authority to improve the services further.

Key words: Cardiac emergency, emergency ward, emergency patient, acute, ambulance

Introduction

Emergency means serious condition that needs quick attention and immediate action. Emergency department is primarily meant for immediate medical attention and resuscitation of seriously ill patients. An Emergency Department (ED), also known as Accident & Emergency (A&E), Emergency Room (ER), Emergency Ward (EW), or Casualty Department is a medical

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treatment facility, specializing in acute care of patients who present without prior appointment, either by their own means or by ambulance.¹ The emergency departments of most hospitals operate 24 hours a day, although staffing levels may be varied in an attempt to mirror patient volume. Efficient service of the emergency starts to some extent before registration of the patients and immediately after reaching the hospital. All patients attending the emergency are to be registered after a quick preliminary assessment of the severity and urgency of their ailment by the Medical Officer on duty. This is particularly an important point; clerical work involving registration, etc. should never take priority over the urgent attention to the actually ill patient.^{2,3} All particulars as per the standard format should be recorded in the emergency register. The emergency ticket should be clearly filled up for name, age, sex, date, time, emergency registration number and clinical diagnosis clearly. A summary of all the relevant clinical findings along with the medical aid given, consultations and the progress of the patient is to be noted down on emergency register (register should contain clear description of treatment details) by the attending doctor (s) before he / she is admitted or discharged or referred to secondary or tertiary hospital.¹⁰ The original emergency ticket is handed over to the patient. Emergency Department of a hospital is always blamed with mismanagement of services resulting in death or disability of a patient. Although it is not absolutely true

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in all cases as highlighted, it is conceded that some unfortunate outcomes are the result of inefficient management of emergency services. In recent years a greater understanding of the pathophysiology of ischemic heart disease and the development of promising new treatments has led to an emphasis on early intervention within the first 6 hours of ischemic onset. Animal studies suggest that this 6-hour period is the longest interval of substantial blood flow reduction before maximal and irreversible damage occurs. Like any other developing countries, Bangladesh is also experiencing an increase in the incidence of ischemic heart diseases. To reduce death and disability from cardiac diseases, the policy of the government is to provide cardiac care at an affordable cost. As a part of the endeavor, management of services to deal with cardiac emergencies is imperative.⁴⁻⁷ Prompt service-delivery should be one of the aims of Emergency Department. Over the last decade the acute heart attack / failure attending at emergency department has increased beyond the manageable capacity of many hospitals / institutes resulting in unfavorable outcomes on the fate of the patients. Patients / attendants always complain of insufficient staff and facilities at ED as the cause of delay in seeing a patient. For proper management of emergency services, doctors, nurses and health personnel should be efficient, sincere and sympathetic to the patients and equipment for transportation and resuscitation should be adequate.

The increasing demand for medical and health care services in the face of limited resources has brought to the need for careful planning and management which are considered essential if high standard of health and health care are to be achieved. Increasing the number of staff and extending the facilities may solve the problem; but it cannot be a cost-effective approach. Efficient management means maximum output at a reasonable cost.¹⁵ Ischemic heart disease and stroke are the two most common causes of death and disability in the worldwide. Over 80 percent of deaths and 85 percent of disability from Cardio-vascular Disease (CVD) occur in low- and middle-income countries. The Indian subcontinent (including India, Pakistan, Bangladesh, Sri Lanka and Nepal) is home to 20 percent of the world's population and may be one of the regions with the highest burden of CVD in the world. The nature of emergency medicine (EM) has changed significantly in recent years with the advent of new technology options and the availability of more medical treatment, such as specialized intravenous thrombolysis in stroke, stent placement in acute myocardial infarction, and the use of Echocardiogram. Many of these are time-critical

procedures, leading to greater emphasis on the resuscitation, stabilization; investigation and initial management in the ED.^{8,9,14} Conditions for which patients were previously admitted and observed are now managed in the ED, allowing for direct discharge without the added cost of inpatient hospitalization. In this study, a well-known government hospital named National Institute of Cardio-vascular Disease Hospital, Dhaka was selected. Prepared questionnaire was used for collection of data from the patients or attendants attending the Emergency department. A well-through checklist also was utilized to find out the availability of the indispensable equipments and drugs at the Emergency department. The collected data was assorted and analyzed with the help of SPSS 17 software. The result was then verified and rechecked for marginal errors.

Materials Methods

The study was conducted in the period of 1st January 2012 to 30th June 2012. The study was conducted at National Institute of Cardiovascular Diseases Hospital; Dhaka, Bangladesh. The emergency room of National Institute of Cardiovascular Diseases Hospital was included in the study area. It was an observational descriptive type of study. Patients of all ages including male and female who were injured as a result of Cardiac patients attended in National Institute of Cardiovascular Disease Hospital from 24th April to 5th May 2012 were included in the study. The total number of cases during the study period was 150 which comprises of the study population (due to time limitation, within which data collected sample size fixed by convenient sampling technique). A questionnaire and a check list were designed to obtain the required information. Questionnaire was used to obtain data from the respondent. The facilities related to Cardiac patient's management at emergency department were observed and recorded with the help of the check list. Ethical issue will be considered accordingly. The researcher herself attended the National Institute of Cardiovascular Disease Hospital emergency department for collecting data. One questionnaire was used for each patient for data collection. The questionnaire was filled up the author. The interviews were concluded directly with the patients in most cases. Questions were asked in Bengali but filled in both Bengali and English form. The interview was conducted after attending to the emergency in the mentioned period. When patient was seriously ill, any other near relatives of the patient was interviewed. Both the questionnaire and checklist were

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protected and finalized. During analysis, study objectives were kept in consideration. Data processed and analyzed by using SPSS Software-17 version.

Results:

Table 1: Patient Characteristics

Age	Frequency	Percentage	Mean	±SD
□ 20	12	8.0		
21-30	12	8.0		
31-40	26	17.3		
41-50	28	18.7	49.5	±17.522
51-60	34	22.7		
□ 61	38	25.3		
Total	150	100.0		

Table 2: Distribution of the respondent by response of whether immediately attended by any service provider

Attending by service provider	Frequency	Percentage
Yes	140	93.3
No	10	6.7
Total	150	100.0

[n= 150]

Table 3: Distribution of the respondent by mode of

Reception	Frequency	Percent
Cordially received	117	78.0
Not Cordially received	33	22.0
Total	150	100.0

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Table 4: Distribution of the respondent by the

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Results:

Table 1: Patient Characteristics

Satisfaction level	Frequency	Percent
Highly satisfied	2	1.3
Satisfied	104	69.3
Poorly satisfied	41	27.3
Dissatisfied	3	2.0
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