

# Perception of triage system among nurses of emergency department in various tertiary care hospitals in Kolkatta

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## Abstract

**Introduction:** Triage by definition is 'putting the patient in the right place at the right time to receive the right level of care and the allocation of appropriate resources to meet the patient's medical needs'. Triage is the process of sorting and prioritizing patients according to their level of acuity to determine which individuals need specialized care for either actual or potential injuries or complications. Emergency department nurses plays most vital and integral part of triaging patients in mass casualty events **Aims and Objectives:** 1)To find out the perception of triage system amongst Emergency department nurses in Kolkatta. 2)To determine the core competencies of the nurse in the triage of patients. **Methodology:** 5 tertiary level hospitals were contacted in Kolkatta with fully operational emergency department, 10 nursing staff from each hospital is randomly selected to determine the level of knowledge about triage system through a multiple-choice questionnaire. **Results:** The assessment of collected data shows that triaging patients in emergency department in Kolkatta is inadequate and inaccurate due to lack of knowledge. The study points at some glaring lapses in the triaging procedures implemented in the surveyed hospitals. **Conclusion:** This study also calls for some standardization steps to be taken for a uniform code of triaging to be followed.

**Keywords:** Triage, Nurses, Emergency Department.

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## INTRODUCTION

Patients in most Emergency Department(ED) of multispecialty hospitals in India are attended by Emergency physician on first come first basis with minimal or no waiting time. However the changes when the ED is quickly filled by victims of local mass emergencies where in with limited number of emergency physicians all patients can't be attended at once, nurses' knowledge of triaging the patients is of utmost importance. Triage is described as '*... putting the patient*

*in the right place at the right time to receive the right level of care and the allocation of appropriate resources to meet the patient's medical needs'* (Bracken *et al* 2003). Triage is the process of sorting and prioritizing patients according to their level of acuity to determine which individuals need special care for either actual or potential injuries or complications. If this is done successfully each patient can be directed to the most appropriate facility, specialist or unit with the least possible delay, allowing us to do best for the most. Rendering the most appropriate type of care within the shortest time possible is one of the most important aspects in the prevention of death and disability in any emergency unit (Alarcon *et al* (1998), Beckerman *et al.* (2001). In the United States of America (USA), the United Kingdom (UK) and in the United Arab Emirates (UAE), specialist nurses perform triage functions as per Pillay *et al* (2005). In India, triage decisions do not have a set format and may be made by anyone starting from the pre-hospital emergency personnel or nurses or Emergency Physicians based on their knowledge of the type and severity of the accident or injury. In some places non-medical personnel, such as

the admission clerks perform triage functions by deciding which patients need immediate attention and which patients can wait. So there is no fixed rule about triage and in several advanced hospitals, no concept of triaging of patients exists and the word triage is unknown.

### AIMS AND OBJECTIVES

- a) To find out the perception of triage system amongst Emergency department nurses in Kolkata.
- b) To determine the core competencies of the nurse in the triage of patients.

### MATERIALS AND METHOD

For the purpose of this proposal, a multicenter questionnaire based survey was conducted in ED's of tertiary level Corporate Hospitals in Kolkata to determine the perception of triage system among nurses working in ED and its practice in Kolkata. The study was carried out from May 2013 to May 2014. The focus of this study was to determine the level of knowledge of Emergency department nurses about triage through a multiple-choice questionnaire, and to establish links between levels of knowledge and a number of variables. This information will be obtained through a descriptive correlation analytical survey design. (Polit *et al* 2001).

A sample size of 50 individuals was decided which was duly accepted and cleared by ethical board committee members.

#### Inclusion Criteria

All nurses of presently working in fully fledged Emergency department from Multispecialty hospitals in Kolkata will be included, irrespective of their experience, age, gender etc after taking consent through proper channels.

#### Exclusion Criteria

- i. Nurses working in other department/wards,
- ii. Nursing students/ Ward boys/ Ward girls,
- iii. Critical care nurses/ ICU nurses posted in ED for temporary basis.

### RESULT

**Table 1:** Sex- wise distribution of the study subjects

Sex	Number	Percentage
Male	26	52%
Female	24	48%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 2:** Age-wise distribution of the study subjects

Age	Number	Percentage
21-30 Years	45	90%
31-40 Years	3	06%
>40 Years	2	04%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 3:** Distribution of the study subjects based on their years of Experience

Years of Experience	Number	Percentage
0-2 Years	29	58%
2-5 Years	16	32%
5-10 Years	03	06%
>10 Years	02	04%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 4:** Distribution of the study subjects based on their prior training in triage

prior training in triage	Number	Percentage
Yes	27	54%
No	23	46%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 5:** Distribution of the study subjects on the basis of triaging the patients in the Emergency Department

Triaging the patients	Number	Percentage
Signs and Symptoms	29	58%
Primary	08	16%
Diagnosis/History	13	26%
No need to Assess	00	0%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 6:** Distribution of the subjects based on their knowledge about the term triage

Knowledge about triage	Number	Percentage
Urgency	29	58%
Prioritization	08	16%
Sorting	04	08%
Don't Know	09	18%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 7:** Distribution of the study subjects based on their level of Knowledge in the Implementation of Triage

Implementation of Triage	Number	Percentage
Mostly Ill patients	28	56%
Better use of resources	07	14%
Quality of treatment	10	20%
Don't Know	05	10%
<b>Total</b>	<b>50</b>	<b>100%</b>

**Table 8:** Distribution of the study subjects regarding use of Triage Scale in the Emergency Department

Triage Scale usage	Number	Percentage
Unaware	30	60
Emergency severity index	08	16
Medical emergency and treatment scale (METS)	07	14
Manchester triage scale (MTS)	03	06
Non Specific	02	04
<b>Total</b>	<b>50</b>	<b>100</b>

## DISCUSSION AND CONCLUSION

This was a random, multicenter, questionnaire based research survey to assess the perception of triage system among the nurses of emergency department in tertiary level corporate hospitals in Kolkata. A questionnaire which was aimed at gauging the expertise and competency of nurses at triaging of patients was prepared. A sample size of 50 was calculated taking into account confidence level of 85% with a margin of error of 10%. The findings of the study suggest that only 54% of nursing staff received triage training while the remaining 46% have little or no training in the triage system. The average number of staff present during triaging in a shift was 2-5 with 58% of the nurses using the patients' clinical signs and symptoms for triaging while a significant 26% did not see any need to triage patients. "Triage" was the most commonly used term to denote the level of urgency followed by "prioritizing" and "sorting". 6% of staff did not use any term. An astounding 60% of nursing staff are unaware of any scale of measurement used for triaging in their hospital, about 6%-14% use the METS or MTS scales. It was observed in the survey that maximum number of nursing staff use 4 levels of urgency for triaging in their hospitals with the highest number using color coding followed by figures. The study points at some glaring lapses in the triaging procedures implemented in the surveyed hospitals. This study also calls for some standardization steps to be taken for a uniform code of triaging to be followed.

## RECOMMENDATIONS

Government both central and state in India or any country should take an initiative, formulate and follow a triage system as per international standards or accept and follow a standard triage system among wide range of international triage scales or system.

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