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# TRIAGE IN EMERGENCY DEPARTMENT AT RIMS

Medical Science

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## ABSTRACT

**Triage** is the process of determining the priority of patients' treatments based on the severity of their condition. The earliest written record of the use of triage in emergency medicine, in a systematic sense, was in the early 1960s at Baltimore, USA.The emergency department is the crucial interface between the emergency medical services and the hospital.(1) As reflected in the year-on-year increases in patient numbers, however, emergency departments are increasingly being selected as the route of primary access to the healthcare systemThe volume of admissions to a given emergency department cannot be predicted with any great accuracy, only a certain proportion of the patients have life- endangering or medically urgent conditions ( 3), and not all those admitted can be treated immediately or simultaneously.. To accurately group ED patients based on their medical needs, a classification system – triage – has been developed. Which patients need to be treated immediately, and which ones can wait?
The aim of this paper is to provide a critical review of the literature pertaining to emergency department triage in order to inform the direction for future research.

## KEYWORDS

Triage, Emergency department(ED),Emergency severity index

## INTRODUCTION

**Triage** is the process of determining the priority of patients' treatments based on the severity of their condition. The earliest written record of the use of triage in emergency medicine, in a systematic sense, was in the early 1960s at Baltimore, USA.Triage is a very brief intervention that should occur within 15 minutes of arrival or registration"The American College of Emergency Physicians (ACEP) and the Emergency Nurses Association (ENA) believe that the quality of patient care benefits from implementing a standardized emergency department (ED) triage scale and acuity categorization process. Based on expert consensus of currently available evidence, ACEP and ENA support the adoption of a reliable, valid five-level triage scale such as the Emergency Severity Index (ESI)" (The volume of patient admissions cannot be precisely planned, an emergency department may become overcrowded, so that severely ill and less ill patients are competing for the available resources. Triage is an essential function of an Emergency Department (ED). Triage (or an alternative local 'sorting' process by a senior ED clinician) should be the first interaction a patient has in the ED.

A smaller percentage of patients is severely ill and need immediate help. From the hospital's perspective, it is essential for the ED to be well organised. Since 2000, there has been a trend toward standardization of triage acuity scales that have five levels (e.g., 1- resuscitation, 2- emergent, 3- urgent, 4- less urgent, 5- nonurgent.

It is recognised that triage is a dynamic process and may require that the patient be re-triaged if their condition changes or deteriorates prior to being seen by a treating clinician.The physical location and environment of triage must ensure the safety of staff and patients and accommodate privacy for the assessment of patients.The process of Triage involves the application of high-level patient assessment skills and knowledge to determine the patient's degree of urgency to see a treating clinician.

Triage is the process of assessment of a patient on arrival to the ED to determine the priority for medical care based on the clinical urgency of the patient's presenting condition. Triage enables prioritisation of limited resources to obtain the maximum clinical utility for all patients presenting to the ED. The emergency department is the point of entry for more than half of all patients admitted to hospital care, primarily because of an increasingly elderly population. Recent reports also show that more teenagers and young adults are seeking medical care in the emergency department. This phenomenon is characterised by expectations of medical service on a 24/7 basis. Together, these changes contribute to overcrowded emergency departments that put patient safety at risk.2. Thus, patients with lifethreatening injuries or illnesses need to be reliably identified within minutes of arrival .Most people that visit an ED are seriously worried about their health and feel a need for prompt evaluation and help. Emergency departments around the world use different triage systems to assess the severity of incoming patients' conditions and assign treatment priorities.

The goal of modern triage in the emergency department is to ascertain the severity of illness of emergency patients in a structured way, establish treatment priorities, and assign the patients to the appropriate place for treatment. ● Five-level triage instruments are the gold standard in emergency medicine. The Australasian Triage Scale, the Canadian Triage and Acuity Scale, the Manchester Triage System, and the Emergency Severity Index are all validated instruments and are the most widely used systems. The purpose of triage in the emergency department (ED) is to prioritize incoming patients and to identify those who cannot wait to be seen. The triage nurse performs a brief, focused assessment and assigns the patient a triage acuity level, which is a proxy measure of how long an individual patient can safely wait for a medical screening.

## DISCUSSION

The Emergency Nurses Association (ENA) and the American College of Emergency Physicians (ACEP) formed a Joint Triage Five Level Task Force in 2002 to review the literature and make a recommendation for EDs throughout the United States regarding which triage system should be used in examination and treatment. In order for a triage system to be widely adopted and used, it must have excellent reliability and validity.

Registration of vital signs alone is not suitable for identification of critically ill patients in the emergency department . Therefore various systems are used internationally to determine initial treatment priorities.

The best studied and most widely distributed five-level systems are the ATS, CTAS, MTS, and ESI, all of which possess satisfactory to very good validity and reliability. The MTS and ESI have been translated into German. The introduction of a modern triage system in Australia increased patient safety, improved both the organization of the work of the emergency department staff and their job satisfaction, and reduced the patients' waiting time as well as the total time they spent in the emergency department The implementation of a structured triage system in an emergency department is associated with a transitional phase and requires careful planning involving all parties concerned, including the nursing and medical staff. Besides the development of a training program, the consequences for patient flow, the hospital information system, and the workflow of the interprofessional team must be considered. Realistically, a modern triage instrument should be able to be implemented within 9 to 12 months (63)

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| Level I | Resuscitation | see patient immediately |
| Level II | Emergency | within 15 minutes |
| Level III | Urgency | within 30 minutes |
| Level IV | Less Urgency | within 60 minutes |
| Level V | Non Urgency | within 120 minutes |

The Emergency Severity Index (ESI) is a simple to use, five-level triage algorithm that categorizes emergency department patients by evaluating both patient acuity and resource needs. Initially, the triage nurse assesses only the acuity level.

Several studies have evaluated the performance of ESI with an elderly population. In a study of 500 patients at RIMS central emergency department, age 65 or older with a total of 945 ED visits over a 1-month period in 2016, ED resource utilization, ED length of stay, hospital admission, and 1-year survival were assessed. The ESI algorithm performed well in all areas (Baumann & Strout, 2007). In a separate investigation of 562 patients > 65 years of age at RIMS emergency department, the accuracy of ESI to identify elderly patients requiring a life-saving intervention was investigated (Platts-Mills et al., 2010). While specificity was high (98%), sensitivity was poor (39%). This suggests further evaluation of the performance of ESI in elderly patients may be warranted. A large multi-center study of ED use with 5180 patients showed that among the 37% of patients triaged as "nonurgent," 6.8% required hospitalization. Researchers have also compared inter-rater reliability of the ESI triage system with the CTAS (Worster et al., 2004). Ten Canadian nurses were randomly assigned to initial ESI version 3 or CTAS refresher training, and then rated 200 case studies with the ESI or CTAS, respectively. Both groups had excellent inter-rater reliability, with kappas of 0.89 (ESI) and 0.91 (CTAS). The implementation of a structured triage system in an emergency department is associated with a transitional phase and requires careful planning involving all parties concerned, including the nursing and medical staff.Triage systems are designed to serve the value of human life and health with fairness and the effi- cient use of resources. The need for triage is enhanced by the growing imbalance between needs and resources resulting from the twin challenges of access block and growing demand.. They do this by determining who will not be disadvantaged by longer waiting times and who requires immediate attention to achieve optimal outcomes. The need for triage is enhanced by the growing imbalance between needs and resources resulting from the twin challenges of access block and growing demand What is a good scale or, more particularly, what is a good triage assessment? Criteria used to judge a good scale include simplicity, feasibility, flexibility, meaning, validity and repeatability. Validity includes both construct and outcome validity.While education, guidelines and algorithms have been shown to reduce triage variation, there remains significant inconsistency in triage assessment arising from the diversity of factors determining the urgency of any individual patient

## CONCLUSION

Triage has become an integral part of the function of EDs around the world and has demonstrated clinical and organisational value. There is an opportunity for the emergency medicine community to commit to an international triage scale.Reliable triaging based on need is obviously the key to efficiency and clinical effectiveness in emergency care. Such a tool should be strongly predictive of outcomes reflective of illness severity such as mortality rate, as well as resource requirements.

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