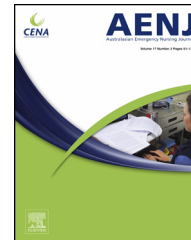




Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/aenj



RESEARCH PAPER

A comparison of emergency triage scales in triaging poisoned patients



Dushan Jayaweera, MBBS, FACEM^{a,b,c,f,*}
Satish Mitter, MBBS, FACEM^{a,b,c,f}
Andrew Grouse, MBBS, FACEM^d
Luke Strachan, BN, GradCertCCN, MNurs(NursPrac)^b
Margaret Murphy, BN, MHIthSc^a
David Douglass, BN, GradCertCCN^b
Liesel Gerlach, BN, MEmergNurs^d
Naren Gunja, MBBS, MSc, FACEM, FACMT^{a,b,c,e,f}

^a Emergency Department, Westmead Hospital, Sydney, Australia

^b Emergency Department, Blacktown-Mt. Druitt Hospital, Sydney, Australia

^c Department of Clinical Pharmacology & Toxicology, Western Sydney LHD, Sydney, Australia

^d Emergency Department, Nepean Hospital, Sydney, Australia

^e Discipline of Emergency Medicine, Sydney Medical School, NSW, Australia

^f School of Medicine, University of Western Sydney, NSW, Australia

Received 12 December 2013; received in revised form 14 May 2014; accepted 14 May 2014

KEYWORDS

Emergency nursing;
Poison control
centres;
Toxicology;
Triage;
Risk assessment

Summary

Background: Triage of toxicology patients presents a challenge due to their complexity, underlying psychosocial issues, and additional pharmacological considerations. Two emergency department triage systems used in Australia, the Australasian Triage Scale (ATS) and the Manchester Triage System (MTS), were compared in triaging patients presenting with poisoning and envenoming.

Methods: In this simulation-based study, 30 triage nurses from three hospitals were given 8 tabletop scenarios and asked to provide a triage category. 20 nurses from two hospitals using the ATS, and 10 nurses from a third hospital using the MTS, triaged 8 scenarios, grouped into

* Corresponding author at: Emergency Department, Westmead Hospital, Westmead, NSW 2145, Australia. Tel.: +61 2 9845 7607; fax: +61 2 9633 4296.

E-mail address: dushan.jayaweera@health.nsw.gov.au (D. Jayaweera).

“commonly encountered” ($n=4$) and “rarely encountered” ($n=4$). Triage systems and scenario groups were compared for median triage category and variance in scoring. Triage nurses also noted if they would seek help from toxicology services or the poisons information centre (PIC) for advice.

Results: Overall, MTS nurses triaged all 8 scenarios with a lower acuity triage category, though statistically significant for only 3 scenarios. ATS nurses scored higher acuity triage category in all 4 “rare” highly toxic presentations, whereas MTS nurses scored higher acuity when vital signs were abnormal. MTS showed wider variance in triage scores in both scenario groups when compared to the ATS. Triage nurses without access to local toxicology services chose to contact PIC in most cases.

Conclusions: When compared to the ATS, MTS gave a lower acuity triage score for all common and rarely encountered poisoning scenario groups, which included highly toxic ingestions that appear well at triage but may progress to severe poisoning. Triage nurses should refer to information on highly toxic exposures and envenomation guidelines during their triage risk assessment.

© 2014 College of Emergency Nursing Australasia Ltd. Published by Elsevier Ltd. All rights reserved.

What is known

- There is little published data on triage of the poisoned patient and no published studies comparing the Australian Triage Scale and the Manchester Triage Scale, in their risk assessment.

What this paper adds

- This study compares the Australasian Triage Scale (ATS) and the Manchester triage system (MTS) in the assessment of patients presenting with toxicological scenarios. Triage nurses using ATS provided higher acuity triage scores compared with MTS nurses across all study scenarios. Emergency departments should carry additional information on highly toxic exposures and local envenomation guidelines for triage nurses.

Introduction

Triage is an important tool for clinical decision making in the Emergency Department (ED). A triage system is the process by which a clinician assesses a patient’s clinical urgency. Urgency is determined according to the patient’s clinical condition and is used to determine the speed of intervention that is necessary to achieve an optimal outcome.¹ Urgency is independent of the severity or complexity of an illness or injury. ED nursing staff require specific training to perform this vital role at the front end of the hospital and take years to perfect the ‘art’ of triaging. Australian triage nurses complete a national standardised triage-training programme based on the “Emergency Triage Education Kit” in order to perform this role.¹

Triage of ED patients has evolved considerably over the last two decades. Since their inception, triage systems have continued to develop and be modified into ever more useful tools in early recognition of the acutely ill. Two common systems for triaging emergency patients are the

Australasian Triage Scale (ATS), utilised in the majority of Australian EDs, and the Manchester Triage System (MTS), utilised in the United Kingdom and some Australian EDs.^{2–5} The National Triage Scale (NTS) was implemented in 1993, becoming the first triage system to be used in all publicly funded EDs throughout Australia. In the late 1990s, the NTS underwent refinement and was subsequently renamed the ATS.¹ At a similar time period, the MTS was jointly developed by the Royal College of Nursing Accident and Emergency Association and the British Association for Accident and Emergency Medicine. The MTS consists of 52 algorithms or flow charts that lead the triage nurse to a logical triage choice for almost any presenting complaint, and results in a five-point scale similar to that described by the ATS. From the very earliest use of these triage scales, a time limit for clinical assessment has been associated with each triage category—these time limits are shown in Table 1 comparing the two systems. The MTS has been modified for region-specific envenoming presentations in the Australian context. Applying these systems to the poisoned patient, triage aims to rapidly assign treatment priority for a given overdose or envenomation.

The existence of poisons information centres (PICs) within a healthcare system has significant implications on emergency triage presentations.^{6–8} The ability to filter the majority of trivial and minor exposures with out-of-hospital management selects higher acuity patients for ED

Table 1 Comparison of ATS and MTS.^{3,4}

| Triage category | Treatment acuity (maximum waiting time for medical assessment and treatment) | |
|-----------------|--|------------------|
| | ATS | MTS ^a |
| 1 | Immediate | Immediate |
| 2 | 10 min | 10 min |
| 3 | 30 min | 60 min |
| 4 | 60 min | 120 min |
| 5 | 120 min | 240 min |

^a The MTS has been modified by the hospital in our study to match ATS waiting times.

Download English Version:

<https://daneshyari.com/en/article/2606187>

Download Persian Version:

<https://daneshyari.com/article/2606187>

[Daneshyari.com](https://daneshyari.com)