



CrossMark



## High Risk Criteria in Level 2 May Provide a Source of Disagreement in Emergency Severity Index

Amir Mirhaghi<sup>1</sup>, Mohsen Ebrahimi<sup>2\*</sup>

<sup>1</sup>Nursing and Midwifery Care Research Center, Mashhad University of Medical Sciences, Mashhad, Iran

<sup>2</sup>Department of Emergency Medicine, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran

**\*Corresponding author: Mohsen Ebrahimi**

Address: Department of Emergency Medicine, Imam Reza Hospital, Imam Reza Circle, Post code: 91379-13316, Mashhad, Iran.

Tel: +98-51-38543031; Fax: +98-51-38591057

e-mail: ebrahimimn@mums.ac.ir

Received: October 10, 2018

Accepted: October 20, 2018

Please cite this paper as:

Mirhaghi A, Ebrahimi M. High Risk Criteria in Level 2 May Provide a Source of Disagreement in Emergency Severity Index. *Bull Emerg Trauma*. 2019;7(1):90-91. doi: 10.29252/beat-0701016.

Dear Editor,

With great interest we have read the outstanding publication in the recent Bulletin of Emergency and Trauma issue by Ghafarypour-Jahrom *et al.* entitled “Validity and Reliability of the Emergency Severity Index and Australasian Triage System in Pediatric Emergency Care of Mofid Children’s Hospital in Iran” [1]. We bring your attention to the results concerning the reliability of Emergency Severity Index (ESI) in the mentioned study that may provide a new understanding to lead clinical practice in emergency department (ED). The study used Cohen kappa values to report inter-rater reliability of Level 1 to 5 are 0.833, 0.777, 0.520, 0.850 and 0.883. The reliability coefficient for level 4, 5 and 1 is almost perfect (> 0.80) which is reported in other literature too [2]. The reliability coefficient for level 2 and 3 is substantial and moderate respectively, implying that the agreement between raters suffers from discrepancy. This issue is even more remarkable while bearing in mind that a large number of patients in the ED belong to these categories. Besides, these patients have strong potential to get into critically ill condition. Therefore, it is vital to address this flaw in the literature.

One of the criteria in ESI level 2 is “high-risk patients”. Nurses must perceive high-risk condition

in patients based on their knowledge and expertise. “high-risk patients” in ESI level II is a broad and general concept and to some extent ambiguous which is not enough clear to identify high-risk patients sufficiently and prevent misclassification. Tanabe *et al.* defined level II patients as individuals who are more stable than level I and they indicated critically ill patients’ triage criteria needs further revisions [3]. This ambiguity congests a considerable amount of patients in level II if nurses are going to keep under-triage rate low. In addition, it may turn to a great source of conflict between nurses and physicians due to the fact that they may interpret high-risk condition differently. The reliability coefficient of 0.777 clearly supports this hypothesis. The reliability coefficient of 0.520 may indicate there is low agreement between the raters regarding resources which is necessary to fulfill emergency care for patients.

Patient influx in ESI level II causes other parts of the ED remain unused. This issue could not be tolerated in the ED because triage nurses wants to consume all ED resources as much as possible conscientiously and reduces overcrowding. This issue deteriorated longer practice of ESI in ED. This discrepancy deserves to be considered in further study.

**Conflicts of Interest:** None declared.

## References

1. Ghafarypour-Jahrom M, Taghizadeh M, Heidari K, Derakhshanfar H. Validity and reliability of the emergency severity index and Australasian triage system in pediatric emergency care of Mofid Children's Hospital in Iran. *Bull Emerg Trauma*. 2018;**6**(4):329-33.
2. Ebrahimi M, Mirhaghi A. Re: inter-rater reliability and validity of the Ministry of Health of Turkey's mandatory emergency triage instrument. *Emerg Med Australas*. 2015;**27**(5):496-7.
3. Tanabe P, Travers D, Gilboy N, Rosenau A, Sierzega G, Rupp V, et al. Refining Emergency Severity Index triage criteria. *Acad Emerg Med*. 2005;**12**(6):497-501.

### Open Access License

All articles published by Bulletin of Emergency And Trauma are fully open access: immediately freely available to read, download and share. Bulletin of Emergency And Trauma articles are published under a Creative Commons license. Mandated authors will be offered CC-BY; all other authors will choose between CC-BY, CC-BY-NC and CC-BY-NC-ND.