ABSTRACT

Background: The triage is not an end but the beginning of a process of examination and clinical discrimination. The analysis of the implementation of triage systems and other data relating to it are very important for the design and operational change of emergency / urgency departments.

Objectives: General analysis of the data stored before and after implementation of Manchester triage system. This analysis seeks to identify whether or not there were changes in some indicators with the introduction of the system. After the implementation of the triage system it is intended to identify some of the characteristics of episodes of urgency, according to the different priorities, and detect any errors, inconsistencies and omissions in the data stored by the system.

Methods: Data were retrospectively collected from all episodes of emergency of the Hospital São Sebastião stored in the system about three years before and three years after the implementation of the Manchester Triage system.

Results: The introduction of the Manchester triage system in this hospital did not involved changes in the studied indicators, such as the mortality in the emergency department, percentage of admissions and readmissions. After the implementation of the system it was found an association between the priority and other indicators such as mortality in the emergency department, the mortality during hospitalization, length of stay in the emergency room and number of diagnostic tests. It was in the highest
priorities red, orange and yellow that there were a greater percentage of patients seen outside the pre-determined time for each priority. However, it was in the lower priorities that there were a higher percentage of episodes with no record of hours of medical observation. It was also detected a large percentage of errors and inconsistencies in the data stored mainly in the registration of hours of medical observation.

**Conclusion:** Although the triage aim is to change some indicators, such as the decrease in mortality, changes were not found in any of the studied indicators. The association between the priority given in Manchester triage system and mortality and stay in the emergency room, found in this work, goes with the results obtained in other national and international studies. Failure to register the hours of medical observation is extremely important because it prevents the proper assessment on compliance with waiting time recommended by the triage system. Even more so when, in the recorded data, there was a large percentage of waiting times exceeded mainly on higher priorities. This study found some important results for assessing the implementation of the Manchester system in Portugal. Since this study was a retrospective analysis of data it can be easily replicated in other hospitals with the Manchester System. In addition to these retrospective studies it is also recommended the development of studies of validity and reproducibility.