Titolo



Improvement of prognostic accuracy of NEWS2 score with Triage Data in Adults with Bacterial Sepsis: a Retrospective Cohort Study Identificativo
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Background: It is estimated that most patients with severe sepsis are admitted through the Emergency Department. Early identification and subsequent early appropriate therapy remains a cornerstone of sepsis management. The aim of the present study is to determine which of the clinical and laboratory variables recorded at triage are the best predictors of 28- and 90-day mortality in a population of septic patients admitted to an emergency department.

Methods: We conducted a retrospective cohort study of patients with suspected infection of bacterial origin (557 patients) admitted to the emergency department. Four categories of data (record variables, anamnestic data, admission vital parameters, score) were evaluated, as these are the only ones that can be evaluated in triage.

Results: Using logit analysis, we obtained a model for 28-day and 90-day survival thresholds consisting of NEWS2 score, age and lactate level. This model has a high predictive power both at 28 days (73,8% overall, 72,9% of survivors and 76,6% % of deaths) and at 90 days (71,6% overall, 71,5% of survivors and 71,9% of deaths). Including "terminal patient" status increases the predictive power at both thresholds, but more so for 90-day survival. Finally, this paper proposes new criteria for the early identification of patients with sepsis in triage, with positive outcomes.

Conclusions: A combination of the NEWS2 score with lactate level and age significantly increases its predictive power for survival at 28 and 90 days of septic patients in triage.

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