

Original Paper

Predicting mortality rate of patients in critical care unit using APACHE-II index

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Abstract

Background and Objective: The Acute Physiology and Chronic Health Evaluation II classification system has been extensively used for predicting the patient mortality in various diseases admission in ICU ward. The aim of this study was to assess the predicting mortality rate of patients in critical care unit using APACHE-II index.

Materials and Methods: This descriptive analytical study was done on 204 hospitalized patients with multiple diagnostic diseases admitted to ICU ward in Gazvin Kusan hospital during 2007. We used than demographic questionnaire and APACHE-II tool to evaluate the prediction mortality rate.

Results: Out of 204 patients admitted, 147 (72.1%) survived. Mean APACHE-II score of the subjects was 11.38 (with arrange of 0 to 41). The predicted death rate was 30.26% and the observed death rate was 27.9%. There was a perfect correlation between APACHE-II score and predicted death rate ($r=0.976$ and $P<0.05$). Mean APACHE-II score in survivors and non-survivors subjects was 13.97 and 25.36, respectively ($t:9.93$; $P<0.05$).

Conclusion: This study showed that APACHE-II score can truly predict mortality rate in patients in ICU ward. In addition, this index is helpful in follow up treatment cycle in critical care patients.

Keywords: APACHE-II scoring system, Mortality rate prediction, Critical care ward

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