Poster presentation

Surviving sepsis campaign guidelines for severe sepsis and septic shock: implementation and outcome of a 3-year follow up

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Introduction

The purpose of the study was to describe the effectiveness of the Surviving Sepsis Campaign bundles with regard to both implementation and outcome in patients with septic shock.

Methods

A single-center prospective observational study of patients admitted to the medical-surgical ICU fulfilling criteria for the international sepsis definitions. After a widespread 2-month educational program, implementation of Surviving Sepsis Campaign Resuscitation Bundles (RB) and Management Bundles (MB) were accomplished. A reinforcement educational program was performed in October 2007. Patients were recruited from September 2005 to August 2008.

Results

We analyzed 384 episodes of septic shock. The mean age was 64.5 ± 15 years, APACHE II score 23.2 ± 7.2 , Sequential Organ Failure Assessment score 9.5 ± 3 , and global hospital mortality 37.5%. The rate of compliance with the RB was 35.4%. There were significant differences in mortality between compliant (C) and noncompliant (NC) groups despite the similar characteristics and the severity of septic shock. The mortality rate was 42.5% in the NC group and 23.6% in the C group. The compliance rate with MB was only 10%, there were no differences in mortality

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between C and NC groups (41% vs. 37%). When the influence of age, severity, emergency department origin, and ICU admission delay was controlled by multivariate analysis, compliance with RB was independently associated with survival (OR = 0.39, 95% CI = 0.22 to 0.70, P < 0.01). Compliance rates with RB during three consecutive 12-month time periods were 34%, 23% and 45.4%, respectively (P < 0.01); inhospital mortality rates in those periods were 37%, 47% and 31%, respectively (P = 0.03). Compliance with MB decreased from 20% (first period) to 3% (third period).

Conclusion

Implementation of RB was associated with decreased mortality in patients with septic shock. The compliance rate with MB was poor and had no impact on survival.

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