

Sepsis bundles can decrease mortality in patients with severe sepsis or septic shock. However, current methods of measuring pressure, such as central venous pressure, are inadequate” Lu et al (2015).

Reference:

Lu, N.F., Zheng, R.Q., Lin, H., Shao, J., Yu, J.Q. and Yang, G. (2015) Improved sepsis bundles in the treatment of septic shock: a prospective clinical study. The American Journal of Emergency Medicine. April 25th. .

Abstract:

BACKGROUND: Sepsis bundles can decrease mortality in patients with severe sepsis or septic shock. However, current methods of measuring pressure, such as central venous pressure, are inadequate. This study investigated the effect of improved sepsis bundles informed by pulse-indicated continuous cardiac output.

METHODS: We compared the outcome of treatment with sepsis bundles informed by either conventional pressure measurements or pulse-indicated continuous cardiac output. Patients in 2 groups received fluid resuscitation, standard antibiotics, and oxygen therapy.

RESULTS: A total of 105 patients with septic shock were randomly divided into 2 groups: the conventional sepsis bundle group (n = 52) or the improved sepsis bundle group (ISBG, n =53). The ISBG significantly reduced the mean Acute Physiology and Chronic Health Evaluation II and Sepsis-related Organ Failure Assessment scores. Significantly fewer ISBG-treated patients received vasoactive drugs compared to conventional sepsis bundle group-treated patients. In addition, patients in the ISBG exhibited a significantly increased arterial blood lactate clearance rate and required less total fluid resuscitation and a shorter duration of mechanical ventilation and stay in the intensive care unit.

CONCLUSIONS: Pulse-indicated continuous cardiac output-directed sepsis bundles can reduce the severity of septic shock, provide more accurate fluid resuscitation, and reduce the duration of mechanical ventilation and stay in the intensive care unit.

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