



This study evaluates whether emergency department septic shock patients without a fever (reported or measured) receive less IV fluids, have decreased antibiotic administration, and suffer increased in-hospital mortality” Henning et al (2017).

Abstract:

Objective: This study evaluates whether emergency department septic shock patients without a fever (reported or measured) receive less IV fluids, have decreased antibiotic administration, and suffer increased in-hospital mortality.

Design: This was a secondary analysis of a prospective, observational study of patients with shock.

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Setting: The study was conducted in an urban, academic emergency department.

Patients: The original study enrolled consecutive adult (aged 18 yr or older) emergency department patients from November 11, 2012, to September 23, 2013, who met one of the following shock criteria: 1) systolic blood pressure less than 90 mm Hg after at least 1L IV

fluids, 2) new vasopressor requirement, or 3) systolic blood pressure less than 90 mm Hg and IV fluids held for concern of fluid overload. The current study is limited to patients with septic shock. Patients were grouped as febrile if they had a subjective fever or a measured temperature $>100.4^{\circ}\text{F}$ documented in the emergency department; afebrile patients lacked both.

Measurements and Main Results: Among 378 patients with septic shock, 207 of 378 (55%; 50–60%) were febrile by history or measurement. Afebrile patients had lower rates of antibiotic administration in the emergency department (81% vs 94%; $p < 0.01$), lower mean volumes of IV fluids (2,607 vs 3,013 mL; $p < 0.01$), and higher in-hospital mortality rates (33% vs 11%; $p < 0.01$). After adjusting for bicarbonate less than 20 mEq/L, lactate concentration, respiratory rate greater than or equal to 24 breaths/min, emergency department antibiotics, and emergency department IV fluids volume, being afebrile remained a significant predictor of in-hospital mortality (odds ratio, 4.3; 95% CI, 2.2–8.2; area under the curve = 0.83).

Conclusions: In emergency department patients with septic shock, afebrile patients received lower rates of emergency department antibiotic administration, lower mean IV fluids volume, and suffered higher in-hospital mortality.

Reference:

Henning, D., Carey, J.R., Oedorf, K., Day, D.E., Redfield, C.S., Huguenel, C.J., Roberts, J.C., Sanchez, L.D., Wolfe, R.E. and Shapiro, N.I. (2016) The Absence of Fever Is Associated With Higher Mortality and Decreased Antibiotic and IV Fluid Administration in Emergency Department Patients With Suspected Septic Shock. *Critical Care Medicine*. 45(6), p.e575–e582.

doi: 10.1097/CCM.0000000000002311

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