

The feasibility and clinical outcomes of conservative fluid management after sepsis resuscitation remain unknown” Semler et al (2019).

Abstract:

RATIONALE: The feasibility and clinical outcomes of conservative fluid management after sepsis resuscitation remain unknown.

OBJECTIVES: To evaluate the effect of a conservative fluid management protocol on fluid balance and intensive care unit (ICU)-free days among patients with sepsis.

METHODS: In a single-center phase II/III randomized trial, we enrolled adults with suspected infection, ≥ 2 systemic inflammatory response syndrome criteria, and either shock (mean arterial pressure < 60 mm Hg or vasopressors) or respiratory insufficiency (mechanical ventilation or oxygen saturation $< 97\%$ and fraction of inspired oxygen ≥ 0.3). Patients were randomized 1:1 to usual care or a conservative fluid management protocol. The protocol restricted intravenous fluid administration during shock to treatment of oliguria or increasing vasopressor requirement. In the absence of shock, loop diuretic infusion targeted equal fluid input and output each study day. The primary outcomes were mean daily fluid balance (phase II) and ICU-free days (phase III). **RESULTS:** At the completion of phase II ($n = 30$), the difference in mean daily fluid balance between groups (-398 mL) was less than the prespecified threshold (-500 mL) and the trial was stopped. Patients in the conservative fluid management ($n = 15$) and usual care ($n = 15$) groups experienced similar cumulative fluid input (8450 mL vs 7049 mL; $P = .90$) of which only 14% was intravenous crystalloid or colloid. Loop diuretic infusion occurred more frequently in the conservative fluid management group (40% vs 0% ; $P = .02$), and cumulative fluid output was $10\,645$ mL in the conservative fluid management group compared to 6286 mL in the usual care group ($P = .39$). Hemodynamic, respiratory, and renal function did not differ between the groups. **CONCLUSIONS:** In this phase II trial, a conservative fluid management protocol did not decrease mean daily fluid balance by more than 500 mL among patients with sepsis. **REGISTRATION:** Clinicaltrials.gov ; NCT02159079.

You may also be interested in...

Reference:

Semler, M.W., Janz, D.R., Casey, J.D., Self, W.H. and Rice, T.W. (2019) Conservative Fluid Management After Sepsis Resuscitation: A Pilot Randomized Trial. *Journal of Intensive Care Medicine*. January 10th. .

doi: [10.1177/0885066618823183](https://doi.org/10.1177/0885066618823183).