

LETTER

What is the optimal fluid status in critically ill patients?

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See related research by Smith and Perner, <http://ccforum.com/content/16/3/R76>

Smith and Perner [1] reported that septic patients with shock for three days or more who received higher fluid volumes had reduced mortality. This is an important issue because how much fluid is enough for critically ill patients has been controversial for a long time. The optimal fluid status should be set according to the prevailing conditions. In contrast to this study, most previous studies have found that a more positive fluid balance is associated with higher mortality [2,3]. Too much fluid induces interstitial edema, which results in end organ damage, poor wound healing and nosocomial infection [4].

In order to clarify the correlation between fluid therapy and mortality, it is necessary to use high or low fluid volumes as a covariate in a Cox's proportional hazards model of mortality. As we know, fluid resuscitation is a critical step to achieve early goal-directed therapy. Whether patients achieved the goal or not should also be included in analysis. Other parameters related to fluid status, such as central venous pressure level, body composition detected by bioimpedance device, and brain

natriuretic peptide level, can be added to the analysis in future studies.

Competing interests

The author declares that they have no competing interests.

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