

## **Letter regarding Brunkhorst et al. – Intensive insulin therapy and Pentastarch Resuscitation in Severe Sepsis**

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Although Brunkhorst et al.(1) describe their results as being similar to a previous study (2) we entertain suspicion that intensified insulin therapy was not adequately implemented in this multicentre trial. Insulin dose, which is an indicator for insulin resistance was only half used in the Leuven trial (despite a 60% rate of steroid treatment and a 30% rate of diabetes) (2) and only one fifth compared to another study in septic patients (3). Even though the authors discuss the impact of variability of mean daily blood glucose on mortality (4), they provide only data about mean morning glucose levels which do not adequately describe the whole time period. The rate of hypoglycaemia was found comparable to the Leuven trial (3), but given the lower insulin dose, it is questionable whether the Leuven protocol was safely implemented in ~14 patients per centre (vs. the 595 patients per centre(3)). Of note, the hypoglycaemic rate of patients at conventional therapy after randomization was stopped (7 events in 49 patients) was similar as for those on intensive insulin therapy.

- 1) Brunkhorst FM, Engel C, Bloos F, et al. Intensive insulin therapy and pentastarch resuscitation in severe sepsis. N Engl J Med 2008;358:125-39.
- 2) Van den Berghe G, Wilmer A, Hermans G, et al. Intensive insulin therapy in the medical ICU. N Engl J Med 2006;354:449-61.
- 3) Clayton SB, Mazur JE, Condren S, et al. Evaluation of an intensive insulin protocol for septic patients in a medical intensive care unit. Crit Care Med 2006;34:2974-8.
- 4) Egi M, Bellomo R, Stachowski E, et al. Variability of blood glucose concentration and short-term mortality in critically ill patients. Anesthesiology 2006;105:244-52.

*This letter represents the opinion of the listed authors.*