

Commentary

Paper reports overview: Cranberry juice, fluid replacement and bad innovations

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In the present issue of *Critical Care* the breadth of ongoing research is reflected in the diversity of the subjects reported on.

More evidence regarding what we should and should not be feeding our patients continues to emerge. A systematic review of immunonutrition trials [1] concludes that this therapy is of no benefit and may indeed be harmful. Outside the critical care arena, however, there is evidence that specific dietary supplements are beneficial, with cranberry juice lowering the incidence of urinary tract infections in a susceptible population [2]. Further trials of dietary supplements in critically ill patients are underway, with ω -3 fatty acids attracting particular interest. The value of enteral nutrition was reinforced by a study that investigated risk factors for the development of decubitus ulcers [3]. That report acts as a timely reminder that, regardless of advances in cutting edge therapies (see below), the quality of basic care must remain a priority. The most striking finding of that study is the marked increase in incidence (from 0.9 to 8.9% over the study period) – a worrying but perhaps unavoidable reflection on the priorities of care. Reducing the incidence of ileus in intensive care unit patients may also be on the horizon with the first successful trial of a new selective gastrointestinal opioid receptor blocker in postoperative patients [4].

The optimal regimen of intravenous fluid replacement remains a topic of considerable interest. Dr Venn discusses a paper by Waters *et al.* [5], who conducted a randomized trial of normal saline versus Ringer's lactate and found no difference in outcomes despite the propensity of normal saline to provoke an iatrogenic hyperchloraemic acidosis. A new systematic review of the use of albumin as an intravenous fluid therapy [6] concludes that this intervention is not associated with an excess mortality, unlike the previous and controversial systematic review on this topic [7].

Another example of the hazards of technological innovations has emerged from the introduction of automated taps that are employed to reduce cross contamination when hand washing [8]. Alarming, a study of the effectiveness of such devices found that, rather than improving control of infection, they actually act as a reservoir for intensive care unit pathogens, in particular *Pseudomonas aeruginosa* and *Legionella* spp.

Although not reported on, the following may be of interest. Sepsis research has suffered a further blow with the disappointing results of the high-dose antithrombin III trial [9], in which coadministration of heparin might have been responsible for neutralizing the beneficial effects of this therapy, and most certainly significantly increased the risk for haemorrhage. On a more optimistic note, early experimental work into the efficacy of a naturally occurring group of compounds, the cecropins, that exhibit antiendotoxin activity appears promising [10]. Finally, research into the optimal diagnostic and therapeutic interventions for pulmonary embolus are becoming apparent. The limitations of helical computed tomography are reinforced by the findings of Perrier *et al.* [11], whereas there appears to be no value of thrombolysis over heparinization in haemodynamically stable patients with massive pulmonary embolism [12].

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