

EDITORIAL

Set your goals to score your points

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The main directive in our research is to strive to enhance the outcome of patients admitted to our ICUs. We know more and more on how we can optimise their outcomes. We use protective mechanical ventilation, evidence-based feeding strategies, antibiotic stewardship and selective gut decontamination. We sedate as little as possible, mobilise patients and try to prevent delirium. We use a variety of machines to take over organ functions and try to adhere to the plethora of guidelines which dictate the optimum treatment of our patients in the ICU. Doing all this we have achieved wonderful results and have decreased the projected mortality of our patients in the last decades to a significant extent. However, there are still no evidence-based answers to the majority of our day-to-day questions regarding the optimal care of our patients. Therefore, our efforts should be focussed on answering these unmet questions through the design of nationwide and international trials.

Although optimising the care of our ICU patients during their stay on the ICU is of utmost importance, one should not forget that optimising the care of our patients before they enter the ICU, or after they have left it, might be an opportunity to enhance their outcomes as well and a significant part of our attention should be focussed on these periods too. A large proportion of our patients, usually between 30 and 50%, are admitted to the ICU electively as they are admitted after major surgery. Optimising the pre-surgical care of these patients might translate into better recovery and improved outcome of their ICU stay. In recent years many initiatives have been undertaken to improve preoperative and intraoperative care. Anaesthesiologists have implemented pre-surgical clinics in which patients are screened and optimised for surgery. Checklists have been designed and implemented which have been shown to significantly improve surgical outcome.^[1,2] Specific guidelines regarding perioperative care have been shown to directly improve surgical outcome in specific subsets of patients. An example of such guidelines is the 'enhanced recovery program in colorectal surgery' which

advocates, among other things, the restricted use of fluids during colorectal surgery with the aim to reduce post-surgical complications.^[3] Taken together, it is increasingly recognised that preoperative and intraoperative care directly influences the post-surgical outcome and that as of yet largely unknown factors in this care may be essential for good clinical outcome during the post-surgical ICU stay.^[4,5]

In this issue of the Journal, Van der Kolk et al. describe an intervention which aimed to improve the outcome of patients undergoing transhiatal oesophagectomy.^[6] Their reasoning was that this subset of patients, who are especially vulnerable to hypovolaemia due to their restricted intake and preoperative chemoradiation, might benefit from adequate restoration of cardiac output preoperatively. The intervention consisted of preoperative measurement of ScvO₂ and optimisation of this parameter using a predefined algorithm if the ScvO₂ was below 70%. Patients undergoing surgery before implementation of the intervention were compared with patients treated according to an ScvO₂-guided fluid algorithm. It was shown that the incidence of sepsis was decreased, mechanical ventilation time was shortened and ICU readmission and mortality were reduced. Furthermore, expansion of volume was associated with significant decreases in intraoperative blood loss as well as the use of blood products. Surprisingly, these benefits did not seem to be related to whether the target ScvO₂ of 70% was actually obtained. Therefore, reaching the goal did indeed improve outcome but this seemed to be unrelated to the goal itself, a phenomenon that was also observed in the lactate guidance study by Jansen et al.^[7] Although the before and after design of the study implicates a large potential for bias and the included patient numbers were relatively low, this study should impact on our thinking on how we might be able to optimise the outcome of our patients in the ICU before they even reach it. It seems that setting specific goals preoperatively improves patient outcome, even when reaching that goal per se does

not seem to be related to this. Setting a goal in itself, however reasonable this goal may be, might improve patient care in a way we have yet to elucidate. Follow-up studies should show us if there are even better goals which we should use to measure the haemodynamic optimisation of our surgical patients and a randomised trial would be most interesting to see whether implementation of such goals indeed improves patient outcome, such as the interesting observational study by Van der Kolk et al. suggests.

Disclosures

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