

CSL Behring
Supplement from
Euroanaesthesia
2017 Symposium

Recovery

The role of autophagy in the metabolism and outcomes after surgery, *J. Gunst et al.*

Fast-track surgery: a multidisciplinary collaboration, *H. Kehlet*

The patient voice in Enhanced Recovery After Surgery, *A. Balfour & R. Alldridge*

The role of physiotherapy in Enhanced Recovery after Surgery in the ICU, *T.W. Wainwright et al.*

Innovations in monitoring: from smartphones to wearables, *F. Michard*

Physical rehabilitation in the ICU: understanding the evidence, *C. M. Goodson et al.*

Optimising nutrition for recovery after ICU, *P.E. Wischmeyer*

Outcomes after 1 week of mechanical ventilation for patients and families, *M. Parotto & M.S. Herridge*

Continuing rehabilitation after intensive care unit discharge, *S. Evans et al.*

The hidden faces of sepsis, what do they tell us? *I. Nutma-Bade*

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Ultrasound-guided mechanical ventilation, *F. Mojoli & S. Mongodi*

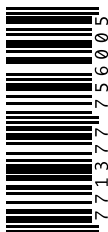
Haemodynamic monitoring: stuff we never talk about, *C. Boerma*

Animal-assisted activity in the intensive care unit, *M.M. Hosey et al.*

From command and control to

modern approaches to leadership, *T. Dorman*

Enabling machine learning in critical care, *T.J. Pollard & L.A. Celi*



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Recovery

Recovery after critical illness has received increasing attention in recent years, and rightly so. We highlighted neglect of recovery as one of the ten big mistakes in intensive care medicine (Vincent et al. 2014). While survival has improved tremendously, for a long time insufficient attention was given to how patients (and their families and caregivers) were coping after leaving the ICU. Planning for recovery is important even before the ICU, in scheduling surgery and perioperative care, and during and after the ICU stay. Enhanced recovery after surgery (ERAS) is now a feature of many different surgeries. Even for more complex operations that include planned ICU admission, the recovery pathway is part of the planning.

Our cover story begins with autophagy. Jan Gunst, Ilse Vanhorebeek and Greet Van den Berghe consider the role of autophagy in recovering from organ failure and muscle weakness. They note the potential for targeting autophagy by activating it pharmacologically or modulating it via metabolic interventions. Next, the “father” of fast-track surgery, Henrik Kehlet, shares his reflections on the progress of fast-track surgery worldwide, the need for multidisciplinary teamwork in optimising perioperative care, and the importance of patient and family information. The patient perspective on enhanced recovery after surgery comes from Angie Balfour and Ruth Alldridge, who discuss preoperative preparation, postoperative complications and the reality of being in hospital through to discharge and going home. Next, Thomas W. Wainwright, David A. McDonald and Louise C. Burgess describe the role of physiotherapy within ERAS and ICU. They note the need to increase the awareness and involvement of physiotherapists within the outpatient setting, as patients’ physical weakness may persist after discharge. Frederic Michard describes recent innovations in cardiorespiratory monitoring, including smartphones and wearables, that can be used from prehabilitation and intraoperative use through to the rehabilitation period. A simple equation can be used to estimate how much hospitals could invest in such technology to improve quality of surgical care at no cost, he explains. Recent research into physical impairment in ICU patients is reviewed by Carrie M. Goodson, Claire Tipping and colleagues. They look at recent clinical trials evaluating physical rehabilitation during critical illness and interventions that may improve patient outcomes. Next, Paul E. Wischmeyer explains what the metabolism and caloric

needs are for recovery after ICU, how nutrition delivery after ICU should be best delivered, and outlines the role of specific anabolic/anti-catabolic agents, vitamin D and the microbiome and probiotics in recovery. Just one week on mechanical ventilation can have a long-term deleterious effect on patients following discharge from the ICU. Matteo Parotto and Margaret S. Herridge review recent findings on outcomes, including the patient and family perspectives. Recovery after ICU can be assisted by innovative technology. Next, Sara Evans, Dhaneesha Navin Sannasgala Senaratne and Carl Waldmann discuss the gamut of technological innovations that promote survival and enhance recovery, covering weaning, communication, early mobilisation and the ICU environment through to continuity of care and specific issues after ICU. Finally, ten years on from her ICU stay due to sepsis, former nurse Idelette Nutma-Bade describes her path to recovery, which inspired her to write a book and run workshops to help other patients recovering from sepsis.

In our Matrix section, Megan M. Hosey, Janice J. Jaskulski and colleagues explain what animal-assisted activity and therapy are, how to incorporate these into a treatment plan, and outline the considerations for setting up such a programme. Christiaan Boerma considers issues with haemodynamic monitoring that are not often addressed in the literature, and explains how to improve implementation strategies for haemodynamic monitoring. Francesco Mojoli and Silvia Mongodi describe how to use point-of-care lung, diaphragm and cardiac ultrasound to manage the mechanically ventilated patient, diagnose complications and integrate the information during the weaning phase. In our Management section, Todd Dorman urges us to leave the ‘command and control’ form of leadership in the past. He outlines modern approaches to leadership that will get the best from the ICU team in order to enhance patient and family care. Next, Tom J. Pollard and Leo Anthony Celi get beyond the hype to explain how to facilitate adoption of machine learning in critical care. Collaboration with other disciplines is vital, they say, as well as earning the trust of society to use and reuse data.

The *ICU Management & Practice* team will be at LIVES 2017 in Vienna. We hope to see you there!

As always, if you would like to get in touch, please email JLVincent@icu-management.org

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Reference

Vincent JL, Hall JB, Slutsky AS (2014) Ten big mistakes in intensive care medicine. *Intensive Care Med*, 41[3]: 505-7.