

What is the narcotic of choice in intensive care unit (ICU) patients and does it matter? In this issue of *Critical Care and Resuscitation*, Casamento¹ deals with the challenges and controversies surrounding the choice of narcotic agent in ICU by comparing what is known about fentanyl and morphine (the two most common agents used in Australia and New Zealand). With renewed interest in analgo-sedation, the time may be ripe for a comparative trial or to study novel agents such as alfentanil or remifentanil. What happens to the pancreatic ability to release C-peptide (a major immunomodulator) when patients with diabetes receive intravenous insulin? Bitker et al² address this question and show that, in septic patients, exogenous insulin suppresses C-peptide release. Gouldthorpe and colleagues³ explore what happens to patients with “cold” (hypothermic) versus “warm” (febrile) sepsis who present to the emergency department. The findings are striking: doctors cool down fever but do not warm up hypothermia. Whether such an approach makes sense and is desirable is unknown, but the findings suggest the need for further investigations. Jacques and colleagues⁴ move into a new and important area of investigation as ICU clinicians seek to make their care more patient-centred: patient discomfort. This is the first dataset in Australian and New Zealand patients and opens the door to a new area of investigation beyond pain, delirium, sleep, and sedation. Persistent critical illness has been an area of active research in Australia and New Zealand, but there is still limited understanding of why some patients remain in ICU and are still alive at 10 days and yet unable to be discharged to the ward. In a world first, Darvall and colleagues⁵ explore the characteristics and course of illness and organ support in such patients, providing the first insights into why and how this condition develops. Endotracheal intubation is a key and, if unsuccessful, potentially life-threatening procedure performed in the ICU, but there is yet limited understanding of current practices in Australia and New Zealand.

Toolis et al⁶ performed a binational survey to obtain information on current practice and showed that there is marked variation in many aspects of practice and in the use of video laryngoscopy. As studies begin to focus on how best to ensure patient safety in this setting,⁷ Australian and New Zealand ICU practice is open for interventional studies. CCR has repeatedly focused on fluid bolus therapy, as it is a major component of ICU practice.⁸⁻¹¹ However, while such therapy has been extensively explored in adults, there is limited information in children. Gelbart and colleagues¹² take advantage of their electronic data system to study the physiological changes seen following a fluid bolus in children after cardiac surgery in an inception cohort. They find that haemodynamic responses to such therapy are infrequent and not sustained, thus raising concern about their clinical value. Vitamin-based treatment in patients with septic shock is an active area of investigation worldwide. The VITAMINS study is a collaborative Australian and New Zealand trial aiming to randomise 216 patients to vitamin C, thiamine and hydrocortisone versus hydrocortisone alone and which is approaching completion. In this study, the VITAMINS investigators¹³ present the protocol and statistical analysis plan before trial publication. Finally, as is appropriate for the official journal of the College of Intensive Care Medicine of Australia and New Zealand, CCR continues to focus on the training of future ICU specialists. In this issue, Venkatesh et al¹⁴ report that not all is well with training, with many trainees having limited exposure to common procedures and experiencing major difficulties in accessing anaesthesia terms, and 30% of trainees feeling unprepared for taking up a specialist position. There are clear problems with capacity to train, which cannot be ignored and represent a serious present and future challenge for the College.

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