And the award goes to.....

Andrea Marshall

The Editorial team at Australian Critical Care recognises that the quality of research submitted to our journal continues to rise. While we often look at citation of our work as a reflection of quality, this is not necessarily always the case¹. Citations can be some years in coming, high-quality research may not be heavily cited, and poor and controversial research can sometimes receive high numbers of citations. Public acknowledgement of the quality of our work is uncommon for most. Therefore, in 2017, we decided that it was appropriate to salute the high-quality research submitted to our journal. Selection criteria included quality and scholarship, originality, and relevance of the article. We also considered whether the findings were (or had potential to be) translated into clinical practice and contribute to positive outcomes for patients, families, or health services. The inaugural Australian Critical Care Excellence in Research Award was granted in 2017 to a team led by Dr Marta Raurell-Torreda from Spain for their article Optimising non-invasive mechanical ventilation: Which unit should care for these patients? A cohort study.²

Reflecting on the year of 2018, which saw more than 200 submissions to Australian Critical Care and a declining rejection rate, we knew that our selection process last year was going to be more challenging. A team of four editors, led by Dr Fenella Gill, carefully assessed all research articles published in one of the six issues of the journal in the 2018 calendar year. A short list of eight potential articles^{[3], [4], [5], [6], [7], [8], [9], [10]} was compiled, and after individual assessment, the selection committee agreed on the winning article. The winning article selected was by Bannon et al.⁴ who recognised the importance of nonpharmacologic management of delirium in the intensive care unit and set out to identify what factors were helping or hindering implementation of strategies known to be beneficial for delirium management.

What was somewhat surprising was that half of the article selected focused on delirium. Delirium is an important issue for critically ill patients, and while the reported incidence varies, it can have a significant impact on both short-term and long-term outcomes.[9], [10] While we might associate delirium with advancing age, Ista et al.⁶ have reminded us that delirium can also affect the young. Clearly, strategies are needed to minimise the development and impact of delirium in our patients.

Bannon et al.⁴ began their work by undertaking a systematic review of the literature on nonpharmacological interventions for delirium, with the findings subsequently presented to a team of experts who helped select interventions to be included in a delirium bundle. The bundle had four components: (1) education and family participation; (2) sedation minimisation and pain, agitation, and delirium protocol; (3) early mobilisation; and (4) environmental interventions. They used the Medical Research Council framework for the development and evaluation of complex interventions¹¹ and a systematic review of factors affecting intervention implementation to inform their work.¹²

The key focus of the study by Bannon et al.⁴ was to identify factors that might help or hinder implementation of the delirium bundle. The time taken by the researchers to determine these factors illustrates the importance of contextual assessment before implementation to ensure success. Furthermore, the inclusion of multiple perspectives on the issue allowed the researcher to understand potential factors from the perspective of staff who would deliver the intervention and patients who would be the recipients. The inclusion of families within this research is a strength and is consistent with recommendations to include both patients and families as partners in improving care delivery for critically ill patients.[13], [14] It is through these partnerships that we can truly understand what care processes are important to patients and their families. The mismatch between staff and patient perceptions about confidentiality is just one example that illustrates the importance of eliciting the views of patients and families when undertaking clinical research. Inclusion of their views is a critical

step in assisting us to avoid inadvertently making incorrect assumptions about what patients and their families might want in their care.

Including staff, patients, and families in this important work will also have an impact beyond the identification of barriers and facilitators to implementation of the delirium bundle. Including end users in this research is an important strategy for helping with intervention uptake and sustainability,¹⁵ with early engagement recognised as an important first step in any implementation process.

Methodologically, the broad sampling approach used allowed for a range of views to be obtained from patients, families, and clinicians across the United Kingdom, and Skype technology was used to collect data from participants across a large geographical area. As a data collection strategy, this obviously has important resource implications for research conducted in countries such as Australia where the tyranny of distance often does not allow for inclusion of participants from outside metropolitan areas. Such innovative data collection strategies are also economically sensible.

This article 4, recognised for excellence in research, represents the first step in a body of research that we hope stems from this initial work, and we look forward to hearing more from this team as they work to reduce delirium in the critically ill patient population. In recognition of this work, Australian Critical Care is making the full article freely available until the end of 2018. Please feel free to access this at <https://doi.org/10.1016/j.aucc.2018.02.007>.

References

P. Nieminen, J. Carpenter, G. Rucker, M. Schumacher, The relationship between quality of research and citation frequency, *BMC Med Res Methodol*, 6 (2006), p. 2

M. Raurell-Torredà, E. Argilaga-Molero, M. Colomer-Plana, A. Ródenas-Fransico, M.T. Riuz-Garcia, J. Uya Muntaña, Optimising non-invasive mechanical ventilation: which unit should care for these patients? A cohort study, *Aust Crit Care*, 30 (4) (2017), pp. 225-233

E. Alp, T. Tok, L. Kaynar, F. Cevahir, I.H. Akbudak, K. Bundogan, M. Cetin, J. Rello, Outcomes for haematological cancer patients admitted to an intensive care unit in a university hospital, *Aust Crit Care*, 31 (2018), pp. 363-368

L. Bannon, J. McGaughey, M. Clark, D.F. McAuley, B. Blackwood, Designing a nurse-delivered delirium bundle: what intensive care unit staff, survivors and their families think?, *Aust Crit Care*, 31 (2018), pp. 174-179

G. Finco, M. Musu, G. Landoni, M. Campagna, A. Lai, L. Cabrini, S. Sardo, P. Mura, M. Galletta, Healthcare-associated respiratory infections in intensive care unit can be reduced by a hand hygiene program: a multi-centre study, *Aust Crit Care*, 31 (2018), pp. 340-346

E. Ista, H. te Beest, J. van Rosmalen, M. de Hoog, D. Tibboel, B. van Beusekom, M. van Dijk, Sophia Observation withdrawal Symptoms-Paediatric Delirium scale: a tool for early screening of delirium in the PICU, *Aust Crit Care*, 31 (2018), pp. 266-273

P. Kiekkas, F. Fligou, M. Igoumenidis, N. Stephanopoulos, E. Konstantinou, V. Karamouzos, D. Aretha, Inadvertent hypothermia and mortality in critically ill adults: systematic review and meta-analysis, *Aust Crit Care*, 31 (2018), pp. 12-22

M. Kwiatosz-Muc, A. Fijałkowska-Nestorowicz, M. Fijałkowska, A. Aftyka, M. Kowalczyk, Stress prevalence and stressors among anaesthesiology and intensive care unit workers: a multicentre survey study, *Aust Crit Care*, 31 (2018), pp. 391-395

M.L. Mitchell, D.H.K. Shum, G. Mihala, J.E. Murfield, L.M. Aitken, Long-term cognitive impairment and delirium in the intensive care unit: a prospective cohort study, *Aust Crit Care*, 31 (2018), pp. 204-211

P. Rood, G. Huisman-de Waal, H. Vermeulen, L. Schoonhoven, P. Pickkers, M. van den Boogaard, Effect of organisational factors on the variation in incidence of delirium in intensive care unit patients: a systematic review and meta-regression analysis, *Aust Crit Care*, 31 (2018), pp. 180-187

P. Craig, P. Dieppe, S. Macintyre, S. Michie, I. Nazareth, M. Petticrew, Developing and evaluating complex interventions: the new Medical Research Council guidance, *BMJ*, 337 (2008), p. a1655

J.A. Durlak, E.P. DuPre, Implementation matters: a review of research on the influence of implementation on program outcomes and the factors affecting implementation, *Am J Community Psychol*, 41 (2009), pp. 327-350

M. Mitchell, W. Chaboyer, E. Burmeister, M. Foster, Positive effects of a nursing intervention on family-centred care in adult critical care, *Am J Crit Care*, 1 (6) (2009), pp. 543-553

A.P. Marshall, M. Lemieux, R. Dhaliwal, H. Seyler, K.N. MacEachern, D.K. Heyland, Novel, family-centred intervention to improve nutrition in patients recovering from critical illness: a feasibility study, *Nutr Clin Prac*, 32 (3) (2017), pp. 392-399, 2017

I.D. Graham, A. Kothari, C. McCutcheon, Moving knowledge into action for more effective practice, programmes and policy: protocol for a research programme on integrated knowledge translation *Imp Sci*, 13 (2018), p. 22