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Improving long term patient outcomes following Intensive Care

Our view of what represents ‘successful’ intensive care has been evolving over the recent past. Until approximately ten years ago intensive care clinicians focused almost exclusively on survival to either intensive care or hospital discharge. Although international rates vary slightly, approximately three-quarters of our patients survive to go home. Consequently, survival alone is insufficient to demonstrate success or to enable our patients to return to a meaningful life. Instrumental in driving this change in focus was the 2002 Brussels Roundtable “ Surviving Intensive Care” that focused on highlighting the issues, summarising the limited evidence that was available at the time and proposing areas for future research and clinical practice (Angus *et al*. 2003). Since that time there has been an explosion of work examining recovery of intensive care patients beyond the confines of both intensive care and the acute hospital system.

Aspects of recovery that may be compromised include physical or functional, psychological, cognitive, social, economic and quality of life components. There is increasing evidence that patients continue to have significant compromise 1 – 2 years after intensive care unit (ICU) admission, with as many as half our patients experiencing physical (Dowdy *et al*. 2005, Hofhuis *et al*. 2003), psychological (Davydow *et al*. 2009, Jackson *et al*. 2007) and cognitive compromise (Hopkins *et al*. 2007). Proposed mechanisms behind this frequent and extensive compromise include routine aspects of disease and care such as hypoxia, hypotension, hyperglycaemia, delirium, sedatives use, bed rest and use of physical restraints during ICU (Hopkins *et al*. 2007, Boer *et al*. 2008, Jones *et al*. 2007).

You might ask why this lack of recovery concerns us as critical care nurses. It concerns us primarily for two reasons; first, we are not realising the full benefit of the care we have provided if patients do not recover all aspects of their health and, second, the ongoing compromise places a significant burden on the patient, as well as their family, the health care system and society. Our goal of intensive care is not just to help people survive, but also to help them return to a health status that is as near as possible to their health status prior to the illness or injury that prompted ICU admission.

What can we, as critical care nurses, do about this lack of recovery? We have multiple time points where we can intervene in an attempt to improve recovery. Some of these interventions are primarily our responsibility within the intensive care environment, some of the interventions should be delivered by the multi-disciplinary intensive care team and some of the interventions will be delivered by our colleagues practicing at other points in the care continuum. However even those interventions delivered outside of the intensive care environment often require our initiation in order to ensure the relevant patients receive the most appropriate care. Examples of the ways we can intervene to improve care include:

- adapt our care to limit the detrimental effects of it, for example mobilise our patients much earlier than we often do, limit the use of restraints wherever possible, avoid excessive use of sedation so that the majority of our patients are managed in an easily rousable state and ensure effective management of pain;

- introduce programs of care within ICU that help with long term recovery, for example introduce the use of patient diaries and encourage family to be an active participant in the patient's ICU stay;
- identify, through relevant research programs, which patients are likely to have more problems with recovery – then ensure referral of these patients to the relevant personnel or services to obtain assistance for the longer term, this discharge planning should not commence on the day the patient is being transferred to the ward but should be conducted in a proactive manner; and
- in conjunction with appropriate colleagues, develop specific programs for patients after they leave ICU and hospital to help long term recovery, these programs might consist of telephone follow-up services or specific rehabilitation or exercise programs for some sub-groups of patients.

Some of these interventions require time, effort and changing the priorities that we place on our practice. They may also require development of new skills and sourcing of new equipment. While it is usually relatively easy to concentrate on pre-defined and systematic tasks such as recording observations and suctioning the patient's endotracheal tube, it is often much more difficult and time-consuming to initiate mobilising the patient, or ensuring there are adequate methods of stimulation for the patient who is awake and bored by the ICU environment. These are often activities that cannot be undertaken in isolation by the nurse who is caring for the patient, but require the collaboration of multiple members of the team which adds additional complexity, planning and time requirements. Despite these extra challenges, it is essential that we plan for care that extends beyond the end of our 8, 10 or 12 hour

shift and facilitate the activities that will not only help our patients to survive, but also to recover in the longer term.

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