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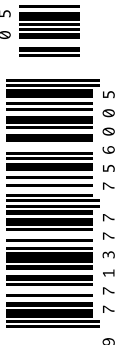
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CAREGIVERS OF ICU SURVIVORS AT HIGH RISK OF DEPRESSION



Image credit: UHN

Jill Cameron

A Canadian study has found that caregivers of ICU survivors experience symptoms of depression up to 1 year after their relative is discharged (Cameron et al. 2016). Factors associated with worse mental health symptoms included younger age and less social support and sense of control over life. Older caregivers caring for a spouse, with a higher income and better social support and sense of control had better health outcomes. No patient variables were consistently associated with caregiver outcomes over time.

In an email to *ICU Management & Practice*, lead

author Jill Cameron, PhD, Affiliate Scientist at Toronto Rehabilitation Institute-University Health Network (UHN) and Associate Professor, Department of Occupational Science and Occupational Therapy, Graduate Department of Rehabilitation Science, Faculty of Medicine, University of Toronto, explained that the study is one of the first to take a comprehensive look at caregiver outcomes. The research team enrolled 280 caregivers of patients in 10 hospitals across Canada, who received 7 days or more of mechanical ventilation in an ICU.

"We simultaneously examined patient illness severity, aspects of the caregiving situation (e.g. amount of care provided, impact on everyday life of providing care), and aspects of the caregiver (e.g. their social support network, their ability to maintain control over situations). When you consider all factors at the same time, the most important seem to be those related to the caregiving situation and the caregiver. This suggests that even in situations where the illness is fairly mild, and the disability is low, caregivers without adequate supports, or who don't have good control over their situation may experience depression and need help", said Cameron.

Findings

- Caregivers' average age: 53
- Gender: 70% female
- Role: 61% caring for a spouse
- Depression symptoms:
 - 67% at 7 days
 - 43% at 1 year
- Improvement in depression symptoms: 84%

The next phase will focus on developing models of rehabilitation for patient recovery and a programme for caregivers to better prepare. Dr. Cameron said that many interventions have been developed and tested for different caregiving populations. She added: "We may be able to identify those caregivers most in need of support and target them for specific support. This would allow the health-care system to make the best use of available resources and still meet the needs of those caregivers who need more support." ■

Reference

Cameron JI, Chu LM, Matte A et al. for the RECOVER Program Investigators [Phase 1: towards RECOVER] and the Canadian Critical Care Trials Group [2016] One-year outcomes in caregivers of critically ill patients. *N Engl J Med*, 374: 1831-41



PERSISTENT CRITICAL ILLNESS - THE 5 PERCENT

A study of over 1 million ICU patients has found that just 5 percent of patients account for 33 percent of ICU bed days. The researchers, led by Theodore Iwashyna, MD, Associate Professor of Internal Medicine at the University of Michigan (U-M) Health System and a member of the VA Center for Clinical Management Research and the U-M Institute for Healthcare Policy and Innovation, have identified these patients as having the condition of persistent critical illness (PerCI) (Iwashyna et al. 2016). The research team based their work on data from patients treated in 182 ICUs across Australia and New Zealand between 2000 and 2014.

Findings

Of the million patients 51,509 were found to have PerCI. PerCI patients spent more than a million days in ICU beds, and more than 2.2 million days in the hospital overall. Nearly one-

quarter of the patients with PerCI died in the ICU. Just under half were able to go directly home from the hospital - compared with three-quarters of non-PerCI ICU patients.

The researchers looked at the patients' hospital records to see how well each patient's eventual outcome could be predicted. They found that after about 10 days in the ICU, the usual clinically-based prediction tools lost their power to predict risk of death. Who the patient was before he or she came to the hospital mattered more to their chance of dying. This point signals transition to PerCI, say the researchers.

Dr. Iwashyna confirmed that PerCI is a separate state that patients transition into: "you're there because you're there, stuck in this cascade that we can't get you out of," he said. He added: "The reason why these patients came in to the hospital in the first place doesn't matter nearly as much anymore - what matters is that they've

been there, and some aspects of how well their body worked before they came in, such as age. These [patients] are the ones where no matter how hard we try, we can't get them balanced."

Next Steps

Carol Hodgson, PhD, a Monash University ICU physiotherapist and second author, explained that PerCI focuses on different characteristics of patients than other efforts used to describe long-stay patients, such as 'failure-to-wean'. "That label focuses the care team on the particular details of respiratory mechanics," she said. "Our clinical experience and our data suggest instead that the problem may be that PerCI patients may never even reach the point where ICU doctors are able to try to get them off a ventilator - they just keep cascading from new problem to new problem. These patients need particular strategies that may prevent or reduce PerCI within the ICU, and additional