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EDITORIAL

ICU aftercare, doing the right thing, the wrong way?

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Intensive care unit (ICU) treatment has made major developments over the last decades. New technologies are used, medical treatment has been optimised and the use of artificial intelligence has made its entrance into the ICU. In addition, ICU patients are becoming increasingly complex, fragile or aged. Finally, we have become aware that the burden that comes with acute illness treated in the ICU does not end with discharge.

ICU follow-up studies have provided insight into the sequelae of ICU treatment, marked by a decreased quality of life and increased hospital resource use and long-term mortality. In 2012 the definition of Post Intensive Care Syndrome was established and defined as new or worsening impairment in physical, cognitive or mental health status arising after critical illness and persisting beyond discharge from the acute care setting.[1] It was followed by numerous long-term follow-up studies that have confirmed that newly acquired disabilities are common and although ICU care has improved, the long-term effects continue to exist.

Realising that the burden of post intensive care impairments is caused by ICU treatment has inspired many ICU clinicians to take responsibility in ICU aftercare. In the past two decades, several initiatives were commenced in order to find evidence to guide interventions that can minimise the impact of ICU treatment on patients and caregivers.

Interventions that have been tested were installed both during ICU or hospital admission as well as after discharge. During ICU treatment, early mobilisation and less sedation have become standard of care. The benefits of an ICU diary are also undisputed.[2] However, other examples showed less convincing results. Intensive physical rehabilitation beyond ICU discharge, for example, could not improve long-term physical recovery nor quality of life.[3] Neither could preventive psychological interventions during ICU admission reduce post-traumatic stress symptoms after discharge.[4]

Interventions studied after ICU discharge are also varied. The Dutch situation as described by Hendriks et al. in this issue[5] is comparable with worldwide initiatives varying from telephone consultations and peer support to hospital-based programs and multidisciplinary outpatient clinics. However, well-conducted studies are limited and it is therefore impossible to determine whether ICU follow-up services are effective in identifying and addressing the health needs of ICU survivors.[6]

Despite the lack of convincing evidence, Hendriks and colleagues found that almost all ICUs in the Netherlands offer some form of ICU aftercare. Approximately 50% offer a formal outpatient clinic to provide follow-up of the acute illness.

It is at least interesting that all ICUs in the Netherlands provide interventions that are not formally evidence based. Moreover, the committee performing the quality assessments of Dutch ICUs (NKIC) requires every ICU to offer some form of post-ICU care. Apparently, Dutch ICU physicians are, despite the lack of proven efficacy, convinced that post-ICU care adds to the wellbeing of former ICU patients. So, why is it so difficult to demonstrate the benefits of post-ICU care?

Maybe it is the wrong timing? Hendriks reported that the majority of aftercare was delivered three to six months after discharge. However, by this time, some patients have already encountered an unscheduled readmission. Furthermore, when comparing this timing to cardiac rehabilitation, which usually starts two to six weeks after discharge, post-ICU care might be started too late.

Maybe it is the wrong patient? There are multiple risk factors that are known to affect the risk of adverse outcome of ICU treatment. Examples are patients with premorbid mental illness, who are more likely to experience post-traumatic stress symptoms, and patients with a low socioeconomic status which is associated with reduced subjective long-term physical

functioning.[7] These categories of patients might benefit more from specific interventions targeted to their needs. In addition, pre-existing comorbidity count might be one of the most important predictors of long-term outcome. In patients with multiple comorbidities, post-ICU physical and mental illness may have limited or no response to ICU aftercare.[8]

Maybe it is the wrong intervention? Coping strategies and resilience are well known to influence subjective wellbeing and the ability to adjust to newly acquired disabilities. In ICU survivors, resilience has been described to be inversely correlated with mental health and pain.[9] Should ICU aftercare focus on methods to modify resilience in order to improve subjective wellbeing?

Maybe it is the wrong research question? When asking ICU survivors which outcome matters the most, they reported many quality of life domains which are not captured by the commonly used instruments.[10] That could either mean that ICU aftercare fulfils needs that currently go unmeasured or that ICU aftercare does not match up with the needs of former ICU patients.

Maybe it is the wrong professional? There is no doubt that most ICU clinicians are excellent physicians, researchers and teachers. But how many are also truly capable of providing ICU aftercare focused on objectively assessing symptoms of cognitive or mental disabilities? Of addressing unmet needs, include caregivers in treatment plans or re-establish social participation? Perhaps costly and logistically challenging, but a joined intervention by a rehabilitation specialist and ICU caregiver in close collaboration with the general practitioner might be the key to success.

Should we stop providing ICU aftercare while awaiting more evidence?
No. There are multiple other benefits of ICU aftercare. For ICU nurses, physicians and trainees, seeing patients in the after-care outpatient clinic is motivating. Recent focus groups stated that being part of post-ICU care was rewarding, informative and improved morale and the meaningfulness of ICU work.[11] It can be used to educate clinicians and trainees on outcome and post-ICU care requirements. In addition, patients and caregivers can offer valuable feedback on the perceived ICU care, enhancing quality of care locally.

In conclusion, ICU aftercare is here to stay. But more research is needed to define the most optimal ICU aftercare for the heterogeneous group of ICU patients and their caregivers. In the meantime, all ICUs should offer an ICU diary and make close friends in the department of rehabilitation for early consultation or referral.

Disclosures

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