

Critical Commentary:

Remember sustainability when identifying low-value clinical care practices in critical care

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In a recent editorial, Tume and Aitken (1) made the compelling argument to avoid low-value clinical practices, which are characterised by being of little or no benefit to patients (ineffective), not proportional to the cost (inefficient) or posing a risk of harm exceeding the potential benefits (unsafe) (1). Furthermore, Tume and Aitken argue that nurses in intensive care units (ICUs) are responsible for the necessary de-implementation of low value clinical practices in their local ICUs (1).

We agree that ICU nurses are in a central position to identify and address these low-value practices - it is essential for the economic sustainability of healthcare. However, we also see the need for taking a broader sustainability approach when identifying low-value clinical practices, including ecological sustainability, social sustainability, and ethical sustainability.

Ecological sustainability

Sustainable practices are, as mentioned by Tume and Aitken, cost-effective (1). Nevertheless, evaluation of cost-effectiveness should also take into account environmental costs. Healthcare is a major contributor to climate change, and critical care is one of the healthcare sector's highest carbon producers (2). ICU nurses

have an important role in promoting ecological sustainability by addressing environmental concerns in ICU settings, not only to enhance patient care and organisational efficiency by resource conservation, waste reduction and environmental leadership, but also to mitigate harm to the planet (3). When conserving resources, ICU nurses need evidence-based guidelines for resource utilisation, such as choosing energy-efficient equipment, water conserving measures, and sustainable procurement practices (4). Ideally, life-cycle assessments of the environmental impact should guide those choices, however only a few life-cycle assessments specific to critical care exist, and they are very susceptible to the variations in carbon footprint of local energy resources (5). Another aspect of ecological sustainability is excessive waste generation in ICUs, which not only strains environmental resources but also poses health risks to patients, healthcare workers and the general population (3). By minimising waste through proper segregation, recycling initiatives (avoid, reduce and reuse), and alternative disposal methods, ICU nurses can mitigate environmental pollution and promote a safer healthcare environment (3, 6).

Economical sustainability

Economic sustainability demands clinical practices to provide benefits that are proportional to their cost as described by Tume and Aitken (1). In addition, ICU nurses should also prioritise individualised well-being and comfort for each patient, which often entails delivering interventions that enhance a patient's quality of life and alleviate suffering, even if not directly impacting the patient's medical condition (7, 8). However, in the context of economic sustainability, healthcare systems must also consider the cost-effectiveness of interventions aimed solely at improving patient comfort or well-being, as these may have higher costs relative to their clinical benefit (9). Here, ICU nurses have a critical role in advocating for interventions that provide meaningful improvements in patient outcomes while also considering their cost implications (10). Engaging patients and families in shared decision-making may help prioritise interventions that aligns with the patients' preferences, but also avoid over-treatment and futile treatments. Economic sustainability can also be advanced by encouraging patient self-care whenever feasible (11). By identifying low-value clinical care practices that do not significantly contribute to patient well-being or outcomes, ICU nurses can help optimize resource utilisation and promote economic sustainability in the ICU.

Social and ethical sustainability

We have argued that identification of low-value clinical practices cannot be limited to their effectiveness, efficiency and safety, but that the ecological impact on our clinical practices must be taken into account. The ethical imperative being that our practices impact the environment and living conditions for humanity and future generations. Furthermore, clinical practices must be socially sustainable. Social sustainability includes human well-being, equity and fairness, equality of rights, access to basic needs, justice, social inclusion and participation (12). Unfortunately, most ICU nurses will be all too familiar with the mismatch between the number of ICU beds and competent staff on one side and patients needing intensive care on the other. While it is easier to recognise the needs of the patients already in care in the ICU, these must ideally be balanced with the needs of the greater population. For this reason, we must use resources wisely. This means eliminating low-value clinical practices, including excessive or futile treatment that does not align with patients' wishes (13). However, when it comes to clinical practices aiming at humanising the ICU or creating well-being for ICU patients (8), it is often difficult to establish their efficiency, and continuing these practices must therefore be guided by clinical insight. Another threat to social sustainability is the global challenges to the procurement of competent healthcare personnel across the globe. Importing workforce from developing countries to the industrialised world can only be considered sustainable if it is followed by initiatives supporting the education of healthcare personnel locally.

Leadership for sustainability

ICU nurses are well-positioned to lead environmental programs within the ICU and hospitals organisations (14). By enforcing a culture of environmental awareness and accountability, promoting innovative sustainable healthcare practices, and advocating for policy changes at institutional levels, ICU nurses can lead by example and inspire positive change in the healthcare sector (14). But ICU nurses need to be supported by leadership programs including training on sustainable practices, development of green terms and collaboration with the industry and environmental organisations (11). Moreover, healthcare education must also prepare for healthcare professionals to be able to lead the change for sustainable practices (15). Ultimately, integrating sustainability considerations into evaluation of care practices may not only enhance patient outcomes and safety but also contribute to a more resilient and sustainable healthcare infrastructure for future generations (10).

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