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## TITLE PAGE

### **GUEST EDITORIAL: De-implementation of low value clinical practices is essential for critical care nurses**

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## **De-implementation of low value clinical practices is essential for critical care nurses**

Lyvonne N Tume and Leanne M Aitken

Increasing evidence confirms critical care patients experience complications (such as iatrogenic withdrawal and delirium) that require screening for, and identifying, to optimise patient outcomes [1,2]. Assessing risk, using validated screening tools, is a complex 'task'; this is undertaken by the bedside nurse, who is now required to assess for (and then manage accordingly) pain, sedation level, iatrogenic withdrawal, delirium, pressure area risk assessment and more [3]. Although these tasks are important and add value to the care we deliver, they require time and capability. In contrast, there are many tasks that, according to research findings, do not add value to the care we deliver and could thus be discontinued in practice to enable better targeting of our capacity and capability. Such 'low value' clinical care practices include three categories of practice where the best available evidence suggests that there is (1) little to no benefit for patients (ineffective), (2) the benefits provided are not proportional to the cost (inefficient) or (3) the risk of harm exceeds the potential benefit (unsafe) [4]. This editorial will discuss this issue using one example of a nursing practice.

The reported general increase in inappropriate (overuse) use of technology, consumables, and practices in healthcare is probably no more apparent than in the intensive care unit (ICU). The 'Gloves Off' campaign by NHS England (2018) [5], which was recently adopted and promoted in 2023 by the UK Intensive Care Society [6] is a prime example of active de-adoption. This stemmed from evidence that contamination from staff using gloves inappropriately was high, and the excessive use of non-sterile gloves for all procedures (a spill over from the COVID-19 pandemic) increased both the costs and environmental impact of care [5,6]. However, the key issue is that, while an increasing number of tasks are added, rarely are any potentially unnecessary or low value tasks removed or de-implemented. This increases bedside nurse workload, which can be problematic and often leads to complex assessment tasks being rushed or other work being missed altogether. The issue of de-implementing low value tasks is being increasingly studied in critical care.[4]

One such low value clinical practice in adult critical care, which evidence from several RCTs and systematic reviews shows is unnecessary, wastes nursing time, and confers no patient benefit, is that of routine gastric residual volume (GRV) measurement to guide enteral feeding. This practice is currently still undertaken 6-8 hourly by almost all adult intensive care units (ICUs) in the UK [7] and results in a potentially significant waste of specialist nursing time as well as physical resources. This is despite not being recommended in clinical guidelines [8]. In exploring ICU nurses' decision-making around this practice, we showed first that nurses have inaccurate knowledge about the validity of this practice, believing it to be an accurate and reliable measure of stomach volume [9,10]. Thus, the first step is to present the evidence to show that GRV is neither a valid nor a reliable marker of stomach volume [11,12]. Second, nurses fear that if the stomach is full there is an increased risk of vomiting leading to pulmonary aspiration (and ventilator acquired pneumonia VAP) [9,10]. This is despite one multicentre trial, several single centre RCTs, numerous before and after studies and two systematic reviews showing that stopping the routine measurement of GRV does not lead to more VAP or adverse events [13-17]. Finally, many nurses are not aware of methods other than GRV available to them to assess feeding tolerance; therefore, providing alternative practices (using clinical signs and symptoms) is essential [9,10].

The de-implementation or de-adoption of an existing and embedded practice is suggested to be even more challenging than implementing a new practice, because it involves changing a clinician's mindset [18]. Yet, to achieve an efficient, cost-effective, and environmentally sustainable service, where nursing workload is manageable, this must be undertaken. Recent thinking suggests that the coupling de-implementation with implementation of alternative, or higher value, aspects of care is crucial [19].

So how do we de-adopt or de-implement an embedded clinical care practice? De-adoption requires us to understand how clinical staff make decisions. Helfrich et al suggest that any de-implementation strategies should be directed at the cognitive processes related to 'the process of unlearning' and 'the process of substitution' [20]. They describe unlearning as a process whereby clinicians change their knowledge and beliefs about a practice, with the intention to de-adopt the practice. This, they claim, often triggers a feeling of resistance, because their professional learning and

beliefs are being challenged. Substitution, they define as replacing the ineffective practice with something else. This alternative practice should be supported by best evidence. Crucially, this substitution is important, because it provides an alternative practice that removes the need for the ineffective practice [20].

The challenge now lies with critical care nurses to identify these low value clinical care practices in their unit and take active steps to de-adopt these. If, as research suggests, it still takes around 17 years to implement new research evidence into clinical practice [21], then it may take even longer to de-implement these low value care practices. Not doing this simply perpetuates a high nursing workload and wastes resources (both staff time and material resources), thus increasing costs and potentially delivering ineffective or harmful care for critically ill patients.

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