Changes to nurse-to-patient ratios in intensive care during the pandemic

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The 'gold standard' ratio in adult intensive care units (ICUs) has been in place for more than 50 years, and was initially established in 1967 (Royal College of Nursing (RCN), (2020a). This continued to be the recognised standard for decades until 2020.

In 2000, the Department of Health (DH) published a review of adult critical care services in England, which classified patients according to their clinical need from level 0 to 4 (DH, 2000; Dutton and Finch, 2018). This review led to the concept of critical care 'without walls'—it identified the presence of acutely unwell patients outside the ICU and acknowledged that specialist nurse education and training was now required in all areas of clinical practice in recognition and preliminary management of acute deterioration (Dutton and Finch, 2018).

In 2019, guidelines from the Faculty of Intensive Care Medicine (FICM) and Intensive Care Society (ICS) described the levels of care required by critically ill patients in hospital according to their clinical needs (Table 1). The guidelines stated:

'*Ventilated patients must have a registered nurse/patient ratio of a minimum 1:1 to deliver direct care. A greater ratio than 1:1 may be required to safely meet the needs of some critically ill patients, such as unstable patients requiring various simultaneous nursing activities and complex therapies used in supporting multiple organ failure.*' FICM and ICS, 2019:24

Table 1. Levels of care

Level 0 Patients whose needs can be met through normal ward care in an acute hospital

Level 1 Patients at risk of their condition deteriorating, or those recently relocated from higher levels of care, whose needs can be met on an acute ward with additional advice and support from the critical care team

Level 2 Patients requiring more detailed observation or intervention including support for a single failing organ system or postoperative care or those 'stepping down' from Level 3 care [High dependency support]

Level 3 Patients requiring advanced respiratory support alone, or basic respiratory support together with support of at least two organ systems. This level includes all complex patients requiring support for multi-organ failure [Intensive care unit support]

Source: Faculty of Intensive Care Medicine, 2019

It is important to recognise that critical care services rely on highly trained specialist staff who deliver intensive levels of care to patients who are acutely unwell. A wide variety of staff provide critical care directly or to support clinical and medical interventions, including medical doctors, registered nurses, clinical pharmacists, and physiotherapists. Because patients in critical care need constant monitoring and specialist support, clinical guidelines require a high

level of expert staff to be available. According to national service specifications for adult critical care in England, it is expected that critical care units should have minimum nursing establishments that allow one registered nurse per patient for level 3 (intensive care) patients; and one nurse for every two patients for level 2 (high dependency) patients (Anandaciva, 2020).

Nurses working in critical care units are expected to have specialist skills including, for example, having knowledge of advanced assessments of patients' respiration and the advantages and disadvantages of non-invasive and invasive therapies (eg ventilation) used to support breathing. There is an expectation that training will be provided so that at least 50% of the nurses in these units have a post-registration qualification in critical care nursing.

Critical care and COVID-19

The King's Fund (Anandaciva, 2020) has suggested that there has been increased focus on critical care services in England because of COVID-19. Emerging international and domestic data suggest a significant proportion of hospitalised patients with coronavirus require help with breathing, including mechanical ventilation, and other services that critical care staff and units provide. Consequently, it has become even more important to focus on the critical care team and the need for staffing to be planned in relation to patient mix, unit/bed layout, staff experience, qualified ICU staff numbers, and overall team mix.

With the onset of the coronavirus pandemic in March 2020, staff-to-patient ratios for critically unwell people were reduced as the NHS sought to rapidly expand its capacity to treat severely ill COVID-19 patients (Dunhill, 2020).

Dunhill (2020) also reported that NHS trusts have been told to base their staffing models for ICU on having one critical care nurse for every six patients (1:6), supported by two non-specialist nurses and two support workers such as healthcare assistants (HCAs). Additionally, NHS trusts were told by NHS England and NHS Improvement's regional directorate to plan for one critical care consultant per 30 patients, supported by two middle-grade doctors. The normal guidance is the consultant-to-patient ratio 'should not exceed a range between 1:8-1:15' (Dunhill, 2020).

As winter approaches and a second wave of the coronavirus pandemic has arrived, a report on 9 November 2020 in The Guardian (Campbell, 2020) stated that NHS England has advised hospitals to temporarily suspend the 1:1 ratio for level 3 critically unwell patients, as the number of people who are seriously ill with COVID-19 in hospital had increased to 11 514, of whom 986 were sedated and ventilated, requiring multi-organ support.

A position statement by UK Critical Care Nursing Alliance (UKCCNA) and published by the RCN (2020b) has emphasised that an emergency nursing workforce model, such as that put in place for COVID-19, is not sustainable under normal working conditions. It strongly advocates that the pre-pandemic national recommendations for nurse-patient staffing ratios for level 2 (1:2) and level 3 (1:1) patients continue to be the standard to which nurses work.

Although it acknowledges that long-standing vacancies may make this difficult to achieve, the guidelines for the provision of intensive care services (FICM and ICS, 2019) statement on nurse

staffing in critical care should remain in place until such time that we have research data supporting the need for a change in recommendations (RCN, 2020b).

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