Recovery and Restitution of Critical Care Services during the COVID-19 pandemic

Pressure on UK ICUs due to the COVID-19 pandemic will continue for many months to come, even as the vaccine reduces transmission rates. A slow recovery phase from the winter 2020-21 wave of infections will be complex and dependent on CRITCON status [1], staffing support and other operational pressures. Sustained use of surge capacity [2] is likely, and will impede recovery by impacting staffing and operational processes. This document provides a list of principles and recommendations for the recovery phase for ICUs.

Background

Outside pandemic conditions, all UK intensive care units work to Guidelines for the Provision of Intensive Care Services (GPICS) [3], a UK consensus standards document covering all aspects of critical care staffing, infrastructure and clinical practice, endorsed by 30 national professional organisations including 7 Royal Colleges. Adherence to GPICS is a cornerstone of patient safety.

During the first wave of the pandemic, 10,938 confirmed COVID-19 ICU admissions and 4,312 deaths were reported. As of the 5 February 2021, 20,675 such patients had been admitted to ICUs in England, Wales and Northern Ireland [4]. Their median length of ICU stay in the first wave was 12 days, well in excess of that of normal critically ill patients. Bed occupancy was thus greater: on 24 January 2021, 5,446 English ICU beds were occupied, compared to 3,423 in January 2020 - the difference of 2023 beds representing the equivalent of 126 extra 16-bed ICUs [4, 5]. Similar increased bed occupancy is reported for Wales (234 beds occupied, 150 baseline) [6, 7] and Northern Ireland (116 occupied, 72 baseline) [8]. Data from Scotland for the second wave are not available currently, but peak first wave data demonstrated 303 beds occupied from a baseline of 203 [9]. UK wide in January 2021, 2251 intensive care beds were occupied above baseline capacity, equivalent to 141 new 16-bedded ICUs [10].

When mapped to the recommended GPICS staffing standards, these **extra 2251** ICU beds would require the following **additional** staff for **every day** (12 hours) **shift**.

187 ICU consultants
2476 critical care nurses, **1238** with a postgraduate qualification
281 junior doctors
225 pharmacists
563 physiotherapists
225 dietitians
225 speech and language therapists.
225 occupational therapists[a]
225 clinical psychologists[a]

a While not specified in Guidelines for the Provision of Intensive Care Services (GPICS), recent data has highlighted the need for parity of these service provisions https://doi.org/10.1177/1751143720988708