Title: Update on Critical Care

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Action required:
☒ For noting
☐ For discussion
☐ For decision

Approved for future publication: YES
Summary

The situation in critical care units has improved since the update provided to NPHET on 11 February. However, most units are still having to provide critical care across two areas to accommodate Covid and non-Covid care, with associated increased staffing requirements. Nationally, critical care occupancy is within funded baseline capacity but it should be noted that there is inter-unit variability with some units still in surge, in particular in the Greater Dublin area.

The levels of disease in the community have continued to decrease, which is very welcome. The effects of this can be seen in a slow but sustained reduction in the number of ICU admissions. A continued focus on preventing resurgence of disease in the community, with resultant impact on health and healthcare requirements, remains the only answer to reducing demand, alleviating pressure on critical care units and enabling the resumption of scheduled care.

Alongside the immediate service demands, the implementation of the Strategic Plan for Critical Care, supported this year by very significant new development funding of €52m, is a priority for 2021. The HSE has recently established a Critical Care Acute Operations implementation structure. This will allow for a strong, central focus on the implementation of the Strategic Plan for Critical Care and will coordinate and continue the many initiatives underway to develop and strengthen critical care responses for critically ill Covid and non-Covid patients.

Current Situation

- Covid-19 demand peaked on 24th January when a total of 763 patients were receiving advanced respiratory support in hospital, between those who were invasively ventilated in our ICUs and those who were receiving advanced care in a ward setting. This illustrates the acutely ill nature of patients requiring care in our hospitals at the time. At the same time, there were 330 patients admitted to critical care, including Covid and non-Covid patients, with a total of 345 critical care beds open and staffed.

- The HSE Critical Care Major Surge Working Group, which was chaired by the National Clinical Advisor and Group Lead for Acute Hospitals, held 35 consecutive daily meetings between 11th January and 14th February. With meetings attended by the CEO and CCO of the HSE, as well as the National Director for Acute Hospitals, this Group’s membership included Clinical Leads, representatives of the Critical Care Programme, NOCA and MICAS, as well as other senior HSE officials. The collaborative nature of this Group played an essential role in managing the surge in critical care. The Group met on a twice-weekly basis until the 2nd of March and is currently meeting weekly. In the event of a further surge, the Group will increase activity as required.

- The recently published Critical Care Capacity Census for 2020 reports that of the 1,100 critically ill adults with Covid-19 who were admitted to ICUs between February 2020 and January 2021, over 220 did not survive. This further underscores the acutely ill nature of these patients and the significant challenges faced by critical care units in providing care for this cohort of patients while continuing to care for non-Covid patients at the same time.

- The Census further notes that, thanks to the redeployment of staff and the use of surge capacity, peak occupancy did not breach the figure of 350 beds, beyond which clinical risk would become unmanageable, and the clinical needs of the increased volume of critically ill patients were met. It is worth emphasising that this would not have happened without the commitment and dedication of our critical care staff and reflects the enormous efforts that were put in across our hospitals to protect ICU capacity as much as possible. The use of non-invasive ventilation in a ward setting and the increasing expertise of Respiratory colleagues in managing these patients with advanced oxygen delivery needs on the wards also played a key role in this regard, with over 400 patients receiving advanced care on wards at the peak. It should also be noted that there were significantly lower than normal numbers of non-Covid patients in critical care at this time, as surge care displaced normal activity.

- However, while peak occupancy did not pass 350, many hospitals did experience overwhelming surges of critically ill patients, exceeding nursing staff availability and requiring the transfer of patients to hospitals with

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1 National Adult Critical Care Capacity – Census Report 2020
sufficient capacity to care for them. The Mobile Intensive Care Ambulance Service (MICAS) played an essential role in this regard, tripling its normal activity, with over 100 adult critically ill patients transferred between hospitals since January 1st. This crucial service has saved many lives and has been a vital part of the response to Covid-19.

• Upgrades in oxygen delivery capacity were completed at sites with critical supplies and oxygen telemetry is now being provided at 30 of the acute hospitals. Works completed in 2020 have increased flow by 60% and met the huge increase in demand, which peaked at 17,700 litres per minute on 24th January.

• The NOCA ICU Bed Information System (BIS) has continued to be updated twice daily, providing essential, up-to-date information on ICU capacity and occupancy in all hospitals. This important service has helped to enable a shared understanding of the current situation in critical care units across the system, on a close to real-time basis.

• As of 11.30am on 5 March, there were 307 adult critical care beds available and staffed. 263 of these were occupied, including 101 confirmed COVID-19 patients and a further 2 suspected COVID cases. By comparison, there were 31 Covid-19 patients in critical care at the start of December, while last July and August these figures were consistently in the single digits. Clearly, although the recent progress is welcome, there is some way to go to further drive down these numbers to an acceptable level.

• While the number of patients with Covid-19 in ICU has continued to decline, this is happening at a very slow rate and units remain under considerable pressure. Additionally, non-Covid patients are continuing to present for admission to ICU and it is expected that the number of non-Covid patients requiring critical care will continue to rise. Therefore, it remains vitally important that the public continues to stay at home to reduce the transmission of the virus as much as possible.

Implementation of the Strategic Plan for Critical Care

As has been previously set out, €52m was provided for the implementation of the Strategic Plan for Critical Care in Budget 2021. The HSE has advised that the majority of the 40 beds funded temporarily as part of the initial response to Covid-19 are now open on a permanent basis, with the remaining beds to be opened as soon as possible, depending on recruitment. Six beds in new build infrastructure at UHL opened in February, with the remaining 20 beds due to be open by the end of the year, also in new build infrastructure, subject to completion of capital projects in the Mater and in Tallaght.

In order to ensure that this substantial investment is progressed effectively, the HSE has now established an implementation structure to oversee and coordinate the implementation of the Strategic Plan. This will ensure that capacity is maximised, while also aiming to increase the critical care workforce and invest in critical care enablers such as the Mobile Intensive Care Ambulance Service and critical care outreach teams, which are further key elements to be supported by the €52m provided for 2021.

Conclusion

It is clear that the intensive focus on increasing critical care surge capacity was successful and our hospitals were not overwhelmed. However, the need to redeploy staff to support critical care surge led to a significant curtailment of the delivery of scheduled care. Alongside that, staff in our hospitals have been working in an incredibly pressurised and difficult environment for many months now and it is anticipated that that environment will remain for some time to come, given the need to address backlogs of scheduled care.

While the situation in critical care units still requires strong, ongoing management and oversight, it is important to focus on long-term improvements in critical care capacity as well. The establishment of the implementation structure for the Strategic Plan for Critical Care is welcome in this regard, and will allow for oversight of the expansion of critical care capacity to 321 this year and to 446 in the long-term, with simultaneous investment in education initiatives and support services.