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Health Information and Quality Authority

An tÚdarás Um Fhaisnéis agus Cáilíocht Sláinte

Capacity in the healthcare system to deal with COVID-19 cases

July 2020

Safer Better Care

In this paper we outline our views on the issue of capacity in the healthcare system to deal with COVID-19 cases, as requested by the Special Committee on COVID-19 Response in its correspondence of 22 June.

Capacity in the Irish healthcare system

Insufficient capacity in the Irish health system has been a persistent problem for many years. This issue routinely manifests in the form of emergency department overcrowding, which has steadily worsened over the past 15 years.

Often this lack of capacity is expressed in terms of the number of acute hospital beds and bed occupancy rates. While this is undoubtedly a critical parameter that needs to be addressed, the lack of capacity within the Irish health system is a more complex issue involving a number of different factors, including, but not limited to:

- workforce capacity and availability,
- access to and capacity of necessary diagnostics,
- hospital infrastructure,
- bottlenecks associated with funding for the continuity of care beyond a patient's acute treatment,
- a lack of alternate care pathways beyond presentation to acute hospitals,
- available capacity and ongoing supports in non-acute settings.

HIQA notes the assertion within the 'scrutiny proposal' provided by the Committee that bed capacity must remain at 80-85% as long as we are living alongside COVID-19. It should be noted that even if COVID-19 were not present, this rate should represent the limit of occupancy if hospital overcrowding is to be avoided and patient flow optimised. This was identified in the 2018 Health Service Capacity Review commissioned by the Department of Health. Furthermore, the cross-party Sláintecare report not only recognised the inherent lack of baseline capacity within the health system to deal with routine and ever-increasing healthcare demand, but it also identified the fact that many services needed to be re-orientated to avail of alternative, non-acute care pathways for patients.

In short, as HIQA has previously stated in annual overview reports of our monitoring activity in the healthcare setting, an acute hospital with a bed occupancy rate of 85% should be considered a full hospital. However, such occupancy rates have not been a feature of Irish healthcare, with inefficient rates in excess of 95% being more common. This was not appropriate before COVID-19, and is even less appropriate now.

HIQA has monitored compliance against national standards in the area of infection prevention and control since 2012. Given our experience in this field, the National

Public Health Emergency Team (NPHET) asked HIQA in March to conduct a desktop risk assessment of infection prevention and control preparedness in public acute hospitals. This report, available here, identified both areas of assurance and issues that needed to be addressed in hospitals to better manage the risks posed by COVID-19. Many of the subsequent issues relating to capacity in the context of COVID-19 contained within the remainder of this submission stem from our detailed knowledge of the public acute hospital sector, obtained both through prior monitoring work and this specific desktop analysis.

It is internationally recognised that hospital overcrowding is a common factor in the spread of infection and must be avoided if patients and staff are to be protected from COVID-19. A return to the prevailing pre-COVID-19 status quo as regards overcrowding cannot occur and extra capacity will therefore be needed to address this.

Simply providing extra beds, however, may not be enough; as a consequence of COVID-19, the ability to maintain the level of throughput previously achieved in conducting diagnostic procedures (e.g. scans) or operative cases has been hindered. This impacts on the length of stay of inpatients — a key factor in determining required bed capacity. Therefore many of the calculations contained within the aforementioned Department of Health review, which determined additional bed numbers required to achieve 85% bed capacity, may need to be revisited in the context of the potential for increased length of stay. Furthermore, extra bed capacity will need to be accompanied by extra diagnostic capacity and better use of resources such as operating theatre time, while accepting that this may be difficult due to already constrained availability.

It should also be noted that the existing infrastructure in a number of hospitals around the country is of a poor quality and is far from optimal from an infection prevention and control perspective. The use of very large, multi-occupancy rooms which may have upwards of 16 patients in one large room – commonly referred to as Nightingale wards – remain a feature in some hospitals. Bed spacing between beds in wards is also often inadequate. This is far from ideal in the context of COVID-19, and measures to mitigate risks associated with such wards may in fact result in the need to reduce bed numbers at a time when extra bed-stock is needed.

In addition, nearly all acute hospitals have an insufficient number of single rooms suitable for the isolation of potential or confirmed infectious cases. This results in a prioritisation of the use of these rooms and a reliance on the cohorting of infectious cases in open wards. Again, from the perspective of COVID-19, this is far from optimal.

HIQA is also concerned about the high numbers of people on waiting lists resulting from the cessation of acute care in March. These waiting lists are set to grow due to reduced throughput for outpatient and day-case procedures as a consequence of physical distancing and hygiene requirements, and due to the reduced capacity for inpatient care.

Adding additional capacity to the system

HIQA notes that plans are advanced in a number of hospitals to expedite the addition of upgraded facilities and more modern bed stock. This is needed now more than ever and must proceed at pace, though it is unlikely that all measures will be in place in time to address the expected challenges to bed capacity in the health system this coming winter. As a result, interim measures may be needed.

The decision by the University of Limerick Hospital Group to establish a step-down field hospital on the grounds of the University of Limerick is likely dictated by the expectation of very severe overcrowding in University Hospital Limerick, resulting from inadequate baseline bed capacity and poor bed stock in the older part of the hospital. This decision, while understandable, is disappointing, as it is a direct result of poor long-term planning within the health service.

With respect to ICU bed capacity, it was recognised in the Department of Health's 2018 review that the Irish health system lacks sufficient ICU-bed capacity to manage routine demand. In our most-recent body of monitoring work in the area of maternity services, published in February and available here, HIQA observed the challenges faced by maternity services in accessing critical care for women on account of insufficient capacity within the system. Deficits in the quality of care associated with this lack of capacity have likewise been clearly identified by the National Office of Clinical Audit (NOCA). Indeed, the 2018 Department of Health review recommended that an additional 190 critical care beds should be in place by 2031. This would bring the total to 430 (an increase of 79%), from the figure of 237 in place in 2016.

Immediately prior to the onset of COVID-19, ICU-bed capacity stood at 255 beds. HIQA understands that in response to the pandemic, a number of ICU beds were added to the system in March. Furthermore, plans were advanced during March and April to provide for an emergency surge in critical-care capacity, which, if needed, could potentially have seen the creation of in excess of 800 temporary critical-care beds. This, thankfully, was not necessary due to the introduction of public health measures and the temporary deferment of very serious elective surgery for conditions such as cancer.

The creation of this extra capacity was justified in the circumstances that arose, and will be needed over the coming months to enable access for both COVID-19 and non-COVID-19 cases. Furthermore, one of the key lessons to emerge from this crisis is the necessity to ensure adequate critical-care capacity to withstand unanticipated and rapid shocks to the system, such as COVID-19.

It should be noted that the provision of extra capacity cannot be easily achieved. In the first instance, extra staffing will be required in the form of nursing, medical and allied health professional staff. There is a global shortage of such expertise and major efforts will be needed within the HSE to up skill existing staff. As previously mentioned, the availability of isolation facilities in particular is inadequate and significant capital investment is required to address this deficit. Investment may be needed to add capacity at the maximal achievable rate to prepare for both the extra demand resulting from COVID-19, as well as existing, non-COVID-19 demand, which is significant and growing.

While it has been acknowledged that the Irish acute hospital system has lacked much needed ICU and general capacity, the current COVID-19 situation has brought this into sharp focus. Adding extra capacity to achieve the desired levels to sustainably manage both COVID-19 and non-COVID-19 healthcare demands cannot be easily attained. While such efforts should be advanced, it should be noted that the health system will again be very challenged should a second wave of COVID-19 emerge, particularly if this coincides with influenza.

HIQA notes that one of the measures employed in recent times to try to address this capacity gap has been to procure capacity in private hospitals. It should be noted that HIQA does not currently have the legal remit to carry out a monitoring function in a private facility. Following the conduct of our desktop risk assessment of infection prevention and control preparedness in public hospitals in April (referred to above), HIQA assisted the HSE — as the procurer of these services at that time — with the conduct of a similar exercise in the private sector. HIQA was unable to conduct this exercise itself due to the lack of legal authority, and will be unable to do so in the future until the passing and enactment of the Patient Safety (Notifiable Patient Safety Incidents) Bill 2019. Furthermore, committee members should be aware that if there is an ongoing requirement to procure additional capacity from the private sector throughout the COVID-19 crisis, HIQA does not have the power of inspection or, if necessary, investigation, until such time as this bill becomes law.

Efforts to mitigate this risk should continue to focus on a number of critical areas, including effective surveillance systems allied to efficient testing and contact tracing, a concerted focus on significantly improving uptake levels of influenza- and other vaccinations (such as pneumococcus in the elderly), and continued public adherence

to public health measures. Innovative approaches in the face of difficult choices, such as those at the University of Limerick, may need to become more widespread.

Very difficult choices in the face of a further surge in COVID-19 cases may need to be made as regards access to care, particularly if COVID-19 remains a persistent issue over months and indeed years. Transparency around such approaches should they be needed — informed by national guidance — will likewise be required.

Furthermore, as outlined in the Sláintecare report, the implementation of service reforms to move many services currently provided in hospitals to the community setting needs to be expedited — in parallel with changes in acute hospital service provision and capacity. Indeed without such reforms, any extra bed capacity in the acute system will be eroded by the underlying natural increase in non-COVID-19 acute hospital demand.

Preparing for future pandemics

While this pandemic is far from over, the key lesson learned is the requirement for an adequate, strategic reserve of capacity and capability to better withstand similar shocks across the health system. While heroic efforts have been made to enable the health system to cope with the recent peak of COVID-19 cases, if hospital and ICU capacity had been more in keeping with international norms, the health service would have been better placed to withstand this challenge.

As the occurrence of further pandemics is now more likely than at any other time in history, it is imperative that the health system has an inbuilt capacity and resilience to withstand these shocks. This will require substantial investment, involving:

- a significant enhancement of acute hospital, ICU bed and public health capacity;
- rapidly-scalable contingency testing and contact tracing operations; and
- the standing option to avail of the procurement of key materials such as PPE, diagnostics, medical equipment and other key consumables.

All measures should be taken to increase the efficiency of safely-delivered care, and alternatives such as telehealth for outpatient care should be maximised.

Moreover, there is a need for strategic bed-capacity planning, underpinned by the best-available data, to understand when acute care needs to cease again at a local level to protect ICU capacity if there is a surge in demand due to COVID-19 or, more likely, due to co-epidemics of influenza and COVID-19.

While the management of novel viruses or other infectious pathogens such as COVID-19 present major challenges for any health service, HIQA believes that consideration should be given to the formulation of more-detailed contingency plans for the management of future pandemics. Such plans should include contingencies for surge healthcare capacity, testing and tracing, and would benefit from cross-border collaboration.

HIQA's future programme of work in this area

For many years, HIQA has placed a particular focus on the need to drive compliance with nationally mandated standards in the area of infection prevention and control. These efforts have included a significant number of inspections, the findings of which have been published on our website. While HIQA does not currently have the legal remit to enforce compliance with these standards, as identified in the recent desktop risk assessment of public hospitals conducted by HIQA for NPHET, infection prevention and control capacity and capability in acute hospitals has improved in recent years in response to our work. This has ensured that a vital resource was, on the whole, in place to assist with managing the pandemic. In short, the value of setting standards and monitoring against those standards, coupled with reciprocal targeted investment, has been demonstrated through this recent example.

In early March, HIQA suspended routine monitoring inspections in acute hospitals in an effort to reduce the burden on hospital staff at a time of crisis. Risk-based inspections and other means of service monitoring continued as normal. Given the improvements in the hospital system in recent weeks, HIQA now intends to recommence a targeted infection prevention and control monitoring programme tailored towards COVID-19 in the services that we monitor.

More generally, HIQA has been conscious of the wider challenges posed by limited capacity in the acute hospital setting. Indeed, prior to the onset of COVID-19, the Board of HIQA approved a paper on the development of an assessment approach to better explore levels of compliance with the National Standards for Safer Better Healthcare from the perspective of older people using acute hospital services. This approach intended to explore the challenges that limited capacity and emergency department overcrowding have on these patients. In light of COVID-19, this project has since been repurposed to take wider consideration of the impact of the virus. It is scheduled to commence in 2021, with risk-based infection prevention and control inspections — targeted at COVID-19 — continuing in healthcare services in the intervening period.

Finally, HIQA wishes to bring to the attention of the committee our intention to publish in the coming weeks an overview report on the past five years of monitoring

activity in the healthcare setting. HIQA would be happy to furnish committee members with a copy of this report upon publication.

In reflecting on this work — and as further identified through the conduct of the COVID-19 risk assessments referred to above — it is clear that setting standards and monitoring against them acts as an important safety mechanism which, if accompanied by reciprocal improvements by service providers, can be vital in ensuring service capability, capacity and resilience in times of crisis.

It is also clear to HIQA from our parallel experience in other settings, for example in designated centres for older people or people with a disability, that HIQA's lack of enforcement powers in the public acute hospital sector hinders our ability to drive compliance with nationally-mandated benchmarks. Furthermore, as mentioned above, HIQA has no remit over private healthcare facilities. HIQA again reiterates the critical need for the progression not only of the Patient Safety (Notifiable Patient Safety Incidents) Bill 2019, but also the 2017 Patient Safety (Licensing) Bill, which would provide HIQA with the necessary powers and act as critical catalysts in rapidly driving the necessary service improvements that COVID-19 has brought into sharp focus over recent weeks.

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