IHF | BEYOND COVID-19 TASK FORCE

HUS Helsinki University Hospital

Adapting hospital capacity to meet changing patient demands

Helsinki University Hospital, Finland

What was the challenge?

From the onset of the COVID-19 pandemic, a key priority of Finland's coronavirus response strategy was to provide sufficient medical care to patients, including sample taking, emergency department capacity and critical care provision. These activities had to take place in parallel to treating other emergency and urgent care patients (such as those needing cancer treatment). With no extra personal or bed capacity available to support the additional COVID-19 patients, the Helsinki University Hospital group (HUS) embarked on staff reassignments, reorganising service delivery and postponing non-urgent care to ensure sufficient medical care could be provided to their patients.

What was the task?

As part of its emergency preparedness response to the pandemic, the HUS reorganised its Medical/Surgical wards and intensive care unit (ICU) beds ahead of receiving its first positive COVID-19 patient in March 2020.

What was the action?

Over its 23 different hospital sites, the HUS sought to increase both Medical/Surgical and ICU capacity for coronavirus patients by gradually restricting non-urgent care procedures, such as elective surgery. Patients needing different specialist care were brought together on interdisciplinary wards to allocate wards for specifically for COVID-19 patients. Day care surgery was halted, and surgical staff – primarily nurses and anaesthesiologists - and medical instrument cleaning personnel – were mobilised and quickly trained to work on either wards or intensive care units for COVID-19 patients.

Intensive care has been a critical resource during the COVID-19 pandemic, and the number of ICU beds was increased substantially to cope with increased patient demand. One HUS hospital building – temporarily suspended from elective surgeries - was allocated for positive-tested COVID-19 patients to create care capacity (80 ward beds from the existing wards and 30 ICU beds from operative theatres and a post-anaesthesia care unit). A further stepwise plan was made to increase 100 ICU beds and 400 ward beds for COVID-19 patients in different hospital buildings on the HUS campus (primarily by restricting elective care activities), including a Finnish Red Cross tent of around 100 beds raised in the garage of a hospital. Medical equipment – including ventilators - needed for the additional extra ward and ICU beds was repurposed from other units (such as the now unused operation theatres) and purchased as new investments.

To ensure that adequate numbers of beds were available as the coronavirus pandemic surged, care capacity was monitored daily by a regional pandemic command team, chaired by the HUS Chief Medical Officer).

What were the results?

The rapid changes made to the set-up of wards and intensive care units across the HUS campus meant that patient outcomes for those with COVID-19 were good – with ICU mortality (12%) being lower compared to what has been reported in countries with a similar healthcare system to Finland.

What were the lessons learnt?

The HUS realised that hospital beds (both for wards and ICUs) can be reorganised relatively quickly and that staff were flexible in both changing their working schedules and the patient groups they cared for (e.g. from day care surgical patients to COVID-19 patients). Early crisis-specific education was important for staff involved in the pandemic to achieve both best treatment protocols and proper protection manoeuvres for all the medical personnel.

Going forward, the HUS plans to maintain a large pool of healthcare staff to regularly rotate between two different care entities (such as, policlinics and infectious disease wards or an operative department and an ICU). This kind of systematic rotation makes it possible to rapidly allocate a lot of skilled personnel for other emergency needs (pandemic or other emergencies).