Health Services Learning Hub

COVID-19: ACTION BRIEF

Title

Electronic Intensive Care Units – an innovative model of critical care delivery in India during the COVID-19 pandemic

Organisation

International Hospital Federation/ Apollo Hospitals

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Key learning points

- Innovative digital health solutions can help mitigate the impact of COVID-19 in critical care settings
- Digital health infrastructure is key to the successful roll out of such initiatives

How has COVID-19 impacted essential health services in India?

The COVID-19 pandemic has exacerbated shortfalls in the healthcare workforce, including well-trained and skilled ICU (intensive care unit) physicians. Critical care requires attentive, skilled staff to adequately treat patients in the ICU, who need to be monitored on a 24/7 basis. This shortage presented an urgent concern for the Apollo Hospitals Group (which manages 73 hospitals across India).

What was the intervention to mitigate this impact?

Apollo Hospitals Group scaled up its capacity to virtually monitor patients needing critical care. The group identified an innovative solution to meet this challenge: investment in electronic intensive care units (e-ICUs). Unlike a typical intensive care unit, in e-ICU patients do not need to be in the same hospital as their critical care physician. Instead, using high-definition audio and visual equipment, a critical care intensivist can virtually enter a hospital room and provide real-time support while evaluating a patient's response to treatment.

Prior to participation in the e-ICU, all clinical staff required online training on how to use the electronic intensive care technology. Participants of the training program are monitored and mentored by Senior Critical Care Consultants. A 24/7 helpdesk is available for troubleshooting any technical issues.

Photo Credit: International Hospital Federation/ Apollo Hospitals

How did this intervention help in the maintenance of essential health services?

The e-ICU technology helps to remotely monitor and aid in treating critical patients in ICUs. Although there were some initial setbacks, the e-ICUs have optimised the time of a limited pool of clinicians, cut the risk of COVID-19 transmission, and have accrued cost-efficiency savings (as no PPE is required for this model of care).

Going forward, we hope to sustain this model of care and extend e-ICU provision beyond the patients affected just by COVID-19, as part of a wider initiative to address shortfalls in critical care staff. Employing e-ICUs during the COVID-19 pandemic has ensured that all patients connected to the Apollo network (especially those living in rural regions) can access quality care.

What were the key challenges involved?

- It was a learning curve for staff unfamiliar with this model of critical care to get familiar and comfortable with the technologies required for the e-ICU;
- Lack of digital infrastructure in some hospitals impeded the efforts of expansion.

Photo Credit: International Hospital Federation/ Apollo Hospitals

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