

Yager, P. , Whalen, K. , Cummings, B. **Repurposing a Pediatric ICU for Adults** . *NEJM* May 15, 2020, at MassGeneral Hospital for Children, Boston, MA

*To rapidly communicate short reports of innovative responses to Covid-19 around the world, along with a range of current thinking on policy and strategy relevant to the pandemic, the Journal has initiated the Covid-19 Notes series.*

Massachusetts quickly followed New York in becoming an epicenter of the Covid-19 pandemic, but just a handful of infected children required hospitalization. On April 2, 2020, the Massachusetts General Hospital incident command team determined that no pediatric patients at MassGeneral Hospital for Children (MGHfC), a hospital within a hospital, would use a ventilator, given the presence of other facilities where critically ill children could receive care and a greater need among adult patients. We transformed our 14-bed pediatric intensive care unit (PICU), transferring out the remaining two children and admitting adults within 72 hours. This rapid pivot to providing adult care required cooperation between institutions to regionalize pediatric critical care, difficult discussions with families, and intensive coordination of hospital services.

In early March, biweekly phone calls had been established among pediatric intensivists at Massachusetts' six children's hospitals to discuss ongoing uncertainties regarding the pandemic, since volume at pediatric hospitals was universally low. The decision to collaborate proved fortuitous. Floating Hospital for Children and Boston Children's Hospital – our regional competitors during nonpandemic times – both had available capacity and provisionally agreed to accept our PICU patients. The first hiccup occurred when case managers required the transfers be preapproved by each patient's insurance carrier.

Skipping the bureaucratic preapproval process, our incident command team initiated calls between our CEO and the receiving hospitals' CEOs to eliminate this barrier and to assure financial coverage of the transfers if insurers decided to bill patients. Our referral

centers were notified that the PICU was no longer available and were instructed to coordinate with transport services to send patients elsewhere.

Fearful of their children contracting Covid-19, parents of the children in the PICU were eager to leave when notified of the imminent transfer, and the option to stay was not provided. When clinicians raised concerns about their long-term patients, the incident command team permitted a limited number of children to continue receiving inpatient care for cancers and inflammatory bowel diseases but mandated that they be immediately transferred if escalation of care was required. Worried that patients might feel abandoned, MGHfC clinicians reached out directly to their patients with complex, chronic conditions to attempt to maintain continuity of care and to review contingency plans, and subspecialists contacted their counterparts at other hospitals when assistance was needed.

As bioengineering, pharmacy, nursing, information technology, and adult medicine teams prepared the space and supplies for adult patients with Covid-19, how to staff the unit was the biggest question – would it employ pediatric or adult medicine clinicians? Rather than be redeployed throughout the institution, PICU nurses and physicians advocated to remain in our familiar environment and capitalize on years of established relationships in order to optimize performance, despite the fact that we would be caring for unfamiliar patients. Hospital leadership expanded emergency credentialing for pediatric providers. We recognized immediate gaps in knowledge and skills related to providing adult critical care and leveraged adult medicine expertise at our institution by establishing a consultative process. Pediatric intensivists and trainees remained the primary providers in the unit, with a medicine resident and adult intensive care unit consultant reviewing patient plans twice daily.

Preserving the internal PICU team ensured a rapid transition and boosted morale. In the first week after the transformation, a 60-year-old woman developed multiorgan failure and transitioned to comfort care. Doubt crept in among team members – perhaps we could not meet the challenge. By the end of the week, the unit was full, and

by the end of the month, we had cared for 25 patients, the vast majority of whom had Covid-19. Twenty patients have been discharged from the PICU, and one died. Faced with the dual challenges of transitioning from treating children to treating adults and implementing dynamic Covid-19 care recommendations, preserving team composition minimized unnecessary changes to personnel and the environment and was the most important factor in our success. On April 28, the incident command team permitted pediatric patients to return to the PICU. We don't know when we will stop admitting adults, but this experience will undoubtedly have lasting effects and will allow us to practice with increased empathy for all members of our patients' families.

[Disclosure forms](#) provided by the authors are available with the full text of this note at NEJM.org.

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