

## The Future of Extracorporeal Care



The incidence of long COVID is estimated to be between 6% and 40%. This highlights the need for ongoing care beyond initial survival. However, healthcare often focuses on survival as a binary outcome rather than considering the long-term recovery process, which can range from full recovery to ongoing dependence on institutional care and rehabilitation. There is an increasing need to address the challenges faced by patients after recovering from severe respiratory illness, particularly after being weaned off mechanical ventilation.

Maria Elena De Piero and colleagues conducted a study within the EuroECMO-COVID multicentre project, analysing 3860 patients (69.7% male, 30.3% female, median age 51) who required extracorporeal membrane oxygenation (ECMO) for respiratory support during the second pandemic wave (Sept 15, 2020 – March 21, 2023). The study provides valuable data on the long-term impact of ECMO, a high-resource treatment often used at the end of life to address severe organ dysfunction. The findings highlight the need for a deeper evaluation of the cost-[effectiveness and long-term outcomes](#) of such interventions.

There is increasing interest in following up with patients after recovery and discharge from intensive care. The study reports an in-hospital mortality rate of 55.9%, slightly lower than similar U.S. studies, particularly earlier in the pandemic when venoarterial ECMO was more commonly used. The study design, which includes patients aged 16 and older, deviates from the typical adult definition of 18 and older, potentially confounding comparisons with U.S. outcomes. Younger patients, who had better outcomes during the pandemic, might have skewed the results, limiting the generalisability of the findings.

A key limitation of this study is its inability to capture the varying trends in virology, virulence, and therapeutics during the pandemic. Different variants (e.g., delta, omega, omicron) had different transmissibility, virulence, and responses to treatments. The study also didn't account for the effects of investigational drugs like remdesivir, tocilizumab, chloroquine, or COVID-19 vaccines. Additionally, a clearer definition of participants' employment status and a distinction between full-time and part-time workers would have improved the analysis. The timing of tracheostomy also requires further clarification. Despite these limitations, the authors note the challenges of drawing conclusions due to the heterogeneity in treatment protocols and management across different regions.

The study provides a timely and significant report on a multi-institutional international experience of the COVID-19 pandemic, one of the most impactful health events of our time. It underscores the importance of long-term follow-up care after initial recovery, which is crucial for improving patient outcomes and evaluating the resource expenditure involved in treating life-threatening illnesses. This approach will help offer more holistic care after hospital discharge and improve the overall effectiveness of life-saving efforts.

Source: [The Lancet](#)  
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