

#ISICEM21 - ECMO for COVID-19



At the 40th ISICEM International Symposium on Intensive Care & Emergency Medicine this week, Professor Alain Combes of Sorbonne University, Paris, talked about treating COVID-19 patients with the most severe forms of cardiac and respiratory failure.

Prof Combes talked about his experience during the pandemic and presented his research that compared the first weeks and months of the pandemic last year that showed a mortality rate of 30-35% for patients who received extracorporeal membrane oxygenation (ECMO). He emphasised that outcomes for the patients could have been very different without ECMO.

Prof Combes also discussed findings from an unpublished paper that found that mortality rates reached over 90% in patients denied ECMO. Findings from another study with adult patients infected with SARS-CoV-2 and severe acute respiratory distress syndrome also revealed a link between the use of ECMO and mortality. Study findings show that a shorter time between intubation and ECMO, younger age, and no pre-ECMO renal dysfunction were independently associated with improved 90-day survival.

It is thus important to use precise criteria for ECMO in COVID-19 patients, and these criteria should take into account a centre's experience into consideration as well. Study findings also show that 90-day survival among ECMO-assisted patients with COVID-19 was associated with the volume of patients treated at different centres. Mortality was found to be significantly lower in centres that treated more than 30 VV-ECMO patients a year before the pandemic. Hence, the volume-outcome effect can be strong for ECMO, points out Prof Combes.

At the same time, it is important to mitigate risks from extended periods on ECMO. Before the pandemic, the median time patients remained on ECMO was two weeks, but patients with COVID-19 can be on ECMO for nearly a month, and some are weaned off after over two months of support.

Overall, based on the discussion and findings presented by Prof Combes, ECMO is a vital intervention for COVID-19 patients and can reduce the most severe forms of this infection.

Source: [ISICEM 2021](#)

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