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## ARDS: Treat High-volume, Lower Mortality



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Analysis of data from the large French CUB-REA database indicates that mortality from acute respiratory distress syndrome (ARDS) was lower in high-volume ICUs than low and moderate volume ICUs. Notably, between 2000 and 2014, among 35 ICUs in the CUB-REA registry, ICU mortality decreased despite an increase in ARDS severity. The findings were presented at the 2017 American Thoracic Society International Conference.

**See Also:** [Economic Cost to Surviving ARDS, New Study](#)

About 10 percent of all patients admitted to ICUs suffer from ARDS, which occurs when fluid builds up in the tiny, elastic air sacs in the lungs. This buildup reduces oxygen levels in the bloodstream, depriving organs of the oxygen they need to function.

Researchers analysed CUB-REA data for 316,000 ICU stays taking place between 2000 and 2014. They assessed the difference in ARDS severity using the SAPS2 scoring method, which measures the severity of disease for patients admitted to the ICU. They also looked at ARDS-related mortality for low, moderate and high patient volume ICUs. They statistically adjusted their analyses to account for severity of illness and other confounders.

Results showed that 18,022 ICU stays between 2000 and 2014 were related to ARDS. Overall, ICU prevalence of ARDS was 8.3 percent, while its prevalence progressively increased from 6.5 percent in 2000 to 10.5 percent in 2008. Prevalence then declined to 7.2 percent in 2014.

While SAPS2 severity scores increased from an average of 52 to 58 (with 52 representing a predicted 50 percent mortality rate) during that period, ICU mortality gradually decreased -- from 57.9 percent to 45.5 percent -- over these years. SAPS2 scores were highest in high-volume ICUs, which had 51.5 percent mortality. In contrast, mortality rates in moderate and low volume ICUs were 54 and 55.2 percent, respectively. Length of stay was also lowest in high volume ICUs.

"Our study is the first to look at a large and regional database that suggests patients with ARDS admitted to centres caring for large numbers of people with ARDS may have better prognoses than in centres with a lower case volume," says lead author Martin Dres, MD, of the AP-HP, Groupe Hospitalier Pitié-Salpêtrière Charles Foix, Service de Pneumologie et Réanimation Médicale, Paris, France.

Dr. Dres notes that further studies are necessary to "confirm and delineate our results and determine whether regionalisation of patients with ARDS should be recommended."

Source: [American Thoracic Society](#)

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