

Higher positive end-expiratory pressure no benefit in ARDS

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(HealthDay)—For patients with acute respiratory distress syndrome

(ARDS), higher positive end-expiratory pressure (PEEP) levels are not likely to improve clinical outcomes, according to a review published in the October issue of the *Annals of the American Thoracic Society*.

Allan J. Walkey, M.D., from Boston University School of Medicine, and colleagues conducted a systematic review of clinical trials to compare [clinical outcomes](#) of mechanical ventilation strategies using higher PEEP levels versus lower PEEP levels in [patients](#) with ARDS. Eight randomized trials, with 2,728 patients with ARDS, that compared higher versus lower PEEP strategies were included in the analysis.

The researchers found that the mean PEEP was 15.1 ± 3.6 cm H₂O versus 9.1 ± 2.7 cm H₂O in the higher and lower PEEP groups, respectively. In the primary analysis that excluded two trials that did not use lower tidal volume ventilation in the lower PEEP control groups, mortality was not significantly reduced for patients receiving higher versus lower PEEP (relative risk [RR], 0.91; 95 percent confidence interval, 0.8 to 1.03). There was also no significant decrease in barotrauma, new organ failure, or ventilator-free days for a higher versus a lower PEEP strategy. A significant mortality reduction for high PEEP was seen in secondary analysis that included all eight trials (RR, 0.84; 95 percent confidence interval, 0.71 to 0.99).

"Use of higher PEEP is unlikely to improve clinical outcomes among unselected patients with ARDS," the authors write.

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