

# Conservative oxygen treatment linked to lower ICU mortality

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(HealthDay)—A conservative protocol for oxygen therapy results in

lower intensive care unit (ICU) mortality compared to conventional care, according to a study published online Oct. 5 in the *Journal of the American Medical Association*. The research was published to coincide with the European Society of Intensive Care Medicine Annual Congress, held from Oct. 1 to 5 in Milan.

Massimo Girardis, M.D., from the University Hospital of Modena in Italy, and colleagues conducted a randomized trial involving adults admitted with an expected length of stay of 72 hours or longer to the medical-surgical ICU. Due to difficulties in enrollment, the trial was stopped after inclusion of 480 patients. Patients were randomized to receive oxygen therapy to maintain PaO<sub>2</sub> between 70 and 100 mm Hg or arterial oxyhemoglobin saturation (SpO<sub>2</sub>) between 94 and 98 percent (conservative group; 218 patients), or to allow PaO<sub>2</sub> values up to 150 mm Hg or SpO<sub>2</sub> values between 97 and 100 percent (conventional control group; 216 patients)

The researchers found that during the ICU stay, daily time-weighted PaO<sub>2</sub> averages were significantly higher in the conventional versus conservative group (median PaO<sub>2</sub>, 102 versus 87 mm Hg; P oxygen therapy group had lower mortality (absolute risk reduction, 0.086) and fewer episodes of shock, liver failure, and bacteremia.

"These preliminary findings were based on unplanned early termination of the trial, and a larger multicenter trial is needed to evaluate the potential benefit of this approach," the authors write.

One author disclosed financial ties to the pharmaceutical industry.

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