



## To Withhold or Withdraw Life-support in the ICU



New research finds considerable worldwide variability in decisions to withhold or withdraw life-sustaining therapy in the ICU. Notably, researchers found that almost one-third of patients with a decision to withhold/withdraw life-sustaining treatment left the hospital alive. The multicentre study, already available online as an accepted manuscript, will appear in the journal CHEST.

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Decisions to limit life-sustaining treatment are influenced by many factors, including the severity and reversibility of the acute illness, the presence and severity of comorbidities, age, religious and cultural beliefs, legal concerns and the subjective evaluation of benefits and burdens of life support.

While majority of ICU deaths are preceded by a decision to limit life-sustaining treatment in North America and Europe, these practices are less well defined in other parts of the world. Researchers hypothesised that decisions to limit life-sustaining therapy would vary around the globe and would be more common in countries with a low gross national income (GNI) than in those with higher GNI. For this study, a large prospective worldwide database was used to explore the characteristics of patients who received a decision to withhold/withdraw life-sustaining therapy during their ICU stay. Researchers also evaluated the predictive factors for receiving such a decision.

The analysis included 9,524 patients, with a hospital mortality of 24%. A decision to withhold/withdraw life-sustaining treatment was reported during the ICU stay in 1,259 patients (13%), including 820 (40%) non-survivors and 439 (5%) survivors. Hospital mortality in patients with a decision to withhold/withdraw life-sustaining treatment was 69%. The proportion of deaths in patients with a decision to withhold/withdraw life-sustaining treatment ranged from 10% in South Asia to 67% in Oceania. Decisions to withhold/withdraw life-sustaining treatment were less frequent in low/lower-middle GNI countries than in high GNI countries (6% vs. 14%).

"Interestingly, and in contrast to our hypothesis, decisions on withholding/withdrawing life-sustaining treatment were lower in non-survivors in low/lower-middle GNI countries than in those from higher GNI countries. A possible reason for this observation is that end-of-life decisions may be less explicit in low-income countries. Alternatively, there may be other barriers to making such decisions, such as lack of policies to support the provision of withholding/withdrawing care, uncertainty regarding legislative support, and fewer opportunities for staff training," the authors write.

The study also found that greater disease severity, presence of two or more organ failures, severe comorbidities, medical and trauma admissions, and admission from the emergency room or hospital floor were independent predictors of a decision to withhold/withdraw life-sustaining treatment.

The authors add, "Our finding that the variability in decisions was higher for hospitals within a country than between countries suggests that the variance is due as much to variability in the approach or culture of individual hospitals as to that of different countries."

The study did not gather data separately for withholding and withdrawing decisions "because the distinction between the two is not always clear," the authors explain. For example, a decision to withhold renal replacement therapy in a patient who develops acute renal failure may be associated with a decision to withdraw mechanical ventilation, simultaneously or later, or even to increase the doses of sedative agents.

Source: [CHEST](#)

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