

Multifaceted quality improvement intervention does not reduce risk of death in ICUs

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Implementation of a multifaceted quality improvement intervention with daily checklists, goal setting, and clinician prompting did not reduce in-hospital mortality compared with routine care among critically ill patients treated in intensive care units (ICUs) in Brazil, according to a study appearing in the April 12 issue of *JAMA*.

Checklists have been proposed as tools to ensure that essential components of care are not omitted. In ICUs, the use of checklists is associated with increased adherence to guidelines, reduced rates of central line-associated bloodstream infection, and earlier extubation. Using checklists combined with daily goals assessment and clinician prompting may improve communication, adherence to care processes, and [clinical outcomes](#). However, evidence from randomized trials supporting the use of checklists in critical care is lacking.

Alexandre B. Cavalcanti, M.D., Ph.D., of the HCor-Hospital do Coracao, Sao Paulo, Brazil and colleagues conducted a study that had two phases. Phase 1 was an observational study to assess baseline data on work climate, care processes, and clinical outcomes in 118 Brazilian ICUs. In phase 2, the same ICUs were randomized to a quality improvement intervention, including a daily checklist and [goal setting](#) during multidisciplinary rounds with follow-up clinician prompting for 11 care processes, or to routine care. The first 60 admissions of longer than 48 hours per ICU were enrolled in each phase.

A total of 6,877 patients (average age, 60 years) were enrolled in the baseline (observational) phase and 6,761 (average age, 60 years) in the randomized phase, with 3,327 patients enrolled in ICUs (n = 59) assigned to the intervention group and 3,434 patients in ICUs (n = 59) assigned to routine care. The researchers found that there was no significant difference in in-hospital mortality between the intervention group and the usual care group, with 1,096 deaths (33 percent) and 1,196 deaths (35 percent), respectively.

Potential improvements were observed in 4 of 7 care processes and 2 safety climate domains, although except for 1 outcome, urinary catheter use, these findings were not significant after adjustment for multiple comparisons.

The authors write that potential explanations for the lack of effect on mortality found in this study include that the intervention needs time to work and the observation period was too short, or that the items on the checklist have very modest or negligible effects on mortality.

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