

# A Systematic Review and International Web-Based Survey of randomized controlled trials in the perioperative and critical care setting: Interventions increasing mortality.

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Argomento: Anestesia generale

**Objective:** Reducing mortality is a key target in critical care and perioperative medicine. We aimed to identify all nonsurgical interventions (drugs, techniques, strategies) shown by randomized trials, to increase mortality in these clinical settings.

**Design:** A systematic review of the literature followed by a consensus-based voting process.

**Setting:** A web-based international consensus conference.

**Participants:** 251 physicians from 46 countries.

**Interventions:** We performed a systematic literature search and identified all randomized controlled trials (RCTs) showing significant increase in unadjusted landmark mortality among surgical or critically ill patients. We reviewed such studies during a meeting by a core group of experts. Studies selected after such review advanced to web-based voting by clinicians in relation to agreement, clinical practice, and willingness to include each intervention into international guidelines.

**Measurements and Main Results:** We selected 12 RCTs dealing with 12 interventions increasing mortality: diaspirin cross linked hemoglobin (92% of agreement among web voters), overfeeding, **nitric oxide synthase inhibitor in septic shock**, human growth hormone, thyroxin in acute kidney injury, intravenous salbutamol in acute respiratory distress syndrome, plasma-derived protein C concentrate, aprotinin in high-risk cardiac surgery, cysteine prodrug, hypothermia in meningitis, methylprednisolone in traumatic brain injury, and albumin in traumatic brain injury (72% of agreement). Overall, a high consistency (ranging from 80% to 90%) between agreement and clinical practice was observed.

**Conclusions:** We identified 12 clinical interventions with randomized trials showing increased mortality, with non-conflicting, and widely agreed-upon clinicians agreement on a global scale.

