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Ethics approval This study was conducted with the approval of the Partners IRB.

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Journal club

Early administration of neuromuscular blockers may increase survival in ARDS

Acute respiratory distress syndrome (ARDS) has a very high mortality and few interventions exist that have a direct effect on the mortality and morbidity of this condition. Although previously used, neuromuscular blockade has not been popular in recent years with long-term muscular weakness often cited as a reason for non-use.

This placebo controlled trial recruited 340 patients with rapid onset of severe ARDS, all of whom were managed on a protective lung ventilation strategy. Half received a cisatracurium infusion for 48 h and the other half placebo. The primary endpoint was 90-day mortality rate. Mortality was significantly decreased in the cisatracurium group as opposed to the placebo group. This group also had fewer pneumothoraces and more days free of multi-organ failure. Patients with severe hypoxaemia seemed to benefit the most. This study found no significant difference in the incidence of ICU-acquired paresis between the groups at ICU discharge.

Further studies will be required to assess whether duration of neuromuscular blockade affects mortality and whether this benefit can be applied to other neuromuscular blocking agents, and to ascertain the mechanism behind the benefit of paralysis.

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