**Introduction:**
Severe immune dysregulation is associated with adverse outcomes and is common in intensive care unit (ICU) patients. Erythropoietin-stimulating agents (ESAs) have both anti-apoptotic and immune-modulating properties. Despite potential benefit, both the safety and efficacy of these agents remains unclear. Here we evaluate the impact of ESAs on morality at hospital discharge in critically unwell adult patients admitted to the ICU.

**Methods:**
We conducted our search strategy in accordance with a predetermined protocol. We searched OVID MEDLINE, OVID EMBASE and The Cochrane Central Register of Controlled Trials, from inception until May 2019. Eligible publications were randomised controlled trials (RCTs) reporting mortality, including adult patients admitted to an ICU, with both a group receiving ESA therapy and a comparator group not receiving ESA therapy with both groups reporting mortality. No language restrictions applied.

**Results:**
16 of the 21 included studies reported in-hospital mortality, with evidence of a decrease in the group receiving ESA therapy (276 of 2187 patients, 12.6%) when compared with the comparator group (339 out of 2204 patients, 15.4%), [relative risk (RR) 0.82, 95% CI 0.71–0.94, \(P = 0.006\), \(I^2 = 0.0\%\)]. Of these studies only one was categorised as being of low risk of bias.

**Conclusion:**
We have demonstrated that in heterogenous populations of critically ill adults, ESA therapy may decrease mortality. The evidence used in this trial was mainly of low or uncertain quality.

**References:**