What Is the Benefit of Corticosteroid Therapy for Bacterial Community-Acquired Pneumonia in Hospitalized Patients?

STUDY DESIGN

- Systematic review, meta-analysis, and Trial Sequential Analysis (TSA) resulting in **16 trials** and **3,842 patients**
- Primary outcome was **all-cause mortality**
- Secondary outcomes included ICU admission, mechanical ventilation, treatment failure, readmission, and adverse events

RESULTS

Cumulative Outcomes

Characteristics	Corticosteroid Therapy	Standard Care	Relative Risk (Trial Sequential Analysis Adj CI)	I^2
All-cause mortality	9.5%	10.8%	0.85 (0.61-1.09)	14%
Need for ICU admission	3.1%	4.7%	0.66 (0.37-1.12)	0%
Need for mechanical ventilation	4.2%	7.1%	0.51 (0.20-0.85)	0%
Treatment failure	5.3%	5.7%	0.78 (0.02-25.5)	68%
Hospital readmission	21.5%	17.7%	1.20 (0.89-1.98)	0%
Adverse events	55.8%	48.5%	1.10 (0.82-2.41)	53%

Corticosteroid therapy is associated with a lower incidence of progression to requiring mechanical ventilation among patients hospitalized with community-acquired pneumonia. No association was found between corticosteroid therapy and mortality, treatment failure, or adverse events.

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