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Effects of dexmedetomidine on clinical outcomes in patients with septic shock: a meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 25 January 2025 and was last updated on 25 January 2025.

INTRODUCTION

Review question / Objective The effects of dexmedetomidine on patients with septic shock are unclear. We carried out a meta-analysis to examine the effects of dexmedetomidine on the forecast in patients with septic shock.

Condition being studied We performed a meta-analysis to assess the effects of dexmedetomidine on outcomes in patients with septic shock, with outcome measures such as ICU mortality, 28-day death, ICU stay and SOFA.

METHODS

Participant or population Patients with septic shock.

Intervention Dexmedetomidine.

Comparator Propofol, Midazolam, etc.

Study designs to be included The search strategy were RCTs.

Eligibility criteria Patients with septic shock; The intervention group received dexmedetomidine; The outcome indexes included mortality, length of ICU stay, SOFA, etc; The study type was RCTs..

Information sources A comprehensive manual search of the PubMed, Embase, Cochrane , CNKI and Wanfang databases was conducted in order to select relevant randomised controlled trials. Should the necessity arise to obtain pertinent research data, the authors will be duly contacted.

Main outcome(s) ICU mortality, 28-day mortality..

Quality assessment / Risk of bias analysis We evaluated the methodological quality of the individual studies using the Cochrane risk of bias tool for RCTs.

Strategy of data synthesis The estimates were expressed as mean difference(MD) or odds ratios (OR) with a 95% confidence intervals (CI).

Subgroup analysis None.

Sensitivity analysis We conducted sensitivity analyses to investigate the influence of a single study on the overall pooled estimate of each predefined outcome.

Language restriction None.

Country(ies) involved China.

Keywords Dexmedetomidine; Septic shock; Mortality.

Contributions of each author

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