INPLASY

The efficacy of antibiotics administered via the respiratory tract in the prevention of ventilator-associated pneumonia: a meta-analysis of randomized controlled trials

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Corresponding author:
Yu Geng

gya02137@btch.edu.cn

Author Affiliation:
Department of Cardiology,Beijing Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing, China.

Geng, Y[1]; Guo, YQ[2]; Liu, LF[3]; Gao, T[4]; Bi, L[5]; Sun, KG[6]; Bi, SJ[7]; Wang, YT[8]; Zhang, P[9].

ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202420032

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 07 February 2024 and was last updated on 07 February 2024.

INTRODUCTION

Review question / Objective We sought to conduct a systematic review and meta-analysis to evaluate the efficacy of antibiotics administered via the respiratory tract in the prevention of ventilator-associated pneumonia in patients with mechanical ventilation.

Condition being studied VAP incidence and mortality.

METHODS

Participant or population Patients with mechanical ventilation.

Intervention Patients with antibiotics administered via the respiratory tract.

Comparator Placebo.

Study designs to be included The search strategy was RCTs.

Eligibility criteria (1) Patients with mechanical ventilation. (2) Patients with or without antibiotics administered via the respiratory tract.(3) Outcomes Indicators: VAP incidence and mortality.

Information sources We will search the references in the included trials and personal files. We will request advice from experts in the field. In addition, we will search associated articles from meetings, and contacted the authors of included trials, if need.

Main outcome(s) VAP incidence and 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 We will consider using the number of participants and deaths between different groups for analysis. Mortality may also be reported.

Subgroup analysis Subgroup analysis of drug types.

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

Country(ies) involved China.

Keywords Antibiotics, Ventilator-associated pneumonia, Mechanical ventilation.

Contributions of each author
Author 1 - Yu Geng.
Author 2 - Yiqi Guo.
Author 3 - Lianfeng Liu.
Author 4 - Tong Gao.
Author 5 - Lei Bi.
Author 6 - Kuogen Sun.
Author 7 - Shujiao Bi.
Author 8 - Yintang Wang.
Author 9 - Ping Zhang.