INPLASY PROTOCOL

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Corresponding author: Tongwen Sun

suntongwen@163.com

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Effect of timing of corticosteroids administration on prognosis of sepsis: A systematic review and meta-analysis

Qi, XY¹; Liang, HY²; Wang, YZ³; Ding, XF⁴; Zhang, XJ⁵; Sun, TW⁶.

Review question / Objective: We research effect of timing of corticosteroids administration on prognosis of sepsis patients. RCTs was chosen as the research method.

Eligibility criteria: The studies reported the timinng and related outcomes of corticosteroids treating for sepsis or septic shock patients.

Information sources: PubMed, Cochrane library, Embase, Chinese BioMedical Literature, Wanfang, China National Knowledge Infrastructure databases.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 15 August 2022 and was last updated on 15 August 2022 (registration number INPLASY202280056).

INTRODUCTION

Review question / Objective: We research effect of timing of corticosteroids administration on prognosis of sepsis patients. RCTs was chosen as the research method.

Condition being studied: Sepsis and septic shock.

METHODS

Participant or population: sepsis and septic shock patients.

Intervention: Early corticosteroids therapy.

Comparator: Placebo or control or late corticosteroids therapy.

Study designs to be included: RCTs.

Eligibility criteria: The studies reported the timinng and related outcomes of corticosteroids treating for sepsis or septic shock patients.

Information sources: PubMed, Cochrane library, Embase, Chinese BioMedical Literature, Wanfang, China National Knowledge Infrastructure databases.

Main outcome(s): 28-day mortality, ICU mortality and in-hospital mortality.

Quality assessment / Risk of bias analysis: We performed risk assessment using the Cochrane Collaboration risk of bias tool.

Strategy of data synthesis: We would use STATA 16.0(StataCorp, College Station, TX, USA) for data analysis. Mantel-Haenszel (M-H) or Inverse Variance (I-V) methods with random-effects meta-analyses are conducted for the eligible RCTs. Risk ratio (RR) and mean difference (MD) are used to present the dichotomous and continuous outcomes, with 95% CI.

Subgroup analysis: The subgroup analysis performed would based on our study aims.

Sensitivity analysis: Sensitivity analyses were conducted for the primary out- come by excluding trials that reported ICU mortality or in-hospital mortality to replace 28-day mortality, using the adjusted odds ratios, RRs, and hazard ratios with the generic inverse variance method.

Country(ies) involved: China.

Keywords: corticosteroids; sepsis; septic shock; mortality; systematic review; meta-analysis.

Contributions of each author:

Author 1 - Xueyan Qi - The author drafted the manuscript and searched the studies. Email: qxy18737837033@163.com Author 2 - Huoyan Liang - The author provided statistical expertise and searched the studies. Email: push2017@126.com Author 3 - Yuze Wang - The author searched the studies. Email: yuzewang0908@163.com Author 4 - Xianfei Ding - The author searched the studies. Email: dingxianfei2009@163.com Author 5 - Xiaojuan Zhang - The author searched the studies. Email: emzhxj@126.com Author 6 - Tongwen Sun - The author designed the study. Email: suntongwen@163.com

Author Affiliation: General ICU, The First Affiliated Hospital of Zhengzhou University, Henan Key Laboratory of Critical Care Medicine, Zhengzhou Key Laboratory of Sepsis, Henan Engineering Research Center for Critical Care Medicine, Zhengzhou450052, ChinaThe First Affiliated Hospital of Zhengzhou University.