INPLASY PROTOCOL

To cite: Wang et al. Early versus late initiation of hydrocortisone in patients with vasopressor-dependent septic shock: a systematic review and meta-analysis. Inplasy protocol 202240163. doi: 10.37766/inplasy2022.4.0163

Received: 28 April 2022

Published: 28 April 2022

Corresponding author:
Wan-Jie Gu

wanjiegu@njglyy.com

Author Affiliation:
Nanjing Drum Tower Hospital, Medical College of Nanjing University.

Support: **None.**

Review Stage at time of this submission: **Formal screening of search results against eligibility criteria.**

Conflicts of interest:
None declared.

Early versus late initiation of hydrocortisone in patients with vasopressor-dependent septic shock: a systematic review and meta-analysis

Wang, CM[1]; Gu, WJ[2].

Review question / Objective: **This meta-analysis aims to assess whether initiation time of low-dose hydrocortisone has an impact on mortality of septic shock.**
Condition being studied: **The effect of low-dose hydrocortisone on mortality of septic shock remains controversial. The appropriate time to initiate hydrocortisone after shock onset is unclear.**
Eligibility criteria: **We included studies on the association between early compared with late initiation of low-dose hydrocortisone and mortality in adult (≥18 years old) patients with vasopressor-dependent septic shock.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 28 April 2022 and was last updated on 28 April 2022 (registration number INPLASY202240163).

INTRODUCTION

Review question / Objective: **This meta-analysis aims to assess whether initiation time of low-dose hydrocortisone has an impact on mortality of septic shock.**

Condition being studied: **The effect of low-dose hydrocortisone on mortality of septic shock remains controversial. The appropriate time to initiate hydrocortisone after shock onset is unclear.**

METHODS

Search strategy: **We searched MEDLINE, EMBASE, and the Cochrane Library with no restrictions on regions or languages.**

Participant or population: Adults with septic shock.

Intervention: Low-dose hydrocortisone therapy.

Comparator: Early compared with late initiation of hydrocortisone.

Study designs to be included: Observational studies.

Eligibility criteria: We included studies on the association between early compared with late initiation of low-dose hydrocortisone and mortality in adult (≥18 years old) patients with vasopressor-dependent septic shock.

Information sources: We searched MEDLINE, EMBASE, and the Cochrane Library with no restrictions on regions or languages. In addition, we conducted a manual search of reference lists of eligible studies and previous reviews.

Main outcome(s): Hospital mortality of septic shock.

Quality assessment / Risk of bias analysis: Newcastle-Ottawa Scale (NOS) was used to assess the quality of included observational studies.

Strategy of data synthesis: We calculated the pooled odds ratio (OR) for dichotomous outcomes and the weighted mean difference (WMD)) for continuous outcomes, together with 95% confidence intervals (CIs). The random-effects model was chosen for all analyses.

Subgroup analysis: A subgroup analysis of initiation time for mortality was performed.

Sensitivity analysis: None.

Language: No restrictions on languages.

Country(ies) involved: China.

Other relevant information: hydrocortisone; initiation time; mortality; septic shock.

Keywords: hydrocortisone; initiation time; mortality; septic shock.

Contributions of each author:
Author 1 - Chun-Mei Wang.
Email: lengmei.1218@163.com
Author 2 - Wan-Jie Gu.
Email: wanjiegu@njglyy.com