

INPLASY PROTOCOL

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Corresponding author:
Wen Li

aladdin64@163.com

Author Affiliation:
Guizhou University of
Traditional Chinese Medicine

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Review Stage at time of this submission: Preliminary searches.

Conflicts of interest:
None declared.

Vitamin D as an Adjuvant Therapy on Sepsis: A Systematic Review and Meta-Analysis

Chen, Yj¹; Li, W²; Chai, Yh³; Qin, Z⁴; Gao, J⁵; Wu, Xz⁶; Chen, Yz⁷.

Review question / Objective: The objective of the present review is to find out whether vitamin D could be effective on patients with sepsis.

Condition being studied: Sepsis.

Information sources: The Cochrane library (www.Cochranelibrary.com), PubMed (www.ncbi.nlm.nih.gov/pubmed), EMBASE (www.embase.com), and CNKI (www.cnki.net/), from establishment of the database to April, 2021.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 06 June 2021 and was last updated on 06 June 2021 (registration number INPLASY202160016).

INTRODUCTION

Review question / Objective: The objective of the present review is to find out whether vitamin D could be effective on patients with sepsis.

Condition being studied: Sepsis.

METHODS

Search strategy: (vitamin D[Title/Abstract] OR cholecalciferol[Title/Abstract] OR calcitriol[Title/Abstract] OR alfalcidol[Title/Abstract]) AND (sepsis[Title/Abstract]).

Participant or population: Patients with sepsis.

Intervention: Vitamin D.

Comparator: Placebo.

Study designs to be included: RCTs.

Eligibility criteria: (1) randomized control trial; (2) examined vitamin D supplements in patients with sepsis; (3) the odds ratios (ORs) or hazard ratios (HRs) of mortality were compared between vitamin D supplements and no vitamin D supplements.

Information sources: The Cochrane library (www.Cochranelibrary.com), PubMed (www.ncbi.nlm.nih.gov/pubmed), EMBASE (www.embase.com), and CNKI (www.cnki.net/), from establishment of the database to April, 2021.

Main outcome(s): Mortality.

Additional outcome(s): Concentration of serum vitamin D, TNF- α , IL-6.

Quality assessment / Risk of bias analysis: Review Manager software (version 5.4; Cochrane Collaboration, Oxford, UK) was used to estimate the risks of bias of the included studies, analyze data, and create plots.

Strategy of data synthesis: I² and χ^2 tests were used to estimate the heterogeneity. If $P > 0.1$ or $I^2 < 40\%$, a fixed effects model was used for the analysis. If there was a high degree of heterogeneity, a random effects analysis was used. Odds ratios (ORs) were calculated for dichotomous variables.

Subgroup analysis: No subgroup analysis.

Sensitivity analysis: The sensitivity analysis and publication bias test were performed using R language if enough original studies were included.

Language: English and Chinese.

Country(ies) involved: China.

Keywords: vitamin D, cholecalciferol, calcitriol, alfacalcidol, sepsis.

Contributions of each author:

Author 1 - Yujia Chen.

Email: 2095872100@qq.com

Author 2 - Wen Li.

Email: aladdin64@163.com

Author 3 - Yihui Chai.

Email: 846956178@qq.com

Author 4 - Zhong Qin.

Email: 846956178@qq.com

Author 5 - Jie Gao.

Email: 340228972@qq.com

Author 6 - Xiaozheng Wu.

Email: 381561813@qq.com

Author 7 - Yunzhi Chen.

Email: chenyunzhi270@gzy.edu.cn