INPLASY PROTOCOL

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Review Stage at time of this submission: **The review has not yet started.**

Conflicts of interest:
None declared.

Effectiveness and safety of vitamin D supplementation for the prevention and treatment of COVID-19: protocol for systematic review and network meta-analysis

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Review question / Objective: **This study will determine the efficacy and safety of Vitamin D in the treatment of COVID-19.**
Condition being studied: **COVID-19. This is a systematic reviews and meta-analysis of randomized controlled trials in animal studies, so ethical approval is not necessary.**
Information sources: **Studies are selected from different electronic databases, including MEDLINE, EMBASE, OVID, CNKI (China National Knowledge Infrastructure), CBM (Chinese Biomedical Database), and Cochrane Library.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 19 March 2021 and was last updated on 19 March 2021 (registration number INPLASY202130063).

INTRODUCTION

Review question / Objective: **This study will determine the efficacy and safety of Vitamin D in the treatment of COVID-19.**

Condition being studied: **COVID-19. This is a systematic reviews and meta-analysis of randomized controlled trials in animal studies, so ethical approval is not necessary.**

METHODS

Participant or population: **We will include human studies in which patients with confirmed COVID-19 of all ages and sexes were enrolled.**

Intervention: This study will select any dose and route of vitamin D supplementation.

Comparator: Patients were given any dose of vitamin D, alone or in combination with other drugs, and compared with patients who were not given vitamin D.

Study designs to be included: Randomized controlled trials (RCTs) evaluate the efficacy of vitamin D in combination with adjuvant therapy to prevent or treat COVID-19. This study are designed in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-analysis guidelines.

Eligibility criteria: P: Participants. We will include human studies in which patients with confirmed COVID-19 of all ages and sexes were enrolled. I: Intervention. This study will select any dose and route of vitamin D supplementation. C: Comparison. Patients were given any dose of vitamin D, alone or in combination with other drugs, and compared with patients who were not given vitamin D. O: Outcome. The primary and secondary parameters of this study are efficacy and safety, respectively. S: Study. Randomized controlled trials (RCTs) evaluate the efficacy of vitamin D in combination with adjuvant therapy to prevent or treat COVID-19.

Information sources: Studies are selected from different electronic databases, including MEDLINE, EMBASE, OVID, CNKI (China National Knowledge Infrastructure), CBM (Chinese Biomedical Database), and Cochrane Library.

Main outcome(s): The information collectes included the first author of the study, year of publication, age of participants, study design, characteristics of the experimental drug, intervention, dose, duration, outcome measures and adverse events, confirmation of COVID-19, duration of follow-up, and reported clinical outcomes.

Quality assessment / Risk of bias analysis: The Cochrane Systematic Deviation Risk Assessment Tool is used to assess the methodological quality of the included studies, with the quality of each study assessed as high, uncertain, or low risk.

Strategy of data synthesis: One author independently checks the titles and abstracts generates by the electronic search, and the other cross-checked them. Any differences of opinion between the two authors are settled through negotiation.

Subgroup analysis: Patients were given any dose of vitamin D, alone or in combination with other drugs, and compared with patients who were not given vitamin D.

Sensitivity analysis: The impact of study quality on results was assessed by sensitivity analysis.

Country(ies) involved: China.

Keywords: vitamin D, COVID-19, SARS-CoV-2, system review, meta-analysis.

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