

INPLASY PROTOCOL

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None declared.

Effect Of Adopting Low Calories On Patients' Vital Signs In The Nutritional Support Of Critically-Ill Patients In The ICU: A Systematic Review And Network Meta-Analysis

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Review question / Objective: To investigate the effects of adopting low caloric intake among patients with vital signs in the nutritional support of critically-ill patients in ICUs.

Eligibility criteria: We limited the article search to studies reporting the low caloric intake among critically-ill patients in ICUs. Only publications with in-depth statistical analysis were included in the present study. This includes the percentages of the outcomes of the interventions, variability (data range or standard deviation), and tendency measure (medians or means). Data were extracted from studies reporting the effect of low caloric intake among critically-ill patients in ICUs. At the same time, studies comparing these outcomes with high caloric intake or control groups were considered.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 December 2022 and was last updated on 14 December 2022 (registration number INPLASY2022120052).

INTRODUCTION

Review question / Objective: To investigate the effects of adopting low caloric intake among patients with vital signs in the nutritional support of critically-ill patients in ICUs.

Condition being studied: Critically-ill patients in ICUs.

METHODS

Participant or population: Critically-ill patients in ICUs.

Intervention: Low caloric intake among.

Comparator: High caloric intake.

Study designs to be included: Randomized-controlled trials.

Eligibility criteria: We limited the article search to studies reporting the low caloric intake among critically-ill patients in ICUs. Only publications with in-depth statistical analysis were included in the present study. This includes the percentages of the outcomes of the interventions, variability (data range or standard deviation), and tendency measure (medians or means). Data were extracted from studies reporting the effect of low caloric intake among critically-ill patients in ICUs. At the same time, studies comparing these outcomes with high caloric intake or control groups were considered.

Information sources: PubMed, the Cochrane Library of Trials, and MEDLINE.

Main outcome(s): The present study found that low caloric intake reduces mortality rate and LOS in hospitals among critically-ill patients.

Quality assessment / Risk of bias analysis: The independent reviewers assessed the quality of individual studies and compiled an overall impression of the risk of bias in the seven domains: Random sequence generation, allocation concealment, blinding of participants and personnel, blinding of outcome assessment, incomplete outcome data, and selective reporting.

Strategy of data synthesis: Two independent reviewers were assigned data synthesis roles. They screened the titles and abstracts of potential studies in the electronic databases for eligibility, after which they performed a full-text analysis of the potential studies. Any disagreements between the two reviewers were resolved by consensus. The data extracted from the included studies were meta-analyzed and visualized using a bubble graph, a funnel plot, tables of figures or data, and a box

plot. A discussion and conclusions made on the effect of adopting low caloric intake were based on the outcomes of this analysis.

Subgroup analysis: N/A.

Sensitivity analysis: We performed a heterogeneity test, using the I² statistic to establish the genuine differences in the outcomes reported by the individual studies.

Country(ies) involved: China.

Keywords: Low Calories, Nutritional Support, Critically-Ill Patients, ICU.

Contributions of each author:

Author 1 - Qidong Jiang.

Author 2 - Tao Xu.