INPLASY PROTOCOL

To cite: Zheng et al. A meta-analysis of glutamine supplementation in adult burn patients. Inplasy protocol 2022100073. doi: 10.37766/inplasy2022.10.0073

Received: 18 October 2022

Published: 18 October 2022

Corresponding author:
Hui-Bin Huang

hhba02922@btch.edu.cn

Author Affiliation:
Beijing Tsinghua Chang Gung Hospital, Tsinghua University.

Support: **None.**

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

Conflicts of interest:
None declared.

A meta-analysis of glutamine supplementation in adult burn patients

Zheng, WH[1]; Yao, Y[2]; Huang, HB[3].

Review question / Objective: **Therefore, we sought to build on previous studies and include newly published RCTs to test the hypothesis that using GLN in burn patients improves important clinical outcomes for patients compared to controls.**
Eligibility criteria: **1. Population: adult burn patients (age≥18 years).2. Intervention: either enteral or parenteral administration of GLN.3. Comparator: standard care or a predefined "control group."4. Outcomes: mortality, infectious complications, length of stay hospital or ICU, duration of mechanical ventilation and adverse events.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 October 2022 and was last updated on 18 October 2022 (registration number INPLASY2022100073).

INTRODUCTION

Review question / Objective: **Therefore, we sought to build on previous studies and include newly published RCTs to test the hypothesis that using GLN in burn patients improves important clinical outcomes for patients compared to controls.**

Condition being studied: **Glutamine supplementation in adult burn patients. The research team comes from the Department of Critical Care Medicine of a tertiary hospital in China, and all the team members have perfect clinical experience in treatments of nebulized antibiotics. Moreover, our team members have**

published more than 20 meta-analyses, which can guarantee the successful completion of the current research.

METHODS

Participant or population: Adult (≥18 years old) burn patients.

Intervention: Either enteral or parenteral administration of GLN.

Comparator: standard care or a predefined "control group.

Study designs to be included: RCTs.

Eligibility criteria: 1. Population: adult burn patients (age≥18 years).2. Intervention: either enteral or parenteral administration of GLN.3. Comparator: standard care or a predefined "control group."4. Outcomes: mortality, infectious complications, length of stay hospital or ICU, duration of mechanical ventilation and adverse events.

Information sources: Articles available only in abstract form or meeting reports were also excluded.

Main outcome(s): Mortality.

Quality assessment / Risk of bias analysis: We evaluated potential evidence of bias using the Cochrane risk-of-bias tool for RCTs. We assigned a value of high, unclear, low to the following items:(1) sequence generation;(2) allocation concealment;(3) blinding;(4) incomplete outcome data;(5) selective outcome reporting; and (6) other sources of bias.

Strategy of data synthesis: An overall effect estimate for all data as risk ratio(RR)/mean difference(MD) with 95% CI will becalculated. The presence of statistical heterogeneity among the studies by using the Q statistics and the heterogeneity by using the I2 statistic was addressed.A p value of less than 0.10 or an I2 value of greater than 50% as indicative was considered of substantial heterogeneity.A random-effects model or a fixed-effects mode(DerSimonian-Laird) will be chosen when significant heterogeneity or nonsignificant heterogeneity was not observed, respectively.

Subgroup analysis: We grouped the included studies by route of administration of GLN for subgroup analysis in enteral (EN) and intravenous (IV).

Sensitivity analysis: None.

Country(ies) involved: China.

Keywords: glutamine, burn, enteral administration, meta-analysis, mortality.

Contributions of each author:
Author 1 - Wen-He Zheng.
Author 2 - Yan Yao.
Author 3 - Hui-Bin Huang.