

INPLASY

Safety and efficacy of tranexamic acid in perioperative burn patients: a meta-analysis

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Data analysis.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 14 March 2025 and was last updated on 14 March 2025.

INTRODUCTION

Review question / Objective The safety and efficacy of tranexamic acid (TXA) in perioperative burn patients remain controversial. This study aims to investigate the safety and efficacy of TXA in perioperative burn patients.

Condition being studied The outcome measures total perioperative blood loss, perioperative transfusion events, operative time, and all-cause mortality.

METHODS

Participant or population Adult patients undergoing surgical treatment for burns.

Intervention Tranexamic acid.

Comparator Saline or other drug.

Study designs to be included The search strategy were RCTs.

Eligibility criteria (1) Original research (2) Articles in Chinese and English; (3) Randomized controlled trials or cohort studies (4) Perioperative application of tranexamic acid in burn patients of experimental group (5) Surgical modalities including scab removal or debridement.

Information sources A comprehensive manual search of the PubMed, Embase, Cochrane, CNKI and Wanfang databases was conducted in order to select relevant trials. Should the necessity arise to obtain pertinent research data, the authors will be duly contacted.

Main outcome(s) Total perioperative blood loss, perioperative transfusion events, operative time, and all-cause mortality.

Quality assessment / Risk of bias analysis We evaluated the methodological quality of the

individual studies using the Cochrane risk of bias tool 2.0 for RCTs, while ROBIN-1 for non-RCTs.

Strategy of data synthesis The results are presented as odds ratios (OR) or differences in means (MD) with a 95% confidence interval.

Subgroup analysis We performed subgroup analyses according to whether the included studies were randomized controlled trials.

Sensitivity analysis We performed a sensitivity analysis to investigate the impact of a single study on the overall pooled estimate of each predefined outcome.

Language restriction None.

Country(ies) involved China.

Keywords Tranexamic acid; Burns; Perioperative period; meta-analysis.

Contributions of each author

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