INPLASY PROTOCOL

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Remimazolam versus traditional sedatives for procedural sedation: A systematic review and meta-analysis of efficacy and safety outcomes

Tang, Y[1]; Yang, X[2]; Yu, Y[3]; Shu, H[4]; Xu, J[5]; Zou, X[6]; Yuan, S[7]; Shang, Y[8].

Review question / Objective: The aim of the present study was to pool data from all available RCTs to systematically compare the efficacy and safety of remimazolam with traditional sedatives for procedural sedation.

Condition being studied: The majority of procedures such as colonoscopy and bronchoscopy are performed with some form of sedation. Remimazolam is a novel and ultra-short-acting benzodiazepine currently developed for procedural sedation. Previous studies suggested that remimazolam might be a reasonable selection in procedural sedation.

Information sources: We will search articles in Cochrane Library, Embase, PubMed, Web of Science and ClinicalTrials.gov. Reference list of all selected articles will independently screened to identify additional studies left out in the initial search.

INTRODUCTION

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METHODS

Participant or population: Adults receiving procedural sedation will be included.

Intervention: Remimazolam is the main intervention.

Comparator: Traditional sedatives are comparators.

Study designs to be included: Randomized controlled trials (RCTs) will be included.

Eligibility criteria: Case reports, reviews, expert opinions, abstracts, and duplicate publications were excluded.

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Main outcome(s): Procedure success rate.

Quality assessment / Risk of bias analysis: The methodological quality of included studies will be assessed using the Cochrane Risk of Bias Tool.

Strategy of data synthesis: Results will be analyzed using Review Manager 5.3 by the Cochrane Collaboration. We will use the I^2 statistic to assess the statistical heterogeneity among included studies. If significant heterogeneity exist, we will carry out sensitivity analyses or subgroup analyses to evaluate the statistical stability of our findings.

Subgroup analysis: The traditional sedative agents group will be divided into midazolam group and propofol group to conduct subgroup analysis.

Sensitivity analysis: Where single studies appeared to contribute excessively to heterogeneity, we performed sensitivity analyses using the leave-one-out method to test the robustness of our findings after exclusion of these studies.

Country(ies) involved: China.

Keywords: remimazolam, midazolam, propofol, procedural sedation, meta-analysis.

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