INPLASY PROTOCOL

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Conflicts of interest:
None declared.

Roxadustat (FG-4592) treatment for anemia in peritoneal dialysis-dependent (PDD) chronic kidney disease patients: A systematic review and meta-analysis

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Review question / Objective: **This study is designed to evaluate the efficacy of roxadustat(FG-4592) for anemia in peritoneal dialysis-dependent (PDD) chronic kidney disease patients.**
Condition being studied: **Anemia is one of the common complications of chronic kidney disease patients, which seriously affects the quality of life and long term prognosis. Very recently, several previous studies indicated that roxadustat significantly increased Hb level and total iron-binding capacity (TIBC) in patients dependented on peritoneal dialysis. Therefore, we will conduct a systematic review and meta-analysis to confirm that roxadustat is effective for anemia in peritoneal dialysis-dependent (PDD) chronic kidney disease patients.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 June 2021 and was last updated on 16 June 2021 (registration number INPLASY202160053).

INTRODUCTION

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METHODS

Participant or population: Patients who were diagnosed with renal anemia and treated with peritoneal dialysis were included.

Intervention: Use of roxadustat.

Comparator: For control group, patients were treated by placebo or traditional treatment (EPO, etc).

Study designs to be included: RCTs.

Eligibility criteria: (1)Only randomized controlled trials (RCTs) were included in the study (2)Roxadustat was used as intervention compared with a placebo or traditional drugs. (3)study subjects: patients who met the diagnostic criteria only for anemia of CKD and were dependented on peritoneal dialysis. (4)The outcomes measures will include at least one of the followings: hemoglobin, transferrin, Total Iron Binding Capacity (TIBC), transferrin Saturation, or ferritin.

Information sources: PubMed, Embase, Cochrane Library, Web of Science, China National Knowledge Infrastructure (CNKI), Chinese Biomedical Literatures Database (CBM) , Chinese Scientific Journal Database(VIP), and Wanfang Database.

Main outcome(s): The primary outcome is Hemoglobin Levels and the change from the baseline hemoglobin level.

Quality assessment / Risk of bias analysis: The Cochrane risk of bias tool will be used to assess the risk of bias in this study. This assessment will be conducted independently by 2 reviewers, and any difference in the assessment process will be resolved through consultation with the third reviewer.

Strategy of data synthesis: Stata 16.0 will be used for data synthesis.

Subgroup analysis: If there is significant heterogeneity in the study, we will conduct a subgroup analysis to explore possible cause based on type of intervention, treatment course, and outcome measurements.

Sensitivity analysis: If necessary, an analysis of the sensitivity.

Country(ies) involved: China.

Keywords: chronic kidney disease; Renal anemia; Roxudustat; Meta analysis.

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