# INPLASY PROTOCOL

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**Support:** **None.**

**Review Stage at time of this submission:** **Piloting of the study selection process.**

**Conflicts of interest:**
**None declared.**

# Effects of losartan on liver function and blood lipids in patients with nonalcoholic fatty liver disease: a meta-analysis of randomized controlled trial

Meng, C[1]; Song, ZJ[2]; Zhang, LN[3]; Geng, Y[4]; Sun, J[5]; Miao, GB[6]; Liu, P[7].

**Review question / Objective:** **We sought to conduct a systematic review and meta-analysis to assess effects of losartan on liver function and blood lipids in patients with nonalcoholic fatty liver disease.**
**Condition being studied:** **Liver function and blood lipids in patients with nonalcoholic fatty liver disease.**
**Information sources:** **We will search the references in the included trials and personal files. We will request advice from experts in the filed. In addition, we will search associated articles from meetings, and contacted the authors of included trials, if need.**

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 02 November 2022 and was last updated on 05 November 2022 (registration number INPLASY2022110006).

## INTRODUCTION

**Review question / Objective:** **We sought to conduct a systematic review and meta-analysis to assess effects of losartan on liver function and blood lipids in patients with nonalcoholic fatty liver disease.**

**Condition being studied:** **liver function and blood lipids in patients with nonalcoholic fatty liver disease.**

## METHODS

**Participant or population:** Nonalcoholic fatty liver disease.
**Intervention:** Losartan.

**Comparator:** Control(ie., placebo, any other drug or no drug).

**Study designs to be included:** The search strategy was RCTs.

**Eligibility criteria:** (1) adults or children clinically diagnosed as NAFLD. (2) treatment with losartan. (3) outcomes Indicators: ALT, AST, Tc, Tg, HDL, LDL, including one. The subject may be included in the study.

**Information sources:** We will search the references in the included trials and personal files. We will request advice from experts in the filed. In addition, we will search associated articles from meetings, and contacted the authors of included trials, if need.

**Main outcome(s):** Alanine aminotransferase (ALT) , aspartate transaminase(AST), total cholesterol (TC), triglyceride(TG) ,low-density lipoprotein(LDL) and high-densitylipoprotein (HDL).

**Quality assessment / Risk of bias analysis:** We evaluated the methodological quality of the individual studies using the Cochrane risk of bias tool for RCTs.

**Strategy of data synthesis:** For studies that reported median with accompanying interquartile range(IQR) as the measure of treatment effect, we estimated the mean from median and standard deviations(SD) from IQR using the methods described in previous studies before dataanalysis.

**Subgroup analysis:** subgroup analysis was performed on losartan 50mg and losartan 100mg.

**Sensitivity analysis:** We conducted sensitivity analyses to investigate the influence of a single study on the overall pooled estimate of each predefined outcome.

**Country(ies) involved:** China.

**Keywords:** losartan; nonalcoholic fatty liver disease; liver function; blood lipids.

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