

INPLASY PROTOCOL

Osteosarcopenia increasing the Risk of Falls, Fractures and Mortality?

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**Review Stage at time of this
submission:** Data analysis.

Conflicts of interest:
None.

Review question / Objective: Dose osteosarcopenia
increasing the Risk of Falls, Fractures and Mortality?

Condition being studied: Osteosarcopenia.

Information sources: PubMed, Embase and Cochrane Central
Register of Controlled Trials (from their inception to May 25,
2020).

INPLASY registration number: This protocol was registered with
the International Platform of Registered Systematic Review and
Meta-Analysis Protocols (INPLASY) on 30 May 2020 and was last
updated on 30 May 2020 (registration number
INPLASY202050111).

INTRODUCTION

Review question / Objective: Dose
osteosarcopenia increasing the Risk of
Falls, Fractures and Mortality?

Condition being studied: Osteosarcopenia.

METHODS

Participant or population: Participant with
or without osteosarcopenia.

Intervention: Osteosarcopenia.

Comparator: Participant without
osteosarcopenia.

Study designs to be included: Cohort study
Cross-sectional study.

Eligibility criteria: Studies that either
directly reported risk estimates (relative
risks [RRs], odds ratios [ORs], or hazard
ratios [HRs]) with 95% confidence intervals

(CIs) or provided sufficient data to calculate these were included.

Information sources: PubMed, Embase and Cochrane Central Register of Controlled Trials (from their inception to May 25, 2020).

Main outcome(s): A meta-analysis of 13 studies indicated that osteosarcopenia significantly increased the fracture risk (OR, 2.72 [95% CI, 2.11-3.52]).

Quality assessment / Risk of bias analysis: The quality of studies were assessed based on the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement.

Strategy of data synthesis: The quality of studies were assessed based on the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement.

Subgroup analysis: We performed subgroup analyses by sex, region, type of study design, sample size (we divided the included studies into three groups by the number of the participants(n) : $n \geq 1000$, $500 \leq n < 1000$, and $n < 500$), and osteosarcopenia type (sarcopenia plus osteoporosis, sarcopenia plus osteopenia, and sarcopenia plus osteoporosis/osteopenia).

Sensibility analysis: Sensitivity analysis was conducted (by excluding each single study in turn) to estimate the influence of each individual study on the pooled results, and were conducted by excluding studies from Australia, cross-sectional studies, and studies of smaller sample size (<500 participants) to estimate the influence on the pooled results.

Country(ies) involved: China Australia Chile United State Switzerland Netherlands Korea Japan.

Keywords: Osteosarcopenia; Falls; Fractures; Mortality.

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