

## Individual Research Project Presentations Day 9<sup>th</sup> June 2025, Kent and Medway Medical School.

### Can sarcopenia inform postoperative outcomes in orthogeriatric patients? A systematic review.

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#### Abstract

**Background:** Sarcopenia is an age-related musculoskeletal disorder in which there is a progressive loss of muscle function and mass. Despite its association with adverse health outcomes, there is little evidence on the extent of the possible harmful effects of sarcopenia in relation to orthopaedic outcomes in patients with a hip fracture. This systematic review evaluates the effects of sarcopenia on postoperative outcomes in orthogeriatric patients with a hip fracture.

**Methods:** A search strategy was conducted. The qualifying papers were then classified based on predefined themes: mortality, length of hospital stay, mobility/gait performance, readmission, quality of life and functional status/activities of daily living.

**Results:** The literature search generated 450 papers, 17 of which were included in this research project, and then categorised based on their theme. Nine papers fulfilled the criteria for the mortality theme, four for length of hospital stay, four for mobility/gait performance, two for readmission, three quality of life and nine for functional status/activities of daily living. It was found that sarcopenia informs mortality rates in patients post-hip fracture, but evidence does not support its effect on the other pre-defined outcomes.

**Conclusions:** This study demonstrates the association between sarcopenia and mortality in orthogeriatric patients with hip fractures when compared to patients without sarcopenia. The lack of conclusive and homogenous data in the remaining outcomes meant that the correlation between sarcopenia and post-operative outcomes in patients with a hip fracture could not be demonstrated.

**Keywords:** Sarcopenia | Hip Fracture | Outcomes

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