

# Common ground? The concordance of sarcopenia and frailty definitions

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## Rationale

Sarcopenia and frailty are frequently identified in older people and are both associated with negative health outcomes. Sarcopenia and frailty are often used interchangeably. However, both have a different construct and require a different therapeutic approach.

## Aim

To explore the concordance between definitions of sarcopenia and definitions of frailty in a clinically relevant population of geriatric outpatients.

## Results

Prevalence rates varied between 14% and 23% for sarcopenia and between 18% and 22% for frailty. There was little concordance in intra-individual prevalence rates of sarcopenia and frailty using different definitions (figure 1). Outpatients with sarcopenia were more likely to be frail than frail outpatients to be sarcopenic.

## Methods

Three **definitions of sarcopenia** were applied comprising two sets of diagnostic criteria (EWGSOP, IWGS) and one single diagnostic criterion (Janssen).

EWGSOP 2010      Gait speed, handgrip strength, SMI

IWGS 2011        Gait speed, ALM/height<sup>2</sup>

Janssen 2002     SM relative

Two **definitions of frailty** with different accents were applied: physical frailty by Fried and the multifactorial approach by Rockwood.

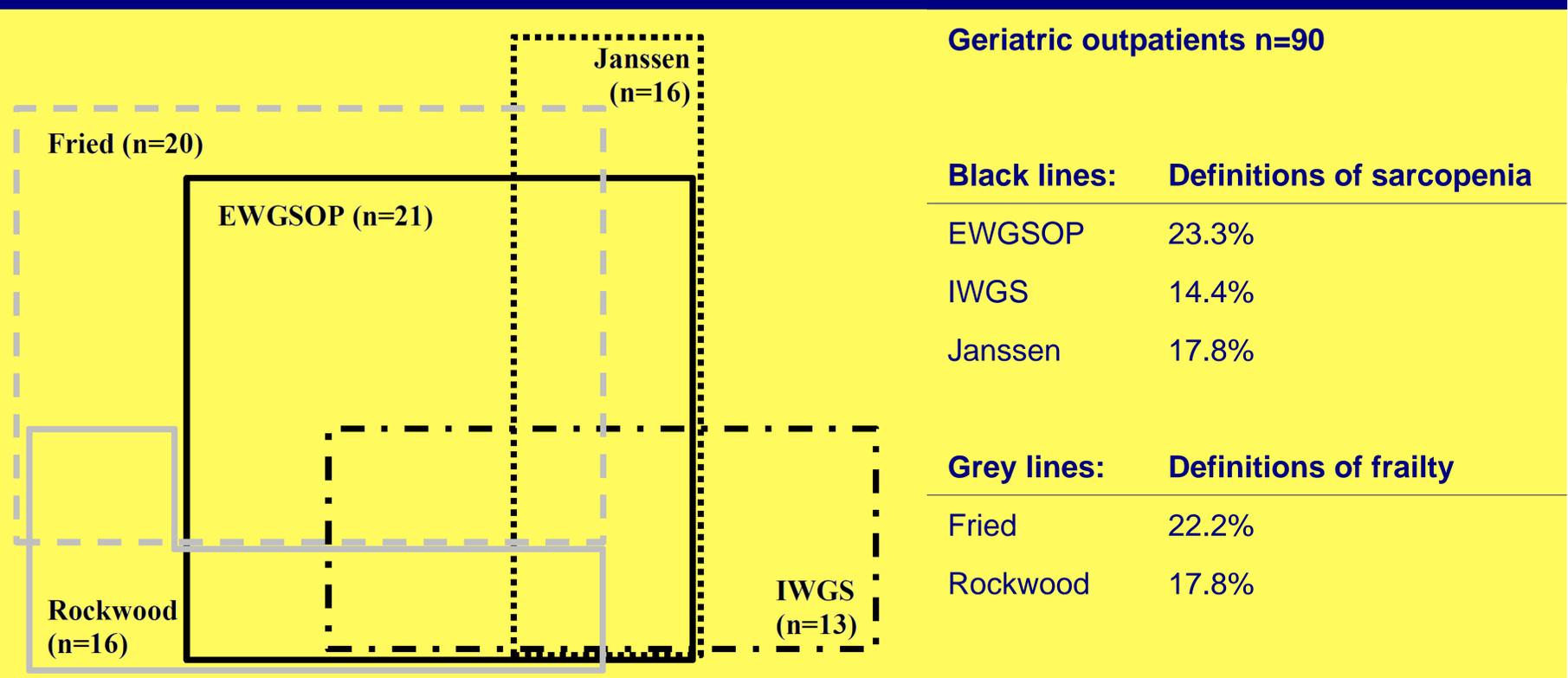
Fried 2001        Weight loss, exhaustion, physical inactivity, handgrip strength, walk time

Rockwood 1999    Use of walking aid, ADL, incontinence, cognitive impairment

## Conclusion

- **Prevalence rates of sarcopenia and frailty vary within the same elderly population, depending upon the applied definition**
- **There is low concordance between definitions of sarcopenia and definitions of frailty**
- **This study clearly indicates that sarcopenia and frailty are two separate conditions. It is important to diagnose sarcopenia and frailty as separate entities, as each may require specific treatment**

**Figure 1. Number of geriatric outpatients identified as having sarcopenia and frailty according to various definitions**



EWGSOP; European Working Group on Sarcopenia in Older Persons, IWGS; International Working Group on Sarcopenia, SMI; skeletal muscle mass index, ALM; appendicular lean mass, SM; skeletal muscle mass, ADL; activities of daily living