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Sarcopenia and frailty in individuals with dementia: a systematic review

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Introduction

- **Sarcopenia** = the involuntary decline of skeletal muscle mass and strength linked with ageing
- **Frailty** = state of increased vulnerability
- How do these conditions interrelate with other age-related diseases?

What did we do?

- Conducted comprehensive search in EMBASE, PubMed and Web of Science databases (search conducted in February 2019).
- Papers screened for relevance independently by a first and second reviewer.
- Discrepancies resolved by third reviewer.

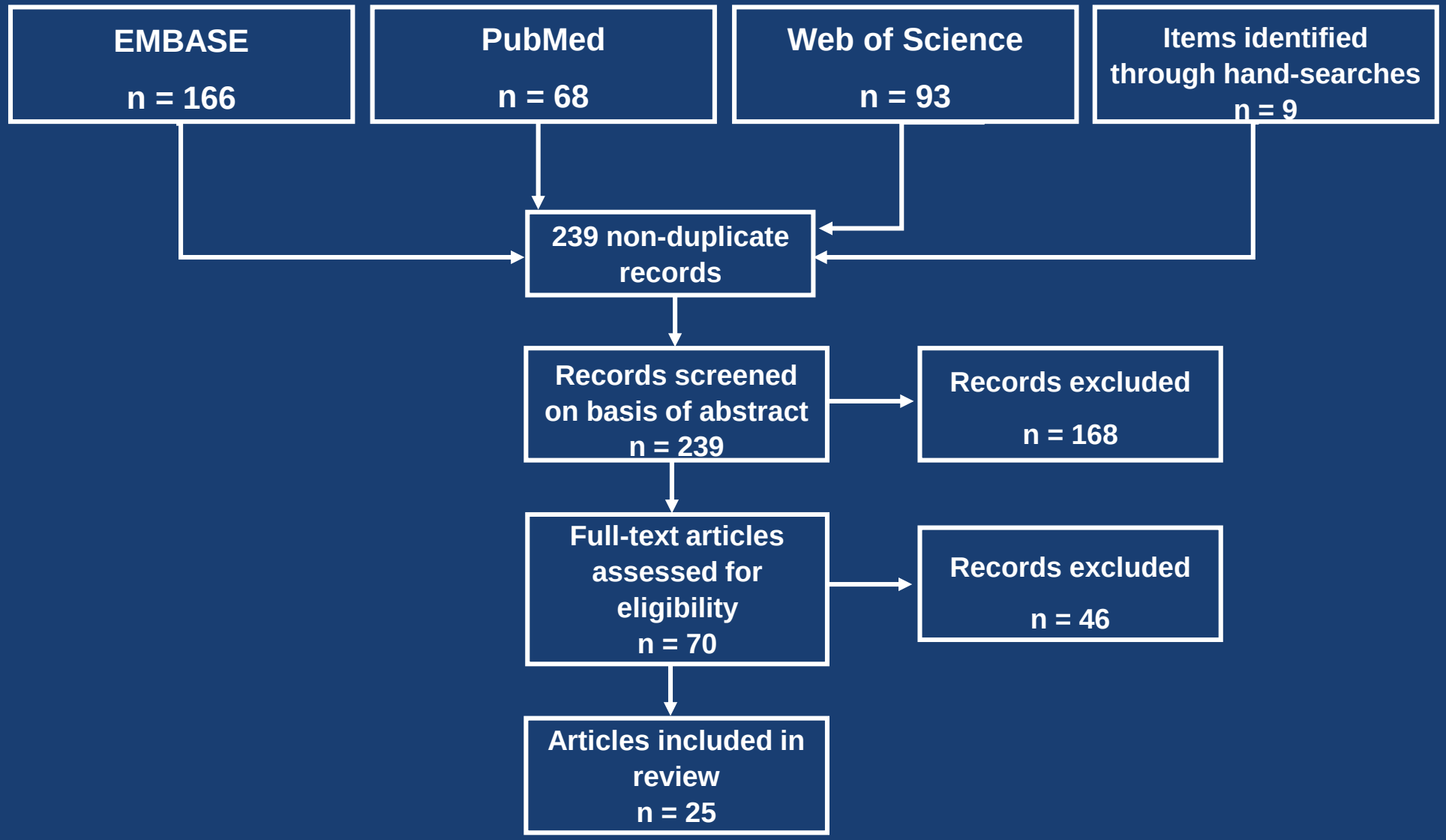

Figure 1: Overview of screening process, presenting the number of records identified, number of records included and excluded, and the reasons for exclusions.

What did we find?

- Of the 22 studies investigating frailty, 17 identified a positive association between frailty and dementia, 4 reported mixed findings and one reported no significant links.
- Degree of frailty modifies the association between Alzheimer's disease pathology and Alzheimer's dementia.
- Characteristics of sarcopenia observed in those with dementia.
- Loss of lean mass is associated with brain atrophy

Conclusions

- Both frailty and sarcopenia are linked with dementia.
- Future studies should include more comprehensive methods for the diagnosis of sarcopenia and dementia, and should examine individuals at different stages of dementia.
- If more is understood, clinicians may be able to detect those more likely to develop dementia and prevent progression to dementia by addressing the sarcopenia and frailty syndromes.
- If this is achieved, we may be able to minimise the cycle of cognitive decline, immobility, loss of muscle mass and increased falls.

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Questions?