The Foundation for the National Institutes of Health (FNIH) Sarcopenia Project recently developed new criteria for diagnosis of weakness and low muscle mass in older adults, which were associated with increased likelihood for incident mobility impairment. However, mortality risk patterns were inconsistent and further validation of their criteria for low grip strength and low appendicular lean mass (ALM)-to-body mass index (BMI) ratio in other populations is needed (McLean et al., 2014 Journals of Gerontology).

In this study, we aimed to evaluate the FNIH cut-off points for weakness and low muscle mass for prediction of all-cause mortality in a sample of apparently healthy community-dwelling older men in Belgium with long-term follow-up.

**METHODS**

- Community-based, observational, cohort study in ambulatory men aged 70 and more at baseline in 1996.
- Presence of the FNIH criteria for sarcopenia was identified in 200 men based on data acquired at the fifth visit in 2000.
- Weakness (Jamar type dynamometry) was defined as low grip strength (< 26 kg) or low grip strength-to-body mass index (BMI) ratio (< 1.00).
- Low muscle mass (dual-energy x-ray absorptiometry) was categorized as low appendicular lean mass (ALM; predefined < 19.75 kg) or low ALM-to-BMI ratio (predefined < 0.789).
- Data on all-cause mortality were obtained through yearly postal questionnaires and by contacting proxies and the treating general practitioners via telephone. Survival time was calculated as the number of months from assessment in 2000 until death or up to 15 years of follow-up.
- Cox proportional hazards model adjusted for age.

**RESULTS**

Mean age was 78.5 (± 3.5) years. After 15 years of follow-up, 180 men (87%) died. Median survival time was 8.4 (4.9 - 13.3) years.

**Figure 1. Association of sarcopenia states with all-cause mortality after 15 years of follow-up in community-dwelling older Belgian men (N = 200).**

**Figure 2. Age-adjusted survival curves for sarcopenia states in community-dwelling older Belgian men (N = 200).**

Our findings confirm the predictive value for mortality of the FNIH criteria for weakness and low muscle mass in older community-dwelling Belgian men. The non-distribution based character of these criteria facilitates their application in clinical setting.