Development and validation of a self-administrated quality of life questionnaire specific to sarcopenia: the SarQoL

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Background and aims: The impact of sarcopenia on quality of life is currently assessed by generic tools. However, these tools may not detect subtle effects of this specific condition on quality of life. The aim of this study was to develop and validate a sarcopenia-specific quality of life questionnaire (SarQoL, Sarcopenia & Quality of Life questionnaire).

Methods: The development part of the questionnaire was articulated in four stages: 1. Item generation; 2. Item reduction; 3. Questionnaire generation; 4. Pre-test of the questionnaire. To validate the SarQoL, we assessed its discriminative power (logistic regression), internal consistency (Cronbach's alpha), construct validity (Spearman Correlation), test-retest reliability (ICC) and floor and ceiling effects.

Results: The final version of the questionnaire consists of 55 items divided into 7 domains, translated into 22 questions to be rated on a 4-point Likert scale. The pre-test indicates that the SarQoL is easy to complete independently, in approximately 10 minutes. The SarQoL significantly discriminated sarcopenic subjects from non-sarcopenic ones ($p<0.001$). Internal consistency was good with a Cronbach's alpha= 0.87. The SarQoL had a good convergent validity with, for example, the domain of functional score ($r=0.52$, $p<0.001$) and vitality ($r=0.72$, $p<0.001$) of the SF-36 questionnaire. Divergent validity has been found with, for example, the EQ-5D pain ($r=-0.12$). Test-retest reliability was good with an ICC of 0.91 (0.82-0.95). Neither floor nor ceiling effects has been found.

Conclusions: The first version of the SarQoL, a quality of life questionnaire specific for sarcopenic subjects, has been developed and has been shown to be understandable by the target population. This French version of the SarQoL is valid, consistent and reliable and can therefore be recommended for clinical and research purposes, and for translation in various languages.

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