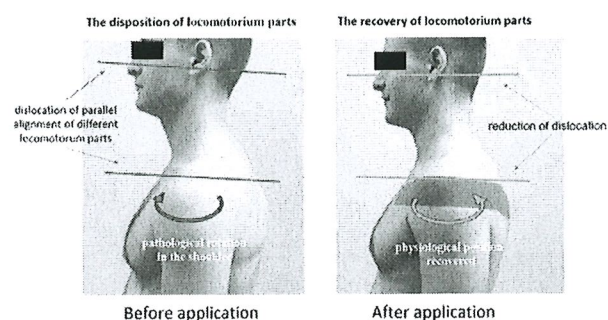


observed when restoring the indicator of violation of parallel alignment of different locomotorium parts.

**Conclusion:** Kinesiotaping techniques in combination with pharmacotherapy can effectively deal with pain in the lower back. A strong correlation was found between the decrease in the intensity of the pain syndrome and the recovery of the biomechanics of the spine as a result of using kinesiotaping compared with traditional pharmacotherapy.



#### P874

### EVALUATING QUALITY OF LIFE IN FRAILTY: APPLICABILITY AND PSYCHOMETRIC PROPERTIES OF THE SARQOL<sup>®</sup> QUESTIONNAIRE

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**Objective:** The SarQoL questionnaire was specifically designed to measure quality of life (QoL) in sarcopenia. Frailty and sarcopenia have areas of overlap, notably weak muscle strength and slow gait speed, which may mean that the SarQoL could provide a measure of QoL in frailty. This study therefore aimed to evaluate the psychometric properties of the SarQoL questionnaire in physical frailty using the Fried criteria.

**Methods:** Analyses were carried out on data from the 2<sup>nd</sup> year (and the 5<sup>th</sup> year for responsiveness) of the SarcoPhAge study. Frailty was assessed with the Fried criteria, QoL with the SarQoL, the SF-36 and the EQ-5D. We evaluated discriminative power (ANOVA), internal consistency (Cronbach's alpha), construct validity (hypotheses testing), test-retest reliability (ICC), measurement error (SEM and SDC), and responsiveness (hypotheses testing and standardized response means).

**Results:** In total, 395 subjects were included for the validation and 117 subjects for the responsiveness evaluation. Subjects had a median age of 73 (69–79) y, took 5 (3–8) drugs and had 4 (3–5) comorbidities. There were more women (n=231; 58.5%) than men, and, in total, 175 nonfrail, 174 prefrail and 46 frail subjects. Discriminative power was confirmed when significantly lower (p<0.001) Overall QoL scores were observed between nonfrail [77.1 (64.35–85.90)], prefrail [62.54 (53.33–69.57)] and frail [49.99 (40.45–56.06)] participants. Six of the domains performed likewise, with significantly lower scores according to frailty status, domain 7 (fears) being the exception. Internal consistency was good ( $\alpha=0.866$ ). Convergent (using SF-36 and

EQ-5D) and divergent construct validity (using EQ-5D) was confirmed. Test-retest reliability was excellent [ICC=0.918 (0.834–0.961)], with a SEM of 4.34 and an SDC of 12.03 points. We found moderate responsiveness when 5/9 hypotheses were confirmed, coupled with a large effect size for the Overall QoL score (Corrected SRM of -1.44).

**Conclusion:** The SarQoL questionnaire has adequate psychometric properties for use with frail patients in clinical practice and trials, and could provide data that is more appropriate and detailed than the generic questionnaires currently used.

**Disclosures:** OB, CB and J-YR are shareholders of SarQoL<sup>®</sup> sprl.

#### P875

### DEVELOPMENT OF A SHORT VERSION OF THE SARCOPENIA QUALITY OF LIFE (SARQOL<sup>®</sup>) QUESTIONNAIRE

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**Objective:** The SarQoL questionnaire has been available since 2015 and is currently the only PROM measuring quality of life that is specifically designed for use with older, sarcopenic people. It has 55 items categorized into 7 domains of health-related dysfunction and takes about 15 minutes to complete. A shorter version of the SarQoL questionnaire would reduce the response burden and provide a quicker and easier way to measure QoL in sarcopenia. Therefore, the aim of this study was to develop a short version of the SarQoL questionnaire which preserves, as much as possible, the content validity and psychometric properties of the original questionnaire.

**Methods:** The item reduction process was carried out in two phases. In the first phase, a panel of experts was asked, through a 2-round Delphi method, to indicate which items could be included or excluded. Patient priorities were also evaluated, by calculating item-impact scores in data gathered during 7 previous validation studies and 2 observational cohort studies. In the second phase, a meeting of experts was organized, who made the final decision on which items to include in a short form SarQoL questionnaire, with priority given to preserving content validity. Additionally, information on the factor structure and the psychometric properties of the original SarQoL questionnaire were also taken into account.

**Results:** In the first phase, the 18 experts participating in the Delphi method found consensus on the inclusion of 13 items from 4 domains and the exclusion of 23 items from 6 domains. A ranking of the items in terms of importance to patients was established per domain. In the second phase, the panel participating in the meeting combined the expert and patient preferences, and the available psychometric information, and decided on the inclusion of 14 items. The factor structure of the questionnaire was altered slightly when one of the original 7 domains (D7: fears) was eliminated because of its subpar psychometric properties.

**Conclusion:** A preliminary Short-Form SarQoL questionnaire composed of 14 items was developed. It should now be submitted to independent samples of older, community-dwelling people to evaluate its psychometric properties.

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#### P876

##### ASSOCIATION BETWEEN SARC-F AND QUALITY OF LIFE MEASURED WITH THE SARQOL<sup>®</sup> QUESTIONNAIRE IN OLDER, COMMUNITY-DWELLING SUBJECTS FROM THE SARCOPHAGE COHORT

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**Objective:** The SARC-F questionnaire is recommended by EWGSOP as a convenient method for identifying people at risk of sarcopenia. Its ease of administration makes it an ideal tool for clinical practice. The aim of this study was to investigate the relationship between quality of life (QoL) and elevated risk of sarcopenia indicated by the SARC-F questionnaire, as well as the relationship between QoL and the 5 indicators within the SARC-F.

**Methods:** This is a cross-sectional analysis of data gathered during the 2<sup>nd</sup> year of the SarcoPhAge study, which recruited older, community-dwelling people in Belgium. QoL was measured with the SarQoL questionnaire. A high risk of sarcopenia was indicated by a score of  $\geq 4$  points on the SARC-F. Binary and multinomial regression analysis was employed to establish statistical significance between sarcopenia risk (SARC-F) or level of difficulty (none, some, or a lot) on the 5 indicators in the SARC-F (strength, assistance with walking, rise from a chair, climb stairs, and falls), and QoL. All models were adjusted for gender, age, BMI, number of drugs and number of comorbidities.

**Results:** Data was available for 331 participants, of which 57 were classed as being at a high risk of sarcopenia. There were 197 (59.5%) women and the median age was 73 (70–80) y. Sarcopenia risk status was significantly associated with the SarQoL overall QoL score with participants at high risk of sarcopenia having worse QoL compared to those not at high risk [49.91 (39.79–56.43) vs. 67.73 (58.17–79.44);  $p < 0.001$ ]. Significantly lower QoL was also found when participants indicated that they had some or a lot of difficulty on 4 of the 5 SARC-F indicators, compared to no difficulties (all  $p < 0.003$ ). The fifth indicator (falls), was not statistically different for QoL between the three response options.

**Conclusion:** Older people with a high risk of sarcopenia, or difficulties in terms of strength, walking, rising from a chair or climbing stairs, had lower QoL scores. These results highlight the importance of early screening for sarcopenia.

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#### P878

##### DEPRESSION AND CLINICAL OUTCOME FOR OSTEOPOROSIS AND CARDIOVASCULAR DISEASES

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**Objective:** Depression, osteoporosis and cardiovascular diseases are major public health problems for modern society. Research have established a clear connection between them, but the exact mechanism remains unclear. In other words, low BMD, accelerated atherosclerosis, hormonal/chemical imbalance associated with depression and antidepressants medication per se are closely related with patient clinical outcome.

**Methods:** We present the case of a 56 years old active male patient, on chronic medication, with a history of major depression, osteoporosis, systemic arterial hypertension, heart failure with preserved ejection fraction, dyslipidemia and obesity. He has no other comorbidities or risk factors. Lab values, standard ECG, transthoracic echocardiography and BMD test all confirmed the above mentioned diagnosis.

**Results:** At this point we considered necessary a ECG stress test to evaluate the myocardial functional reserve, which was positive for ischemia. The patient needed further evaluation by coronary angiography in a specialized center. Also we performed a BMD test that showed no improvement and we changed his medication for osteoporosis.

**Conclusion:** Patient was atypical regarding osteoporosis because he lacks classical recognized risk factors (menopause, low BMI, smoking, alcohol, physical inactivity), so we propose depression and antidepressants medication as risk factors for osteoporosis as we noticed their negative impact in this particular case. Poor quality of life as a cause and clinical negative prognosis of osteoporosis and cardiovascular diseases, as well as chemical imbalance, immune and endocrine mechanisms appear to be induced by depression/antidepressants medication. Further clinical evidence is needed to outline the biological mechanism on bone density, myocardial tissue and endothelial lesions of major depression and which class of antidepressants are related to this pathological changes.

#### P879

##### GLOBAL BALANCE OF THE SPINE, AN INDEPENDENT CONTRIBUTOR TO PHYSICAL FUNCTION, AND FALLS IN OLDER ADULTS: THE SAFE COHORT STUDY

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