

## Quality of Life in Stable Angina Patients: Validation of the Latvian Language Version of the Heartqol Questionnaire

*Julija Voicehovska<sup>1</sup>, Natalja Voskresenska<sup>1</sup>, Eva Moreino<sup>2</sup>,  
Nikolajs Voicehovskis<sup>3</sup>, Aldis Strelnieks<sup>1</sup>*

<sup>1</sup>*Rīga Stradiņš University, Department of Internal Diseases, Latvia*

<sup>2</sup>*Rīga Stradiņš University, Faculty of Medicine, Latvia*

<sup>3</sup>*Rīga Stradiņš University, Faculty of Rehabilitation, Latvia*

**Introduction.** Nowadays, health-related HRQL becomes an additional criterion for therapy selection, of work ability evaluation, treatment measurements cost-effectiveness estimation, for psychological problem recognition, as well as supervision over them.

Coronary artery disease (CAD) affects patients' quality of life (QoL) and might become a heavy emotional problem for a patient due to serious functional and psychoemotional infringements. Chest discomfort, accompanied by fear, constant expectation of heart attacks, responsibility to certain medicines result in reduced QoL.

The HeartQoL questionnaire is known as a valid and reliable CAD-specific HRQL questionnaire. It has been developed and released due to support from the European Society of Cardiology and the Working Group on Cardiac Rehabilitation & Exercise Physiology. The 14-item questionnaire has since been validated in the EuroAspire IV survey in stable angina, myocardial infarction, and heart failure. The Latvian language version has not undergone complete validation.

**Aim, Materials and Methods.** The aim of the study is to perform validation of Latvian version of the HeartQoL, to assess its reliability (by internal consistency) and reproducibility (by test-retest). Data was collected from a cross-sectional study including 44 male and female patients (mean age  $58.12 \pm 3.24$ ) with stable angina who completed the HeartQoL. Internal consistency and factor structure were assessed during this step. A longitudinal study included 25 patients that had completed the HeartQoL repeatedly to evaluate test-retest reliability.

**Results.** The Latvian language version of the HeartQoL demonstrated good reliability: internal consistency ranges from 0.93 to 0.95 (Cronbach's alpha ( $\alpha$ )  $\geq 0.90$ ). HeartQoL reproducibility also was good: intra-class correlation of the test-retest was  $\geq 0.90$ .

**Conclusions.** The Latvian language version has good measurement properties for measuring CAD-related QoL; it is reliable and reproducible. A full cycle of cultural adaptation and validation seems to be a labor-intensive process, close cooperation of translators, medical practitioners and authors of an original version is necessary. Complete validation would need construct-related validity of the HeartQoL (the HeartQoL subscales' comparison with similar and dissimilar subscales of another questionnaire).

The authors would like to thank prof. Neil Bryan Oldridge PhD, Director of Fellowship Research & Cardiac Rehabilitation Comprehensive Cardiovascular Care Group (Milwaukee, Wisconsin, USA), the author of the HeartQoL, for collaboration and kind permission to validate the Latvian version of the HeartQoL questionnaire.