**SEWER`S WORKLOAD AND EARLY MULTIDISCIPLINARY REHABILITATION**

**Prof. Ženija Roja, Dr.med.**

**Prof. Henrijs Kaļķis, Dr.sc.admin.**

University of Latvia, Department of Human Factors and Work Environment

*E-mail:*: [zenija.roja@lu.lv](mailto:zenija.roja@lu.lv); [henrijs.kalkis@lu.lv](mailto:henrijs.kalkis@lu.lv)

**Introduction**. Work-related diseases of the musculoskeletal and connective tissue systems are rapidly increasing in Latvia in various sectors of the economy, including the sewing sector, and are mainly caused by adverse ergonomic risks at work: prolonged forced work posture, overloading of the arms and hands at work, visual strain, etc., as well as a sedentary lifestyle. The literature analysis shows that a multidisciplinary approach to addressing these issues is effective in maintaining health.

**The aim** of this study was to investigate the fatigue of individual muscle groups in the upper body of sewers and to determine the effectiveness of applied early multidisciplinary rehabilitation. 25 workers participated in the clinical study and multidisciplinary rehabilitation (mean. age 35±12.75) complaining of chronic pain in the neck, shoulder, forearm and wrist.

**The following methods were used:** questionnaire, myotonometric measurements, visual analogue scale, rehabilitation programme lasting 9 months and including a physical activity programme and self-relaxation techniques under the guidance of specialists. Pre- and post-rehabilitation status was assessed with the Quality of Life Scale (Cowan and Kelly, 2003).

**Results**. Myotonometry measurements showed that the following muscle groups were more loaded in female workers: m. flexor carpi radialis and m. trapezius. The muscles were unable to adapt to the workload during the weekly work cycle before rehabilitation, but improved dramatically after rehabilitation (12-17 Hz). The training of the workers in self-relaxation techniques was also important. The huge improvement was demonstrated by the results obtained using the Quality of Life Scale.

**Conclusions**. The application of myotonometry is suitable for the determination of muscle fatigue before and after rehabilitation. Early multidisciplinary rehabilitation is effective for workers with chronic pain.

**Keywords**: seamstresses, myotonometry, rehabilitation, load