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Physical therapy and clinimetrics in the treatment of lymphedema

Patients with lymphedema can suffer from varying degrees of swelling, limited range of motion, pain, loss of muscle strength, loss of physical capacity and distress. Related to these problems, daily functioning is limited, e.g. personal care, walking, housekeeping, sports activities and working. Subsequently, the overall quality of life for people with lymphedema is often significantly affected.

With the utilization of the International Classification of Functioning, Disability and Health (ICF), influences of the disease itself as well as the influence of personal and environmental factors upon a patient's daily functioning can be described. The ICF is based on the bio-psychosocial model and can be used as a classification model and as a tool for clinical reasoning in a mono- and multi-disciplinary setting. Viehoff *et al* developed a specific core set for the daily practice.

In the management of lymphedema monitoring of activity of disease parameters as well as results of treatment in the diagnostic, therapeutic and follow up phase should be common practice. Both patient identified problems (PIP`s) and non-patient identified problems (NPIP`s) should be part of the measurement protocol.
Several clinimetrical instruments for all the phases of treatment for the patient with or at risk for developing lymphedema are available. The phase after oncological surgery, when the lymph system is impaired, secondary prevention measurements consist of volumetry, pitting test, Stemmer sign, BMI and distress. These measurements are performed regularly during oncological follow-up. When a patient has been diagnosed with lymphedema and the treatment has started, the initial measurements are aimed at the edema itself, but also at the presence of other compromising factors as pain, loss of joint mobility, muscle strength, physical capacity and again distress. In this diagnostic and treatment phase, the frequency of measurement is high and mainly performed by the professionals. In the maintenance phase the desired level of activity and participation become leading for the therapy itself, but also for the instruments and the frequency of measuring. For example, the DASH (Disabilities of the Arm, Shoulder and Hand) and objective questionnaires regarding Health Related Quality of Life are utilized. The frequency of measuring decreases and the role of self-monitoring and self management becomes more important.

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