Purpose: To estimate the cost utility and cost effectiveness of intensive exercise therapy (IET) compared to usual care (UC) in patients with Rheumatoid Arthritis (RA) and polyarticular Osteoarthritis (OA) recovering after hospitalization.

Methods: RA and OA patients (n = 114) who were admitted to the hospital because of active disease or for arthroplasty of hip or knee were randomly assigned to receive either a 3 week intensive training intervention directly following discharge in a dedicated convalescence institute or usual care. Quality adjusted life years (QALYs) were derived from the Short Form 6d (SF-6D) scores and visual analog scale (VAS) rating personal health. Outcome expressed as functional ability was calculated according to the Health Assessment Questionnaire (HAQ), the McMaster Toronto Arthritis Patient Preference Interview (MACTAR) and the Escola Paulista de Medicina - Range of Motion scale (EPM-ROM). Patients were followed for one year. Costs were reported from societal perspective. Differences in costs as well as Incremental Cost Effectiveness Ratios (ICERs) were estimated and 95% confidence intervals (CI) were calculated using double-sided bootstrapping.

Results: The data of 85 (50 intervention and 35 controls) of the 114 patients (75%) could be used for analysis. QALYs in both groups were similar according to the SF-6D but were in favour of IET according to the VAS-score personal health (6 month difference -1.05 QALYs; 95% CI -2.06 to -0.04). Functional ability was similar according to the HAQ, but in favour of the intensive training group according to the EPM-ROM (6 month difference 0.89; 95% CI 0.2 to 1.58) and MACTAR (6 month difference -6.0; 95% CI -10.3 to -0.5). After one year of follow-up no statistically significant differences between the groups were found. The increase per patient in total costs from societal perspective was estimated at € 804 (CI -€ 2,595 to € 3,996) after 6 months of follow-up. The resulting ICERs were € 8,398 per QALY according to the VAS-score (CI -€ 16,025 to € 23,032 per QALY); € 6,534 per EPM-ROM score point (CI -€ 9,996 to € 16,714) and € 799 per MACTAR point (CI -€ 2,432 to € 3,196).

Conclusion: After 6 months of follow-up IET was associated with slightly more costs and better effectiveness compared to UC. This underscores the general preference for intensive convalescence treatment over usual care for patients with rheumatic diseases recovering after hospitalization.

Y. Bulthuis, None.