Cost effectiveness of combined spa-exercise therapy in ankylosing spondylitis: a randomized controlled trial.

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OBJECTIVE: To evaluate the cost effectiveness and cost utility of a 3-week course of combined spa therapy and exercise therapy in addition to standard treatment consisting of antiinflammatory drugs and weekly group physical therapy in ankylosing spondylitis (AS) patients. METHODS: A total of 120 Dutch outpatients with AS were randomly allocated into 3 groups of 40 patients each. Group 1 was treated in a spa resort in Bad Hofgastein, Austria; group 2 in a spa resort in Arcen, The Netherlands. The control group stayed at home and continued their usual activities and standard treatment during the intervention weeks. After the intervention, all patients followed weekly group physical therapy. The total study period was 40 weeks. Effectiveness of the intervention was assessed by functional ability using the Bath Ankylosing Spondylitis Function Index (BASFI). Utilities were measured with the EuroQoL (EQ-5D/utility). A time-integrated summary score defined the clinical effects (BASFI-area under the curve [AUC]) and utilities (EQ-5D/utility)-AUC over time. Both direct (health care and non-health care) and indirect costs were included. Resource utilization and absence from work were registered weekly by the patients in a diary. All costs were calculated from a societal perspective. RESULTS: A total of 111 patients completed the diary. The between-group difference for the BASFI-AUC was 1.0 (95% confidence interval [95% CI] 0.4-1.6; P = 0.001) for group 1 versus controls, and 0.6 (95% CI 0.1-1.1; P = 0.020) for group 2 versus controls. The between-group difference for EQ-5D/utility-AUC was 0.17 (95% CI 0.09-0.25; P < 0.001) for group 1 versus controls, and 0.08 (95% CI 0.00-0.15; P = 0.04) for group 2 versus controls. The mean total costs per patient (including costs for spa therapy) in Euros (euro;) during the study period were euro;3,023 for group 1, euro;3,240 for group 2, and euro;1,754 for the control group. The incremental cost-effectiveness ratio per unit effect gained in functional ability (0-10 scale) was euro;1,269 (95% CI 497-3,316) for group 1, and euro;2,477 (95% CI 601-12,098) for group 2. The costs per quality-adjusted life year gained were euro;7,465 (95% CI 3,294-14,686) for group 1, and euro;18,575 (95% CI 3,678-114,257) for group 2. CONCLUSION: Combined spa-exercise therapy besides standard treatment with drugs and weekly group physical therapy is more effective and shows favorable cost-effectiveness and cost-utility ratios compared with standard treatment alone in patients with AS.