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OBJECTIVES: To estimate cost and outcomes of the Arthritis Foundation aquatic exercise classes from the societal perspective. **DESIGN:** Randomized trial of 20-week aquatic classes. Cost per quality-adjusted life year (QALY) gained was estimated using trial data. Sample size was based on 80% power to reject the null hypothesis that the cost/QALY gained would not exceed \$50,000. **SUBJECTS AND METHODS:** Recruited 249 adults from Washington State aged 55 to 75 with a doctor-confirmed diagnosis of osteoarthritis to participate in aquatic classes. The Quality of Well-Being Scale (QWB) and Current Health Desirability Rating (CHDR) were used for economic evaluation, supplemented by the arthritis-specific Health Assessment Questionnaire (HAQ), Center for Epidemiologic Studies-Depression Scale (CES-D), and Perceived Quality of Life Scale (PQOL) collected at baseline and postclass. Outcome results applied to life expectancy tables were used to estimate QALYs. Use of health care facilities was assessed from diaries/questionnaires and Medicare reimbursement rates used to estimate costs. Nonparametric bootstrap sampling of costs/QALY ratios established the 95% CI around the estimates. **RESULTS:** Aquatic exercisers reported equal (QWB) or better (CHDR, HAQ, PQOL) health-related quality of life compared with controls. Outcomes improved with regular class attendance. Costs/QALY gained discounted at 3% were \$205,186 using the QWB and \$32,643 using the CHDR. **CONCLUSION:** Aquatic exercise exceeded \$50,000 per QALY gained using the community-weighted outcome but fell below this arbitrary budget constraint when using the participant-weighted measure. Confidence intervals around these ratios suggested wide variability of cost effectiveness of aquatic exercise.

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