

Abstract Preview - Step 3/4

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Topic: Evidence Matters - Service Evaluation

How your work fits with the conference theme you have chosen: Good evidence of the efficacy of physiotherapy is of major importance in the modern healthcare environment. We have been using patient-reported outcome measures in routine practice for many years. Here, we show how the EQ-5D 5L has enabled us to estimate the benefit of physiotherapy to our clients.

Title: What is the value of specialist shoulder physiotherapy? A cost-utility analysis.

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Text: **Purpose:** We have evaluated the cost-effectiveness of specialist shoulder physiotherapy in routine practice.

When commissioning health services, it is helpful to understand the costs and benefits associated with treatments. Well established generic measures such as the EuroQol (EQ-5D) can be used to estimate health-related quality of life (QALY) thus identifying the benefits of treatment.

Methods: EQ-5D 5L responses pre- and post-treatment were obtained from a sample of n=142 people undergoing routine physiotherapy treatment at a specialist Shoulder Unit over the period 2011-17. People were discharged from treatment when symptom-free. Health-related utility scores were calculated using the UK tariff and QALYs were calculated by the area under the curve method (Manca 2005). Simplified treatment costs were calculated from the NHS perspective and assigned using event-weighted average of outpatient physiotherapy attendances reported in NHS Reference Costs 2014-15. The comparator was no treatment, with a time horizon assumed of three years, incurring zero treatment cost and no QALY gain assumed. Regression analysis was used to investigate the utility difference.

Results: In the sample there were 69 males and 73 females, with a mean age 35.7 years (SD=18.9). The duration of their symptoms averaged 4.9 years. The mean number of treatments was 5 (max=20), over a period averaging 6.7 months (max=2.6 years). 76/142 people had had a prior course of physiotherapy for the same complaint. 59 people had dominant arm problems, 20 were bilateral. There were 17 different diagnoses, with most people having atraumatic glenohumeral instability or myofascial tightness of the upper quadrant.

Treatment costs averaged £297 per person (SD=186). Mean utility pre-treatment was 0.63 (SD=0.22), which differed significantly from the mean post-treatment utility of 0.78 (SD=0.23), the difference being 0.14, (95% confidence intervals 0.11,0.18). Matched pairs Student's t-test t=8.7, df=106, p< 0.01. Incremental Cost-Effectiveness Ratio (ICER) £779.18 per QALY gain.

Regression showed no significant influence from age, gender, number of treatments, treatment duration, history of impairment or arm dominance. R squared =0.15.

Conclusion(s): NICE guidelines suggest that an ICER below £20000/QALY is indicative of cost effectiveness within the NHS. Our service evaluation, subject to our assumptions, calculates the added cost to the NHS of acquiring an additional QALY as £779.18 when using specialist shoulder physiotherapy as opposed to no treatment.

Implications: Subject to our assumptions, the results imply that specialist shoulder physiotherapy may provide the NHS with excellent value for money, even for people with long-standing problems who have previously failed to benefit from physiotherapy in the community.