

A-Stroke rehabilitation

Study	Fjaertoft 2005 ⁹¹			
Study details	Population & interventions	Costs	Health outcomes	Cost effectiveness
<p>Economic analysis: CCA (health outcome: various)</p> <p>Study design: within trial analysis of RCT (linked clinical studies ^{90,91,126})</p> <p>Approach to analysis: Analysis of individual level resource use, with unit costs applied.</p> <p>Perspective: Norwegian health service</p> <p>Time horizon/Follow-up: 52 weeks</p> <p>Treatment effect duration:</p>	<p>Population: Acute stroke patients admitted to a hospital stroke unit.</p> <p>Cohort settings: (n=320) Mean age: 73.9 years Male: 49%</p> <p>Intervention 1: (n=160) Treatment in stroke unit with no early supported discharge (OSUS).</p> <p>Intervention 2: (n=160) Treatment in stroke unit</p>	<p>Total costs (mean per patient):</p> <p>Intervention 1: £11,271</p> <p>Intervention 2: £9,780</p> <p>Incremental (2–1): -£1,491 (95% CI: NR; p=0.127)</p> <p>Currency & cost year: Norwegian Euro; cost year unclear – assumed to be 2005 (presented here as 2005 UK pounds)^{(a)]}</p> <p>Cost components incorporated: Acute care in stroke unit, inpatient and home-based rehabilitation, nursing</p>	<p>From clinical review:</p> <ul style="list-style-type: none"> • Barthel (MD): 1.72 (1.10-2.70) • Mortality (RR): 0.87 (0.43, 1.76) • Caregiver strain index (SMD): 0.24 (-0.00, 0.49) 	<p>ICER (Intervention 2 versus Intervention 1): n/a</p> <p>95% CI: n/a</p> <p>Probability Intervention 2 cost-effective (£20K/30K threshold): n/a</p> <p>Analysis of uncertainty: <u>Stratification by functional level</u></p> <p>Incremental costs:</p> <p>0-1 = £1,477 (95% CI: NR, p=0.200)</p> <p>2-3 = -£2,743 (95% CI: NR, p=0.099)</p> <p>4-5 = -£2,962 (95% CI: NR, p=0.301)</p> <p>Simple sensitivity analyses with the 5 most expensive cost components increased/decreased by 25% - Author states</p>

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n/a Discounting: n/a	followed by early supported discharge	home/assisted living, hospital readmission, mobile team.		that only marginally affected results (not shown).
Data sources				
Health outcomes: Within-RCT analysis. Health outcomes assessed in linked trials. Quality-of-life weights: n/a. Cost sources: National average costs (DRG-Norway).				
Comments				
Source of funding: Norwegian Foundation for Health and Rehabilitation. Applicability and limitations: QALYs not used. Some uncertainty about the applicability of Norwegian resource use and unit costs. Resource use from >10 years ago year; unit cost year unclear. RCT-based analysis so from 1 study by definition therefore not reflecting all evidence in area. Some uncertainty about whether time horizon is sufficient. Limited sensitivity analysis.				
Overall applicability^(b): partially applicable Overall quality^(c): potentially serious limitations				

Abbreviations: CCA: cost–consequence analysis; 95% CI: 95% confidence interval; EQ-5D: Euroqol 5 dimensions (scale: 0.0 [death] to 1.0 [full health], negative values mean worse than death); ICER: incremental cost-effectiveness ratio; NR: not reported; QALYs: quality-adjusted life years.

(a) Converted using 2005 purchasing power parities.¹⁷⁶

(b) Directly applicable/Partially applicable/Not applicable.

(c) Minor limitations/Potentially serious limitations/Very serious limitations.

Study	National Audit Office 2010 ¹⁷⁰			
Study details	Population & interventions	Costs	Health outcomes	Cost effectiveness
Economic analysis: CUA Study design: Decision analytic model Approach to analysis: Discrete event simulation model comparing current with pre National Stroke Strategy (2006) provision of ESD. Health states modelled were severe,	Population: Patients who have suffered a stroke and who require post-discharge therapy. Mild stroke patients were excluded. Cohort settings: • Start age: 69.89 years • Male: NR	Total costs (mean per patient): Intervention 1: £24,855 Intervention 2: £25, 659 Incremental (2-1): £804 (95% CI: NR; p=NR) Currency & cost year: UK pounds. Cost year unclear: cost	QALYs (mean per patient): Intervention 1: NR Intervention 2: NR Incremental (2–1): 0.13 QALYs (95% CI: NR; p=NR)	ICER (Intervention 2 versus Intervention 1): £6,184 per QALY gained (pa) 95% CI: NR Probability Intervention 2 cost-effective (£20K/30K threshold): NR Analysis of uncertainty: Deterministic uncertainty conducted on the level of discount

Study	National Audit Office 2010 ¹⁷⁰			
Study details	Population & interventions	Costs	Health outcomes	Cost effectiveness
<p>moderate and mild disability, depending on a patient's Barthel score.</p> <p>Treatment effects (probability of being mild, moderate or severe) determined at 1 year.</p> <p>Perspective: UK NHS and PSS</p> <p>Time horizon: 10 years</p> <p>Treatment effect duration^(a): Unclear – possibly 1 year.</p> <p>Discounting: Costs: 3%; Outcomes: 1.5%</p>	<p>Intervention 1: Conventional discharge route (inpatient and community-based care)</p> <p>Intervention 2: Early supported discharge (ESD): program of home-based care (physiotherapy; occupational therapy and speech therapy) available up to a period of 3 months, with no more than 1 visit per day from each type of therapist.</p>	<p>analysis based on Beech et al (1999). Not clear whether the cost figures were updated using inflation indexes.</p> <p>Cost components incorporated:</p> <p>Length of stay in acute ward; physiotherapy; occupational therapy; speech therapy; non-inpatient services (annual contacts with hospital physician; GP home visits; visits at GP surgery). Community-based services (meals on wheels; home help; district nurse; lunch club; day hospital).</p>		<p>rate (varying it from 0 to 6%) and on the extent of coverage of the ESD scheme to all stroke patients. The model findings were not sensitive to these changes.</p> <p>Not clear as to whether probabilistic sensitivity analysis was conducted.</p>
Data sources				
<p>Health outcomes: Barthel index disability levels based on an RCT by Rudd et al (1997).²⁰⁸ Quality-of-life weights: Barthel scores converted to EQ5D using van Exel et al (2004). Cost sources: Hospital financial records; PSSRU 2008.</p>				
Comments				
<p>Source of funding: Department of Health. Applicability and limitations: Costs and outcomes discounted at a different rate. EQ5D data not available so mapped from disease-specific measure. Unclear how the health outcomes, health and social care costs of each health states were calculated. Not clear whether the study considered the costs of long-term care such as residential care (nursing homes and residential homes). Unclear as to whether the unit costs used from Beech et al (1997) were updated to take into account of inflation or whether recent official data were used (for example, unit costs from PSSRU).</p>				
<p>Overall applicability^(b): partially applicable Overall quality^(c): potentially serious limitations</p>				

Abbreviations: 95% CI: 95% confidence interval; CUA: cost–utility analysis; EQ-5D: Euroqol 5 dimensions (scale: 0.0 [death] to 1.0 [full health], negative values mean worse than death); ICER: incremental cost-effectiveness ratio; NR: not reported; pa: probabilistic analysis; QALYs: quality-adjusted life years.

(a) For studies where the time horizon is longer than the treatment duration, an assumption needs to be made about the continuation of the study effect. For example, does a difference in utility between groups during treatment continue beyond the end of treatment and if so for how long?

(b) Directly applicable/Partially applicable/Not applicable.

(c) *Minor limitations/Potentially serious limitations/Very serious limitations.*