

Economic evaluation of occupational therapy pre-discharge home visits for patients with a stroke: issues arising

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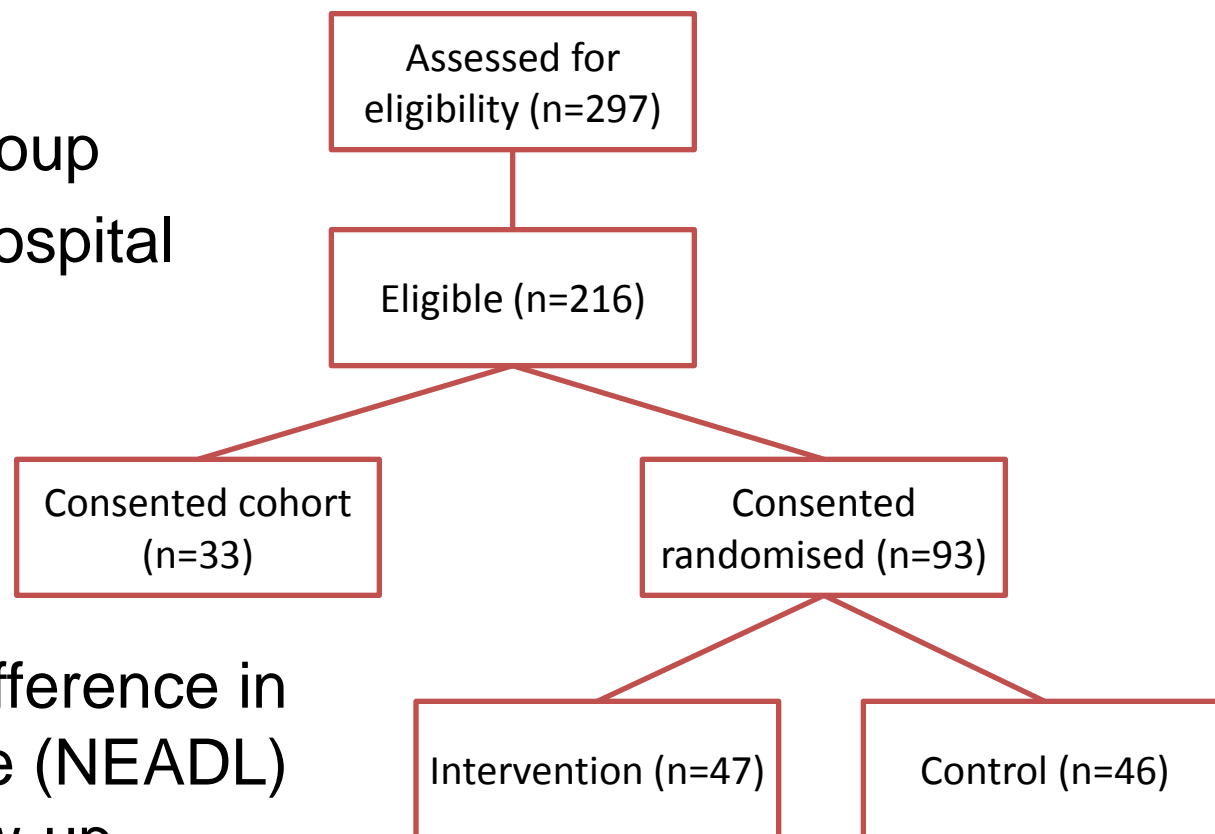
A partnership between
Nottinghamshire Healthcare NHS Trust
and the University of Nottingham

Introduction: Background

- People who have had a stroke may be offered a pre-discharge home visit by an occupational therapist (OT)
- 73% receive home visits in UK¹
- Identified as being costly^{2,3,4,5}
 - With no data on costs
- No evidence of effectiveness

Introduction: The trial

- Feasibility study
- RCT + cohort group
- Home visit vs. hospital interview



- No significant difference in primary outcome (NEADL) at 1 month follow-up

Method: Economic evaluation

- EQ-5D
 - Baseline, 1 month
- Resource use
 - Staff time (attending, travel, administration etc)
 - Transport
 - Equipment
- Costs
 - NHS staff earnings

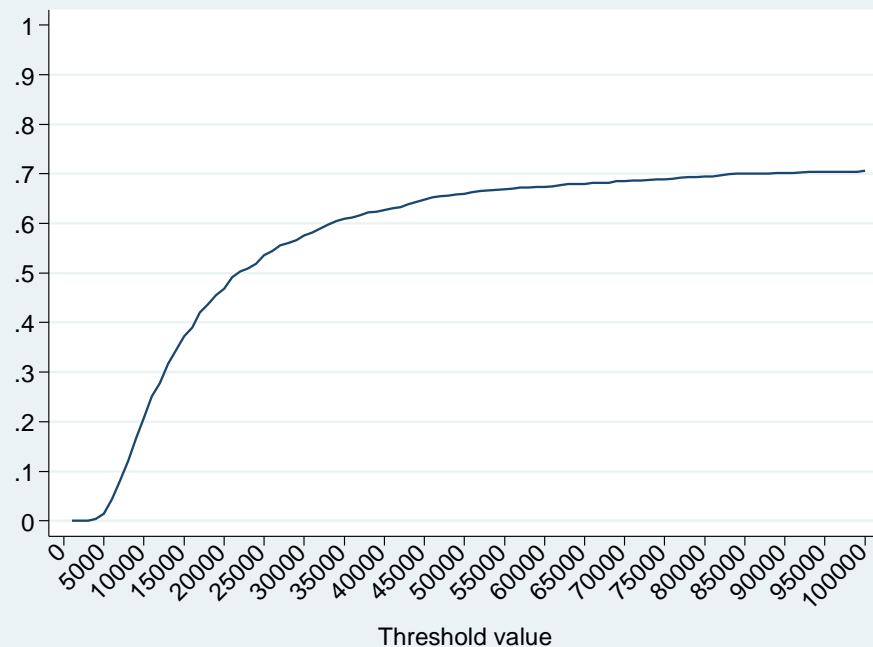
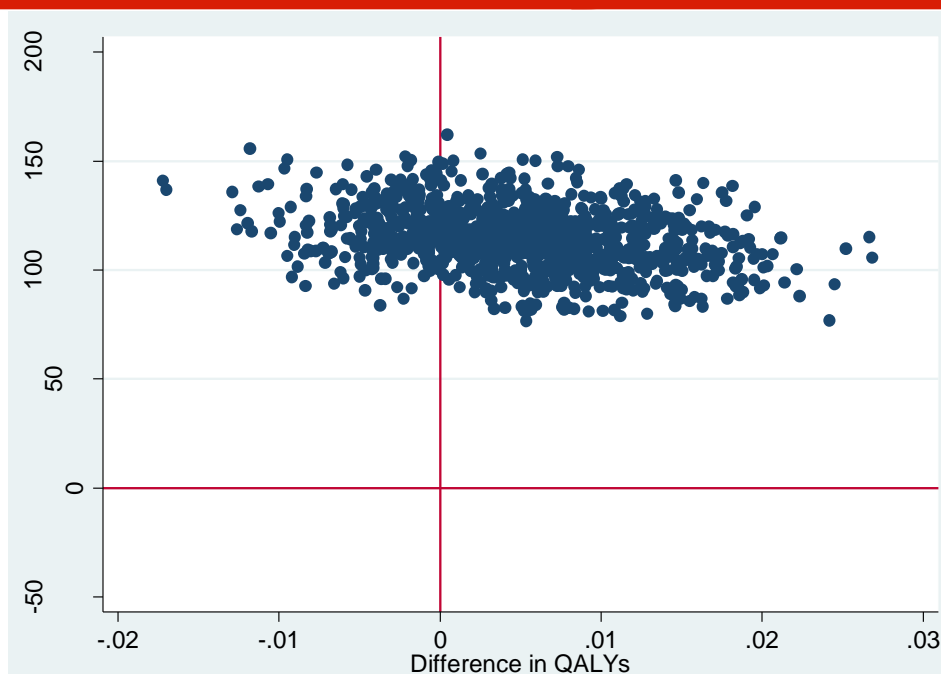
Results: Economic evaluation

EQ-5D	Baseline	1 month	Effect	In QALYs	BS'd mean (95% CIs)
Treatment	0.394	0.531	0.137	0.011	0.010 (0.001,0.019)
Control	0.430	0.501	0.072	0.006	0.005 (-0.005,0.015)
<u>Increment</u>	=	=	<u>0.065</u>	<u>0.005</u>	<u>0.005</u> <u>(0.005,0.006)</u>
Cohort	0.483	0.570	0.088	0.007	-

Results: Economic evaluation

Costs	Staff A time (sd)	Staff cost (sd)	Total cost (sd)	BS'd mean (95% CIs)
Treatment	180 (85)	£158 (75)	£183 (81)	£188 (165,216)
Control	99 (53)	-	£75 (40)	£73 (58,86)
<u>Increment</u>			<u>£108</u>	<u>£114</u> <u>(113,115)</u>
Cohort	203 (63)	£215 (122)	£243 (130)	

Results: Economic evaluation



Observed ICER	BS'd mean (1000 reps)	Normal 95% CI	Bias-corrected 95% CI
£15,832	£22,016 (-£6,353)	-£29,435, £16,729	-£35,330, £11,180

Results: Economic evaluation

- Standard means suggest cost-effective
 - £15,832/QALY
- Bootstrapped mean suggests less cost-effective
- Net benefit
 - 47% probability at £20,000
 - 58% probability at £30,000

Discussion: Small gains

- Small gains (and relatively low costs)
- Implications for economic evaluation?
 - Power of generic measures to detect small effects
 - Need for huge sample?
 - More uncertain ICER
 - Substantial bias in bootstrapping
 - 5000 reps resulted in mean ICER of £40,202
 - How many reps is right?
- Need to justify economic evaluation
 - Should small fry be left to clinicians?
 - Minimum budgetary impact?

Discussion: n =small

- Feasibility study = small sample size
 - Particularly problematic as dealing with small incremental gains
- Economic evaluation alongside small RCTs
 - Irrelevance of inference
 - Where do we draw the line?
 - Likelihood of a larger trial?

Discussion: Communication of results

- Largest trial of its kind
 - Best data available
- Occupational therapists not familiar with economic evaluation
- Easy to misinterpret results

Discussion: Parting questions

- Is there a role for economic evaluation when gains and costs are both expected to be small?
- What is the role for economic evaluation in feasibility trials?
- Are economists responsible for publishing guides to economic evaluation in clinical practice journals?

References

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Thank you for listening

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