

Collaboration for Leadership in Applied Health Research and Care for  
Nottinghamshire, Derbyshire and Lincolnshire

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# Pre-discharge Occupational Therapy Home Visits for Patients with a Stroke: Results of a feasibility randomised controlled trial (RCT)

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



## The Home Visit after Stroke (HOVIS) Study

- Routine practice in many stroke rehabilitation units (Drummond et al 2012)
- No evidence of clinical or cost effectiveness
- Previous feasibility study - recruitment difficulties (Lannin et al 2007)
- Aim of HOVIS – Is it feasible?
- Alternative methodology to balance clinical concerns with research rigour



## Method – Two Studies

- **Cohort** - Home Visit
- **RCT** - Home Visit Vs Hospital Interview
- **Home Visit** - Structured assessment visit **in the patient's home environment**
- **Interview** - Structured assessment **in the hospital**



## Method - Eligibility and Inclusion

- All patients admitted to stroke rehabilitation unit screened for inclusion
- Exclusions:
  - End of Life Pathway
  - Not Speaking English
  - Discharge out of Derbyshire
  - Access Visit

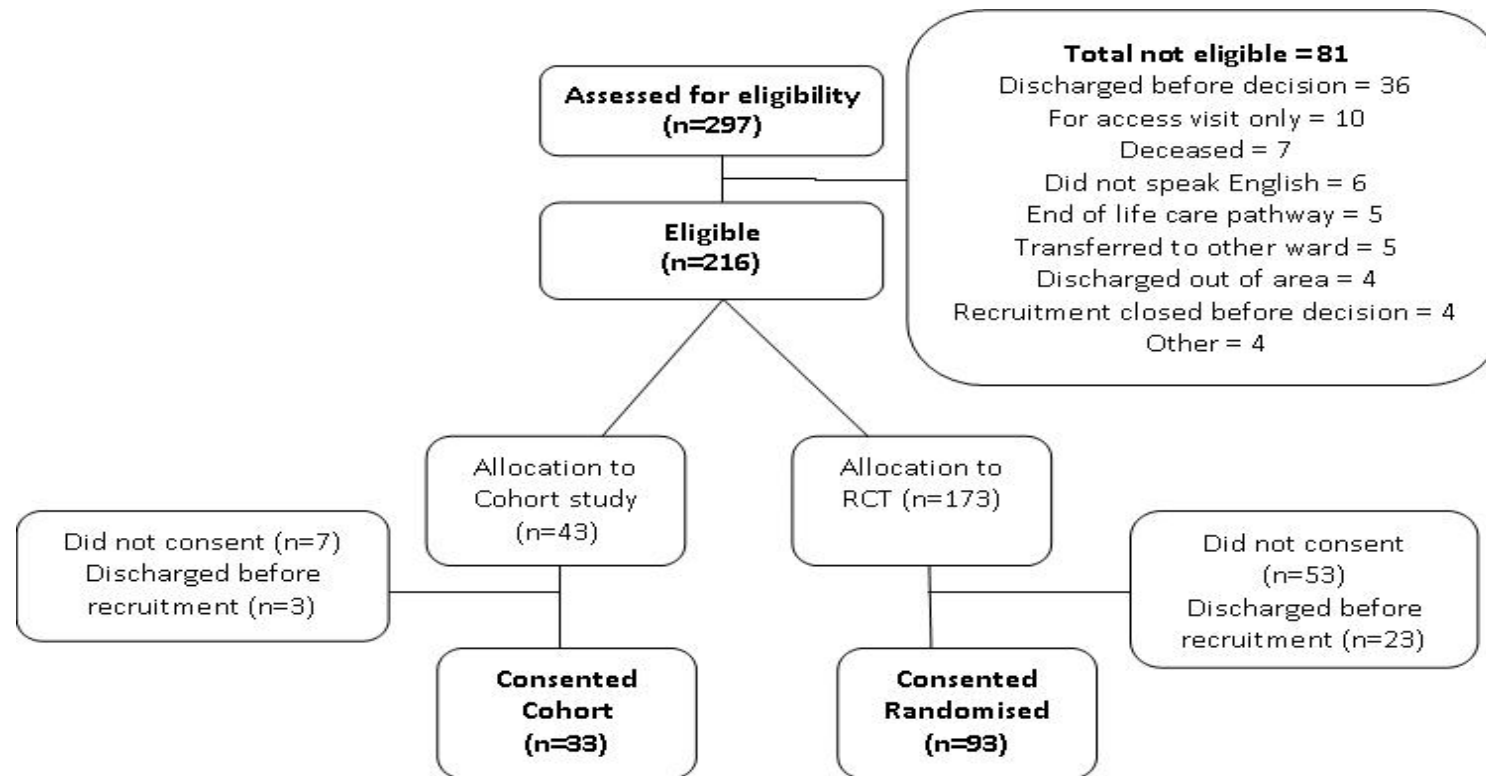


## Method - Measures and Outcomes

- Outcomes: Independence in ADL; Mood; Quality of Life; Carer Strain, Falls, Readmissions, Service Use
- Baselines before randomisation/visit
- At one week and one month post discharge by researcher masked to group allocation

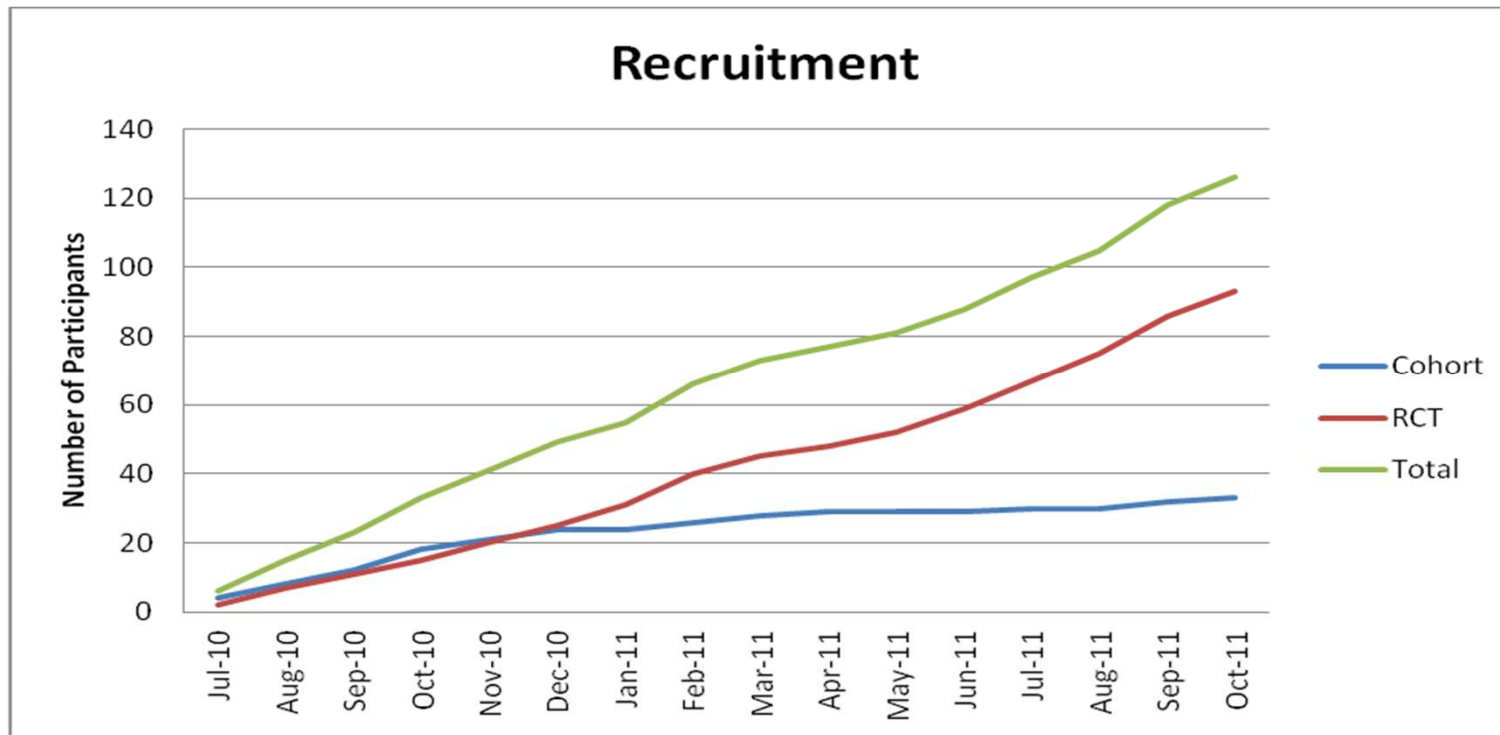


# Results - Recruitment





# Recruitment – RCT and Cohort Study





## Results – Baseline Characteristics

	RCT			Cohort
	Intervention Group (n=47)	Control Group (n=46)	TOTAL for RCT (n=93)	Intervention (n=33)
<b>Age</b> (sd) (Range)	70.64 (14.29) (34-88)	73.65 (15.06) (41-99)	72.13 (14.67) (34-99)	71.73 (12.72) (44-88)
<b>Male</b> (%)	26 (55.3%)	24 (52.2%)	50 (53.8%)	15 (45.5%)
<b>White British</b> (%)	43 (91.5%)	41 (89.1%)	84 (90.3%)	30 (90.9%)
<b>Living Alone</b> (%)	15 (31.9%)	15 (32.6%)	30 (32.3%)	16 (48.5%)
<b>Previous Support</b> (%)	2 (4.3%)	3 (6.5%)	5 (5.4%)	6 (18.2%)
<b>Consultee</b> (%)	4 (8.5%)	2 (4.3%)	6 (6.5%)	5 (15.2%)





## Results – Treatment and Follow-Up

- **RCT**
  - 41 (out of 47) received Visit
  - 43 (out of 46) received Interview
- **Cohort**
  - 29 (out of 33) received Visit
- **Follow-Up**
- 90% followed up at one month



## Results – Outcomes One Week

	RCT			Cohort
	Intervention Group (n=40) Median (IQR)	Control Group (n=43) Median (IQR)	P value #	Intervention (n=30) Median (IQR)
<b>NEADL</b>	10.5 (7-23.5)	13 (6-24.5) [1]	0.75	11 (6.75-19.75)
<b>Barthel Index</b>	14.5 (7.25-17.75)	16 (10-19)	0.29	16.5 (10-18.25)
<b>Rivermead Mobility Index</b>	6.5 (4-10)	7 (6-12)	0.26	7 4-9
<b>GHQ-28 +</b>	18.5 (13.75-36.5) [6]	24 (15-32) [4]	0.35	19 (15-27.5) [6]
<b>SADQ-H10 +</b>	4 (2.25-8) [8]	7 (4-11) [14]	0.05	5.5 (3-10.75) [10]
<b>Caregiver Strain Index +</b>	5 (2.25-7) [19]	6 (3-7) [22]	0.49	3 (2.25-6.75)

+ lower score indicates better outcome ; # p value from Mann Whitney U test; [] missing values



## Results – Outcomes One Month

	RCT			Cohort
	Intervention Group (n=42) Median (IQR)	Control Group (n=43) Median (IQR)	P Value #	Intervention (n=29) Median (IQR)
<b>NEADL</b>	14.5 (3-37.25)	20 (9-36)	0.52	15 (7-30)
<b>Barthel Index</b>	15.5 (8-19)	17 (11-19)	0.41	16 (14-19)
<b>GHQ-28 +</b>	19 (12.25-23.75) [6]	23 (15.5-31.5) [6]	0.10	14.5 (12-24) [7]
<b>SADQ-H10 +</b>	6 (3.25-9.75) [10]	7 (4-11) [16]	0.37	6 (3-12.25) [11]
<b>Caregiver Strain Index +</b>	5.5 (1.75-7)	6 5-8	0.11	3.5 (1.5-7)
<b>EQ5D</b>	0.53 (0.34)	0.50 (0.35)	0.74	0.57 (0.3)

+ lower score indicates better outcome ; # p value from Mann Whitney U test; [] missing values



## Results – Falls, Readmissions, Service Use

- **Participants with one or more falls**  
One Week - 6 (control); 2 (home visit)  
One Month - 9 (control); 13 (home visit)
- **Readmissions – One Month**  
2 (control); 8 (home visit)
- **Services Used – No differences**  
Except private cleaner!



## Discussion

- Feasible – Recruitment and follow up
- Some protocol adherence issues
- Hospital interview not standard practice
- Group outcomes similar – **Caution!**
- Cost Implications
- Further, definitive trial is needed

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Thank you for listening

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