Fracture in the Elderly Multidisciplinary Rehabilitation (FEMuR) Feasibility Study.

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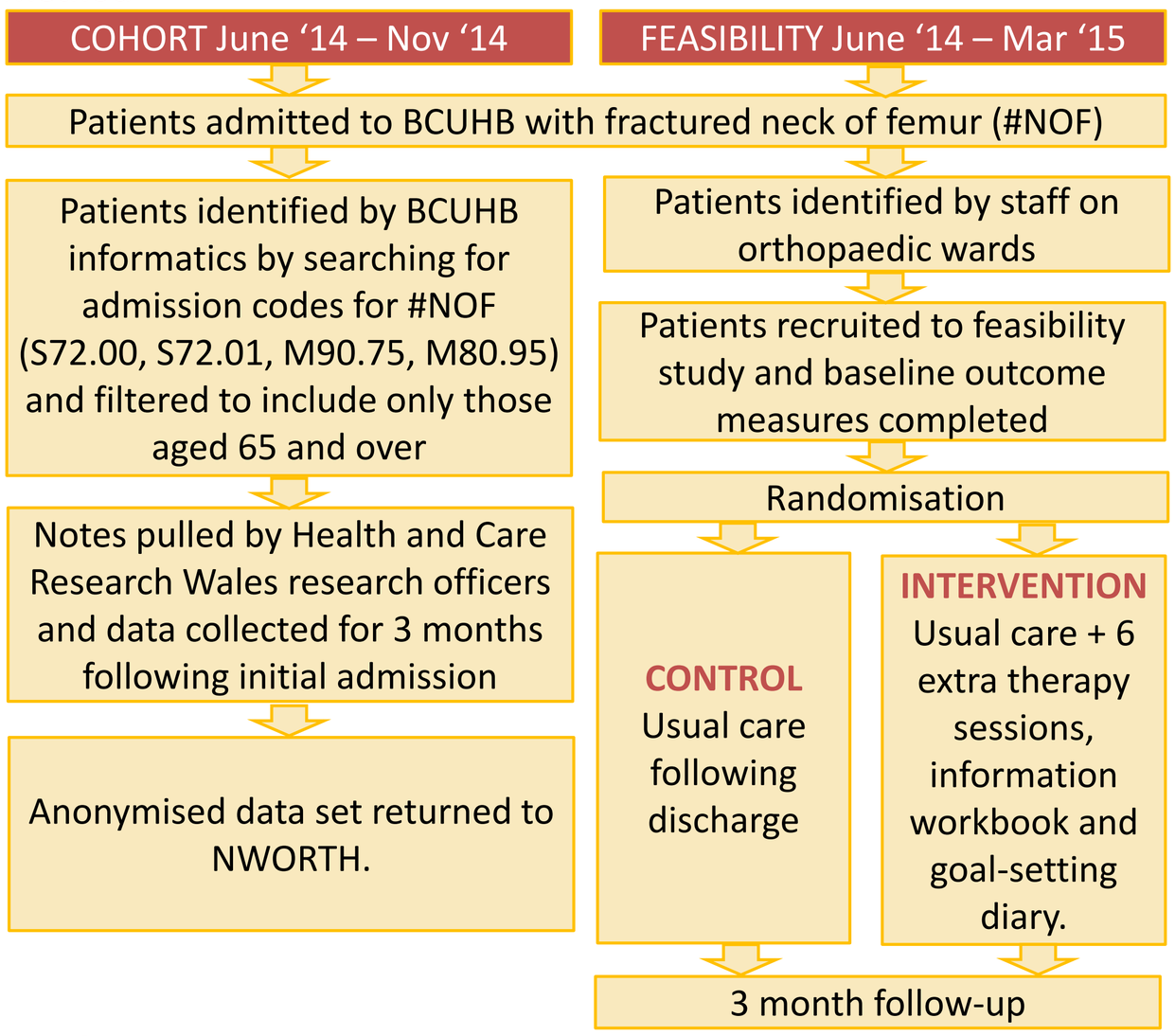
Background

Proximal hip fracture is a major health problem in ageing populations and imposes a significant cost burden on society. Systematic reviews conclude there is insufficient evidence to demonstrate overall clinical or cost-effectiveness of current rehabilitation programmes[1]. A realist review of the literature, patient focus groups and a survey of current practice following the first stage of the MRC framework have informed the development of an enhanced multidisciplinary rehabilitation package. This study comprises the second stage of the MRC framework, consisting of a cohort study of hip fracture patients across North Wales with an embedded randomised feasibility study[2] to compare trial participants similarity to cohort population whilst assessing recruitment, retention and data collection acceptability.

Method



Results

Four hundred patients were identified by the cohort study between June and November 2014. In the same time period, 372 were identified for the feasibility study (of the total 593 who were screened). Eligibility as determined from patient notes (cohort) or staff screening (feasibility) is comparable, with lack of capacity being the leading cause of ineligibility (Table 1).

	Cohort	Feasibility study
Overall eligibility rate (%)	63	44
Lacked capacity (%)	22	27
Not living independently (%)	19	11
No surgery (%)	7	4

Table 1. Comparison of final patient numbers screened during cohort and feasibility studies with relation to eligibility for recruitment.

Demographic data demonstrates that participants recruited to the feasibility study are representative of the cohort population (Table 2).

	Cohort	Feasibility study
Mean age (years)	83.7	79.4
Male/Female (%)	27/73	25/75
Fracture type - Intracapsular/Extracapsular (%)	49/31	44/33
Most common surgery	Hemiarthroplasty (40%)	Hemiarthroplasty (47%)

Table 2. Comparison of the characteristics of the patient population identified by the cohort study to those recruited to the feasibility study.

Adverse events

Eight adverse events occurred in the feasibility study however only data relating to readmissions or deaths was accessible for patients identified in the cohort. The collated information on readmissions and deaths for both samples is displayed in Table 3.

	Cohort	Feasibility study
Readmission (%)	17	3
Death (%)	17	2
Readmission AND death (%)	5	0

Table 3. Percentage of patients who experienced a serious adverse event leading to readmission or death at 3 month follow up.

Feasibility study

Data relating to study acceptability and feasibility was recorded for all patients screened at the three hospitals within BCUHB (Fig 1). Of the 261 (44%) patients considered eligible after screening, 24% consented to take part. Burden was the most common reason for decline.

There have been 12 withdrawals and 1 death. Withdrawals were spread across both study arms of the trial and reasons for withdrawal were related to ill health or the burden of taking part. The overall attrition rate was 21%.

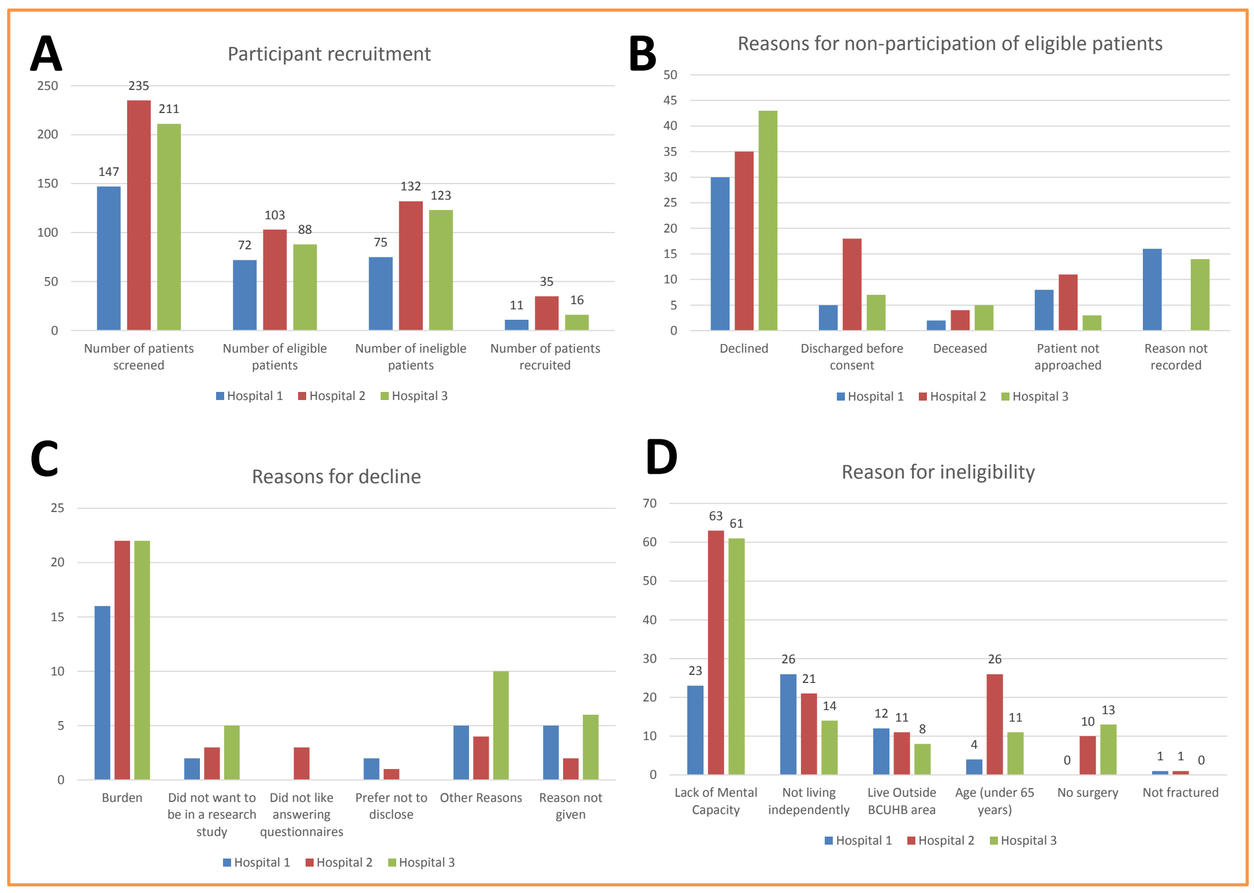


Fig 1. Frequency of patients screened in the three acute hospitals in BCUHB, their eligibility (A), recruitment (B), reasons for decline (C) and details on ineligibility (D).

Completion of outcome measures was high, the lowest completion rate at baseline for an individual measure was 92% (Hospital Anxiety and Depression Score). At follow up this dropped to 73% (Self-Efficacy for Exercise) and 67% (Discrete Choice Experiment).

Conclusions

Whilst identification of potential participants by ward staff was comprehensive, it was challenging due to the time commitment required which could affect feasibility of a full scale trial. There is scope for improvement by using admission codes if prompt access to this data is possible. Study participants were representative of the cohort population in terms of demographics, though data on adverse events suggests they are a particularly healthy sub-population and this should be taken into account when extrapolating results to a wider population.

Recruitment rate, outcome completion and acceptable levels of withdrawals suggest that there is evidence to support the acceptability of a future definitive RCT but process evaluation will also be required to confirm feasibility of intervention delivery.

Acknowledgements

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References

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