

The HERO trial

Home-based Extended Rehabilitation for Older people

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HERO

Individually randomised controlled multi-centre trial to determine the clinical and cost effectiveness of a home-based exercise intervention for older people with frailty as extended rehabilitation following acute illness or injury, including embedded process evaluation.

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Primary question

- Is the HOPE programme a clinically and cost effective means to improve health related quality of life for frail older people?



Trial Rationale

- Frailty is characterised by **reduced biological reserves** and **vulnerability** to adverse outcome
- Most people ≥ 65 yrs in hospital have frailty
- Frailty linked with: **decline in function, dependency, early readmission and death**
- Exercise programmes based on **progressive strength training** show **improved functionality and mobility** in people with frailty
- In a **pilot study**, the HOPE programme showed evidence of **benefits to functional mobility** (TUGT \approx 30 secs faster than controls)

Trial Design

- A **multi-centre randomised, single-blind, controlled trial** comparing the HOPE programme + usual care versus usual care only.
- **718 older people** with frailty admitted to acute hospital services will be recruited
- Participants will be **recruited on discharge home** once **routine rehabilitation*** pathways have finished
- **Outcome measures** will be obtained **6 & 12 months** after randomisation by the study researchers

Intervention



- **24 week** Home-based Older People's Exercise (HOPE) programme
- **Graded and progressive** intervention, aimed at improving strength, endurance & balance
- Delivered by NHS physiotherapy teams
- Delivered via weekly contact including **5 face-to-face visits** and **19 telephone contacts**
- The HOPE programme will **extend (not replace)** existing NHS rehabilitation pathways after acute hospital admission

Main Trial Contacts:

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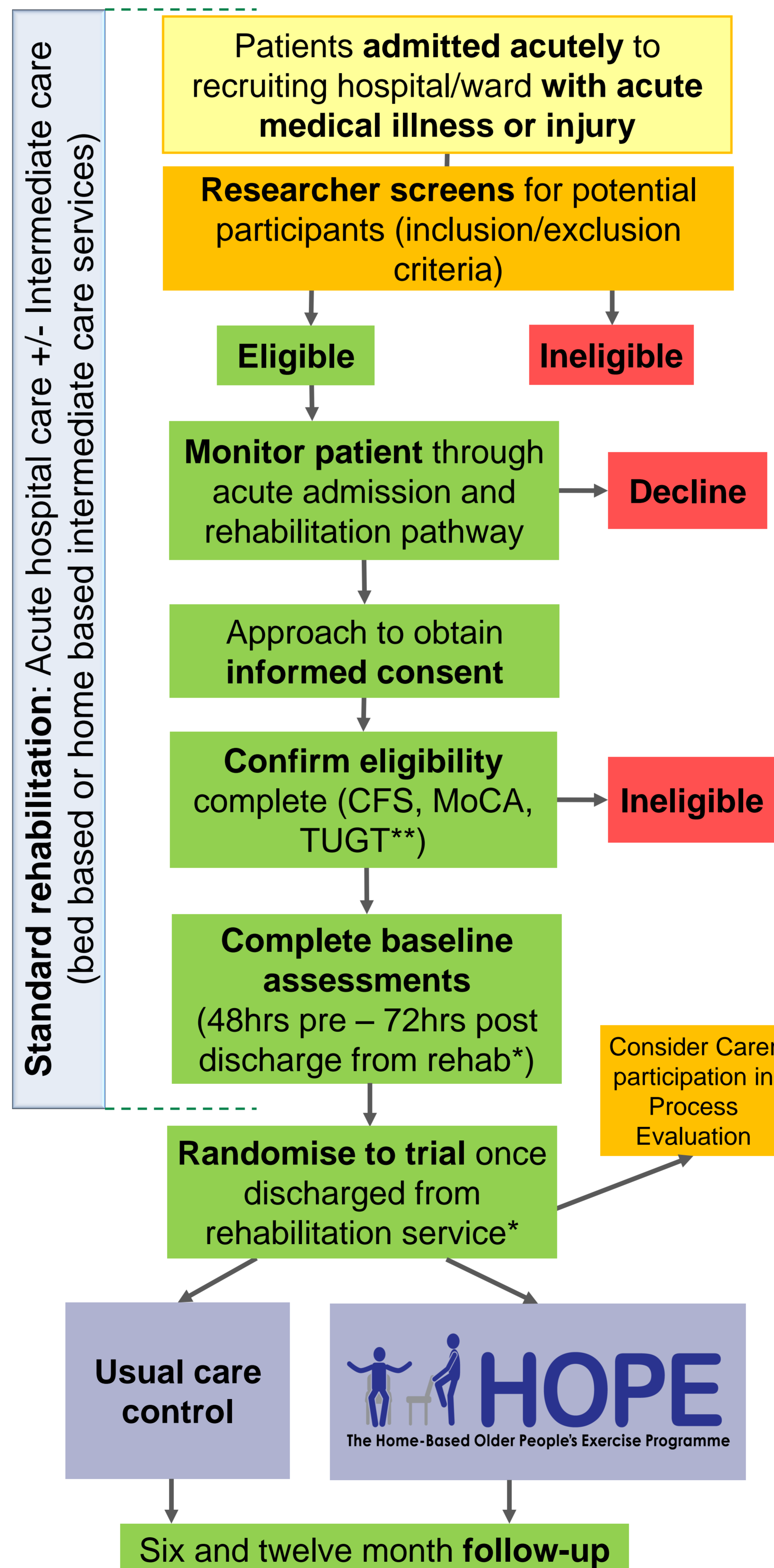
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Patient Recruitment Pathway



Recruiting Centres

- **Acute hospital trusts** and linked **intermediate care services** from more than 10 trial sites
- **Two geographical areas** (Yorkshire and the South West), will recruit to the HERO trial target of 718 participants

Participants

Inclusion:

- **Participants will:** be older adults (aged ≥ 65 yrs) with frailty (CFS level 5-7); be **admitted acutely to hospital** with medical illness/injury; normally reside in and be **discharged to own home** from hospital or intermediate care services*; complete **TUGT** independently** (+/- mobility aid); **consent to study**; score ≥ 20 on **MoCA****; be able to **adhere to intervention**

Exclusion:

- **Participants will not:** be care home residents; have had recent MI or unstable angina (previous 3 months); be **terminally ill** or receiving **palliative care**; have been referred for condition specific rehabilitation programmes (i.e. lengthy rehabilitation programmes like cardiac, pulmonary, stroke, amputee, falls rehabilitation programmes)

Trial Outcomes

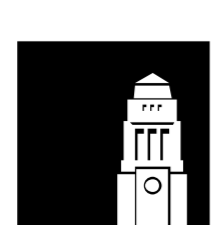
Primary Outcome

- **Health related quality of life** (SF36) measured at **12 months**

Secondary Outcomes

- **Mental health** measured using mental health component summary of SF36
- **Functional independence** measured using Barthel ADL Index; Nottingham Extended Activities of Daily Living Scale
- **Hospitalisation rates**, care home admission rates, falls and overall **health and social care resource use**.
- **Cost effectiveness** analysis
- Mixed methods **Process Evaluation**

* Rehabilitation service includes acute hospital & intermediate care (bed and home based services), linked to the acute hospitalisation
** CFS - Clinical Frailty Scale; MoCA - Montreal Cognitive Assessment; TUGT - Timed Up and Go Test



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