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## Introduction

Many older people presenting to Acute Medical Units are discharged after only a short stay (< 72 hours)

Many re-present to hospital or die within 1 year

Specialist geriatric medical management may improve health outcomes for older patients identified as being at high risk of readmission, functional decline or death

The objective was to evaluate the effect of geriatrician input on the outcomes of high risk older people discharged from acute medical assessment units

## Method

Patients aged  $\geq 70$ , discharged from two UK AMUs

Scoring  $\geq 2$  on the Identification of Seniors at Risk tool<sup>1</sup>

Randomised to receive specialist geriatric medical assessment<sup>2,3</sup> and after care, or usual care

Follow up by postal questionnaire 90 days after randomisation

Outcomes included days at home, mortality, institutionalisation, dependency in activities of daily living (ADL), mental well-being, quality of life and falls

## Measures

### Baseline

- ❖ Demographics
- ❖ ISAR score
- ❖ Health conditions: presenting problems, co-morbidities (Charlson co-morbidity index) and list of medications
- ❖ Cognitive function: Folstein Mini-Mental State Examination (MMSE)
- ❖ Personal activities of daily living (ADL): Barthel ADL Index
- ❖ Health related quality of life/status: EuroQoL EQ5D
- ❖ Psychological well-being: General Health Questionnaire 12 (GHQ-12)

### Follow up

- ❖ Primary outcome: days at home
- ❖ Secondary outcomes: mortality, institutionalisation, dependency, mental well-being, quality of life, and health and social care resource use.

## Intervention

Assessment prior to discharge by geriatrician

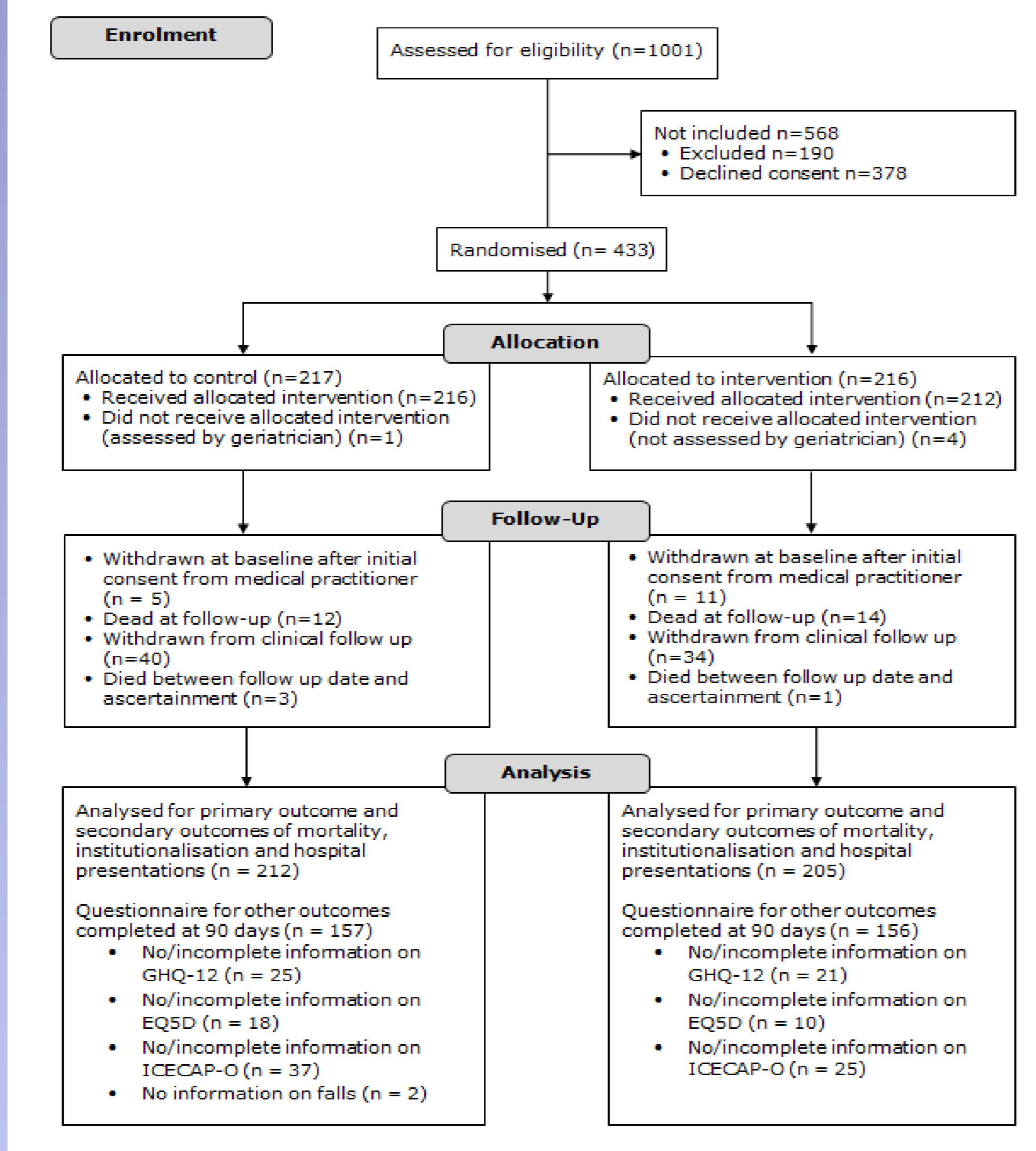
- ❖ Review of diagnoses and medication
- ❖ Further assessment at home, in clinic or admission recommended
- ❖ Advance care planning; liaison with primary care; intermediate care and specialist community services

Intervention was expected to be complete within one month of randomisation

## References

- 1 McCusker et al. 1999. Detection of older people at increased risk of adverse health outcomes after an emergency visit: the ISAR screening tool. *Journal of American Geriatrics Society*, 47(10), 1229-1237
- 2 Gladman J, Kearney F, Ali A, Blundell A, Wong R, Laithwaite E, et al. The role of the interface geriatrician across the acute medical unit / community interface. *Medical Crises in Older People. Discussion paper series*. 2012(9).
- 3 Conroy SP, Stevens T, Parker SG, Gladman JRF. A systematic review of comprehensive geriatric assessment to improve outcomes for frail older people being rapidly discharged from acute hospital: 'interface geriatrics'. *Age and Ageing* 2011;40(4):436-43.

## Recruitment



## Results

Groups were well matched for baseline characteristics

Withdrawal rates were similar in both groups (5%)

At 90 days there were no significant differences in:

- ❖ mean days at home (80.2 days control v 79.7 days intervention, CI -4.6 to 3.6)
- ❖ mortality (6% control v 7% intervention)
- ❖ proportion moving to care homes (3% both groups)

There were no differences in:

- ❖ dependency in ADL (median Barthel ADL: 16, IQR 11 to 19 in each group, n=313)
- ❖ psychological well-being (median GHQ12: control - 12.5, IQR 9 to 18; intervention: 12, IQR 9 to 17 intervention, n=267)
- ❖ quality of life (mean EQ5D: 0.45, SD 0.32 both groups, n=285)
- ❖ proportion of participants who fell at 90 days (43% control v 41% intervention n=311)



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Baseline	Control n = 217	Intervention n = 216	Overall n = 433
<b>Study centre</b>			
Nottingham	136 (63%)	136 (63%)	272 (63%)
Leicester	81 (37%)	80 (37%)	161 (37%)
<b>Age - mean (SD)</b>	82.8 (7.0)	83.1 (6.7)	83.0 (6.8)
<b>Female</b>	141 (65%)	133 (62%)	274 (63%)
<b>White ethnicity</b>	206 (95%)	211 (98%)	417 (96%)
<b>Residence at recruitment</b>			
Alone	90 (41%)	85 (39%)	175 (40%)
With someone	67 (31%)	75 (35%)	142 (33%)
Care home	60 (28%)	56 (26%)	116 (27%)
<b>Mental capacity to consent at recruitment</b>			
ISAR score - median (IQR)	3 (3 - 4)	3 (2 - 4)	3 (3 - 4)
<b>Charlson comorbidity score</b>			
Median (IQR)	1 (0 - 2)	1 (1 - 2)	1 (1 - 2)
<b>Number of medications</b>			
Median (IQR)	7 (5 - 9)	7 (5 - 9)	7 (5 - 9)
<b>Presented with fall</b>	65 (30%)	68 (31%)	133 (31%)
<b>Presented with reduced mobility</b>	35 (16%)	15 (7%)	50 (12%)
<b>Presented with cognitive impairment/confusion</b>	26 (12%)	42 (19%)	68 (16%)
<b>Prior dementia diagnosis</b>	59 (27%)	56 (26%)	115 (27%)
<b>Cognitive function - MMSE</b>			
Median (IQR)	23 (12 - 26)	23 (11.5 - 27)	23 (12 - 26)
<b>Psychological well-being - GHQ12, median (IQR)</b>	11.5 (8 - 15) (n=166)	12 (8 - 16) (n=162)	12 (8 - 15) (n=328)
<b>Activities of Daily Living - Barthel ADL, median (IQR)</b>	17 (13 - 19) (n=197)	17 (13 - 19) (n=202)	17 (13 - 19) (n=399)

Intervention	Total n=205
<b>Allocated to intervention</b>	205
<b>Received response</b>	201 (98%)
<b>Received follow up</b>	133 (66%)
	n=201
<b>Initial assessment on ward</b>	198 (98.5%)
<b>Initial assessment at home</b>	3 (1.5%)
<b>Interval from initial assessment to follow up (n=122)</b>	12 (1-68) days
<b>Follow up home visits</b>	87 (43.3%)
<b>Follow up clinic visits</b>	13 (6.5%)
<b>Follow up phone calls</b>	57 (28.4%)
<b>Other patient-related activity</b>	98 (48.8%)
	Mean (min-max)
<b>Mean total geriatrician time per participant (n=201)</b>	93.70 (5-305) mins

## Conclusions

This specialist geriatric medical input to at-risk patients discharged from AMUs made no difference to measures of:

- ❖ days at home
- ❖ mortality
- ❖ institutionalisation
- ❖ dependency in ADL
- ❖ psychological well-being
- ❖ quality of life
- ❖ proportion of participants with a fall during the follow-up period