Medical Crises in Older People: cohort study of older people attending acute medical units, developmental work and randomised controlled trial of a specialist geriatric medical intervention for high-risk older people; cohort study of older people with mental health problems admitted to hospital, developmental work and randomised controlled trial of a specialist medical and mental health unit for general hospital patients with delirium and dementia; and cohort study of residents of care homes and interview study of health-care provision to residents of care homes

John Gladman,[1*] Rowan Harwood,[2] Simon Conroy,[3] Pip Logan,[1] Rachel Elliott,[1] Rob Jones,[1] Sarah Lewis,[1] Jane Dyas,[1] Justine Schneider,[1] Davina Porock,[4] Kristian Pollock,[1] Sarah Goldberg,[1] Judi Edmans,[1] Adam Gordon,[2] Lucy Bradshaw,[1] Matthew Franklin,[1] Katherine Whittamore,[1] Isabella Robbins,[1] Aidan Dunphy,[5] Karen Spencer,[6] Janet Darby,[1] Lukasz Tanajewski,[1] Vladislav Berdunov,[1] Georgios Gkountouras,[1] Pippa Foster[1] and Nadia Frowd[1]

[1]Faculty of Medicine and Health Sciences, University of Nottingham, Nottingham, UK
[2]Health Care of Older People, Nottingham University Hospitals NHS Trust, Queen's Medical Centre, Nottingham, UK
[3]Department of Health Sciences, University of Leicester, Leicester, UK
[4]University at Buffalo School of Nursing, Buffalo, NY, USA
[5]Clinical Research Unit, Leicester Royal Infirmary, Leicester, UK
[6]Centre for Primary Care, University of Manchester, Manchester, UK

*Corresponding author

Declared competing interests of authors: Adam Gordon declares receiving grants from the British Geriatrics Society during the conduct of the study.

Published May 2015
DOI: 10.3310/pgfar03040

Scientific summary

Medical Crises in Older People

Programme Grants for Applied Research 2015; Vol. 3: No. 4
DOI: 10.3310/pgfar03040

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Scientific summary

Introduction

This programme of research involved three groups of patients in three workstreams: patients discharged from acute medical units (AMUs), patients with dementia and delirium admitted to general hospitals and the residents of care homes.

Methods

In the AMU workstream we undertook a systematic review of comprehensive geriatric assessment (CGA) to improve outcomes for frail older people being rapidly discharged from acute hospital, performed a cohort study of older people being discharged from AMUs, developed an intervention (interface geriatricians) for the frailer patients and evaluated the intervention in a randomised controlled trial (RCT) (Acute Medical Unit Comprehensive Geriatric Assessment Intervention Study or AMIGOS).

In the second workstream we undertook a cohort study of older people with mental health problems in a general hospital, developed a specialist unit to care for them [a medical and mental health unit (MMHU)] and tested the unit in a RCT (Trial of an Elderly Acute care Medical and mental health unit or TEAM).

In the third workstream we undertook a literature review, a cohort study of a representative sample of care home residents and a qualitative study of the delivery of health care to care home residents.

Results

We identified five trials of sufficient quality in the first literature review, which showed no clear evidence of benefit for CGA interventions in terms of mortality [relative risk (RR) 0.92, 95% confidence interval (CI) 0.55 to 1.52] or readmissions (RR 0.95, 95% CI 0.83 to 1.08) or subsequent institutionalisation, functional ability, quality of life or cognition. Although 222 of the 433 (51%) patients recruited to the AMIGOS study were vulnerable enough to be readmitted within 3 months, the AMIGOS study showed no clinical benefit of interface geriatricians over usual care and they were not cost-effective.

The TEAM trial recruited 600 patients and showed no significant benefits of the specialist unit over usual care in terms of mortality, institutionalisation, mental or functional outcomes or length of hospital stay but there were significant benefits in terms of patient experience and carer satisfaction with care. The MMHU was cost-effective.

The literature review of RCTs conducted in care homes identified 291 articles, which addressed a wide range of targets. Targets included behaviour, prescribing, malnutrition, influenza, quality of life, depression, mobility, oral health, falls, quality of care and urinary incontinence. Interventions were often mixed and included pharmacological, educational, physical therapeutic and managerial interventions. The interview study found that the organisation of health care for care home residents in the UK was variable, leaving many residents, whose health needs are complex and unpredictable, at risk of poor health care. The variability of health care was explained by the variability in the types and sizes of care home, the training of care home staff, the relationships between care home staff and the primary care doctors and the ad hoc organisation of care for care homes and training in care home medicine among primary care doctors.

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Discussion

The interface geriatrician intervention was not sufficient to alter clinical outcomes and this might be because it was not multidisciplinary and well integrated across the secondary care–primary care interface. The development and evaluation of multidisciplinary and better-integrated models of care is justified.

The MMHU improved the quality of experience of patients with delirium and dementia in general hospitals. Despite the need for investment to develop such a unit, the unit was cost-effective. The MMHU is a model of care for patients with dementia and delirium in general hospitals that requires replication.

The health status of, and delivery of health care to, care home residents is now well understood. Models of care that follow the principles of CGA would seem to be required but in the UK these must be sufficient to take account of the current provision of primary health care and must recognise the importance of the care home staff in the identification of health-care needs and the delivery of much of that care.

Trial registration

These trials are registered as ISRCTN21800480 (AMIGOS) and NCT01136148 (TEAM).

Funding

Funding for this study was provided by the Programme Grants for Applied Research programme of the National Institute for Health Research.

Programme Grants for Applied Research

ISSN 2050-4322 (Print)

ISSN 2050-4330 (Online)

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: nihredit@southampton.ac.uk

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This report

The research reported in this issue of the journal was funded by PGfAR as project number RP-PG-0407-10147. The contractual start date was in August 2008. The final report began editorial review in March 2014 and was accepted for publication in October 2014. As the funder, the PGfAR programme agreed the research questions and study designs in advance with the investigators. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The PGfAR editors and production house have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the final report document. However, they do not accept liability for damages or losses arising from material published in this report.

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