BMJ Open

Using comprehensive geriatric assessment for quality improvements in healthcare of older people in UK care homes: protocol for realist review within Proactive Healthcare of Older People in Care Homes (PEACH) study

Maria Zubair,[1] Neil H Chadborn,[1] John R F Gladman,[2,3] Tom Dening,[4] Adam L Gordon,[1,5] Claire Goodman[6]

To cite: Zubair M, Chadborn NH, Gladman JRF, *et al*. Using comprehensive geriatric assessment for quality improvements in healthcare of older people in UK care homes: protocol for realist review within Proactive Healthcare of Older People in Care Homes (PEACH) study. *BMJ Open* 2017;**0**:e017270. doi:10.1136/bmjopen-2017-017270

► Prepublication history for this paper is available online. To view these files please visit the journal online (http://dx.doi.org/10.1136/bmjopen-2017-017270).

Received 12 April 2017
Revised 21 July 2017
Accepted 4 August 2017

For numbered affiliations see end of article.

Correspondence to
Dr Neil H Chadborn;
neil.chadborn@nottingham.ac.uk

ABSTRACT

Introduction Care home residents are relatively high users of healthcare resources and may have complex needs. Comprehensive geriatric assessment (CGA) may benefit care home residents and improve efficiency of care delivery. This is an approach to care in which there is a thorough multidisciplinary assessment (physical and mental health, functioning and physical and social environments) and a care plan based on this assessment, usually delivered by a multidisciplinary team. The CGA process is known to improve outcomes for community-dwelling older people and those in receipt of hospital care, but less is known about its efficacy in care home residents.

Methods and analysis Realist review was selected as the most appropriate method to explore the complex nature of the care home setting and multidisciplinary delivery of care. The aim of the realist review is to identify and characterise a programme theory that underpins the CGA intervention. The realist review will extract data from research articles which describe the causal mechanisms through which the practice of CGA generates outcomes. The focus of the intervention is care homes, and the outcomes of interest are health-related quality of life and satisfaction with services; for both residents and staff. Further outcomes may include appropriate use of National Health Service services and resources of older care home residents. The review will proceed through three stages: (1) identifying the candidate programme theories that underpin CGA through interviews of key stakeholder, systematic search of the peer-reviewed and non-peer-reviewed evidence, (2) identifying the evidence relevant to CGA in UK care homes and refining the programme theories through refining and iterating the systematic search, lateral searches and seeking further information from study authors and (3) analysis and synthesis of evidence, involving the testing of the programme theories.

Ethics and dissemination The PEACH project was identified as service development following submission to the UK Health Research Authority and subsequent review by the University of Nottingham Research Ethics Committee. The study protocols have been reviewed as part of good governance by the Nottinghamshire Healthcare Foundation Trust. We aim to publish this realist review in a peer-reviewed journal with international readership. We will disseminate findings to public and stakeholders using knowledge mobilisation techniques. Stakeholders will include the Quality Improvement Collaboratives within PEACH study. National networks, such as British Society of Gerontology and National Care Association will be approached for wider dissemination.

Trial registration number The realist review has been registered on International Prospective Register of Systematic Reviews (PROSPERO 2017: CRD42017062601).

Strengths and limitations of this study

- To our knowledge, this is the first review of the use of comprehensive geriatric assessment (CGA) in the care home setting (long-term care residence).
- The review will develop and refine realist programme theories about the practice of CGA in care homes using evidence from literature and professional bodies and experts within the field.
- A potential limitation will be the availability of relevant evidence for the care home setting. This will be mitigated by a realist theory-driven approach to evidence review.
- Public involvement in studies of CGA has been limited and it is difficult to ascertain views from care home residents with frailty and/or dementia as to their personal experience of CGA.

INTRODUCTION

The challenge of healthcare in care homes

A total of 433 000 older people in the UK live in care home.[1] Care home residents have complex medical needs and they use primary and secondary care more than similarly aged

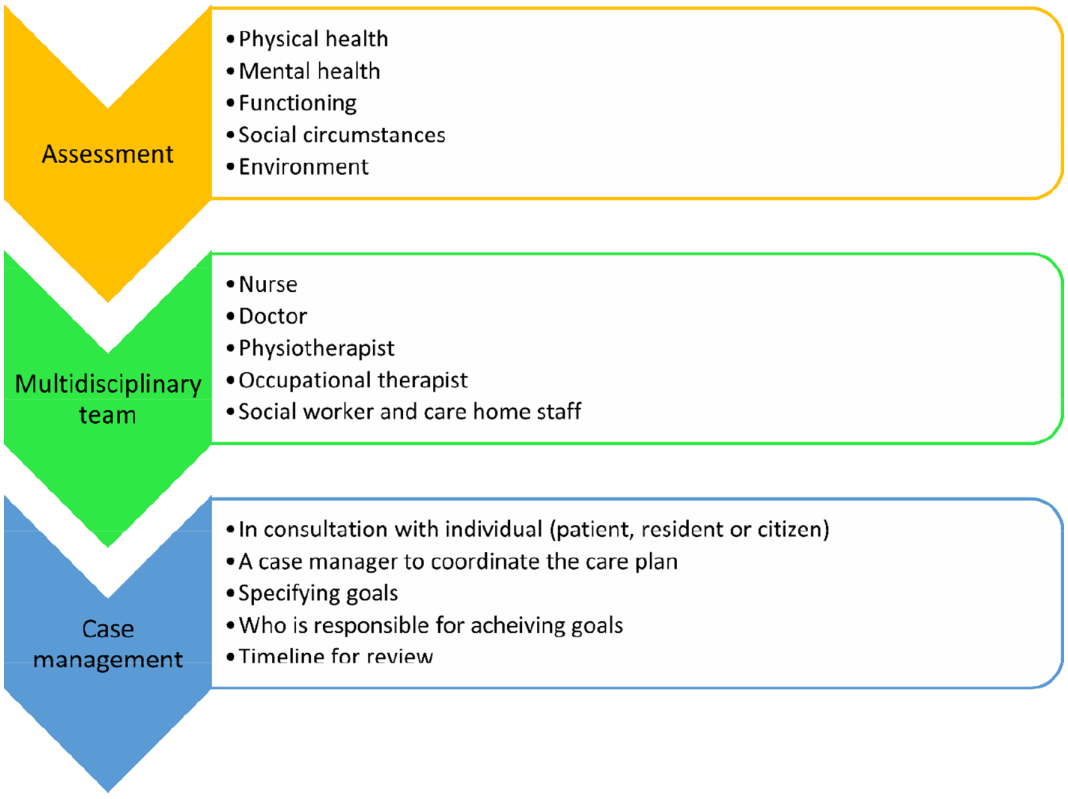

Figure 1 Components of comprehensive geriatric assessment.[10]

people outside of long-term care. Healthcare to care home residents in the UK is provided by general practitioners under the General Medical Services contract, as it is for home-dwelling citizens. However healthcare for care home residents has often been found to be ad hoc, reactive and inequitable.[2]

The optimal study of how healthcare services work in and with care homes noted that effective services for care home residents required dedicated and specific time and resources focused on the residents of care homes to foster relational working between the healthcare services and the care home staff.[3 4] The use of comprehensive geriatric assessment (CGA) for assessment, goal setting and care delivery could improve relational working.

Why CGA?

CGA has been shown to improve outcomes for older people including improved physical and cognitive function, reduced mortality and readmissions to hospital.[5–7] Its evidence base has predominantly derived from acute hospital settings, but it has also been found to improve outcomes in community settings.[8] Rubenstein *et al* have defined CGA as a 'multidisciplinary diagnostic process intended to determine a frail elderly person's medical, psychosocial and functional capabilities and limitations in order to develop an overall plan for treatment and long-term follow-up'[9 10] (see figure 1). Its focus on health and social care needs and recognition of the need for multidisciplinary working has potential for use in UK care homes. However, its impact is unknown,[11] specifically, what needs to be in place for uptake and, if effective, sustained implementation.

It is also likely that there are interventions that follow very similar processes but are not called CGA, for example, case management[12] or approaches to the identification and management of frail older people.[13] There is also variability, both within and between different types of settings, in terms of how CGA is actually used and implemented in practice and different forms or models of CGA have been identified.[7 14 15] Descriptions of CGA range from solely an assessment process, exemplified by its use in minimum data sets,[16] to a model of interprofessional working and integrated care across health and social care.[10] Existing systematic reviews and meta-analyses of the evidence around CGA illustrate that, even though the evidence in favour of CGA in general is promising, how it is delivered is not uniform and how the CGA process achieves its outcomes is unclear.[6 14 17] Greater attention is needed to understand and refine the processes of CGA in order to enhance its effectiveness.[7]

Objectives of the Proactive Healthcare of Older People in Care Homes realist review

The purpose of the Proactive Healthcare of Older People in Care Homes (PEACH) realist review is to propose the best ways of organising and implementing CGA within UK care home settings. The outcomes of interest are health-related quality of life, satisfaction with and appropriate use of National Health Service (NHS) services and resources of older care home

Box 1 Building a realist theory involves a configuration of the following

- *Context*: The many pre-existing factors which influence whether and how an intervention or programme works. These include spatial and institutional settings, social norms and inter-relationships between people.
- *Mechanism*: Realist evaluation seeks to understand causal powers or mechanisms. These lead to patterns of behaviours and choices which influence the degree of success of a social intervention or programme.
- *Outcome*: If specific pattern of outcomes are observed, this provides evidence to support the realist theory and also to support the success of the programme in practice.

Summarised from Pawson and Tilley.[22]

residents. The specific objectives of the PEACH realist review are:

1. To identify and characterise the particular elements of CGA which are potentially more likely to be effective with regard to our specific outcomes of interest, under what circumstances and why.
2. To understand the configuration of different contexts of implementation and how these may act as a resource, or trigger particular mechanisms, to achieve the successful implementation, uptake and working of CGA in UK care home settings.
3. To establish what evidence there is on the feasibility of using CGA within UK care home settings and its resource implications and costs.

METHODS

CGA in care homes is a complex, context-dependent intervention. Realist review is a theory-driven review method which seeks to facilitate understanding of how complex interventions like CGA work and in what circumstances.[18–20] In critical realism, change is not directly achieved by an intervention, rather change is generated through the influence of an intervention resources and contextual factors on human reasoning.[21 22] By making explicit the evidence that informs our understanding of how the intervention and its different elements works in different settings for different participants (conceptualised as: context-mechanism-outcome (CMO), see box 1 for definitions) it is possible to build a plausible theory-informed account of how CGA might work in a care home setting.

A key aim of realist review is to provide a plausible theoretical explanation based on the available evidence that can then inform and challenge implementation of programmes. Evidence is extracted from heterogeneous literature to inform the development and refining of relevant theories which may then be applied to specific settings or population groups. In this review relevant theories and their linked evidence sources that are likely to be relevant are those addressing multidisciplinary working, implementation science and person-centred care.

The PEACH realist review will take a three-stage approach as follows[21]:

- Stage 1—Identifying the candidate programme theories that underpin CGA and defining the scope of the review.
- Stage 2—Identifying the evidence relevant to CGA in UK care homes and testing and refining the programme theories.
- Stage 3—Analysis and synthesis of evidence, involving the testing of the proposed programme theories.

The review will be reported according to Realist And Meta-narrative Evidence Syntheses: Evolving Standards (RAMESES) guidelines for realist review (see Wong *et al*[21]).

Stage 1: identifying the candidate programme theories and defining the scope of the review

The basic unit of analysis in a realist review are the ideas and assumptions (ie, the programme theories) that underlie an intervention and explain how it works to achieve the desired outcomes.[23] As a starting point therefore, and to address objective 1 of the PEACH realist review, the focus will be to develop explanatory models of why and how CGA as an intervention is believed to work. This will be done through:

a. Exploratory, semistructured, qualitative interviews with a group of relevant professionals with expert knowledge on CGA and its use;
b. A review and analysis of research and scholarly literature on CGA, alongside professional literature and documentary evidence from the UK, such as official policies and guidelines, in relation to the use of CGA within different settings.

Interviews with experts

Exploratory, semistructured, qualitative interviews will be undertaken with healthcare and care home practitioners working in the area of older people's health and social care, specifically with those who are seen to have expert knowledge regarding CGA and its use. Identification and recruitment of stakeholders will include members of the research team who are actively involved in CGA (ALG, JRFG) and a wider network of practitioners known to the team. This will include geriatricians, care home managers and therapists. We anticipate completing up to 10 interviews with individuals who are either part of the team or known to the team. The purpose of these interviews will be to identify and test the range of assumptions or theories about why and how CGA is believed to work and why it might be needed for UK care homes.[24] This will be done by presenting participants with propositions about what needs to be in place for CGA to be effective. Participants will be asked to articulate how the contextual circumstances of CGA may impact on professional, resident and family behaviours.

Residents and family carers will also be invited for interview as 'experts by experience'. Only residents with capacity to provide consent to participate in interviews

will be included. These interviews will focus on the experience of assessment and care planning, and include questions about data sharing between practitioners. This section will also draw on findings of the OPTIMAL study[4] about how residents and relatives understood healthcare provision, and medical involvement in assessment and decision-making about their care. Consensus documents that have been developed to describe the priorities expressed by patient groups in terms of organisation of care and services[25 26] will also be drawn on.

Practitioners, residents and family carers will be given participant information sheets and requested to sign consent forms. Governance of the project has been approved by Nottinghamshire Healthcare Foundation Trust.

Scoping of research and professional literature

Alongside the analysis of the interviews with experts in CGA, professional literature and documentation, such as written documents and published communications about official policies and guidelines on CGA use in UK care homes, will be reviewed. These sources of information will provide us with more detailed data regarding how, for the UK care home context, CGA has been conceptualised to work effectively (or not) in terms of achieving positive outcomes for older people's health-related quality of life and their use of NHS healthcare services. Alongside the data from the interviews with the local CGA experts, this scoping of the CGA literature will make explicit the range of assumptions underlying CGA's proposed use within UK care home settings.

Professional literature will be accessed mainly through literature searching on the websites of the relevant UK-based organisations and also requesting information through identified contacts within the organisations. Members of the PEACH project team with professional affiliations and/or knowledge of the various relevant organisations will lead the process of contacting the identified organisations. These organisations will include:

- British Geriatrics Society, Community Geriatrics Special Interest Group
- AGILE—Chartered Physiotherapists working with older people
- College of Occupational Therapists
- Association of Directors of Adult Social Services.

Interview data will be organised using Excel spreadsheet using the following themes: the type of theory being used to describe why and how CGA works; the proposed context of its implementation or the resources described as needing to be in place for it to work; and details of its presumed mechanism of action. NVivo V.11 (QSR International) qualitative software will be used to index and link relevant sections of data to the emerging framework of the relevant candidate programme theories.

A review of the empirical literature on CGA will summarise the range of approaches to implementing CGA in care homes and other similar community settings. The relevant literature on CGA will be searched electronically in the first instance (see box 2) using a searching methodology that is well aligned with the methods employed in undertaking a systematic review, that is, following a systematic, transparent and replicable process of literature searching and shortlisting.[27]

A series of 'if then' statements that capture the range of possible situations that need to be in place for CGA to work will be developed and tabulated with supporting evidence from the interviews, professional and research literature and discussed within the team. From this, candidate programme theories that can capture the different accounts with linked putative CMO configurations will be presented to the PEACH study steering group for review and challenge. Discussion will focus on the plausibility and relevance of the programme theories for CGA in care

Box 2 Electronic literature searching and shortlisting criteria

Search concepts/areas: comprehensive geriatric assessment (CGA), non-acute/community settings.
Relevant search terms and related terminology: CGA, geriatric assessment, geriatric case management, geriatric evaluation and management, GEM, geriatric evaluation, multidisciplinary geriatric care, multidisciplinary geriatric assessment, multidisciplinary geriatric review, multidisciplinary geriatric case management, multidimensional geriatric care, multidimensional geriatric assessment, multidimensional geriatric review, multidimensional geriatric case management and community, home, care home, nursing home, residential home, residential care, long-term care.
Electronic databases: Medline, CINAHL, EMBASE, PsycInfo, Scopus, Applied Social Sciences Index and Abstracts, DH Data, Kings Fund, Open Grey. In addition, use of lateral search techniques, such as checking reference lists of relevant papers and using the 'Cited by' option on Web of Science (WoS), Google Scholar and Scopus, and the 'Related articles'/'Find similar articles' option on PubMed, WoS and Ovid.

Inclusion criteria:

- UK and non-UK based literature focussing on the implementation or use of CGA in care homes and other similar non-acute/community settings, reflecting the more widely prevailing assumptions and theories regarding CGA (and why and how it works) which may be applicable to and/or shared with the UK care home context.
- All types of relevant research papers, opinion pieces, editorials, comments, letters, critical pieces and so on.
- Literature available in English language from 2000 onwards (this date was chosen because it is prior to the development of assessment approaches in care homes such as US Minimum Dataset, the International Resident Assessment Instrument and Easycare).

Exclusion criteria:

- Literature on the implementation or use of CGA in acute/non-community settings.
- Non-UK and/or non-care-home-based publications that do not offer any easily transferable knowledge in relation to the assumptions or theories behind CGA and why and how it may be seen to work similarly within the UK care home context.
- Literature which does not address in any way Proactive Healthcare of Older People in Care Homes' outcomes of interest, that is, care home residents' health-related quality of life, satisfaction and use of healthcare services/resources.

home settings. These will be set specifically against the evidence identified in this first stage of the review process.

This stage will result in candidate programme theories and related contexts that will inform the remainder of the review process.

Stage 2: identifying the evidence and testing and refining the programme theories

Stage 2 will address objective 2 of the PEACH realist review, that is, understanding the contextual resources that are likely to trigger particular mechanisms which will achieve the successful implementation, uptake and working of the various components of CGA in care home settings. The focus of the analysis here will mainly be on evidence relevant to the UK care home context and outcomes consistent with the PEACH study aims and objectives, building on earlier related work. For example, it is likely that we will expand the searches from stage 1 to address approaches that overlap or are very similar to CGA, but we will exclude literature that is not relevant to long-term care or, as in the case of some US Minimum Dataset-derived systems, have not gained traction in UK care homes.[28] We also know that person-centred approaches are the mainstay of care home work and particularly for those living with dementia. Drawing on the findings from two recent care home reviews, we anticipate however that there will be limited evidence on the process of how person-centred care is implemented that can explain how CGA might work.[3 29]

An expanded and iterative, review of the relevant literature will be conducted. The literature search terms will be based on the description above but will also take into account other sources of evidence relevant to the candidate theories. For example, if evidence around what supports implementation in care homes is identified as key to developing a theory of what needs to be in place for CGA to be effective, the searches will be expanded to include evidence in this area. In addition to the above electronic database searches we will undertake the following lateral searches:

- Checking of reference lists from primary studies and relevant systematic reviews (snowballing).
- Citation searches using the Cited by option on Web of Science (WoS), Google Scholar and Scopus, and the Related Articles option on PubMed and WoS (Lateral Searching).
- Contact with experts and those with an interest in, care homes and CGA to uncover grey literature.

The guiding principle for the review is that the quality of the evidence will be judged on its contribution to the building and testing of relevant theory. Appraisal of the included primary studies and the data extraction process will be conducted taking into account the guidelines for undertaking realist reviews[21 23] and the use of the method as illustrated by Rycroft-Malone *et al*.[30] Hence, appraisal of the evidence from the primary studies will involve an assessment of relevance and rigour—involving a consideration of whether the research does address one or more of the theories under test and if it supports the conclusions drawn from it by the researchers.

Box 3 Principles of realist enquiry have been summarised as follows[23 30]

1. Organisation of extracted information into evidence tables representing the different bodies of literature (eg, assessment of older people with comorbid conditions including dementia, multidisciplinary working, integrated care).
2. Theming across the evidence tables in relation to emerging patterns (demiregularities in realist literature) among context–mechanisms–outcomes, seeking confirming and disconfirming evidence.
3. Linking these demiregularities (patterns) to develop hypotheses.

Data synthesis will involve individual reflection and team discussion and will:

- Question the integrity of each theory
- Adjudicate between competing theories
- Compare the stated theory with actual practice

Coded data from the studies will then be used to confirm, refute or refine the candidate theories. Where theories fail to explain the data, alternative theories will be sought.

Data extraction will be based on the content of the programme theory. If the evidence meets the test of relevance described above, data will be extracted by one member of the team[19] using the form and then checked by a second member (RD, ALG, CG) of the team. Data extraction and review forms for stage 2 will gather information on the relevant theory area being addressed by a research article—including which specific programme idea they address; what claims are made or conclusions drawn (either explicitly or implicitly) with respect to which theories; and how the opposite evidence is marshalled[23] (see box 3). Once data have been extracted and reviewed for all the papers found to be relevant, the analytical task is in synthesising the relationships between mechanisms (eg, underlying processes, structures and entities), contexts (eg, conditions, types of setting, organisational configurations) and outcomes (ie, intended and unintended consequences and impact).

Stage 3: analysis and synthesis of evidence

This stage will address objective 3 of the PEACH realist review. Following the methods employed by the PEACH research team in an earlier study,[3] once the preliminary mapping of the evidence into tables is complete, we will consult with the whole project team and steering group. This will be carefully structured to facilitate in-depth discussion of the findings and to develop and confirm or reject the resultant hypotheses. Those confirmed will act as synthesised statements of findings around which a narrative can be developed summarising the nature of the context, mechanism and outcome links, and the characteristics of the evidence underpinning them.

The iterative process of data analysis, synthesis and discussion will continue until the programme theories are refined enough for use as an organising framework

for the next phase involving the PEACH realist evaluation work. During this next phase, the theories will be further tested and refined in relation to the CGA delivery work undertaken locally by the PEACH Quality Improvement Collaborative.

DISCUSSION

Care homes are complex environments and many residents have frailty or multimorbidity. CGA is a complex intervention which may be able to improve quality of care within care homes. They are also heterogeneous, ranging in size from a few beds to hundreds, resourced through a mix of funding models and types of healthcare support.[1] CGA has been extensively described and tested within hospital settings and also for people living in their own homes in the community, but there is limited understanding of how CGA may be optimally implemented within a care home setting, or indeed the extent to which CGA, when operationalised for this setting, overlaps with other models of integrated and patient-centred care already be in place. This realist review will describe some of the causal mechanisms that may explain how CGA may bring about improvements in quality of care in care homes.

The findings from this realist review will feed into the next phase of the PEACH study work, involving a realist evaluation of CGA's implementation in local care homes. In this latter phase, these findings from the realist review will be further analysed, tested and refined against the empirical evidence gathered, in order to improve our understandings regarding how CGA can work in UK care homes to support older residents' health-related quality of life, satisfaction and use of NHS services and resources.

Ethics and dissemination

The PEACH project was identified as service development following submission to the UK Health Research Authority and subsequent review by the University of Nottingham Research Ethics Committee. The study protocols have been reviewed as part of good governance by the Nottinghamshire Healthcare Foundation Trust.

We aim to publish this realist review in a peer-reviewed journal with international readership. We will disseminate findings to public and stakeholders using knowledge mobilisation techniques. Stakeholders will include the Quality Improvement Collaboratives within PEACH study. National networks, such as British Society of Gerontology and National Care Association, will be approached for wider dissemination.

Author affiliations
[1]Division of Medical Sciences and Graduate Entry Medicine, School of Medicine, University of Nottingham, Nottingham, UK
[2]Division of Rehabilitation and Ageing, School of Medicine, University of Nottingham, Nottingham, UK
[3]National Institute of Health Research Collaboration for Leadership in Applied Health Research and Care East Midlands, Nottingham, UK
[4]Division of Psychiatry and Applied Psychology, School of Medicine, University of Nottingham, Nottingham, UK
[5]School of Health Sciences, City University of London, London, UK
[6]Centre for Research in Primary and Community Care, University of Hertfordshire, Hatfield, UK

Acknowledgements The PEACH study research team are, in addition to the authors: Mr Zimran Alam, Ms Anita Astle, Professor Tony Avery, Dr Jaydip Banerjee, Professor Clive Bowman, Mr Michael Crossley, Dr Reena Devi, Professor Heather Gage, Dr Kathryn Hinsliff-Smith, Ms Gemma Housely, Dr Jake Jordan, Dr Sarah Lewis, Professor Pip Logan, Ms Annabelle Long, Professor Finbarr Martin, Professor Julienne Meyer, Dr Dominick Shaw, Professor David Stott and Ms Adeela Usman.

Contributors CG and ALG conceived the study, MZ and NHC drafted the protocol, with JRFG, TD, CG and ALG developing and refining methods and objectives. All authors have read and approved the final version.

Funding This work has been undertaken as part of the Proactive Healthcare in Care Homes (PEACH) study, funded by the Dunhill Medical Trust, award number FOP1/0115.

Competing interests None declared.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

1. Buisson L. *Care of older people*. 27th ed, 2015.
2. Iliffe S, Davies SL, Gordon AL, *et al*. Provision of NHS generalist and specialist services to care homes in England: review of surveys. *Prim Health Care Res Dev* 2016;17:122–37.
3. Goodman C, Dening T, Gordon AL, *et al*. Effective health care for older people living and dying in care homes: a realist review. *BMC Health Serv Res* 2016;16:269.
4. Goodman C, Davies SL, Gordon AL, *et al*. Relationships, expertise, incentives, and governance: supporting care home residents' access to health care. An interview study from England. *J Am Med Dir Assoc* 2015;16:427–32.
5. Ellis G, Whitehead MA, O'Neill D, *et al*. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database Syst Rev* 2011;7:CD006211.
6. Ellis G, Whitehead MA, Robinson D, *et al*. Comprehensive geriatric assessment for older adults admitted to hospital: meta-analysis of randomised controlled trials. *BMJ* 2011;343:d6553.
7. Stuck AE, Siu AL, Wieland GD, *et al*. Comprehensive geriatric assessment: a meta-analysis of controlled trials. *Lancet* 1993;342:1032–6.
8. Beswick AD, Rees K, Dieppe P, *et al*. Complex interventions to improve physical function and maintain independent living in elderly people: a systematic review and meta-analysis. *Lancet* 2008;371:725–35.
9. Rubenstein LZ, Siu AL, Wieland D. Comprehensive geriatric assessment: toward understanding its efficacy. *Aging* 1989;1:87–98.
10. Welsh TJ, Gordon AL, Gladman JR. Comprehensive geriatric assessment–a guide for the non-specialist. *Int J Clin Pract* 2014;68:290–3.
11. Marshall EG, Clarke B, Peddle S, *et al*. Care by design: New model of coordinated on-site primary and acute care in long-term care facilities. *Can Fam Physician* 2015;61:e129–34.
12. Iliffe S, Wilcock J, Synek M, *et al*. Case management for people with dementia and its translations: A discussion paper. *Dementia* 2017;115.
13. Marshall EG, Clarke BS, Varatharasan N, *et al*. A Long-Term Care-Comprehensive Geriatric Assessment (LTC-CGA) Tool: Improving Care for Frail Older Adults? *Can Geriatr J* 2015;18:2–10.
14. Conroy SP, Stevens T, Parker SG, *et al*. A systematic review of comprehensive geriatric assessment to improve outcomes for frail older people being rapidly discharged from acute hospital: 'interface geriatrics'. *Age Ageing* 2011;40:436–43.

15. Ellis G, Langhorne P. Comprehensive geriatric assessment for older hospital patients. *Br Med Bull* 2004;71:45–59.
16. Carpenter I, Perry M, Challis D, *et al*. Identification of registered nursing care of residents in English nursing homes using the Minimum Data Set Resident Assessment Instrument (MDS/RAI) and Resource Utilisation Groups version III (RUG-III). *Age Ageing* 2003;32:279–85.
17. Kuo HK, Scandrett KG, Dave J, *et al*. The influence of outpatient comprehensive geriatric assessment on survival: a meta-analysis. *Arch Gerontol Geriatr* 2004;39:245–54.
18. Pawson R, Greenhalgh T. Realist synthesis: an introduction. *ESRC Res Methods* 2004.
19. Craig P, Dieppe P, Macintyre S, *et al*. Developing and evaluating complex interventions: the new Medical Research Council guidance. *BMJ* 2008;337:a1655.
20. Shepperd S, Lewin S, Straus S, *et al*. Can we systematically review studies that evaluate complex interventions? *PLoS Med* 2009;6:e1000086.
21. Wong G, Greenhalgh T, Westhorp G, *et al*. RAMESES publication standards: realist syntheses. *BMC Med* 2013; 11:21.
22. Pawson R, Tilley N. *Realistic evaluation*. London: Sage, 1997.
23. Pawson R, Greenhalgh T, Harvey G, *et al*. Realist review–a new method of systematic review designed for complex policy interventions. *J Health Serv Res Policy* 2005;10(Suppl 1):21–34.
24. Manzano A. The craft of interviewing in realist evaluation. *Evaluation* 2016;22:342–60.
25. Voices N. *Think local act personal. A narrative for coordinated care*. London, England 2013.
26. National Dementia Declaration: Dement Action Alliance, 2013. http://www.dementiaaction.org.uk/nationaldementiadeclaration (accessed 24 Mar 2017).
27. Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. *Health Info Libr J* 2009;26:91–108.
28. Onder G, Penninx BW, Ferrucci L, *et al*. Measures of physical performance and risk for progressive and catastrophic disability: results from the Women's Health and Aging Study. *J Gerontol A Biol Sci Med Sci* 2005;60:74–9.
29. Russell B, Buswell M, Norton C, *et al*. Supporting people living with dementia and faecal incontinence. *Br J Community Nurs* 2017;22:110–4.
30. Rycroft-Malone J, McCormack B, Hutchinson AM, *et al*. Realist synthesis: illustrating the method for implementation research. *Implement Sci* 2012;7:33.