# Protocol for a realist review of General Practitioners' Role in Advancing Practice in Care Homes (GRAPE study)

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## Abstract

Older people who live in care homes (residential and nursing) have a high level of need, often including complex health conditions. Many different professionals attend to these complex needs, including general practitioners (GP). The role of GPs includes providing medical care, acting as the gatekeeper for access to other healthcare services, as well as a leadership role within community healthcare provision. Recent initiatives have attempted to change arrangements of healthcare services for care home residents in order to improve quality and experience of care. This review will describe how GPs were involved in such initiatives across implementation, service development and quality improvement.

Using realist review to analyse published evidence, we will explore the roles that GPs play in improving quality or experience of care for care home residents. We will develop theories to explain how GPs work with care home staff to bring about improvements. We will comment on when change does not bring about improvement and why this may be the case. We will follow the RAMESES standards during the course of the review and in reporting the review. The review will comprise four stages. The first stage will include interviews with senior GPs to ask their views on improving care of care home residents. These interviews will help give us a direction for the initial literature searches and enable us to develop initial theories. In the second stage we will use a literature search to add depth and context to the early theories. We will search five databases; Medline, Embase, CINAHL, AMED and Cochrane. In stage three we will test the theories developed and this may lead to refining the theory statements. In the final stage we will synthesise findings and interpret the relevance to practice and policymaking.

During the review we will invite a Context Expert Group to reflect and comment on our findings. This group will have expertise in current trends in primary care and the care home sector both in UK and internationally. This group will also help to co-design knowledge exchange information.

## Background and Rationale

Around 420,000 people, most of whom are over the age of 85, live in UK care homes. Care homes are primarily a social care setting and yet many residents have chronic health conditions, frailty and dementia [1]. These complex conditions can generate a diversity of care needs, which in turn requires input from number of different professionals and carers [2]. All care homes rely upon General Practitioners (GPs) to co-ordinate and deliver medical care and access to specialty community and hospital services for their residents. How GPs work with care homes is variable and is determined by local custom and practice, as well as the availability of other services to augment, or replace some aspects, of the GP role. Previous research has suggested that the variability in provision can result, at times, in poor care delivery, poor health outcomes for residents and increased unscheduled use of NHS resources [3].

Parts of the British Medical Association have suggested that it is not sustainable for GPs to continue to support the complex needs of care home residents in addition to their other work [4]. Some initiatives have sought to remove part of the responsibility for routine healthcare provision to care homes from GPs, whilst others have sought to encourage GPs to become more engaged with care homes via specific commissioning arrangements and incentive payments [5] [6]. It is not clear how each of these approaches influences the role, and contribution, of GPs to healthcare provision in care homes, and to the organisation, development and improvement of such provision.

The Optimal Study[7] [8] identified that healthcare services for care homes achieved better outcomes when NHS staff were given time and space to develop relationships with care home staff and when their work with care homes was legitimised through role specification and recognised by their commissioning organisation/provider. Specific expertise in care of older people, particularly in the management of dementia, supported these relationships with care home staff. A further enabling feature was where multiple services were commissioned to work together and link with care home staff. This provided "wrap around" support for care homes that was not reliant on single practitioners such as the GP as the main clinician. Interactions with GPs were however, identified as being integral to how residents interpreted the quality of their healthcare, particularly around medication management and the role that the GP played in this. The study reported that the way services were organised around and with GPs could influence the willingness of GPs to engage and be proactive with care homes and their residents.

The Proactive Health Care for Older People living in Care Homes (PEACH) study [9] looked at how Quality Improvement Collaboratives could be used to improve healthcare to older people living in care homes. It found that GPs could play a role in broader improvement initiatives, that extended beyond their specific duty of care as doctors, because they were powerful and well-connected within local health and social care economies. However, when GPs sought to play a central role, their limited capacity due to conflicting commitments could limit progress.

In many countries, developing and improving care in long-term care institutions is not the responsibility of generalist medical practitioners. In the USA, Medical Directors have specific obligations to support the quality of healthcare delivery in Nursing Homes. They undergo specific training in leadership and management competencies to support their role in service development and quality improvement [10] [11]. In the Netherlands, the specialty of Elderly Care Medicine is separate from Geriatric Medicine and is a primary care specialty based in nursing homes. In addition to specialist clinical input, doctors are expected to play an explicit role in institutional leadership with a focus on quality assurance and improvement [12].

The NHS England Framework for Enhanced Healthcare in Care Home (EHCH), published in 2016, was proposed as the basis for a national improvement programme around healthcare in care homes [13]. EHCH laid out an approach to healthcare in care that favoured enhanced primary care support, access to multidisciplinary services, access to rehabilitation, high quality end of life and dementia care, workforce development, collaborative approaches to commissioning health and social care, and effective use of data. NHS England has stated the ambition to have every area in England develop a plan to implement the EHCH model by 2024 [14]. Early evaluation of pilot sites using this approach have demonstrated better resident outcomes when compared to sites without this kind of approach [15 16]. If improvements
of this kind are to be delivered at the envisaged scale and pace, then we need to understand how services can be developed, implemented and improved in care homes with or without GP support.

This study will develop a theory based upon the UK and international literature about the ways in which GPs, or other primary care doctors, have contributed to healthcare development and improvement in the care home sector. It will consider whether, and under what circumstances, GP involvement is necessary for implementation and maintenance of initiatives to improve residents' health care. It will explore the optimal circumstances for GPs to work effectively with other health and social care professionals to develop, implement and improve care.

The review aims to develop a theory-based explanation of how and when GP involvement is pivotal to service development and quality improvement in care homes, and what needs to be in place to facilitate GP involvement in improving quality of care.

## Patient and Public Involvement

To ensure that our research topic and approach is consistent with the experience and practice of care in care homes we have consulted with the Dementia and Frail Older Persons PPI Group, Division of Rehabilitation and Ageing, University of Nottingham. We have involved one member in our project team. They suggested broadening of the research question, which initially focussed specifically around GP engagement with quality improvement, to include how GPs engage with service delivery and how they interact with other healthcare professionals. They also noted that the ability of GPs to interact with other professional groups seemed integral to their general effectiveness in working with care homes and suggested broadening the focus of the review to take account of these issues Additional consultation with resident and family groups will take place through the course of the project.

## Research Question

How, when and under what circumstances does GP involvement in service development, implementation and improvement in care homes result in effective implementation or improved outcomes for residents?

### Aim

To understand the roles which GPs have played in the development, implementation of evidence and improvement of healthcare in care homes.

### Objectives

1. Use realist review to develop a programme theory describing contexts where GPs have been shown to improve care in UK care homes, and international settings similar to UK care homes.

2. Within important contexts, describe the causative mechanisms whereby GP involvement in care homes results in outcomes of service development, implementation of evidence, and improved quality of care.

## Methods

Realist review is an interpretive theory-driven approach to synthesise findings from primary studies, and other sources such as professional opinion, relevant to a single social programme. Here, the social programme that we are describing relates to the role which GPs, or primary care doctors, play in service development, implementation of evidence and improvement in care homes.

This review will conform to the RAMESES quality standards for realist reviews [17] [18] and will follow the outline of necessary processes as set out by Pawson [19]. We will progressively focus our review as our understanding of the topic increases.

The protocol has been registered with the International Prospective Register of Systematic Reviews (PROSPERO) [20]. It will take a four-step approach:

- Step 1: Locate existing theories
- Step 2: Search for evidence
- Step 3: Extracting and organising data
- Step 4: Synthesising the evidence and drawing conclusions

### Step 1: Locate existing theories

This initial step will explore what has worked well when GPs work with care home, how the different elements of GP working are thought to have make this happen and what needed to be in place for it to occur. The scope will include service development, delivery and improvement in care homes. This will include theories developed within Optimal and PEACH studies:  and a wider relevant literature on the gatekeeping role which GPs play for care homes, how care home work competes with other priorities, and the relationships with other professional groups.

#### Interviews with GP leaders and practitioners

To understand a range of approaches to GP working in care homes. We will conduct interviews with GPs who have been involved in healthcare improvement work in care homes, or have senior leadership roles in the profession of general practice. We will recruit GPs from different parts of the UK. Within interviews we will explore starting assumptions and what constituted success for each of these programmes, how success was achieved, and what factors acted as barriers or facilitators to success. We will explore specifically the extent to which the achievement of improvement objectives were influenced by the support and involvement of GPs, and the ways in which this operated through engagement with other professional groups. We will explore how the GP contribution was affected by the presence or absence of other care professionals. From these discussions, we will build an initial programme theory to test in the evidence reviewed.

### Context expert group

We will recruit a Context Expert Group to provide feedback on our developing theories to debate their relevance and if they resonate with current experience and the socio-political and environmental context of care homes. The Context Expert Group will be based in UK, but we anticipate that some of the membership will have collaborations with international colleagues with relevant learning from overseas. The group will comprise 5-8 practitioners with relevant expertise on: how medical care is delivered to care homes; how new healthcare services are developed and implemented in care homes; and how quality improvement around healthcare in the care home sector is undertaken. The group will comprise mainly general practitioners with the additional involvement of: care home staff; other health care professionals; and relatives of people who are or have received care in care homes to provide a counter or complementary narrative to how GPs support quality improvement (or not) in care homes. The group will help to refine further the initial programme theory developed through expert consultation and then at least a further twice over the course of the study.

## Step 2: Searching for evidence

Using our initial programme theory (from the literature and context expert group), we will use this to structure the evidence review.

As realist review is driven by an underlying logic of analysis that is designed to increase understanding and generate explanations about a topic area. Our search strategy will be purposive and iterative with additional searching being guided by the need to find more evidence to enable us to refine our initial rough programme theory. As our programme theory becomes more refined, we may need to augment the literature with further searches to address important contextual, mechanisms or outcomes which have emerged. We will focus our initial search on documents published since 2000, since we know the bulk of published literature on service delivery in care homes has been generated in this time and because changes to service models over time, particularly with regard to GP contractual specification, will limit the usefulness of earlier publications.

Our initial search will use bibliographic databases from Medline, Embase, CINAHL, AMED, Cochrane and the Kings Fund. We will consult the international literature, using terms of equivalency [21 22] to identify care home equivalents in other countries. We will seek papers describing initiatives within or applicable to the care home setting that focus on: (a) designing and implementing healthcare improvements; (b) the role of medical practitioners, either in isolation or as part of a multidisciplinary team; (c) specific quality improvement. As these types of initiatives are frequently discussed outside the academic literature we will identify grey literature through context expert group. These will include published guidelines, policy and service reports, conference proceedings and websites.

Citations from the search will be selected for inclusion based on relevance and rigour [18]. Relevance relates to whether data within a document can contribute to theory building and/or testing; and rigour is whether the methods used to generate the relevant data are credible and trustworthy. A master database of the search results will be created by amalgamation of all the citations from the databases searched.

## Step 3: Extracting and organizing data

The initial programme theory will inform the design of a bespoke data extraction tool. During the review, we will move iteratively between analysis of particular examples of how GPs work in care homes to improve and implement changes to service delivery. At key stages this will be shared and tested with the context expert group.

Our current knowledge of the topic area indicates that we will need to focus on and refine aspects of the review question as we go along. For example, this may include issues such as the extent to which GP involvement is a clinical consideration (medical assessment can only happen with the input of a medical practitioner) and the extent to which it reflects the broader role of the GP as a leader of primary care provision. The extent to which insights can be generalised to the UK from primary care doctors supporting care homes using different service configurations in other countries will only become clear as contextual factors and the mechanisms they trigger are identified.

Evidence reviewed will include a description of the involvement of GPs (or equivalent primary care doctors providing support to care homes in other countries), in the implementation of a new service or service model, or which describe an intervention to improve the quality of existing healthcare provision. Articles will be excluded where they describe routine healthcare provision outside the context of service development, implementation or improvement, where they describe primarily social care, or where the role of GPs is not explicitly considered. Screening at all stages of the inclusion/exclusion steps will be conducted by one reviewer. Relevant data from studies will be extracted onto a bespoke data extraction form. The list of included/excluded articles, the text of included articles and how these have been used to populate the data extraction form, will be reviewed and discussed by all team members at monthly project meetings.

### Step 4: Synthesising the evidence and drawing conclusions

In step 4, analysis will focus on how the evidence builds upon, refutes or provides alternative explanations for how key aspects of GP's work in care homes affects resident and organisational outcomes.

Analysis will be an iterative process of proposing from the evidence different patterns of association (demi-regularities) to develop possible context-mechanism-outcome configurations (CMOCs) that can build a theory of GP working in care homes. An important process the development of CMOCs as the building blocks of a theory of what works will fit with, or challenge, our initial programme theory. This is an iterative process between synthesis and analysis, refinement of the over-arching programme theory, and (if necessary) further iterative searching for data to test particular theories. For example, we anticipate evidence from the US that medical input requires specialist gerontological knowledge to achieve improved resident outcomes. This, though, is in the context of the US long-term care sector where General Practitioners do not routinely support nursing homes. To understand the importance of this context to UK care homes, we would seek evidence from North American, other international, and UK-derived literature, to understand whether, it is (for example) the presence of a medical physician that is important and or other professionals working with the physician, or whether there is specific specialist expertise that makes the difference.

Data will be presented as a narrative using a flow diagram of literature searched, selected and, summary tables and graphics, where appropriate, to summarise how data was extracted and synthesised.

Our context expert group will maintain their involvement through to this part of the study, providing regular feedback on the emerging CMOCs and programme theory and enabling us to test the face validity of emerging hypotheses.

## Outputs and dissemination

At the end of this project we will publish a report based upon our programme theory, giving practical recommendations for teams developing and improving healthcare services in care homes which will include:

1. Advice to general practice giving descriptions of the ways in which doctors can help facilitate or lead improvements in healthcare in care homes, and the ways in which interprofessional relationships contribute to outcomes.
2. Advice to care home sector staff giving practical advice as to how to engage GPs for quality improvement in the sector.

We will circulate these findings through academic publications in peer-reviewed journals, weblogs for stakeholder organisations including the British Geriatrics Society and AgeUK, presentations at both professional (Royal College of General Practitioners, British Geriatrics Society, National Care Forum) and lay conferences (Relatives and Resident Association) in the field. We will present the findings at forums of the Enabling Research in Care Homes (EnRICH) network for Nottingham and Derbyshire which are held twice yearly and attended by members of the public and care home staff. We will use links to the Building Community Resilience and Encouraging Independence theme within the NIHR East Midlands Applied Research Collaboration to link this work to other programmes considering mechanisms of quality improvement and quality assurance in the care home sector. We will share our findings with healthcare practitioners and commissioners through the East Midlands Academic Health Sciences Network.

## Discussion

The proposed realist review has the potential to be the basis for future planning and discussion of how GPs are engaged in improvement initiatives in care homes. By better understanding how this group of healthcare professionals can be used most effectively, there is potential to reduce waste and increase the efficiency of improvement and service development within the sector. These findings could be important at a time when NHS England is embarking upon ambitious care home improvement initiatives in the context of challenging recruitment to General Practice and limited funding.

A strength of the realist approach relates to its ability to identify causal mechanisms within an intervention that are setting and context specific. Thus this work will not only consider whether GPs can make a difference to improvement initiatives in care homes, but how they can make a difference and under what circumstances. The RAMESES recommendations [17 18] provide very clear guidelines to describe how decisions about literature inclusion were made, and how to describe in a transparent way how programme theories developed. We plan to avoid inadvertent biases by adhering to these. Another important limitation for dissemination is that realist review methods are relatively new to many commissioners, policymakers and commissioners and findings need careful explanation if real-world impact is to be realised. We will sense-check our final publications with both our PPI representative and context expert group to ensure we explain them in the most straightforward sense.

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## Conflicts of Interest

The authors have no conflict of interest to declare.

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