PRIORITY BRIEFING
The purpose of this briefing paper is to aid Stakeholders in prioritising topics to be taken further by PenCLAHRC as the basis for a specific evaluation or implementation research project. This paper was compiled in 2-3 days.

Can a regular pro-forma based review of elderly care home residents improve their multidisciplinary care and reduce admission rates to acute hospitals?

Question ID: 10

Question type: Intervention

Question: Can a regular pro-forma based review of elderly care home residents improve their multidisciplinary care and reduce admission rates to acute hospitals?

Population: Care home (nursing, residential) residents in the South West aged over 65, specifically East Devon.

Intervention: Pro-forma based review of all residents within 3 months of admission and thereafter on an annual basis, carried out by community geriatrician, GP (General Practitioner) or potentially another healthcare professional with appropriate key skills/competencies.

Control: Control group would be patients from other care homes. Delayed randomization is proposed where care homes that are randomized to the control group would receive the intervention 6 months later, ultimately providing control and intervention data.

Outcomes: Primary: Admission rates to acute hospital from care homes. Other outcomes of interest: Staff confidence in urgent care decisions (e.g. who/when to call), patients with a completed care plan, prescribing costs, adherence to care home plans (especially with respect to escalation)

*Please note that the details included in the box are from the original submission and have been edited where necessary for clarity and precision

Care Homes and medical review

Care homes for older people may provide personal care or nursing care. A care home which is registered to provide personal care will offer support, ensuring that basic personal needs such as meals and bathing are taken care of; these may be referred to as residential homes. Some residents may need medical care and certain care homes are registered to provide this. These are often referred to as nursing homes. Care homes may also specialise in certain types of disability, for example, dementia.

There are a number of in-depth models of review for older people, such as Comprehensive Geriatric Assessment (or CGA). This is defined as ‘a multidimensional and usually interdisciplinary diagnostic process designed to

determine a frail older person's medical conditions, mental health, functional capacity and social circumstances' (British Geriatric Society 2010 www.bga.org.uk). The aim of this is to produce an integrated plan for treatment, rehabilitation, support and long term follow up. In the literature this model appears to be used most frequently in older people admitted to the hospital setting, or in attempting to prevent admissions to nursing homes.

Reviews may take place using pro-formas. These are structured documents which can allow an assessment to be carried out and recorded in a set fashion, providing consistency and prompts. Pro-formas are widely used across healthcare and other settings. No specific pro-forma for medical review in the care home setting was identified in the preparation of this briefing.

The Health Problem:

The South West Peninsula has an older population than the England average. Devon in particular has a large elderly population. According to the Projecting Older People Population Information System (POPPI), by the Institute for Public Care and Oxford Brooks University (www.poppi.org.uk), in Devon in 2011 there were over 172,000 people aged over 65, of which 26, 400 were aged over 85. By 2020 there is forecast to be a 25% rise in people aged over 65, and a 50% rise in those aged over 90. Certain areas such as Budleigh Salterton have been estimated to be 20 years ahead of the demographic 'time bomb' that will affect the whole of the UK, with the highest percentage of people over the age of 85 years. A consequence of this is a large local population who live in residential and nursing homes.

POPPI estimates that almost 8000 people aged over 65 in Devon (including 1871 in East Devon) live in a care home, with or without nursing care; and that over 1000 people over 65 each year are admitted to supported permanent residential or nursing care. Cornwall's population includes 119,700 people over 65; of whom almost 5000 are resident in care homes, whereas the population of older people in Plymouth is smaller at 42,000, with over 2000 care home residents.

Care home residents are more likely than the general population to have additional health care needs. According to the British Geriatric Society's report *Failing the Frail: A Chaotic Approach to Commissioning Healthcare Services for Care Homes* (2012), there is a rising number of these older people who have complex needs, limited life expectancy, comorbidities and, often, cognitive impairment. The Care Quality Commission report *Meeting the Health Care Needs of People in Care Homes* (2012) highlighted the variable provision of NHS services such as post-admission assessments and access to a geriatrician for this population. Residents in care homes typically do not undergo a formal review by their GP and as these people are seen to be in a safe environment, they are often a neglected group until a crisis emerges.

People in nursing or residential care homes can frequently be admitted to hospital for various reasons; for example:

- End-of-life care, although with advanced care planning and support many older people could receive dignified end-of-life care in the long-term care setting;
- Acute medical illness, particularly out of hours when the person's usual medical practitioner is not on call;
- Complications of medication use;
- Accidental falls – 1 in 5 hip fracture admissions are from the nursing or residential care home sector

It is important to prevent admission to acute hospitals where possible, not just for economic reasons, but also in the interests of patients. Hospital admission carries risks to the health and independence of older people – such as healthcare associated infections, and disorientation in those with cognitive impairment.

The NHS Right Care Atlas (2011 http://www.rightcare.nhs.uk/index.php/nhs-atlas/) gives the hospital admission rate for people aged over 74 years from nursing home or residential care home settings in Primary Care Trusts in England in 2009/10. These ranged from 0.7 to 535.4 per 10,000 population (767-fold variation). Rates in Devon and Cornwall (except Plymouth) were lower than the national average, but concern remains at a local and national level about rising acute medical admissions and the need to provide care closer to home.

The Royal Devon and Exeter Foundation Trust has seen a 4-5% rise in acute medical admissions over the past year but a 7% rise in the over 80s, 13.9% for November alone in this age group. Many of these are care home residents and anecdotal evidence suggests that some of these are avoidable – e.g. for end of life care not requiring symptom relief or for escalation that is inappropriate (not requiring treatment or treatment could have been provided in the community).

Guidelines:

There is no specific guidance regarding the use of proforma-based review by GPs or geriatricians in care homes; although there is guidance available on care planning, medication review, and care plan reviews in various long term conditions and end of life care which is relevant to this population.

The British Geriatric Society provide guidance on the Management of Long Term Conditions (2010); which states that the role of the geriatrician (Consultant in Medicine for the Elderly) should include participation in the management of long term conditions, providing advice at times of transition (e.g. moving to a care home) and providing professional support for assessment processes.

NHS Priority

This question encompasses a number of priority areas including Acute Care, End of Life Care, Planned Care, Mental Health and Wellbeing and Long-Term Conditions.

Local Priority

Relevant local specific priorities include:

- **NHS Devon:** Managing urgent needs through preventive planning: the initiative Optimising Urgent Care Pathways includes the pro-active case finding and management of people who are at risk of admission and the prioritisation of preventative services and case management systems and resources that help people remain in the community

- **Torbay and Southern Devon Health and Care Trust:** A reduction in unplanned admissions to hospital from nursing homes in the last 12 months of life by 10% per annum is one of the promises in the Strategic Plan (2010), along with improving care and services for older people.
- **NHS Plymouth:** The Strategic Framework (2011/2012-2015/16) includes two relevant priorities:
    - Reduce the use of emergency department and unscheduled hospital based care and convert unplanned care into planned interventions.
    - Improve satisfaction with and cost effectiveness of out of hospital services for adults and in particular older people
- **Cornwall and Isles of Scilly:** Long term conditions, in particular reduced crises and admissions to hospital in dementia

Existing research:

Published research:

The use of pro-formas for reviews in care homes: A search of the published literature did not yield any reviews or other studies directly addressing this question for this population.

Use of assessments in the care home setting: Research identified on Comprehensive Geriatric Assessment appeared to centre around older adults admitted to hospital, or on preventing hospital or nursing home admission amongst older people in the community. No systematic reviews were identified which examined the use of CGA in a care home population.

Improving medical input into care homes: The Joseph Rowntree Foundation[1] published a thematic review in 2008 on improving care in residential homes. The section on medical input into care homes found that there was little published about residential homes as compared to nursing homes, and stated 'there is evidence that medical cover for nursing home residents is sub-optimal and that it could be restructured to give greater scope for proactive and preventive interventions'.

Medication review in care homes: Searching around the subject area found a number of systematic reviews examining interventions to improve prescribing in care homes, including medication review – although the medication reviews did not necessarily involve the use of pro-formas. A 2011 systematic review[2]looked at the effect of interventions aimed at reducing potentially inappropriate use or prescribing of drugs in nursing homes, and included 7 studies of medication review with a pharmacist. It was concluded that under certain circumstances these 'may reduce inappropriate drug use', although the quality of evidence was low. A 2010 review[3] of interventions to improve prescribing quality in care homes also included studies of medication review but found results to be 'mixed'.

Ongoing research:

No ongoing research was identified.

Feasibility

Devon commissioners (the PCT and the shadowing GP consortia) have set up an elderly care clinician-to-clinician group. A combined appraisal by a consultant geriatrician and senior commissioning GP has identified that review of care home residents is a key area to improve the quality and appropriateness of patient care.

References

1.Joseph Rowntree, F. (2008). Improving care in residential care homes: a literature review, Joseph Rowntree Foundation.

Although there is currently less ethnic diversity in the older population than in younger age groups, this is predicted to change. Policy-makers, clinicians and care home staff are increasingly aware of the future challenge of providing quality, long-term care in care homes for older people. Residential home care, provided by social as opposed to health care staff, will be a major part of this long-term care. Historically, residential homes have catered for less dependent older people than nursing homes. However, a recent census has identified a 'considerable overlap' in dependency and nursing care needs (due to increased illness/disability with age) between both types of home. With longer survival predicted, and the number of residential care places set to increase, it is important to consider the available research evidence relevant to this setting. This review brings together research on improving care in care homes as the needs of older people intensify. It aims to clarify the agenda for policy-makers and practitioners, highlight areas for future research and promote further discussion of this important topic. Most of the research was carried out in nursing homes; there is very little published evidence on residential care homes, although many studies make no distinction between the two. Seven themes were identified relating to provision of care.

2. Forsetlund L, Eike MC, Gierberg E, Vist GE. Effect of interventions to potentially inappropriate use of drugs in nursing homes: a systematic review of randomised controlled trials. *BMC Geriatrics* 2011: 11:16

BACKGROUND: Studies have shown that residents in nursing homes often are exposed to inappropriate medication. Particular concern has been raised about the consumption of psychoactive drugs, which are commonly prescribed for nursing home residents suffering from dementia. This review is an update of a Norwegian systematic review commissioned by the Norwegian Directorate of Health. The purpose of the review was to identify and summarise the effect of interventions aimed at reducing potentially inappropriate use or prescribing of drugs in nursing homes. METHODS: We searched for systematic reviews and randomised controlled trials in the Cochrane Library, MEDLINE, EMBASE, ISI Web of Knowledge, DARE and HTA, with the last update in April 2010. Two of the authors independently screened titles and abstracts for inclusion or exclusion. Data on interventions, participants, comparison intervention, and outcomes were extracted from the included studies. Risk of bias and quality of evidence were assessed using the Cochrane Risk of Bias Table and GRADE, respectively. Outcomes

assessed were use of or prescribing of drugs (primary) and the health-related outcomes falls, physical limitation, hospitalisation and mortality (secondary). RESULTS Due to heterogeneity in interventions and outcomes, we employed a narrative approach. Twenty randomised controlled trials were included from 1631 evaluated references. Ten studies tested different kinds of educational interventions while seven studies tested medication reviews by pharmacists. Only one study was found for each of the interventions geriatric care teams, early psychiatric intervening or activities for the residents combined with education of health care personnel. Several reviews were identified, but these either concerned elderly in general or did not satisfy all the requirements for systematic reviews. CONCLUSIONS Interventions using educational outreach, on-site education given alone or as part of an intervention package and pharmacist medication review may under certain circumstances reduce inappropriate drug use, but the evidence is of low quality. Due to poor quality of the evidence, no conclusions may be drawn about the effect of the other three interventions on drug use, or of either intervention on health-related outcomes.

3. Loganathan, M., S. Singh, et al. (2010). "P26 Interventions to improve prescribing quality in care homes: a systematic review." Journal of Epidemiology and Community Health **64**(Suppl 1): A43-A44.

Introduction Prescribing in the elderly population is a complex process and the prevalence of inappropriate prescribing is high, with potentially severe consequences. Care home residents are particularly vulnerable to inappropriate prescribing. With a growing ageing population, strategies to improve prescribing are essential. The aim of this systematic review was to collect and interpret the results of controlled trials of interventions to reduce inappropriate prescribing in care homes, to determine the most effective strategies.Method Databases searched were MEDLINE, EMBASE, international pharmaceutical abstracts and the Cochrane library. Search items included “nursing home”, “residential home”, “inappropriate prescribing”, “education”, “staff education”, “MDT”, “pharmacist”, “computer”. The search strategy retrieved 16 articles that met the inclusion criteria. Two independent reviewers undertook screening and methodological quality assessment, using the Downs and Black rating scale. A meta-analysis could not be done due to heterogeneity of the outcome measures used in the different studies.Results Four intervention strategies were indentified: education, multidisciplinary team (MDT) meetings, clinical pharmacist reviews and computerised clinical support systems. Educations interventions was the most studied area, with six studies showing an improvement in inappropriate prescribing. Mixed results were found for the pharmacist interventions, possibly due to the inappropriate choice of outcome measures used for assessing prescribing quality. Computerised decision support systems were evaluated in two studies, with one showing a significant increase in the final appropriate drug orders. Two of the three studies examining MDT meetings found an overall improvement in quality of prescribing.Conclusion Results from various interventional strategies are mixed; a multi-faceted approach, clearer policy guidelines and

standardised measurements for measuring inappropriate prescribing are required to improve prescribing practices for these vulnerable patients.