Medicine Review of Care Home residents

Guidelines and resource pack

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Prescribing for the frail people who live in care homes can often be challenging due to the many variables that need to be considered. These guidelines are designed to provide the prescriber with a succinct overview of the key elements of medicine review. Should the reader require more detail they are guided to the resources contained within the zip file which accompanies this document.

Context and background

The number of medicines that people take rises with age and this can increase significantly for those living in care homes as they tend to be frailer with several co-morbidities[1]. These people are particularly vulnerable to the effects of increasing amounts of medicines, namely;

- Polypharmacy increases the possibility of an adverse drug event being misinterpreted as a new medical condition and additional treatment initiated.
- Use of multiple medications increases the potential for drug to drug interactions.
- The risk of adverse effects of polypharmacy rises with severity of frailty regardless of age.
- Polypharmacy is one of 5 frailty syndromes and is often an underlying cause for any of the other 4 (falls, immobility, delirium & incontinence).
- Age-related changes such as low body mass, impaired renal and hepatic function have a direct effect on how the body handles medicines therefore older people are at greater risk for adverse drug events. This risk is compounded by the increasing numbers of drugs used.
- Frailty is now recognised as a long term condition complex and practices are required to identify patients with frailty as a core GMS contract requirement[2]. Initially patients with an eFI (electronic frailty index) grade of moderate or severe frailty need to be identified. These patients are at particular risk from the adverse effects of polypharmacy and have therefore been prioritised for the purposes of implementing this policy.

Polypharmacy is usually defined, in simple terms, as the prescribing of multiple items to one individual[3]. Problematic polypharmacy is defined as the prescribing of multiple medications inappropriately, or where the intended benefit of the medication is not realised. There is also a clear link between polypharmacy and drug-related hospital admissions with 6.5% of all acute admissions in the UK being reported as drug related[4].

National Policy

There are a number of national documents[5,6,7,8] which highlight the importance of medicine review in improving care;

- NICE NG 56 *Multimorbidity: clinical assessment and management*
- NICE NG5 *Medicines optimisation: the safe and effective use of medicines to enable the best possible outcomes*
- NICE SC1 *Managing medicines in care homes*
- British Geriatric Society *Fit for Frailty*

NICE SC1 *Managing medicines in care homes* made recommendations of key points that should be discussed and considered during a medicine review of care home residents, these are summarised in appendix 1.

There are quality standards[9,10,11] that are linked to the NICE guidelines and these are summarised in the table 1.

Table 1: Quality standards

Multimorbidity QS153	Quality statement 4: Adults having a review of their medicines and other treatments for multimorbidity discuss whether any can be stopped or changed
Medicines management in care homes QS85	Quality statement 5: People who live in care homes have medication reviews undertaken by a multidisciplinary team.
Medicines Optimisation QS120	Quality statement 6: Local healthcare providers identify people taking medicines who would benefit from a structured medication review.

Medicines Optimisation in care homes (MOCH)

In September 2016 NHS England published *The framework for enhanced health in care homes* which reported on the work of six vanguards who worked to improve the quality of life for people living in care homes[12]. The report highlighted the value of medicine reviews as part of the comprehensive geriatric assessment. It was estimated that £233 per resident per year is released through medicines optimisation and waste reduction. There was also a reduction in hospital admissions and release of care home nurse time.

In March 2018 NHS England published details of the Medicines Optimisation in Care Homes Programme[13]. This forms part of a programme that will fund 240 WTE (whole time equivalent) pharmacy professionals (180 clinical pharmacists and 60 pharmacy technicians) over two years to deliver a pharmacy service to care homes. A phased approach will be used with future scaling being dependent on national need and available funding.

All pharmacy professionals recruited to the programme will be required to complete a training pathway provided by The Centre for Pharmacy Postgraduate Education (CPPE)[14].

Shropshire CCG has collaborated with Shrewsbury and Telford Hospital NHS Trust for the project.

Principles for medicine review

NICE NG56[5] define a medicine review as;

'a structured, critical examination of a person's medicines with the objective of reaching an agreement with the person about treatment, optimising the impact of medicines, minimising the number of medication-related problems and reducing waste'

Care home residents are more likely to have their medicines stopped, or deprescribed, rather than started. The concept of deprescribing has come into common usage and can be defined as the systematic process of identifying and discontinuing drugs in which existing or potential harms outweigh benefits[15]. The process would take place in the context of an individual's care goals, current level of functioning, life expectancy, values and preferences.
Table 2 (overleaf) summarises the key principles of deprescribing.

Considering residents and/or family wishes about medicines

Involving patients and/or their family in shared decision making about medicines is not routine practice. The willingness of older adults and carers to have one or more medicines deprescribed is influenced by a number of factors[16]. These include perception of medication appropriateness, fear of outcomes of withdrawal, dislike of taking medicines and availability of process for withdrawal.
A clinico-ethical framework for multidisciplinary review of medication in nursing homes has been developed by Baqir et al[17]. This involved a 4 level resident involvement framework;

1. Assume capacity and involve resident
2. Where resident lacks such capacity, ask family members to be involved
3. Where family member is unable to attend contact them via telephone or write a letter to them
4. Where the resident has no family or significant friends, seek independent advocates

Pharmacists in Shropshire CCG will need to consider how they will involve patients and/or their relatives in decision making around medication.

Deprescribing and the law

Some prescribers can be reluctant to deprescribe medication as they are wary of the potential legal implications if the decision to stop a medicine causes or contributes to an adverse event. Professor Nina Barnett argues that both prescribing and deprescribing would lead to similar claims of litigation and the same legal tests will apply[18,19]. In 2015 a landmark decision was given by the Supreme Court in relation to consent[20,21]. After the Montgomery case a doctor is now required to take "*reasonable care to ensure that the patient is aware of any material risks involved in any recommended treatment*". This includes the decision to prescribe or not prescribe medication.

Table 2: Deprescribing Protocol

Adapted from: Scott et al JAMA Intern Med. 2015;175(5):827-834

	Key step	Detailed processes
1	Ascertain all drugs the patient is currently taking and reasons for each one	Medicines reconciliation between medical records in practice, MAR sheet and what the patient actually takes.
2	Consider overall risk of drug-induced harm in individual patients in determining intensity of deprescribing intervention	Assess risk based on • Drug factors: no. of drugs, use of "high risk" drugs, past or current toxicity • Age>80y, cognitive impairment, multiple comorbidities
3	Assess each drug for its eligibility to be discontinued	Identify drugs being prescribed • For a diagnosis in doubt/not confirmed/highly atypical presentation • Where evidence of efficacy non-existent • Confer no additional benefit after a certain period of continuous use • Countering the adverse effects of other drugs • On "drugs to avoid" in older patients • Contraindicated in particular patients • Causing well known side effects • Unlikely to confer benefit In addition • Involve patients in discussion about medicines where this is possible. Ask them if they feel that the medicine has made a difference and whether they would consider stopping if not.
4	Discussion of proposed change with GP	Gain full agreement of the process for discussing any changes to medicines at the outset.
5	Prioritise drugs for discontinuation	Deciding the order of discontinuation of drugs may depend on integrating 3 pragmatic criteria: • Those with greatest harm and least benefit • Those easiest to discontinue • Those that the patient is most willing to discontinue first
6	Implement and monitor drug discontinuation regimen	Explain and agree with patient and carers management plan Cease 1 drug at a time so that harms can be attributed to specific drugs and rectified if necessary. Wean patients off drugs more likely to cause adverse withdrawal effects, instruct carer on what to look for and report in the event of such effects occurring. Give guidance on what actions they can self-initiate if these were to occur. Communicate and plan contingencies to all health professionals and other relevant parties involved in patient's care. Fully document the reasons for, and outcomes of, deprescribing. Inform community pharmacy or dispensary at surgery of proposed changes and the timescale
7	Follow-up	After the changes have been implemented ensure that the patient is appropriately monitored for any untoward effects. This may be a phone call to the care home rather than a visit.

Tools to guide decision making in deprescribing

The decision to prescribe or deprescribe for a care home resident will always be individual to that person and based on the clinical judgment of the prescriber. There are many resources available to guide the clinician in medicine review and one of the best ones is the Scottish Polypharmacy guidelines which are available as a pdf document or an App[22]. Details of these and other useful guidelines are summarised in appendix 2.

There are two evidence based tools which can be helpful when considering prescribing decisions;

- STOPP/START[23] validated in people over 65 years
- STOPPFrail[24] developed for people with a poor one year survival prognosis,

Easy to use summaries of both the STOPP/START and STOPPFrail guidelines are in the zip file for reference.
When reviewing the medication of people with learning difficulties prescribers will need to be mindful of their psychotropic medication. STOMP stands for stopping over medication of people with a learning disability, autism or both with psychotropic medicines. It is a national project involving many different organisations which are helping to stop the over use of these medicines[25].

Prescribing and renal function

Kidney function tends to reduce with increasing age and is a factor in frailty. Many medications are excreted via the kidney and removal from the body can be slower causing blood levels to increase. The level of kidney function needs to be considered when reviewing the medicines of people with frailty. The recommendations for dosing and choice of drug outlined in the BNF and drug license SPC[26] need to be considered to reduce the risk of harm from higher blood levels causing adverse effects.

Creatinine clearance (CrCl) is used in drug license dosing recommendations (SPC) and there is likely to be a significant difference between eGFR and creatinine clearance in certain situations. The BNF states that: creatinine clearance (CrCl) should be used to estimate kidney function for prescribing decisions for older people (particularly those 75 years and older), in extremes of muscle mass, and for narrow therapeutic index and high risk drugs[27].. Creatinine clearance can be calculated on EMIS using the template function.

There is a list of common medications that need changes in prescribing based on level of kidney function in the zip file. This is NOT an exhaustive list and any drug not listed should be checked for recommendations in the BNF.

Implementing changes to medication

When a change to medication is made it is important that this is communicated clearly to the care home. Ideally this should be discussed with the home and the change put in writing. This will help to minimise the medicines errors that can often arise with a change. There is a CHAS medicine review document which can be used to communicate with the home. It loads onto the medical record as a letter and a copy can be printed off to give to the home.

Reviewing medication for people with dementia

Management of patients with dementia includes both prescribing medication which are beneficial and at the same time deprescribing other medication which could increase the cognitive burden and worsen the presentation. Unfortunately, there are numerous evidence-based guidelines for the initiation of drug therapy, however only few exist to guide discontinuation. As there is no specific scientific guidance available to detail the process of deprescribing in dementia patients, general pragmatic rules which are clinically tested in practice have been utilised for that purpose.

The challenge in this group of patients is the need to rely on collateral accounts of the caregivers, relatives and professionals to monitor the success of deprescribing rather than asking the patients who are usually forgetful, confused and lacking capacity to make informed decisions about their care. Patients with dementia struggle to communicate their needs verbally therefore will present with challenging behavioural and psychological symptoms if they are experiencing medication side effects or withdrawal effects. It is very useful to have consistency in the team involved in the medication review process to enable them to make direct comparisons and decisions.

Polypharmacy is commonly seen in dementia patients who are residing in nursing homes. This has been associated with an increased risk of delirium, falls, hospitalizations, and other adverse events. Therefore, the process of deprescribing in dementia patients is essential to identify and discontinue potentially harmful medications which are no longer indicated or where the risks now outweigh the benefits.

The rule of thumb in optimising deprescribing for older people with dementia is to **START LOW AND GO SLOW.** This can be achieved by lowering the dose of the medication over time, monitor for positive outcome as well as for withdrawal symptoms or relapse indicators and provide educational interventions and psychological support to all parties involved. In doing so, we minimise the harm to the person with dementia and maximise the benefits. It seems reasonable to apply an individualized approach to discontinuation while engaging patients and families in treatment decisions.

Anti-dementia medications carry their own risks during long term use and do not guarantee clinical effects over time. They are eligible for deprescribing when the risks/benefits ratio warrants discontinuation at different points during the disease course. Clinicians routinely face challenging practical decisions about whether to continue or discontinue medications for dementia patients. There is no consensus in guidelines and textbooks about discontinuation and decisions need to be taken individually with each patient as a unique case.

The existing evidence recommends identifying dementia patients who may be suitable for a trial of deprescribing anti-dementia medication (Acetylcholinesterase inhibitors and/or Memantine) such as those who have never experienced a positive effect or those who appear to be no longer benefitting and those who have severe advanced dementia. Taper treatment down gradually and monitor them closely throughout the deprescribing process. All decisions should be shared with the individuals (if possible) and their caregivers. Discussions should be person-centred and highlight the benefits and harms of continuing and discontinuing medication.

Reviewing medication for people at the end of life

Whilst there is a wealth of information on polypharmacy and deprescribing in frail & complex (F&C) patients, there is small but but growing evidence base to support clinicians in deprescribing in palliative care patients. Palliative care patients are similar to frail & complex patients in that both groups are likely to benefit from reducing the tablet burden in order to improve their quality of life. However, a key difference between the two can be the type of medicines stopped due to the nature of the disease.

In palliative care patients symptom control medicines become increasingly important e.g metoclopramide, lorazepam, sedating antidepressants and those used for pain control. However, preventative medicines become less important eg statins, bisphosphonates, oral diabetic medicines, low dose aspirin.

Decisions to stop medicines which are not part of palliative care treatment should be made with the patient/family/carer. The process of de-prescribing should be considered a trial and medicines can be started again if necessary. Prescribers should consider stopping medicines that are no longer of real benefit to the patient. Examples of this might include:

- Medicines for primary prevention conditions eg statins, bisphosphonates, vitamins
- Medicines with important side effects eg NSAIDs causing GI effects, fluid retention
- Medicines for secondary prevention conditions where the NNT are high (appendix 2), or NNH are low, which reduces the patients' ability to benefit and increases the side effects profile eg statins, bisphosphonates, P450 inhibitors[4], drugs affecting QT interval[5]
- Oral medicines for patients with swallowing difficulties
- Medicines where side effect/ adverse drug reactions are resulting in vortex prescribing (prescribing to treat the side effect of the first drug)
- Medicines affected by renal impairment or liver impairment. Use the charts on the Severn Hospice website to help rationalise all medicines Eg choice of NSAIDs, choice of opioids
- Reducing the tablet burden from weak opioids by using the opioid conversion chart on Severn Hospice website to rationalise all pain relief medicines.
- Assess individual need for continuation of hypoglycaemics & antihypertensives
- Review the need for prophylactic prescribing for DVT

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Appendix 1- Managing medicines in care homes: Social Care Guideline SC1

Recommendations for medicine review

- What the resident (and/or their family members or carers, as appropriate and in line with the resident's wishes) thinks about the medicines and how much they understand.
- The resident's (and/or their family members' or carers', as appropriate and in line with the resident's wishes) concerns, questions or problems with the medicines.
- All prescribed, over-the-counter and complementary medicines that the resident is taking or using, and what these are for.
- How safe the medicines are, how well they work, how appropriate they are, and whether their use is in line with national guidance.
- Any monitoring tests that are needed
- Any problems the resident has with the medicines, such as side effects or reactions,
- Taking the medicines themselves (for example, using an inhaler) and difficulty swallowing.
- Helping the resident to take or use their medicines as prescribed (medicines adherence).
- Any more information or support that the resident (and/or their family members or carers) may need.

Appendix 2 - De-prescribing resources

Polypharmacy Guidance (NHS Scotland)	*This is one of the best resources for polypharmacy and contains a huge range of useful tools*	https://www.therapeutics.scot.nhs.uk/wp-content/uploads/2018/04/Polypharmacy-Guidance-2018.pdf
All Wales Polypharmacy guidance for prescribing	*This is another excellent resource in polypharmacy and is worth reading in conjunction with the Scottish guidance. It was published in 2014 and is due to be updated soon*	http://awmsg.org/docs/awmsg/medman/Polypharmacy%20-%20Guidance%20for%20Prescribing.pdf
NICE guidance NG56: Multimorbidity and management - resources	*This contains an excellent database which summarises the key studies – NNTs, absolute/relative risks, populations studied, links to current guidance etc.*	https://www.nice.org.uk/guidance/ng56/resources
Best practice Advocacy Centre New Zealand. A practical guide to stopping medicines in older people.	*Practical guide to how to stop drugs, a useful resource*	http://www.bpac.org.nz/BPJ/2010/April/stopguide.aspx