

Prescribing dilemmas & over-prescribing: Medication reviews in care homes

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Q1: What can a care home medication review achieve?

(and who should do it?)

What can medication reviews achieve? (and who should do it?)

Medication rationalisation

- Reduced treatment burden
- Minimising adverse effects
- Avoiding admissions?
- Reducing cost

Identifying residents for further review

- Falls
- Weight loss
- Prognostication
 - Advance care planning
 - Resuscitation

Relationships / education

- Care home staff
- Community pharmacist
- Mental health team
- Community matron?

Pharmacists

- CHUMS study
 - High medication error rates in care homes
 - Pharmacist involvement reduced this by 91%
 - Average prescriptions 7.2/resident
- Pharmacist-only medication review (Northumbria)
 - 1.7 drugs stopped / resident
 - £184 saving / resident
 - £1 spent = £2.80 saved

Admission avoidance

- Leicester
 - Geriatrician / GP collaboration - 60% reduction in admission costs
- North Staffs
 - GP / pharm / psych collaboration - 20% reduction in admissions
- Islington
 - MDT with monthly meetings, telephone advice, weekly teleconference - 26% reduction in admissions
- Manchester
 - Geriatrician / GP collaboration - 26% reduction in admissions, 68% reduction in bed days

**Q2: How best to organise
medication reviews?**

Q3: What is the life expectancy for someone entering a care home?

(and what does this mean for medication reviews?)

BUPA data 2008-2010

- 45% mortality in first year entering a care home
 - Median time before death
 - 418 days for nursing home
 - 665 days for residential home
 - Shorter for SW funded and non-ambulant
- Other studies show life expectancy on entering care is:
 - Shorter with dementia
 - Shorter if low / falling weight
 - Shorter with pressure sores
 - Shorter if spending most of day in bed / eating poorly

Implications for medication reviews

- Many care home residents are in their last 1-2 years
 - Frailty, falls, delirium, low BP
 - Move from prevention towards symptom control
- Some new residents are in their last months and may have rapidly changing medical needs during their (brief) stay
- Frequency of routine medication review needs to reflect these
- Also needed: ability to review new residents

Medication Appropriateness

- Life expectancy
 - Age, trajectory
- Patient priorities
- What you hope the medication will achieve
 - Symptom control?
 - Longevity?
- Total treatment burden and interactions

Q4: What are the 3 biggest dilemmas you face doing medication reviews in care homes?

My top 3 medication dilemmas

- Anti-platelets - to continue indefinitely?
- ACEIs for heart failure in those with low BP
- Vitamin D for everyone?

Q5: Case discussions

Prognosis / aims of treatment / patient preferences

Medication review

Tests / referrals?

Advance care planning?

Case 1

- 88 year old woman with mixed dementia in RH
- PMH: Hypertension, dementia, recurrent falls. Several admissions this year with falls
- Low weight but stable. Severe small vessel disease on CT. Mobile no aids; unsteady. BP 115/55. Pulse irregular
- Medications:
- Aspirin 75mg, memantine 10mg, simvastatin 40mg, ramipril 2.5mg, amlodipine 10mg, zopiclone 7.5mg, mirtazepine 30mg, cetirizine 10mg

Case 2

- 92 year old woman in RH
- PMH: AF, stroke, CKD 3
- New problem: recurrent symptomatic anaemia, with 1 admission and now Hb 78 again
- Medications: warfarin, simvastatin 40mg, ramipril 5mg, citalopram 20mg, omeprazole 20mg

Case 3

- 94 year old man in a NH, transferred there from hospital
- Steady decline over the last few months with weight loss, cognitive impairment, deteriorating mobility
- BP 100/60, pulse 60
- PMH: CCF, CKD 4, undiagnosed cognitive impairment, severe small vessel disease on CT
- Medications: Furosemide 80mg, spironolactone 25mg, bisoprolol 1.25mg, ramipril 2.5mg, simvastatin 40mg, mirabegron 25mg, aspirin 75mg, omeprazole 20mg, movicol od, mirtazepine 15mg, fortisips tds

PEACE advance care plan

Possible Developments specific to the resident	Action Category	Comments Please also see supplementary notes for care home staff (attached)
Lower respiratory tract infection/UTI		
Fall and limb pain		
Poor oral intake		
Signs of possible stroke or coma		
Person has no signs of life		
Unexpected acute medical problem/deterioration		

Central Nervous System BNF Chapter 4

STOPP

Tricyclic antidepressants (TCAs)

- with dementia (*risk of worsening cognitive impairment*).
- with glaucoma (*likely to exacerbate glaucoma*).
- with cardiac conductive abnormalities (*pro-arrhythmic effects*).
- with constipation (*likely to worsen constipation*).
- with an opiate or calcium channel blocker (*risk of severe constipation*).
- with prostatism or prior history of urinary retention (*risk of urinary retention*).

Benzodiazepines

- if long-term (i.e. > 1 month) and long-acting e.g. chlordiazepoxide, flurazepam, nitrazepam and benzodiazepines with long-acting metabolites e.g. diazepam (*risk of prolonged sedation, confusion, impaired balance, falls*).
- if fallen in past 3 months

Antipsychotics*

- long-term (i.e. > 1 month) as hypnotics (*risk of confusion, hypotension, extra-pyramidal side effects, falls*).
- long-term (> 1 month) in those with parkinsonism (*likely to worsen extra-pyramidal symptoms*).
- if fallen in past 3 months (may cause gait dyspraxia, Parkinsonism).
- **Phenothiazines** in patients with epilepsy (*may lower seizure threshold*).
- **Anticholinergics** to treat extra-pyramidal side-effects of antipsychotic medications (*risk of anticholinergic toxicity*).

Cardiovascular System BNF Chapter 2

START

- **Warfarin** in the presence of chronic atrial fibrillation (see NICE guidance on page 12).
- **Aspirin** in the presence of chronic atrial fibrillation, where warfarin is contraindicated, but not aspirin.
- **Aspirin** with a documented history of atherosclerotic coronary disease in patients with sinus rhythm.
- **Clopidogrel** with a documented history of ischaemic stroke or peripheral vascular disease
- **Antihypertensive** therapy where systolic blood pressure consistently >160 mmHg.
- **Statin** therapy with a documented history of coronary, cerebral or peripheral vascular disease, where the patient's functional status remains independent for activities of daily living and life expectancy is > 5 years.*
- **Angiotensin Converting Enzyme (ACE) inhibitor** with chronic heart failure.
- **ACE inhibitor** following acute myocardial infarction.
- **Beta-blocker** with chronic stable angina.

***NICE CG 67** Lipid Modification Prescribing Guidelines do not specify a degree of independence or life expectancy for secondary prevention (offer to all adults with clinical evidence of CVD); in primary prevention they suggest systematic strategies are used to identify people aged 40-74 likely to be at high risk— statins *can* be started in older people but risk calculators are inaccurate, they may be at greater risk from the treatment and benefit is unlikely to be gained until after five years of therapy.

Highly anticholinergic	Moderately anticholinergic
Procyclidine	Nortriptyline
Amitriptyline	Cetirizine
Imipramine	Olanzapine
Chlorpheniramine	Baclofen
Hydroxyzine Oxybutynin	Tolterodine Stemetil