



Greater Manchester Shared Services

Polypharmacy

A deprescribing Toolkit

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Approvals

This document must be approved by the following before distribution:

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CCG Leads	Polypharmacy		0.2
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CCG Leads		03/03/16	0.4	
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* - may be updated in the interim if significant new information arises

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1 Background

- 1.1 The Greater Manchester Medicines Management Group (GMMMGM) aims to identify and champion the appropriate use of medicines across Greater Manchester taking into account cost effectiveness, quality, equity and patient safety. The group consists of General Practitioners (GP), pharmacists and other key healthcare professionals and is formally accountable to the Greater Manchester collaboration of 12 Clinical Commissioning Groups (CCGs).
- 1.2 Polypharmacy – the concurrent use of multiple medications by one individual – is an increasingly common phenomenon that demands attention at clinical policy and practice level. Driven by the growth of an ageing population and the rising prevalence of multi-morbidity, polypharmacy has previously been considered something to avoid. It is now recognised as having both positive and negative potential, depending on how medicines and care are managed.¹
- 1.3 For example, at least a third of patients in Britain aged over 75 years are taking four or more drugs. Adverse drug reactions are implicated in around 7% of hospital admissions [up to 17% in some studies]. Reducing polypharmacy is therefore important from the perspective of both reducing harms and reducing costs.

2 Introduction

- 2.1 It is recognised that patients with multiple morbidities will require multiple medications but patients' requirements will change over time as the risks and benefits alter and patients' desired outcomes change. In addition to this, many patients either do not take their medicines as intended, or even at all. This may be a conscious choice (intentional) or could be due to misunderstanding of how medications should be used (unintentional).
- 2.2 There is no universal definition of deprescribing but a paper published in British Journal of Clinical Pharmacology in November 2015 proposed to define it as "the process of withdrawal of an inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes."²

3 Scope and audience

- 3.1 In line with the principles of GMMMGM, the aim of this guidance is to aid prescribers in reviewing and reducing the number of inappropriate medications taken by patients. It should be noted that this document attempts to provide quick and practical guidance. It is NOT intended to cover the area in great detail; for that, other sources should be consulted e.g. *Polypharmacy and medicines optimisation* [The Kings Fund], *Polypharmacy: Guidance for Prescribing In Frail Adults* [NHS Highland], *Clinical Medication Review: A Practice Guide* [NHS Cumbria], *Medicines Optimisation: Helping patients to make the most of medicines* [Royal Pharmaceutical Society].^{1,3,4,5}
- 3.2 The document is an attempt to select the most useful parts of a number of available documents on polypharmacy whilst keeping it simple. Therefore, while it includes the main side effects and risks of the most commonly used drugs, it is not necessarily comprehensive. More detailed information is available from PresQIPP⁶ or SIGN⁷, for example.
- 3.3 This document is intended for use by Practice Pharmacists and other Healthcare Professionals involved in patient medication review

4 Recommendations

- 4.1 At medication review – ideally face-to-face although many of these questions can still be applied in the patient's absence – it is recommended that the **NO TEARS**⁸ tool is applied to each medicine on repeat:

Need and indication—Does the patient know why (s)he [abbreviated to *he* from this point forwards] takes each drug? Does he still need them? Was long term treatment intended? Is the dose appropriate? Has the diagnosis been refuted? Would non-pharmacological treatments be better?

Open questions—Give the patient the opportunity to express his views by asking questions: “I realise a lot of people don't take all their tablets. Do you have any problems?” “Which medications are you taking regularly?”, “What do you take that you regularly buy from a pharmacy or health food shop?” or “Do you think your tablets work?” Compare his replies with the number of prescription requests.

Tests and monitoring—Assess disease control. Are any of his conditions undertreated? Get advice on appropriate monitoring from prescribing guidelines such as the British National Formulary or this document which has been adopted for local use by GMMMG: <http://www.medicinesresources.nhs.uk/upload/documents/Evidence/Drug%20monitoring%20document%20Feb%202014.pdf> .

Evidence and guidelines—Has the evidence base changed since his prescription was initiated? Consider advice from NICE which has issued many clinical guidelines. Do the prescribing guidelines indicate that any of his drugs are now less suitable for prescribing? Is the dose appropriate? (For example, dose optimisation of angiotensin converting enzyme inhibitors in cardiac failure.) Are other investigations now advised, such as echocardiography or testing for *Helicobacter pylori*?

Advverse events—Does he have any side effects? Is he taking complementary medicines or over the counter preparations? Check for interactions, duplications, or contraindications. Remember the “prescribing cascade” (misinterpreting an adverse reaction as a new medical condition).[diagram at Appendix 6.1]

Risk reduction or prevention—If time allows, update opportunistic screening. What are his risks, such as of falls? Are the drugs optimised to reduce these risks?

Simplification and switches—Can treatment be simplified? What outcomes does the patient wish to achieve? It may be better to replace low doses of several agents by one full dose. Ask the patient which conditions are of most importance to him e.g. if he is only prepared to take *x* tablets per day find the *x* he is prepared to take and cancel the rest. Try to simplify dosage regimes into once or twice daily preparations / drugs. Explain any switches that increase the cost effectiveness of treatment.

For particular therapeutic areas, the guidance offered by PresQIPP⁶ is suggested and gratefully acknowledged:

4.2

BNF class / Drugs	Considerations to optimise medicines use
General	Review medicines against GMMM Do Not Prescribe and Grey lists http://gmmmg.nhs.uk/html/dnp_grey.php
BNF Chapter 1	Gastrointestinal system
Antispasmodics	How long have they been prescribed? Avoid long term use, highly anticholinergic preparations, uncertain effectiveness.
H2 blockers / PPIs	Check if there is a valid indication for prescribing e.g. is an NSAID still being taken? Has the patient suffered from peptic ulcer, GI bleeding or dyspepsia within the past year? Continued use may contribute to C difficile infection.
Laxatives	Previous use of opioid analgesics has reduced or stopped. Regular bowel movements occur without difficulty. Patient is eating & drinking and has an adequate fluid intake. If >1 laxatives are used, reduce and stop one at a time slowly. Do not stop treatment abruptly. Reduce stimulant laxative first, increase the dose of the osmotic laxative if necessary. Restart laxatives if relapse occurs.
BNF Chapter 2	Cardiovascular system
Spironolactone	If dose>25mg/day, the risk of hyperkalaemia is higher in older adults with heart failure, especially if taking an NSAID, ACE inhibitor, angiotensin II receptor blocker or potassium supplement.(increased risk of acute kidney injury)
Antiarrhythmics	Rate control has better balance of benefits and harms than rhythm control for most older adults. Amiodarone is associated with multiple toxicities (thyroid, pulmonary, QT prolongation). Check all monitoring is being done.
Antihypertensives - ACE inhibitors, beta blockers, angiotensin II receptor blockers, diuretics, calcium channel blockers.	Check if there is a valid indication for prescribing, is the BP at a normal level or too low? Remember higher targets for patients aged over 80 years [NICE CG127]. Do the known possible adverse drug reactions outweigh the possible benefits e.g. orthostatic hypotension, CNS effects, risk of falls; loop diuretic for ankle oedema – would compression hosiery be more appropriate? If >1 antihypertensives are used, stop 1 at a time, maintaining the dose of the others without change. Restart antihypertensives if BP increases above 90 mm Hg diastolic and/or 150mm Hg systolic (160mm Hg if no organ damage). Withdraw alpha agonists gradually to avoid severe rebound hypertension.
Antianginals	The patient has not had chest pain for 6 months. The patient has reduced mobility.
Statins/lipid lowering drugs	Re-evaluate the patients risk profile for primary & secondary prevention of cardiovascular disease – is there a valid indication for prescribing? Stop in metastatic disease.
Aspirin	Check if there is a valid indication for prescribing (e.g. no longer indicated for primary prevention nor in patients with diabetes but without cardiovascular disease). Do the known possible adverse drug reactions outweigh the possible benefits? Use 75mg per day in all indications for low dose aspirin. Is aspirin being used for dizziness which is not clearly attributable to cerebrovascular disease?
Dipyridamole	Clopidogrel is now preferred over dipyridamole as more clinically and cost effective.
Anticoagulants – oral and injected	Are LMWHs/oral anticoagulants prescribed following hip/knee replacement surgery or for DVT/PE treatment still required? Long term warfarin use (>6 months) is not recommended when the VTE was provoked by surgery, non-surgical trigger factors or the VTE occurred in the calf only. Antiplatelets and anticoagulants are not generally indicated together: manage with care if both required.
Peripheral vasodilators	Check if there is a valid indication for prescribing. Clinical effectiveness often not established. Do the known possible adverse drug reactions outweigh the possible benefits?
Digoxin	Check if there is a valid indication for prescribing. Do the known possible adverse drug reactions outweigh the possible benefits? e.g. if there is an increase in toxicity, decrease oral fluid intake. Long term digoxin at >125mcg/day in patient with impaired renal function can lead to an increased risk of toxicity.

BNF Chapter 3	Respiratory system
Theophylline	Monotherapy in COPD is not appropriate - safer, more effective alternatives are available.
Oral corticosteroids	Prednisolone maintenance in COPD is not usually recommended. The magnitude and speed of dose reduction and withdrawal should be determined on a case by case basis. Gradual withdrawal should be considered for those who have received more than 3 weeks treatment, those who have received more than 40mg prednisolone daily (or equivalent) or have other possible causes of adrenal suppression.
Inhaled corticosteroids	In asthma – review every 3 months, has control been achieved, if yes: reduce dose slowly (by 50% every 3 months) In COPD – follow local treatment guideline, stop in patients with no history of exacerbations.
Antihistamines (first generation)	Highly anticholinergic, clearance is reduced with advanced age, tolerance develops when used as a hypnotic, greater risk of confusion, dry mouth, constipation, falls. Review use of antihistamines for vertigo – usually short term only.
BNF Chapter 4	Central Nervous system
Chloral hydrate	Tolerance occurs within 10 days, risks outweigh benefits as overdose is only 3 times the recommended dose; avoid use, avoid prolonged use (and abrupt withdrawal thereafter).
Meprobamate	High rate of physical dependence, very sedating, avoid use, avoid prolonged use, abrupt withdrawal may precipitate convulsions. EMEA recommended the suspension of marketing authorisations in Jan 2012 as the risks of serious CNS side effects outweigh the benefits.
Barbiturates	Intermediate acting preparations should only be used in severe intractable insomnia, avoid use in the elderly. High rate of physical dependence, tolerance to sleep benefits, risk of overdose at low doses.
Benzodiazepines (including 'Z' drugs)	Is use required if physical and psychological health and personal circumstances are stable? If the patient is willing, committed and compliant, and has adequate social support refer to a withdrawal clinic. Withdrawal should be gradual to avoid confusion, toxic psychosis and convulsions. With long term use, risk of adverse effects including falls, exceeds therapeutic benefit of continued use.
Drugs for dementia	If MMSE <10, medicines may be continued if they help with behaviour. NICE recommends memantine if MMSE<10. Review benefit, use should only continue if the MMSE score is ≥10 & treatment has an effect on the global, functional or behavioural symptoms. Generally, donepezil, galantamine and rivastigmine for mild to moderate Alzheimer's Disease, memantine for moderate to severe.
Levodopa – carbidopa	Check if there is a valid indication for prescribing. Do the known possible adverse drug reactions outweigh the possible benefits?
Antipsychotics	Check if there is a valid indication for prescribing. Do the known possible adverse drug reactions outweigh the possible benefits? In dementia and Learning Difficulties patients with behavioural and psychological symptoms, review and discontinue, particularly if there has been no response and symptoms are mild, unless there is extreme risk or distress for the patient. Standardised symptom evaluations and drug cessation attempts should be undertaken at regular intervals. GMMMG guidance available for use in dementia. ⁹ Are chlorpromazine or trifluoperazine being taken with other medicines that have anticholinergic activity and can increase risk of cognitive impairment e.g. TCADs, oxybutynin, chlorphenamine? Withdrawal after long term therapy (1-2 years) should be gradual and closely monitored to avoid relapse. ⁹
Antidepressants - Selective serotonin reuptake inhibitors (SSRIs), Tricyclic antidepressants (TCADs), others e.g. MAOIs, agomelatine, duloxetine,	Check if there is a valid indication for prescribing. For a single episode of depression treat for 6-9 months; for multiple episodes, treat for at least 2 years, no upper duration of treatment has been identified. Dosulepin should not be prescribed. Do the known possible adverse drug reactions outweigh the possible benefits? e.g. TCADs can worsen dementia, glaucoma, constipation, urinary retention; SSRIs may induce clinically significant hyponatraemia. Are TCADs being taken with other medicines that have anticholinergic activity and can increase risk of cognitive impairment e.g. chlorpromazine, oxybutynin, chlorphenamine? Reduce dose of antidepressants gradually to avoid withdrawal effects.

reboxetine, venlafaxine, mirtazapine	Review any use of sedating drugs in insomnia.
Opioid analgesics	Is a regular opioid still required? Little evidence of effectiveness of doses >120mg morphine / day [or equivalent] in chronic nociceptive pain – see GMMG pathway. [ref. tbc], also Faculty of Pain guidance. ¹⁰ The risk of falls/constipation can outweigh the benefits. Consider non-drug options, switch to regular paracetamol. Review laxatives.
Metoclopramide / domperidone	Check if there is a valid indication for prescribing. How long has it been prescribed? Can cause extrapyramidal effects including tardive dyskinesia, risk greater in frail older adults. Domperidone is now restricted to use in the relief of nausea and vomiting; it should be used at the lowest effective dose for the shortest possible time.[MHRA]
BNF Chapter 5	Infections
Antibacterials	Check if there is a valid indication for prescribing. Inappropriate uses – a bacterial infection has resolved; a viral infection has been diagnosed; prophylactic treatment prescribed but no pathogen isolated. Treatment of asymptomatic bacteriuria (ASB) in older patients and diabetes patients has no beneficial effects. There is a lack of evidence to evaluate the effect of preventing catheter associated-ASB with antibiotics. Is fluid intake adequate? Nitrofurantoin has potential for pulmonary toxicity, lack of efficacy in patients with CrCl <60ml/min due to inadequate drug concentration in the urine; avoid long term use. Review UTI prophylaxis every 6 months
Antifungals	Skin scrapings should be taken if systemic therapy is being considered or if there is doubt about the diagnosis. When a course of treatment of appropriate length has been finished, do not continue indefinitely e.g. oral and topical nystatin. For finger and toe nail infections, cure is achieved in only a minority of patients, the relapse rate is high.
BNF Chapter 6	Endocrine system
Glitazones	Pioglitazone is associated with an increased risk of heart failure, bladder cancer and bone fracture.
Incretin mimetics	Only continue GLP-1 mimetic therapy if the person has a beneficial metabolic response (a reduction of HbA1c by at least 11 mmol/mol [1.0%] and a weight loss of at least 3% of initial body weight in 6 months).[NICE]
Blood glucose test strips	Consult local guidance: http://gmmg.nhs.uk/docs/guidance/Prescribing-guidance-in-the-Self-monitoring-of-blood-glucose-SMBG.pdf
Oestrogens ± progestogens	Consider appropriate duration of HRT [NICE NG27] Topical low dose oestrogen intravaginal cream safe and effective for dyspareunia and other vaginal symptoms.
Bisphosphonates	Check if there is a valid indication for prescribing. Has treatment been taken for 5 years or more? Do the known possible adverse drug reactions outweigh the possible benefits? If the patient is at low risk of falls, are these still needed? Prolonged immobility is a risk factor for low BMD.
BNF Chapter 7	Obstetrics, gynaecology & urinary tract disorders
Alpha blockers	Check if there is a valid indication for prescribing. Use is generally not indicated if a patient has a long term (>2 months) catheter in situ nor in males with frequent incontinence i.e. one or more episodes of incontinence daily.
Antimuscarinics (for bladder/urinary tract symptoms)	Check if there is a valid indication for prescribing. Review effectiveness after 3-6 months. Check if continence pads are also used, is concomitant use necessary? Do the known possible adverse drug reactions outweigh the possible benefits? e.g. postural hypotension, urinary retention, constipation. Oxybutynin will decrease MMSE score in patients with dementia. Are antimuscarinics being taken with other medicines that have anticholinergic activity and can increase risk of cognitive impairment e.g. chlorpromazine, TCADs, chlorphenamine? Care in conditions such as glaucoma, constipation, prostatism.

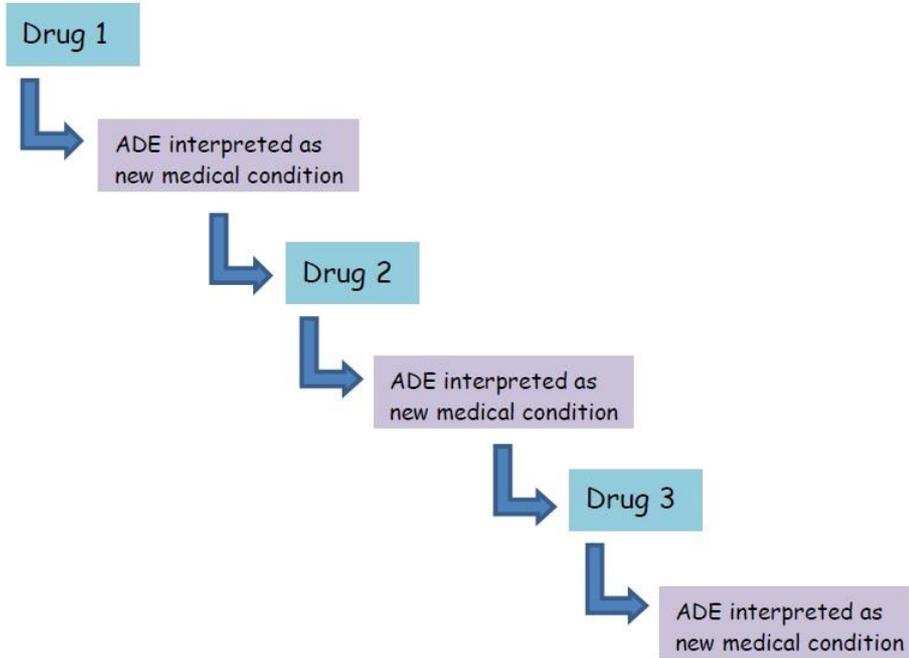
BNF Chapter 8	<i>Malignant disease & immunosuppression</i>
Cytotoxics, immunosuppressants	What outcome is expected, do the known possible adverse drug reactions outweigh the possible benefits? Refer to doctor who initiated treatment.
BNF Chapter 9	<i>Nutrition & blood</i>
Sodium, potassium & iron supplements	Check if there is a valid indication for prescribing, do the known possible adverse drug reactions outweigh the possible benefits.
Vitamins	Check if there is a valid indication for prescribing, e.g. does the patient have a disorder which requires vitamin & mineral supplements
Calcium + vitamin D	Does the patient have adequate levels through diet/sunlight exposure? If the patient is not mobile, is this still needed?
Sip feeds	Check if there is a valid indication for prescribing. Has a dietician recently reviewed the patient; is the patient able to prepare, or have someone else prepare fortified food and therefore does not need sip feeds. Review baby milks etc against local infant feed guidance [ref. tbc]
BNF Chapter 10	<i>Musculoskeletal & joint diseases</i>
NSAIDs	Check if there is a valid indication for prescribing. Is an NSAID still needed/appropriate e.g. long term treatment of gout but no prophylaxis is prescribed. Do the known possible adverse drug reactions outweigh the possible benefits e.g. >3 months use for symptom relief in mild osteoarthritis, use in patients with severe hypertension/heart failure/chronic renal failure. Increased risk of acute kidney injury when co-prescribed with angiotensin II receptor blockers. Gastroprotection for long term use. If topical NSAIDs are continued indefinitely, review the need for use; short courses are generally advised.
DMARDs	Discontinue penicillamine if there is no improvement within 1 year. Consider withdrawal of azathioprine and ciclosporin if there is no improvement within 3 months of use. Refer to doctor who initiated treatment.
Skeletal muscle relaxants	Often poorly tolerated because of anticholinergic adverse effects, sedation, risk of fracture, avoid use.
Quinine [nocturnal leg cramps]	Interrupt treatment approximately every 3 months to reassess the benefit. In patients taking quinine long term, a trial discontinuation may be considered. [MHRA]
BNF Chapter 11	<i>Eye</i>
Eye drops/ointments	Review need for preservative free eye drops - is there a valid indication for prescribing (e.g. previous preservative toxicity), are eye drops instilled more than 4 times per day? Have antibiotic preparations been continued without a review or stop date.
BNF Chapter 12	<i>Ear, nose & oropharynx</i>
Drops, sprays, solutions etc	Is the medicine still required? Have antibiotic/ steroid/ sympathomimetic preparations been continued without review or a stop date?
BNF Chapter 13	<i>Skin</i>
Creams, ointments	Has the condition resolved and continued use may cause adverse effects or exacerbate the condition e.g. preparations containing antibacterials or corticosteroids. Ensure correct use of emollients: sufficient to avoid use of steroids or development of ulcer but not on NHS prescription for cosmetic purposes.
Appendix	<i>Wound management products and elasticated garments</i>
Dressings	Wounds should be reviewed before prescribing to ensure correct dressing chosen. Chronic wounds change over time – refer difficult to treat wounds to a tissue viability nurse. Wounds should reduce in size over time. Address underlying problems e.g.

	soiling from incontinence, wrong choice of dressing etc. Larger dressings are more expensive than the smaller sizes. Query large size dressings on repeat prescriptions. Query quantities over 10 units per month, most dressings stay in place for 3-5 days except on infected wounds, although some patients may have multiple wound sites. Prescribe the actual number of dressings needed.
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5 References

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8. Using the NO TEARS tool for medication review. BMJ 2004;329:434 <http://www.bmj.com/content/329/7463/434>
9. Low strength antipsychotic prescribing in dementia: a resource for GPs <http://gmmmg.nhs.uk/docs/guidance/GMMMG-Antipsychotics-in-dementia-GP-resource-pack-FINAL.pdf>
10. Opioids Aware: A resource for patients and healthcare professionals to support prescribing of opioid medicines for pain <http://www.fpm.ac.uk/faculty-of-pain-medicine/opioids-aware>

6.1 Prescribing Cascade [ADE = Adverse Drug Event]:



6.2 Tools for medication review [from NHS Scotland Polypharmacy guidance ⁷]

The '7-steps' approach to medication review

This is intended as a guide to structure the review process.

1.	Identify objectives of drug therapy	<p>Review diagnoses and identify therapeutic objectives with respect to:</p> <ul style="list-style-type: none"> • Management of existing health problems • Prevention of future health problems
2.	Identify essential drug therapy	<p>Identify essential drugs (not to be stopped without specialist advice)</p> <ul style="list-style-type: none"> • Drugs that have essential replacement functions (e.g. thyroxine) • Drugs to prevent rapid symptomatic decline (e.g. drugs for Parkinson's disease, heart failure)
3.	Does the patient take unnecessary drug therapy?	<p>Identify and review the (continued) need for drugs</p> <ul style="list-style-type: none"> • with temporary indications • with higher than usual maintenance doses • with limited benefit in general for the indication they are used for • with limited benefit in the patient under review
4.	Are therapeutic objectives being achieved?	<p>Identify the need for adding/intensifying drug therapy in order to achieve therapeutic objectives</p> <ul style="list-style-type: none"> • to achieve symptom control • to achieve biochemical/clinical targets • to prevent disease progression/exacerbation <input type="checkbox"/>
5.	Does the patient have ADR or is at risk of ADRs?	<p>Identify patient safety risks by checking for</p> <ul style="list-style-type: none"> • drug-disease interactions • drug-drug interactions (see ADR table) • robustness of monitoring mechanisms for high-risk drugs • drug-drug and drug-disease interactions • risk of accidental overdosing <p>Identify adverse drug effects by checking for</p> <ul style="list-style-type: none"> • specific symptoms/laboratory markers (e.g. hypokalaemia) • cumulative adverse drug effects (see ADR table) • drugs that may be used to treat ADRs caused by other
6.	Is drug therapy cost-effective?	<p>Identify unnecessarily costly drug therapy by</p> <ul style="list-style-type: none"> • Consider more cost-effective alternatives (but balance against effectiveness, safety, convenience)

7.	Is the patient willing and able to take drug therapy as intended?	<p>Identify risks to patient non-adherence by considering</p> <ul style="list-style-type: none"> • Is the medicine in a form that the patient can take? • Is the dosing schedule convenient? • Is the patient able to take medicines as intended? • Is the patient's pharmacist informed of changes to regimen? <p>Ensure drug therapy changes are tailored to patient preferences by</p> <ul style="list-style-type: none"> • Discuss with the patient/carer/welfare proxy therapeutic objectives and treatment priorities • Decide with the patient/carer/welfare proxies what medicines have an effect of sufficient magnitude to consider continuation or discontinuation
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6.3 Suggested searches for highest priority patients [as suggested by NHS Greater Glasgow and Clyde Polypharmacy Local Enhanced Service]

<p>Patients on 5 or more repeat medicines including an oral NSAID</p> <ul style="list-style-type: none"> + ACE Inhibitor or Angiotensin 2 Receptor Antagonist + Diuretic + Warfarin + antiplatelet + age 65 years without PPI
<p>Patients on 5 or more repeat medicines including warfarin + Other antiplatelet(s)</p>
<p>Patients aged 65 and over on 5 or more repeat medicines including any combination of medicines that increases the risk of falls. (High and moderate falls list drugs include antidepressants, antimuscarinics, antipsychotics, benzodiazepines, Z drugs, dopamine agonists, opiates, anti-epileptics, alpha blockers, diuretics, ACEIs and betablockers)</p>
<p>Patients aged 65 and over on 5 or more repeat medicines that equates to an anticholinergic risk score of 3 or higher*</p>
<p>Patients aged 65 and over on 5 or more repeat medicines including a long acting sulphonylurea agent</p>
<p>Patients on 5 or more repeat medicines including 2 or more antiplatelets for greater than 12 months</p>
<p>Patients aged 65 years and over on 5 or more repeat medicines including an <i>oral antipsychotic</i> prescription (as a proxy of oral antipsychotic prescribing to older people with dementia)</p>
<p>Patients on 5 or more repeat medicines including any current combination of Step 2 opioids (codeine, dihydrocodeine, dextropropoxyphene, tramadol or buprenorphine)</p>
<p>Patients on 10 or more repeat or regular acute medicines (excluding dressings, emollients etc)</p>

***Anticholinergic effects of commonly prescribed medication.**

Anticholinergics are well recognised as being problematic in frail adults. Predominantly the concern has been around impaired cognition and falls risk but they also cause constipation and confusion. Recent research however also points to a link to mortality increasing with the number and potency of anticholinergic agents prescribed.

As well as the well-known anticholinergic medication several commonly prescribed medications that may not be thought of as anticholinergic have significant anticholinergic effects.

The following table shows anticholinergic weighting of a number of common drugs. **The higher the number the stronger the effect.** The chart is intended to enlighten regarding anticholinergic effects rather being used as a day to day tool. If the total drug score adds up to three or more this is considered to be clinically relevant.

Anticholinergic risk scale

1 Point	2 Points	3 Points
a. Haloperidol b. Quetiapine c. Mirtazapine d. Paroxetine e. Trazodone f. Ranitidine	a. Clozapine b. Nortryptiline c. Baclofen d. Cetirizine e. Loratadine f. Cimetidine g. Loperamide h. Prochlorperazine i. Tolterodine ?	a. Chlorpromazine b. Amitriptyline c. Imipramine d. Chlorpheniramine e. Hydroxyzine f. Oxybutinin

6.4 Types and Levels of Medication Review with suggested READ Codes

Medication review was originally a loose term but it has been gradually refined.

“Levels” of medication review were introduced by “Room For Review” in 2002 and are dependent on the level of detail of information used for the review:

Level 1: Prescription Review – a technical review of the list of a patient’s medicines (8B3h).

Level 2: Treatment Review – a review of medicines with the patient’s full notes (8B314 or 8B3S).

Level 3: Clinical Medication Review – a face to face review of medicines and condition (8B3V or 8B3x).

Practice should have a Standard Operating Procedure (SOP) for repeat medication issue and review. This will often be part of their repeat prescribing policy in that it will provide details of the process e.g. responsibilities of all staff involved; how a regular review is ensured; prescription duration; checking for prescriptions ordered but not collected and process to be followed if a patient does not attend for monitoring as requested.

Sample Patient Invitation Letter [as suggested by NHS Highland]

Dear

MEDICATION REVIEW

We are writing to invite you to come into the surgery for a routine review of the medicines you are currently taking. It is good practice for us to review your repeat medicines at least once a year.

The purpose of the review is to check that you are getting the best treatment and to agree what medicines you are going to take. A medication review is a chance to check that your medicines are the best ones for you. It involves checking your medicines are working and not causing side effects. It is also a chance for you to tell us how you are getting on with your medicines and to ask questions and find out more about them.

We recommend that you make an appointment to have a medication review with your GP or practice nurse (delete as appropriate). The review lasts about 20 minutes. At the review there will be a chance to have your questions answered and to have the purpose of your medicines explained. A check will be made on any monitoring or changes to your medicines that are needed.

Please find enclosed a leaflet to help you prepare for your medication review. When you come to the medicine review clinic please bring along all of your medicines. This includes the medicines you get on prescription from your doctor as well as herbal remedies and medicines you buy from the chemist or supermarket. By medicines we mean anything you take or use, including tablets, liquids, inhalers, creams and ointments. Please also bring along medicines you no longer take.

The purpose of the review is to help you get the best from your medicines. No medicines will be altered without agreement with you and your doctor.

Yours sincerely

Sample patient information leaflet - invitation for medication review

Introduction

A medicines review is a meeting with your doctor, pharmacist or nurse to talk about your medicines. Your medicines should be reviewed regularly (usually once a year) to check that they are right for you.

Why are medicines reviews needed?

When you are first prescribed a medicine, your doctor, pharmacist and/or nurse checks that it is the best medicine for you. However, things can change, for example:

- You might have developed a side effect from the medicine.
- Your health might have changed, such as developing a long-term condition.
- You might have started taking other additional medicines.
- The guidelines for treating your condition might have changed.
- You may be taking a large number of medications (known as “polypharmacy”).
- A medication you are on may be no longer essential for your health day to day.

All of these factors can affect whether a medicine remains the best choice for you.

What is “polypharmacy”?

You might have heard your doctor, pharmacist or nurse talk about “polypharmacy”. Polypharmacy just means “lots of pharmacy” or, in other words, taking a large number of medicines.

Medicines reviews are particularly useful for people who take lots of medicines so they are sometimes called “polypharmacy reviews”.

What happens at a medicines review?

You will be asked to make an appointment with your doctor, pharmacist or nurse for a medicines review. The review will take between 10 and 30 minutes.

The review will involve the doctor/pharmacist/nurse gathering information from you and from your medical record. This information will be used to check that you are taking the most appropriate medicines.

You will also be able to ask any questions or raise any concerns you have about your medicines.

It might be necessary for the doctor/pharmacist/ nurse to recommend some changes to your medicines. The reasons for these changes will be explained to you and you will be asked for your agreement before any changes are made.

What changes to my medicines might be recommended?

Some common changes your doctor/pharmacist/ nurse might recommend to your medicines are:

- A medicine may be changed to a form that is easier to take (e.g. once a day rather than three times a day).
- A medicine may be started or changed to a newer version.

- A medicine may be stopped.

Do I need to take anything to my medicines review?

It would be very useful if you could bring all of your medicines with you, including any you have bought in a pharmacy or shop. If you buy vitamins or herbal or homoeopathic remedies, please bring them too.

Medicines often have two names (a generic name and a brand name) so having the medicines with you will prevent any confusion if the doctor/ pharmacist/nurse calls the medicine by a different name to the name you normally use.

What questions will I be asked at my medicines review?

At the medicines review, you will be asked about how you are getting on with your medicines. Some of the questions you might be asked at your medicines review include:

- Are you taking all of your medicines?
- Are there any you miss out or forget to take?
- Can you take/use the medicine properly?
- Do you feel you are having any side effects from your medicines?
- Do you have any concerns about your medicines?
- Do you take any other medicines, such as those bought in a pharmacy or supermarket?

Where can I get more information?

For further information about your medicines, please contact:

- Your medical practice.
- Your community pharmacy.