

Ensuring appropriate polypharmacy: Agreeing treatment goals before prescribing

This bulletin considers the challenges and opportunities for prescribers in ensuring a patient-centred approach to prescribing. This can be achieved by agreeing treatment goals and discontinuation criteria before initiating a medicine. Following this process will make sure there are no future surprises for the patient and possibly their family/carer. Lots of information is available on starting medicines, but there is far less evidence-based support for stopping (deprescribing), although this is a slowly growing field of research, with most of the newly published evidence focussed on older people.¹⁻³

This bulletin offers some practical ideas on engaging patients as partners in this process, which could help to decrease GP workload.⁴

Shared decision making is an important component of patient-centred care. It is a set of communication and evidence-based practice skills. These draw out patients' expectations, clarify any misperceptions and discuss the best available evidence for benefits and harms of treatment.

Medicines are the most common form of treatment in primary care. After staffing costs, prescribing accounts for the second highest area of expenditure across all sectors of the NHS.⁵ Although prescribing is an important aspect of primary care, it has been described as unnecessary and wasteful.¹ Expected outcomes should be continually monitored, in partnership with the patient. This is to avoid potentially inappropriate polypharmacy, negative prescribing cascades or poor adherence.

Polypharmacy itself can be perceived as a 'condition', possibly threatening healthy old age. This is the case when the burden of medicines becomes greater than the burden of the diseases they are used to treat.

A briefing, practical tools to help implement change, checklist before prescribing, case study and patient information leaflet are also available at: www.prescqipp.info/polypharmacy-deprescribing-webkit

Recommendations

- Have the discussion about both starting and stopping a medicine before initiation to avoid any surprises in the future.⁶
- All patients (and if necessary their family/carer) should be offered the opportunity to be involved in prescribing decisions.⁷
- Consider the patient's beliefs, cultures and values, they may be different from those of a healthcare professional.⁷
- To help understanding, use patient decision aids or option grids where they exist.^{8,9}
- Remember, it is easier not to start a medicine than to stop it, unless both prescriber and the patient are full partners in the decision.¹⁰ Continuing to prescribe may harm a patient.
- For self-limiting conditions, agree a treatment plan and stop date, the medicine can be restarted if symptoms return, but should not be an open-ended prescription.⁶
- • Non-pharmacological options may be chosen for appropriate patients.⁶

Background

A structured approach is necessary for prescribing, medication review and deprescribing. Traditional prescribing has been clinician led, often with little patient engagement in the decisions being taken. Every new medicine should be initiated in partnership with the patient, as a trial, with a medication review soon after initiation. If the expected outcome is achieved with acceptable side effects, the medicine can be continued. Withdraw the medicine if:

- The harm to benefit profile changes significantly.
- Therapeutic benefits reduce or cease.
- There are unacceptable side effects.
- The patient is continually non-adherent.
- Physiology changes.
- The time to benefit exceeds life expectancy.

Alternative options may be available or a non-pharmacological intervention chosen.

By following the principles in the PrescQIPP Ensuring Appropriate Polypharmacy flow chart, this will become part of everyday practice.⁶

A report written in 2015 by the Health and Social Care Information Centre (HSCIC), demonstrates a steady rise in the number and cost of items being dispensed in England.⁵ In the community setting:

- There were 1,064.6 million prescription items dispensed in the community in England in 2014, a 3.3% increase (34.5 million items) on the previous year and a 55.2% increase (378.4 million items) since 2004.
- The average number of prescription items dispensed per year for every person living in England in 2014 was 19.6. This has increased from 18.7 in 2012, and from 13.7 in 2004.
- The overall Net Ingredient Cost (NIC) of prescriptions has increased by 9.6% since 2004. In 2014 the overall NIC of prescriptions was £8.9 billion, compared to £8.1 billion in 2004. The average cost per head of the population has risen to £162.98, from £160.18 in 2013.

The major drivers for increased dispensing are improved evidence of preventative interventions and the introduction of new medicines. Changes in prescribing behaviour, especially in the duration of treatment each item is intended to cover, may also be contributing.⁵

Similar trends are seen in the data for Scotland, Wales and Northern Ireland.

From 2004-2014 almost all people aged 65 years and over who needed help with activities of daily living (ADL) took at least one medicine, and many took at least six.⁵

Some of the pressures to prescribe have come from targets in the GP contract. If the treatment is inappropriate for the individual it is possible to exception-report (exclude) that patient from data collected to calculate achievement scores within the Quality and Outcomes Framework, e.g. if severe side effects are experienced.¹¹ Recommendations in guidelines, which are population-based, do not take individual variation, co-morbidities, patient preference and patient expectations into account. NICE has recently published a multi-morbidity guideline, which guides practice for these patients.¹²

Medicines can be grouped into two categories, those that:

1. Improve day-to-day quality of life, e.g. analgesics, levothyroxine or medicines to treat angina.
2. Prevent future illness, e.g. statins, aspirin, warfarin or bisphosphonates.

Shared decision making

Clinicians and patients should have a conversation and share the best available evidence before making decisions about treatments, to make an informed choice together. There has been a lack of guidance

about how to achieve this in routine clinical practice, but this is starting to change and forms the basis of a patient-centred approach to medication review and prescribing.¹³

All patients should be offered the opportunity to be involved in decisions about their medicines. It is important that both patient and healthcare professionals understand what is important to the other person when considering a treatment option.⁷ Discuss the alternatives with the patient, the decision may depend on their values and preferences. For example, there may be two treatments but with different outcomes or adverse drug reactions (ADRs).

Avoid introducing bias, however present risks and benefits objectively.¹⁴ Discuss the evidence behind guidelines, including the benefits and harms.

Patient-centred approach

When contemplating prescribing a medicine it is essential to consider the patient's preferences and needs, rather than just focussing on the medicine. Beliefs, culture and values may be different to those of the prescriber, focus on what is important for the patient. Any new treatment should be considered as a trial, following an informed decision as an equal partnership between patient and prescriber. There should be an open and honest discussion about the advantages and disadvantages of a medicine.

In addition, for any new medicine, consider the patient's:

- Age.
- Any detrimental physiological changes, e.g. renal or hepatic function.
- Mobility (e.g. bisphosphonates may no longer be appropriate if very reduced mobility).
- Level of social activity (diuretics may restrict).
- Change in frailty (both increasing and decreasing).
- Life expectancy and time to benefit from the medicine.
- Quality of life, how will the proposed medicine affect this?
- Duration of use (short term or self-limiting diseases with a defined stop date, or long term treatment).

Be cautious about starting any new medicine, especially for patients with increasing frailty. Advise about any common side effects. Ask the patient to report anything that could be attributed to the new medicine.

Providing patients with information about starting and stopping medicines

Patients do not always remember medical information and should not be given more than one or two instructions in a consultation. When more are needed, a follow-up within the next 14 days is ideal.¹⁵ This is especially important when the patient is old or anxious. Patients tend to focus on diagnosis-related information and fail to register instructions on treatment. Simple and specific instructions are better recalled than general statements, spoken information should be supported with written or visual material. Visual communication aids are especially effective in low-literacy patients, but video or multimedia techniques have not been shown to improve memory performance or adherence to therapy.¹⁶

The "Satisfaction with Information about Medicines Scale" acknowledges that patients have differing information needs. Some patients want detailed information regarding their prescribed medicines. Others may feel distressed if given detailed information and adopt coping strategies, e.g. deciding not to take the medicine, resulting in reduced adherence. This 17 point tool asked patients to rate the information they received about their medicines.¹⁷

The community pharmacist may offer a New Medicines Service (NMS), commissioned by NHS England as part of their contract.¹⁸ This service provides support for people with long-term conditions, who are newly prescribed a medicine to help improve medicines adherence. It is currently focused on particular patient groups and conditions and some of the medicines used to treat them:

- Asthma and COPD
- Type 2 diabetes
- Antiplatelet/anticoagulant therapy
- Hypertension.

A referral to the community pharmacist may reduce the number of repeat GP surgery appointments.

Practice pharmacists can also undertake medication reviews, it doesn't always need to be the GP.

Adherence - The patient is the only person who can choose whether they will or won't take the medicines prescribed. At each consultation patients should be encouraged to discuss adherence and identify what prevents it.

Pill (medicine) burden - 50% of patients don't take/use medicines as intended. Before initiating a new medicine consider the treatment goal in partnership, what is and is not acceptable to both patient and health care professional. If the medicine burden is having an adverse effect on the patient's lifestyle this may need a compromise.

Resources to support shared decision making

My Medication Passport was designed by patients for patients, to help empower them. It enables the user to record medications and other key medical information in a pocket size booklet or using Smart phone 'apps'. This makes it easy to carry across care settings to ensure accurate transfer of information.¹⁹ Its use has been evaluated. More than half of the respondents found their medication passport useful or helpful; 42% shared details from it with others, or as a platform for conversations with healthcare professionals; 33% carried the passport with them at all times.²⁰

Booklets - Health Improvement Scotland has a series of patient resources, including booklets, for example, 'Chronic heart failure: A booklet for patients, their families and carers'.²¹

Patient decision aids (PDAs) are available to help people make informed decisions about difficult healthcare choices. They help patients to understand the benefit to harm profile and numbers needed to treat/harm in some therapeutic areas. They have good quality information about all the options and the health problem. Some of the information is in pictorial format. They also contain questions to help patients (and possibly their family/carers) about what is important to them. They should be discussed by both patient and the healthcare professional, but can be offered to appropriate patients at the end of a consultation for them to consider further.⁹

The National Institute for Health and Care Excellence (NICE) has some PDAs in its guidance documents, examples include those for atrial fibrillation²² and lipid modification.⁸

Option grids are evidence-based tools listing patients' essential trade-offs or frequently asked questions, they are also designed to help patients and health professionals talk about difficult healthcare decisions. References are provided and additional ones can be added. Patients can take the option grid home, or access it on-line, to read after the consultation. A follow up appointment may be needed to discuss the patient's decision and the next steps. A template that can be customised for local use is available.⁹

Decision support, a three-step model can help patients move towards shared decision making:¹³

1. Choice talk: refers to the step of making sure that patients know that reasonable options are available.
2. Option talk: refers to providing more detailed information about the options.
3. Decision talk: refers to supporting the work of considering preferences and deciding what is best for the individual.

Stopping (or not initiating) criteria

The resources above can help the discussion with the patient. Advice on when to stop is available for some medicines from their Summary of Product Characteristics (SPC), considering outcomes and the harm to benefit profile, e.g. prucalopride,²³ lisdexamfetamine.²⁴ NICE guidance also has recommendations in specific therapeutic areas that can help prescribers with difficult decisions.²⁵ Patients should be aware of the expected outcome and what will happen if this is not reached or reduces in the future. Continuing to prescribe may harm a patient.

If the principles in the Ensuring Appropriate Polypharmacy flow chart⁶ are followed, this will not be a surprise in the future as patients (family and carers) will be aware of the whole prescribing process. One way to manage prescribing of a medicine is not to start it in the first place.¹⁰

If monitoring is needed this must be discussed and the patient must be willing to participate at the required interval. There must be an understanding of what happens if abnormalities develop in the future, e.g. if renal function deteriorates following a prescription for a NSAID it will be stopped.

For self-limiting conditions, agree a treatment plan and stop date. The medicine can be restarted if symptoms return, but should not be started as an open-ended prescription.

One of the key reasons for not initiating medicines in older people includes avoiding the risk of adverse effects. The aim of any treatment is to prevent morbidity and maximise quality of life. The appropriate use of medicines is essential; this may mean stopping, starting or not initiating a medicine, or possibly using a non-pharmacological option.¹

Starting criteria

When a patient presents with new symptoms, consider an adverse medicine reaction as a possible cause. The aim is to avoid the prescribing cascade where additional medicines are initiated to treat adverse effects (both recognised and unrecognised) of other medicines.¹

The aim of disease prevention is not just to extend the length of life but improve its quality. However there is often a lack of clarity about exactly how, or whether, to use preventive medications to those who are moving towards end of life, no matter their age.¹⁰

When considering initiating a medicine, prescribers should stop and think about whether it will result in:

Appropriate polypharmacy? This is where all medicines are clinically indicated. The patient also accepts that they improve their well-being and achieve health outcomes important to them.

Negative prescribing cascades? Don't add in a medicine to treat side effects of another if an alternative option is available.

However:

- Avoid under prescribing, especially in older patients.
- Don't overestimate the risks and underestimate the benefits of preventative therapies.
- Treatment risk paradox - older people have the highest absolute baseline risk of poor outcomes. Therefore they have the most to gain from treatment.

Starting a medicine may be entirely appropriate, but there are some rules to consider:

1. Prescribe the best medicine combination to treat the underlying disorder(s), not necessarily the symptoms of the disorder(s).
2. Choose medicines that are less likely to cause adverse reactions.
3. Start medicines that prevent morbidity, but remember that some people will benefit from lifestyle advice alone.
4. Do not use chronological age as a guide for assessing potential benefit or risk of a medicine.
5. Regularly review the indications for therapy.

6. Do not change things that are working well.
7. Consider the patient's wishes in treatment decisions.
8. Add a review date and a stop date if this is a short treatment, ensure they are adhered to.
9. Record the current level of frailty.
10. Reducing any potential for medicine interactions.
11. Simplify the prescription regimen whenever possible.

Post discharge medicines

Consider a full medication review following a hospital discharge, especially if the patient reports new symptoms. This can avoid starting a medicine to treat a side effect of something initiated in the hospital setting. Patients can often have changes made to medicines they were prescribed pre-admission and may have more medicines prescribed, some of which may not be intended for long term use.¹ The wording of hospital correspondence should be clear and accurate with any medication changes clearly highlighted. An audit showed documentation for medicines for short courses that do not require the GP to continue them, e.g. analgesics, laxatives, short antibiotic courses was poor.²⁶

Summary

- Medicines are the most common form of treatment in primary care and after staffing costs, account for the second highest area of expenditure across the whole NHS; this data demonstrates a steady rise in the number and cost of items being dispensed in England.⁵ The major drivers for increased dispensing are improved evidence of preventative interventions, an ageing population and the introduction of new medicines. Changes in prescribing behaviour, especially in the duration of treatment each item is intended to cover, may also be contributing.⁵
- Expected outcomes from treatment should be agreed and continually monitored, in partnership with the patient. This is to avoid potentially inappropriate polypharmacy, negative prescribing cascades, or poor adherence that result in waste. In primary care, wasted medicines are estimated to be at least £300 million per year, of which half is avoidable.²⁷ By considering patients' needs and goals before prescribing, waste should be avoided.
- All prescribing decisions should be an informed partnership between the healthcare professional and the patient. Consider what the patient wants to achieve before prescribing. Agree stopping criteria, monitor outcomes regularly and deprescribe when appropriate.

References

1. Duerden M, Avery T, Payne R et al. Polypharmacy and medicines optimisation: making it safe and sound. King's Fund Report 2013. <http://www.kingsfund.org.uk/publications/polypharmacy-and-medicines-optimisation> Accessed 6/10/16
2. Scott I, Gray L, Martin J et al. Deciding when to stop: towards evidence-based deprescribing of drugs in older populations. Evid Based Med 2013; 18: 121-124. <http://ebm.bmj.com/content/18/4/121.full> Accessed 5/6/16
3. PubMed. Deprescribing. Accessed 26/07/2016 at <http://www.ncbi.nlm.nih.gov/pubmed/?term=deprescribing>
4. Baird B, Charles A, Honeywell M et al. Understanding pressures in general practice. King's Fund Report 2016. <http://www.kingsfund.org.uk/publications/pressures-in-general-practice> Accessed 5/6/16
5. Prescriptions Dispensed in the Community, Statistics for England- 2004-2014. Health and Social Care Information Centre (HSCIC) 2015. <http://www.hscic.gov.uk/catalogue/PUB17644/pres-disp-com-eng-2004-14-rep.pdf> Accessed 5/6/16
6. PrescQIPP Ensuring Appropriate Polypharmacy Flowchart. 2016. <https://www.prescqipp.info/>

[polypharmacy-deprescribing-webkit#ensuring-appropriate-polypharmacy-%E2%80%93-flowchart](#)
Accessed 5/6/16

7. Shared decision making; NHS Right Care. The BMJ Group. 2012. <http://sdm.rightcare.nhs.uk/>
8. The National Institute for Health and Care Excellence. CG181. Cardiovascular disease: risk assessment and reduction, including lipid modification. 2014. www.nice.org.uk/guidance/cg181/resources/patient-decision-aid-243780157 Accessed 5/6/16
9. Decision aids; Patient. EMIS Group plc. <http://patient.info/decision-aids> Accessed 5/6/16
10. bpacnz. Upfront: When is enough enough? Stopping medicines in older people. Best Practice Journal 2010; 11: 10-23. www.bpac.org.nz/BPJ/2010/April/docs/bpj_27_stop_guide_pages_10-23.pdf Accessed 5/6/16
11. QOF exception rate – practice. NHS Choices. Gov.UK. www.nhs.uk/Scorecard/Pages/IndicatorFacts.aspx?MetricId=12020 Accessed 5/6/16
12. The National Institute for Health and Care Excellence. NG56. Multimorbidity: clinical assessment and management. September 2016. <https://www.nice.org.uk/guidance/indevelopment/gid-cgwave0704> Accessed 6/10/16
13. Elwyn G, Frosch D, Thomson R et al. Shared decision making – a model for clinical practice. J Gen Intern Med 2012; 27:1361–7. www.ncbi.nlm.nih.gov/pmc/articles/PMC3445676/ Accessed 5/6/16
14. The National Institute for Health and Care Excellence. CG 138. Patient experience in adult NHS services: improving the experience of care for people using adult NHS services. 2012. www.nice.org.uk/guidance/cg138 Accessed 5/6/16
15. Selic P, Svab I, Repolusk M, Gucek N. What factors affect patients' recall of general practitioners' advice? BMC Family Practice 2011; 12:141. <http://bmcfampract.biomedcentral.com/articles/10.1186/1471-2296-12-141> Accessed 5/6/16
16. Kessels R. Patients' memory for medical information. J R Soc Med 2003; 96(5): 219–222. www.ncbi.nlm.nih.gov/pmc/articles/PMC539473/ Accessed 5/6/16
17. Horne R, Hankins M, Jenkins R. The Satisfaction with Information about Medicines Scale (SIMS): a new measurement tool for audit and research. Quality in Health Care 2001; 10:135–140. www.researchgate.net/publication/11813663_The_Satisfaction_with_Information_about_Medicines_Scale_SIMS_A_new_measurement_tool_for_audit_and_research Accessed 5/6/16
18. Services and commissioning factsheet: NMS condition/ therapy areas; Pharmaceutical Services Negotiating Committee. 2016. <http://psnc.org.uk/wp-content/uploads/2013/07/NMS-Medicines-List-Factsheet.pdf> Accessed 5/6/16
19. My medication passport: NHS Networks. 2015. www.networks.nhs.uk/nhs-networks/my-medication-passport Accessed 5/6/16
20. Barber S, Thakkar K, Marvin V, et al. Evaluation of My Medication Passport: a patient-completed aide memoire designed by patients, for patients, to help towards medicines optimisation. BMJ Open 2014; 4:e005608. <http://bmjopen.bmj.com/content/4/8/e005608.full> Accessed 5/6/16
21. Chronic heart failure: A booklet for patients, their families and carers; Health Improvement Scotland. SIGN April 2016. <http://www.sign.ac.uk/patients/publications/147/index.html>
22. The National Institute for Health and Care Excellence. CG180. Atrial fibrillation: management. 2014. www.nice.org.uk/guidance/cg180/resources/patient-decision-aid-243734797 Accessed 5/06/16
23. Summary of Product Characteristics. Resolor® 1mg 2mg tablets (prucalopride). Shire Pharmaceuticals Ltd. Last updated 27/5/15. Available from www.medicines.org.uk/ Accessed 5/6/16
24. Summary of Product Characteristics. Elvanse® 30mg, 50mg & 70mg Capsules (lisdexamfetamine dimesylate). Shire Pharmaceuticals Ltd. Last updated 09/04/2015. Available from www.medicines.org.uk/ Accessed 5/6/16

25. NICE Guidance; National Institute for Health and Care Excellence. 2016. <https://www.nice.org.uk/guidance> Accessed 5/6/16
26. Avery T, Barber N, Ghaleb M et al. Investigating the prevalence and causes of prescribing errors in general practice: The PRACtICE Study. Nottingham: General Medical Council 2011. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3722831/> Accessed 26/7/16
27. Pharmaceutical waste reduction in the NHS. NHS England, 2015. <https://www.england.nhs.uk/wp-content/uploads/2015/06/pharmaceutical-waste-reduction.pdf> Accessed 5/6/2016

Additional PrescQIPP resources



Briefing



Patient information leaflet

Available here: <https://www.prescqipp.info/resources/category/343-polypharmacy-agreeing-treatment-goals-and-discontinuation-criteria>

Information compiled by Val Shaw, PrescQIPP Programme, November 2016 and reviewed by Katie Smith, Senior Medicines Evidence Reviewer, December 2016.

Non-subscriber publication March 2017.

Contact help@prescqipp.info with any queries or comments related to the content of this document.

This document represents the view of PrescQIPP CIC at the time of publication, which was arrived at after careful consideration of the referenced evidence, and in accordance with PrescQIPP's quality assurance framework.

The use and application of this guidance does not override the individual responsibility of health and social care professionals to make decisions appropriate to local need and the circumstances of individual patients (in consultation with the patient and/or guardian or carer). [Terms and conditions](#)