# Deprescribing in older people

## Prioritising patient outcomes over polypharmacy

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**Deprescribing is the 'new term' in the medical lexicon, described as the process of withdrawal of an inappropriate medication, supervised by a healthcare professional with the goal of managing polypharmacy and improving outcomes. This article describes why medication management for many elderly patients should involve deprescribing and why this worthy yet complex task is best served as a patient-focused, GP-led, multidisciplinary and iterative process.**



### Key points

- **GPs are best placed to lead deprescribing in older people, and decisions should reflect patient treatment goals and priorities.**
- **Successful deprescribing is multidisciplinary and collaborative.**
- **Pain management regimens after injury or surgery require review early and often.**
- **Medications should be stopped or reduced one at a time and tapered gradually.**
- **Good prescribing involves deprescribing and is an iterative process.**

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At what point in a patient's healthcare journey does the pharmacological imperative to 'prevent and protect' evolve into 'burdensome polypharmacy with potential to harm'? This is the question clinicians are being encouraged to consider as enthusiasm for deprescribing gains momentum. Deprescribing is described as the process of withdrawal of an inappropriate medication, supervised by a healthcare professional, with the goal of managing polypharmacy and improving outcomes.[1]

'What patients really want is often not to have better blood pressure or lower cholesterol. What they usually want is to feel better, not die before their time, and be able to do what they need to do to fulfill their obligations and pursue their dreams', Dr Victor Montori from the Mayo Clinic, Rochester, MN, US, said in the *Wall Street Journal* in 2013.[2]

Despite the scant evidence for drug classes reducing mortality in the elderly, people aged 65 years and older take more medicines than any other groups, with over 90% taking at least one prescription medicine and nearly half using five or more drugs (polypharmacy).[3] The single most important predictor of inappropriate prescribing

and risk of adverse drug events is the number of medications a person is taking.[4] Polypharmacy in older people is associated with an increased risk of impaired physical and cognitive function, institutionalisation, hospitalisation and death.[5] Deprescribing has considerable potential to relieve unnecessary medication-related suffering and disability in vulnerable older populations.[4]

Interest in deprescribing has coincided with a willingness from the community and healthcare leaders to tackle the rising cost and burden of treatments in which the evidence shows they provide no benefit or may lead to harm.[6] The Choosing Wisely Australia campaign, launched in 2015, joined a global initiative to encourage clinicians and consumers to identify which medical practices are helpful and which are not. Some important recommendations included the following.

- 'Don't initiate or continue medicines for primary prevention in individuals who have a limited life expectancy.'[7]
- 'Don't prescribe opioid analgesics as long-term therapy to treat chronic noncancer pain until the risks are considered and discussed with the patient.'[8]

## How and why does the patient present with a problem with polypharmacy?

Adherence to clinical guidelines can inadvertently promote problematic polypharmacy and increase the risk of adverse events such as drug–drug and drug–disease interactions.[9] Clinical guidelines are often based on evidence from studies of patients with single conditions, and guideline developers do not take into account patients with multimorbidity to whom the guidelines may not apply.[10]

As part of best practice, clinicians 'treat to target' for chronic disease, using clinical indicators expressed in terms of laboratory parameters presumed to reflect the control of a patient's condition, and by extension their health and prognosis.[11] A landmark article on 'minimally disruptive medicine' highlighted how a lack of co-ordinated care induced by highly complex healthcare systems creates an overburdened patient.[12] It is contended that 'treating-to-target' drives prescribing of more drugs at higher doses and in combinations that may increase the likelihood of adverse events.[11] By following a patient-centred approach and focusing on outcomes meaningful to the patient rather than dictates in clinical guidelines, 'treating the patient, not the numbers' is recommended.[11] Deprescribing can be seen in this patient-focused context, especially if there is a shared decision to discontinue drugs in which harm outweighs benefit within the context of each patient's care goals, current level of functioning, life expectancy, values and preferences.[12] Effective pain management involves a shared understanding between the patient and physician, ensuring the goal of treatment is not 'no pain', which can easily escalate prescribing and polypharmacy, but more importantly 'less pain and distress', and an increase in functionality.[13]

Patients who are healthy and robust are less likely to seek the assistance of their GP to reduce the number of medications they take. Difficulty for clinicians, patients and their carers is created at the point where polypharmacy, comorbidity and frailty converge, and because the evidence and guidelines for deprescribing are lacking.[14] Drug use in the elderly is complicated by changing pharmacokinetics and pharmacodynamics and the risk of adverse drug events is significantly increased.[3] The need for review of treatment and treatment goals is usually only signalled when the burden of polypharmacy manifests as a problem, for example, by an adverse drug reaction or harmful medication side effects such as a fall, incontinence or confusion.

## What medicines are implicated in medication-related problems?

Lists of potentially inappropriate medications for the elderly have been developed using explicit criteria, such as the Beers criteria, McLeod criteria and the Screening Tool of Older Persons' potentially inappropriate Prescriptions (STOPP) criteria. These criteria highlight medicines that can be avoided or potentially stopped.[15-17] Examples of these medicines include potent opioids used nonpalliatively, NSAIDs, anticholinergic drugs and benzodiazepines.[4] An Australian study reported that opioids and NSAIDs plus salicylates cause 8.2% and 12.2% of adverse drug events, respectively, in patients aged over 45 years (n=871) presenting to general practices.[18] Data from an Australian hospital study in an older cohort (aged 60 years and older) confirmed analgesics were responsible for about 17% of over 37,000 admissions attributed to adverse drug reactions.[19]

However, for pain management after injury or surgery, the short-term use of strong opioids or NSAIDs may be entirely appropriate. In this context, prescribers may need to focus on withholding certain existing medicines in the short term to reduce the risk of adverse drug events or interactions. For example, if an NSAID is warranted postoperatively, an angiotensin-converting enzyme inhibitor may need to be temporarily withheld to avoid the 'triple whammy' renal impact if combined with a diuretic.[20]

In the elderly, if strong opioids are needed in the short term, it may be imperative to review the need for other sedative medications (including anticholinergics) that can increase the risk of falls. The concomitant use of medications, such as proton pump inhibitors for gastrointestinal prophylaxis with NSAIDs, or aperients with strong opioids to prevent constipation, should be reviewed once pain medicines are ceased. Having a clear management plan postoperatively for the deprescribing of pain and associated medications is an important aspect of deprescribing and review to ensure appropriate continuity of care.

## Are there any aspects of deprescribing that can cause harm?

Clinically significant adverse effects are rare if medicines are stopped slowly under medical supervision.[21] Withdrawal syndromes can occur if there is an abrupt withdrawal of medicines that are acting on the central nervous system (e.g. antidepressants, opioids and benzodiazepines).[21] The abrupt withdrawal of benzodiazepines is associated with a serious withdrawal syndrome characterised

by confusion, hallucinations and seizures. Weaning from opioids can be carried out safely if the dose is slowly tapered.[5,22]

Rebound syndromes occur if the condition being treated returns on withdrawal of the medicine. For example, withdrawal of beta blockers can cause rebound tachycardia and hypertension, withdrawal of proton pump inhibitors can cause hypersecretion of acid and aggravation of gastrointestinal symptoms, and stopping benzodiazepines commonly causes insomnia.[11,23]

Medications that impact on the pharmacokinetics and pharmacodynamics of other medicines need to be considered. For example, ceasing a cytochrome P450 enzyme inhibitor may lead to increased clearance of medicines that are metabolised by that enzyme.[11] Advice from an accredited clinical pharmacist through a structured medicines review may help prescribers to anticipate the impact of deprescribing based on the changing pharmacokinetic and/or pharmacodynamic interactions (Table).

**Table. Optimising the deprescribing process[3-5,14]**

| Key aspects | Healthcare or medication management team | Optimisation of the deprescribing process |
|---|---|---|
| Prepare | GP, patient and carers | Assess medical, functional and social issues – estimate frailty, life expectancy and likely trajectory of decline |
| Recognise | GP, patient and carers | Determine patient-centred goals of care (e.g. symptom relief, optimisation of physical and cognitive function) |
| Review | Accredited pharmacist (home medicines review)<br>Nurse/pharmacist (in surgery brown bag review) | Gather medical and medication history<br>Conduct medication reconciliation<br>Check adherence<br>Identify medication-related harm<br>Optimise medicines with net benefit<br>Prioritise deprescribing for medicines without net benefit or high risk of harm<br>Plan for ceasing/tapering one medicine at a time |
| Develop and disseminate medication management plan | GP, patient and carers, specialists and community pharmacists | Determine timeline<br>Schedule monitoring appointments<br>Consult specialist prescribers<br>Implement deprescribing plan<br>Share plan widely with prescribers/dispensers to avoid unintentional 're-prescribing' |
| Monitor | Patient and carers, GP, practice nurse/ pharmacist and community pharmacist | Watch for withdrawal/discontinuation syndromes, rebound, recurrence of illness<br>Reinforce positive benefits – improved cognition, quality of life, reduction in falls<br>Embark on next medicine for deprescribing – one medicine at a time |

## What is the process of deprescribing?

Communication, preparation, frequent monitoring and review are central to the process of deprescribing. GPs are best placed to provide governance given their comprehensive understanding of the functional and social issues impacting the patient.[3] Patients and their carers need to be involved in the assessment of patient goals, estimates of frailty, life expectancy and likely trajectory of decline.[3,5] A collaborative multidisciplinary process involving patients and their carers, doctors (GPs and specialists), pharmacists and nurses is the common feature of successful interventions to reduce polypharmacy.[3]

Ensuring the intent and plan for deprescribing is fully understood, acknowledged and communicated across the patient's entire medication management team is paramount. Otherwise deprescribing can be misinterpreted as 'omission' if the intention is not widely communicated and respected, and risks 'represcribing' in different care settings.

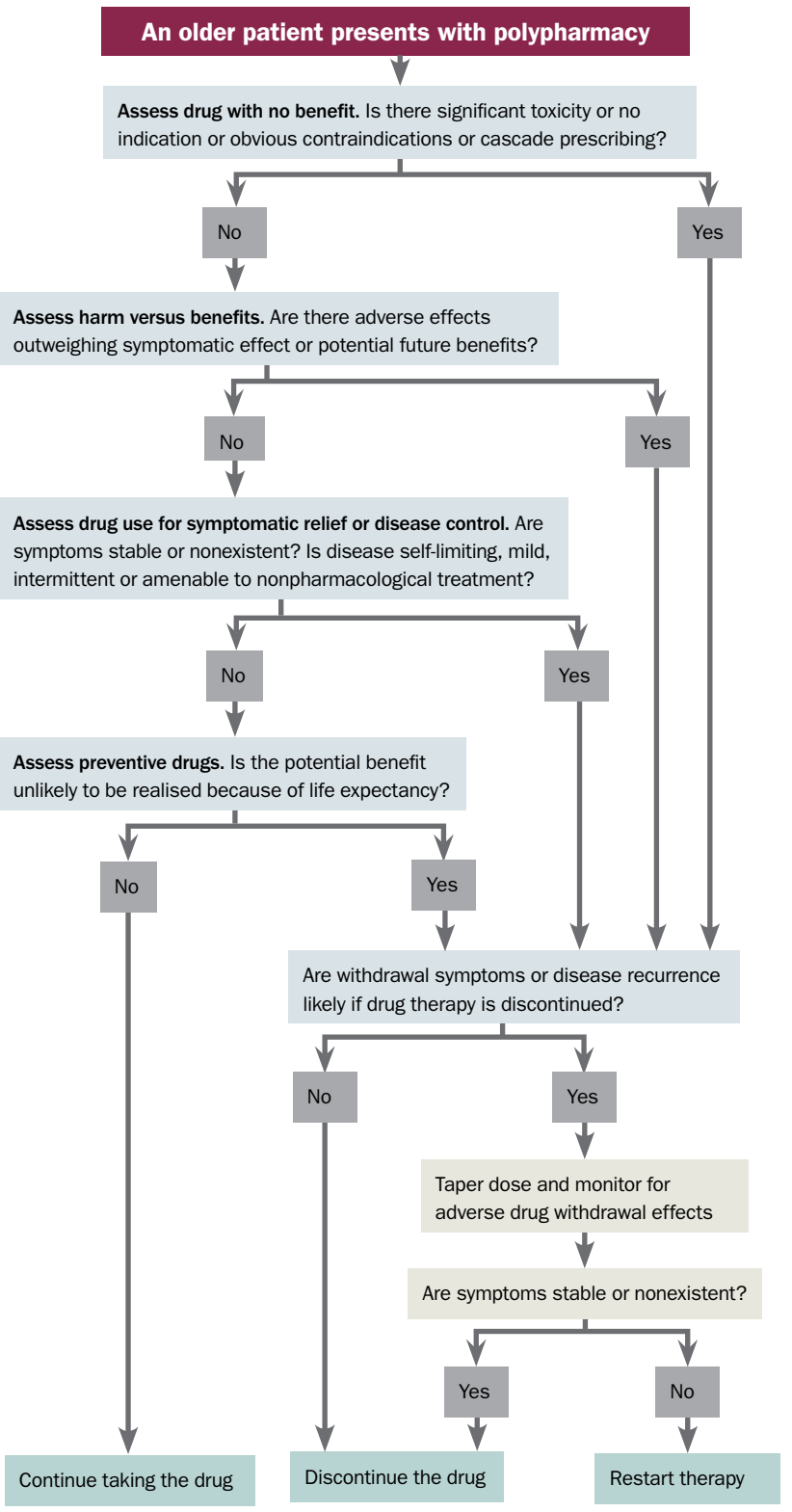
An approach to deprescribing showing the order and mode in which potentially inappropriate drugs can be ceased is shown in the flowchart.[14]

### A case in point: deprescribing opioids

Although opioids can be effective for acute pain, cancer pain and palliative care, there is minimal evidence of their efficacy for chronic pain, particularly in the long term.[24] Opioids can contribute to falls, confusion, constipation, incontinence and sleep apnoea in the elderly and may be identified as a target for deprescribing in elderly patients in whom the harms are considered to outweigh the benefits. The RACGP Clinical Governance Framework for drugs of dependence in general practice provides helpful guidance for GPs to reduce opioids in the general practice setting.[22] Slow tapering of opioids is recommended for anxious patients, those who might be psychologically dependent and those with cardiorespiratory conditions. Faster tapers are recommended if the patient is experiencing serious adverse effects such as obvious sedation. A decrease by 10% of the original dose per week is usually well tolerated with minimal physiological adverse effects. Some patients can be tapered more rapidly (over six to eight weeks) without problems. If the patient experiences severe withdrawal symptoms or worsening of pain or mood, the recommendation is to hold or increase the dose.[22]

Frequent consultations are suggested, with a strong focus on the benefits of taper (e.g. improved pain, mood, alertness). If the dose is not successfully being reduced, or there is an escalation in dose beyond the original prescription, this may indicate a need to involve other practitioners.[22]

**An approach to stopping potentially inappropriate drugs[14]**




Adapted from Scott IA, et al. JAMA Intern Med 2015; 175: 827-834.[14]

### Further reading on deprescribing and shared decision making

**Medicines management, NPS MedicinesWise**
http://www.nps.org.au/topics/ages-life-stages/for-individuals/older-people-and-medicines/for-health-professionals/medicines-management

**Stopping medicines, NPS MedicineWise**
http://www.nps.org.au/topics/ages-life-stages/for-individuals/older-people-and-medicines/for-health-professionals/medicines-management/stopping-medicines

**Involve older people in health decisions, NPS MedicineWise**
http://www.nps.org.au/topics/ages-life-stages/for-individuals/older-people-and-medicines/for-health-professionals/engage-your-patients

## Conclusion

Doctors frequently review medication lists when renewing prescriptions. The act of deprescribing includes this act of review, however, it also engages the patient as an active participant in redefining treatment goals, rather than a passive subject of an intervention or a treatment target (see Box). Deprescribing for older patients requires a thorough understanding of the individual, their therapeutic goals, the benefits and risks of all of their medicines and medical ethics.[3] It should not be seen by patients as an act of abandonment but one of affirmation for the highest quality care and shared decision making.[4] **PMT**

## References

A list of references is included in the website version of this article (www.painmanagementtoday.com.au).

## Further reading

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