

# Deprescribing

## [Disclaimer](#)

## Contents

<b>Background</b> .....	<b>1</b>
About Deprescribing:.....	1
<b>Assessment</b> .....	<b>2</b>
Life expectancy .....	2
Degree of frailty .....	2
Goals and expectations .....	2
Current medications.....	3
Indications.....	3
Adverse effects .....	3
Risks and benefits.....	3
Prioritise .....	4
Hierarchy of utility of medications.....	5
Considering deprescribing in terms of benefit of a medication .....	6
Deprescribing guides.....	6
<b>Management</b> .....	<b>7</b>
Withdrawal plan.....	7
Monitor .....	7
<b>Resources</b> .....	<b>8</b>
For health professionals.....	8
For patients.....	8
<b>Information</b> .....	<b>8</b>
Sources .....	8

## Background

### About Deprescribing:

- *Deprescribing is the systematic process of identifying and discontinuing potentially inappropriate drugs with the aim of minimising polypharmacy and improving patient outcomes.*

- *The term can also be considered more broadly, taking in the concept of minimisation and reduction of medication “load” in terms of dose, or the number of tablets or administration times.*
- *Cessation of medication may be an appropriate action in certain clinical situations amongst older adults. Drug cessation triggers could include patients with an increased frequency of falls, or with delirium or cognitive impairment, and in end-of-life situations.*
- *Drug cessation should also be considered in all patients as a part of regular medication review.*

## Related topics

[Medication Management and Polypharmacy in Older Persons](#)

[Medication Management Reviews](#)

## Assessment

1. Assess the patients:
  - **Life expectancy**

### Life expectancy

- *Estimating a patient's life expectancy is problematic.*
- *Asking the Surprise Question – “Would I be surprised if this patient died in the next 6 to 12 months?” – is as effective as other techniques.*
- *Formal life expectancy assessment considers the level of co-morbidity, specific high mortality disease states, functional status, and age.*

- **Degree of frailty**

### Degree of frailty

- *Frailty is a vulnerable state associated with adverse outcomes*
- *Quantification of frailty is possible using frailty scales, e.g. [Edmonton Frail Scale](#) or the Frailty Index.*
- *Frailty scales incorporate a number of measures, including cognitive state, weight loss and social supports, as well as some measures of muscle strength, mobility and balance, e.g. a **Timed up and go test (TUGT)**.*

#### **Timed up and go test (TUGT)**

- *Measures time taken to rise from chair, walk 3 metres, turn and return to chair and sit using usual assistive device.*
- *Level predictive of falls  $\geq$  15 seconds.*

2. Discuss the patient's **goals and expectations**

### Goals and expectations

- *Listen carefully to the patient regarding:*
  - *aspects of their quality and duration of life*
  - *what is most important to them*

- *their expectations of treatment, including efficacy.*
- *Deprescribing should be viewed as an individualised process. It allows the patient to attach importance to individual outcomes dependant on a range of factors, including life experience.*

### 3. Review **current medications**

#### Current medications

- *Determine what prescription and over the counter (OTC) medications the patient is taking, including prescriptions from other practitioners, along with any vitamins and herbal medicines.*
- *Ask the patient to bring all medications to an appointment, or consider a home visit by:*
  - *a pharmacist, for a [Home Medicines Review \(HMR\)](#).*
  - *a nurse, for a [health assessment](#) or similar.*
- *If the patient lives in an RACF consider a [Residential Medication Management Review \(RMMR\)](#) and [Comprehensive Medical Assessment \(CMA\)](#).*
  - Dose, frequency, and duration
  - **Indications**

#### Indications

- *The reason for taking the medications may change with time.*
- *Medications that was clearly appropriate in the past, may no longer be appropriate, e.g. peptic ulcer treatment, analgesia, or preventative strategies.*
- Any **adverse effects**, or possible drug-drug or drug-disease interactions.

#### Adverse effects

- *Although many adverse effects are predictable, uncommon adverse effects can occur and the role of medications should be considered in all patients who develop new symptoms.*
- *Medication interactions with underlying diseases should always be evaluated, e.g. anticholinergic drugs and cognitive impairment, or NSAIDs/ACE inhibitors and renal impairment.*

### 4. Identify potential medications to be ceased or modified.

- Consider the **risks and benefits** for individual medications.

#### Risks and benefits

- *Hierarchy of utility of medications:*
  - *Determine the usefulness of medication.*
  - *Attempt to determine the likelihood of any harm.*
  - *Incorporate the concept of medication load.*
- *Deprescribe medications:*
  - *when known to have a poor risk to benefit ratio in the elderly e.g., [Beer's criteria](#)<sup>1</sup>, [STOPP/START criteria](#).*

- *that duplicate indications or classes of agents e.g., mirtazapine at night with temazepam at night.*
- *if used to treat a sign or symptom that may be an adverse drug event from another medication e.g., oxybutynin for urinary incontinence, associated with cholinesterase inhibitors.*
- *where adherence is an issue e.g., metered dose aerosols, night-time statins.*
  
- *Reduce medications:*
  - *Reduce doses of medication used at a dose that is likely to cause toxicity in the elderly e.g., 20 mg rivaroxaban in elderly patients, 4 g paracetamol in lightweight elderly women.*
  - *Convert medications to once daily e.g., from three times daily metformin.*
  - *Substitute medications that are associated with multiple drug-drug or drug-disease interactions e.g., diltiazem.*
  - *Prescribe combination medications to reduce medication burden of multiple medications e.g., amlodipine/atorvastatin.*
  - *Give particular attention to high-risk medications, and those originally prescribed for disease prevention which may no longer be needed.*
  - *See [A Guide to Deprescribing: Quick Reference Guide](#).*
  
- **Prioritise** medications to be deprescribed.

## Prioritise

- *Prioritise medicines to be deprescribed:*
  - *Drugs with least utility or highest risk.*
  - *Drugs adversely impacting on wellbeing.*
  - *Patient preference.*
  - *Drugs with complicated administration regimens.*
- *Although many medications may be targeted for deprescribing, always initiate a trial of withdrawal of one medication at a time.*
- *Choosing priority will be based on individual case considerations.*
- *Deprescribing can be simplifying or reducing the dose regimen prescribed, rather than ceasing an agent.*

See Primary Health Tasmania:

- [A Guide to Deprescribing:](#)
  - **Hierarchy of utility of medications**

## Hierarchy of utility of medications

Utility	Medications that:	Examples:
 More useful	<b>Provide immediate relief</b> for distressing symptoms	Analgesics, antiemetics
	<b>Modify an acute condition that is life-threatening</b> , or will soon result in distressing symptoms if not treated	Antibiotics for severe pneumonia or sepsis, diuretics for acute heart failure
	<b>Modify a chronic condition that may progress to become life-threatening</b> or cause significant symptoms if not treated	Methotrexate for rheumatoid conditions, ACE Inhibitors for heart failure
	Have the potential to <b>prevent a serious disease</b> , without symptomatic benefit	Antiplatelet agents, antihypertensives, statins
	<b>Are unlikely to be useful</b> in either short or long term	Fish oils, vitamins, glucosamine
Less useful	Are used <b>for indications where non-pharmacological therapy is equally or more effective</b>	Physiotherapy for back pain, sleep hygiene vs long term benzodiazepines

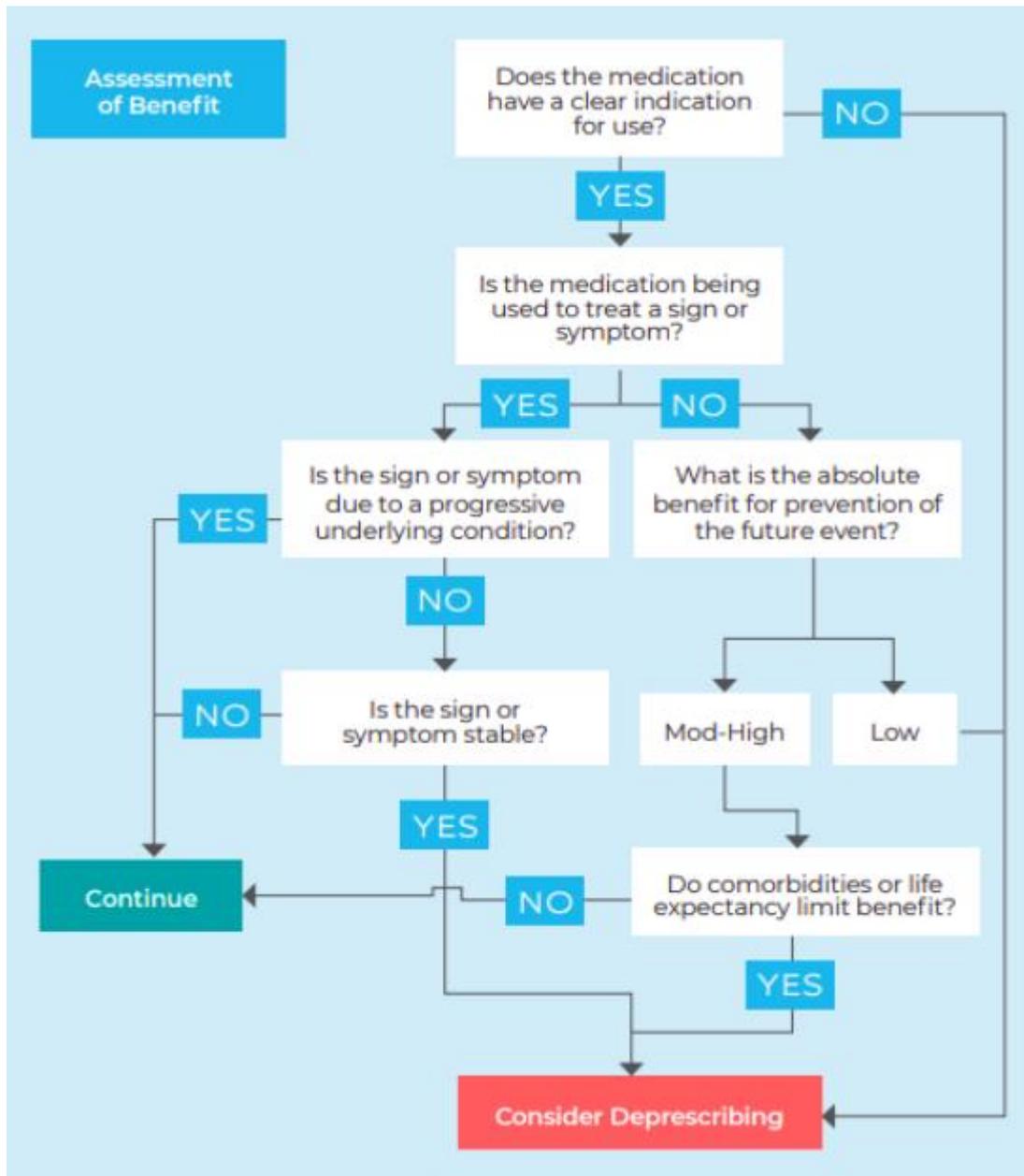
Figure 1: Hierarchy of Utility of Medications <sup>2</sup>

Source: *Primary Health Tasmania – A Guide to Deprescribing*

Reproduced with permission

- **Considering deprescribing in terms of benefit of a medication**

## Considering deprescribing in terms of benefit of a medication



Source: This diagram appears in [A Guide to Deprescribing](#), a resource developed by Primary Health Tasmania.

Reproduced with permission.

- **Deprescribing guides** for individual medicines

## Deprescribing guides

*A Guide to Deprescribing:*

- [Allopurinol](#)
- [Antihyperglycaemic Agents](#)
- [Antihypertensive Agents](#)
- [Antiplatelet Agents](#)
- [Antipsychotics](#)

- [Benzodiazepines](#)
- [Bisphosphonates](#)
- [Cholinesterase Inhibitors](#)
- [Glaucoma Eye Drops](#)
- [NSAIDs](#)
- [Opioids](#)
- [Proton Pump Inhibitors](#)
- [Statins](#)
- [Sulphonylureas](#)
- [Vitamin D and Calcium](#)

See also [A Guide to Deprescribing: Quick Reference Guide](#).

- **Guides to the use of medicines in older people**
  - [A Guide to the Use of Antidepressants in Older People](#)
  - [A Guide to the Use of Antipsychotics in Older People](#)
  - [A Guide to the Use of Benzodiazepines in Older People](#)

## Management

1. Plan and initiate withdrawal trial:
  - Discuss with and seek consent from patient and carer, explaining the rationale and steps to take if symptoms recur.
  - Develop a **withdrawal plan** with appropriate tapering of one medication at a time.

### Withdrawal plan

- *Explain the rationale to the patient. Doing so improves success rates in deprescribing and empowers the patient to take control of their medications.*
  - *Provide the patient and carer with information on what they should do if symptoms recur, and about alternative non-drug strategies that may be used to control symptoms.*
  - *Provide a written tapering plan, especially for the classes of medication that require slow tapering to avoid either return of disease symptoms or withdrawal symptoms, e.g. corticosteroids, opioids, PPIs.*
  - *See Reconnexion – [Health Professionals](#).*
- Inform other health professionals involved of rationale and tapering plan.
2. Monitor and support:
    - Make a follow up appointment with patient to **monitor** any adverse effects or return of symptoms.

### Monitor

- As with prescribing, deprescribing should involve a review or monitoring plan to ensure efficacy while preventing adverse outcomes.
  - The required frequency of review will depend on the medication or disease process involved, and the duration of the tapering regimen.
- Review plan with patient and ask for feedback.

- Document result of withdrawal process and move on to next medication if appropriate.

## Resources

### For health professionals

#### Further information

- Apple App Store – [Edmonton Frail Scale for iPad](#).
- Australian Family Physician – [Improving Medicine Selection for Older People](#)
- Journal of Pharmacy Practice and Research – [Deprescribing: A Guide for Medication Reviews](#)
- NPS MedicineWise – Australian Prescriber:
  - [Deprescribing](#)
  - [Prescribing for Frail Older People](#)
  - [The Dilemma of Polypharmacy](#)
- Primary Health Tasmania:
  - [Deprescribing Resources](#)
  - [Guide to Deprescribing: General Information](#)
  - [Guide to Deprescribing: Quick Reference Guide](#)
  - [Guides to the Use of Medicines in Older People](#)
- Reconnexion – [Health Professionals](#)

### For patients

- NPS MedicineWise:
  - [Managing Your Medicines](#)
  - [MedicineWise: Manage Medicine](#) [Apple iOS app]
  - [MedicineWise: Medication Management & Scheduler](#) [Android app]
- Primary Health Tasmania – [Rethinking Your Medications Resources for Consumers](#)

## Information

### Sources

#### References

1. By the American Geriatrics Society 2015 Beers Criteria Update Expert Panel. [American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults](#). J Am Geriatr Soc. 2015 Nov;63(11):2227-46.
2. Scott IA, Gray LC, Martin JH, Pillans PI, Mitchell CA. [Deciding when to stop: towards evidence-based deprescribing of drugs in older populations](#). Evid Based Med. 2013 Aug;18(4):121-4.

Last Reviewed: February 2019

[Disclaimer](#)