Issue 38: November 2021

Drugs and Therapeutics Backgrounder

Deprescribing for Older Adults

BOTTOM LINE: Polypharmacy is common and poses serious health risks. Older adults prescribed multiple medications are more susceptible to adverse drug reactions, and merit additional attention for deprescribing.

Background:

The prescribing of medications for specified clinical indications is considered usual practice. However, when a medication no longer serves its intended purpose, it may cause harm and unnecessary burden. Polypharmacy in older adults increases risks for negative outcomes such as adverse drug events, disability, morbidity and mortality.[1] Evidence for the benefits of deprescribing in selected older adults is accumulating.[1-5] Choosing Wisely Canada recommends not to start or renew drug therapy unless there is an appropriate indication and reasonable expectation of benefit in the individual patient. In 2020, Alberta Health Services Provincial Seniors and Continuing Care launched the *Appropriate Prescribing & Medication Use Strategy for Older Albertans (APMUSOA)*.

Each patient encounter is an opportunity to reassess therapy, and plan deprescribing where appropriate.

The Institute for Safe Medication Practices (ISMP) Canada refers to deprescribing as one of the solutions to polypharmacy.[8] Engaging patients in deprescribing is critical, and increases buy-in and discontinuation rates.

According to the 2018 Canadian Institute for Health Information (CIHI) report:

- ➔ Nearly **two-thirds (65.7%)** of older adults are prescribed **5 or more medications.**[7]
- ➔ More than **one-quarter (26.5%)** of older adults are prescribed **10 or more medications.**[7]
- ➔ Almost **one-tenth (8.4%)** of older adults are prescribed **15 or more medications.**[7]

Even for chronic medical conditions, some medications no longer retain their therapeutic effects after prolonged use, with progression of the disease state, or if other patient characteristics have changed. The risks and benefits of all medications should be reviewed at each patient encounter. When initiating new therapies for older adults, time-to-benefit for effectiveness of medications should be considered.[19]

Use this Backgrounder and the *Deprescribing Resource Guide* to assist with deprescribing efforts.

For safe and effective medication discontinuation, the decision to deprescribe should engage the patient, their family and caregivers, and be shared with the prescriber and the pharmacist.

Efficacy:

Clinical studies and systematic reviews have shown effective deprescribing involves shared decision-making, education, careful planning and follow up, with appropriate patient selection.[1] There are many clinician decision tools, deprescribing algorithms, and patient discussion and education aids to support successful deprescribing, with new tools continuously being developed. Deprescribing.org provides an app, lists of deprescribing networks, research and various resources.[13]

Safety:

Deprescribing provides an opportunity to **proactively** prevent harmful effects. Studies show most medications can be stopped in older adults without adverse drug withdrawal events, and most discontinuations are associated with a reduction in adverse events (e.g., falls) and improved cognition.[3,4,5]

Sustainability:

Adverse drug events are estimated to cost $35.7 million dollars annually in hospital visits alone.[20] Unquantified health system savings include reduced drug utilization, reduced pill burden to patients, and less health care staff time used in drug administration. Safe and appropriate deprescribing contributes to health system sustainability.

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Select Medication Classes Commonly Inappropriately Prescribed in Older Adults

Medication / Class	Reason(s) for Concern in Older Adults	Select Deprescribing Tools & Algorithms:
Anticholinergics and medications with anticholinergic side effects	Confusion, dry mouth, constipation, urinary retention, sedation, blurred vision, hypotension[10]	GeriRxFiles Tapering Medications in Older Adults* NSW Therapeutic Advisory Group - Deprescribing tools
Antihyperglycemics (especially long-acting sulfonylureas)	Hypoglycemic events impose high fall/fracture risks, consider a more relaxed glucose target[10,12,13]	Deprescribing.org Guidelines and Algorithms GeriRxFiles Tapering Medications in Older Adults* PHN Tasmania Deprescribing Resources
Antihypertensives (especially short acting agents)	Postural hypotension, dizziness, fall risks.[10]	PHN Tasmania Deprescribing Resources
Select Antimicrobials (specifically nitrofurantoin and fluoroquinolones)	Nitrofurantoin: pulmonary toxicity, hepatotoxicity, peripheral neuropathy[10] Fluoroquinolones: CNS effects (seizures, confusion) and tendon rupture[10]	See *Deprescribing Resource Guide* for resources on select antibiotics and antimicrobial stewardship
Antipsychotics	Increased stroke risk, cognitive impairment, increased mortality, movement disorders, metabolic side effects, sedation[10,11]	AHS Antipsychotic Use Toolkit Deprescribing.org Guidelines and Algorithms GeriRxFiles Tapering Medications in Older Adults* NSW Therapeutic Advisory Group - Deprescribing tools PHN Tasmania Deprescribing Resources
ASA (when used for primary prevention)	Gastrointestinal bleeds, questionable evidence for primary prevention in older adults[10,23]	PHN Tasmania Deprescribing Resources
Benzodiazepines & Sedative Hypnotics	Cognitive impairment, physical dependence, dementia, sedation, delirium, falls, fractures[10,13]	CPSA Prescribing Resources and Tools Deprescribing.org Guidelines and Algorithms Drowsy Without Feeling Lousy Toolkit (Choosing Wisely Canada) Less Sedatives for Your Older Relatives Toolkit (Choosing Wisely Canada) NSW Therapeutic Advisory Group - Deprescribing tools PHN Tasmania Deprescribing Resources
Bisphosphonates	Little benefit beyond 5 years, especially if T score is above -2.5[17,18]	PHN Tasmania Deprescribing Resources
Cholinesterase Inhibitors	Dizziness, confusion, insomnia, agitation, nausea, weight loss, urinary frequency, falls[13]	Deprescribing.org Guidelines and Algorithms GeriRxFiles Tapering Medications in Older Adults* PHN Tasmania Deprescribing Resources
Metoclopramide	Incidence of tardive dyskinesia similar or greater than that of first-generation antipsychotics; maximum duration recommended by Health Canada is 12 weeks[10]	MedStopper**
Non-Steroidal Anti-inflammatory Drugs (NSAIDs)	Gastrointestinal bleeds, hypertension, cardiovascular events, renal toxicity[10]	PHN Tasmania Deprescribing Resources
Opioids for chronic non-cancer pain	Falls, sedation, constipation, respiratory depression, risk of drug interactions/overdose[10,21]	CPSA Prescribing Resources and Tools GeriRxFiles Tapering Medications in Older Adults Opioid Wisely - Choosing Wisely Canada PHN Tasmania Deprescribing Resources
Proton Pump Inhibitors	Diarrhea, *C. difficile* infection, micronutrient deficiencies[10]	Digestive Health SCN (Projects tab) AHS PPI Deprescribing Backgrounder Bye-Bye PPI Toolkit (Choosing Wisely Canada) Deprescribing.org Guidelines and Algorithms NSW Therapeutic Advisory Group - Deprescribing tools PHN Tasmania Deprescribing Resources
Statins for primary prevention of cardiovascular events	Increased myalgias and pill burden, limited time-to-effect benefit seen after 75 years of age[14-16]	PHN Tasmania Deprescribing Resources
Natural Health Products/ Vitamins/Supplements	Many patients take several natural health products and supplements, most of which do not have sufficient evidence for their continued use; some of which could even cause harmful drug interactions or adverse events[22]	MedStopper**

*may require subscription **also applies to other Medications/Classes

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