Poly-Pharmacy and Principles of Deprescribing

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Disclosure

- Presenter: Jennifer Gibson
- Relationships with commercial interests
  - none

Poll

What has been your experience with deprescribing?

- The best thing since sliced bread!
- Takes a bit of time, but it's worth it
- I have no idea where to start
- Who has time for that?
- My patients don't like stopping medications
- What is deprescribing anyway?

Objectives

- **WHY?**
  - Identify reasons to deprescribe medications in older adults
- **SHOULD WE?**
  - Discuss evidence supporting deprescribing
- **HOW?**
  - Review tools to guide the deprescribing process

Why deprescribe?

“

Medications that were good then, might not be the best choice now.

Use of some medication, especially as people get older or more ill, can cause more harm than good. Optimizing medication through targeted deprescribing is a vital part of managing chronic conditions, avoiding adverse effects and improving outcomes. **The goal of deprescribing is to reduce medication burden and maintain or improve quality of life.**

”

deprescribing.org

Reducing medications safely to meet life's changes

Moins de médicaments, sécuritairement – pour mieux répondre aux défis de la vie

Why deprescribe?

Six Things Pharmacists and Patients Should Question

- Don't use a medication to **treat the side effects** of another medication unless absolutely necessary.
- Don't recommend the use of over-the-counter medications containing **codeine** for the management of acute or chronic pain. Counsel patients against their use and recommend safe alternatives.
- Don't start or renew drug therapy unless there is an **appropriate indication** and reasonable **expectation of benefit** in the individual patient.
- Don't renew long-term **proton pump inhibitor** (PPI) therapy for gastrointestinal symptoms without an attempt to stop or reduce (taper) therapy at least once per year for most patients.
- Question the use of **antipsychotics** as a first-line intervention to treat primary insomnia in any age group.
- Don't prescribe or dispense **benzodiazepines** without building a discontinuation strategy into the patient's treatment plan (except for patients who have a valid indication for long-term use).

Choosing Wisely Canada™

Why deprescribe?

Drug Related Problems

- Untreated condition
- Lacking indication
- Under- or over- dosage
- Non-adherence
- Adverse reaction
- Drug interaction

Risks in older adults

- Poly-pharmacy
- Comorbidities
- Multiple prescribers
- Changes in renal or hepatic function
- Cognition changes
- Frailty
- Change in goals of care

Why deprescribe in older adults?

5Ms©: Core competencies in Geriatric Medicine and Care of the Elderly

MIND	Mentation, Dementia, Delirium, Depression
MOBILITY	Impaired gait and balance, fall injury prevention
MEDICATIONS	Poly-pharmacy, De-prescribing, Optimal prescribing, Adverse medication effects and medication burden
MULTI-COMPLEXITY	Multi-morbidity, Complex bio-psycho-social situations
MATTERS MOST	Each individual's own meaningful health outcome goals and care preferences

CGS·SCG
CANADIAN GERIATRICS SOCIETY
LA SOCIÉTÉ CANADIENNE DE GÉRIATRIE

Poll

What are the medications or medications classes that you would prioritize for deprescribing?

Why deprescribe in older adults?

Medications Older Adults Should Avoid or Use with Caution

- NSAIDs
- Anticoagulants
- Hypoglycemic medications
  - Glyburide
  - Insulin
- Muscle relaxants
  - Cyclobenzaprine
  - Methocarbamol
- Benzodiazepines and Z-drugs
- Antipsychotics
- Anticholinergic effects
- Digoxin
- 1st generation antihistamines
  - Diphenhydramine
  - Chlorpheniramine

https://www.healthinaging.org/tools-and-tips/ten-medications-older-adults-should-avoid-or-use-caution

Poll

If you used readily available guidelines, how many medications would this patient be taking?

79-year-old woman

- osteoporosis
- osteoarthritis
- type 2 diabetes mellitus
- hypertension
- chronic obstructive pulmonary disease

? 0 – 5

? 6-10

? 11-15

? 16 or more

Follow the guidelines?

- 79-year-old woman
  - osteoporosis
  - osteoarthritis
  - type 2 diabetes mellitus
  - hypertension
  - chronic obstructive pulmonary disease
- 12 medications
  - 19 doses per day
  - 5 dosing times per day

- Sit upright after bisphosphonate
- Feet check & supportive footwear
- Diet: carbs, fat, salt, limit alcohol
- Joint protection
- Energy conservation
- Exercise
  - Aerobic exercise for 30 min
  - Muscle strengthening
  - Range of motion
- Avoid environmental exposures that might exacerbate COPD
- Maintain normal body weight

JAMA. 2005;294(6):716-724.

Follow the guidelines?

- Does the guideline…
  - Discuss evidence for older adults
  - Consider comorbid conditions
  - Balance life expectancy and time-to-benefit
  - Address treatment burden
  - Take into account costs of therapy

https://www.mcmasteroptimalaging.org/blog/detail/professionals-blog/2016/05/05/making-a-plan-for-optimal-aging.-balancing-guidelines-and-drugs-in-those-with-multimorbidity

pathclinic.ca

- "evidence-informed medication guidelines for older adults with advanced frailty, including those living in long-term care"

- Frailty-specific recommendations for:
  - **Type 2 diabetes**
    - https://doi.org/10.1016/j.jamda.2013.08.002
  - **Hypertension**
    - Cleve Clin J Med. 2014 Jul;81(7):427-37
  - **Statin use**
    - Cleve Clin J Med. 2017 Feb;84(2):131-142.
  - **Depression**
    - https://cdn.dal.ca/content/dam/dalhousie/pdf/faculty/medicine/departments/core-units/cpd/Research/ADreview2016.pdf

Follow the guidelines?

“

Typically, clinical trials focus on efficacy of medications in **mostly homogeneous groups of subjects with a single disorder**.

In contrast, geriatricians are often concerned with avoiding adverse drug reactions in a **heterogeneous group of patients with multiple comoribidities**.

”

J Pharmacy Practice and Resea. 2010 (4):148-152.

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Should we deprescribe?

- Ethics
  - **Beneficence**
    - Clinical trials typically recruit younger individuals, may have early termination, subgroup analysis may not be powered to show an outcome
  - **Non-maleficence**
    - Adverse drug reactions
  - **Autonomy**
    - Informed consent, competency, substitute decision makers

J Pharmacy Practice and Research. 2010 (4):148-152.

Should we deprescribe?

“

Is deprescribing an action,

or is it simply the discontinuation of a previous action?

… to view ongoing medication use as an act rather than an omission, [ask]

“Would you start this medication in this patient?”

”

Bioethical Inquiry. 2016 (13): 581-590.

Should we deprescribe?

> … no randomised trial to date has assessed impact of rolling out guidelines on a population level on prescribing, patient-centred or clinical outcomes.

Age and Ageing 2018; 47: 638–640

Should we deprescribe?

- Deprescribing: A narrative review…
  - Eur J Intern Med. 2017 Mar;38:3-11.
- Targeted medications
  - Psychotropics: appears safe, withdrawal beneficial
  - Nitrates: less lower limb edema
  - Digoxin: less nausea/emesis
  - Antipsychotics: no "detrimental effects on behavioural symptoms" in those with dementia

Drugs Aging. 2008;25: 1021-31.
Cochrane Database Syst Rev. 2013;3:CD007726.

Should we deprescribe?

- Deprescribing: A narrative review…
  - Eur J Intern Med. 2017 Mar;38:3-11.
- General deprescribing
  - Some report reduction in serious ADRs
  - Others were successful in decreasing polypharmacy, but lacked clinical outcomes (hospital admissions, mortality)

Clin Geriatr Med. 2012; 28: 237-53.
Br J Clin Pharmacol. 2016; 82:532-48.
BMJ Open. 2015;5:e009235.

Should we deprescribe?

- Deprescribing: A narrative review…
  - Eur J Intern Med. 2017 Mar;38:3-11.
- Can medications remain “stopped”?
  - Proton pump inhibitors: 14-64% successfully stopped
  - Benzodiazepines: 25-85% successfully stopped
  - Antihypertensives: 20-85% successfully stopped

Fam Pract. 2014;31:625-30.
Expert Opin Drug Saf. 2014;13:919-34.
Drugs Aging. 2008;25:1021-31.

Should we deprescribe?

- Deprescribing: A narrative review…
  - Eur J Int Med. 2017;38:3-11.
- Why might there not be demonstrated clinical outcomes?
  - Sample size
  - Duration of trials
  - Harms of inappropriate medications may not be reversible
  - Polypharmacy might be a surrogate marker
  - Define “benefit” as stopping a medication without a change in the patient’s status

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Beers and STOPP / START

- BEERS: potentially inappropriate medications
  - "negative" labeling
- STOPP
  - **S**creening **T**ool of **O**lder Persons' **P**otentially Inappropriate **P**rescriptions
  - "negative" labeling
- START
  - **S**creening **T**ool to **A**lert Doctors To **R**ight **T**reatments
  - "positive" labeling

J Am Geriatr Soc. 2019 Apr;67(4):674-694.
International Journal of Clinical Pharmacology & Therapeutics. 2008;46:72–83.
Age and ageing. 2015; 44(2):213–218.

FORTA: **F**it f**OR** **T**he **A**ged

- 2014 update: Consensus approach reviewed 190 medications
  - geriatricians and geriatric psychiatrists in Germany
- Medications labeled:
  - A (**A**bsolutely – efficacious and safe)
  - B (**B**eneficial – efficacious, limited safety data)
  - C (**C**areful – questionable efficacy/safety)
  - D (**D**on't – avoid, stop first)

J Am Geriatr Soc. 2009;57:560–561.
Drugs Aging. 2014; 31(2): 131–140.

Deprescribing.org

Algorithms and support tools

- **Benzodiazepines**
  - Can Fam Physician. 2018 May; 64 (5): 339-351.
- **Antipsychotics**
  - Can Fam Physician. 2018 May; 64(1): 17-27.
- **Cholinesterase inhibitors and memantine**
  - https://cdpc.sydney.edu.au/research/medication-management/deprescribing-guidelines/
- **Proton pump inhibitors**
  - Can Fam Physician. 2017 May;63(5):354-364.
- **Antihyperglycemic agents**
  - Can Fam Physician. 2017 Nov; 63(11): 832-843.

deprescribing.org | Antipsychotic (AP) Deprescribing Algorithm

August 2018

Why is patient taking an antipsychotic?

- Psychosis, aggression, agitation (behavioural and psychological symptoms of dementia - BPSD) treated ≥ 3 months (symptoms controlled, or no response to therapy).
- Primary insomnia treated for any duration or secondary insomnia where underlying comorbidities are managed
- Schizophrenia
- Schizo-affective disorder
- Bipolar disorder
- Acute delirium
- Tourette's syndrome
- Tic disorders
- Autism
- Less than 3 months duration of psychosis in dementia
- Intellectual disability
- Developmental delay
- Obsessive-compulsive disorder
- Alcoholism
- Cocaine abuse
- Parkinson's disease psychosis
- Adjunct for treatment of Major Depressive Disorder

Recommend Deprescribing

Strong Recommendation (from Systematic Review and GRADE approach)

Taper and stop AP (slowly in collaboration with patient and/or caregiver; e.g. 25%-50% dose reduction every 1–2 weeks)

Stop AP

Good practice recommendation

Continue AP

or consult psychiatrist if considering deprescribing

Monitor every 1-2 weeks for duration of tapering

Expected benefits:

- May improve alertness, gait, reduce falls, or extrapyramidal symptoms

Adverse drug withdrawal events (closer monitoring for those with more severe baseline symptoms):

- Psychosis, aggression, agitation, delusions, hallucinations

If BPSD relapses:

Consider:

- Non-drug approaches (e.g. music therapy, behavioural management strategies)

Restart AP drug:

- Restart AP at lowest dose possible if resurgence of BPSD with re-trial of deprescribing in 3 months
- At least 2 attempts to stop should be made

Alternate drugs:

- Consider change to risperidone, olanzapine, or aripiprazole

If insomnia relapses:

Consider

- Minimize use of substances that worsen insomnia (e.g. caffeine, alcohol)
- Non-drug behavioural approaches (see reverse)

Alternate drugs

- Other medications have been used to manage insomnia. Assessment of their safety and effectiveness is beyond the scope of this deprescribing algorithm. See AP deprescribing guideline for details.

Bjerre LM, Farrell B, Hogel M, Graham L, Lemay G, McCarthy L, et al. Deprescribing antipsychotics for behavioural and psychological symptoms of dementia and insomnia: Evidence-based clinical practice guideline. Can Fam Physician 2018;64:17-27 (Eng), e1-e12 (Fr).

deprescribing.org | Institut de recherche Bruyère Research Institute | open Ontario Pharmacy Evidence Network

https://deprescribing.org/resources/deprescribing-guidelines-algorithms/

deprescribing.org | Benzodiazepine & Z-Drug (BZRA) Deprescribing Algorithm

February 2019

Why is patient taking a BZRA?

If unsure, find out if history of anxiety, past psychiatrist consult, whether may have been started in hospital for sleep, or for grief reaction.

- Insomnia on its own OR insomnia where underlying comorbidities managed
  For those ≥ 65 years of age: taking BZRA regardless of duration (avoid as first line therapy in older people)
  For those 18-64 years of age: taking BZRA > 4 weeks

- Other sleeping disorders (e.g. restless legs)
- Unmanaged anxiety, depression, physical or mental condition that may be causing or aggravating insomnia
- Benzodiazepine effective specifically for anxiety
- Alcohol withdrawal

Engage patients (discuss potential risks, benefits, withdrawal plan, symptoms and duration)

Recommend Deprescribing

Continue BZRA

- Minimize use of drugs that worsen insomnia (e.g. caffeine, alcohol etc.)
- Treat underlying condition
- Consider consulting psychologist or psychiatrist or sleep specialist

Taper and then stop BZRA

(taper slowly in collaboration with patient, for example ~25% every two weeks, and if possible, 12.5% reductions near end and/or planned drug-free days)

- For those ≥ 65 years of age (strong recommendation from systematic review and GRADE approach)
- For those 18-64 years of age (weak recommendation from systematic review and GRADE approach)
- Offer behavioural sleeping advice; consider CBT if available (see reverse)

Monitor every 1-2 weeks for duration of tapering

Expected benefits:

- May improve alertness, cognition, daytime sedation and reduce falls

Withdrawal symptoms:

- Insomnia, anxiety, irritability, sweating, gastrointestinal symptoms (all usually mild and last for days to a few weeks)

Use non-drug approaches to manage insomnia

Use behavioral approaches and/or CBT (see reverse)

If symptoms relapse:

Consider

- Maintaining current BZRA dose for 1-2 weeks, then continue to taper at slow rate

Alternate drugs

- Other medications have been used to manage insomnia. Assessment of their safety and effectiveness is beyond the scope of this algorithm. See BZRA deprescribing guideline for details.

Pottie K, Thompson W, Davies S, Grenier J, Sadowski C, Welch V, Holbrook A, Boyd C, Swenson JR, Ma A, Farrell B. Evidence-based clinical practice guideline for deprescribing benzodiazepine receptor agonists. Can Fam Physician 2018;64:339-51 (Eng), e209-24 (Fr)

This algorithm and accompanying advice support recommendations in the NICE guidance on the use of zaleplon, zolpidem and zopiclone for the short-term management of insomnia, and medicines optimisation. National Institute for Health and Care Excellence, February 2019

deprescribing.org | Bruyère Research Institute | open

https://deprescribing.org/resources/deprescribing-guidelines-algorithms/

Deprescribing Network

- Resources for patients
  - How to get a good night's sleep without medication
  - Brochures about the risks of certain medication classes
    - Anti-inflammatory medications
    - Antipsychotic
    - First-generation antihistamines
    - Medication for type-2 diabetes such as glyburide
    - Opioids for chronic non-cancer pain
    - Sleeping pills and benzodiazepines
    - Proton pump inhibitors
- Resources for providers

https://www.deprescribingnetwork.ca/

Deprescribing Network

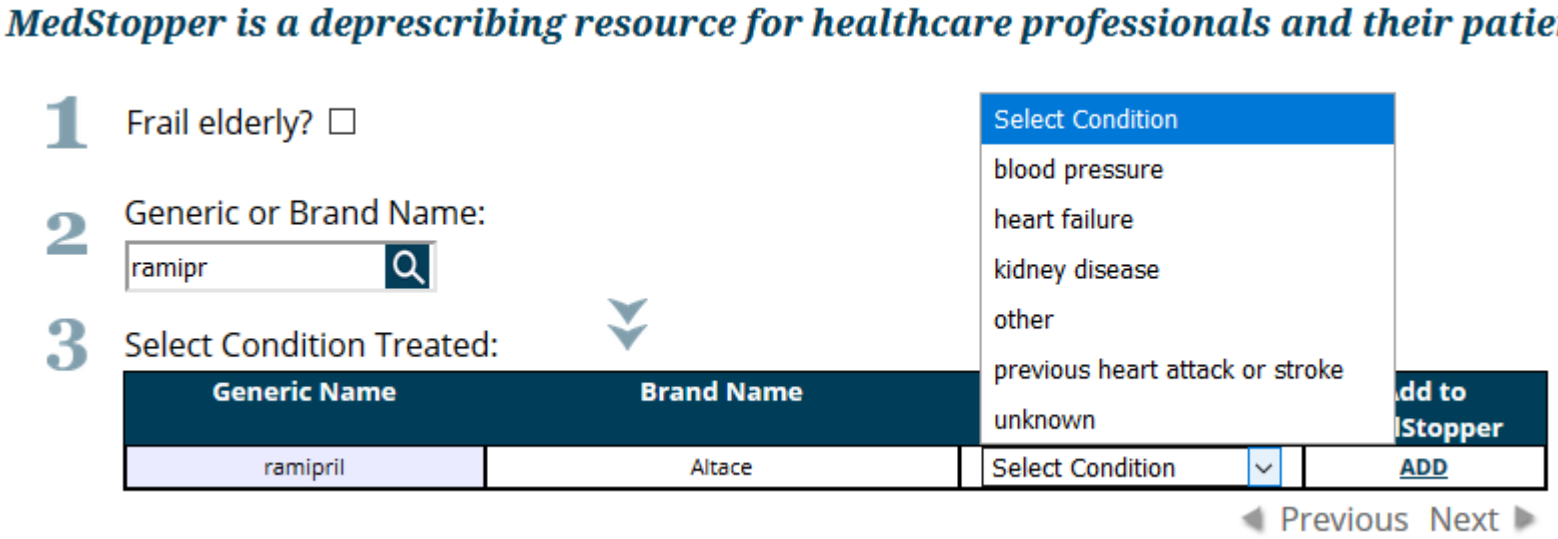
- Resources for providers
  - Deprescribing algorithms
  - Canadian resources to guide opioid tapering and deprescribing
  - Choosing Wisely Canada toolkits
  - Links to Beers and STOPP/START

Canadian Deprescribing Network

https://www.deprescribingnetwork.ca/

medstopper.com

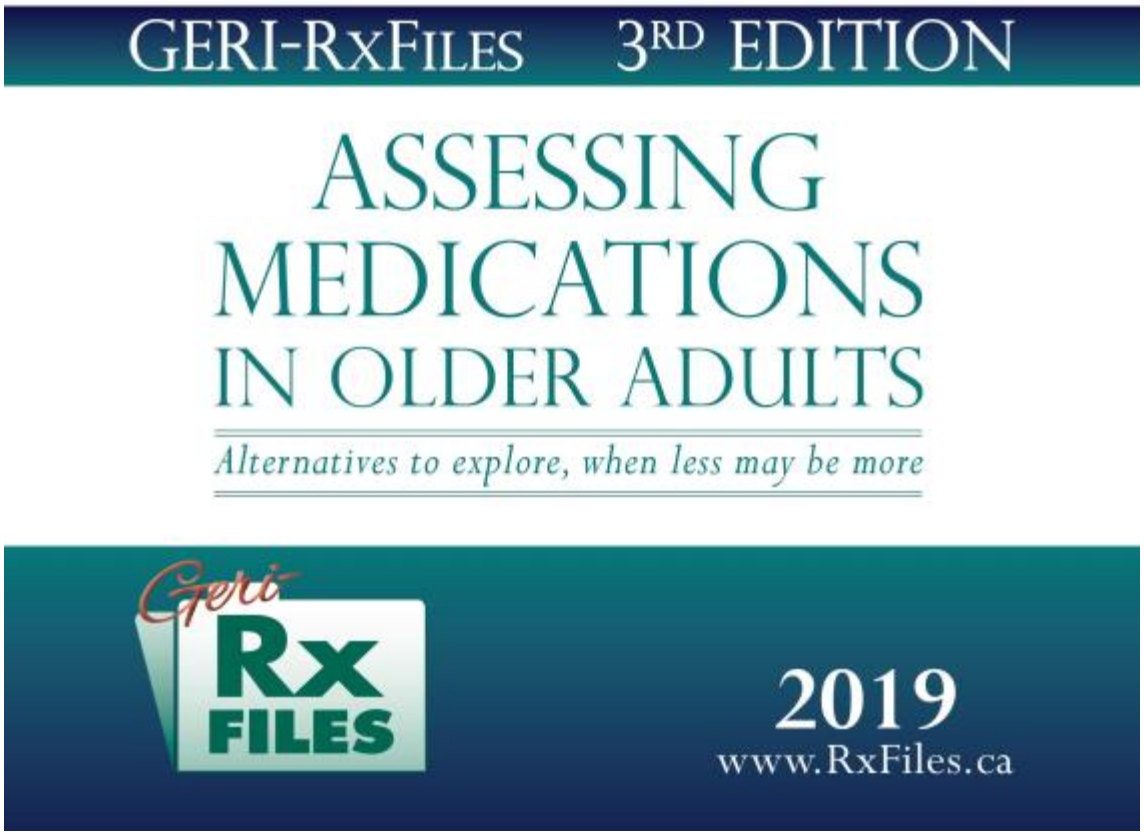
- Enter list of medications and indications if known
  - Reorders list for order in which to consider deprescribing
    - Based on: BEERS and STOPP
  - Tips for tapering/stopping each medication



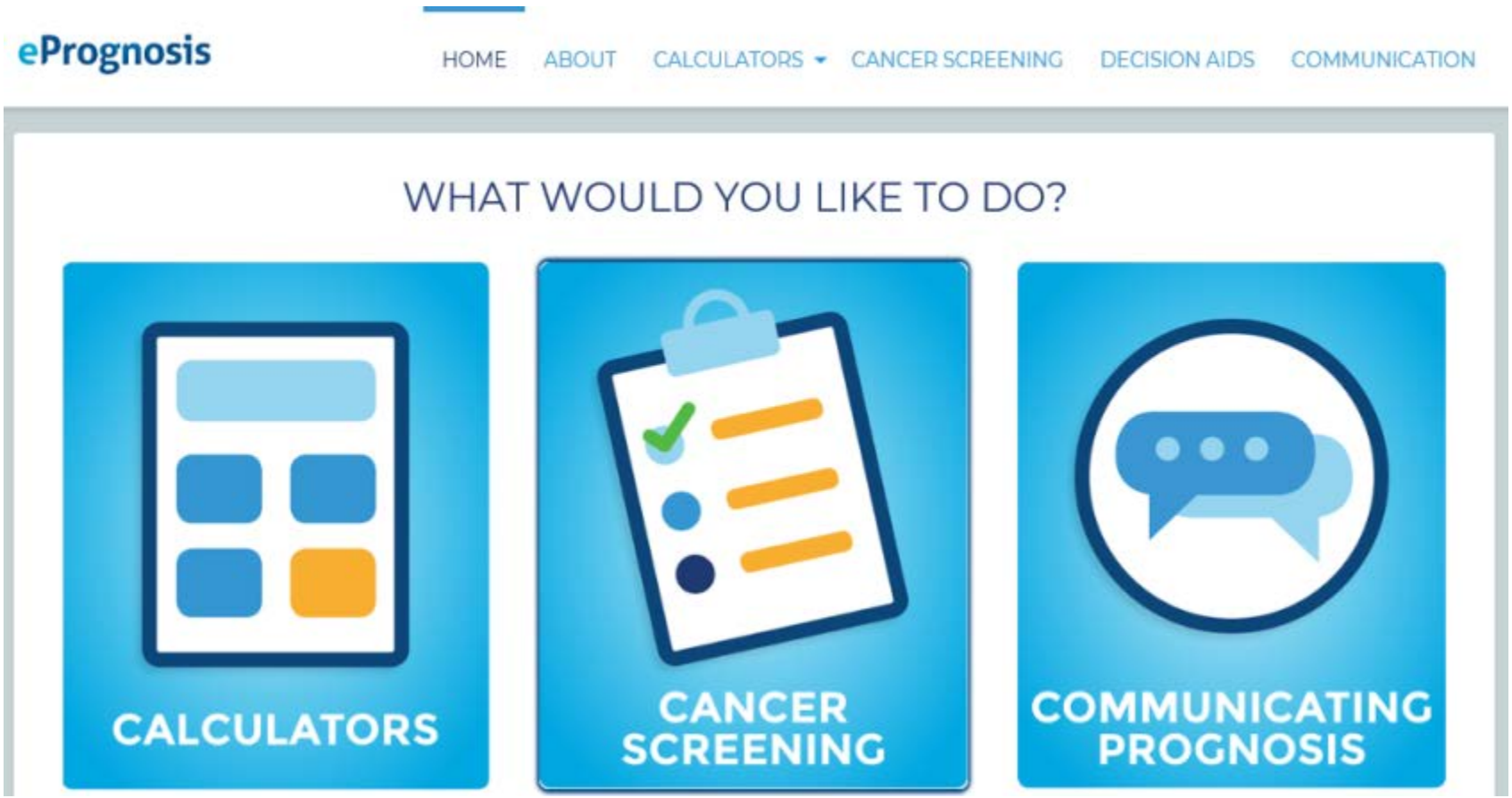
medstopper.com

Stopping Priority RED=Highest GREEN=Lowest	Medication/ Category/ Condition	May Improve Symptoms?	May Reduce Risk for Future Illness?	May Cause Harm?	Suggested Taper Approach	Possible Symptoms when Stopping or Tapering	Beers/STOPP Criteria
	amitriptyline (Elavil) / Tricyclic antidepressant / **insomnia**				If used daily for more than 3-4 weeks. Reduce dose by 25% every week (i.e. week 1-75%, week 2-50%, week 3-25%) and this can be extended or decreased (10% dose reductions) if needed. If intolerable withdrawal symptoms occur (usually 1-3 days after a dose change), go back to the previously tolerated dose until symptoms resolve and plan for a more gradual taper with the patient. Dose reduction may need to slow down as one gets to smaller doses (i.e. 25% of the original dose). Overall, the rate of discontinuation needs to be controlled by the person taking the medication.	cramping, diarrhea, nausea, sweating, hot or cold flashes, headache, dizziness, flu-like symptoms, fatigue, anxiety, restlessness, trouble sleeping, vivid dreams, tremors, muscle aches, confusion, pounding heart (palpitations), unusual movements, mood changes	Details

Geri RxFiles



eprognosis.ucsf.edu



Medication costs

- medsconference.org
  - "Resources" → **Price Comparison of Commonly Prescribed Medications in Manitoba 2020**

Generic Name	Brand Name	Strength	Usual Dosing	90 Day Cost	Per Unit Cost
Angiotensin Converting Enzyme Inhibitors (ACEIs)					
Cilazapril	Inhibace	5mg	Daily	$24	$0.26
Enalapril	Vasotec	10mg	Daily	$31	$0.34
Fosinopril	Monopril	20mg	Daily	$50	$0.55
Lisinopril	Zestril	20mg	Daily	$66	$0.74
Perindopril	Coversyl	4mg	Daily	$19	$0.21
Perindopril	Coversyl	8mg	Daily	$27	$0.30
Ramipril	Altace	2.5mg, 5mg	Daily	$8	$0.09
Ramipril	Altace	10mg	Daily	$10	$0.11
Combination ACEI + Diuretic					
Enalapril/ Hydrochlorothiazide	Vaseretic	10mg/25mg	Daily	$102	$1.13
Lisinopril/ Hydrochlorothiazide	Prinzide	20mg/12.5mg, 20mg/25mg	Daily	$66	$0.74
Perindopril/Indapamide	Coversyl Plus	4mg/1.25mg	Daily	$48	$0.54
Perindopril/Indapamide	Coversyl Plus HD	8mg/2.5mg	Daily	$54	$0.60

Enalapril 10mg
$31/90 days

Enalapril/
Hydrochlorothiazide
10/25mg
$102/90 days

Impactful Articles from the last year

Cardiovascular

- Comparisons between Oral Anticoagulants among Older Nonvalvular Atrial Fibrillation Patients. *Deitelzweig, Steven et al. (2019)*
- Aspirin in Reducing Events in the Elderly (ASPREE) trial. *McNeil, John et al. (2018)*
- Effect of Intensive vs Standard Blood Pressure Control on Probable Dementia: A Randomized Clinical Trial. *Williamson, Jeff et al. (2019)*
- Is the association between blood pressure and mortality in older adults different with frailty? A systematic review and meta-analysis. *Todd, Oliver et al. (2019)*
- Recommendations for (Discontinuation of) Statin Treatment in Older Adults: Review of Guidelines. *van der Ploeg, Milly et al. (2019)*

Impactful Articles from the last year

Cardiovascular medications and non-CV outcomes

- Association Between Chronic or Acute Use of Antihypertensive Class of Medications and Falls in Older Adults. A Systematic Review and Meta-Analysis. *Kahlaee, Hamid et al. (2018)*
- Antihypertensive medications and risk for incident dementia and Alzheimer's disease: a meta-analysis of individual participant data from prospective cohort studies. *Ding, Jie et al. (2019)*

Impactful Articles from the last year

Diabetes

- Relationship between HbA1c and all-cause mortality in older patients with insulin-treated type 2 diabetes: results of a large UK Cohort Study. *Anyanwagu, Uchenna et al. (2019)*
- Efficacy and safety of empagliflozin in older patients in the EMPA-REG OUTCOME R trial. *Monteiro, Pedro et al. (2019)*

Thyroid

- Association Between Levothyroxine Treatment and Thyroid-Related Symptoms Among Adults Aged 80 Years and Older With Subclinical Hypothyroidism. *Mooijaart, Simon et al.(2019)*

Osteoporosis

- Effect of Bisphosphonates on Fracture Outcomes Among Frail Older Adults. *Zullo, Andrew et al. (2019)*

Impactful Articles from the last year

Polypharmacy

- How do potentially inappropriate medications and polypharmacy affect mortality in frail and non-frail cognitively impaired older adults? A cohort study. *Porter, Bryony et al. (2019)*

Dementia

- Memantine for dementia. *McShane, Rupert et al. (2019)*
- Risk of rhabdomyolysis with donepezil compared with rivastigmine or galantamine: a population-based cohort study. *Fleet, Jamie et al. (2019)*

Depression

- Adverse Effects of Pharmacologic Treatments of Major Depression in Older Adults. *Sobieraj, Diana et al. (2019)*

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- **Drug-drug and drug-disease interactions in the ED: analysis of a high-risk population.** Goldberg RM et al. Am J Emerg Med. 1996 Sep;14(5):447-50.
- **Polypharmacy cutoff and outcomes: five or more medicines were used to identify community-dwelling older men at risk of different adverse outcomes.** Gnjidic D et al. J Clin Epidemiol. 2012 Sep;65(9):989-95.
- **High-risk prescribing and incidence of frailty among older community-dwelling men.** Gnjidic D et al. Clin Pharmacol Ther. 2012 Mar; 91(3):521-8.
- **Clinical practice guidelines and quality of care for older patients with multiple comorbid diseases: implications for pay for performance.** Boyd CM et al. JAMA. 2005;294(6):716-724.
- **Evidence, Ethics and Medication Management in Older People.** Le Couteur DG et al. J Pharmacy Practice and Resea. 2010 (4):148-152.

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- **Medication withdrawal trials in people aged 65 years and older: a systematic review.** Iyer S et al. Drugs Aging. 2008;25: 1021-31.
- **Withdrawal versus continuation of chronic antipsychotic drugs for behavioural and psychological symptoms in older people with dementia.** Declercq T et al. Cochrane Database Syst Rev. 2013;3:CD007726
- **Deprescribing trials: methods to reduce polypharmacy and the impact on prescribing and clinical outcomes.** Gnjidic D et al. Clin Geriatr Med. 2012; 28: 237-53.
- **Impact of strategies to reduce polypharmacy on clinically relevant endpoints: a systematic review and meta-analysis.** Johansson T et al. Br J Clin Pharmacol. 2016; 82:532-48.

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- **Interventions to improve the appropriate use of polypharmacy in older people: a Cochrane systematic review.** Cooper JA et al. BMJ Open. 2015 Dec 9;5(12):e009235.
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- **Risk versus risk: a review of benzodiazepine reduction in older adults.** Paquin AM et al. Expert Opin Drug Saf. 2014;13:919-34.
- **Deprescribing: A narrative review of the evidence and practical recommendations for recognizing opportunities and taking action.** Reeve E et al. Eur J Int Med. 2017;38:3-11.
- **Deprescribing versus continuation of chronic proton pump inhibitor use in adults.** Boghossian TA et al. Cochrane Database of Systematic Reviews 2017, Issue 3. Art. No.: CD011969. DOI: 10.1002/14651858.CD011969.pub2.
- **The dementia antipsychotic withdrawal trial (DART-AD): long-term follow-up of a randomised placebo-controlled trial.** Ballard C. Lancet Neurol. 2009 Feb;8(2):151-7.
- **ACP Journal Club. Continued use of antipsychotic drugs increased long-term mortality in patients with Alzheimer disease.** Hirch C. Ann Intern Med. 2009 Jun 16; Vol. 150 (12), pp. JC6-8.

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- **American Geriatrics Society 2019 Updated AGS Beers Criteria® for Potentially Inappropriate Medication Use in Older Adults.** J Am Geriatr Soc. 2019 Apr;67(4):674-694.
- **STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment). Consensus validation.** Gallagher P et al. Int J Clin Pharmacol Ther. 2008 Feb;46(2):72-83.
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- **Multimorbidity and polypharmacy: how to reduce the harmful drug load and yet add needed drugs in the elderly? Proposal of a new drug classification: fit for the aged.** Wehling M. J Am Geriatr Soc. 2009;57:560–561.
- **Consensus validation of the FORTA (Fit fOR The Aged) List: a clinical tool for increasing the appropriateness of pharmacotherapy in the elderly.** Kuhn-Thiel AM et al. Drugs Aging. 2014; 31(2): 131–140.

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- **Deprescribing antipsychotics for behavioural and psychological symptoms of dementia and insomnia: Evidence-based clinical practice guideline.** Bjerre LM et al. Can Fam Physician. 2018 May; 64(1): 17-27.
- **Deprescribing proton pump inhibitors: Evidence-based clinical practice guideline.** Farrell B et al. Can Fam Physician. 2017 May;63(5):354-364.
- **Deprescribing antihyperglycemic agents in older persons: Evidence-based clinical practice guideline.** Farrell B. Can Fam Physician. 2017 Nov; 63(11): 832-843.
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