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to meet life's changes

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

Polypharmacy and Deprescribing – when and when not to deprescribe... (and how)

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To promote seniors' mental health by connecting people, ideas and resources.
Coalition Canadienne pour la Santé Mentale des Personnes Âgées
Promouvoir la santé mentale des personnes âgées en reliant les personnes, les idées et les ressources.



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The information presented in this CME program is based on recent information that is explicitly “evidence-based”.

This CME Program and its material is peer reviewed and all the recommendations involving clinical medicine are based on evidence that is accepted within the profession; and all scientific research referred to, reported, or used in the CME/CPD activity in support or justification of patient care recommendations conforms to the generally accepted standards



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Objectives

Goal: To support decision making about when and when not to deprescribe, and if the latter, how to do so safely

At the conclusion of this activity, participants will be able to:

1. Describe approaches to appropriate prescribing and deprescribing for older people
2. Generate plans to support safe deprescribing

Where I'm coming from

- Bruyère Geriatric Day Hospital x 22yrs
- Common challenges
 - ++ CNS depressants and anticholinergic drugs
 - Signs/symptoms not recognized as potentially caused by a drug
 - Drugs continued when reason/effectiveness unclear
 - Doses tolerated when younger, not reduced with frailty or age
- Attempts to address these
 - Pharmacists with FHTs
 - Case reports
 - Deprescribing Guidelines
 - Polypharmacy-Deprescribing module
 - @deprescribing and <https://deprescribing.org/>

Definitions

Polypharmacy

- >5-9 medications
- More medications than clinically indicated
- Medications continued with little benefit or more harm than benefit

Deprescribing

- The planned and supervised process of dose reduction or elimination of medication that may be causing harm or no longer be providing benefit
- Part of good prescribing – backing off when doses are too high or stopping medications that are no longer needed or may be causing harm

Prescribing principles in older people

1. Decide if a drug is indicated
2. Choose medications with least risk of drug interactions and adverse events, and are easy to take
3. Use the lowest effective dose
4. Inform people about possible side effects of medications and what to do when they occur
5. Consider potential for any symptom to be caused by a drug
6. Ask patients about effectiveness and side effects

Effective? In population (frail, older, multi-morbidities)?
Time to benefit?
Appropriate target?

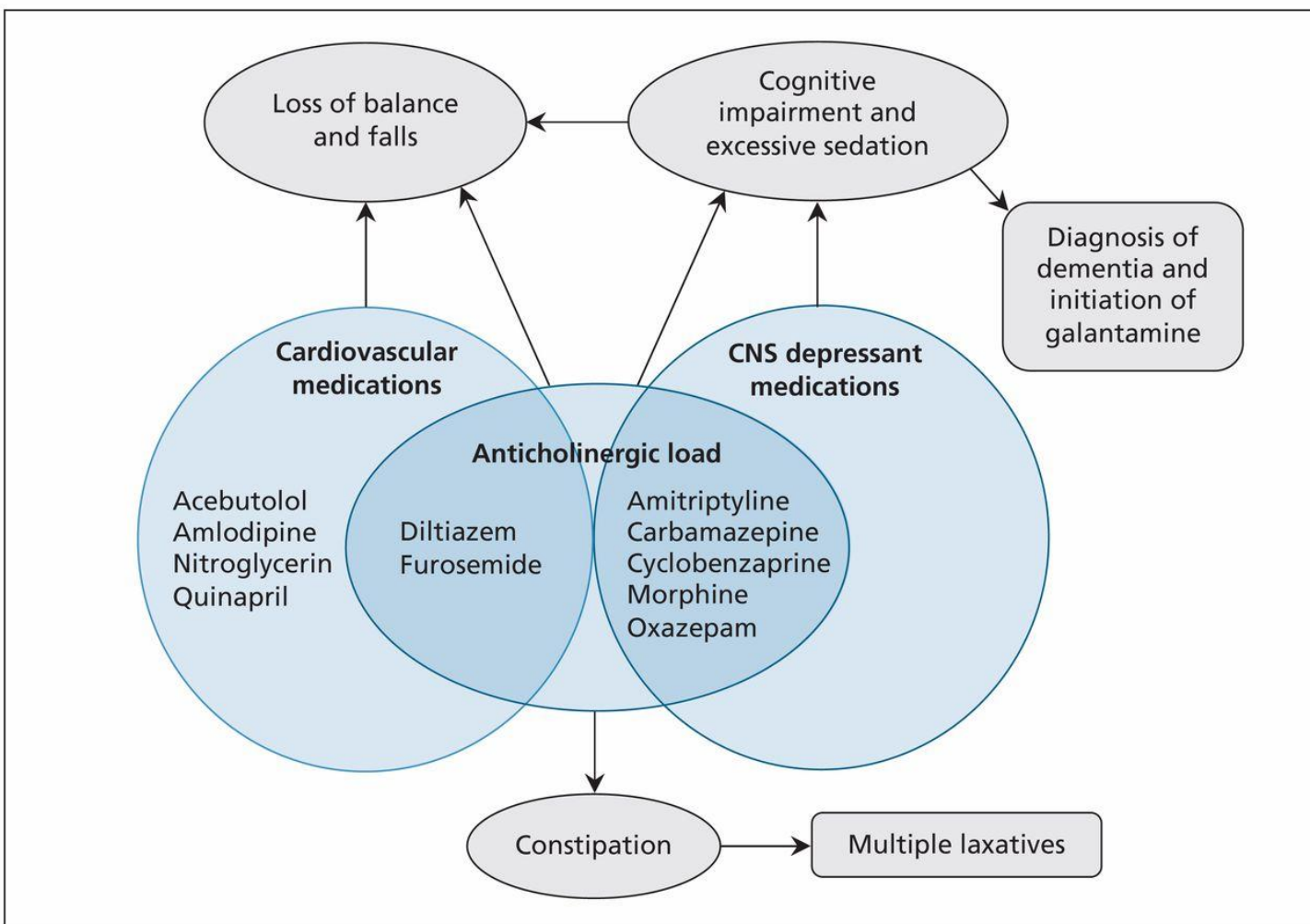
Older people handle and respond to drugs differently

Can this be caused by a drug?

Why deprescribe?

- Person may be having side effects from
 - Dose is now too high (due to age, changes in pck or pd, frailty)
 - Additive effects with other medications (CNS depressants, anticholinergics, other)
- Unclear if person is responding to medication
 - Original reason unknown
 - Patient and HCP not able to confirm effectiveness
 - Taking multiple medications for same reason, unclear which is helping (or perhaps none are helping)

Interplay between the medications of a 77-year-old woman referred to a geriatric day hospital and their possible effects on sedation, cognition, constipation and risk of falls.



Barbara Farrell et al. CMAJ 2013;185:1240-1245

CMAJ·JAMC

Making a deprescribing decision is hard

Continue?

Benefits

- Improve a sign or symptom
- Reduce risk of future illness
- Slow progression of disease
- Cure a disease

Harms

- Adverse reactions
- Drug interactions
- Worsen frailty
- Functional impairment
- Non-adherence
- Other implications of medication overload

Deprescribe?

Benefits

- Reduction in number of medications, or potentially inappropriate medications
- Reduction in serious ADRs
- Reduction in mortality (in non-randomized studies)
- Reduced drug and health care utilization costs
- Improved adherence

Harms

Generally safe, but anticipate, monitor for and manage adverse drug withdrawal events (ADWE), and reversal of drug interactions

Case #1

Problem	Intervention	Outcome
<ul style="list-style-type: none">• Woman in her 80's• Falls x 6 months, cognitive impairment• Potentially related to: imipramine 300mg qhs x 50 years• Recently started on donepezil 5mg daily	<ul style="list-style-type: none">• Reduced imipramine by 50mg weekly• Monitoring: cholinergic rebound (nausea, vomiting, sweating, urination, diarrhea, tachycardia, akathisia, dystonia) – some sweating experienced	<ul style="list-style-type: none">• Tapering extended over hospital stay (unrelated reason) and completed tapering in GDH• Imipramine stopped• Woman feeling much better, more interactive, “first time in years I could finish a sentence”, no falls• referred for assessment to determine if donepezil needed

Resources:

Anticholinergic burden: <http://www.acbcalc.com/> <https://www.rxfiles.ca/rxfiles/>

Tapering anticholinergic meds and monitoring for ADWE:

<https://www.rxfiles.ca/RxFiles/modules/miscellaneous/search.aspx?for=deprescribing>

WHENEVER POSSIBLE, AVOID DRUGS WITH MODERATE TO HIGH ANTICHOLINERGIC ACTIVITY IN OLDER ADULTS (>65 YEARS OF AGE)

Low Anticholinergic Activity; Moderate/High Anticholinergic Activity in combo Beers

	Antibiotics	Antiparkinsonian	Cardiovascular Agents	Immunosuppressants
	<p>ampicillin ✓ *ALL AVAILABLE AS GENERIC</p> <p>cefOXitin X ✓</p> <p>clindamycin ✓</p> <p>gentamicin (Oint & Soft NIBB covered) ✓</p> <p>piperacillin X ✓</p> <p>vancomycin ✓</p>	<p>amantadine SYMMETREL ✓</p> <p>benztropine mesylate COGENTIN ✓</p> <p>bromocriptine PARLODEL ✓</p> <p>carbidopa/levodopa ☆ SIMEMET ✓</p> <p>entacapone COMTAN ✓</p> <p>ethopropazine PARSITAN ✓</p> <p>phenelzine NARDIL ✓</p> <p>pramipexole MIRAPEX ✓</p> <p>procyclidine KEMADRIN ✓</p> <p>selegiline ELDEPRYL ✓</p> <p>trihexyphenidyl ARTANE ✓</p>	<p>atenolol TENORMIN ✓</p> <p>captopril CAPOTEN ✓</p> <p>chlorthalidone GENERIC ONLY ✓</p> <p>digoxin LANOXIN, TOLOXIN ✓</p> <p>diltiazem ☆ CARDIZEM, TIAZAC ✓</p> <p>dipyridamole PERSANTINE, AGGRENOX ✓</p> <p>disopyramide RYTHMODAN ✓</p> <p>furosemide LASIX ✓</p> <p>hydralazine APRESOLINE ✓</p> <p>isosorbide ISORDIL ✓</p> <p>metoprolol LOPRESOR ✓</p> <p>NIFedipine ADALAT ✓</p> <p>quinidine GENERIC ONLY X ✓</p> <p>triamterene DYRENIUM ✓</p> <p>warfarin ☆ COUMADIN ✓</p>	<p>azaTHIOprine IMURAN ✓</p> <p>cyclosporine NEORAL ✓</p> <p>hydrocortisone CORTEF ✓</p> <p>methylprednisolone MEDROL ✓</p> <p>prednisone WINGPRED ✓</p>
	<p>amitriptyline ELAVIL ✓</p> <p>clomiPRAMINE ANAFRANIL ✓</p> <p>desipramine NORPRAMIN ✓</p> <p>doxepin >6mg SINEQUAN ✓</p> <p>imipramine TOFRANIL ✓</p> <p>nortriptyline AVENTYL ✓</p> <p>-less anticholinergic effects than amitriptyline & imipramine</p>	<p>ARIPiprazole ☆ ABILIFY ✓</p> <p>asenapine SAPHRIS (B-PAD) ✓</p> <p>chlorproMAZINE LARGACTIL ✓</p> <p>cloZAPine CLOZARIL ✓</p> <p>flupentixol FLUANXOL ✓</p> <p>fluPHENAZine MODITEN ✓</p> <p>haloperidol HALDOL ✓</p> <p>loxapine LOXAPAC ✓</p> <p>lurasidone LATUDA ✓</p> <p>methotrimeprazine NOZINAN ✓</p> <p>OLANzapine ZYPREXA ✓</p> <p>paliperidone INVEGA (on injection only) ✓</p> <p>pericyazine NEULEPTIL ✓</p> <p>perphenazine TRILAFON ✓</p> <p>pimozide ORAP ✓</p> <p>QUETiapine SEROQUEL ✓</p> <p>risperiDONE RISPERDAL (on injection) ✓</p> <p>trifluoperazine STELAZINE ✓</p> <p>ziprasidone ZELDO ✓</p> <p>zuclopentixol CLOPIXOL ✓</p>	<p>atropine LOMOTIL on SPDP, ✓</p> <p>belladonna GENERIC ONLY X ✓</p> <p>bisacodyl BISACODYL X ✓</p> <p>chlordiethylpiperazine/clidinium LIBRAX X ✓</p> <p>cimetidine TAGAMET ✓</p> <p>dicyclomine BENTYLOL ✓</p> <p>dimenhydrINATE GRAVOL ✓</p> <p>diphenoxylate/atropine LOMOTIL on SPDP, ✓</p> <p>domperidone MOTILUM ✓</p> <p>famotidine ☆ PEPCID ✓</p> <p>loperamide IMODIUM ✓</p> <p>if used short term</p> <p>medcine BONAMINE ✓</p> <p>metoclopramide MAXERAN ✓</p> <p>nizatidine AXID ✓</p> <p>prochlorperazine STEMETIL ✓</p> <p>if used short term</p> <p>promethazine PHENERGAN X ✓</p> <p>ranITidine ZANTAC ✓</p> <p>-low anticholinergic activity if adjusted for renal function</p> <p>scopolamine TRANSDERM V ✓</p>	<p>meperidine DEMEROL Not for chronic use X ✓</p> <p>codeine (on controlled release only, φ, inj & liquid) ✓</p> <p>fentaNYL DURAGESIC ✓</p> <p>HYDRomorphone ☆ DILAUID, HYDROMORPH CONTIN φ on CR only ✓</p> <p>morphine ☆ STATEX, M.O.S., KADIAN φ ✓</p> <p>oxyCODONE SU PEDOL, OXY IR ✓</p> <p>traMADol ☆ ULTRAM, RALIVIA, TRIDURAL, ZYTRAM XL X ✓</p>
TCA	<p>trimipramine SURMONTIL ✓</p>	<p>Antipsychotics</p>	<p>Gastrointestinal Agents</p>	<p>Muscle Relaxants</p>
SSRI	<p>citalopram ☆ CELEZA ✓</p> <p>escitalopram ☆ CIPRALEX ✓</p> <p>FLUoxetine PROZAC ✓</p> <p>fluvoxamine LUVOX ✓</p> <p>PARoxetine PAXIL ✓</p> <p>sertraline ☆ ZOLOFT ✓</p>			<p>Baclofen is the preferred agent of the above listed muscle relaxants however, it does display moderate to high anticholinergic activity.</p>
Other	<p>buPROPion ☆ WELBUTRIN, ZYBAN ✓</p> <p>desvenlafaxine PRISTIQ X ✓</p> <p>DULoxetine CYMBALTA ✓</p> <p>mirtazapine ☆ REMERON ✓</p> <p>moclobemide ☆ MANERIX ✓</p> <p>phenelzine NARDIL ✓</p> <p>trazODone ☆ TRAZO REL ✓</p> <p>venlafaxine ☆ EFFEXOR ✓</p> <p>In the elderly, citalopram CELEZA & sertraline ZOLOFT are the usually preferred SSRIs.</p>	<p>Antiseizure Drugs</p> <p>carBAMazepine TEGRETOL ✓</p> <p>divalproex ☆ EPIVAL ✓</p> <p>OXcarbazepine TRILEPTAL ✓</p> <p>valproic acid ☆ DEPAKENE ✓</p> <p>Preferred Alternatives: divalproex EPVAL, gabapentin GABAPENTIN, lamotrigine LAMICTAL, levetiracetam KEPPRA</p>	<p>Respiratory Meds</p> <p>aclidinium bromide TUDORZA GEN UAIR ✓</p> <p>aclidinium/formoterol DUAKIR GEN UAIR ✓</p> <p>fluticasone/salmeterol ADVAIR ✓</p> <p>ipratropium (salbutamol) ATOVENT ✓</p> <p>glycopyrronium SEEBRI BREEZHALER ✓</p> <p>glycopyrronium/Indacaterol ULTIBRO BREEZHALER ✓</p> <p>pseudoephedrine COUGH & COLD PRODUCTS ✓</p> <p>theophylline THEOLAIR, UNIPHYL ✓</p> <p>tiotropium SPIRIVA ✓</p> <p>tiotropium/olodaterol INSPILOT ✓</p> <p>umeclidinium INCRUSE ELIPTA ✓</p> <p>umeclidinium/vilanterol ANORO ELIPTA ✓</p> <p>umeclidinium/vilanterol/fluticasone TREGLEY ELIPTA X ✓</p>	<p>Opioids</p> <p>acetaminophen X, NSAIDs (e.g. ibuprofen, naproxen)</p> <p>Miscellaneous</p> <p>busPIRone ☆ BUSPAR ✓</p> <p>celecoxib CELEBREX ✓</p> <p>colchicine GENERIC ONLY ✓</p> <p>ketotifen ophthalmic ZADITOR ✓</p> <p>lithium CARBOLITH, DU RALITH ✓</p> <p>metformin GLUCOPHAGE, GLYCON, g ✓</p> <p>methotrexate GENERIC ONLY ✓</p> <p>naratriptan AMERGE ✓</p> <p>pancuronium GENERIC ONLY X ✓</p> <p>SUMAtriptan IMITREX ✓</p> <p>ZOLMitriptan ZOMIG ✓</p>
	<p>Antihistamines/Antipruritics</p> <p>brompheniramine COUGH&COLD PRODUCTS OTC X ✓</p> <p>chlorpheniramine CHLOR-TRIPOLON OTC X ✓</p> <p>cyproheptadine PERIAC TIN OTC X ✓</p> <p>diphenhydrAMINE BENADRYL OTC X ✓</p> <p>doxylamine UNISOM X ✓</p> <p>hydrOXYzine ATARAX ✓</p> <p>pyrilamine MIDOL, PAMPRIN OTC X ✓</p> <p>trimeprazine PANECTYL ✓</p> <p>triprolidine COTRIDIN X ✓</p> <p>Preferred Alternatives: cetirizine REACTINE X ✓ & fexofenadine ALLEGRA X ✓ (controversial rating as medium/high activity), desloratadine AERBUS X ✓, loratadine CLARITIN X ✓.</p>	<p>Antispasmodics</p> <p>dicyclomine FORMULEX, BENTYLOL ✓</p> <p>glycopyrrolate BUSINUL X ✓</p> <p>hyoscine butylbromide BUSCOPAN ✓</p>	<p>Benzodiazepines</p> <p>ALPRAZolam XANAX half-life: ~12 hr ✓</p> <p>chlordiazePOXIDE LIBRIUM half-life: ~100 hr ✓</p> <p>clonazePAM RIVOTRIL half-life: ~34 hr ✓</p> <p>clorazepate TRANXEN E half-life: ~100 hr ✓</p> <p>diazepam VALIUM half-life: ~100 hr ✓</p> <p>flurazepam DALMAN E half-life: ~100 hr ✓</p> <p>LORazepam ☆ ATIVAN half-life: ~15 hr ✓</p> <p>midazolam VERSED half-life: ~3 hr X ✓</p> <p>oxazepam ☆ SERAX half-life: ~8 hr ✓</p> <p>temazepam ☆ RESTORIL half-life: ~11 hr ✓</p> <p>triazolam HALCION half-life: ~2 hr ✓</p> <p>Avoid long- & ultra-short acting agents in the elderly. (Clonazepam ok, if long-acting required e.g. chronic anxiety)</p>	<p>Preferred Alternatives: acetaminophen X, NSAIDs (e.g. ibuprofen, naproxen)</p> <p>Possible preferred alternatives</p> <p>☆ = Denotes agents with anticholinergic activity that may be better tolerated than others. Whenever possible, anticholinergic drugs should be avoided, & the preferred agents used.</p> <p>◇ = Unable to confirm anticholinergic activity (black font)</p> <p>AChEI = Acetylcholinesterase Inhibitor (e.g. donepezil, tacrine, galantamine, rivastigmine)</p> <p>CR = Controlled Release Formulation</p> <p>PPI = Proton Pump Inhibitor (e.g. rabeprazole)</p> <p>OTC = Over-the-counter</p> <p>✓ = Saskatchewan Health finds co-administration of this agent with a AChEI acceptable</p> <p>✗ = If patient is currently on this medication, Saskatchewan Health will NOT cover AChEI</p>

Diseases associated with an essential cholinergic deficit include Alzheimer’s dementia, Lewy body dementia & to some extent other dementias (not frontal). Anticholinergic drugs worsen the deficit & are therefore highly problematic. **Donepezil** ^{ARICEPT}, **rivastigmine** ^{EXELON}, and **galantamine** ^{REMINYL} are reversible inhibitors of the enzyme acetylcholinesterase. Because of the mechanism of action, medications with anticholinergic effects can interfere with the activity of donepezil, rivastigmine and galantamine. The reverse page of this document contains a list of drugs with anticholinergic effects, with an emphasis on those with moderate to high activity. Drug coverage (in Sask.) may be affected if a patient is using a drug on this list concurrently with donepezil, rivastigmine or galantamine.

Not only is drug coverage of concern, the use of drugs with anticholinergic activity can increase the risk of adverse effects (e.g., cognitive dysfunction, delirium) in the elderly. Drugs with low anticholinergic activity may be good alternatives to drugs with more anticholinergic activity. For example, SSRIs with lower anticholinergic activity are preferred over tricyclics for treatment of depression in the elderly. However, it’s not just the use of single drugs with significant anticholinergic activity that can cause trouble. Individuals who take multiple medications with low anticholinergic activity may also have increased risk of adverse effects. In fact, even small increases in so-called anticholinergic burden or load increases the risk of morbidity & mortality in older individuals.⁹

Total Anticholinergic Load: both highly anticholinergic drugs plus others (e.g. digoxin, paroxetine, ranitidine) contribute to the anticholinergic load & cognitive impairment. Review each medication the patient is taking.

Spectrum of Anticholinergic Side-Effects

Mild	Moderate	Severe
<ul style="list-style-type: none"> • Dryness of mouth (modest) 	<ul style="list-style-type: none"> • Moderately disturbing dry mouth/thirst • Speech problems • Reduced appetite 	<ul style="list-style-type: none"> • Difficulty chewing, swallowing • Impaired perception of taste & texture of food • Dental decay, periodontal disease, denture misfit • Mucosal damage • Malnutrition • Respiratory infection
<ul style="list-style-type: none"> • Mild dilatation of pupils 	<ul style="list-style-type: none"> • Inability to accommodate • Vision disturbances • Dizziness 	<ul style="list-style-type: none"> • Increased risk of accidents & falls leading to decreased function • Exacerbation/precipitation of a acute angle closure glaucoma
	<ul style="list-style-type: none"> • Esophagitis • Reduced gastric secretions, gastric emptying (atony) • Reduced peristalsis, constipation 	<ul style="list-style-type: none"> • Fecal impaction (in patients with constipation) • Altered absorption of concomitant medications • Paralytic ileus, pseudo-obstruction
<ul style="list-style-type: none"> • Urinary hesitancy 		<ul style="list-style-type: none"> • Urinary retention, urinary tract infection (in patients with urinary hesitancy)
	<ul style="list-style-type: none"> • Increased heart rate 	<ul style="list-style-type: none"> • Conduction disturbances supraventricular tachyarrhythmias • Exacerbation of angina • Congestive heart failure
<ul style="list-style-type: none"> • Decreased sweating 		<ul style="list-style-type: none"> • Thermoregulatory impairment leading to hyperthermia (heat stroke). {Additional risk if also on diuretic.}
<ul style="list-style-type: none"> • Drowsiness • Fatigue • Mild amnesia • Inability to concentrate 	<ul style="list-style-type: none"> • Excitement • Restlessness • Confusion • Memory impairment 	<ul style="list-style-type: none"> • Profound restlessness & disorientation, agitation • Hallucinations, delirium • Ataxia, muscle twitching, hyperreflexia, seizures • Exacerbation of cognitive impairment (in patients with dementia)

Tips to Deal with Anticholinergic Side-Effects

General approach:

- Identify the cause
- Discontinue unnecessary offending medications
- Reduce the dose
- Look for effective alternatives that are less likely to cause the side effect

Dry Mouth:

- 80% of the most commonly prescribed medications can cause dry mouth (e.g. incontinence meds, Parkinson’s meds, antidepressants, antipsychotics, NSAIDs, opioids, muscle relaxants, antihistamines, benzodiazepines, antihypertensives [clonidine, alpha-blockers, beta-blockers, calcium channel blockers, diuretics, ACE inhibitors]).
- When appropriate, instruct patients to take meds associated with dry mouth early in the day since salivary production is lowest at night
- Divided doses may also be less likely to cause dry mouth than a single large dose
- Consider therapeutic alternatives that are less likely to cause dry mouth
- **Avoid:** alcohol-containing mouthwashes, alcoholic beverages, caffeine, tobacco
- Swish mouth with water every 2 hours
- Drink plenty of fluids while eating to make swallowing easier; avoid foods that are hard to chew
- Chewing sugar-free gum or sucking on sugar-free candy mechanically stimulates salivation and can be recommended to promote salivation in patients with functioning salivary glands
- **Nondrug options:** bedroom humidifier; artificial saliva or oral lubricants (**MOUTH KOTE, BIOTENE GEL, ORAL BALANCE GEL, MOI-STIR SPRAY** ▼ for Palliative care)
- **Pharmacologic options:** pilocarpine (muscarinic agonist) 5 to 10mg of pilocarpine 3 or 4 times daily to a max of 30mg daily – will cause salivation in patients with functioning salivary glands. Duration of action is 3 to 5 hours. Common side effects (dose-dependent): sweating, nausea, rhinitis, flushing, urinary frequency. **CI:** uncontrolled asthma, narrow-angle glaucoma, acute iritis. **Pilocarpine eye drops** cost significantly less than pilocarpine tablets and can be used orally for treatment of dry mouth. **4 drops of the 2% solution, directly on tongue or add to small amount of water & swish and swallow, 3 times daily** (can swish and spit to reduce systemic side effects).

For a list of medications with anticholinergic properties, see *Geri-RxFiles: Anticholinergics: Reference List of Medications with Anticholinergic Effects* page 116

Rationale for Taper

- Medications with anticholinergic properties should often be tapered prior to cessation to prevent adverse drug withdrawal symptoms. The need for, & the speed of the taper will be dependent upon the degree of anticholinergic effect & current dose of the medication.
- Whenever possible, anticholinergic medications should be avoided in older adults (>65 years), & especially in individuals with dementia.

Common Withdrawal Symptoms

- | | | | |
|--|---|--|--|
| <ul style="list-style-type: none"> ▪ "Cholinergic Rebound" – nausea, vomiting, sweating, urination, diarrhea, tachycardia | <ul style="list-style-type: none"> ▪ Akathisia ▪ Dystonia | | |
|--|---|--|--|

Suggested Tapering Approach for Anticholinergics

- Gradually decrease dose every 3 days to discontinue over 1 to 2 weeks.
- Potentially useful temporary adjuncts to manage withdrawal symptoms are listed below; however, in older adults, adjunct medications are associated with their own set of risks, & may require tapering to discontinue as well. Adding on an adjunct medication has the potential to lead to a prescribing cascade (i.e. the use of a medication to treat the adverse effects of another medication).
 - Cholinergic rebound (e.g. nausea, vomiting, sweating): ginger GRAVOL NATURAL SOURCE or benztropine 0.5 to 2mg po, SC or IM PRN
 - Dystonia: benztropine 0.5 to 2mg po, SC or IM PRN
 - Akathisia: propranolol 10 to 20mg po TID

ANTICONVULSANTS^{8, 9, 10}

Rationale for Taper

- If an anticonvulsant is being used for seizures, ideally the taper should start after new agent is at an effective dose. If an individual is taking more than one anticonvulsant, taper the medications gradually, one at a time.
- Rebound seizures, especially in individuals with a seizure disorder, are a possibility even in absence of seizure history.
- Distinguish between recurrence of epileptic seizures & seizures due to withdrawal (note that control of seizures may be lost when drugs are restarted).
- If anticonvulsants are being used for mood disorders, be aware that rare reports of psychiatric symptoms on withdrawal, including psychosis (exacerbation of schizophrenia) have been reported; psychosis & psychiatric symptoms may also occur or re-emerge.

When to taper more slowly (i.e. over 3 to 6 months):

- When trying to get to the lowest effective dose
- Taper using smaller dose reduction if seizure-control is poor

Case #2

Problem	Intervention	Outcome
<ul style="list-style-type: none">• Male in his 80's• Dry mouth, thirst, urinary hesitancy, dizziness, fatigue, trouble concentrating, falls• Potentially related to: trazodone, citalopram, mirtazapine, quetiapine, pregabalin	<ul style="list-style-type: none">• Tapered/stopped trazodone, mirtazepine, quetiapine (CBTi); lowered citalopram and pregabalin• Monitoring: FINISH syndrome (flu-like, insomnia, nausea, imbalance, sensory, hyperarousal), pain, mood	<ul style="list-style-type: none">• Anticholinergic and CNS depressant effects improved (dry mouth, thirst, concentration, dizziness, fatigue, falls)• Sleeping well• Mood stable• No difference in pain

Resources:

Medications that cause falls: **anything that affects the brain, or affect orthostasis**

Tapering SSRI, antipsychotics, gabapentinoids and monitoring for ADWE :

<https://medstopper.com/>

<https://www.rxfiles.ca/RxFiles/modules/miscellaneous/search.aspx?for=deprescribing>




Rationale for Taper

- Antidepressants should be tapered prior to cessation to prevent withdrawal symptoms, to detect the return of the condition (e.g. depression/anxiety) early, & to increase patient comfort.

Common Withdrawal Symptoms

<p>FINISH syndrome:</p> <ul style="list-style-type: none"> ▪ Flu-like symptoms (chills/fever, headache, fatigue, malaise, myalgia) ▪ Insomnia (& vivid dreams, nightmares) ▪ Nausea (& vomiting) ▪ Imbalance ▪ Sensory disturbances ▪ Hyperarousal 	<ul style="list-style-type: none"> ▪ Agitation/aggression/irritability ▪ Akathisia/dyskinesias/tremor ▪ Anxiety/nervousness ▪ Diarrhea ▪ Dizziness/disorientation 	<ul style="list-style-type: none"> ▪ Hypomania or mania ▪ Sensory disturbances (including paresthesia & shock-like electrical sensations) ▪ Sweating 	
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Suggested Tapering Approach for Antidepressants

<p>Bupropion <small>WELLBUTRIN XL, ZYBAN</small>  24, 25, 26</p>	<ul style="list-style-type: none"> • Not always associated with withdrawal symptoms, so it may be stopped abruptly in appropriate individuals. If withdrawal symptoms were to occur, they would most likely to occur within 1 to 7 days after the medication is stopped or dose drastically reduced, & typically disappears within 3 weeks.
<p>Mirtazapine <small>REMERON</small> 27, 28</p>	<ul style="list-style-type: none"> • Withdrawal symptoms, if they occur, are most likely to occur within 1 to 7 days after the medication is stopped or dose drastically reduced & typically disappears within 3 weeks. No specific tapering regimen has been suggested. Consider dose reduction over 1 to 4 weeks, depending on the current dose.
<p>Serotonin Norepinephrine Reuptake Inhibitors (SNRIs): 29, 30, 31</p> <p>Desvenlafaxine <small>PRISTIQ</small> </p> <p>Duloxetine <small>CYMBALTA</small> </p>	<ul style="list-style-type: none"> • Withdrawal symptoms are common & may occur very rapidly, within 8 to 16 hours (in principle, an individual may experience subtle withdrawal symptoms even if dose delayed/forgotten) & may last up to 8 days after discontinuation (some suggest withdrawal symptoms typically disappear within 3 weeks). • Tapering may not completely eliminate symptoms; educate that symptoms usually transient & mild. <p>Venlafaxine</p> <ul style="list-style-type: none"> ○ Taper recommended if used for >1 week. ○ If used at a high dose for >6 weeks, varying approaches have been suggested: 1) Taper over at least 2 weeks (some suggest over 6 weeks); 2) A more cautious approach: reduce dose by 25% every 4 to 6 weeks.

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

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

Continue AP

or consult psychiatrist if considering deprescribing

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.



****ALSO SEE DEPRESCRIBING.ORG - ANTIPSYCHOTIC (AP) DEPRESCRIBING ALGORITHM ON PAGE 136 & 137****

Rationale for Taper ^{54 55}

- Taper to lessen the likelihood of new or worsening psychosis that can occur with abrupt antipsychotic withdrawal. The psychosis can be severe, have a rapid onset or be a “supersensitivity psychosis” which is defined as psychosis following antipsychotic withdrawal that is correlated with signs of dopamine supersensitivity. Onset can occur within the first 2 to 3 weeks of discontinuation and is most common with clozapine & quetiapine.
- To lessen the risk of “withdrawal emergent dyskinesia” or movement disorders. More likely to occur with longer duration of use or higher doses. The exact mechanism is unknown, but it is suspected that it is due to dopaminergic hypersensitivity. Onset can occur within 1 to 4 weeks post-discontinuation and is most common with clozapine & quetiapine.
- To lessen the risk of rebound dystonia (involuntary movements characterized by intermittent or sustained muscle action), parkinsonism, & akathisia (a movement disorder characterized by a feeling of inner restlessness and a compelling need to be in constant motion). Onset within days to week 1 post-discontinuation.
- Abrupt cessation of a long-acting or depot antipsychotic is of less concern as plasma concentrations decline slowly (i.e. drug tapers itself).
- Abrupt discontinuation can be appropriate in the event of a serious adverse effect (e.g. agranulocytosis), or in the in-patient setting.

Common Withdrawal Symptoms (most common with chlorpromazine, clozapine, methotrimeprazine, & olanzapine)

<ul style="list-style-type: none"> ▪ Agitation ▪ Anxiety ▪ Bronchoconstriction ▪ Delirium 	<ul style="list-style-type: none"> ▪ Dizziness ▪ Gastritis ▪ GI symptoms (nausea, vomiting, diarrhea) ▪ Headache 	<ul style="list-style-type: none"> ▪ Insomnia ▪ Muscle aches & pains ▪ Runny nose ▪ Salivation 	<ul style="list-style-type: none"> ▪ Sweating ▪ Tachycardia ▪ Tremors ▪ Urination
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Suggested Tapering Approach for Antipsychotics ⁵⁶

- The more abrupt the withdrawal, the more profound the symptoms. Even with slow tapering, individuals may experience withdrawal symptoms that can last for days after discontinuation.
- Mild withdrawal symptoms may only require comfort and reassurance; if severe symptoms, consider restarting the antipsychotic and tapering more slowly if possible.
- Some suggest managing withdrawal symptoms/rebound cholinergic effects with benzodiazepines, anticholinergics, antihistamines, or valproic acid short-term. However, in older adults adjunct medications are associated with their own set of risks, & may require tapering to discontinue as well.

Suggested Tapering Approach for ATYPICAL Antipsychotics

<p>Quetiapine <small>SEROQUEL</small> ⁵⁷</p>	<ul style="list-style-type: none"> • Gradual withdrawal over a period of at least 1 to 2 weeks is advisable. Consider a much slower taper if the individual is on a high dose &/or the antipsychotic has been used long-term (e.g. decrease by 25 to 50% every 2 to 4+ weeks). • Symptoms usually resolved after 1-week post-discontinuation. • If being used for the behavioural & psychological symptoms of dementia, taper by 25% every 2 to 4 weeks while monitoring for the re-emergence of symptoms. If symptoms recur, increase the antipsychotic back to the lowest effective dose. May reconsider for another tapering attempt in 3 to 6 months.
<p>Risperidone <small>RISPERDAL</small> ⁵⁸</p>	
<p>Olanzapine <small>ZYPREXA</small> ⁵⁹</p>	

Resources to help with deprescribing

- Canadian deprescribing guidelines and resources:
 - <https://deprescribing.org/>
 - <https://deprescribing.org/resources/patient-and-clinician-stories/>
 - <https://deprescribing.org/resources/deprescribing-webinars/>
- Polypharmacy and deprescribing module:
 - <https://www.bruyere.org/en/polypharmacy-deprescribing>
- Can this be caused by a drug??
 - Mayo Clinic <https://www.mayoclinic.org/>
 - Medline Plus <https://medlineplus.gov/>
- New South Wales deprescribing guides
 - <https://www.nswtag.org.au/deprescribing-tools/>
- GeriMedRisk <https://www.gerimedrisk.com/>
- E-Consult <https://econsultontario.ca/>

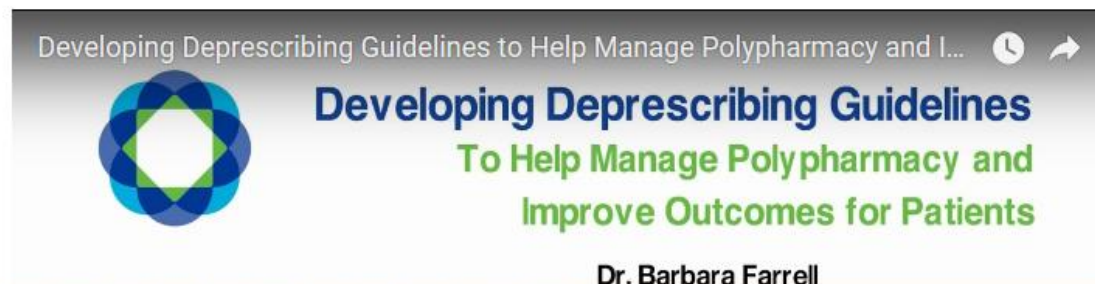
Deprescribing Guidelines and Algorithms

The evidence-based guidelines and their algorithms, developed by the Bruyère Research Institute Deprescribing Guidelines Research Team and its collaborators, are products of quality research and real-world application.

Watch our video to learn how the Bruyère team developed each of the evidence-based deprescribing guidelines.

This video helps viewers understand:

- The rationale for evidence-based deprescribing guidelines
- The process used for developing the deprescribing guidelines
- The steps that a health care professional and patient need to go through to make and carry out safe deprescribing processes



In this section

Case Reports and Testimonials

Deprescribing Guidelines and Algorithms

Deprescribing Information Pamphlets

Deprescribing Patient Decision Aids

Deprescribing Webinars

Frequently Asked Questions

Helpful Links

Publications









Symposium Resources

MedStopper Plan

Arrange medications by: Stopping Priority ▾

CLEAR ALL MEDICATIONS

PRINT PLAN

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
	imipramine (Tofranil) / Tricyclic antidepressant / depression				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
	gabapentin (Neurontin) / Antiepileptic / pain				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	return of symptoms, pain	None

All | serotonin

[Home](#) [Results](#) CPS Selective Serotonin Reuptake Inhibitors (CPhA Monograph)

- TABLE OF CONTENTS
- Summary Product Information
- Indications and Clinical Use
- Contraindications
- Warnings and Precautions
- Adverse Reactions
- Drug Interactions
- Dosage and Administration
- Overdosage
- Action and Clinical Pharmacology
- Supplied

Dependence/Tolerance

A withdrawal syndrome can occur following discontinuation or dosage reduction of SSRIs [*Addict Behav* 2019;97:111-21]. It is generally recommended that SSRIs be gradually tapered prior to discontinuation, although this may not always prevent the withdrawal syndrome. Taper doses gradually by approximately 25% per week and monitor for a re-emergence of depressive symptoms. Fluoxetine has a long half-life and can be tapered more rapidly than other SSRIs. Symptoms usually begin within 1–7 days following discontinuation and most commonly include altered mood, dizziness, nausea, fatigue, headache, insomnia and vivid dreams, movement disorders, and sweating. Less commonly, shock-like sensations, paresthesias, visual disturbances and hypertension have been reported. Symptoms tend to be milder with fluoxetine because of its long half-life. Without intervention, symptoms usually resolve within 3 days–3 weeks, but may occasionally persist for several months. Severe cases are less common, but can be protracted and disabling. Reinstatement of the SSRI results in resolution of symptoms within hours. Alternatively, if a slow taper is poorly tolerated, substitute with 1 dose of fluoxetine 10–20 mg PO. If discontinuation emergent symptoms have not resolved after several days, a second dose of fluoxetine 20 mg may be taken, if necessary.

Dermatologic

Rash (maculopapular, purpuric, pustular, vesiculobullous, follicular, urticaria, erythema multiforme) has occurred in 2–4% of patients treated with SSRIs. Dermatologic reactions usually occur within the first few weeks of therapy. In a small number of patients, systemic signs and symptoms have accompanied dermatologic reactions. Anaphylactoid reactions (bronchospasm, urticaria, angioedema) and serious systemic illness have been reported rarely. Cases of cross-sensitivity among SSRIs have been reported. Discontinue SSRIs if rash, urticaria or any signs of hypersensitivity occur during therapy.

Endocrine and Metabolism

Hyponatremia has occurred in patients receiving SSRIs, more commonly in older patients, females, patients taking diuretics and those who were otherwise volume depleted. There is a possible association between hyponatremia during SSRI therapy and the syndrome of inappropriate antidiuretic hormone secretion (SIADH). The hyponatremia appears to be reversible on discontinuation of the SSRI. Correct any pre-existing electrolyte imbalances before initiation of therapy; monitor electrolytes in older individuals and those at increased risk of hyponatremia/SIADH.

Hypoglycemia has occurred rarely in patients taking SSRIs; monitor blood glucose closely in patients with diabetes who are taking insulin or other hypoglycemic drugs.

Engaging people in deprescribing

Instead of treating a drug's side effect with another drug, the better option is to see if we can reduce or stop the first drug.

Sometimes, the risks of a drug outweigh the benefit.

Medications that were appropriate then, may not be as useful now.

People handle and respond to drugs differently as they get older.

People become more sensitive to side effects as they get older.

It's normal practice to reduce doses as people get older.

How do I suggest deprescribing without offending anyone?

- Some general approaches:
 - Start with the patient – What evidence is there that harm might be outweighing benefit? Is the patient even taking the medication?
 - Make a concrete suggestion; include concise rationale if needed
 - Ask for input “hoping to get your input on the following”, “have a few questions for you”
 - Sign your name and provide contact info
 - Follow-up; empower the patient

EXPÉDITEUR / FROM

Griztril Dzy Hospibl

SERVICE / DEPARTMENT

HSV
SVH

HEB
ERH

OBJET / SUBJECT

MESSAGE

Hi

[REDACTED] is currently 2 pt with us & we are in the midst of reviewing her meds. With this in mind I have 2 few questions for you:

- ① She routinely forgets her nitro patch & has not had any issues with angina during PT & exercise - could we stop it? *yes*
 - ② Medication compliance is sometimes not optimal, to simplify her regimen, could we switch from 2pix 26m to rivrox 26m? *yes*
 - ③ She often forgets her noon 120ix & only takes it later when she remembers, which triggers nocturia. Could we trial ? ↓ from 40mg bid to 60mg qam? *yes*
- Merci & joyeux Noël ! *[Signature]*

SIGNATURE

RÉPONSE / REPLY

DATE

DEAR DR. [REDACTED]

[REDACTED] is currently attending twice weekly visits to our program, & as part of this, we are reviewing his meds in order to simplify his regimen.

With this in mind, I was hoping to get your input on the following:

Given that LDL is 1.29 currently, would you have any objections to decreasing his atorvastatin dose to 40mg?

Thanks in advance for your input,

SIGNATURE

[REDACTED SIGNATURE]

RESPONSE/REPLY

BY

Agree with reduction in lipitor

GERIATRIC DAY HOSPITAL
43 BRUYERE ST
OTTAWA, ON K1N 5C8
TEL: 613-562-8262 EXT. 4010
FAX: 613-562-4265

Dear Dr [REDACTED]

As you know, Mr [REDACTED] is currently coming to our program twice w/ky. We are in the midst of reviewing his meds with the goal of simplifying his regimen wherever possible.

With this in mind, I was hoping to get your input on the following:

Typically, dual antiplatelet tx is only required for 1 yr post stent (which in his case was in 2015). Do you have any cardiology documentation that suggests otherwise for him? If not, would you support stopping the clopidogrel & continuing on ASA only?

Thanks in advance,

SIGNATURE [REDACTED]

RESPONSE / REPLY

DATE

Fine to stop
clopidogrel + stay
on ASA (1 mg d)

GERIATRIC DAY HOSPITAL
43 BRUYERE ST
OTTAWA, ON K1N 5C8
TEL: 613-562-6282 EXT. 4010
FAX: 613-562-1801

Final plea: help make deprescribing decisions

- Document the indication and the initial response
- Monitor and document response annually
- Share indication and response information with patients and other HCP
- Make conscious decisions to continue (think of deprescribing as the 'default', writing a repeat prescription as a new decision)
- Talk about the 'exit plan' with patients at the outset

A few more resources to help considering effectiveness, potential for harm, time to benefit and targets

- <https://www.thennt.com/> (benefits and harms in NNT or as % reduction)
- STOPP/START criteria: Age Ageing 2015;44:213– 8
doi: <https://doi.org/10.1093/ageing/afu145>
- STOPP Frail: Age and Ageing 2017;46:600–607 doi:
<https://doi.org/10.1093/ageing/afx005>
- STOPP Fall: Age and Ageing 2020; afaa249, doi:
<https://doi.org/10.1093/ageing/afaa249>
- Beers criteria: American Geriatrics Society 2019; doi:
<https://doi.org/10.1111/jgs.15767>
- CPS (RxTx): <https://www.pharmacists.ca/products-services/cps-subscriptions/>
- RxFiles: <https://www.rxfiles.ca/rxfiles/> (esp GeriRxFiles)
- Estimating time to benefit: Holmes et al. Rationalizing prescribing for older patients with multimorbidity: considering time to benefit. Drugs Aging 2013;30(9):655-666.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3755031/>