



DEPRESCRIBING IN THE OLDER ADULT

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OBJECTIVES

- ❖ Develop a framework for thinking about how medications may affect the overall care of the older patient
- ❖ Learn how to recognize patients who may be good candidates for reducing medication burden
- ❖ At the conclusion of this presentation, participants should be able to identify tools to help them safely deprescribe medications that are considered high risk use in the older adult.



BACKGROUND

- Definition of the older adult
- Accumulation of comorbidities = accumulation of medications
 - 50% of patients take over 5 medications
 - Increased risk of adverse drug reactions
- High-risk meds are most problematic in the most vulnerable older adults
 - Considerations in falls risk, frail, advanced cognitive losses, high medication burden

DEPRESCRIBING

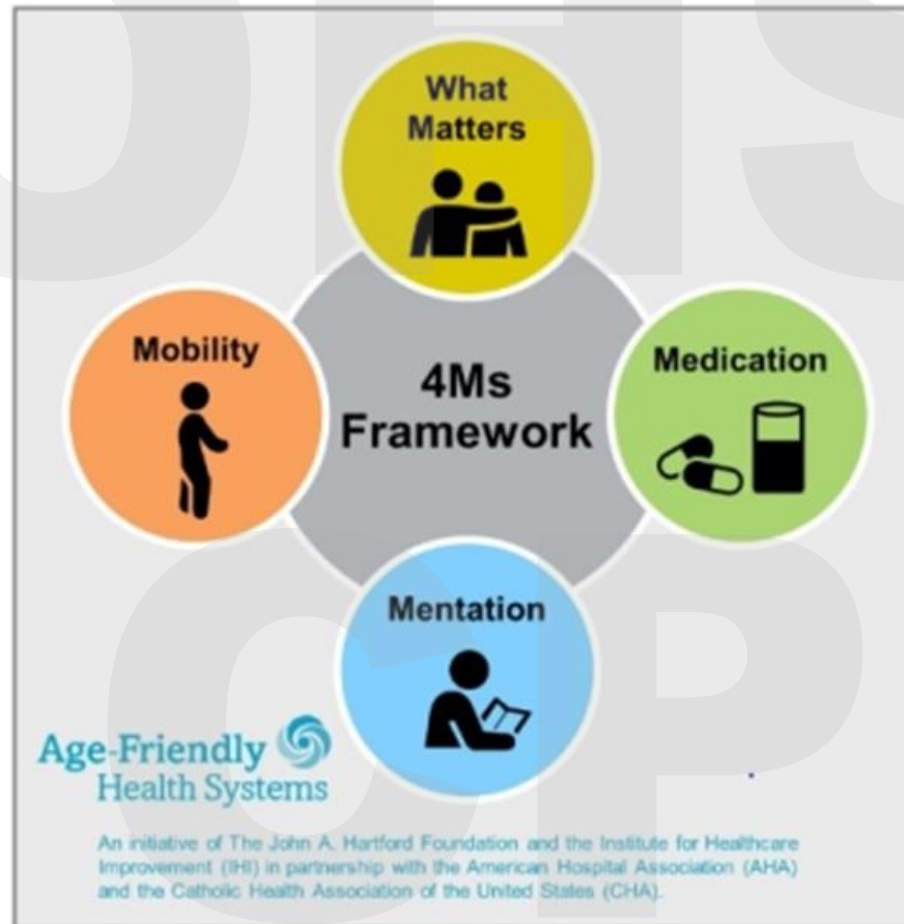
‘Deprescribing is the process of withdrawal of an inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes’.



BENEFITS OF DEPRESCRIBING

- Decreasing polypharmacy/medication burden
- Reducing medication costs
- Can improve medication adherence
- Improve patient engagement in medication management
- PREVENT adverse drug events

What Does It Mean to Be Age-Friendly?



What Matters

Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to, end-of-life care, and across settings of care.

Medication

If medication is necessary, use Age-Friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care.

Mentation

Prevent, identify, treat, and manage dementia, depression, and delirium across settings of care.

Mobility

Ensure that older adults move safely every day in order to maintain function and do What Matters.

“Of all the forms of inequality, injustice in health care is the most shocking and inhumane.”
- Dr. Martin Luther King, Jr.



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How do you decide when it is time to reduce medication burden?

CPD



CB*



- ▶ 91 yo F with HTN, high cholesterol, atrial fibrillation, hypothyroidism, osteoarthritis, SCC s/p Mohs, insomnia presenting with worsening arthralgias and myalgias and occasional dizziness with positional changes. In general, her health has been stable and there are no recent medication changes. Her current medication list is below:

Acetaminophen 650mg PO TID

Amlodipine 5mg PO daily

Apixiban 5mg PO BID

Atorvastatin 40mg PO daily

Levothyroxine 88mcg PO daily

Losartan 100mg PO daily

Melatonin 2mg PO QHS prn

Multivitamin PO daily

Zolpidem 5mg PO QHS (gets 10 tabs a year)

*This patient and her medical history is entirely fictitious but can be applied to any patient you may see in clinic.

POLYPHARMACY

- More medications = more interactions between medications
- Defined as ≥ 5 medications
- Always ask about OTC and supplement usage





OPPORTUNITIES FOR DEPRESCRIBING

- Inpatient Admission
 - Especially with a fall and resulting injury
- Transitions of Care
- Annual Medicare Wellness Visits
- Routine clinic visits – choose 1-2 patients a day to review medication burden



Avoid a prescribing cascade, in which a patient begins use of a medication, and another medication is added to treat an adverse effect of the initial medication.

FRAILTY

- Clinically recognizable state of increased vulnerability resulting from decline in reserve and function across multiple physiologic systems
- Timed Up and Go test can be useful to identify these patients
 - > 20 sec
- Frailty is NOT synonymous with age or multiple comorbidities



Clinical Frailty Scale*



1 Very Fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.



2 Well – People who have **no active disease symptoms** but are less fit than category 1. Often, they exercise or are very **active occasionally**, e.g. seasonally.



3 Managing Well – People whose **medical problems are well controlled**, but are **not regularly active** beyond routine walking.



4 Vulnerable – While **not dependent** on others for daily help, often **symptoms limit activities**. A common complaint is being "slowed up", and/or being tired during the day.



5 Mildly Frail – These people often have **more evident slowing**, and need help in **high order IADLs** (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.



6 Moderately Frail – People need help with **all outside activities** and with **keeping house**. Inside, they often have problems with stairs and need **help with bathing** and might need minimal assistance (cuing, standby) with dressing.



7 Severely Frail – **Completely dependent for personal care**, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~ 6 months).



8 Very Severely Frail – **Completely dependent**, approaching the end of life. Typically, they could not recover even from a minor illness.



9. Terminally Ill - Approaching the end of life. This category applies to people with a **life expectancy <6 months**, who are **not otherwise evidently frail**.

Scoring frailty in people with dementia

The degree of frailty corresponds to the degree of dementia. Common **symptoms in mild dementia** include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

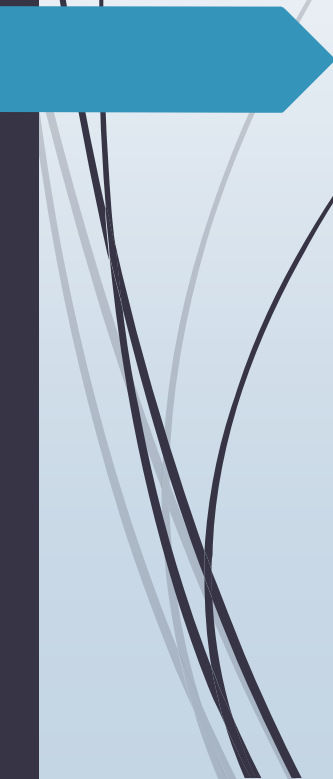
In **moderate dementia**, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting.

In **severe dementia**, they cannot do personal care without help.

* 1. Canadian Study on Health & Aging, Revised 2008.

2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

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How do you decide which medication is the highest yield and how do you start the process of deprescribing?

CPD



COMMON HIGH-RISK MEDICATIONS

- Benzodiazepines
- Anticholinergics - Benadryl, incontinence medications
 - TCAs – amitriptyline, nortriptyline
 - SSRI – paroxetine in particular
- Sulfonylureas – glyburide, glimepiride
- Sleep Aides – PM meds, zolpidem, zaleplon



STATINS

- 2013, 2019 – AMDA (Society for Post-Acute and Long-Term Care)
 - ❖ Don't routinely prescribe lipid-lowering medication in individuals with a limited life expectancy
 - ❖ Elderly with lowest cholesterol = highest mortality after adjusting other risk factors
 - ❖ Less favorable risk-benefit ratio in >85yo, increased risk of falls, neuropathy and muscle damage
- <https://www.choosingwisely.org/patient-resources/cholesterol-drugs-for-people-75-and-older/>
 - ❖ Older people may not live long enough to get the important benefits from statins
 - ❖ You should take statins to help prevent a second heart attack or stroke.



RESOURCES

- www.deprescribing.org
- START and STOPP criteria
- Aging Brain Care - specifically for anticholinergic burden

- BEERS Criteria
- Medication Appropriateness Index



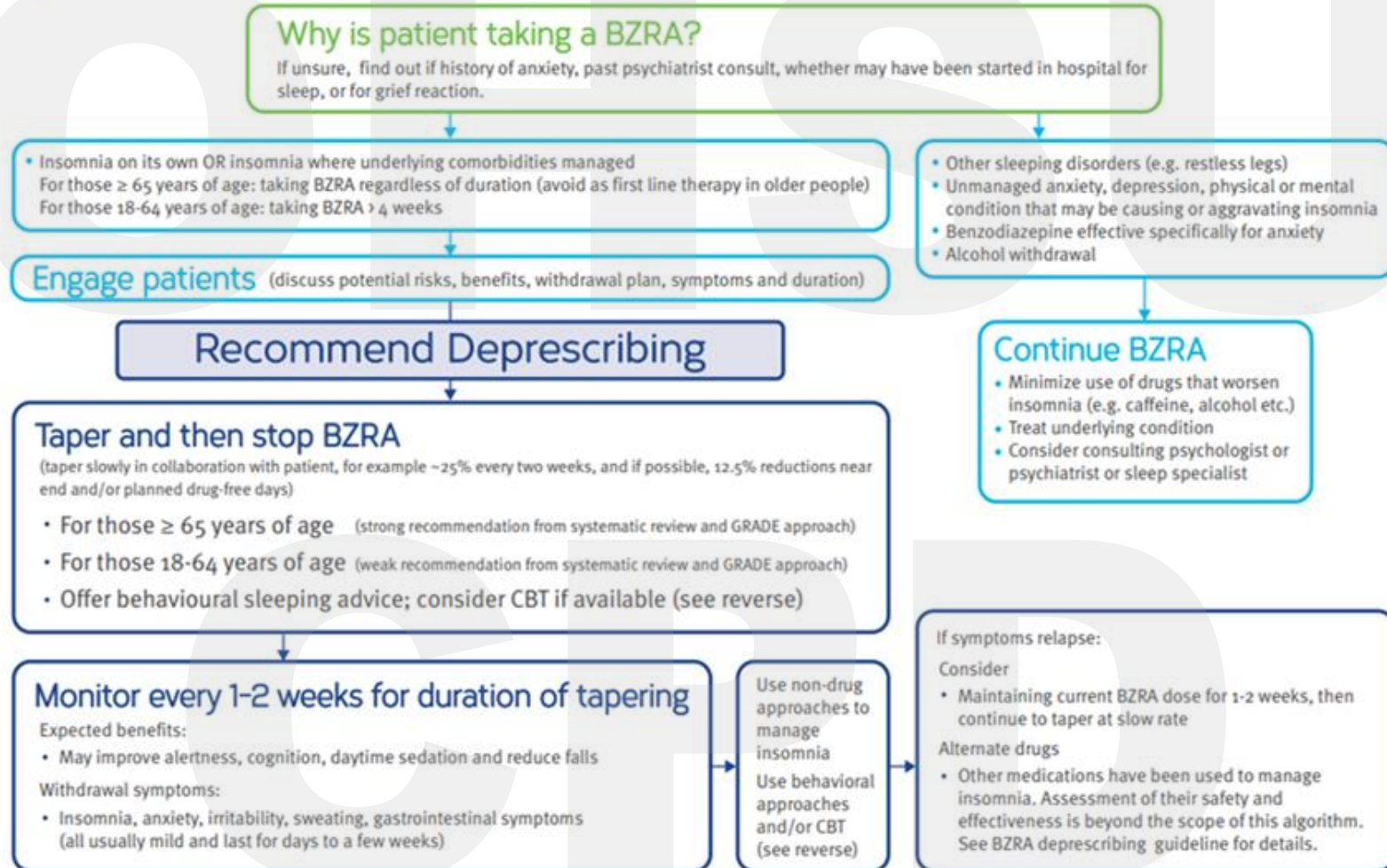
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- From the Bruyere Research Institute out of University of Ottawa
- “Deprescribing is the planned and supervised process of dose reduction or stopping of medication that might be causing harm, or no longer be of benefit. Deprescribing is part of good prescribing – backing off when doses are too high, or stopping medications that are no longer needed.”
- Algorithms include more than just dose taper down
 - Evaluation of the indication
 - How to have the conversation
 - Patient information
 - Tapering advice



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- Algorithms available to help deprescribe:
 - Proton Pump Inhibitors (PPIs)
 - Antihyperglycemics
 - Antipsychotics
 - Benzodiazepines
 - Cholinesterase Inhibitors and Memantine



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Pottle 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.



BZRA Availability

BZRA	Strength
Alprazolam (Xanax [®]) ^T	0.25 mg, 0.5 mg, 1 mg, 2 mg
Bromazepam (Lectopam [®]) ^T	1.5 mg, 3 mg, 6 mg
Chlordiazepoxide ^C	5 mg, 10 mg, 25 mg
Clonazepam (Rivotril [®]) ^T	0.25 mg, 0.5 mg, 1 mg, 2 mg
Clorazepate (Tranxene [®]) ^C	3.75 mg, 7.5 mg, 15 mg
Diazepam (Valium [®]) ^T	2 mg, 5 mg, 10 mg
Flurazepam (Dalmane [®]) ^C	15 mg, 30 mg
Lorazepam (Ativan [®]) ^{T,S}	0.5 mg, 1 mg, 2 mg
Nitrazepam (Mogadon [®]) ^T	5 mg, 10 mg
Oxazepam (Serax [®]) ^T	10 mg, 15 mg, 30 mg
Temazepam (Restoril [®]) ^C	15 mg, 30 mg
Triazolam (Halcion [®]) ^T	0.125 mg, 0.25 mg
Zopiclone (Imovane [®] , Rhovane [®]) ^T	5mg, 7.5mg
Zolpidem (Sublinox [®]) ^S	5mg, 10mg

T = tablet, C = capsule, S = sublingual tablet

BZRA Side Effects

- **BZRAs have been associated with:**
 - physical dependence, falls, memory disorder, dementia, functional impairment, daytime sedation and motor vehicle accidents
- **Risks increase in older persons**

Engaging patients and caregivers

Patients should understand:

- The rationale for deprescribing (associated risks of continued BZRA use, reduced long-term efficacy)
- Withdrawal symptoms (insomnia, anxiety) may occur but are usually mild, transient and short-term (days to a few weeks)
- They are part of the tapering plan, and can control tapering rate and duration

Tapering doses

- No published evidence exists to suggest switching to long-acting BZRAs reduces incidence of withdrawal symptoms or is more effective than tapering shorter-acting BZRAs
- If dosage forms do not allow 25% reduction, consider 50% reduction initially using drug-free days during latter part of tapering, or switch to lorazepam or oxazepam for final taper steps

Behavioural management

Primary care:

1. Go to bed only when sleepy
2. Do not use bed or bedroom for anything but sleep (or intimacy)
3. If not asleep within about 20-30 min at the beginning of the night or after an awakening, exit the bedroom
4. If not asleep within 20-30 min on returning to bed, repeat #3
5. Use alarm to awaken at the same time every morning
6. Do not nap
7. Avoid caffeine after noon
8. Avoid exercise, nicotine, alcohol, and big meals within 2 hrs of bedtime

Institutional care:

1. Pull up curtains during the day to obtain bright light exposure
2. Keep alarm noises to a minimum
3. Increase daytime activity & discourage daytime sleeping
4. Reduce number of naps (no more than 30 mins and no naps after 2 pm)
5. Offer warm decaf drink, warm milk at night
6. Restrict food, caffeine, smoking before bedtime
7. Have the resident toilet before going to bed
8. Encourage regular bedtime and rising times
9. Avoid waking at night to provide direct care
10. Offer backrub, gentle massage

Using CBT

What is cognitive behavioural therapy (CBT)?

- CBT includes 5-6 educational sessions about sleep/insomnia, stimulus control, sleep restriction, sleep hygiene, relaxation training and support

Does it work?

- CBT has been shown in trials to improve sleep outcomes with sustained long-term benefits

Who can provide it?

- Clinical psychologists usually deliver CBT, however, others can be trained or can provide aspects of CBT education; self-help programs are available

How can providers and patients find out about it?

- Some resources can be found here: <https://mysleepwell.ca/>

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Tapering-off program

Be sure to talk to your doctor, nurse or pharmacist before you try reducing your dose or stopping your medication.

- Patient and provider tools available

WEEKS	TAPERING SCHEDULE							✓
	MO	TU	WE	TH	FR	SA	SU	
1 and 2								
3 and 4								
5 and 6								
7 and 8								
9 and 10								
11 and 12								
13 and 14								
15 and 16								
17 and 18								

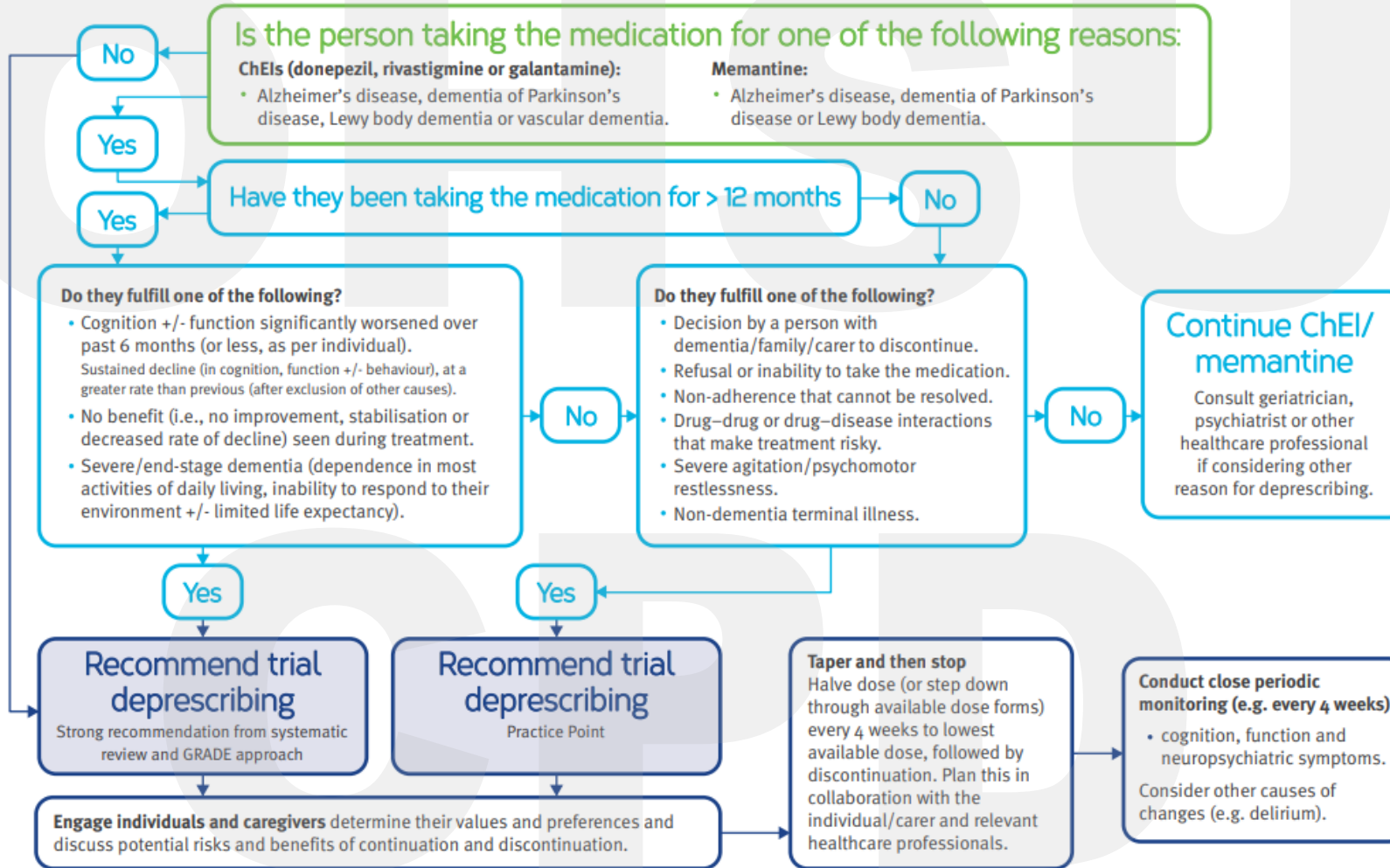
EXPLANATIONS

Full dose Half dose Quarter of a dose No dose

Cholinesterase Inhibitor and Memantine Deprescribing

January 2018

deprescribing.org | Cholinesterase Inhibitor (ChEI) and Memantine Deprescribing Algorithm



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Reeve E, Farrell B, Thompson W, et al Evidence-based Clinical Practice Guideline for Deprescribing Cholinesterase Inhibitors and Memantine. 2018. ISBN-13: 978-0-6482658-0-1 Available from: <http://sydney.edu.au/medicine/cdpc/resources/deprescribing-guidelines.php>

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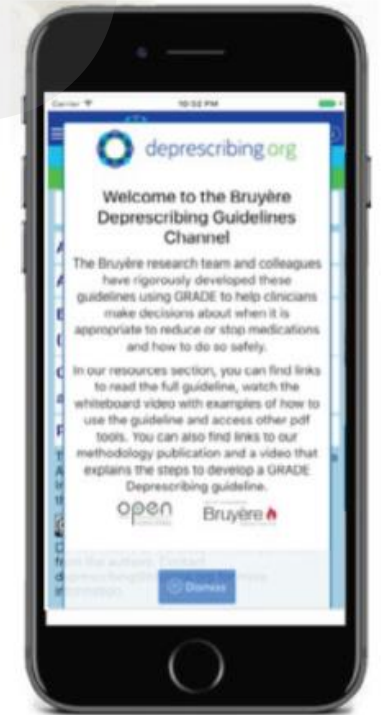
Download the IAM Medical Guidelines App to access evidence-based Deprescribing Guidelines.

- The all-in-one Deprescribing Guideline Channel for healthcare professionals
- Supports medication decision making at your fingertips
- Download the FREE App for iOS and Android today!



If you are having issues accessing the Deprescribing channel through the IAM Medical Guidelines app (the iOS version) you will have to uninstall and reinstall the IAM Medical Guidelines app as well as the Deprescribing channel due to recent updates to the terms and conditions. If you are still having issues please contact our team at deprescribing@bruyere.org

To learn more about the 'Evaluation of a Deprescribing Guideline Mobile Application' click [here](#).





START AND STOPP CRITERIA

- Screening Tool To Alert to Right Treatment (START)
 - Screening Tool of Older Persons' Prescriptions (STOPP)
-
- System based guidelines initially published in 2008, updated in 2015
 - Aim to reduce adverse drug reactions and inappropriate prescribing
 - Defined as both potentially inappropriate medications and potential prescribing omissions



STOPP CRITERIA

▣ Guidelines:

1. Any drug prescribed without an evidence-based clinical indication.
2. Any drug prescribed beyond the recommended duration, where treatment duration is well defined.
3. Any duplicate drug class prescription e.g. two concurrent NSAIDs, SSRIs, loop diuretics, ACE inhibitors, anticoagulants (optimization of monotherapy within a single drug class should be observed prior to considering a new agent).



STOPP CRITERIA

Section B: Cardiovascular System

1. Digoxin for heart failure with normal systolic ventricular function (no clear evidence of benefit)
2. Verapamil or diltiazem with NYHA Class III or IV heart failure (may worsen heart failure).
3. Beta-blocker in combination with verapamil or diltiazem (risk of heart block).
4. Beta blocker with bradycardia (< 50/min), type II heart block or complete heart block (risk of complete heart block, asystole).
5. Amiodarone as first-line antiarrhythmic therapy in supraventricular tachyarrhythmias (higher risk of side-effects than beta-blockers, digoxin, verapamil or diltiazem)
6. Loop diuretic as first-line treatment for hypertension (safer, more effective alternatives available).



START CRITERIA

- Unless an elderly patient's clinical status is end-of-life and therefore requiring a more palliative focus of pharmacotherapy, the following drug therapies should be considered when omitted for no valid clinical reason(s). It is assumed that the prescriber observes all the specific contraindications to these drug therapies prior to recommending them to older persons.



START CRITERIA

Section A: Cardiovascular System

1. Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors in the presence of chronic atrial fibrillation.
2. Aspirin (75 mg – 160 mg once daily) in the presence of chronic atrial fibrillation, where Vitamin K antagonists or direct thrombin inhibitors or factor Xa inhibitors are contraindicated.
3. Antiplatelet therapy (aspirin or clopidogrel or prasugrel or ticagrelor) with a documented history of coronary, cerebral or peripheral vascular disease.
4. Antihypertensive therapy where systolic blood pressure consistently > 160 mmHg and/or diastolic blood pressure consistently >90 mmHg; if systolic blood pressure > 140 mmHg and /or diastolic blood pressure > 90 mmHg, if diabetic.



LIMITATIONS

- Not an exhaustive list, with room for interpretation on some medications
- Requires a clinical professional to evaluate the risks and benefits in context of the patient's health
- Less guidance on how to taper off specific medications or max dosages
- May have limited access to history of prior medications tried

Aging Brain Care

Aging Brain Care

ANTICHOLINERGIC COGNITIVE BURDEN SCALE

2012 Update

Developed by the Aging Brain Program
of the Indiana University Center for
Aging Research



Drugs with ACB Score of 1

Generic Name	Brand Name
Allimemazine	Theralen™
Alverine	Spasmonal™
Alprazolam	Xanax™
Aripiprazole	Ablify™
Asenapine	Saphris™
Atenolol	Tenormin™
Bupropion	Wellbutrin™, Zyban™
Captopril	Capoten™
Cetirizine	Zyrtec™
Chlorthalidone	Diuril™, Hygroton™
Cimetidine	Tagamet™
Clidinium	Librax™
Clorazepate	Tranxene™
Codeine	Contin™
Colchicine	Colcrys™
Desloratadine	Clarinet™
Diazepam	Valium™
Digoxin	Lanoxin™
Dipyridamole	Persantine™
Disopyramide	Norpace™
Fentanyl	Duragesic™, Actiq™
Furosemide	Lasix™
Fluvoxamine	Luvox™
Haloperidol	Haldol™
Hydralazine	Apresoline™
Hydrocortisone	Cortef™, Cortaid™
Iloperidone	Fanapt™
Isosorbide	Isordil™, Ismo™
Levocetirizine	Xyzal™
Loperamide	Immodium™, others
Loratadine	Claritin™
Metoprolol	Lopressor™, Toprol™
Morphine	MS Contin™, Avinza™
Nifedipine	Procardia™, Adalat™
Paliperidone	Invega™
Prednisone	Deltasone™, Sterapred™
Quinidine	Quinaglute™
Ranitidine	Zantac™
Risperidone	Risperdal™
Theophylline	Theodur™, Uniphyll™
Trazodone	Desyrel™
Triamterene	Dyrenium™
Venlafaxine	Effexor™
Warfarin	Coumadin™

Drugs with ACB Score of 2

Generic Name	Brand Name
Amantadine	Symmetrel™
Belladonna	Multiple
Carbamazepine	Tegretol™
Cyclobenzaprine	Flexeril™
Cyproheptadine	Periactin™
Loxapine	Loxitane™
Meperidine	Demerol™
Methotrimeprazine	Levoprome™
Molindone	Moban™
Nefopam	Nefogestic™
Oxcarbazepine	Trileptal™
Pimozide	Orap™

Drugs with ACB Score of 3

Generic Name	Brand Name
Amitriptyline	Elavil™
Amoxapine	Asendin™
Atropine	Sal-Tropine™
Benzotropine	Cogentin™
Brompheniramine	Dimetapp™
Carbinoxamine	Histex™, Carbihist™
Chlorpheniramine	Chlor-Trimeton™
Chlorpromazine	Thorazine™
Clemastine	Tavist™
Clomipramine	Anafranil™
Clozapine	Clozaril™
Darifenacin	Enblex™
Desipramine	Norpramin™
Dicyclomine	Bentyl™
Dimenhydrinate	Dramamine™, others
Diphenhydramine	Benadryl™, others
Doxepin	Sinequan™
Doxylamine	Unisom™, others
Fesoterodine	Toviaz™
Flavoxate	Urispas™
Hydroxyzine	Atarax™, Vistaril™
Hyoscyamine	Anaspaz™, Levsin™
Imipramine	Tofranil™
Mecizline	Antivert™
Methocarbamol	Robaxin™
Nortriptyline	Pamelor™
Olanzapine	Zyprexa™
Orphenadrine	Norflex™
Oxybutynin	Ditropan™
Paroxetine	Paxil™
Perphenazine	Trilafon™
Promethazine	Phenergan™
Propantheline	Pro-Banthine™
Propiverine	Detronorm™
Quetiapine	Seroquel™
Scopolamine	Transderm Scop™
Solifenacin	Vesicare™
Thioridazine	Mellaril™
Tolterodine	Detrol™
Trifluoperazine	Stelazine™
Trihexyphenidyl	Artane™
Trimipramine	Surmontil™
Tropium	Sanctura™

Categorical Scoring:

- Possible anticholinergics include those listed with a score of 1; Definite anticholinergics include those listed with a score of 2 or 3

Numerical Scoring:

- Add the score contributed to each selected medication in each scoring category
- Add the number of possible or definite Anticholinergic medications

Notes:

- Each definite anticholinergic may increase the risk of cognitive impairment by 46% over 6 years.³
- For each on point increase in the ACB total score, a decline in MMSE score of 0.33 points over 2 years has been suggested.⁴
- Additionally, each one point increase in the ACB total score has been correlated with a 26% increase in the risk of death.⁴

Aging Brain Care

www.agingbraincare.org

Aging Brain Care

- Originally from the Indiana University Center for Aging Research
- www.acbcalc.com – online calculator developed by other physicians
- Why we care about anticholinergic burden aside from short-term side effects?
 - Doubled risk of cognitive decline





WHEN IN DOUBT...

- Call the pharmacy and find out about fill dates, compliance, prior prescriber to help round out your history
- Corroborate information from a caregiver before your deprescribe

CB*



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THANK YOU!