Medicine
UNIVERSITY OF TORONTO

Sunnybrook
HEALTH SCIENCES CENTRE

REACH LTC

REAssessing **CH**olinesterase inhibitors and memantine in **L**ong-**T**erm **C**are

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Choosing Wisely Canada's National Meeting
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Faculty/Presenter Disclosure

- Presenter: Carolyn Tan

- Relationships with financial sponsors: none

Background

Two types of medications for dementia treatment in Canada

- Cholinesterase inhibitors (e.g., donepezil)
- Memantine

Relatively consistent, but modest, benefits in

Cognition

Function

Neuropsychiatric symptoms

Background

Not everyone benefits

No evidence they reliably improve

Quality of life

Admissions to nursing homes

Background

Cholinesterase inhibitors

- N/V/D
- Anorexia
- Weight loss
- Urinary frequency
- Insomnia
- Bradycardia
- Syncope

Antiemetic

Appetite stimulant

Anticholinergic

Sedative-hypnotic

Risk 2x in age 85+

Memantine

- Somnolence
- Dizziness
- Headaches

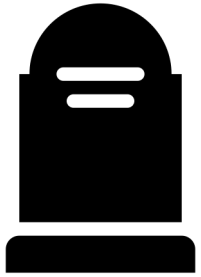
Buckley 2015

Background

Benefits and harms change over time

In clinical practice, ChEIs tend to be used for much longer than in RCTs

Average of 2.8 years
for older adults in LTC

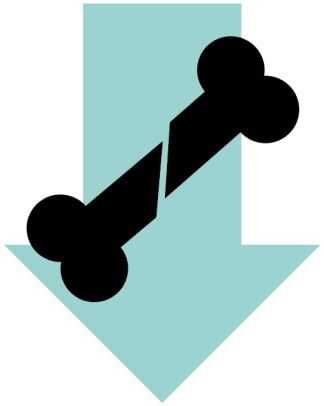


54% are still taking a
ChEI at time of death

Herrmann 2010

Background

ChEI deprescription is safe and well-tolerated in LTC



Serious falls and fractures

New antipsychotic prescriptions

Herrmann 2016
Niznik 2019
Niznik 2020

Indications to deprescribe

- No evidence-based indication
- Lack of ongoing benefit
- Accelerated decline
- Severe/end-stage dementia
- Non-dementia terminal illness
- Potential adverse effects
- Drug-drug or drug-disease interactions
- Difficulty adhering to treatment or wants to reduce pill burden
- Prefers to discontinue

deprescribing.org

THE UNIVERSITY OF SYDNEY

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SPECIAL TOPIC SECTION

Alzheimer's & Dementia
Translational Research & Clinical Interventions

CCCDTD5 recommendations on the deprescribing of cognitive enhancers in dementia

Choosing Wisely Canada™

Geriatrics

7. **Don’t continue cholinesterase inhibitors or memantine for dementia without periodic reassessment for perceived benefits (cognitive, functional, behavioural) and adverse effects, and consider deprescribing if the risks outweigh the benefits.**

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Baseline: Apr 2022 to Apr 2023

- 52/341 veterans (15%) on ChEI and/or memantine
  - 4 veterans on dual therapy

- 12/49 (24%) had $\geq$ 3 reassessments per patient-year
- Of appropriate candidates, 3/12 (25%) underwent deprescription

- 14/52 (27%) died on these medications
  - Many for full comfort care and had decreased oral intake

Objectives

1. Improve the percentage of veterans on ChEI/memantine who have **≥ 3 reassessments** per patient-year to **50%** (from 24%) by Oct 2024

2. For appropriate candidates, **trial deprescription** in **50%** (from 25%) by Oct 2024

3. Develop a model for implementation of ChEI/memantine deprescribing guidelines that can be adapted in other LTC settings

Measures

Outcome

- Percentage of veterans on ChEI/memantine with at least 3 reassessments per patient-year
- Percentage of appropriate candidates who undergo trial of deprescription

Balancing

- Routinely assessed changes in
  - Cognition
  - Function
  - Behaviour
- New antipsychotic prescriptions/increases in existing prescriptions

Methods

Chart review

Reassessments
Deprescriptions

Direct Observation

Quarterly
Med Reviews

Physician Surveys

Knowledge
Barriers
Facilitators

Stakeholder Interviews

MRP physicians
Geriatric psychiatrist
Nurses, PT, OT
Pharmacists
Caregivers

Results – Quarterly Med Reviews

Conducted by pharmacist, physician, and nurse

No structures to provide guidance on medications that should be prioritized for reassessment and potential deprescription

Despite being mandated by the MOHLTC, there are no reporting standards beyond individual accountability to ensure reviews are completed

No standardized documentation, leading to lack of clarity about whether medications were reassessed and how decisions were made

Results – Survey Data

100% agree that this is an important aspect of providing care

100% agree that lack of indication or adverse effects are indications to consider deprescribing

Variable agreement for other guideline-recommended indications

Misconceptions about MMSE scores < 10 or < 5 being indications

Results – Survey Data

0% had formal training

0% were aware of guidelines or deprescribing tools

Results – Stakeholder Interviews

Concerns	Suggestions
Fear of “rocking the boat”	Algorithm/decision aid
Prioritization of other medications (e.g., antipsychotics, PPIs, statins)	Integration into quarterly med reviews
Fear of nursing and family objection	Developing clear talking points linked to symptoms (e.g., weight loss)
“Consultant syndrome”	Involving the Family Advisory Council to review our resources

Results

Educational campaign during stakeholder recruitment Apr to Oct 2023

Reached leadership, physicians, pharmacists, allied health, caregivers

	Apr 2023	Oct 2023	Goal
% of veterans on ChEI/memantine with **≥ 3 reassessments** per patient-year	24%	33%	50%
% of appropriate candidates who underwent **trial of deprescription**	25%	73%	50%

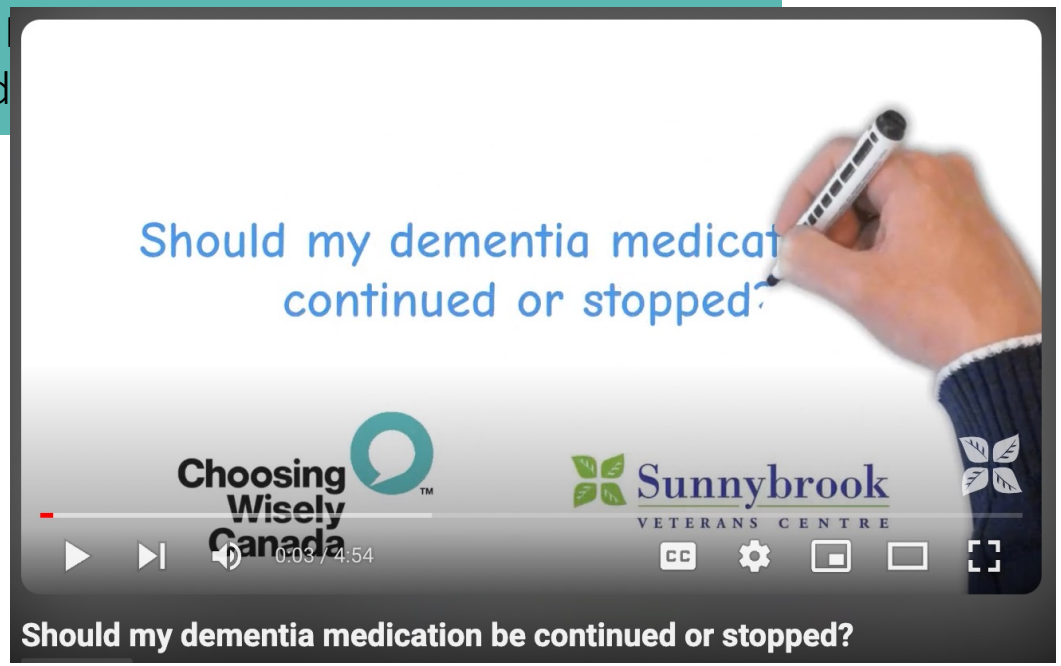
Drug reassessed at scheduled quarterly medication review

Patient/ caregivers

Physicians, nurses, pharmacists

Nurses, allied health

Possible adverse effect identified



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Algorithm for Reassessing Cholinesterase Inhibitors (ChEIs) and Memantine

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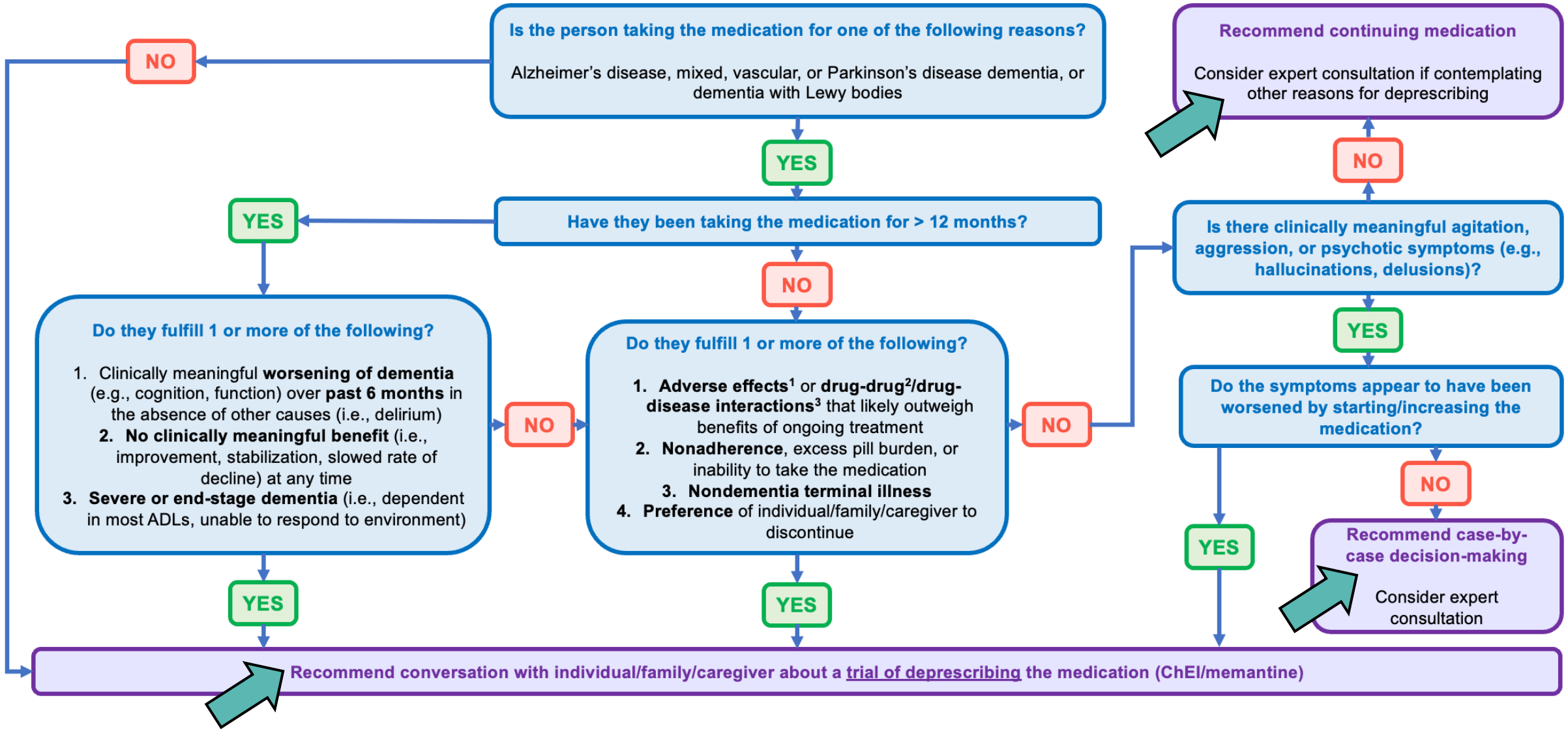
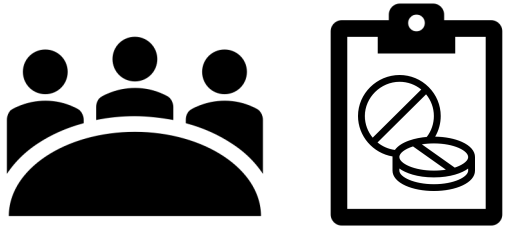
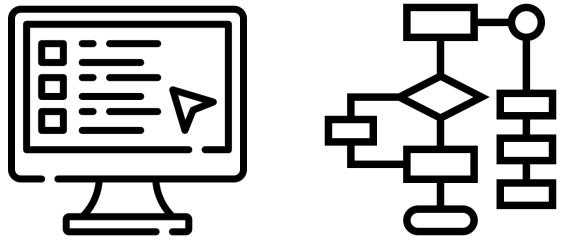
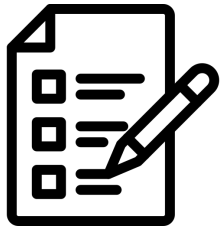




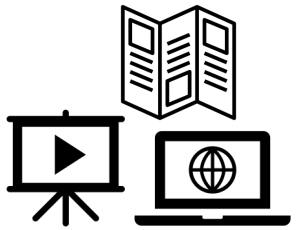
Drug reassessed at scheduled quarterly medication review



Physician/pharmacist determine and document candidacy for deprescribing



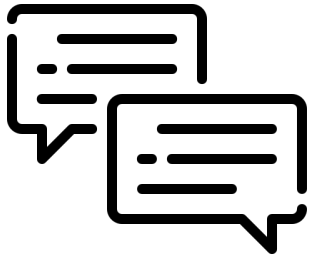
Physician provides instructions for tapering and monitoring

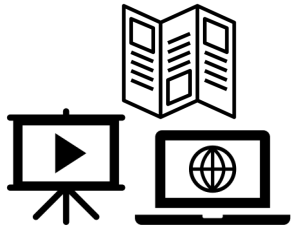


Patient/ caregivers

Physicians, nurses, pharmacists

Nurses, allied health





Possible adverse effect identified

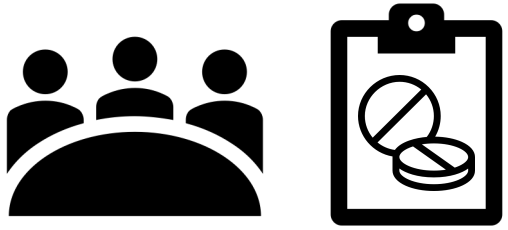
Physician talks to patient/caregiver about deprescription

Allied health and physician monitor after deprescribing

Cholinesterase Inhibitor and Memantine Deprescribing and Monitoring

YES	NO		Physician Must Check Off Appropriate Orders
			Tapering Instructions
		1	**Donepezil - check all that apply** *Slow taper = reduce by 2.5mg every 4 weeks* *Normal taper = reduce by 5mg every 4 weeks* ▫ Donepezil 7.5mg PO ▫ daily OR ▫ qhs x4 weeks **THEN** ▫ Donepezil 5mg PO ▫ daily OR ▫ qhs x4 weeks **THEN** ▫ Donepezil 2.5mg PO ▫ daily OR ▫ qhs x4 weeks **THEN DISCONTINUE**
		2	**Rivastigmine oral - check all that apply** *Slow taper = reduce by 1.5mg BID every 4 weeks* *Normal taper = reduce by 3mg BID every 4 weeks* ▫ Rivastigmine 4.5mg PO BID x4 weeks **THEN** ▫ Rivastigmine 3mg PO BID x4 weeks **THEN** ▫ Rivstigmine 1.5mg PO BID x4 weeks **THEN DISCONTINUE**
		3	**Rivastigmine patch - check all that apply** *Taper = reduce by 3-5mg every 4 weeks* ▫ Rivastigmine 9.5mg/24h patch transdermal daily x4 weeks **THEN** ▫ Rivastigmine 4.6mg/24h patch transdermal daily x4 weeks **THEN DISCONTINUE**
		4	**Galantamine SR - check all that apply** *Slow/normal taper = reduce by 8mg every 4 weeks* ▫ Galantamine SR 16mg PO daily x4 weeks **THEN** ▫ Galantamine SR 8mg PO daily x4 weeks **THEN DISCONTINUE**
		5	**Memantine BID dosing - check all that apply** *Slow taper = reduce by 5mg every 4 weeks* *Normal taper = reduce by 5mg BID every 4 weeks* ▫ Memantine 5mg PO qAM + memantine 10mg PO qhs x 4 weeks **THEN** ▫ Memantine 5mg PO qAM + memantine 5mg PO qhs x4 weeks **THEN** ▫ Memantine 5mg PO ▫ qAM OR ▫ qhs x4 weeks **THEN DISCONTINUE**
		6	**Memantine daily dosing - check all that apply** *Slow taper = reduce by 5mg every 4 weeks* *Normal taper = reduce by 10mg every 4 weeks* ▫ Memantine 15mg PO ▫ qAM OR ▫ qhs x4 weeks **THEN** ▫ Memantine 10mg PO ▫ qAM OR ▫ qhs x4 weeks **THEN** ▫ Memantine 5mg PO ▫ qAM OR ▫ qhs x4 weeks **THEN DISCONTINUE**
		7	**If patient is already on lowest dose:** Discontinue _____ now

			Monitoring and General Care
✓		8	**Monitoring for drug withdrawal reaction (usually within 1 week, extremely rare)** Notify physician and document details in PointClickCare if there is new severe agitation, aggression, hallucinations, or reduced level of consciousness
✓		9	**Monitoring for re-emergence of symptoms (usually within 2-6 weeks, uncommon)** Notify physician and document details in PointClickCare if any of the following are declining much faster than the decline experienced due to disease progression while taking the cholinesterase inhibitor/memantine: • Cognition (e.g., orientation, memory, communication, attention, ability to follow instructions) • Behaviour (e.g., cooperation with care, wandering, yelling, agitation, aggression, hallucinations, delusions, mood, engagement) • Function (e.g., feeding, transfers, ambulation, dressing, continence, toileting, hygiene)
✓		10	After the medication that was being tapered has been discontinued for 6 weeks, physician to assess if appropriate to return to routine monitoring of cognition, behaviour, and function
			Restarting Instructions To be completed only if return to previous dose is being considered. Do not complete when starting medication taper.
		11	Within 1 week, the patient experienced a suspected withdrawal reaction. **Restart the previous dose immediately (write order below).**
		12	Within 6 weeks, the patient experienced a faster decline in (check all that apply): ▫ Cognition ▫ Behaviour ▫ Function **Consider restarting the previous dose (write order below).** Note that a decline after 6 weeks is ***more likely to be due to*** disease progression and a decline after 3 months ***is due to*** disease progression.
			Additional Orders
		13	
		14	
		15	
		16	



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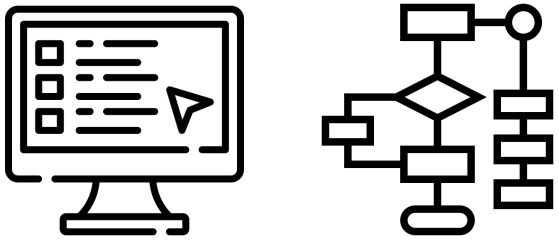

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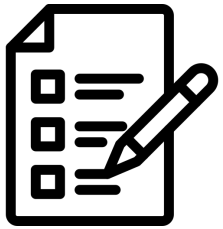

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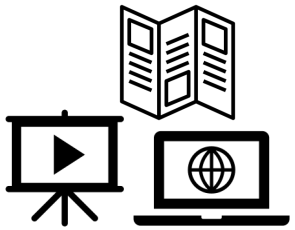

Patient/ caregivers

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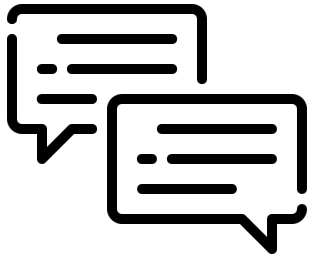
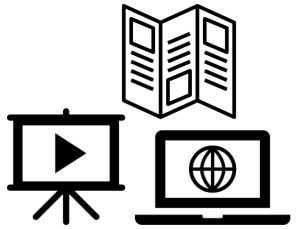
Nurses, allied health





Possible adverse effect identified

Physician talks to patient/caregiver about deprescription

Allied health and physician monitor after deprescribing

Next steps

- [x] Baseline chart review
- [x] Direct observation of quarterly medication reviews
- [x] Physician surveys
- [x] Stakeholder interviews
- [x] Educational campaign
- [x] Intervention development and testing
- [ ] Implementation for all patients cared for by 1 of 6 MRP physicians
- [ ] Implementation for all physicians at the Sunnybrook Veterans Centre
- [ ] Determine sustainability and spread to other LTC homes

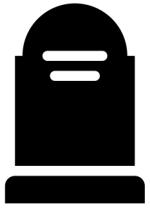
Challenges

First study on implementation of deprescribing guidelines for ChEIs/memantine in LTC → Existing tools to support implementation were limited

Medications for dementia seen in a different light → Additional resources required (e.g., conversation guide, patient- and family-facing resources)

Lack of standardization in documentation for quarterly medication reviews → More manual chart review required

Summary

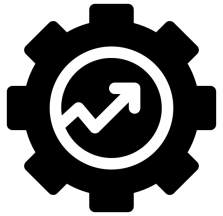


Many people living in LTC die still taking ChEIs/memantine

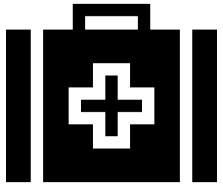
Deprescribing guidelines exist, and regular reassessment of these medications is advised by Choosing Wisely Canada

Reassessment is not routinely occurring in LTC, where the risks of these medications are more likely to outweigh benefits than in the community

Summary



Residents and families stand to benefit from regular reassessment. A trial of deprescription can be considered if risks outweigh benefits



We developed an arsenal of interventions based on identified barriers to reassessment and potential facilitators

Our study is establishing a QI framework for regular reassessment of psychotropic medications in LTC that can be scaled and spread to other centres across Canada

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