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HIGH COST DRUG	Cholinesterase Inhibitors (donepezil, galantamine, rivastigmine) and memantine	1 of 5		
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		10	10	28
	Original	00	09	28
	Revised	07	04	26
	Revised	10	10	28
	Revised	16	03	24

**PREAMBLE**

The pharmacological treatment of cognitive symptoms of dementia, such as memory, learning, and reasoning, may play a role in stabilizing and delaying the progression of the disease and impairment. The most recent 2012 Canadian guidelines from the *Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia (CCCDTD4)* make several recommendations for the use of cholinesterase inhibitors (ChEIs) and memantine in individuals with dementia<sup>1</sup>:

- “Many cases of dementia have more than one condition contributing to causation, most commonly a combination of AD with other brain pathology. Management should be based on those diagnoses that are believed to be the predominant contributing causes (grade 1B)
  - ChEIs are recommended as a treatment option for AD with a component of cerebrovascular disease (grade 1B)
  - ChEIs are recommended as a treatment option for dementia associated with Parkinson disease (grade 1A)
  - All 3 ChEIs have demonstrated efficacy for mild to severe AD. A trial of a ChEI is recommended for most patients with AD (grade 1A)
  - There is insufficient and inconsistent evidence on which to make a recommendation either for or against the use of the currently available ChEIs for the treatment of vascular dementia (grade 2B)
  - Direct comparisons do not suggest differences between ChEIs (grade 2B). Selection of which agent to use will be based on adverse effect profile, ease of use, familiarity, and differences between the agents in their pharmacokinetics and other mechanisms of action
  - Combination therapy of a ChEI and memantine is rational (as the medications have different mechanisms of action) and appears to be safe, but there is insufficient evidence to recommend for or against this combination (grade 2B)
  - Because of increasing central and peripheral cholinergic stimulation, ChEIs might
    - increase the risk of gastrointestinal bleeding, particularly in patients with ulcer disease or those taking anti-inflammatory drugs;
    - less commonly produce bradycardia or heart block in patients with or without cardiac impairment;
    - exacerbate asthma or other pulmonary disease;
    - cause urinary outflow obstruction;
    - increase risk of seizures; or
    - prolong the effects of succinylcholine (muscle relaxant)
  - There is no good evidence to recommend for or against the use of ChEIs or memantine for the treatment of neuropsychiatric symptoms (grade 2B)”
- Excerpt from Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: Recommendations for the family physician -2014*

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## PROTOCOLS

**Cholinesterase Inhibitors\* are approved for funding under one of the following conditions:**

\*Includes: donepezil 5 mg and 10 mg tablets, 1mg/mL liquid; galantamine ER 8 mg, 16 mg and 24 mg capsules; rivastigmine 1.5 mg, 3 mg, 4.5 mg and 6 mg capsules, 2 mg/mL liquid. Rivastigmine patches 5 (4.6 mg/24hr) and 10 (9.5 mg/24hr) are further restricted to residents with documented intolerance to oral product. Refer to current Exelon® Patch product monograph for dosing information. See appendix A for the basic algorithm for oral-patch dose conversion.

### **Protocol 1 - Mild to moderate dementia, Alzheimer's or Mixed type**

- For residents with a diagnosis of Alzheimer's Disease or mixed dementia where Alzheimer Disease is a significant component; **AND**
- A Cognitive Performance Scale (CPS) score between 1 – 4 indicating mild to moderate dementia; **AND**
- Initial reporting and ongoing monitoring of the Aggressive Behavior Scale (ABS) and Activities of Daily Living-short (ADL-short) score is required for functional assessment

**Note: Individuals who progress to severe dementia (without behaviours), and who require continued use may be eligible for ongoing funding through the non-formulary approval process. Evidence of ongoing therapeutic benefit will be required.**

### **Protocol 2 - Severe Dementia with Behavioural Disturbances**

- For residents with a CPS score of 5 - 6 (indicating severe dementia) of the Alzheimer's or mixed type with challenging behaviours; **AND**
- There must be a recommendation for use by a specialist in psychiatry, geriatrics or neurology; **AND**
- Initial reporting and ongoing monitoring of the ABS and ADL-short score is required

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**Protocol 3 –Dementia associated with Parkinson’s Disease or Lewy Body Dementia**

- For residents with a diagnosis of dementia associated with idiopathic Parkinson’s or Lewy Body Dementia to help control symptoms of hallucinations and agitation associated with the disorder. Where symptoms are controlled, therapy may continue long-term.

Note: These individuals will not require a CPS scores to be completed.

**Memantine\*\* is approved for funding under the following conditions:**

\*\*Includes memantine 10 mg tablets.

**Protocol 4 - Dementia with Behavioural Disturbances**

- For residents with a diagnosis of dementia having challenging behaviours; **AND**
- There must be a recommendation for use by a specialist in psychiatry, geriatrics or neurology. These will be very challenging individuals and the assumption is that a consultant is involved; **AND**
- Sufficient behavior mapping must be undertaken to determine benefit on target behaviours and to monitor for side effects
- Initial reporting and ongoing monitoring of the ABS and ADL-short is required.

**PROCEDURE**

The HCD-09 form is required to be submitted to AHS for initial drug provision. The resident should meet and maintain protocol criteria. By submitting this application, the care team and pharmacist have given reasonable consideration to consent, alternative therapeutic options, and risks/benefits. Compliance with the procedure outlined under HCD – 01 (High Cost Drug Use Conditions) is required for initial and ongoing drug cost reimbursement.

**New drug starts:** An initial trial of the selected medication may be offered for a six month trial. A clinical meaningful response in cognitive function, behavioural symptoms and quality of life must be demonstrated before ongoing funding will be granted. New drug starts will require a follow-up form submission at 6 months

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A resident may only receive funding for one eligible medication at a time. If a resident becomes eligible for funding under a different protocol (e.g. dementia progresses from moderate to severe with behaviours), a new form is required to be submitted.

**Discontinuation of Therapy:** Annual funding will continue automatically provided the funding criteria continue to be met. Discontinuation of medication should be considered when there is no longer evidence of therapeutic effect. The CCCDTD4 make several recommendations for discontinuation of ChEIs:

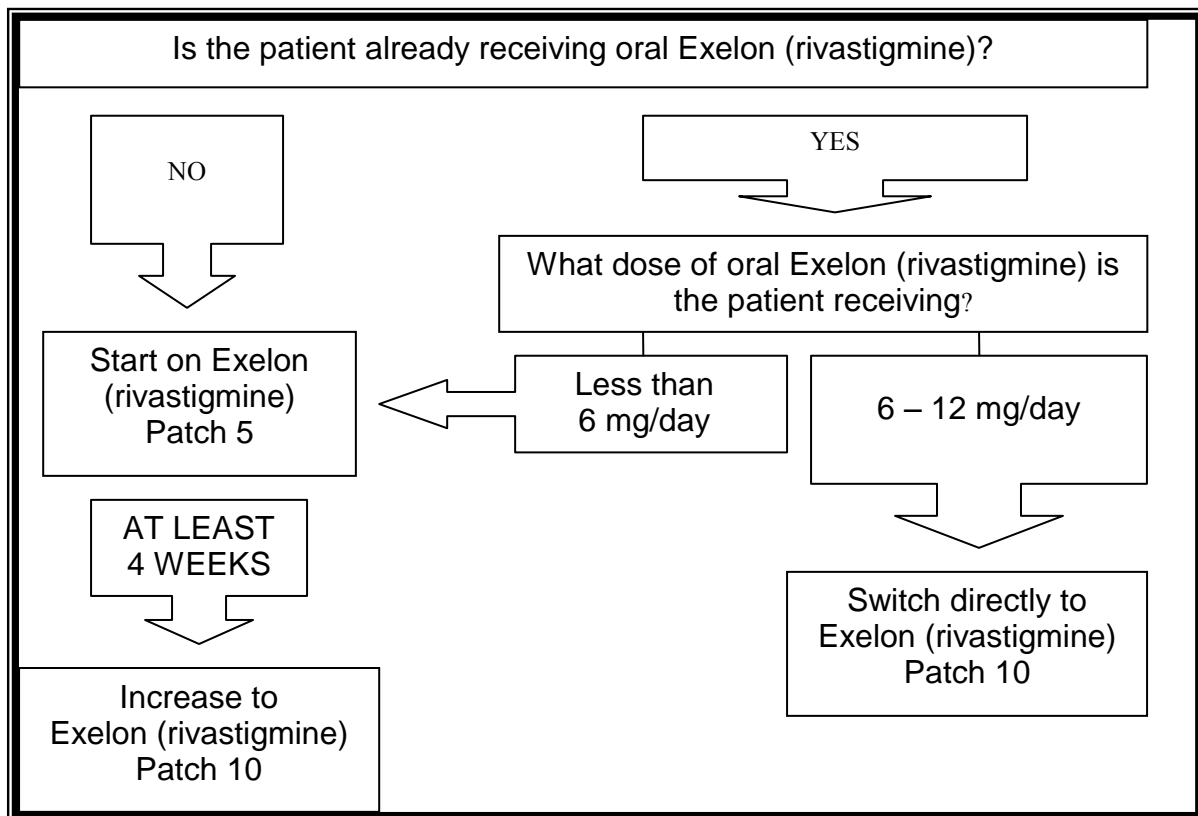
- “Because of known side effects and drug costs of continuing therapy, discontinuation of ChEIs should be considered and balanced against possible worsening of cognitive function and greater functional impairment (grade 2B). It is suggested that ChEIs be discontinued when the following are relevant:
    - The patient, caregiver, or substitute decision-maker decide to stop CHEIs after being appraised of the risks and benefits of continuation and discontinuation
    - The patient is non-adherent and continued prescribing would be
    - The patient’s rate of cognitive, functional, or behavioural decline is greater on treatment compared with that before being treated
    - The patient experiences intolerable side effects that are definitely or probably related to the ChEI
    - The comorbidities of the patient make continued use of the agent unacceptably risky or futile (e.g., terminal illness)
    - The patient’s dementia progresses to a stage (e.g., Global Deterioration Scale stage 7) where there would be no meaningful benefit from continued therapy
  - It is suggested that the dose be tapered before stopping the agent. If discontinued because of perceived lack of effectiveness, it is recommended that the patient be monitored over the next 1-3 mo for evidence of an observable decline. If this occurs, it is suggested that reinstating therapy be considered (Grade 2C).”
- Excerpt from Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: Recommendations for the family physician -2014*

**Note:** Initial reporting and ongoing monitoring of the Aggressive Behavior Scale (ABS) and Activities of Daily Living –short (ADL-Short) scores from MDS-RAI data is required for drug funding. While these scores are not conclusively linked to effectiveness of anti-dementia medications, the reporting may be used to i) measure progress and gradual deterioration of the client during his or her stay in LTC, and ii) to provide data as a means for future research into the use of MDS-RAI data for objective drug evaluation.

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**Appendix A**

**ALGORITHM FOR STARTING OR SWITCHING TO EXELON (rivastigmine) TRANSDERMAL PATCH**



<sup>1</sup> Practice - Clinical Review: Ainsley Moore, Christopher Patterson, Linda Lee, Isabelle Vedel, and Howard Bergman **Fourth Canadian Consensus Conference on the Diagnosis and Treatment of Dementia: Recommendations for family physicians** Can Fam Physician May 2014 60: 433-438