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

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Is the person taking the medication for one of the following reasons:

ChEIs (donepezil, rivastigmine or galantamine):

- Alzheimer's disease, dementia of Parkinson's disease, Lewy body dementia or vascular dementia.

Memantine:

- Alzheimer's disease, dementia of Parkinson's disease or Lewy body dementia.

No

Yes

Have they been taking the medication for > 12 months

Yes

No

Do they fulfill one of the following?

- Cognition +/- function significantly worsened over past 6 months (or less, as per individual).
  Sustained decline (in cognition, function +/- behaviour), at a greater rate than previous (after exclusion of other causes).
- No benefit (i.e., no improvement, stabilisation or decreased rate of decline) seen during treatment.
- Severe/end-stage dementia (dependence in most activities of daily living, inability to respond to their environment +/- limited life expectancy).

No

Do they fulfill one of the following?

- Decision by a person with dementia/family/carer to discontinue.
- Refusal or inability to take the medication.
- Non-adherence that cannot be resolved.
- Drug–drug or drug–disease interactions that make treatment risky.
- Severe agitation/psychomotor restlessness.
- Non-dementia terminal illness.

No

Continue ChEI/ memantine

Consult geriatrician, psychiatrist or other healthcare professional if considering other reason for deprescribing.

Yes

Yes

Recommend trial deprescribing

Strong recommendation from systematic review and GRADE approach

Recommend trial deprescribing

Practice Point

Engage individuals and caregivers determine their values and preferences and discuss potential risks and benefits of continuation and discontinuation.

Taper and then stop
Halve dose (or step down through available dose forms) every 4 weeks to lowest available dose, followed by discontinuation. Plan this in collaboration with the individual/carer and relevant healthcare professionals.

Conduct close periodic monitoring (e.g. every 4 weeks)

- cognition, function and neuropsychiatric symptoms.

Consider other causes of changes (e.g. delirium).

Reeve E, Farrell B, Thompson W, at 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

deprescribing.org | Institut de Recherche Bruyère Research Institute | Cognitive Decline Partnership Centre | The University of Sydney

Monitoring during tapering and after discontinuation

Timing of symptoms after dose reduction/ discontinuation	Types of symptoms	Action to be taken by family/nurses/ care staff	Possible cause*
Less than 1 week	Severe symptoms, including agitation, aggression, hallucinations or reduced consciousness	Restart previous dose immediately and contact responsible healthcare professional as soon as possible	Adverse drug withdrawal reaction
2 to 6 weeks	Worsening of cognition, behavioural or psychological symptoms or function	Contact responsible healthcare professional and consider restarting previous dose and/or make an appointment to see responsible healthcare professional at the next available time	Re-emergence of symptoms that were being treated by ChEI/ memantine
6 weeks to 3 months	Worsening of cognition, behavioural or psychological symptoms or function	Contact responsible healthcare professional at the next available time to make an appointment	Likely progression of condition or possible re-emergence of symptoms that were being treated by ChEI/memantine
› 3 months	Any	As per usual care	Progression of condition

- *Exclude other causes of change in condition (e.g. infection or dehydration) first.
- Discuss monitoring plan with the individual/family/carer and write it down for them (e.g. frequency and type of follow-up). Ensure they have a way to contact a clinician if needed.

Engaging individuals and family/carers

Determining suitability for deprescribing

- Discuss treatment goals – what do they value the most (cognition, quality of life, remaining independent)?
- Ask about experience with dementia symptoms when treatment started and over last 6 months.
- Ask about side effects.

Helping the individual and family/carers to make an informed decision

- Deprescribing is a trial — medication can be restarted if appropriate.
- There are uncertain benefits and harms to both continuing and discontinuing the medication.
- Tailor discussion about benefits and harms to the individual.
- Explore fears and concerns about deprescribing.
- Consider medication costs and local reimbursement/subsidisation criteria.
- If the recommendation to deprescribe is being made due to progression of dementia, remind family/ carers that the person with dementia may continue to decline after deprescribing, and explain why.

Non-pharmacological management and ongoing care after deprescribing

See (http://sydney.edu.au/medicine/cdpc/resources/dementia-guidelines.php) for Australian guidelines on care of people with dementia, including behavioural and psychological symptoms.

ChEI and memantine availability (Australia)

Drug	Strength
Donepezil (Aricept®, Aridon®, Arazil®)	Tablet – 5mg, 10mg
Galantamine (Galantyl®, Gamine XR®, Reminyl®)	Controlled release capsule – 8mg, 16mg, 24mg
Rivastigmine (Exelon®)	Capsule – 1.5mg, 3mg, 4.5mg, 6mg
	Patch – 4.6mg/24 hours, 9.5mg/24 hours, 13.3mg/24 hours
Memantine (Ebixa®, Memanxa®)	Tablet – 10mg, 20mg

ChEI and memantine side effects

- Common: include gastrointestinal effects, dizziness, confusion, headache, insomnia, agitation, weight loss and falls.
- Rare (ChEI): may include urinary, cardiovascular (e.g. bradycardia), pulmonary and dermatological (e.g. Stevens-Johnson syndrome) complications, Pisa syndrome, seizures, gastrointestinal haemorrhage and rhabdomyolysis.
- Lack of evidence of potential harms in complex older adults.

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