

Acetylcholinesterase Inhibitors and Memantine Prescribing Support in Dementia in Adults

1. Acetylcholinesterase Inhibitors and Memantine are licensed for the treatment of symptoms associated with Alzheimer's disease.
2. The Acetylcholinesterase Inhibitors (Donepezil, Rivastigmine and Galantamine) are recommended as options for managing mild to moderate Alzheimer's disease.
3. Acetylcholinesterase Inhibitors are not recommended for initiation in severe Alzheimer's disease however, they should not be stopped because of disease severity alone.
4. Memantine is recommended for patients with moderate Alzheimer's disease who are intolerant of or where Acetylcholinesterase Inhibitors are contraindicated or for patients with severe Alzheimer's disease.
5. Memantine can be prescribed in addition to an Acetylcholinesterase Inhibitors in moderate or severe Alzheimer's disease.
6. NICE guideline (NG97) Dementia: assessment, management and support for people living with dementia and their carers also details when these medicines may be prescribed for different subtypes of dementia. This includes prescribing for indications where medicines do not have a current marketing authorisation. This guideline does not include patients with a diagnosis of mild cognitive impairment.
7. Diagnosis should be made according to current guidelines by a specialist service, memory clinic or healthcare professional with expertise in diagnosing and treating Alzheimer's disease. Treatment should only be recommended if the patient is able to self-manage or a caregiver is available to monitor medicines adherence.
8. In line with NICE guidance, the specialist service or memory clinic in secondary care will provide a recommendation to initiate treatment in primary care. Treatment will be monitored by the Memory Service following initiation on a case-by-case basis, aligned to clinical need.
9. For people with an established diagnosis of Alzheimer's disease who are already taking an Acetylcholinesterase Inhibitor, General Practitioners may start treatment with memantine without taking advice from a specialist clinician.
10. There is no routine ongoing monitoring required specifically for these medicines in primary care other than monitoring for possible adverse effects.
11. Secondary care can be contacted for advice if required and patients can be referred back to memory services when clinically appropriate. The treatments are not disease modifying.

Licensed Indications and prescribing good practice

Whenever possible, the patient should be involved in the decision making about initiating treatment and should be given information about the medication in order to make an informed choice. Printable leaflets including information about different treatments can be found at the Cambridgeshire and Peterborough Foundation Trust choice and medication website: [Choice and Medication Dementia and Alzheimer's disease](#).

If prescribing an Acetylcholinesterase Inhibitor (donepezil, galantamine or rivastigmine), treatment should normally be started with the drug with the lowest acquisition cost (taking into account required daily dose and the price per dose once shared care has started). However, an alternative Acetylcholinesterase Inhibitor could be prescribed if it is considered appropriate when taking into account adverse event profile, expectations about adherence, medical comorbidity, possibility of drug interactions and dosing profiles.

Memantine can be added if the patient is presenting with worsening cognition / changes to behaviour progressing to moderate or severe disease.

The severity of disease can be assessed using several methods, depending on the setting (for example research or clinical practice) and the outcome being assessed. Clinical practice uses a variety of measures, often along with clinically based assessments such as biographical interview. Severity is frequently defined by mini mental state examination (MMSE) score:

- Mild Alzheimer's disease: MMSE 21-26.
- Moderate Alzheimer's disease: MMSE 10-20.
- Moderately Severe Alzheimer's disease: MMSE 10-14.
- Severe Alzheimer's disease: MMSE less than 10.

Treatment overview as per NICE guidance

Diagnosis	1 st choice	2 nd choice
Alzheimer's disease	Acetylcholinesterase Inhibitor	Memantine
Vascular Dementia	None	None
Mixed Dementia	Acetylcholinesterase Inhibitor	
Dementia with Lewy Bodies	Donepezil or Rivastigmine	Galantamine, Memantine
Frontotemporal Dementia	None	None
Dementia in Parkinson's Disease	Acetylcholinesterase Inhibitor including in severe disease.	Memantine

Dosage and switching from one medicine to another

Consult the latest edition of the [British National Formulary \(BNF\)](#) or [Summary of Product Characteristics \(SPC\)](#) for full details.

Doses of Acetylcholinesterase Inhibitors or Memantine should not exceed the BNF maximum recommended daily dose.

Contraindications and Cautions

Memantine

It should be avoided in people with an eGFR <5ml/min and the maximum dose is 10mg for people with an eGFR 5ml/min to 29ml/min.

Caution is advised in patients with a history of epilepsy or seizures.

Donepezil

Cholinesterase inhibitors should be prescribed with caution where there is a history of asthma or obstructive pulmonary disease. Acetylcholinesterase Inhibitors have a vagotonic effect that can produce bradycardia. Caution advised in patients with sick sinus syndrome and other supraventricular cardiac conditions.

Caution advised in patients with or at risk of Gastrointestinal / Peptic ulcer or concurrent nonsteroidal anti-inflammatory drugs (NSAIDs). These patients should be monitored for symptoms.

Rivastigmine and Galantamine

Caution in duodenal/gastric ulcer, seizures, COPD, Asthma.

For further information please consult the latest edition of the [British National Formulary](#) or [Summary of Product Characteristics](#) for full details.

Adverse effects

Prescribers should consult the latest edition of the [British National Formulary](#) or [Summary of Product Characteristics](#) for full details.

Medicines and their commonly reported adverse effects

- Donepezil: diarrhoea, muscle cramps, fatigue, nausea, vomiting, insomnia, agitation, decreased appetite.
- Rivastigmine: as per donepezil.
- Galantamine: as per donepezil.
- Memantine: hypertension, dizziness, constipation.

Monitoring

There is no ongoing monitoring generally required for these medicines in primary care.

Individual patients may require additional monitoring based on co-morbidities or interacting medicines. It is likely these patients would remain within secondary care services and any primary care monitoring will be agreed on a case-by-case basis.

Cessation/Withdrawal

Disease severity alone should not be the driver for discontinuation of an Acetylcholinesterase Inhibitor or Memantine. Stopping of these medicines should be done as per local guidance for Medicines Optimisation, as per NICE Guidance 5 and NICE Guidance 56. For patient nearing end of

life, an anticipatory healthcare planning process should be adopted including decisions to stop these medicines. This should be in consultation with families and carers, applying principles relating to Best Interests/Mental Capacity Act, where the patient is unable to make the decision.

References

[NICE guidance 97 Dementia: assessment, management and support for people living with dementia and their carers.](#)

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