

**Dementia Formulary Guidance [v3]**

1. **Introduction**

These Guidelines are intended for routine use. However, there will be instances where they are not suitable for the patient you are managing, where more bespoke treatment will be necessary. In such instances the rationale for prescribing away from formulary must be recorded.

**This is designed to give guidance on the pharmacological management of dementia only, non-pharmacological management must also be considered, in line with national guidance.** Based on [NICE NG 97](https://www.nice.org.uk/guidance/ng97).

Patients with learning disabilities are known to be at higher risk of dementia, they should be assessed by specialists with a special knowledge of this area. However, they should be given access to the same medications as all others, monitoring will need to be tailored to their specific needs. [Dementia in learning disabilities information](https://www.england.nhs.uk/north/wp-content/uploads/sites/5/2018/12/IDD-GP-Guide-short-v1.9.pdf).

1. **Pharmacological treatments in dementia – Key Points**
* Prior to starting medication for dementia, the person should be assessed using the appropriate clinical tools.
* The three acetylcholinesterase (AChEI) inhibitors (donepezil, galantamine and rivastigmine) are recommended options for mild to moderate Alzheimers disease.
* Memantine is an option for moderate to severe Alzheimer’s disease in people who are intolerant of or have a contraindication to AChE inhibitors or for severe Alzheimers disease. For patients not currently receiving pharmacological treatment should be initiated on monotherapy.
* In patients with moderate Alzheimers currently receiving an AChEI consider adding memantine
* In patients with severe Alzheimers currently taking an AChEI offer memantine in addition.
	+ They should only be initiated by prescribers appropriately trained in dementia care, this may include psychiatrists, neurologists, geriatricians, and other health care professionals suitably trained, such as GP’s, Nurse Consultants and Advance Nurse Practitioners
	+ Once the decision to prescribe has been made, the first prescription may be made in primary care. Where shared care is in place, this should be followed.
	+ Once stabilised patients must be reviewed at least annually, or more frequently if clinically indicated.
	+ Any relevant physical, sensory, or learning disabilities, or communication difficulties should be considered to ensure equality of access to treatment for service users from different ethnic groups, and cultural backgrounds.
	+ Prescribers should discuss treatment options, benefits, and risks with the service user and/or carer and seek carers views on the patient’s condition at baseline.
	+ If prescribing an AChE inhibitor, treatment should normally be started with a drug with the lowest acquisition cost, allowing for different formulations, considering adherence, medical co-morbidity, drug interactions and dosing profiles.
	+ When using pharmacological treatments in dementia, low initial doses and gradual dose increments are necessary.
	+ Monitor closely for any adverse drug reactions and review treatment if side effects are severe or intolerable. For further information see relevant SPC
	+ Carer views on the service user’s condition at follow up should be considered.

**3. Investigations and screening**

Investigations are usually done in primary care, for suspected dementia. They include:

* + Full blood count
	+ ESR
	+ Urea and electrolytes
	+ Calcium
	+ Glucose
	+ Liver function tests
	+ Thyroid function tests
	+ Serum vitamin B12/folate levels
	+ Iron studies, if indicated
	+ Midstream urine culture to rule out UTI
	+ Chest x-ray
	+ Brain imaging
	+ ECG —if cardiovascular problems suspected or starting an AChEI
1. **Continuation Criteria**

Service users who continue pharmacological treatments for dementia should be reviewed regularly using cognitive, global, functional and behavioural assessment. The treatment should be reviewed regularly, at least annually by specialist teams.

* + AChEI’s should not be stopped on the basis of disease severity alone.
	+ Continue if benefits are seen to outweigh risks, or identified advantages are seen to outweigh identified disadvantages.
1. **Discontinuation Criteria**

Discontinuation must be discussed first with the carers, family, and with the patient wherever possible. Discontinuing therapy should be considered when.

* + Adverse reaction to the medication, such as
1. Significant bradycardia
2. Risks of falls with syncope
	* Lack of compliance with the medication, despite attempts to maximise this.
	* Patient has advanced along an end of life care pathway, and is unlikely to derive any continued benefit from treatment.
	* An irreversible deterioration in the patient’s global clinical presentation since the last review e.g., a CVA
3. **Other Dementias**
	* While there is limited evidence for treatment with these agents for non-Alzheimer’s dementias, NICE dementia guidance advises that if the underlying neurochemical deficit is similar, irrespective of the aetiology of the impairment, then it is possible that AChEI’s or Memantine would produce a similar symptomatic effect in other types of dementia.
	* Patients with an underlying learning disability who fulfil the criteria for starting an AcheI or memantine should be offered treatment with support and guidance in line with their individual needs. Needs specific assessment tools may be needed.
	* Offer donepezil or rivastigmine to people with mild to moderate dementia with lewy bodies.
	* Do not use acetylcholinesterase inhibitors in mild cognitive impairment. The potential benefits are unlikely to outweigh the increased risks of adverse effects.
	* NICE does not recommend the routine use of cholinesterase inhibitors or memantine for cognitive decline in vascular dementia.
	* Mixed dementia should be managed according to what is considered the predominant cause of their dementia.
	* Avoid use of antipsychotics in people with Parkinsons Disease dementia (PDD) or Dementia with Lewy Bodies (DLB) wherever possible, consider quetiapine or clozapine if necessary.
4. **Behavioural and Psychological Symptoms of Dementia (BPSD) or Behaviours that challenge.**

The pharmacological management is beyond the scope of this formulary and should only be considered following assessment by a specialist prescriber and should take in to account the risks and benefits of any such prescribing, such as the risk of falls or over sedation. The use of antipsychotics should be limited to significant aggression and psychosis and follow NICE guidance.

1. **Medicines that may worsen cognitive function.**
	* Be aware that some commonly prescribed medicines are associated with increased anticholinergic burden, and therefore cognitive impairment.
	* Consider minimising the use of medicines associated with increased anticholinergic burden, and if possible, look for alternatives:
	* When assessing whether to refer a person with suspected dementia for diagnosis during medication reviews with people living with dementia.
	* Be aware that there are validated tools for assessing anticholinergic burden (for example, the Anticholinergic Cognitive Burden Scale), but there is insufficient evidence to recommend one over the others.
* For patients with urinary incontinence requiring medication consider the use of Mirabegron as an alternative to anticholinergic agents in this group of patients, if its use is not contraindicated. Ensure when recommending or making changes the rationale is included in communication with the patients GP.
* For guidance on carrying out medication reviews, see [medication review](https://www.nice.org.uk/guidance/ng5/chapter/1-Recommendations#medication-review) in the NICE guideline on medicines optimisation.

**Table 1: ALZHEIMER’S DISEASE – PHARMACOLOGICAL TREATMENTS**

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| --- | --- | --- |
| **First Line:\*** | **Relative Cost** | **Notes** |
|  (AChEI)Donepezil | £ | Only suitably trained prescribers  in consultation with service user/carer should initiate treatment.Appropriate AChEI should be selected following consideration of cost, adverse effects, druginteractions, other conditions, expectations around concordance, and dosing profiles.Switching between agents may considered in cases of non-response or intoleranceContinue AChEI only if benefits on cognitive, global, functional and behavioural symptoms. |
| DonepezilOrodispersible tablets | £ | Both 5mg and 10mg are effective doses. Orodispersible tablets availableElimination half-life is long at about 70 hours |
| Galantamine(Oral solution) | ££(£££) | Oral solution and modified release preparations are available. Reductions in dose may benecessary in hepatic or renal impairment |
| Rivastigmine(Liquid)[Patches] | £(££££)[£££] | Oral solution and patch also available; also licenced for mild to moderately severe dementia inidiopathic Parkinson's disease; Gastrointestinal side effects appear more frequent withrivastigmine. Patch may be appropriate in those unable to tolerate side effects of oralrivastigmine but application site reactions (erythema, pruritus, rash, vesicles) can occur |
| Memantine | £ | In moderate to severe Alzheimers disease |
| **Second Line:** | **Relative Cost** | **Notes** |
| Alternative AChEI GalantamineRivastigmine | £££££ | If initial AChEI not tolerated or not effective, switch to another AChEI not already tried. |
| Memantine(Liquid) | £ (£££) | Recommended for moderate Alzheimer’s disease in people who are intolerant of or have acontraindication to AChEIs or in moderate to severe Alzheimer’s diseaseOnly specialists in the care of people with dementia (in consultation with service user/carer)should initiate treatment. |
| Memantine + AChEI | £ | Memantine can be added to an existing Acetylcholinesterase Inhibitor, in line with NICE guidance |
| **Not Recommended** | **Relative Cost** | **Notes** |
| Vitamin EGinkgo biloba |  | Limited data available - difficult to determine evidence of clinical benefit |
| **\*When prescribing medications please ensure you prescribe any locally agreed brands where appropriate** |
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**Table 2: OTHER DEMENTIAS – PHARMACOLOGICAL TREATMENTS**

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| **Mild Cognitive****Impairment** | **Relative Cost** | **Notes** |
| AChEIs | £-££££ | Do not use acetylcholinesterase inhibitors for mild cognitive impairment because any potential benefits are unlikely to outweigh the increased risk of side effects |
| **Vascular Dementia** | **Relative Cost** | **Notes** |
| AChEIsMemantine | ££ | AChEIs and memantine are not licensed for the treatment of vascular dementia and should not be routinely prescribed for cognitive decline in vascular dementiaSpecialists may carefully consider exceptional use on a case-by-case basis (off-label use). |
| **DLB or PDD** | **Relative Cost** | **Notes** |
| AChEIs(Rivastigmine licensed for PDD)Memantine | ££ | * Use of AChE inhibitors (donepezil or rivastigmine) may be considered in Parkinson’s Disease Dementia (PDD) or
* dementia with Lewy Bodies (DLB) on a case-by-case basis.
* Rivastigmine is the only AChEI licensed for symptomatic treatment of mild to moderately
* severe dementia in idiopathic Parkinson's disease
* Memantine has not been widely investigated for use in DLB
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| **Mixed Dementia** | **Relative Cost** | **Notes** |
| AChEIsMemantine | £ | * NICE advises that people with mixed dementia should be managed  with and AChEI where Alzheimers is felt to be part of the picture.
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