*Amber with Guidance= To be initiated and titrated to a stable dose in secondary care with follow up prescribing and monitoring by primary care where deemed appropriate.*

Barnsley Hospital NHS Foundation Trust | South West Yorkshire Partnership NHS Foundation Trust | Barnsley Clinical Commissioning Group

# Drugs for Dementia (donepezil, rivastigmine, galantamine and memantine)

| | |
|---|---|
| **Background Information** | NICE NG 97 and TA 217 recommends that:-<br>• The three acetylcholinesterase (AChE) inhibitors donepezil, galantamine and rivastigmine as monotherapies are recommended as options for managing mild to moderate Alzheimer's disease under all of the conditions specified in 1.4 and in recommendation 1.5.5 of the NICE guideline on dementia.<br>• Memantine monotherapy is recommended as an option for managing Alzheimer's disease for people with:<br>  ○ moderate Alzheimer's disease who are intolerant of or have a contraindication to AChE inhibitors **or**<br>  ○ severe Alzheimer's disease<br>• For people with an established diagnosis of Alzheimer's disease who are already taking an AChE inhibitor:<br>  ○ consider memantine in addition to an AChE inhibitor if they have moderate disease<br>  ○ offer memantine in addition to an AChE inhibitor if they have severe disease |
| **BNF therapeutic class** | Acetylcholinesterase Inhibitors (donepezil, rivastigmine, galantamine) NDMA receptor antagonist (memantine) |
| **Indication** | Alzheimer's disease and Dementia |
| **Dosage and administration** | **Donepezil:** Initially 5 mg once daily for one month, then increased if necessary up to 10 mg daily, doses to be given at bedtime<br>**Rivastigmine**: By mouth<br>Initially 1.5 mg twice daily, increased in steps of 1.5 mg twice daily, dose to be increased at intervals of at least 2 weeks according to response and tolerance; usual dose 3–6 mg twice daily (max. per dose 6 mg twice daily), if treatment interrupted for more than several days, retitrate from 1.5 mg twice daily.<br>By transdermal application using patches (preferred brand **Alzest®**)<br>Apply 4.6 mg/24 hours daily for at least 4 weeks, increased if tolerated to 9.5 mg/24 hours daily for a further 6 months, then increased if necessary to 13.3 mg/24 hours daily, increase to 13.3 mg/24 hours patch if well tolerated and cognitive deterioration or functional decline demonstrated; use caution in patients with body-weight less than 50 kg, if treatment interrupted for more than 3 days, retitrate from 4.6 mg/24 hours patch.<br>**Galantamine:** By mouth using immediate-release medicines<br>Initially 4 mg twice daily for 4 weeks, increased to 8 mg twice daily for at least 4 weeks; maintenance 8–12 mg twice daily.<br>By mouth using modified-release capsules (preferred brands **Luventa® XL** and **Gatalin® XL**)<br>Initially 8 mg once daily for 4 weeks, increased to 16 mg once daily for at least 4 weeks; maintenance 16–24 mg daily<br>**Memantine**: Initially 5 mg once daily, then increased in steps of 5 mg every week; usual maintenance 20 mg daily; maximum 20 mg per day |
| **Cautions and Contraindication** | **Donepezil** Asthma; chronic obstructive pulmonary disease; sick sinus syndrome; supraventricular conduction abnormalities; susceptibility to peptic ulcers<br>**Rivastigmine**: Bladder outflow obstruction; conduction abnormalities; duodenal ulcers; gastric ulcers; history of asthma; history of chronic obstructive pulmonary disease; history of seizures; risk of fatal overdose with patch administration errors; sick sinus syndrome; susceptibility to ulcers<br>**Galantamine** Avoid in gastro-intestinal obstruction; avoid in urinary outflow obstruction; avoid whilst recovering from bladder surgery; avoid whilst recovering from gastro-intestinal surgery; cardiac disease; chronic obstructive pulmonary disease; |

| | |
|---|---|
| | congestive heart failure; electrolyte disturbances; history of seizures; history of severe asthma; pulmonary infection; sick sinus syndrome; supraventricular conduction abnormalities; susceptibility to peptic ulcers; unstable angina<br>**Memantine:** Epilepsy; history of convulsions; risk factors for epilepsy |
| **Adverse Drug Reactions** | **Donepezil**: Abnormal dreams; aggression; agitation; anorexia; diarrhoea; dizziness; fatigue; hallucinations; headache; insomnia; muscle cramps; nausea; pruritus; rash; syncope; urinary incontinence; vomiting<br>**Rivastigmine**: Abdominal pain; agitation; anorexia; anxiety; bradycardia; confusion; diarrhoea; dizziness; drowsiness; dyspepsia; extrapyramidal symptoms; headache; increased salivation; insomnia; malaise; nausea; sweating; tremor; urinary incontinence; vomiting; weight loss; worsening of Parkinson's disease<br>**Galantamine:** Abdominal pain; bradycardia; decreased appetite; depression; diarrhoea; dizziness; dyspepsia; fatigue; hallucination; headache; hypertension; malaise; muscle spasm; nausea; syncope; tremor; vomiting; weight loss<br>**Memantine:** Balance disorders; constipation; dizziness; drowsiness; dyspnoea; headache; hypertension<br>NB: this list is not exhaustive please consult BNF for further details |
| **Monitoring** | Disease monitoring requirements are set out in NICE NG 97 |
| **Interactions** | The list of interactions for these products is extensive – please consult the BNF for details. |

## Contact names and details

| Contact Details | Telephone number | Email |
|---|---|---|
| Dr Kalyan Seelam (Consultant Psychiatrist) | 01226 644788 | Kalyan.Seelam@swyt.nhs.uk |
| Dr Jaazzmina Hussain (consultant Psychiatrist) | 01226 644783 | Jaazzmina.hussain@swyt.nhs.uk |
| Andrew Stones (Nurse Consultant) | 01226 644771 | Andrew.Stones@swyt.nhs.uk |
| Kendray Pharmacy Team | 01226 644338 | kendraypharmacyteam@nhs.net |

## References

*Nice Guideline 97* Dementia: assessment, management and support for people living with dementia and their carers; June 2018 https://www.nice.org.uk/guidance/ng97
*Nice Technology Appraisal 217* Donepezil, galantamine, rivastigmine and memantine for the treatment of Alzheimer's disease: June 2018 https://www.nice.org.uk/guidance/ta217/chapter/1-Guidance
British National Formulary: Accessed on line 22/10/20

## Development Process

*This guidance has been produced following the Amber- G classification of Donepezil, Rivastigmine, Galantamine and Memantine by the Barnsley Area Prescribing Committee. This guideline has been subject to consultation and endorsement by the Area Prescribing Committee on 16th December 2020.*