MEMANTINE: INFORMATION FOR PRIMARY CARE

Shared Care Status – Green +

Should be initiated by a Secondary Care Specialist but can be safely maintained in primary care without on-going specialist monitoring. A patient should be established on a stable dose of medication and a minimum of one month supply should be given to patients by the Specialist Prescriber before transferring responsibility to primary care. If a patient uses compliance aids, consider the best interests of the patient when deciding the length of the supply

Related NICE guidance

NICE (TAG 217) has concluded memantine is now recommended as an option for managing moderate Alzheimer's disease for people who cannot take AChE inhibitors, and as an option for managing severe Alzheimer's disease

Licensed Indication

Memantine is a glutamate receptor antagonist licensed for the treatment of moderate – severe Alzheimer's disease.

Dosage and Administration

Initially 5mg daily for a minimum of seven days.
Increase by 5mg in weekly intervals to a maximum daily dose of 20mg.
Tablets should be administered once a day and should be taken at the same time every day.
The absorption of memantine is not affected by food

Side Effects[1]

Common side effects include constipation, hypertension, dyspnoea, headache, dizziness, somnolence and elevated LFTs. Although less common, there have been reports of vomiting, thrombosis, heart failure, confusion, fatigue, hallucinations, and abnormal gait. Very rarely side effects including seizures, pancreatitis, psychosis, depression, and suicidal ideation have been reported.

Cautions

History of seizures (Seizures can be associated with Alzheimer's disease, but use of memantine may also cause seizures).

Renal Impairment		Hepatic Impairment
eGFR > 49	No dosage adjustment required	In patients with mild or moderate impairment of hepatic function (Child-Pugh A and Child-Pugh B) no dosage adjustment is needed Avoid in severe hepatic impairment
eGFR 30– 49	Reduce to 10mg daily. Increase in steps to 20mg daily if well tolerated.	
eGFR 5 – 29	Reduce to 10mg daily.	
eGFR <5	Avoid	

Drug Interactions[2]

Avoid concomitant use of ketamine, dextromethorphan and amantadine. Memantine possibly enhances the anticoagulant effect of warfarin so if these drugs are to be used concurrently additional INR monitoring should be carried out and dose adjusted accordingly. Drugs that increase the pH of the urine (e.g. sodium bicarbonate, carbonic anhydrase inhibitors) may reduce the elimination of memantine.

Monitoring

Baseline monitoring is renal and hepatic function to be carried out by the specialist team during initiation and titration. The GP is required to complete an annual check in line with QoF requirements for dementia and this should include routine bloods. Renal function may decline with age/other factors. Therefore, the memantine dose should be reviewed and the dose reduced depending on the degree of renal impairment, or stopped if necessary. Contact the specialist team for advice if needed.

[1] This list is not exhaustive; please refer to current BNF and SPC.
[2] Refer to current version of BNF/Stockley for detailed information.

1. **Adverse effects**: Most common side effects are gastrointestinal disturbance (nausea, vomiting, and diarrhoea).
2. **Concurrent medication**: Medication should be reviewed at each visit in order to identify potential drug interactions.
3. **Renal and hepatic function**: Baseline creatinine and LFTs should be measured; Patients with renal or hepatic impairment should have doses titrated slowly and be monitored closely for adverse effects.

Other Required Monitoring

NICE has concluded that memantine is recommended as an option for managing Alzheimer's disease for people with moderate Alzheimer's disease who are intolerant of or have a contraindication to acetylcholinesterase inhibitors **or** in severe Alzheimer's disease.

As it is not possible on an individual basis to determine whether somebody is deriving benefit from memantine, decisions regarding continuation therapy are made primarily on the basis of tolerability and patient preference. This medication is effective in maintaining cognitive and general functioning even in moderate to severe illness, and may delay placement into long-term care.

Withdrawal

Discontinuation of therapy must be discussed with the carers, family and with the patient whenever possible. Discontinuation should be considered in the event of:

- Adverse reaction to the medication
- Emergent tolerability for example secondary to frailty or medical co morbidities
- Lack of compliance with the medication – if swallowing solid dosage preparations has become a problem, a liquid preparation is available
- If the patient is on an end of life pathway
- An irreversible deterioration in the patient's global clinical presentation since last review e.g. CVA

When to seek Specialist advice / review

In the majority of cases treatment will be initiated by a specialist in the care of people with dementia in line with NICE guidance. Following dose titration the specialist will recommend continuation treatment on the basis of tolerability & patient preference.

Tolerability may change over time consequent upon the ageing process and the emergence of medical co-morbidities and frailty. In this situation it may appropriate to reduce the dose or discontinue treatment &/or consider an alternative drug.
It may be appropriate to make such decisions in consultation with the specialist who initiated treatment.

Dementia Specialists working in NTW and Northumbria, usually a Consultant Psychiatrist or Speciality Doctors are available to provide advice on such matters without the need for a formal re-referral. You may wish to seek advice in the following circumstances:

- Emergent concerns regarding tolerability
- To consider whether to discontinue treatment with a memantine at an advanced stage of the illness as outlined above.

Contact Numbers

The specialist dementia teams can be contacted via the Initial Response Team – South of Tyne and Wearside Tel: 0303 123 1145

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