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## **Memantine for dementia – what, why, who and when?**

The new dementia NICE guidelines published in June 2018 state that we should consider memantine for patients with moderate Alzheimer's Disease and offer memantine for people with severe Alzheimer's Disease, and if the person is already taking acetylcholinesterase inhibitors primary care prescribers may start treatment with memantine without taking advice from a specialist.

We asked Dr Nerida Burnie for some practical advice....

### ***What is memantine?***

It is an NMDA receptor antagonist which blocks the effects of glutamate. Glutamate is released in increased amounts in Alzheimer's disease and this excessive stimulation causes neuronal damage.

### ***What are the effects of memantine?***

It can slow progression of symptoms in Alzheimer's disease, like disorientation. It may help with delusions, aggression and agitation. When discussing with patients and relatives, memantine can be said to be usually well tolerated, and to offer modest benefits for patients with moderate – severe dementia.

### ***What side effects can memantine have?***

Memantine is usually well tolerated. It can cause dizziness, headaches, tiredness, elevated BP and constipation (common side effects – around 1-10 in 100).

### ***What is the dosage and what should I prescribe initially?***

Starting dose is 5mg daily. Increase the dose weekly by 5mg until maximum dose of 20mg daily. This may be given as 10mg bd, but if it causes excessive sedation, or if night time sedation may be useful, it could be given as 20mg nocte dose.

### ***What are the precautions and contraindications?***

If patient has reduced renal function, they require a lower dose. If eGFR is <30 mls/min then the maximum dose of memantine is 10mg daily. Avoid using memantine in a patient with a history of seizures or epilepsy. Be cautious about risk of falls if memantine causes sedation for the patient. For more details about specific interactions and contraindications, please review the relevant entry in the BNF.

### ***How do I work out if someone has moderate or severe dementia, so I know who to offer to?***

Do not rely on a score in a formal cognitive test on its own alone to decide if a patient has mild, moderate or severe dementia. Take into account any physical, sensory or learning disabilities when considering your assessment of the stage of dementia.

**Mild dementia** – a person with mild dementia will be able to continue most of their normal activities independently. Friends and family close to the person may be aware of increased difficulties, in for example making plans or finding the right word.

**Moderate Dementia** – people with dementia will spend the longest period of their condition in this stage. Usually they will require support and a greater level of care to carry out their activities of daily living. They may need support with shopping, meal planning, managing household finances and getting washed and dressed and they may sometimes get lost. They may show increased frustration when they are aware they cannot do things they previously used to do. They may lack insight into their increasing difficulties and develop apathy and less interest in joining social activities.

**Severe Dementia** – in this final stage of dementia, a person requires significant support, around the clock, for basic activities of daily living like bathing, dressing, and eating. Their communication is likely to be significantly impaired. They may have impaired swallowing ability, increasing difficulty with continence and increasing physical frailty. Most people living with dementia in care homes have severe dementia.

### ***What to expect when a patient starts memantine?***

There may not be any dramatic changes in the individual patient when they start memantine. Provided the patient is tolerating it, please continue the memantine as it can prove beneficial in the longer term.

### ***What should I do once the person is stable on treatment?***

A person with dementia continues to benefit from a regular review of their condition and update of their care plan at least annually or at any point where there is a significant change. This should include, assessment of changes in cognition and social needs, carers assessment and a check of BP and pulse rate (relevant for acetylcholinesterase inhibitors which can cause bradycardia).

For more guidance on care planning for dementia – <https://www.england.nhs.uk/wp-content/uploads/2017/11/dementia-good-care-planning-v2.pdf>

### ***When to stop memantine?***

There is no indication to stop memantine (or donepezil) just because the dementia symptoms have got worse. The medications should be stopped if new onset illness or symptoms develop causing contraindications – i.e. bradycardia for donepezil; new onset seizures for memantine.