

# SPECIFIC DEMENTIA MEDICATIONS

### **Cholinesterase inhibitors**

Acetylcholine is a chemical substance occurring naturally in the brain that enables the brain's nerve cells to pass messages to each other. Many people with Alzheimer's disease have a reduced amount of acetylcholine. Cholinesterase inhibitors reduce the breakdown of acetycholine to boost its functioning in the brain. These medications may also be appropriate for some people diagnosed with Dementia with Lewy Bodies, Parkinson's disease with dementia, or some types of dementia caused by poor blood supply to the brain.

The cholinesterase inhibitors available in New Zealand are Donepezil (also sold as Aricept and Donepezil-Rex) Galantamine (sold as Reminyl) and Rivastigmine (sold as Exelon and Rimane). Donepezil-Rex has been fully subsidised by PHARMAC since 1 November 2010. Prices of the other cholinesterase inhibitors vary from pharmacy to pharmacy. General Practitioners can prescribe any of these medications.

None of these medications cure dementia and they have no effect on how long a person with dementia will live for. Their main action is to stabilise some of the symptoms for a period of time. They may be especially useful for general motivation and for symptoms of psychosis such as delusions and hallucinations. These medicines should be trialled for several months before deciding whether or not they have done any good. Besides looking for improved symptoms, the prescribing doctor needs to measure any improvement in memory and related brain functions. Cholinesterase inhibitors may not be appropriate for some people already on medications prescribed for other health conditions.

Side affects may include loss of appetite, diarrhoea or nausea, slowed heart rate or dizziness on standing up, increased need to get to the toilet urgently to pass urine, insomnia or vivid dreams, fatigue, or muscle cramps. The medicines all come in tablet form, however Rivastigmine is also available as a daily patch (this usually has less side effects than Rivastigmine tablets). This medicine may be fully subsidised if Donepezil was not tolerated under special conditions.

## **NMDA** receptor antagonist

Memantine (sold in New Zealand as Ebixa) is a glutamate inhibitor. It targets this chemical transmitter which can be present in high levels in the brain of a person with Alzheimer's disease. Memantine may act by blocking the effects of excess glutamate at a specific site called the "NMDA receptor" and preventing cell damage. This medication can be prescribed by any doctor but is not subsidised. Prices vary between pharmacies. Like the cholinesterase inhibitors, Memantine may reduce some dementia symptoms for some people, but it does not stop the progression of their dementia.

## **Acknowledgements**

- Drug treatments. Previous fact sheet of Alzheimer's Disease International
- Perkins, Chris (2015) The New Zealand Dementia Guide Auckland NZ, Random House
- · Ebixa (Memantine) what is it? July 2008 Update sheet from Alzheimer's Australia
- · Thanks to Dr Matthew Croucher.

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