

## Drugs and Dementia

Currently there are no drugs which reverse or cure the brain damage caused by Alzheimer's disease or other forms of dementia. There are however several drugs that are said to improve or preserve memory, attention span and thinking ability which are available for use in the management of Alzheimer's disease, the most common cause of dementia.

### **Exelon, Aricept and Reminyl**

Exelon (Rivastigmine Hydrogen Tartrate), Aricept (Donepezil Hydrochloride) and Reminyl (Galantamine Hydrobromide) each work to restore a chemical called acetylcholine (pronounced a-set-tile-koleen) in the brain. Acetylcholine plays an important role in many brain functions. It carries messages from one nerve cell to another in the brain. The progressive destruction of acetylcholine in the brain accounts for many of the symptoms of dementia caused by Alzheimer's disease.

An enzyme called acetylcholinesterase lowers the amount of acetylcholine in the brain. Exelon, Aricept and Reminyl all block the action of this enzyme, thereby temporarily improving or stabilising the symptoms of Alzheimer's disease.

Exelon, Aricept and Reminyl are only recommended for use in dementia of the Alzheimer's type. The benefit gained from use of these drugs is modest at best, and they can only be used in the early to middle stages of the disease. Taking one of these medications may result in an improvement in a person's ability to think clearly and in their level of functioning and behaviour.

**Please note:** ALL drugs have side effects. ***Please discuss possible side effects and drug interactions with your doctor.*** Side effects will depend on the type and dose of medication. Common side effects with these three drugs include: diarrhoea, nausea, vomiting, insomnia, muscle cramps, loss of appetite, fatigue, dizziness, nightmares.

### **Ebixa**

Ebixa (Memantine Hydrochloride) is a drug that is available for people in the middle to later stages of Alzheimer's disease. It works in a different way to Aricept, Exelon and Reminyl. People with Alzheimer's disease have increased levels of a chemical called Glutamate. Glutamate causes an influx of calcium into brain cells, resulting in brain damage. Ebixa blocks Glutamate, thus preventing this extra calcium from entering and damaging brain cells.

Ebixa does not benefit all who take it. For some people it may improve thinking, functioning and behaviour for a period of time. However benefits are mild and will vary between individuals. Like any medication, Ebixa may have side effects. These can include dizziness, headache, confusion, stomach upset and diarrhoea.

### **Drugs and behaviour**

Agitation, anxiety and paranoia are just some of the behaviours that may occur in people with dementia, and frequently drugs are administered in an effort to control them. That said, there are common medications which can worsen the symptoms of dementia and these may include:

- Anti-psychotic drugs and anti-depressant drugs. Side effects include drowsiness, sleep disturbances, low blood pressure, movement disorders, difficulty urinating, constipation, increased confusion and memory loss.
- Drugs for movement disorders (e.g. Parkinson's disease) may cause psychotic type symptoms such as hallucinations and delusions. They can also lower blood pressure leading to falls.
- Narcotic pain killers are associated with increased sedation and constipation.
- Drugs used for treating bladder problems, stomach and abdominal cramps and nausea can worsen the symptoms of dementia.

In addition, the ageing process can lead to significant problems with drug use. (Alzheimer's disease affects mostly older people). Ageing involves significant chemical and hormonal changes that make older people far more sensitive to the effects of drugs. It is therefore essential that the use of these medications is reviewed regularly as drugs may not continue to be effective or even necessary.

### **When drugs don't work**

There are some behaviours that are particularly non-responsive to drug therapy. These include wandering and pacing, repetitive behaviours, socially inappropriate activities or hoarding. The most common causes of problematic behaviours in people with dementia include:

- Frustration at not being able to communicate effectively or no longer being able to perform everyday activities.
- Fear and anxiety due to disorientation to time, place and people.
- Boredom and inactivity.
- Side effects of medications.
- Dehydration, constipation and/or pain.

- Infections e.g. Urinary tract infections and chest infections.

Non-drug approaches to behaviour management should always be considered first. These approaches include:

- Ruling out underlying medical conditions i.e. drug interactions and drug side effects, pain, depression, dehydration and infections.
- Providing a calm and supportive environment.
- Assisting the person to participate in meaningful and purposeful activities.
- The use of music and/or aromatherapy.

### Questions to ask your Doctor

- What are the likely benefits of taking this drug?
- How long before improvement is noted?
- What are the likely side effects?
- What should I do if side effects occur?
- What other drugs (including herbs, vitamins and minerals) might interact?
- What effect will this drug have on my other medical conditions?
- Are there any reactions that should be reported immediately?
- How often do I need to go back to the doctor for review?
- Is the drug available at a subsidised rate?

**Please note: Medication use in dementia is a complex area requiring specialist medical management and close monitoring.**

*This sheet is provided for your information only and does not represent an endorsement of any drug by Alzheimer's Queensland.*

*Adapted from 'Drugs in Dementia Fact Sheet' by the St Andrew's Aged Care Pharmacy Services, with permission. [Updated April 2015]*

**Help and assistance is available. For further information please contact Alzheimer's Queensland through the Dementia Help Line on 1800 639 331**