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#### **Drugs for dementia**

Dementia of the Alzheimer's type is the most common form. It is still a challenging medical issue to cure Alzheimer's disease. There are currently three types of drugs available including acetylcholinesterase inhibitors (AchEl), memantine, and neurotonics. They work by slowing down the deteriorating condition, improving the quality of life, and maximizing the functional performance.

There are normal chemicals (neurotransmitters) in the brain carring messages back and forth between the nerve cell. These neurotransmitters, acetylcholine (Ach) and N-methyl-D- aspartate (NMDA), play and important role in Alzheimer's disease. Deficiency in brain Ach level contributes to cognitive deficits such as bad intellectual skills and bad memory. While reduced glutamatergic stimulation of NMDA receptors would decrease nerve injury, thereby improving individual's condition.

### Choice of drugs

AChEls, e.g. donepezil, galantamine and rivastigmine are currently the most common and effective drugs for Alzheimer's disease.

Besides, memantine is approved for the treatment of Alzheimer's disease. It is a NMDA receptor antagonist, which inhibits glutamate transmission, thereby reducing nerve injury and thus lessens the deterioration.

### Effectiveness of drugs

Based on the clinical evidences, patients on AchEIs show modest improvement in abilities with daily activities and behaviour than those taking placebo. Patients were assessed on cognitions and daily activities, and problems encountered by their caregivers. Cognition includes memory, orientation, judgement, and language while daily activities include dressing, feeding, and managing finances.

## **Different severity of disease**

According to clinical evidences, AchEIs have more prominent improvement to patients with mild to moderate Alzheimer's disease. On the whole, improvement should be seen after taking the drugs for three to six months provided that patients have good compliance.

As AchEls can only slow down the deterioration of Alzheimer's disease but cannot cure the disease, hence AchEls show less or no improvement in patients with severe Alzheimer's disease. Nevertheless, memantine is indicated to treat moderate to severe Alzheimer's disease, which is effective in maintaining patient's self sufficiency. Patients should follow doctor's instruction and the recommended initial dose should be 5mg once daily. The dose should be increased in 5mg increments to 20mg per day.

### Side effects of drugs

In clinical researches, there is about 7% of patients stopped taking AchEIs due to the side effects. The rate is similar with those taking placebo.

Like many medicines, they may cause some side effects, about 5%, particularly when you first start taking them. These may include: nausea, vomiting, anorexia, diarrhoea and weight loss are common in early stages of treatment but usually lessen. However, patients with history of stomach bleeding or ulcer should be cautious when taking there drugs. Patients with history of asthma, chronic bronchitis, epilepsy or heart diseases, especially slow heartbeat, should inform doctors before taking these drugs.

The side effects of memantine include dizziness, headache, hallucination and fatigue, etc.

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# May I stop taking my medicine?

It is necessary to take your medicine promptly in order to control your illness. According to scientific research, the rates of relapse increase drastically if one is not taking their medications. If you disregard your condition, your chance of recovery would be lessened.

## What to do before taking my medication?

Before taking your medication, you must always ensure whether the medicine belongs to you, always follow your doctor's instructions, and those on the pharmacy label. You should never change the prescribed dosage or stop your medication without your doctor's direction. And never take two doses at the same time if you forget to take a dose.

# How to deal with side effects?

Talk to your doctor if you experience any side effects. Your doctor may adjust the dosage in order to minimize the adverse effects. Do not stop taking your medicine without your doctor's direction.

# How long do I need to take my medicine?

The duration of therapy varies according to the types and severities of illness. Generally speaking, patients with schizophrenia, particularly those with a history of relapse, need to take their medications for a longer period of time. But if your condition is stable, your doctor may adjust the dosage to the minimal-effective dose to control your illness. What should the care-givers do if patients refuse to take their medications? Do not criticize the patients. Try to find out the underlying reason for their refusal e.g. if the patients experience any undesirable side effects or have any necessary concern about their medications, etc. Encouragement from the family and comprehensive explanation of their drug treatment is crucial. Contact the healthcare professionals if the patients still refuse to take the medications What should the care-givers do if patients refuse to take their medications? Do not criticize the patients. Try to find out the underlying reason for their refusal e.g. if the patients experience any undesirable side effects or have any necessary worry about their medications, etc. Encouragement from the family and comprehensive explanation of their drug treatment is crucial. Contact the healthcare professionals if the patients still refuse to take the medications.

DO	
1.	Strictly follow the doctor's instructions
2. taking y	Pay attention to the drug name, dosage and frequency, etc. before our medication
3.	Read the prescription label carefully
4. effects	Pay attention to the dosage, indication, contraindication and side
5.	Understand the method of administration
6.	Store your medication properly
7.	Complete the prescribed course unless otherwise directed
8. care pro	If you have any questions, talk to your family and ask your health ofessionals
DON'Ts	
DON IS	
1.	Change the dosage of your medication on your own

- Stop taking your medication except on your doctor's advice.
- Drink alcohol with your medication.
- Put your medication in other bottle.
- 5. Take other medication unless directed by your doctor.
  - Lie to your doctors about your compliance