

## Medications and Alzheimer's Disease

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To effectively treat and manage Alzheimer's disease and related disorders (ADRD), it is necessary to focus on improved care, nutrition, environment and physical health. Problems may also arise from lack of mobility, lack of stimulation (boredom), and social isolation.

There are currently five medications approved by the FDA for the treatment of Alzheimer's disease (AD): **Aricept, Exelon, Razadyne, Namenda, and Cognex** (Cognex is rarely used due to side effects). No drug will stop or cure the disease, but these have been shown to slow the progression of the symptoms.

**Aricept, Exelon, Razadyne, and Cognex** are referred to as cholinesterase inhibitors and are indicated for the treatment of mild to moderate Alzheimer's. Side effects of these types of drugs include nausea, vomiting, diarrhea, weight loss, and loss of appetite.

**Namenda**, referred to as a N-methyl D-aspartate (NMDA) antagonist, is indicated for the treatment of moderate to severe Alzheimer's. Namenda helps delay the progression of some of the symptoms of later stage Alzheimer's and allows patients to be more independent in some daily activities for a longer amount of time. Side effects include dizziness, headache, constipation, and confusion.

Medications may be of significant help, but the benefits must be compared to potential risks. For this reason, medications that are used to alter behavior, also known as "chemical restraints" should be the treatment of last resort for individuals who are experiencing challenging behavioral symptoms. Here is a list of drugs most commonly used to manage these behaviors that are a result of dementia.

**Antipsychotic Agents** (Risperdone, Haldol, etc.) These drugs should be used with great caution; they are intended to help alleviate psychotic symptoms, whether the behavior is functional (due to mental causes) or organic (due to physical causes). They can control agitation and irritability, and may help clarify thought and improve self-care. These drugs may decrease hostility, hyperactivity, and combativeness. They can also help control delusions, hallucinations, paranoid symptoms, and emotional and social withdrawal.

**Adverse Effects:** Sedation, postural hypertension (dizziness on change of position), anticholinergic effects (dry mouth, constipation, rapid heartbeat, blurred vision, urinary retention).

Other adverse effects include extrapyramidal reactions. These include akathisia (agitation or restlessness), acute dystonias (muscle spasms, especially head and neck), Parkinsonism-like symptoms (tremor, shuffling gait, rigid muscles, excessive drooling). The less sedating agents such as Haldol are more likely to cause the extrapyramidal symptoms.

These drugs may also impair the body's thermoregulatory mechanisms. That is, they may make a person unable to keep warm in cold weather or cool in hot weather.

All of these drugs are long acting and can usually be given once daily. Sometimes Mellaril and Haldol are both used, with Haldol given during the day and Mellaril at night.

**Antidepressants (Paxil, Prozac, Elavil, etc.)** These agents elevate mood, increase mental alertness and physical activity, improve appetite and sleep patterns. They may also have some sedative effects and some anti-anxiety properties.

**Adverse Effects:** Dry mouth, constipation, rapid heartbeat, blurred vision, urinary retention, and dizziness on change of position. These effects may be very prominent. In some persons with heart conditions, some of these drugs may aggravate the condition. These drugs are long acting and the dosage is usually once daily.

**Anti-Anxiety Drugs or Major Tranquilizers (Valium, Ativan, Xanax)** These drugs should be used with caution. They help to control moderate to severe daytime anxiety and tension in patients with neuroses and mild depression. They produce mild sedation without impairing daily activities. There are both short and long acting drugs. Many agents used for sleep (Dalmine, Ambien, Restoril) are similar drugs.

**Adverse Effects:** Drowsiness, dizziness, unsteady gait, and weakness. High doses may cause increased confusion. These drugs may be beneficial to some individuals with dementia, and for others the opposite of the desired effect may occur.

### **Miscellaneous Agents**

**Busprone (Buspar)** is an anti-anxiety agent which does not cause sedation or dependency. It's been used to treat anxiety disorders, but its high safety profile is making it attractive for AD patients.

**Benadryl** is an antihistamine used as a sedative which has high anticholinergic effects (dry mouth, constipation, rapid heartbeat, blurred vision, urinary retention), and is long acting. This drug should be used with caution.

**Halcion** is used to induce sleep and is similar to the anti-anxiety agents. It can cause anterograde amnesia and nightmares in dementia patients.

Caregivers need to monitor the effects of any medication and communicate with their physician any side effects, concerns, or questions.