

Therapeutic Trends

Alzheimer's

Crippling the Elderly

Insight and Outlook from IMS HEALTH

In November 1982, President Ronald Reagan signed a proclamation designating the first National Alzheimer's Awareness Week. Twelve years later, President Reagan, at age 83, publicly acknowledged he had been diagnosed with the memory-crippling disease. (Since Reagan signed the proclamation, November is National Alzheimer's Disease Awareness Month.)

Today, an estimated 365,000 Canadians, or one in 13 Canadians over age 65, is affected by Alzheimer's.¹ By the year 2031, it is estimated over three-quarters of a million Canadians will have Alzheimer's disease or a related dementia.¹ By age 85, one in three seniors run the risk of developing the disease.¹

The disease was first described in 1906 by German physician Dr. Alois Alzheimer. Although once considered rare, research has shown that Alzheimer's is now the leading cause of dementia. Dementia is an umbrella term for several symptoms related to a decline in thinking skills. There are currently 18 million people in the world with dementia; this is estimated to rise to 34 million by the year 2025.²

People with dementia also experience changes in their personalities and behavioural problems, such as agitation, anxiety, delusions and hallucinations. Doctors have begun treating these symptoms with atypical psychotics like Zyprexa® and Risperdal®.

Alzheimer's disease advances at different rates, often from three to 20 years. If the individual has no other serious illness, the loss of brain function itself will cause death.

Scientists regard two abnormal microscopic structures called "plaques" and "tangles" as the hallmarks of Alzheimer's disease. Amyloid plaques are clumps of protein fragments that accumulate outside of the brain's nerve cells.

Tangles are twisted strands of another protein that form inside brain cells. Scientists have not yet determined the exact role that plaques and tangles play, but they have so far discovered one gene that increases risk for late-onset disease, the more common form of the illness.

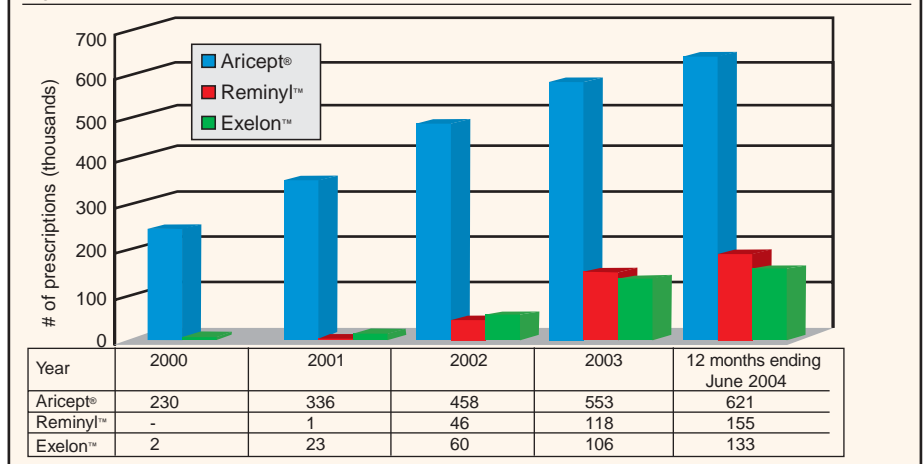
Slowing the brain degeneration

Although there's no known cure for Alzheimer's, three drugs are presently available to treat the early stages of the disease:

- Aricept®, launched in August 1997;
- Exelon™, available since June 2000; and
- Reminyl™, introduced in July 2001.

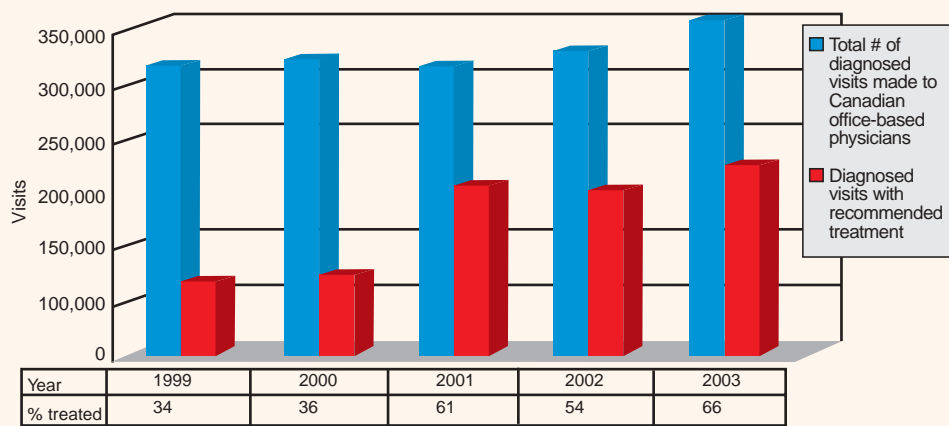
The drugs are all cholinesterase inhibitors. Cholinesterase is an enzyme that breaks down acetylcholine, a chemi-

Figure 1. Estimated prescriptions dispensed in Canadian pharmacies (thousands)



Source: IMS Health, Canada, CompuScript.

Figure 2. Estimated visits made to Canadian office-based physicians for Alzheimer's



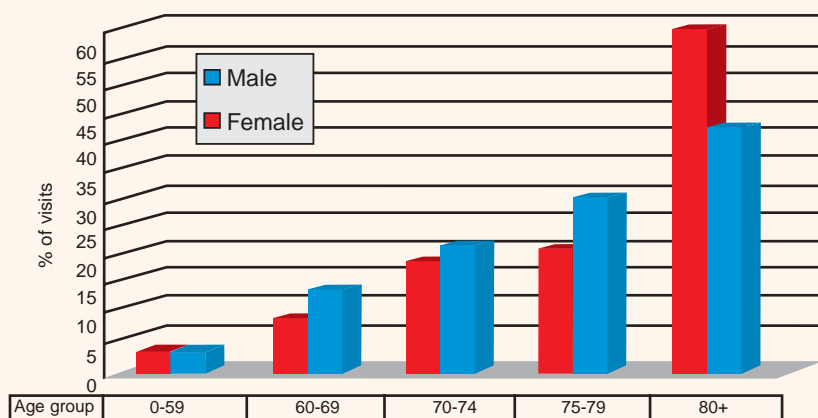
Source: IMS Health, Canada, Canadian Disease and Therapeutic Index.

What are the most commonly recommended drugs?

Cholinesterase inhibitors account for most of the drug recommendations made to Alzheimer's patients. The remainder includes tranquilizers and atypical antipsychotics. The breakdown is as follows:

- cholinesterase inhibitors: 73%
- all others (*i.e.*, Risperdal, Zyprexa, Paxil®, Olanzapine, Seroquel®, Celexa®): 27%

Figure 3. Visits* for Alzheimer's by patient age and gender (12 months ending June 2004)



*Visits made to Canadian office-based physicians.

Source: IMS Health, Canada, Canadian Disease and Therapeutic Index.

Almost all of the visits involving a diagnosis of Alzheimer's were made by those aged over 60, with the majority being over 80 years of age (Figure 3). Women and men each accounted for half of all Alzheimer's visits made last year. Looking at prevalence, twice as many women as men have dementia. Researchers are studying the reasons for this.¹ [CPM](#)

References

1. Figures are for 2001 based on projected estimates in the following study: Canadian Study of Health and Aging Working Group: Canadian Study of Health and Aging: Study methods and prevalence of dementia. CMAJ 1994; 150(6):899-913. (Note: The CSHA only surveyed people over the age of 65.)
2. World Alzheimer's Day bulletin, Alzheimer's Disease International, 2000.

cal that relays messages between nerve cells in the brain. The goal is to stop the cholinesterase from breaking down the acetylcholine.

In the last 12 months ending June 2004, 909,000 prescriptions for cholinesterase inhibitors were dispensed by Canadian retail pharmacies—an increase of almost 680,000 prescriptions since 2000 (Figure 1).

Visits to physicians for Alzheimer's jumped significantly in 2002 (Figure 2). Last year, there were over 349,000 visits for Alzheimer's made to Canadian office-based physicians. More than half of those visits were treated with a medication. In 1999, only one-third of visits resulted in a drug recommendation.

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