

How is Dementia Treated?

Lesson Summary

Introduction

Currently, there are no cures for the most common causes of dementia, such as Alzheimer disease. Treatments are generally categorized into two main types: symptom management and disease modification.

Symptom management aims to help maintain a person's function by addressing cognitive problems, changes in personality and behaviour, and mental health symptoms. **Disease-modifying treatments**, on the other hand, attempt to stop or prevent the damage to the brain caused by the disease.

Symptom management

Cognitive problems

To improve symptoms related to cognitive problems, **medications and other interventions** are used to boost or maintain cognitive performance. The goal is to **slow down the rate of cognitive decline** and help individuals **maintain their day-to-day function** for as long as possible. **Occupational therapy strategies**, such as setting up reminders on a mobile phone or writing step-by-step instructions for specific tasks, can also help promote independence.

Cholinesterase inhibitors

Cholinesterase inhibitors (CIs) **block the breakdown of acetylcholine**, a neurotransmitter essential for learning and memory. This helps maintain cognitive function. While CIs are not miracle drugs and do not reverse dementia, they can provide minimal benefits for cognitive function and behaviour and possibly delay the need for long-term care. Common CIs include donepezil (Aricept®), galantamine (Reminyl™), and rivastigmine (Exelon™). Side effects of CIs can include nausea, vomiting, diarrhea, decreased appetite, weight loss, urinary incontinence, dizziness, slow heart rate, bad dreams, and headaches. These side effects often decrease after several weeks of use.

Memantine (Ebixa®)

Memantine (Ebixa®) is another drug used to treat dementia symptoms. Unlike CIs, memantine aims to **decrease brain damage caused by glutamate**. It has similar benefits to CIs for cognitive and behavioural symptoms, and there may be additional benefits when combined with CIs. However, memantine is less commonly used in Canada and is not covered by government insurance.

Personality and behaviour changes

Changes in personality and behaviour, known as behavioural and psychological symptoms of dementia (BPSD), can take many forms. People living with dementia may develop **new, uncharacteristic behaviours**, become **emotionally flat** and lose motivation (apathy), or experience mental health symptoms like **depression, anxiety, delusions, and**

hallucinations. Addressing these issues involves a combination of **non-medication and medication strategies**, tailored to the preferences of the person living with dementia.

Non-medication approaches include **psychotherapies** adapted for people with dementia, such as cognitive behavioural therapy and interpersonal therapy, as well as **exercise, sensory-based approaches** like **aromatherapy** and **massage**, and supports like **music therapy** and **animal-assisted therapy**. Medications may be recommended when symptoms are more challenging or when non-medication approaches have not been effective. These medications should be prescribed at low doses, used only as long as needed, and monitored closely for side effects.

Disease modification

Dementia can be caused by **toxic proteins**, as seen in Alzheimer disease, dementia with Lewy bodies, Parkinson disease dementia, and frontotemporal dementia, or by **blood vessel damage**, as in vascular dementia. Disease-modifying treatments aim to address these underlying causes.

Scientists and doctors are working on therapies to remove toxic proteins from the brain. One promising approach is **antibody therapy**, where antibodies developed by scientists attach to toxic proteins in the brain, helping to remove them. Progress has been made in antibody therapies for Alzheimer disease, targeting amyloid plaques in the brain. However, the effects on cognitive and functional abilities are modest. To date, the drugs have primarily been tested in individuals with mild disease and few other health conditions. Medicines like donanemab and lecanemab are not yet approved in Canada but have been approved in the U.S. and other countries. These treatments come with notable side effects, high costs, and the need for specialized resources. Despite these challenges, ongoing research continues to improve our understanding and offers hope for more effective treatments in the future.

Other therapies

Vitamins and supplements

Currently, there is **very little scientific evidence** to support the use of vitamins or complementary and alternative medicines in the treatment of dementia.

Lifestyle choices

In addition to medical therapies, lifestyle choices can play a significant role in improving overall brain health. These include maintaining a proper diet, exercising, staying cognitively active, engaging in social interactions, and promoting blood vessel health. While the scientific evidence for these lifestyle choices improving dementia symptoms may not be strong, they are generally safe, inexpensive, and can benefit other medical conditions, such as heart disease. You can learn more from our lesson '[How to Promote Brain Health](#)'.

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