

Australia unprepared to move future Alzheimer's treatment into rapid clinical use

November 11 2019



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As in other countries, the Australian health care system has limited capacity to rapidly move a future treatment for Alzheimer's disease from approval into wide clinical use, which could leave thousands of older people without access to transformative care if such a breakthrough occurs, according to a new study by RAND Australia.

The most pressing problem would be the availability of medical specialists to evaluate and diagnose patients who may have early signs of Alzheimer's disease. Other capacity shortcomings may include the availability of specialized diagnostic scanners and infusion centres to deliver treatments to people with early-stage disease.

Researchers estimate that because of the capacity constraints, as many as 54,000 Australians with mild cognitive impairment could unnecessarily develop Alzheimer's dementia over about a decade while waiting for diagnosis and treatment after approval of a hypothetical Alzheimer's disease-modifying [therapy](#).

"Our analysis does not provide precise projections, but is intended to facilitate discussions about challenges that may face the Australian health care system if an Alzheimer's therapy is developed in the next few years," said Sangita M. Baxi, the study's lead author and an assistant policy analyst at RAND, a nonprofit research organization.

"While there is no certainty an Alzheimer's therapy will be available soon, our work suggests that policymakers may want to consider strategies to reduce wait times if a disease-modifying therapy does arrive," Baxi said.

An estimated 376,000 Australians had dementia in 2018, with Alzheimer's being the most common form of the disease. Dementia is the second leading overall cause of death in the nation, accounting for more than 13,000 deaths in 2017.

Advanced [clinical trials](#) are underway for several investigational therapies that aim to delay or prevent the progression of early stages of Alzheimer's disease to dementia. Although some phase 3 trials recently were discontinued, assuring there is adequate capacity to deliver a therapy to people with early-stage Alzheimer's disease would require

advanced investment to expand the pool of medical specialists, diagnostic tools and infusion centres.

Baxi and her colleagues modeled a simplified clinical pathway that patients would take to receive an Alzheimer's therapy, and simulated the mismatch between supply and demand resulting from such a therapy given the capacity of the Australian health care system.

The research team previously conducted similar studies of health care systems in the United States, Canada and six European countries.

The RAND analysis assumes that an Alzheimer's therapy would become available in Australia in 2023 with screening and diagnosis beginning in 2022, although researchers stress that the dates were chosen only as a scenario for the model, not as a prediction of when a therapy may be approved.

Under such a scenario, 8.9 million Australians aged 50 and older could initially need screening for signs of [mild cognitive impairment](#). Those showing some signs of impairment would need follow-up examinations, and either PET brain imaging or spinal fluid testing to look for biomarkers to confirm a diagnosis of Alzheimer's disease. The analysis estimates that about 150,000 Australians ultimately could be recommended for treatment.

Without adequate capacity to diagnose and treat this large population, people with early-stage Alzheimer's disease would progress to Alzheimer's dementia while waiting for diagnosis or treatment, according to the report.

Average wait times to complete the diagnostic and treatment phases would be about 10 months in 2022, with wait lists for treatment persisting until 2033.

The initial bottleneck would be in access to medical specialists. The problem would likely be worst in rural and remote areas that have fewer specialists. Moreover, a greater share of the Australian population aged 50 and older live outside of the major cities.

Researchers say that one option to increase access to cognitive screening services could be to expand upon the care delivered by services such as the Royal Flying Doctor Service and the Heart of Australia.

While there also are potential bottlenecks in biomarker testing, it is less of a constraint than in some other nations studied previously by RAND researchers. In addition, Australian researchers are working with other nations to develop alternative screening methods like blood biomarkers for Alzheimer's, which could speed diagnosis in the future.

Initially after a therapy is available, there could also be some congestion at infusion centres where treatments would be delivered; however, infusion capacity has expanded rapidly in the past when demand increases, such as after the approval of new treatments for cancer and multiple sclerosis.

"Australia faces the challenge of large geographic areas where populations are sparse and access to medical specialists and scanners is limited," said Federico Girosi, a study co-author and a senior policy researcher at RAND. "This work is intended to help start a conversation about the potential challenges in delivering a therapy for Alzheimer's [disease](#)."

More information: The report, "[Assessing the Preparedness of the Australian Health Care System Infrastructure for an Alzheimer's Disease-Modifying Therapy](#)," is available at www.rand.org . Jodi L. Liu also co-authored the report.

Provided by RAND Corporation

Citation: Australia unprepared to move future Alzheimer's treatment into rapid clinical use
(2019, November 11) retrieved 9 April 2024 from

<https://medicalxpress.com/news/2019-11-australia-unprepared-future-alzheimer-treatment.html>

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