PRIORITISING BRAIN HEALTH

Owen Miller of Alzheimer Europe outlines why improvements in global education, policy and practice for dementia are urgently needed

With global dementia cases expected to almost triple by 2050, is enough being done to prioritise services and care for the disease? Alzheimer Europe is a non-profit, non-governmental organisation dedicated to improving the lives of people with dementia across Europe through advocating change in policy and practice. Policy Officer, Owen Miller spoke to *HEQ* about some of the key challenges associated with dementia diagnosis and care, and why governments must implement national strategies and support for this progressive disease.

What is the significance of early diagnosis in treating and ensuring support for people living with dementia?

Timely diagnosis is an essential component in ensuring that people with dementia, their families and carers are well supported throughout the illness. By diagnosing the condition in a timely fashion, it allows people with dementia, their families and carers to access services and support to help them to live as well as possible with the condition, for as long as possible, as well as planning for future care. Furthermore, it allows more time for people to have potentially difficult and sensitive conversations about complex matters such as legal and financial decision-making.

Awareness and understanding about dementia have improved in recent years (both amongst the public and professionals) and more people now come forward seeking a diagnosis, with a general trend towards people being diagnosed earlier, when symptoms are milder. However, this is not universal and many people still only receive a diagnosis when symptoms have become moderate to severe. By this point, treatments and therapeutic interventions are likely to be less effective, placing greater strains on families and carers.

As knowledge and understanding about Alzheimer's disease progresses, biomarkers present an opportunity to detect Alzheimer's disease decades

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before symptoms may develop. One way this can be done is by detecting amyloid build up in the brain (a common feature in people with Alzheimer’s diseases). However, doing so poses complex ethical and practical questions on what the future of dementia diagnosis should and will look like. For example, the presence of these plaques is not a guarantee that the person will go on to develop dementia.

What are the key symptoms or indications of Alzheimer’s disease and other dementias? What treatments are recommended?

It is important to be aware that dementia is an umbrella term for symptoms caused by more than 100 different underlying diseases, the most common of which is Alzheimer’s disease. Vascular dementia, dementia with Lewy bodies and fronto-temporal dementia, are some of the other more common types of dementia.

Each disease presents in a slightly different way in each person and will progress depending on a number of factors. However, early symptoms which are common across dementias include:

- Memory loss;
- Increased difficulty with cognition;
- Disorientation or confusion;
- Misplacing items; and
- Changes in mood.

Other symptoms in other types of dementia can include behavioural changes, problems with language or speech and problems with spatial awareness.

At present, there are four drugs available in Europe (to different extents in different European countries) to treat Alzheimer’s disease. Donepezil, rivastigmine and galantamine are used to treat the symptoms of mild to moderate Alzheimer’s disease and other dementias in these early stages. Memantine is usually prescribed for moderate or severe Alzheimer’s disease.

Whilst these treatments can help with the symptoms of dementia and slow the progression of the condition, they are unfortunately not disease-modifying or curative.

As such, non-medical interventions are vital to maintain the wellbeing of people with dementia, including cognitive stimulation therapy, rehabilitation (e.g. physiotherapists, occupation therapists, speech and language therapists etc.), as well as social and peer-support groups. These play a vital role in ensure that people with dementia remain both physically and mentally active, as the effects of social isolation and physical inactivity have been shown to exacerbate and worsen the progression of the condition. During the COVID-19 pandemic, measures such as lockdowns and restricted visitation in care homes were catastrophic for people living with dementia.

With ageing populations projected to cause significant increases in dementia, what should be done at a policy level to mitigate the effect of Alzheimer’s disease, and other dementias on patients and the healthcare system as a whole?

Alzheimer Europe’s 2019 Yearbook showed that by 2050, the number of people living with dementia is expected to have doubled. At a national level, Alzheimer Europe and its member organisations have long encouraged governments to develop national dementia strategies, as well as providing dedicated resources and budget to ensure the implementation of these plans. In addition, we have called for the European Commission to prioritise dementia within the EU4Health and the Horizon Europe research programmes, as well as including it as a key area of focus within the Green Paper on Ageing. For all of these policy areas, we strongly urge governments to align their actions to the World Health Organization’s Global Action Plan on the Public Health Response to Dementia 2017-2025.

At a national level, Alzheimer Europe’s 2020 Dementia Monitor showed that the availability and accessibility of services and support for people with dementia is highly variable across European countries, with many countries reporting insufficient availability of services. COVID-19 devastated many of these services, particularly in the early stages of the pandemic, with many being restricted or

stopped altogether. As mentioned previously, the need for services and support which benefit the mental and physical health of people with dementia (and their carers) is essential. As such, governments must commit to delivering sustainable and long-term funding for health and social care services for people with dementia and their carers, with a specific focus on ensuring they are available and affordable.

However, we also believe there is a need for governments to capitalise on the potential of preventative public health measures as a way of reducing the number of people developing dementia. Many countries are beginning to consider 'brain health'

approaches, looking at how health across the life course can have a significant impact on illnesses of the brain (including mental health, neurological conditions etc). Specific to dementia, the Lancet Commission on Dementia 2020 estimated that approximately 40% of dementia cases could be attributed to 12 preventable causes (including low-education, hearing loss and smoking). As such, we believe governments must examine how these different risk-factors may best be addressed through public health responses.

Are there any notable developments or current issues in research or treatment of Alzheimer's disease which you would like to highlight?

The most recent and high-profile development in relation to dementia treatment has been the US Food and Drug Administration's (FDA) approval of 'aducanumab' for the treatment of Alzheimer's disease on 7 June 2021. Produced by Biogen, Aducanumab is the first Alzheimer's disease treatment to be approved by the FDA since 2003, and is the first potentially disease-modifying therapy to reach the market.

Aducanumab is a monoclonal antibody which targets beta-amyloid in the brain, delivered as a monthly intravenous infusion. Two phase III trials evaluated its effect on mild cognitive impairment and mild Alzheimer's disease. Whilst the cognitive test data from the trials were ambiguous, the data from brain imaging scans consistently showed a reduction in amyloid plaque following the administration of high-dose aducanumab.

As part of the approval in the US, Biogen is now required to conduct a post-approval clinical trial to verify the anticipated benefit of aducanumab. If the trial does not confirm that aducanumab is beneficial for people with AD, the FDA has the possibility of removing the drug from the market.

Aducanumab was reviewed by the European Medicines Agency (EMA) and at Swissmedic, following submissions by Biogen in October 2020 and April 2021, respectively. On 17 November 2021, the EMA's Committee for Medicinal Products for Human Use gave a negative trend vote for the medications. On 16 December 2021, the EMA rejected Aducanumab for use in the European Union, stating that: 'although [Aducanumab] reduces amyloid beta in the brain, the link between this effect and clinical improvement had not been established'. Biogen has since announced that, as part of the terms of approval by the FDA, a Phase 4 post-marketing confirmatory study will begin patient enrolment on May 2022, with the aim of enrolling more than 1,300 people with early Alzheimer's disease.

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