Addressing the value and affordability challenges facing future treatments for Alzheimer’s disease

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Alzheimer’s Research UK’s recommendations

Alzheimer’s Research UK brought together stakeholders from the NHS, the National Institute for Health and Care Excellence (NICE), industry and academia to discuss the challenges and opportunities in assessing the value and affordability of new medicines currently being developed for Alzheimer’s disease.

Our report from this workshop presents the main insights emerging from the discussions. We have produced recommendations that could begin to address the challenges discussed.

- The Accelerated Access Collaborative (AAC) should act now to bring together stakeholders to seek solutions to challenges a new treatment will face around diagnosis, delivery, and monitoring.

- The UK’s health technology assessment (HTA) bodies (NICE, the Scottish Medicines Consortium and the All-Wales Medicines Strategy Group) should consider the wider impacts of Alzheimer’s disease when assessing cost effectiveness. The full value of a future treatment will only be demonstrated when considering future savings across informal care and social care.

- NICE should adopt a lower rate of future discounting. A failure by government to reduce the rate of discounting will disproportionately lower NICE’s value of the cost effectiveness of a treatment which brings about benefits in the longer-term.

- Research is needed to understand the inequalities in health outcomes for people of different backgrounds faced by people living with Alzheimer’s disease and what this means for enabling access to future innovative treatments.

- Stakeholders should work collaboratively to reach a consensus on what the important outcomes are in the treatment of Alzheimer’s disease, placing people affected by the diseases that cause dementia at the heart of this work.

- Stakeholders across the UK healthcare system should work collaboratively to develop pilots for the use of new payment models for complex therapies.
Introduction

Alzheimer’s disease is the most common type of dementia, the leading cause of death in the UK. With no treatments to slow, stop or cure the range of symptoms that make up dementia, they are diseases that no one has yet survived. Not only does this cause harm and heartbreak to millions of families, but it is completely unsustainable for our health and social care system, and costs the economy £25bn a year. The majority of dementia costs per year are due to informal care (provided by families and friends) at £10bn, and social care costing £12bn, with healthcare costing £1.7bn. Costs are expected to almost double to £47bn a year by 20501.

Over the next five years it is anticipated that several disease-modifying therapies will come to market for Alzheimer’s disease, and there is no precedent in this disease area on how to evaluate these new technologies. The UK regulator (MHRA) reviews new treatments to confirm that they are safe and deliver the reported clinical effect. In England, NICE then evaluates clinical and cost effectiveness. If the Budget Impact Test threshold (£20m per year) is exceeded, manufacturers negotiate with National Health Service England (NHSE) to agree pricing and reimbursement arrangements (the multidisciplinary process of health technology evaluation).

The recent launch of the Innovative Licensing and Access Pathway (ILAP) recognises the importance of multistakeholder engagement to support regulatory and health technology evaluation decision making.

This aims to maximise the benefits of collaborative working in support of patient and market access. To do so, it must actively promote early engagement with regulatory and HTA bodies and facilitate approval and access to new, innovative treatments.

The Accelerated Access Collaborative (AAC), launched in 2018, aims to drive collaboration between industry and the NHS, and integrated care systems (ICS), seen as the future of health and care integration in England, bring together the NHS, local authority and third sector bodies to take on responsibility for the resources and health of an area or system. This integration could present an opportunity to ensure patient pathways are more effective.

The AAC will play a key role in providing support to the development of disease modifying treatments and advanced therapy medicinal products (ATMPs), including cell therapies, which are showing promise for Alzheimer’s disease.
Assessing value and affordability: challenges and opportunities

Disease-modifying treatments currently in the pipeline present challenges and opportunities in terms of value recognition, partly due to uncertainty in the long-term outcomes of the treatments, and partly due to factors specific to Alzheimer’s disease. These challenges and opportunities include:

- A large and growing population of people living with Alzheimer’s disease, which has implications both for scalability of treatment and for the infrastructure needed to accurately diagnose, deliver treatments and monitor progression.

- Health technology evaluation methods not capturing the full care burden of patients with Alzheimer’s disease and dementia and their families, particularly in terms of the informal care costs. For example, the EQ-5D quality-of-life measure does not capture the full impact of Alzheimer’s disease on care and informal care within the health and social care system.

- NHS infrastructure facing capacity challenges in accurately diagnosing, treating and monitoring patients on new disease modifying treatments. Initiatives such as the Accelerated Access Collaborative (AAC) can play an important role by working with all stakeholders to identify solutions to challenges so that patients are able to access future treatments in a timely fashion.

- Ensuring stakeholder involvement in the Innovative Licensing and Access Pathway (ILAP). It might be helpful to bring companies together in a similar way to the AAC to identify broader solutions rather than company-specific solutions and ensure the MHRA is positioned as a global leader in the consideration of dementia medicines. The ILAP programme presents an opportunity for appropriate clinical trial design which can support access arrangements.

- A lack of consensus on what constitutes good clinical outcomes for people with Alzheimer’s disease, whether in the earlier stages of mild cognitive impairment or more advanced stages of dementia.

Stakeholders at this workshop agreed on three key themes where Alzheimer’s Research UK could support patient access to innovative treatments:

Key themes:

- **Identifying and addressing policy barriers to medicines access.**

- **Recognising** value of a medicine.

- **Exploring payment models** to ensure affordability for health systems and equitable medicines access to individuals.
Identifying and addressing policy barriers to access

1. Alzheimer’s Research UK is well placed to broker and drive stakeholder action that should be broader than a company-by-company approach, including regulatory and HTA decision makers and commissioners as well as clinicians, people affected by dementia and carers.

2. A coalition of such decision-makers should take a holistic approach to tackling affordability challenges and identifying solutions, considering value, access, system-readiness, early and accurate diagnosis, monitoring etc.

3. Stakeholders should be flexible when considering the management of the uncertainty relating to clinical outcomes and disease progression ahead of the health technology evaluation process to support access and reduce existing health inequalities for people living with Alzheimer’s.

4. Understanding the benefits of early launch in the UK will be critical if the UK is to realise its ambition to create a thriving life sciences sector and tackle the major causes of death and disease, as outlined in the UK Life Sciences Vision. Incentivising investment in drug development will be pivotal to ensure that the UK becomes the leading global hub for Life Sciences.

1.1 Multi-stakeholder collaboration to develop a holistic solution

There is a need to recognise the uniquely heterogenous nature of Alzheimer’s disease and the implications it has on social care burden and indirect care costs. To address these challenges, solutions need to be developed with a holistic approach in mind and with the support of multiple stakeholders.

A coalition of stakeholders, including companies, decision makers, commissioners, patients, carers, and healthcare professionals, should develop solutions that are feasible and acceptable to all stakeholders involved. The AAC and the resulting progress in respect of Advanced Therapy Medicinal Products (ATMPs) in the UK is a positive example of this. The AAC presents an opportunity for stakeholders to come together, particularly to address identified infrastructure and workforce challenges that would exist post-treatment approval for diagnosis, administration and monitoring.

Improvement to the current approach, which relies on individual companies securing access arrangements for a specific product, is needed. For Alzheimer’s, a much broader approach which includes multiple companies and diverse stakeholders coming together to address these challenges is required. The Accelerated Access Collaborative should be well placed to lead this.
Identifying and addressing policy barriers to access

1.2 Health inequalities and unmet need for Alzheimer’s disease patients

There are currently no licenced disease-modifying therapies for Alzheimer’s disease in Europe and there have been no new treatments over the past two decades, with few clinical trials producing the outcomes hoped for so far. People living with Alzheimer's disease have significant unmet need across health and social care, with great disparity in access to and management of a diagnosis. This leads to difficulty in patients having an accurate prognosis. The lack of treatment options exacerbates existing health inequalities for these patients, and this is confounded by the inherent uncertainty in disease progression and a lack of consensus on what the most important clinical outcomes should be. Prevalence of dementia in some communities in the UK has been significantly underestimated, and risks of dementia are “particularly high in more socially disadvantaged populations including in Black, Asian, and minority ethnic groups”.

To realise the ambitions outlined in the government’s UK Life Sciences Vision, the appropriate infrastructure needs to be in place to ensure patients can access long-awaited disease-modifying treatments without exacerbating existing inequalities in getting an early and accurate diagnosis. This includes appropriate diagnostic tools as well as data infrastructure to understand which patients will benefit the most from these treatments and at which point. There are also significant capacity challenges in NICE and the NHS which will need to be addressed to ensure that there is resource to support these patients.

1.3 Using incentives to boost the UK’s attractiveness as a first launch country

Stakeholders need to consider how companies can be encouraged to prioritise the UK for early launch specifically for dementia treatments. Existing incentives include the AAC and ILAP, however these options have yet to be fully realised in dementia.
1. NICE should work with stakeholders to ensure that a broad perspective is taken when evaluating the cost effectiveness of new treatments, given the burden that falls on social care and loved ones outside of the direct healthcare costs on the NHS.

2. Clinicians, patients, carers and broader stakeholders must reach a consensus on the important outcomes for Alzheimer’s disease and this should be reflected in industry’s clinical trial protocols.

3. NHS England should continue to work with NICE and the UK government to acknowledge that changes to the discounting rate would support improved value recognition for Alzheimer’s disease.

2.1 Key outcomes for Alzheimer’s disease

There is a lack of consensus on the important outcomes for treating Alzheimer’s disease, possibly because of a lack of progression data in Alzheimer’s disease. This creates significant challenges in terms of evaluating the potential impact of new treatments in a disease area which currently has no approved disease-modifying therapies and significant unmet need. Clinicians, patients and a broader set of stakeholders should reach a consensus on what the important outcomes for Alzheimer’s disease are and how they can be measured so that new treatments can be appropriately valued and grounded in strong evidence from clinical trials.

2.2 Supporting value recognition

Value recognition in Alzheimer’s disease is complex and health systems have concerns around managing affordability. NICE employs discounting in the assessment of benefits and costs that occur in different time periods, to reflect the well-established view that people generally prefer to receive benefits or goods now but pay for them later.
Recognising value

2.2 Supporting value recognition (cont.)

NICE specifies HM Treasury’s preferred discount rates for costs and health effects in its reference case of 3.5% per year for both costs and health effects (NICE has defined a reference case that specifies the methods it considers to be most appropriate for estimating clinical and cost effectiveness in technology appraisals). NICE also permits analyses using a non-reference-case rate of 1.5% per year, in specific defined circumstances.

A change in the rate of future discounting to 1.5%, as recommended in the Treasury Green Book\(^5\) and supported by NICE, would support improved value recognition of future treatments for Alzheimer’s disease. Final proposals from the NICE methods and process review rejected this reform. Discounting adjusts for lower societal value being placed on costs and health outcomes that are predicted to occur in the future, compared to the present. A higher rate of discounting disproportionately lowers NICE’s value of the cost effectiveness of a treatment which brings about benefits in the longer-term. Most of the stakeholders involved in this workshop agreed that a change to the discount rate is needed and that the full societal cost of dementia should be factored into the decision-making process.

It is unlikely that one measure or initiative only will be sufficient to support an effective value recognition in Alzheimer’s disease. Instead, a combination of changes is needed. Given that much of the cost burden of Alzheimer’s falls outside of direct healthcare costs, and rather impacts social care and families, NICE should ensure that its methods reflect the opportunity to consider this.
Exploring payment models to ensure affordability and equitable access

1. NHS England should work with industry to identify appropriate access arrangements for Alzheimer’s disease treatments that address issues around long-term outcomes and data uncertainty.

2. Increased collaboration and transparency from key stakeholders, including NHS England, is key to reaching consensus on appropriate payment models.

3. Alzheimer’s Research UK should support further exploration of payment models identified and their potential applicability to future treatments for Alzheimer’s disease, including their ability to help collect evidence to explore the full value of a treatment.

3.1 Payment models for Alzheimer’s treatments

Identifying feasible, appropriate, and acceptable payment models for Alzheimer’s disease treatments is vital to reduce health inequalities for those living with Alzheimer’s. Any payment model must allow for an appropriate assessment of the full value of a treatment. Increased collaboration and transparency from key stakeholders is key to achieving consensus on what pricing model will be most suitable for a future Alzheimer’s treatment. Risk sharing between the payer and the manufacturers is needed to offer reassurance to the payer as well as to incentivise companies to launch early in the UK.
Exploring payment models to ensure affordability and equitable access

3.1 Payment models for Alzheimer’s treatments (cont.)

Research into the feasibility of payment models in the UK has been conducted by different groups, including Cancer Research UK⁶ and the Bioindustry Association⁷ highlighting the need to consider different payment models for different therapy areas due to the specific challenges to be addressed. There may be an opportunity to pilot payment model schemes for complex therapies through the disease-modifying treatments currently in the pipeline for Alzheimer’s disease, once they have been approved as being safe and effective. However, these solutions should be considered bearing in mind their feasibility of implementation within the NHS and broader UK healthcare landscape.

An innovative payment model or initiative which utilises longer-term data collection to measure the impact of the treatment over time will be necessary to address access challenges specific to a future Alzheimer’s treatment. Managed Access Agreements (MAAs) are used to enable patient access to promising new treatments, where significant clinical uncertainties remain, but they may be less suitable for Alzheimer’s disease for a range of reasons that would need to be addressed, such as:

• Establishing the mechanisms to capture ongoing data post-launch will require large upfront cost, as will the additional clinical resource for follow-up and monitoring.

• MAAs have been most often used for rarer conditions: the larger population size seen with Alzheimer’s disease could render them less commercially viable. Heterogeneity of disease may provide challenges in assessing cohorts rather than whole populations.

• Similarly, those with Alzheimer’s are likely to have co-morbidities, presenting additional affordability challenges which will not be simply solved by a period of managed access.

To be effective for novel disease-modifying treatments for Alzheimer’s disease, any new payment model should ensure risk and investment is shared between the NHS and industry, with the option to spread the cost over a longer period. Upfront costs and a potentially large patient population, coupled with value recognition that is hard to evidence in the short to medium term, means a simple discount from a pharmaceutical company may not help mitigate the significant uncertainty and risk for the NHS.
Exploring payment models to ensure affordability and equitable access

3.2 Alzheimer’s Research UK role in reviewing progress and lessons learned

Payment models that enable further evidence development are expected to be important for Alzheimer’s disease treatments. There are examples in other therapy areas and other countries which could be considered, such as:

- Subscription-based model for a Hepatitis C treatment which helped to manage the budget impact of the treatment\(^8\).
- Risk-sharing approach in Multiple Sclerosis\(^9\).
- Multi-stakeholder roundtables to address challenges in respect of Advanced Therapy Medicinal Products (ATMPs) in Belgium\(^10\).

While these examples cannot immediately be replicated for a future Alzheimer’s disease treatment, there is an opportunity for Alzheimer’s Research UK to work as an honest broker with other stakeholders to review progress and lessons learned in adopting new payment models. Adopting new models which deviate from the standard norm will require companies and the NHS to engage in early dialogue.
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Alzheimer’s Research UK

Alzheimer's Research UK is the UK’s leading dementia research charity.

We’re working to revolutionise the way we treat, diagnose and prevent dementia. But we will not stop there.

With your support, we will keep going until every person is free from the heartbreak of dementia.

We exist for a cure.
Sources

1. Luengo Fernandez and Landeiro et al. (in preparation). The economic burden of dementia in the UK.


7. BIA; Ensuring patient access to cell and gene therapies: The case for an innovative payment model Ensuring-patient-access-to-cell-and-gene-therapies-The-case-for-an-innovative-payment-model.pdf (bioindustry.org)

