



Dementia describes the symptoms that occur when the brain is affected by specific diseases and conditions. These symptoms include memory loss, cognitive changes and difficulties with day-to-day activities which may progress over time. Dementia can also lead to behavioural difficulties such as agitation, aggression, distress, hallucinations, and sleep difficulties, all of which can have a profound effect not only on the person with dementia, but on the family.

Our research

Applied research aims to deliver practical improvements to patient care within a comparatively shortened timeframe.

In dementia, many studies focus on the development of new treatments for the future, but research can also help us to improve the way people with dementia are cared for today, in hospitals and in the community.

As part of our research at the Cambridgeshire and Peterborough Collaboration for Leadership in Applied Health Research and Care (CLAHRC CP), we are reviewing all the available evidence on the prevention, diagnosis and treatment of dementia. One of the ways we do this is by a process called systematic literature review.

1. Tests for diagnosing dementia

Only 41% of people with dementia ever receive a diagnosis. Making a diagnosis is often difficult, particularly in the early stages of the condition, but a diagnosis can help people access advice and support that can lead to improvements in their quality of life. It also allows people, and their families, to plan for the future. Many different tests are used to diagnose dementia and many others are in development.

We are currently conducting 12 systematic reviews of research evidence into all the different types of tests for diagnosing dementia.

The results of our work will help doctors and patients to understand what the results of these tests can mean, and the most appropriate time and situation for one, or more, of these tests to be used.



2. Should there be screening for dementia?

People with dementia who do not get a diagnosis can miss out on the available treatment and support. Screening older people in the population has been suggested as a way to identify the disease sooner, but what are the advantages and disadvantages of this approach? What do patients, carers and doctors think about screening for dementia?

We are undertaking 3 systematic reviews of the evidence to answer these questions and to help us understand what can be done to detect dementia earlier and the appropriateness of early detection.

3. Are there effective alternatives to the use of antipsychotic medicines in dementia?

Behaviour changes and psychological symptoms such as agitation and aggression are common in dementia. In some cases medication can help, but research shows that prescribing antipsychotic drugs is often unnecessary.

Our systematic review of treatment alternatives in dementia found that the most effective ways of managing symptoms of dementia were behaviour management techniques delivered by appropriately trained professional staff, and ongoing training and support for all staff and carers.

There was also some evidence in favour of exercise, massage and multi-sensory stimulation, such as aromatherapy and music therapy.



We are now working with the Alzheimer's Society to improve information about anti-psychotics and to help doctors make informed decisions about what medication to prescribe.

4. How can exercise programmes benefit people with dementia?

Exercise can play an important role in keeping active and well. Strength and balance exercises have been shown to reduce falls and improve certain thinking processes, but these have not been tested in people with cognitive impairment.

We are planning a study that will help us understand what kind of exercise programmes could benefit people with dementia, and what the benefits might be for their carers.

5. Other dementia research we are doing

- **How are the health and support needs of the population changing as people live longer lives?** What are the implications for health and social care services? For more information about the Cambridge City over-75s Cohort Study (CC75) visit www.cc75c.group.cam.ac.uk
- **What are the most important unanswered questions for dementia research?** For more information about our priority setting

partnership with the Alzheimer's Society and the James Lind Alliance, visit the Alzheimer's Society website http://alzheimers.org.uk/site/scripts/documents_info.php?documentID=1804 or contact Sarah Kelly who is leading on this piece of work at sak65@medschl.cam.ac.uk.

- **How can the care of people with dementia in hospital be improved?** Staying in hospital can be a distressing experience for anybody, and even more so for someone with dementia. We provide research expertise to hospital clinicians to help evaluate the effectiveness of new initiatives to improve the care of people with dementia, for example a delirium and dementia friendly ward and a recently introduced staff education programme. We are also developing new research on emergency care, working with ambulance services and carers.

How we involve the public in our work

The CLAHRC CP works closely with the Alzheimer's Society and Dementia Compass, as well as other voluntary organisations. We also involve individuals who have experience of dementia in different projects, so they can help us ask the right questions and design studies that are relevant and useful. We are always keen to hear from anyone affected by dementia who is interested in being involved in the research process.

Further Information on our research into dementia

Our website has information on joining our mailing list at www.clahrc-cp.nihr.ac.uk

Alternatively please contact Dr Jane Fleming at jane.fleming@phpc.cam.ac.uk or Dr Louise Lafortune at l1394@medschl.cam.ac.uk.

An explanation of CLAHRC CP and its role

The Cambridgeshire and Peterborough Collaboration for Leadership in Applied Health Research and Care (CLAHRC CP) is a partnership between the University of Cambridge, NHS organisations in Cambridgeshire and Peterborough, and Cambridgeshire County Council.

Funded by the National Institute for Health Research, our mission is to undertake high quality applied research to improve health and social care across the East of England.