Cochrane Cameroon

WORLD ALZHEIMER'S DAY

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Table of content

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This document has been prepared by Cochrane Cameroon to provide **healthcare professionals** with evidence-based data on the management of Alzheimer's disease. Enjoy your read!

EDITORIAL

World Alzheimer's day, celebrated on 21 September is a global initiative launched by the **World Health Organization (WHO)** and **Alzheimer's Disease International (ADI).** This day raises awareness to the public on the various challenges of Alzheimer's disease and other forms of dementia, which affect millions of people around the world.

The goal is to promote a better understanding of this neurodegenerative disease, support patients and their family and highlight the efforts in its prevention, treatment and care.

According to the WHO, over **55 million people** around the world are currently living with some form of dementia, and this number could triple by 2050 as the population ages.

The WHO plays an essential role in the fight against dementia and Alzheimer's. In 2017, the WHO adopted a **Global action plan on the public health response to dementia 2017-2025**, which aims to raise awareness, improve early diagnosis, access to care and support research in this field.

Like many other countries, Cameroon is being encouraged to develop national strategies to meet more needs of patients and families affected by this disease.

Why was this summary produced?

This summary was produced to provide up-to-date evidence on the management of Alzheimer's disease.

What is a systematic review?

A summary of studies that answers a clearly formulated question and uses systematic and explicit methods to identify, select and critically appraise relevant studies. Data from different studies are extracted and can be analysed together using meta-analysis techniques.

THE SITUATION OF ALZHEIMER'S IN CAMEROON

In Cameroon, although dementia and Alzheimer's disease are often under-diagnosed and poorly understood, more and more initiatives are beginning to emerge to raise awareness of the issue. Local organisations such as the **Association Comprendre pour la maladie d'Alzheimer** (ACMA), are actively working to improve the recognition and management of this disease.
However, there are still major challenges ahead, particularly in terms of training healthcare professionals, access to specialist care services and combating the stigma associated with dementia. In this sense, the collaboration between Cameroon and international efforts like those of the WHO, is essential to develop support infrastructure, awareness campaigns and promote research in this field.
Cameroon's **Ministry of Public Health** plays a crucial role in the management and care of neurodegenerative diseases, including Alzheimer's disease. Although health infrastructure in Cameroon are faced with logistical and financial challenges, the Ministry is working to develop awareness strategies and improve access to care for people with Alzheimer's disease.

Initiatives taken by the Ministry of Public Health to help people with Alzheimer's disease include:

1. **Awareness and prevention:** The Ministry runs regular awareness campaigns to educate the population on Alzheimer's disease, its symptoms and the importance of early diagnosis.

2. **Training for healthcare professionals:** Some training programmes have been implemented for doctors, nurses and caregiver employees in order to better understand and treat patients who have Alzheimer's disease. This includes improving skills in palliative care and psychological support.

3. **Treatment and care:** Although there is no cure for Alzheimer's disease, symptomatic treatments such as medication to combat memory loss and cognitive therapy, are available in a few specialised facilities, particularly in the major hospitals of Douala and Yaounde. The Ministry also encourages the integration of family support into patient management.

4. **International partners:** Cameroon is collaborating with international organisations such as the World Health Organization and Alzheimer's Disease International (ADI) to benefit from resources, training and funding in the fight against neurodegenerative diseases.

SUMMARIES OF SYSTEMATIC REVIEWS

1. Treatment of epilepsy for people with Alzheimer's disease

Background

Alzheimer's disease is a risk factor for increased seizures in older people. Seizures of any type can be observed in Alzheimer's disease and are probably underestimated.

Study characteristics

We searched scientific databases for clinical trials comparing medication and non-medication-based treatments for epilepsy in people with Alzheimer's disease. We wanted to evaluate how well the treatment worked and if it had any side effects.

Key results

We included and analyzed one randomized controlled trial (a clinical study where people are randomly put into one or two (or more) treatment groups) with 95 participants. Concerning the proportion of participants with freedom from seizures, no significant differences were found between the antiepileptic drugs (levetiracetam versus lamotrigine, levetiracetam versus phenobarbital, and lamotrigine versus phenobarbital). It seemed that levetiracetam could improve cognition (thinking) and lamotrigine could relieve depression, while phenobarbital and lamotrigine could worsen cognition, and levetiracetam and phenobarbital could worsen mood.

Certainty of the evidence

The certainty of the evidence for all the outcomes from the study were very low. This means that we are very uncertain about the results and they should be interpreted with caution. Large randomized controlled trials are required to determine how effective and well tolerated treatments are for epilepsy in people with Alzheimer's disease.

The evidence is current to August 2020.

Citation: Liu J, Wang L-N. Treatment of epilepsy for people with Alzheimer's disease. Cochrane Database of Systematic Reviews 2021, Issue 5. Art. No.: CD011922. DOI: 10.1002/14651858.CD011922.pub4.

2. Do antipsychotic medicines reduce agitated behaviour and psychotic symptoms in people with Alzheimer's disease and vascular dementia?

Key messages

It is uncertain whether older, first-generation or 'typical' antipsychotic medicines such as haloperidol have an effect on agitated behaviour (for example, restlessness and aggression); the effect is moderate at best. Typical antipsychotic medicines may decrease delusions and hallucinations slightly in people with dementia.

Newer, second-generation 'atypical' antipsychotic medicines, such as risperidone, probably reduce agitated behaviour slightly. Atypical antipsychotic medicines probably have no effect on psychotic symptoms.

Both first- and second-generation antipsychotic medicines increase the risk of drowsiness and other unwanted events. When patients' symptoms improve after antipsychotics have

been prescribed, this is probably largely due to natural improvement in symptoms over time.

What are antipsychotic medicines?

Antipsychotics are medicines prescribed to treat psychotic symptoms and severely disturbed behaviour in some mental illnesses, such as schizophrenia, bipolar disorder and severe depression. Psychotic symptoms are delusions (very strongly held beliefs in something which is not true) and hallucinations (sensing – usually seeing or hearing - things which are not really there).

Antipsychotic medicines are often divided into two groups:

1. first-generation (older) or 'typical' antipsychotics, for example haloperidol;
2. second-generation (newer) or 'atypical' antipsychotics, for example risperidone.

Both types can cause unwanted effects, such as drowsiness, movement disorders (for example, involuntary or uncontrollable movements, tremors, muscle contractions) and weight gain.

Why do people with dementia need antipsychotics?

People with dementia quite often experience hallucinations and delusions during their illness for some time. Particularly in the later stages of the illness, they may also show agitated behaviours such as restlessness, shouting out or aggression towards others. It is important to try to understand what is driving these behaviours and there are many ways to manage them which do not involve drugs. However, antipsychotic medicines have often been prescribed to people with dementia for these problems. In many countries, they are prescribed less often than in the past but are still used when the symptoms are severe.

What did we want to find out?

We wanted to know how well antipsychotic medicines reduce the severity of agitation and psychotic symptoms in people with the two commonest types of dementia, namely dementia due to Alzheimer's disease and vascular dementia. We also wanted to know how many people experienced unwanted effects.

What did we do?

We searched for studies that investigated antipsychotic medicines currently available in the USA or European Union by comparing them with placebo (a 'dummy' pill), for treatment of persistent agitation or psychotic symptoms. People in the studies had to have Alzheimer's disease or vascular dementia. They could be any age and reside in a care home, a hospital, or the community. Most of the people in the studies had to be experiencing agitation (including aggression) or psychotic symptoms, or both, at the start of the study.

We compared and summarised the results of the studies and rated our confidence in the evidence, based on factors such as study methods and sizes.

What did we find?

We found 24 studies with a total of 6090 people:

- six studies tested typical antipsychotics, mostly haloperidol;
- 20 studies tested atypical antipsychotics, such as risperidone, olanzapine, and aripiprazole; and
- two studies tested both typical and atypical antipsychotics.

All the studies compared antipsychotics with placebo. The people were living in institutions, hospitals, the community, or a combination of these settings.

Main results

Typical antipsychotics (haloperidol, thiothixene) compared with placebo:

- May improve symptoms of psychosis slightly (2 studies, 240 people), but we are uncertain about their effect on agitation (4 studies, 361 people);
- Probably increase the risk of drowsiness (3 studies, 466 people), and movement disorders (3 studies, 467 people);
- May slightly increase the risk of serious unwanted effects (1 study, 193 people) and of death (6 studies, 578 people).

There was no evidence about the risk of non-serious and serious unwanted effects combined.

Atypical antipsychotics (risperidone, olanzapine, aripiprazole, quetiapine) compared with placebo:

- Probably slightly reduce agitation (7 studies, 1971 people) and may slightly reduce aggression (1 study, 301 people), but probably make no important difference to symptoms of psychosis (12 studies, 3364 people);
- Increase the risk of drowsiness (13 studies, 2878 people) and probably slightly increase movement disorders (15 studies, 4180 people);
- Probably slightly increase the risk of experiencing any non-serious or serious unwanted effect combined, the risk of serious unwanted effects, and the risk of death (17 studies, 5032 people).

What are the limitations of the evidence?

Overall, our confidence in the evidence about typical antipsychotics is limited and our confidence in the evidence about atypical antipsychotics moderate. Typical antipsychotics have been investigated in just a few studies. In addition, the studies about typical and atypical antipsychotics did not always use the best methods to carry out their investigations, or did not report the results. Consequently, the effects on agitation or psychosis may have been overestimated, and the effects on adverse events underestimated.

How up to date is this evidence?

The evidence is up-to-date to 7 January 2021.

Citation: Mühlbauer V, Möhler R, Dichter MN, Zuidema SU, Köpke S, Luijendijk HJ. Antipsychotics for agitation and psychosis in people with Alzheimer's disease and vascular dementia. Cochrane Database of Systematic Reviews 2021, Issue 12. Art. No.: CD013304. DOI: 10.1002/14651858.CD013304.pub2.

3. The dietary supplement Souvenaid for preventing dementia or delaying cognitive decline in people with Alzheimer's disease

Review question

We investigated whether people with mild cognitive impairment (MCI) due to Alzheimer's disease (AD) can reduce their risk of developing dementia with a patented dietary

supplement called Souvenaid. We also investigated the effect of Souvenaid on memory or other thinking skills, ability to carry out daily activities, and side effects in people with MCI or any stage of dementia due to AD.

Background

Alzheimer's disease is a brain disease. It is the commonest cause of dementia among older people. A person is said to have dementia when there has been a decline in their memory and thinking skills which is severe enough to stop them being fully independent in all their daily activities. Because AD develops slowly, it is also possible to pick up symptoms before dementia is fully developed. This pre-dementia stage, when people with AD have a detectable decline in memory and thinking skills but are still able to manage their usual activities independently, is known as mild cognitive impairment due to AD, or 'prodromal' AD.

Souvenaid is a patented mix of vitamins and minerals (Fortasyn Connect™) which was designed to improve brain function in AD. It is a drink which is to be taken once a day. It is intended to be consumed under medical supervision, in addition to the usual diet.

Search for evidence

We systematically searched for randomised controlled trials (RCTs) which were published up to June 2020 and which compared treatment with Souvenaid for at least 16 weeks with treatment with a dummy supplement (a placebo). For the comparison to be fair, it had to be decided randomly whether each participant was given Souvenaid or the placebo.

Key results

We found three RCTs with a total of 1,097 participants to include in the review. Two of the trials investigated Souvenaid in people with dementia over a treatment period of 24 weeks. One of these included 527 participants with mild-to-moderate dementia due to AD and the other included 259 participants with mild dementia due to AD. The third trial investigated the use of Souvenaid for two years in 311 people with prodromal AD.

We considered all of the trials to be well-designed, but because of differences between them in the severity of the participants' symptoms and in the way the researchers measured their results, we were not able to combine the data numerically from the single trials. All the results we report are therefore based on single trials, which leads us to have only moderate confidence in the findings of this review. This means that results could be changed by further research.

We found that people with prodromal AD who took Souvenaid daily for two years were probably no more or less likely than those taking placebo to develop dementia.

Souvenaid probably had little or no effect on measures of memory or other thinking skills in people with prodromal AD (after two years of treatment) or with mild or mild-to-moderate dementia due to AD (after 24 weeks of treatment). It also probably had little or no effect on the ability of people with mild or mild-to-moderate dementia due to AD to manage everyday activities (again after 24 weeks).

Two studies used an outcome scale which combined memory and thinking skills with practical skills (described as a combined cognitive-functional outcome). There was probably a small benefit of Souvenaid on this outcome among people with prodromal AD

who took Souvenaid for two years. However, there was probably little or no effect of Souvenaid on this outcome among people with mild-to-moderate AD dementia who took it for 24 weeks.

There were only a few adverse events reported in the trials, and it was not possible to know whether any of them were side effects of Souvenaid.

Study funding sources

Two studies were funded by the manufacturer of Souvenaid. The third study (in prodromal AD) was funded by European grants.

Citation: Burckhardt M, Watzke S, Wienke A, Langer G, Fink A. Souvenaid for Alzheimer's disease. Cochrane Database of Systematic Reviews 2020, Issue 12. Art. No.: CD011679. DOI: 10.1002/14651858.CD011679.pub2.

4. Treatment using environmental enrichment for supporting rehabilitation following stroke and other brain injuries which do not get worse over time (non-progressive brain injury)

Background

Rehabilitation helps with recovery after stroke and other non-progressive brain injuries through therapy. However, outside of therapy hours, people may have very little to keep them stimulated. Environmental enrichment is a relatively new concept in rehabilitation where the environment itself is designed to be engaging and to include physical, thinking, and social activities like exercises and games. For example, a nursery for babies may be interesting and stimulating but a hospital environment for adults is generally not. The design of the environment alone should encourage (but not force) activities without additional specialised rehabilitation.

Review question

We wanted to find out whether treatment with environmental enrichment is better or worse than alternatives.

Search date

The evidence is current to 26 October 2020.

Study characteristics

Population: we planned to include studies in which participants were adults who had had a stroke or a non-progressive brain injury (such as traumatic brain injury but not dementia, Alzheimer's disease, or multiple sclerosis).

Intervention: environmental enrichment interventions will usually include multiple activities, such as computers plus gaming technology plus music and reading.

Comparison: we planned to compare environmental interventions with usual care (regular physiotherapy, speech therapy, occupational therapy) or alternative treatment.

Outcomes: we divided outcomes into primary and secondary outcomes. Primary outcomes focused on psychological well-being (anxiety, depression, stress) and coping. Secondary outcomes focused on quality of life, physical function, communication and cognitive function, and activity levels. We also planned to report adverse events.

Key results

We found one trial that compared environmental intervention alone with usual care or alternative treatment. The trial included 53 participants who had had a stroke and was based in a hospital rehabilitation ward. The trial compared environmental enrichment (which included physical, cognitive and social activities such as reading material, board and card games, gaming technology, music, artwork, and computer with Internet) with standard services. The main outcomes related to psychological well-being and coping. We were uncertain of the results because the trial was very small and highly prone to bias.

Conclusion

The gap in current research does not mean that environmental enrichment is ineffective. Further research is needed with strong study designs and consistent outcome measurement evaluating the effectiveness of environmental enrichment in different settings (in hospital versus out of hospital), which components of environmental enrichment are effective, whether environmental enrichment is cost-effective, and if it is safe for people following stroke or other non-progressive brain injuries.

Citation: Qin H, Reid I, Gorelik A, Ng L. Environmental enrichment for stroke and other non-progressive brain injury. Cochrane Database of Systematic Reviews 2021, Issue 11. Art. No.: CD011879. DOI: 10.1002/14651858.CD011879.pub2.

5. Antithrombotic therapy to prevent cognitive decline in people with small vessel disease on neuroimaging but without dementia

Background

Disruption of blood flow to the brain can cause problems with memory and thinking. In the condition called 'cerebral small vessel disease', there is damage to the smallest blood vessels that run deep in the brain. This damage can cause stroke but can also be seen on brain scans in people with no obvious stroke symptoms. Cerebral small vessel disease usually gets worse over time, and in some people can cause a decline in memory and thinking. If this decline gets severe enough to affect a person's ability to manage their daily activities independently, then it is described as a type of vascular dementia. We know that blood-thinning medications such as aspirin can prevent stroke. We wanted to know whether blood-thinning medications might also prevent the decline in memory and thinking that is seen in cerebral small vessel disease.

Review question

Are blood-thinning medications effective and safe in preventing the decline in memory and thinking in people with cerebral small vessel disease?

What we did

We searched the medical literature up to 21 July 2021 looking for studies that compared blood-thinning medications given over at least 24 weeks to a comparator, which could have been either usual care or a placebo (dummy) tablet. To make the comparison fair, the studies had to assign people randomly to blood-thinning medications or the comparator treatment. We were interested in the effects on participants' performance in

memory and thinking tests, their ability to look after themselves, their risk of developing dementia and stroke, and side effects (especially from bleeding). Because the studies were so different from each other in terms of the type of participants, medications and assessments, we were unable to combine the results in analyses. Rather, we described the results of individual studies and assessed how confident we were in their findings.

What we found

We included three studies with 3384 participants. These studies were very different in terms of the participants (some with and some without stroke), the medications studied (single and combinations of different blood-thinners), and how the effects on memory and thinking were measured (different tests used for assessment). No trial consistently demonstrated an improvement in performance in memory and thinking tests or in daily activities. No trial assessed for a new diagnosis of dementia. There was suggestion of blood-thinning medications possibly causing an increased risk of bleeding, including gastrointestinal bleeding, but the numbers were too small to be certain that this was not just a chance difference. Overall, we considered that the quality of the evidence was poor for answering our review question regarding memory and thinking. Much of the information we needed was not reported. Two of the three studies were small, meaning that there was uncertainty around their results. In the only study that reported any benefit from blood-thinning medication, different measures of memory and thinking did not all agree with each other. Lastly, where there was an improvement in memory and thinking, the size of this improvement may have been too small to make a noticeable difference to the individual in reality.

Conclusions

We found no convincing evidence that taking blood-thinning medications is beneficial for memory and thinking in people with cerebral small vessel disease. However, the studies were very different from each other, and each one had limitations with regard to our review question.

Citation : Kwan J, Hafdi M, Chiang LL W, Myint PK, Wong LS, Quinn TJ. Antithrombotic therapy to prevent cognitive decline in people with small vessel disease on neuroimaging but without dementia. Cochrane Database of Systematic Reviews 2022, Issue 7. Art. No.: CD012269. DOI: 10.1002/14651858.CD012269.pub2.

Others sources:

- Alzheimer's Disease International (ADI). (1994). **World Alzheimer's Day**. ADI.
- Alzheimer's Disease International (ADI). (2021). **La situation de la démence au Cameroun**.
- Association Comprendre pour la maladie d'Alzheimer (ACMA). (2023). **Nos actions pour sensibiliser le public à la maladie d'Alzheimer au Cameroun**. Consulted in September 2023. ACMA.
- World Health Organization (WHO). (2021). **Démence : statistiques et informations**.
- World Health Organization (WHO). (2017). **The global action plan on the public health response to demnetia 2017-2025**.

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