

Common painkillers triple harmful side effects in dementia

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Researchers from the University of Exeter, King's College London and the University of Bergen are presenting two studies at the Alzheimer's Association International Conference 2018 (AAIC) highlighting a significant increase in harmful side effects related to the use of commonly prescribed opioid painkillers in people with dementia, compared to those on a placebo. Researchers also identified a mechanism that may be causing the problem.

In a [randomized controlled trial](#) of 162 Norwegian care home residents, the team found a significant rise in side effect such as personality changes, confusion and sedation, which can seriously impact people's lives in [dementia](#). The team is now calling for studies to examine appropriate dosing of painkillers such as buprenorphine for people with dementia.

Around half of people with dementia who are living in care homes experience clinically significant pain. Previous research has recognised that pain is often under-diagnosed and poorly managed in people with dementia, impacting on quality of life.

After paracetamol, opioid-based painkillers are often the next line of treatment for clinicians in people with dementia, and are prescribed to up to 40% of people with dementia living in care homes. They ease pain effectively, yet current prescribing guidance does not take into account the fact that people with dementia get effective pain relief from smaller doses than are commonly prescribed, and are particularly sensitive to

[adverse effects](#).

The trial team, led by the University of Bergen, studied 162 people from 47 Norwegian [care homes](#) who had advanced dementia and significant depression. In those who were assigned buprenorphine as part of their treatment pathway, harmful side-effects more than tripled. The researchers also found that those taking buprenorphine were significantly less active during the day.

Clive Ballard, Professor of Age-Related Diseases at the University of Exeter Medical School, said: "Pain is a symptom that can cause huge distress and it's important that we can provide relief to people with dementia. Sadly at the moment we're harming people when we're trying to ease their pain. We urgently need more research in this area, and we must get this dosing right. We need to establish the best treatment pathway and examine appropriate dosing for people with dementia."

Importantly, research led by Professor Ballard's team and also presented at the conference gives insight into the mechanism of why people with dementia are more susceptible to opioid-based painkillers, suggesting they over-produce the body's natural opioids.

The study treating arthritis in Alzheimer's mice found increased sensitivity to the opioid-based [painkiller](#) morphine in mice with Alzheimer's disease compared to those without. Those with Alzheimer's disease responded to a much lower dose to ease pain, and experienced more adverse effects when the dose was increased to a normal level. Looking into this further the study found that the Alzheimer's mice produced more of the body's natural endogenous opioids such as endorphins. The study, presented as a poster at AAIC, also concludes that dosing of opioid-based painkillers urgently needs to be reviewed in people with dementia to enable safe and effective treatment of pain, and prevent unnecessary harm and deaths.

Provided by University of Exeter

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