

CONTACT: Alzheimer's Association Media Line, 312.335.4078, media@alz.org
AAIC 2023 Press Office, aaicmedia@alz.org

FROM THE ALZHEIMER'S ASSOCIATION INTERNATIONAL CONFERENCE 2023

NEW USE OF OPIOIDS INCREASES RISK OF DEATH ELEVENFOLD IN OLDER ADULTS WITH DEMENTIA

Key Takeaways:

- **Older adults who start on opioids after a dementia diagnosis face heightened risk of death, especially in the first two weeks of opioid use.**
- **A study of everyone diagnosed with Alzheimer's disease in Denmark in a 10-year period found one-third died within 180 days after their first opioid dose, five times as many as those with the disease who didn't take opioids.**
- **Among those who used fentanyl patches as their first prescription, nearly two-thirds died within the first 180 days.**

AMSTERDAM, JULY 18, 2023 — New opioid use in older adults with dementia is associated with a significantly increased risk of death, including an elevenfold increase in the first two weeks, according to research first reported today at the [Alzheimer's Association International Conference](#)[®] (AAIC[®]) 2023, in Amsterdam, Netherlands, and online.

The study population included everyone in Denmark aged 65 and older diagnosed with dementia between Jan. 1, 2008 and Dec. 31, 2018 (n=75,471), including both home-living and nursing home residents. Of that group, 42% (31,619) of those diagnosed with dementia redeemed a prescription for an opioid at a pharmacy.

The researchers followed study participants for 180 days after their first opioid prescription. They also followed a group of older adults with dementia who did not receive an opioid prescription and compared risk of death between the two groups.

- 10,474 (33.1%) study participants died within 180 days after initiating their first opioid prescription, compared with 3,980 (6.4%) of the unexposed. After adjusting for potential differences between groups, researchers found a fourfold increased excess mortality risk.
- The risk was greatest in the first 14 days, where mortality for all opioids was increased elevenfold.
- Strong opioids were associated with a sixfold increased mortality risk.
- Among those who used fentanyl patches as their first prescription, 64.4% died within the first 180 days compared with 6.4% in the unexposed (an eightfold increased risk of dying).

The researchers defined strong opioids as morphine, oxycodone, ketobemidone, hydromorphone, pethidine, buprenorphine and fentanyl. Strong opioids are used to relieve pain when non-opioid and mild opioid medicines are not effective.

“In our study, starting on an opioid after getting a dementia diagnosis was frequent and associated with a markedly increased risk of death, which is worrisome,” said Christina Jensen-Dahm, M.D., Ph.D., of the Neurology Department, Danish Dementia Research Centre, Copenhagen University Hospital — Rigshospitalet, Denmark. “The use of strong opioids has increased considerably over the past decade among older people with dementia. Our study shows the importance of careful evaluation of risk and benefits to the patient when considering initiating opioid therapy among elderly individuals with dementia.”

“Opioids are very powerful drugs, and while we need to see additional research in more diverse populations, these initial findings indicate they may put older adults with dementia at much higher risk of death,” said Nicole Purcell, D.O., M.S., neurologist and Alzheimer’s Association senior director, clinical practice.

“Pain should not go undiagnosed or untreated, in particular in people living with dementia who may not be able to effectively articulate the location and severity of the pain,” Purcell added. “These new findings further emphasize the need for discussion between the patient, family and physician. Decisions about prescribing pain medication should be thought through carefully, and, if used, there needs to be careful monitoring of the patient.”

As stated in CDC’s guideline from 2022, opioid therapy should only be considered for pain if benefits are anticipated to outweigh risks to the patient. “This is particularly important for older individuals with dementia,” Jensen-Dahm said. “Opioids are known to have significant side-effects including sedation, confusion, respiratory depression and falls. Older adults with dementia have a severe brain disorder and are often frail. We suspect this is why they can not tolerate opioids, but we do not know for certain and need to do more research to answer these questions.”

This is not the first time that drugs have been found to be excessively risky for older people with dementia. A group of drugs used to treat psychiatric conditions, known as atypical antipsychotics, have consistently been found to nearly double the risk of death in this population.

About the Alzheimer’s Association International Conference® (AAIC®)

The Alzheimer’s Association International Conference (AAIC) is the world’s largest gathering of researchers from around the world focused on Alzheimer’s and other dementias. As a part of the Alzheimer’s Association’s research program, AAIC serves as a catalyst for generating new knowledge about dementia and fostering a vital, collegial research community.

AAIC 2023 home page: www.alz.org/aaic/

AAIC 2023 newsroom: www.alz.org/aaic/pressroom.asp

AAIC 2023 hashtag: #AAIC23

About the Alzheimer’s Association®

The Alzheimer’s Association is a worldwide voluntary health organization dedicated to Alzheimer’s care, support and research. Our mission is to lead the way to end Alzheimer’s and all other dementia — by accelerating global research, driving risk reduction and early detection, and maximizing quality care and support. Our vision is a world without Alzheimer’s and all other dementia®. Visit alz.org or call 800.272.3900.

###

- Christina Jensen-Dahm, M.D., Ph.D., et al. Excessive mortality risk associated with new opioid use in older people with dementia. (Funders: Capital Region of Denmark. The Danish Dementia Research Centre is supported by The Danish Ministry of Health.)

*** AAIC 2023 news releases may contain updated data that does not match what is reported in the following abstract.

Proposal ID: 77103

Excessive mortality risk associated with new opioid use in older people with dementia

Background: Opioids have been associated with an increased excess mortality-risk in the general population. Older people with dementia have been prescribed opioids more frequent and the use of strong

opioids has increased considerably over the past decade among older people with dementia. Whether opioids are associated with an excess mortality risk in older people with dementia is unknown.

Method: Matched cohort study using nationwide registries. All Danish residents aged 65 years and older diagnosed with dementia between 01.01.2008-31.12.2018 were included. Exposure was defined as first opioid prescription after dementia diagnosis (1 year washout before diagnosis). Persons exposed to opioids were matched with up to two unexposed persons on age and sex. Cox proportional hazards models were used to compare rates of death within 180 days after the initiation of opioid treatment and adjusted for potential confounders (time since diagnosis, nursing home residency, comorbidity, admission within 30 days, number of medications).

Result: Forty-two percent (31,619/75,471) of older people with dementia redeemed a prescription for an opioid after their diagnosis of dementia. We matched 31,619 exposed persons to 63,235 unexposed. Among the exposed, 10,642 (33.7%) died within 180 days after initiating their first opioid prescription compared with 3980 (6.4%) of the unexposed, yielding a 4-fold increased excess mortality risk (adjusted Hazard ratio (95% CI): 4.13 (3.98-4.30)). Strong opioids were associated with a 6-fold increased mortality risk (6.34 (6.00-6.69)), whereas the risk was lower for weak opioids (2.52 (2.38-2.67)). Among those who had redeemed transdermal fentanyl as their first prescription, 65.3% died within the first 180 days compared with 6.7% in the unexposed with a risk of 8.03 (7.02-9.18). The risk was greatest within the first 14 days, where the mortality (for all opioids) was increased 11-fold (10.95 (9.87-12.15)), but there was still a 2-fold increased mortality risk after 90 days (2.36 (2.21-2.52)).

Conclusion: New opioid use was frequent among elderly with dementia, and this was associated with a markedly increased excess mortality, which is worrisome. The data calls for more research to identify sub-groups with highest excess *mortality* risk to make a risk–benefit assessment and guidelines to assure appropriate prescribing.

Presenting author

Christina Jensen-Dahm, M.D., Ph.D. christina.jensen-dahm@regionh.dk
Danish Dementia Research Centre, Copenhagen University Hospital - Rigshospitalet, Denmark