

Individualized glycemic targets for older type 2 diabetes patients supported by cohort study

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An international group of researchers led by Monash University, Australia, supports clinical guideline recommendations for relaxed glycemic targets in older type 2 diabetes patients with results from a

large cohort study. The research paper, "Dementia Risk in People With Type 2 Diabetes," published in *JAMA Neurology*, looked for a cumulative association between older patients with type 2 diabetes, glycemic control maintenance and dementia.

The researchers used data from Kaiser Permanente Northern California (KPNC), an extensive network of doctors and hospital health care providers with more than 4 million members.

In a robust cohort of 253,211 people aged 50 years or older (mean age 61.5) with type 2 diabetes, those with a majority of glycosylated hemoglobin concentrations of 9% or greater had the most significant risk of dementia.

Patient hemoglobin (HbA1C) blood tests were tracked for about six years. Those with a majority of test measurements at 9% or more had a greater risk of dementia when compared to patients who had 50% or less of their test measurements in those categories. Participants with over 50% of HbA1c test measurements under 8% had a lower risk of developing dementia.

While type 2 diabetes is associated with increased dementia risk, past observational studies have reported that specifically hyperglycemia and duration of [diabetes](#) are most associated with the increased dementia risk. Studies of interventions with aggressive glycemic control targets suggest that attempting to achieve strict glycemic control may increase the risk of harm, including death, particularly in [older patients](#).

The harm associated with intensive glucose control has led the American Diabetes Association, American Geriatrics Society, Endocrine Society, and U.S. Department of Veterans Affairs to recommend that glycemic targets for people in later life be individualized, taking into consideration the active risk of hypoglycemia, number and severity of comorbidities,

the patients functional independence, [cognitive impairment](#), and [life expectancy](#).

Recommendations differ concerning therapeutic targets and should be developed based on individual circumstances. To help inform patient-centered glycemic target setting, the study authors suggest it is essential to understand the contribution of glycemic control to [dementia](#) risk over time.

The current study analyzed long-term glycemic control, measured using cumulative glycemic exposure via multiple glycated hemoglobin (HbA1c) measurements. This more nuanced understanding of glycemic control by incorporating the HbA1c concentration and frequency at that concentration allows researchers to give clinicians another way to consult past patient history for future treatment options.

More information: Chris Moran et al, Glycemic Control Over Multiple Decades and Dementia Risk in People With Type 2 Diabetes, *JAMA Neurology* (2023). [DOI: 10.1001/jamaneurol.2023.0697](https://doi.org/10.1001/jamaneurol.2023.0697)

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