

## Study suggests improving blood sugar control could help prevent dementia in patients with type 2 diabetes

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Blood glucose monitoring. Credit: Wikipedia

A study of 350,000 patients with type 2 diabetes shows that those with



poor blood sugar control have 50% higher risk of being admitted to hospital in future for dementia as those with good control. The research, which suggests improving blood sugar control could prevent many cases of dementia, is by Dr Aidin Rawshani, National Diabetes Register and Institute of Medicine, Gothenburg, Sweden, and colleagues, and is presented at this year's annual meeting of the European Association for the Study of Diabetes (EASD) in Stockholm.

Evidence is growing that <u>diabetes</u> increases the risk of future declines in brain function. However, there have as yet been no studies on how blood <u>sugar control</u>—as measured by glycated haemoglobin or HbA1c—affects the risk of a future <u>dementia</u> diagnosis. In this study, the authors studied extensive clinical data to explore the association between HbA1c and the risk of hospitalisation for dementia among persons with type 2 diabetes.

The researchers identified all <u>patients</u> with type 2 diabetes and no known hospitalisation for dementia who were registered in the Swedish National Diabetes Registry between January, 2004, and December, 2012. These patients were followed up until hospital admission for dementia, death, or end of follow-up on Dec 31, 2012. Computer modelling was used to calculate the link between HbA1c, and dementia, which also adjusted for variables including age, sex, duration of diabetes, marital status, income, education, smoking status, systolic blood pressure, body mass index, estimated kidney function, statins, levels of urine in protein, type of diabetes medication, atrial fibrillation, stroke and blood pressure medications.

In a cohort of 349,299 patients with mean age of 67 years at baseline, 11,035 patients (3.2%) were admitted to hospital with a primary or secondary diagnosis of dementia during a mean follow-up of 4.6 years. Patients with a HbA1c of 10.5% or higher (worst blood sugar control) were 50% more likely to be diagnosed with dementia compared to those



with HbA1c of 6.5% or less (most well controlled). Previous stroke in these patients made them 40% more likely to develop dementia than those without stroke.

The authors say: "The positive association between HbA1c and risk of dementia in fairly young patients with type 2 diabetes indicates a potential for prevention of dementia with improved <u>blood sugar</u> control."

## Provided by Diabetologia

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