CLAHRC East Midlands
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National Institute for Health Research

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Brokering innovation through evidence

Timely intensification of diabetes treatment can provide better glycaemic control

Results

Patients who intensified treatment within the first year were 22%-28% more likely to attain glycaemic control after intensification than those who intensified 2-3 years later.

Who needs to know?

People with type 2 diabetes and their healthcare providers

What did we do:

We retrospectively analysed information captured within the UK Clinical Practice Research Datalink (CPRD) database to understand the relationship between timing of treatment intensification and subsequent glycaemic control among adults with type 2 diabetes who fail monotherapy. Monotherapy failure was defined as ≥1 HbA1c measurement ≥7% (≥53 mmol/mol) after ≥3 months of metformin or sulfonylurea treatment alone. Association between time to intensification with ≥1 non-insulin antidiabetic medication (early: <12 months, intermediate: 12 to <24 months, late: 24 to <36 months) and subsequent glycaemic control (first HbA1c <7% after intensification) was evaluated using statistical regression techniques.

What we found and what does this mean:

Nearly 75% of people with type 2 diabetes who do not attain glycaemic control with monotherapy alone do not intensify treatment for over a year. However, among people who do intensify treatment, earlier intensification (within 1 year after monotherapy failure) may provide an opportunity to not only improve the likelihood of attaining desired HbA1c levels, but also sustain these levels for somewhat longer periods of time compared to delayed intensification. This, in turn, can potentially reduce the risk of developing diabetes-related complications, as evidenced by findings of several major clinical trials that evaluated the effects of intensive glucose control on diabetes complications, as well as other studies using observational data similar to our study.

What next:

People with type 2 diabetes and their healthcare providers should consider discussing the need for and potential benefits of intensified treatment and make the necessary adjustments in a timely manner. In addition, future real-world studies should continue to evaluate the long-term implications of delays in treatment intensification.

Evidence:

Desai U, Kirson NY, Kim J, Khunti K, King S, Trieschman E, et al. Time to treatment intensification after monotherapy failure and its association with subsequent glycemic control among 93,515 patients with type 2 diabetes. Diabetes Care. 2018;41(10):2096-104. http://dx.doi.org/ 10.2337/dc17-0662

What is NIHR CLAHRC EM?

NIHR Collaborations for Leadership in Applied Health Research and Care (CLAHRCs) are collaborations between the NHS, universities and local organisations. Our goals are to conduct applied health research across the East Midlands and translate our research findings into improved outcomes for the public.

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