

Computer-based self-management interventions effective in diabetes

Clinical question	How effective are computer-based self-management interventions (CBSMIs) for adults with type 2 diabetes mellitus?
Bottom line	BSMIs to manage type 2 diabetes appeared to have a small beneficial effect on blood glucose control (HbA1c improved by 2.3 mmol/mol or 0.2%) and the effect was larger in the mobile phone subgroup (5.5 mmol/mol or 0.5%). There was no evidence to show benefits in other biological outcomes or any cognitive, behavioural or emotional outcomes. Four out of 10 interventions improved lipid profiles. There was a wide spectrum of interventions including clinic-based brief interventions, internet-based interventions that could be used from home, and mobile phone-based interventions. The age range of participants was 46 to 67 years and most of those people had lived with diabetes for 6 to 13 years. Participants were given access to the interventions for 1 to 12 months, depending on the intervention.
Caveat	The interventions appeared to be quite heterogeneous and the length of follow-up varied from 2 to 12 months. All the interventions looked at effects on HbA1c as an important outcome, but the other primary and secondary outcomes varied greatly and the instruments used to measure them were often different; this made it very difficult to compare or synthesise the results from different studies.
Context	Diabetes is one of the commonest chronic medical conditions, affecting around 347 million adults worldwide. Structured patient education programmes reduce the risk of diabetes-related complications four-fold. Internet-based self-management programmes have been shown to be effective for a number of long-term conditions, but it is unclear what the essential or effective components of such programmes are.
Cochrane Systematic Review	Pal K et al. Computer-based diabetes self-management interventions for adults with type 2 diabetes mellitus. Cochrane Reviews, 2013, Issue 3. Art. No.:

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Practical Evidence About Real Life Situations

CD008776.DOI: 10.1002/14651858. CD008776.pub2.
This review contains 16 studies involving 3578
participants.

Pearls No. 389, May 2013, written by Brian R McAvoy

[References]

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