



Title	The Clinical and Cost-effectiveness of Patient Education Models for Diabetes: A Systematic Review and Economic Evaluation
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Aim

To assess the clinical effectiveness and cost effectiveness of educational interventions for patients with diabetes compared with usual care or other educational interventions.

Conclusions and results

Twenty-four studies (18 RCTs and 6 CCTs) that compared education with either a control group or with another educational intervention were included. The quality of reporting and methodology was generally found to be poor by today's standards. As part of treatment intensification, education in type 1 diabetes (4 studies) resulted in significant and long-lasting improvements in metabolic control and reductions in complications. In type 2 diabetes (16 studies) a diversity of educational programs did not yield consistent results on measures of metabolic control. Inconsistent results on metabolic control were also found in studies of diabetes of either type (4 studies), with studies of lower quality producing significant effects. Few studies evaluated quality of life. Economic evaluations comparing education with usual care or other educational interventions were not identified.

Recommendations

Education as part of intensifying treatment improves diabetic control in type 1 diabetes. Mixed results in type 2 diabetes mean that no clear characterization is possible as to what features of education may be beneficial. Cost analysis and information from sponsor submissions indicated that where costs associated with patient education were in the region of £500–600 per patient, the benefits over time would have to be very modest to offer an attractive cost-effectiveness profile.

Methods

Electronic databases were searched, references of all retrieved articles were checked for relevant studies, and experts were contacted for advice, peer review, and identification of additional references. Randomized clinical

trials (RCTs) and controlled clinical trials (CCTs) were included if they fulfilled pre-specified criteria, eg, followup from inception for 12 months or longer. Data were synthesized through a narrative review because the diversity of studies prevented meta-analysis.

Further research/reviews required

Further research should focus on RCTs with clear designs based on explicit hypotheses and with a range of outcomes evaluated after long followup intervals.