Cost effectiveness of an intensive blood glucose control policy in patients with type 2 diabetes: economic analysis alongside randomised controlled trial (UKPDS 41).

United Kingdom Prospective Diabetes Study Group.
Gray,A; Raikou,M; McGuire,A; Fenn,P; Stevens,R; Cull,C; Stratton,I; Adler,A; Holman,R; Turner,R

BMJ. 2000 May 20; 320(7246): 1373-8.

OBJECTIVE: To estimate the cost effectiveness of conventional versus intensive blood glucose control in patients with type 2 diabetes. DESIGN: Incremental cost effectiveness analysis alongside randomised controlled trial. SETTING: 23 UK hospital clinic based study centres. PARTICIPANTS: 3867 patients with newly diagnosed type 2 diabetes (mean age 53 years). INTERVENTIONS: Conventional (primarily diet) glucose control policy versus intensive control policy with a sulphonylurea or insulin. Main outcome measures: Incremental cost per event-free year gained within the trial period. RESULTS: Intensive glucose control increased trial treatment costs by pound 695 (95% confidence interval pound 555 to pound 836) per patient but reduced the cost of complications by pound 957 (pound 233 to pound 1681) compared with conventional management. If standard practice visit patterns were assumed rather than trial conditions, the incremental cost of intensive management was pound 478 (-pound 275 to pound 1232) per patient. The within trial event-free time gained in the intensive group was 0.60 (0.12 to 1.10) years and the lifetime gain 1.14 (0.69 to 1.61) years. The incremental cost per event-free year gained was pound 1166 (costs and effects discounted at 6% a year) and pound 563 (costs discounted at 6% a year and effects not discounted). CONCLUSIONS: Intensive blood glucose control in patients with type 2 diabetes significantly increased treatment costs but substantially reduced the cost of complications and increased the time free of complications.