NICE National Institute for Health and Care Excellence

Economic plan

This plan identifies the areas prioritised for economic modelling. The final analysis may differ from those described below. The rationale for any differences will be explained in the guideline.

1 Guideline

Type 2 diabetes in adults: management (update)

2 List of modelling questions

Review questions by scope area	Which pharmacological therapies are most effective at providing cardiovascular and other benefits in addition to blood glucose control in people with type 2 diabetes?
Population	The population covered by the model is adults with Type 2 diabetes. Subgroup analyses were also used to explore: • People with a BMI of greater than or equal to 30kg/m2 • People at high risk of a cardiovascular event who have not had a prior event • People who have had a prior cardiovascular event • People who have had a prior cardiovascular event and people at high risk of a cardiovascular event who have not had a prior event. Analyses were stratified by level of treatment intensification to provide results for populations at initial therapy, first intensification and second intensification.
Interventions and comparators considered for inclusion	The interventions explored in the model are anti-diabetic treatments studied in cardiovascular outcome trials (CVOTs): • DPP-4 inhibitors (sitagliptin, saxagliptin, linagliptin, alogliptin) • GLP-1 receptor agonists (exenatide, liraglutide, lixisenatide, dulaglutide, oral semaglutide, injectable semaglutide) • SGLT2 inhibitors (canagliflozin, dapagliflozin, empagliflozin, ertugliflozin) • Pioglitazone All interventions are explored as individual drugs rather than looking at class-level effects. Interventions are explored both as additions to the standard care comparator treatments and as replacements of components of standard care.
Perspective	NHS/PSS
Outcomes	Costs, QALYs
Type of analysis	Cost-utility analysis
Modelling software	R
Issues to note	The non-CVOT arm was modelled via an implementation of the UKPDS OM2 equations run in R. Outputs of the UKPDS were

then fed into a multi-state model where treatment effects from the CVOTs were applied.