Further outcomes studies are needed to support these.

COMPARISON TO METFORMIN:

The results showed that the favourable clinical benefit of Tarka results in positive short and long-term health economic benefits.

OBSERVATIONS:

The incremental cost-effectiveness ratios showed that the combination therapy is dominant relative to rosiglitazone alone. Sensitivity analyses showed the results were robust. CONCLUSIONS: Incremental cost-effectiveness ratios showed that a regimen combining repaglinide and rosiglitazone compares favorably to rosiglitazone alone, in Type 2 diabetic patients who had failed metformin or sulfonylurea monotherapy.

OBJECTIVES: A modeling study was performed, combining available efficacy data and costs of complications to obtain projections of the long-term clinical outcomes and costs for treatment of type 2 diabetic patients using different oral antidiabetic treatment regimens.

METHODS: Baseline data were taken from a double-blind, multicenter, randomized, parallel group study in type 2 diabetic patients treated with repaglinide plus rosiglitazone or rosiglitazone alone. Patients were previously treated with metformin or a sulfonylurea. The baseline cohort of patients was on average 57.5 years old, with a mean A1c level of 9.1%. A Monte Carlo simulation was used to project development of diabetic complications and associated costs (US Medicare perspective) over a 30-year period. Risks of macro- and microvascular complications (derived from published literature) were combined with hazard ratios for incidence of each complication, to calculate long-term clinical outcomes and lifetime costs (discounted at 3%). Lifetime costs were calculated as pharmacy plus complication costs. After dose adjustments to achieve glycemic targets, median final daily doses were 6 mg repaglinide and 4 mg rosiglitazone for combination therapy and 8 mg in rosiglitazone monotherapy. RESULTS: The reduction of A1c values from baseline was \(-1.43\% (p < 0.001)\) and \(-0.56\% (p < 0.001)\) for combination therapy and rosiglitazone, respectively. The superior A1c reductions of combination therapy resulted in an increased life expectancy of 0.56 years, while lifetime costs were equal to those of rosiglitazone. A lower incidence of cardiovascular events in the combination therapy was the principal reason for a favorable cost effectiveness of combination therapy. Consequently, the incremental cost effectiveness ratios showed that the combination therapy is dominant relative to rosiglitazone alone. Sensitivity analyses showed the results were robust. CONCLUSIONS: Incremental cost-effectiveness ratios showed that a regimen combining repaglinide and rosiglitazone compares favorably to rosiglitazone alone, in Type 2 diabetic patients who had failed metformin or sulfonylurea monotherapy.