**OBJECTIVE:** To assess the cost-effectiveness of pioglitazone (PIO) in combination therapy versus usual care for patients with type 2 diabetes.

**METHODS:** A published, validated model for type 1 diabetes mellitus developed by IMIB was adapted to simulate long-term management, health outcomes, resource utilisation and treatment costs of patients with type 2 diabetes. The model accounts for most complications in diabetes patients: nephropathy, retinopathy, acute myocardial infarction, angina pectoris, stroke and amputation. The analysis was done from a third-party-payer perspective and costs figured relative to the year 2000. A 6% discount rate was applied and sensitivity analysis was performed to test the results.

**RESULTS:** PIO 30 mg in combination with metformin (MF) was associated with a higher life expectancy (14.82 years) than sulphonylureas (SU)/MF (14.03 years) or rosiglitazone (RSG) 8 mg/MF (14.67 years). Also, PIO-based combinations were associated with the lowest number of complications and deaths. For every 31 patients treated with PIO 30 mg/MF rather than SU/MF or 17 patients, respectively, for PIO 30 mg/SU rather than MF/SU one complication was avoided. For every 27 patients treated with PIO 30 mg/SU instead of MF/SU, one death was avoided. PIO was more expensive, but this was offset by reductions in complications. The average patient-lifetime incremental total treatment cost with PIO over alternatives ranged from 220,983 Spain Pesetas (ESP) to 2,952,973 ESP. The undiscounted incremental cost per life year gained (ICPLYG) of PIO 30 mg/MF relative to SU/MF was 3,660,692 ESP and relative to RSG 8 mg/MF 1,494,369 ESP. The discounted figures were 6,578,162 ESP and 1,913,919 ESP, respectively. The ICPLYG of PIO 30 mg/SU relative to MF/SU was 3,344,145 ESP and 6,013,419 ESP after discounting. Finally, after discounting, PIO 15mg/SU versus MF/SU and RSG 4 mg/SU was associated with an ICPLYG of 7,556,100 ESP and 578,172 ESP, respectively.

**CONCLUSION:** Combined treatments with pioglitazone improve survival and reduce complications in patients with type 2 diabetes and represent cost-effective use of scarce resources when judged against other therapeutic interventions. It is necessary to confirm the results of this model once long-term effectiveness data with the compared alternatives are available.