duration was analyzed using Kaplan Meier estimates. Statistical comparison of the survival curves was done with the Log-rank test. We pooled IMS Mediplus data (patient medical records completed by general practitioners) from Germany, France and the United Kingdom for analysis. Data was obtained for all irbesartan patients with at least one year of follow-up and from randomly selected samples of patients treated with either diuretics, beta blockers, calcium channel blockers, ACE inhibitors, or other AIIRA. Patients were newly diagnosed with hypertension between October 1, 1997 and November 30, 1998 and initiated antihypertensive treatment as monotherapy.

RESULTS: Patients included (2,416) were initiated on diuretics (422), beta blockers (441), calcium channel blockers (466), ACE inhibitors (333), losartan (188), irbesartan (380), other AIIRA (186). When irbesartan was prescribed, more patients remained on that therapy (60.8%) than with all other antihypertensives (44.2%, p = 0.001), or other AIIRA (51.3%, p = 0.009). Compared to patients taking all other antihypertensives, fewer patients receiving irbesartan required adjunctive therapy (16.1% vs 25.3%, p = 0.001) or switched therapy (9.0% vs 13.6%, p = 0.013).

CONCLUSIONS: Irbesartan was superior compared to all antihypertensives in achieving persistence of initial therapy. By evaluating persistence rather than compliance, we captured both the patient’s and the physician’s role in determining the course of treatment.

OBJECTIVE: Controlled clinical trials have demonstrated the positive impact of statin therapy on health outcomes in hyperlipidemic patients. The positive impact of adherence is seemingly intuitive and many programs have been designed to improve adherence. However, there are few studies analyzing the cost-effectiveness of medication-adherence interventions. This decision analysis model will examine the cost-effectiveness of programs designed to enhance medication adherence in patients taking statins. The model varies the medication-adherence rate and program costs to determine the differences in the expected outcome of three different types of intervention.

METHODS: Data from published clinical and pharmacoeconomic studies were entered into a decision analysis model. A Monte Carlo simulation using 10,000 trials was used with beta distributions for the assumptive variables. The baseline adherence rate was set at 67% and the cardiovascular event rate at 1.5%. Behavioral (B) type interventions were assumed to increase adherence by 8.61%, Educational (E) interventions by 11.22% and Combined (C) B and E by 17.04%. Program costs were estimated as follows: B = $200, E = $100, and C = $225 per patient. Cardiovascular and serious medication-related events were also used as outcomes. The cost-per-patient-per-event avoided was calculated. ANOVA was used to test for differences among intervention types.

RESULTS: The results showed that the interventions increased the number of events avoided in the first year by 0.04 (95% CI = −0.04,0.12) for B, by 0.06 (95%CI = −0.02, 0.14) for E and by 0.08 (95%CI = 0.02, 0.14) for C. The cost-per-event-per-patient avoided in the first year of treatment was B = $6,038, E = $2,568 and C = $3,839. There was a statistical difference among all intervention types with respect to cost of events avoided.

CONCLUSIONS: There was no difference in the number of events avoided in the first year of statin treatment with respect to intervention type. While C interventions yielded more events avoided, E interventions appear to be the most cost-effective. More study on the cost-effectiveness of medication adherence programs is required.