OBJECTIVES: Assess the treatment progression of Type 2 diabetic patients taking glimepiride, glipizide xl, and/or metformin as initial monotherapy and the impact these agents have on the cost and utilization of health care services. METHOD: Medical and pharmacy claims data for 7,585 patients meeting inclusion criteria were collected from a national managed care database representing 6 million lives in 23 US health plans and 8 geographic regions over a 4 year period. Cohorts by agents were created based on diabetes type and initial treatment agent. Cost and utilization analysis included evaluation of patients by age, gender, geographic region, type of medical service and provider speciality. Diagnosis codes were used to differentiate between all health care services and disease related services. Treatment analysis evaluated treatment progression, compliance with therapy and dose progression. Treatment efficacy and practice patterns in five possible outcomes were defined for each cohort. RESULTS: The highest proportion of patients in each cohort remained on the initial therapy. Combination therapy was the most frequent therapeutic choice for patients failing monotherapy. Evaluation of the maximum daily dose (MDD) showed patients who were switched to an alternate agent of the same class reached 41–48% of MDD, a different class 49–57% MDD and combination therapy 57–72% MDD. Compliance was consistent. The combination therapy cohorts tended to have significantly higher (p < .05) pharmacy costs than the monotherapy cohorts. The study did not conclusively support differences in medical costs between the cohorts. CONCLUSION: Therapy in all cohorts changed before MDD of the original agent was attempted. Patients in each cohort progressed to insulin monotherapy without a recommended trial of combination agents. Although pharmacy and medical costs influence the total cost of diabetic care, there was no significant difference in medical costs identified. Cost differences were driven by pharmacy costs.