



Cost-effectiveness of medication-replacement therapy with buprenorphine among opioid-dependent patients: Results from a retrospective analysis of health plan membership claims data

Ruetsch, C.*; Schoenberger, C.A.*; Tkacz, J.*

BACKGROUND

Medication-replacement therapy with buprenorphine is an effective treatment for opioid dependence, but may be considered cost-prohibitive by patients and health plan sponsors who manage its use based on ingredient cost alone.

OBJECTIVE

This analysis was conducted to estimate economic costs and benefits of buprenorphine treatment for opioid dependence from the perspective of a health plan sponsor. Specifically, we sought to learn if opioid-dependent patients utilize fewer expensive health services overall when appropriately treated with buprenorphine-replacement therapy.

DISCLOSURE

Reckitt Benckiser Pharmaceuticals provided financial support for this research.

METHODS

A cross-sectional multivariate analysis was conducted using service use claims data among a sample of plan members with uninterrupted benefit coverage and one or more diagnoses of opioid dependence in 2007. Service utilization and costs were examined for between group differences after corrections for demographics, Medicaid status, and health status. Buprenorphine status was defined as individuals with ≥ 1 buprenorphine fills in 2007 (N=2,031) (Group 1) or individuals having no buprenorphine prescription claims in 2007 (N=5,093) (Group 2). A Poisson model was used to regress patient characteristics onto six service utilization count measures and an ordinary least squares regression model was used to analyze service cost measures.

RESULTS

After controlling for demographics, Medicaid status, and health status, Group 1 demonstrated significantly more buprenorphine fills (4.72; $P=0.001$) and physician/clinic visits (0.75; $P=0.005$), but fewer hospital admissions (0.15; $P=0.012$), inpatient hospital days (1.61; $P=0.002$), emergency department visits (0.28; $P=0.004$), and outpatient hospital visits (0.12; $P=0.001$). With respect to annual costs, Group 1 had significantly higher prescription (\$1,119; $P=0.010$) and physician/clinic costs (\$134; $P=0.007$), but significantly lower inpatient (\$2,436; $P=0.016$), and outpatient (\$777; $P=0.008$) hospital costs. Overall, Group 1 accounted for lower average health services costs (\$2,335, $P=0.001$) and, when all reimbursable costs were aggregated, Group 1 accounted for lower total care costs (\$12,985, $P=0.000$).

CONCLUSIONS

Though buprenorphine-replacement therapy patients incur higher pharmacy and office visit costs, they use fewer expensive health care services in other areas, resulting in an overall positive cost-benefit conclusion for buprenorphine-replacement therapy.