HEALTH CARE UTILIZATION AND EXPENDITURES AMONG MEDICAID PATIENTS WITH PARKINSON’S DISEASE

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OBJECTIVE: Parkinson’s disease (PD), a progressive neurological disorder, affects approximately 1% of the population over 65 in the United States. Average annual Medicaid costs per patient for all patients were $3759 in 1998. The overall economic burden of PD was estimated at $25 billion annually in 1997. This study quantifies direct medical care costs for individual Medicaid beneficiaries with PD. METHODS: Patients with at least 12 months of continuous enrollment in Medstat’s MarketScan® Multi-state Medicaid claims database were identified. Patients were required to have either two claims with a diagnosis of PD (ICD-9-CM 332.0) or one diagnosis and two or more prescriptions for a PD-related medication (levodopa/ carbidopa, dopamine agonist, MAO-B inhibitor, or COMT inhibitor). Health care utilization and expenditures accrued from the first observed diagnosis or prescription. Because patients were allowed to have varying lengths of follow-up (minimum: 12 months), expenditure and utilization data were annualized. RESULTS: A total of 11,882 patients with PD were identified and followed for an average of 821 days. The mean age of the sample was 73.9 years and 57.6% were women. Mean total annual health care expenditures were $18,586 (SD $23,592) per patient. Nineteen percent had at least one hospital admission while long term care was utilized by 15.8% of patients. Average annual inpatient hospitalization costs were $8921 (SD $1539), while long term nursing home care expenditures accounted for $31,434 (SD $27,659). In addition to PD-specific care, 16.9% were diagnosed with a fall or injury and 8.2% with dementia, while 44.4% were treated with antidepressants and 31.1% were diagnosed with a fall or injury and 8.2% with dementia.

THE INCREMENTAL COST OF TREATING TBI WITH A CALCIUM CHANNEL BLOCKER

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OBJECTIVES: To determine the costs, effects, and cost-effectiveness of the treatment of Traumatic Brain Injury (TBI) with calcium channel blockers vs. standard care. METHODS: A Monte Carlo model of acute TBI was constructed from the payer’s perspective and used to compare the costs and effects of treatment with calcium channel blockers to standard care. The intervention modeled was the calcium channel blocker Nimodipine intravenously, 1 mg/hr the for first 2 hours and 2 mg/hr thereafter up to 7 days to control intracranial pressure (ICP). Standard care is no drug intervention to control ICP. The outcomes of the model were good recovery, severe disability or persistent vegetative state (PVS), and death. Outcome probabilities were derived from the literature. Average treatment costs of TBI were derived from the literature. Modeling and sensitivity analysis were performed using Data 4.0. The incremental cost, incremental effectiveness, and incremental cost-effectiveness were tested using SPSS 11. RESULTS: The incremental cost of treating TBI with a calcium channel blocker was $15,469 above standard care (p < 0.001). The incremental effectiveness of treating TBI was 0.02 Quality Adjusted Life Years (QALY) more than standard care (p < 0.001). The incremental cost-effectiveness of treating TBI was $24,030 per QALY (p < 0.001). CONCLUSIONS: The incremental cost of treating TBI with a calcium channel blocker of $15,469 is significant, but it is not unreasonable. Considering the severity of the TBI and the importance that even a small reduction in mortality and disability would have, the incremental cost of treating TBI with a calcium channel blocker should not be considered an obstacle to treatment.