CHOLINESTERASE INHIBITORS REDUCE INSTITUTIONALIZATION RISK AND MAY REDUCE OVERALL ECONOMIC BURDEN FOR PATIENTS WITH DEMENTIA IN A NATURALISTIC TREATMENT SETTING

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OBJECTIVE: Cholinesterase inhibitors have been shown to delay institutionalization, thus reducing costs. Institutionalization rates, direct, indirect and drug costs were examined in the Canadian Outcomes Study in Dementia (COSID); an ongoing observational cohort study of clinical and economic outcomes for dementia patients in Canada. METHODS: A Cox Proportional Hazards regression model compared institutionalization rates between patients receiving (ChI) or not receiving cholinesterase inhibitors (non-ChI) at the time of enrolment (n = 448). A linear regression model also compared direct outpatient and inpatient costs (e.g. hospitalisations, community services, day surgery), indirect costs (lost caregiver and patient productivity) and drug costs (including and excluding ChI costs) in the ChI and non-ChI groups. Both models adjusted for dementia type, place of residence, disease duration, baseline Global Deterioration Stage and Caregiver Burden (ZBI), age and gender. Follow-up was from baseline to last visit date (between 6 and 18 months). RESULTS: This model-based assessment shows strong evidence that treatment with ChIs is associated with reduced institutionalization risk (RR = 0.262, p = .0032). Because most patients were lost to follow-up on or shortly after institutionalization, this analysis does not account for the cost of institutionalization. However, reducing the rate of institutionalization almost certainly yields significant cost savings. Other significant predictors of risk include baseline ZBI (RR = 1.033 per point, p = .0394) and age (RR = 1.107 per year, p = .0085). The linear regression model for costs demonstrated no significant differences in inpatient (excluding institutionalization), indirect and overall costs between non-ChI and ChI patients. Drug costs were estimated to be $134 per month greater for the ChI group than the non-ChI group ($168 vs $34, p < .0001). CONCLUSIONS: The use of ChIs appeared to have a significant effect on institutionalization rates and drug costs, but not on other cost drivers in this disease. The reduced rate of institutionalization likely translates into cost savings for the ChI treatment strategy.