tinuous therapy. The risk of discontinuation/switching was not statistically different between the two groups. Patients who used a CNS medication before initiation of therapy, did not visit their physician office frequently or were not hospitalized after initiation of ChEI therapy were more likely to discontinue/switch their initial ChEI. CONCLUSION: Levels of persistency among the elderly patients with AD is similar between rivastigmine and donepezil in a real-world setting. Further research is needed to determine ways of improving persistency and to estimate the long-term economic impact of persistency with ChEIs on AD treatment costs.

OUTCOMES OF ANTIDEPRESSANT USE IN PATIENTS WITH ALZHEIMER'S DISEASE IN THE CALIFORNIA MEDICAID PROGRAM

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OBJECTIVES: Recent research has shown that antidepressants may improve non-cognitive symptoms in patients with Alzheimer’s disease (AD). The economic benefits of antidepressant use in this population are unknown. This study investigated whether antidepressants use by AD patients could delay the admission to long-term care (LTC) treatment and reduce total costs. METHODS: Patients diagnosed with AD from 1995–2001 were retrieved from a 20% sample of the California Medicaid (Medi-Cal) claims database. The index date for the antidepressant group was defined as the dispensing date of first antidepressant medication, and for the control group, it was defined as the date of initial AD diagnosis. Generalized linear models (GLM) with log link function and gamma distribution were applied to compare the first year total post-index medical (non-pharmacy) costs and the total health care costs between the groups, controlling for demographics, comorbidities, and prior utilization. Cox proportional hazard regression was used to model the time to first LTC admission since index date, adjusting for the same set of covariates. RESULTS: In total, 3513 AD patients were identified, with 1645 in the antidepressant group and 1868 in the control group. AD patients with antidepressants were younger (77 vs. 80 years, p < 0.0001), had higher proportion of Caucasians (57% vs. 53%, p < 0.0001), and had a similar comorbidity profile as the control group. Adjusted for potential confounders, the GLM estimates showed that using antidepressants was related to 40% and 36% lower post-index total medical costs and total health care costs (p < 0.0001 for both), respectively. In the Cox regression, antidepressant group had 34% lower risk of admission to LTC than the control group (P < 0.0001). CONCLUSIONS: In this study, antidepressant use in AD patients associated a significant reduction in total costs and appeared to postpone long-term care admission.

USING A TOUCHTONE TELEPHONE TO COLLECT DATA FROM ELDERLY CAREGIVERS OF PATIENTS WITH ALZHEIMER'S DISEASE

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The feasibility and accuracy of obtaining patient reported outcomes electronically, particularly from elderly subjects, has been questioned. OBJECTIVE: To pilot the use of a telephone-based Interactive Voice Response Data Entry System (IVRS) by elderly caregivers of patients with Alzheimer’s Disease. METHODS: Caregivers were trained by nurses to record patient and caregiver health care utilization data into a 30-day diary and to enter these data using IVRS. The system was accessed via a toll-free telephone number using a unique subject identifier. Caregivers had 15 minutes to read detailed training notes in the waiting room. Feasibility and accuracy parameters assessed were time to train, time to enter the data and accuracy of hypothetical diary data entry. RESULTS: Time to train the caregiver (60% women, 52 to 80+ years old) on both the use of the diary and IVRS data entry ranged from 36 to 48 minutes. Thirty days of hypothetical diary data provided to the patient for the exercise were entered via IVRS in 8 to 12 minutes per subject. No significant difficulties were observed with any caregiver and only one data point by one caregiver was incorrectly entered. IVRS features such as question repeat, invalid answer prompt, and automatic re-entry to last question answered if entry was interrupted all worked well. Caregivers expressed their willingness to use the diary daily and to enter data every 30 days over the planned 18-
month study. All study nurses expressed their preference for this design versus a traditional nurse interview; paper-based design, primarily due to decreased site burden in relation to data collection. CONCLUSIONS: The use of a prospective diary and IVRS data entry by the elderly is feasible and offers the possibility to collect detailed prospective health economic data with a minimum of burden to site study staff.

NEUROLOGICAL DISORDERS—Epilepsy

CARE COSTS OF PARTIAL REFRACTORY EPILEPSY IN MEXICO


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OBJECTIVES: To estimate health care costs of patients with partial refractory epilepsy (PRE) in the Mexican Institute of Social Security (IMSS). METHODS: PRE requires long-term health costly care with two or more anti-epileptic drugs, presence of intolerance and side effects. Case series with PRE diagnosis in four hospitals in Mexico City which inclusion criteria were: aged 12 and older, using two or more anti-epileptic drugs and information available of at least one-year follow-up period. Cost evaluation perspective was that from services provider, time horizon was one year and three costing techniques were combined: micro-costing, average cost and cost per diem, using a bottom-up approach. Costs are expressed in 2004 USD. RESULTS: From medical records (813), 133 were correctly diagnosed as PRE and 72 cases met inclusion criteria. Demographic characteristics: 58% were females, 64% were between 12–35 years old, 47% students, 58% single and 73% had intermediate education. Fifty one percent had simple partial seizures and 94% more than one seizure per month. Mean annual visits per patient to general practitioner was 5.2 and to neurologists 6.8; laboratory tests 6.0 and electroencephalographic studies 0.8. Total annual cost of health care was $2646 per patient and 24% was derived from hospitalisation. Total cost was distributed in: 39% visits, 24% drugs, 21% bed days and 16% diagnostic tests. First line drugs were Carbamazepine and Valproic acid (more than 68%), while second line ones Clonazepam (36%), Lamotrigine (33%) and Topiramate (21%). CONCLUSIONS: Most of patients were young, in productive age and had more than one seizure per month; this is a matter of concern because a difficult seizure control affects negatively patient and family social life, including employment. Effectiveness, safety and cost of available drugs are crucial issues in control and quality of life of PRE patients.

NEUROLOGICAL DISORDERS—Migraine

AN ECONOMIC EVALUATION OF TRIPATAN PRODUCTS FOR MIGRAINE

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OBJECTIVES: A composite outcome measure in migraine treatment assessment is useful to clinical decision makers and payers as it provides a more accurate reflection of effectiveness and allows for more complete modeling of economic value. This composite measure must consider both short- and long-term treatment effects, as well as placebo effects. The objective of this study was to compare the total triptan cost to treat 100 migraine-patient attacks and the cost per successfully treated patient (CPSTP) for six marketed triptans using a composite measure of effectiveness, the ‘successfully treated’ migraine (defined as requiring only one triptan dose to treat one migraine attack during a 24-hour period). METHODS: This analysis was conducted from the perspective of the payer. Clinical data were abstracted from a rigorous, published meta-analysis. Two-hour response and pain-free response were used in conjunction with the recurrence rate reported in the meta-analysis to calculate the number of doses used by treatment successes and failures. The average wholesale price per dose was then used to calculate total triptan cost. RESULTS: Of the nine oral triptan doses compared, eletriptan 40mg was associated with both the lowest total triptan cost for treating 100 migraine attacks ($1560) and with the lowest CPSTP ($56.39). CONCLUSIONS: The relative CPSTP for migraine therapies is dependent on the definition of treatment success and relative pricing. When success is defined as using one triptan dose to treat one migraine attack in a 24-hour period, the tripans with the most value to managed care organizations, in terms of cost per successfully treated patient, are eletriptan 40mg ($56.39), zolmitriptan 2.5mg ($75.62) and sumatriptan 50mg ($77.59).

PSYCHOMETRIC EVALUATION OF EPILEPSY-SPECIFIC QUALITY OF LIFE INSTRUMENTS

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OBJECTIVE: To evaluate the psychometric properties of disease-specific quality of life (QOL) instruments in epilepsy. METHODS: A comprehensive search for epilepsy-specific QOL instruments identified 13 metrics using MEDLINE, Pubmed, International Pharmacy Abstracts, Google and reference lists. QOL instruments were included in the study for evaluation if there was at least one publication using the instrument including psychometric data, in addition to instrument availability. Instruments were evaluated based on criteria developed by McHorney and Tarlov (1995) and Davis and Pathak (2001). The seven domains considered in the evaluation were: item information, practicality, breadth and depth of health measured, reliability, validity, and responsiveness. RESULTS: Of the 13 QOL instruments identified, adequate data was available to evaluate five based on study criteria. The five epilepsy-specific QOL metrics were: Quality of Life in Newly Diagnosed Epilepsy (NEWQOL), Epilepsy Surgery Inventory (ESI-55), and the Quality of Life in Epilepsy Inventory (QOLIE) series (-89, -31, and -10). None of these five QOL metrics satisfied all the study criteria. The QOLIE-31 reported adequate or better performance in six of the seven domains assessed (omitting instrument breadth). The QOLIE-10 reported adequate or better performance in five of the seven domains assessed (omitting instrument breadth and internal consistency). The QOLIE-10 and -31 offer practical advantages over the longer QOLIE-89 metric with QOLIE-31 showing superior psychometric properties based on study results. CONCLUSIONS: Epilepsy is a chronic, socially stigmatizing condition with potentially significant affects on patient QOL. A variety of instruments have been published in the literature with QOLIE-89 most commonly used. Of the data available for QOLIE series, the length of the QOLIE-89 limits its use in clinical decision making, while the brevity of QOLIE-10 reduced instrument reliability, as a result, QOLIE-31 is preferred.