non-medical costs (i.e., physician visits, hospitalizations, and special nurses/caregivers) were retrieved from a private hospital in Thailand. Effectiveness was defined as the improvement of the Alzheimer’s disease assessment scale-cognitive subscale (ADAS-cog) scores. Effectiveness data and probabilities used in the model were obtained from relevant published studies. Sensitivity analyses were performed to determine the model robustness. RESULTS: The cost-effectiveness analyses show that compared with no treatment, incremental cost of high dose-rivastigmine costs the lowest for patients with Alzheimer’s Disease to gain one point improvement of ADAS-cog score [30,162 Baht ($734) per year], whereas the incremental cost of donepezil was 32,362 ($809) Baht per year and low dose-rivastigmine costs the highest [77,102 ($1928) Baht per year]. Sensitivity analyses shows that the model is robust. CONCLUSION: High dose-rivastigmine and donepezil are more cost-effective compared with low dose-rivastigmine for patients with Alzheimer’s Disease in Thailand.

OBJECTIVES: To identify changes in management levels and costs for a cohort of nursing home residents admitted for Alzheimer’s disease (AD) over a six-year period. METHODS: Long-term care data from Minnesota for 1995 through 2000 were examined. Nurses from Minnesota’s Quality Assurance and Review Program evaluate care needs of nursing home residents annually. Residents are classified according to dependence level in each of eight activities of daily living (ADL). This ADL assessment and other factors establish the management level and reimbursement rate for care. AD cases were identified using ICD-9 principal diagnosis codes and personal identifiers. Only patients with AD who were residents throughout the six years were analyzed. Nursing home reimbursement rates for 2002 were obtained from Minnesota’s Department of Human Services. Cost estimates include nursing and ancillary staff care, and room and board. Costs are reported in 2002 US$. RESULTS: Of the 2382 assessed patients with AD identified in 1995, 382 qualified for this analysis. Of those, 90% were female and the mean age was 81 years (range: 56–101). Behavior problems were noted in 71% in 1995 and 2000. In 1995, 25% received an antipsychotic agent regularly. This rate decreased each year and was 15% by 2000. The proportion of residents in low and medium dependency levels decreased from 59% to 16% over six years; whereas, the high dependency group rose from 41% to 84%. In 2000, significantly (p = 0.000) more residents were assessed as physically and mentally incapable of self-preservation than in 1995. On average, this increase in care needs resulted in an additional annual cost of $7273 per resident by the end of the six-year period and roughly $2.6 million for the cohort. CONCLUSIONS: Patients with AD residing in nursing homes continue to deteriorate over time, resulting in a substantial increase in care needs and costs.

THE COST-EFFECTIVENESS OF QUETIAPINE FOR ALZHEIMER’S DISEASE IN COMMUNITY DWELLING PATIENTS

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OBJECTIVE: Quetiapine has been shown to be effective in the treatment of behavioral and psychological signs of dementia (BPSD). This analysis evaluates the cost-effectiveness of treating community-dwelling patients with Alzheimer’s disease (AD) and BPSD in the US. METHODS: A discrete event simulation was designed to track the symptoms of BPSD and the resulting influence on costs, caregiver burden and institutionalization in individuals under two scenarios: treatment with quetiapine at 200 mg per day, and no treatment. The model is populated using data from a randomized trial comparing quetiapine to placebo, a longitudinal cohort study in AD patients, US costing sources, and the literature. Costs, reported in 2004 US dollars, are examined from the perspective of a comprehensive health care payer and society, and include doctor visits, nursing home stays, hospitalization, adult day care, home health care, caregiver time and quetiapine treatment. In the base case, a one year time horizon is used. RESULTS: On average, untreated patients spend just over 60% of their time in the community with high levels of BPSD, while caregivers spend an average of 5.7 hours per day caring for patients. Per patient costs average $35,642, 77% of which consists of informal caregiving costs. Quetiapine reduces the time spent with high BPSD by 24 days, while caregiver time is reduced by 76 hours per patient. A modest reduction in institutionalization (9%) is also predicted. The net effect is an increase in direct costs of $439 per patient ($6830 per high BPSD year avoided), but savings of $738 from the societal perspective. A total of 96% of replications resulted in quetiapine dominating no treatment from the societal perspective. Results are particularly sensitive to caregiver time valuation. CONCLUSIONS: Treatment with quetiapine has the potential to alleviate caregiver burden and can lead to considerable savings from the societal perspective.

NURSING HOME RESIDENTS WITH ALZHEIMER’S DISEASE: CHANGES IN MANAGEMENT LEVELS AND COSTS OVER A SIX YEAR PERIOD

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RESULTS: The proportion of residents in low and medium dependency levels decreased from 59% to 16% over six years; whereas, the high dependency group rose from 41% to 84%. In 2000, significantly (p = 0.000) more residents were assessed as physically and mentally incapable of self-preservation than in 1995. On average, this increase in care needs resulted in an additional annual cost of $7273 per resident by the end of the six-year period and roughly $2.6 million for the cohort. CONCLUSIONS: Patients with AD residing in nursing homes continue to deteriorate over time, resulting in a substantial increase in care needs and costs.

DRUG PERSISTENCY OF TWO CHOLINESTERASE INHIBITORS—RIVASTIGMINE VERSUS DONEPEZIL AMONG ELDERLY PATIENTS WITH ALZHEIMER’S DISEASE

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OBJECTIVE: To examine the persistency rates and persistency days of rivastigmine and donepezil in patients with Alzheimer’s Disease (AD) and to determine predictors of persistency. METHODS: This retrospective study used MarketScan® research database during January 1, 1999–December 31, 2002. The study identified 229 new users of rivastigmine and 554 new users of donepezil (i.e., no use of cholinesterase inhibitor (ChEI) during the 18 month-history period) who were newly diagnosed with AD between July 1, 2000–June 30, 2001, were at least 65 years old, and had continuous health/prescription insurance. Patients who refilled their initial ChEI prescription within a permissible gap of 60 days after depleting the drug supply from the prior prescription were considered to be persistent and the robustness of the persistency definition was tested using sensitivity analysis. Kaplan-Meier method and Cox proportional hazard models were performed to examine the trends of persistency and to identify factors that significantly influenced persistency. RESULTS: During the 1-year follow-up period, 53% of rivastigmine and donepezil users discontinued or switched their medications. Discontinuation was more common in donepezel-users (43%) than in rivastigmine-users (37%), but switching occurred more frequently in rivastigmine users (16% vs. 10%). Rivastigmine-users continuously used their medication for an average of 234 days while donepezil-users for 235 days (p = 0.91). Results were stable with variations in the definition of con-