

quarterly per-prescription reimbursements were defined as total reimbursement amounts divided by total prescriptions. The market shares were calculated based on the proportion of total prescription numbers. **RESULTS:** The total reimbursement for AMDs increased from \$1.6 million in 1991 to \$156 million in 2004, and dropped to \$115 million in 2008. Prescriptions for AMDs increased from 56,410 in 1991 to 948,597 in 2004, and then dropped to 542,093 in 2008. The ergot prescriptions increased from 25,540 in 1991 to 47,543 in 1995, then gradually decreased to 6,367 in 2008. A similar utilization trend was found for ergot combination products. Meanwhile, triptan prescriptions increased from 23,523 in 1995 to 912,978 in 2004, and dropped to 524,922 in 2008. The market share for triptans increased dramatically from 0% in 1994 to 97% in 2008, while the market share for ergot derivatives and ergot combination products decreased from 45% and 55% in 1991 to 1% and 2% in 2008, respectively. The per-prescription cost of branded triptans has steadily increased since 1994, regardless of newer brand entries. **CONCLUSIONS:** Triptan use has increased dramatically and dominated the AMD market. However, triptan utilization dropped 34.91% in 2006. This may be due to the implementation of Medicare Part D.

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ANTIEPILEPTIC DRUG UTILIZATION AND MEDICAID REIMBURSEMENT TRENDS FROM 1991 TO 2008

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OBJECTIVES: Antiepileptic drugs (AEDs) are one of the most frequently prescribed medication classes in U.S. The objectives of this study were to describe AED utilization, price and reimbursement trends and to analyze the market share competition between traditional and newer AEDs. **METHODS:** A retrospective, descriptive time-series analysis was performed using the National Medicaid pharmacy claims database from 1991 to 2008. Quarterly number of prescriptions and reimbursement data were calculated for the trends analysis. Study drugs included all brand and generic names of newer AEDs (e.g., gabapentin, lamotrigine, topiramate, fosphenytoin) and traditional AEDs (e.g., tiagabine, valproate, zonisamide, carbamazepine). Market share for AEDs was quantified annually. The quarterly price per prescription was calculated by dividing the total reimbursement by the total number of prescriptions. **RESULTS:** The total number of newer AED prescriptions increased from 32,837 prescriptions totaling \$2.2 million reimbursement in 1993 to 7.7 million totaling \$1.2 billion in 2005, and dropped to 4.3 million totaling \$847 million in 2008. Meanwhile, traditional AED prescriptions increased from 5.14 million totaling \$154 million reimbursement in 1991 to 20.5 million totaling \$1.22 billion in 2004, and dropped to 11.5 million totaling \$447 million in 2008. The average annual increase in number of prescriptions was 71.3% for newer and 6.95% for traditional AEDs. The market share of newer AED prescriptions increased from 1% in 1993 to 28% in 2005, and 27% in 2008. Fosphenytoin remained the most expensive newer AED with price of \$211 in 1996 and \$391 in 2005. Valproic acid and clonazepam were the most expensive traditional AEDs, with prices varying from \$150 to \$600. **CONCLUSIONS:** There has been substantial increase in use of AED, which may be due to off-label use, new indications, and as adjunct therapy. A significant drop in AED utilization trends since 2004 may potentially be due to Medicare part D introduction and patent expiration.

PND36

POTENTIAL BARRIERS TO HOME CARE USE AMONG PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: Multiple sclerosis (MS) is a chronic illness leading to permanent disability. As the disease progresses, MS patients may require home personal care (HPC). HPC assists patients with activities of daily living (ADLs) and homemaking, so patients can continue living in their homes. This study examines the extent as well as the barriers and facilitators of HPC use by MS patients. **METHODS:** We analyzed data for 1577 participants in the 2000–2005 Sonya Slifka survey of MS patients. This survey provides information on disease status, socio-demographics, family information, and HPC use. We constructed 3 outcome measures: use of paid HPC, use of help with ADLs or instrumental ADLs (IADLs), and unmet need. Logistic regression with sampling weights and robust standard errors were employed to examine the association between each outcome and patient characteristics. **RESULTS:** Greater disability was associated with greater use of paid HPC ($P < 0.001$) and greater assistance received for ADLs/IADLs ($P < 0.001$). Patients on Medicaid used more paid HPC (OR = 1.74, $p = 0.01$) and had less unmet need (OR = 0.53, $p = 0.03$). Medicare beneficiaries received more assistance with ADLs/IADLs (OR = 1.42, $p = 0.02$), but did not receive more paid care. Patients living with a spouse/partner purchased fewer services (OR = 0.64, $p = 0.01$), while receiving more help overall with functional limitations or chores (OR = 2.06, $p < 0.01$). Patients with greater family income reported lower unmet need (OR = 0.36, $p < 0.01$). **CONCLUSIONS:** Type of insurance and marital status are important predictors of HPC use among the MS population. While patients who live with a spouse/partner often have higher family income and can afford more paid HPC, they appear to delegate the more burdensome ADL care to their family, while being more inclined to pay for help with homemaking. Overall, these patients had lower unmet needs and used less paid help than patients living alone.

PND37

PROJECTING THE BURDEN OF ALZHEIMER'S DISEASE AND EVALUATING THE POTENTIAL IMPACTS OF PREVENTING ALZHEIMER'S DISEASE IN THE UNITED STATES

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OBJECTIVES: Alzheimer's disease is the sixth-leading cause of death in the United States. The health and economic costs associated with the disease are enormous. We forecast and quantify this burden until year 2050 and evaluate the potential impacts of delayed onset of Alzheimer's disease. **METHODS:** We use a dynamic micro-simulation model to predict health status (Alzheimer's disease as one of the measures) and economic situations of Americans 50 years and older, from year 2004 to 2050. To estimate the burden of Alzheimer's disease, we estimate a scenario in which there is no incidence of Alzheimer's disease and compare outcomes with projections of the status-quo over future years. To evaluate the impacts of potential treatments to delay the onset of Alzheimer's disease, we run three scenarios in which there is 2-year, 4-year, or 6-year delay of onset of Alzheimer's disease. The main data sources are the Health and Retirement Study and the Aging, Demographics, and Memory Study. The health outcome measured is Quality-Adjusted Life Years. Economic outcomes include earnings and tax revenues, health care costs and long-term care costs (total, Medicare, Medicaid), opportunity costs for unpaid caregivers, and Social Security outlays. **RESULTS:** The population with Alzheimer's disease will increase by more than 150 percent in year 2050. Relative to the status-quo, eliminating Alzheimer's disease would raise tax revenues, and reduce cumulative Medicare costs. Alternatively, cumulative Medicaid spending and Social Security benefits would increase, outweighing the savings in Medicare spending and raised tax revenues. We will also present the gains in QALYs and savings in unpaid care-giving under different intervention scenarios. **CONCLUSIONS:** Preventing Alzheimer's disease will increase life expectancy and quality of life. However, these health benefits will increase government spending as increased longevity results in longer outlays of annuities and health spending.

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SOCIODEMOGRAPHIC PATTERNS OF INSOMNIA DRUG PRESCRIPTIONS

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OBJECTIVES: Insomnia is the most common sleep complaint worldwide. Our study aims to identify physician and patient characteristics likely to influence insomnia prescription patterns. **METHODS:** The project utilized data from National Ambulatory Medical Care Survey, conducted by the US Department of Health and Human Services. The study subjects were selected from 2006 outpatient visits in which at least one frequently used insomnia medication was prescribed. A series of population-based descriptive analyses were used to estimate the national weighted frequencies of selected insomnia drug prescriptions. We further constructed a weighted logistic regression model to estimate the odds ratio and marginal probabilities of covariates toward predicting insomnia drug prescriptions. **RESULTS:** Among the 901.8 million outpatient visits that took place in the US in 2006, an estimated 21.07 million visits included at least one insomnia drug prescription. The results from a multivariate logistic regression showed that a patient's race and age, physician's clinic ownership, type of office setting, and employment status were significantly associated with insomnia drug prescriptions. Black patients were 2.4 times more likely to receive insomnia prescription than were white patients (OR = 2.4; 95% Wald CI (1.26–4.69)). Older patients were more likely received insomnia prescription than were younger patients. Patients with 3–5 visits over the course of 12 months received fewer insomnia prescription than did patients with only 1 visit (OR = 0.44; 95% Wald CI (0.21–0.93)). Physicians who worked in the academic health center prescribed fewer insomnia drugs than did physicians who worked in the private practices (OR = 0.29; 95% Wald CI (0.09–0.91)). Employed or contracted physicians prescribed a significantly higher number of insomnia drugs than did owner physicians (OR = 3.6; 95% Wald CI (1.87–6.78)). **CONCLUSIONS:** Our findings indicate various sociodemographic disparities in the use of insomnia prescriptions. The study also demonstrated a comprehensive analytical framework, which is especially applicable to population-based data mining research.

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AGREEMENT BETWEEN MULTIPLE SCLEROSIS-RELATED VARIABLES IN MEDICAL CHARTS AND CLAIMS DATA

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OBJECTIVES: To evaluate the agreement between data derived from medical charts of patients with multiple sclerosis (MS) and from a health care claims database. **METHODS:** This data source comparison was a secondary objective in a study utilizing both claims and linked medical chart data. Patients with MS were identified in a