visits and inpatient care. The pattern was observed in each cohort. In two diseases: sleep apnea- 29.6, no sleep apnea- 21.6. In three diseases: sleep apnea- 35.4, no sleep apnea- 25.8. **CONCLUSIONS:** The more metabolic syndrome diseases the higher risk for having OSA. The OSA burden is increasing the more metabolic syndrome components exist.

PND12
LOWER DAILY AVERAGE CONSUMPTION AND GREATER PRESCRIPTION COST SAVINGS OF ARMODAFINIL COMPARED WITH MODAFINIL: A 12-MONTH RETROSPECTIVE DATABASE ANALYSIS

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OBJECTIVES: Armodafinil and modafinil are indicated to improve wakefulness in patients with excessive sleepiness associated with treated obstructive sleep apnea, shift work disorder, and narcolepsy. Because both medications are approved for once-daily dosing with different tablet strengths, their real-world utilization may differ. This analysis examined utilization of armodafinil and modafinil based on daily average consumption (DACON) and determined the impact of armodafinil and modafinil on pharmacy budgets using an economic modeling technique. **METHODS:** DACON was examined in a retrospective database analysis of Wolters Kluwer Source LX pharmacy analytic data collected from March 1, 2009 to May 31, 2010. DACON was calculated by dividing the total tablets dispensed by the total days supplied. An economic model was used to evaluate the financial impact of changes in prescription share from modafinil to armodafinil. **RESULTS:** The DACON for armodafinil and modafinil were 1.03 (70,976 prescriptions) and 1.40 (453,216 prescriptions), respectively. Among patients with 2 to 8 prescription fills for armodafinil, the DACON remained between 1.03 and 1.05. A total of 6,069 modafinil patients switched to armodafinil. Their DACON on modafinil was 1.46 before switching and was 1.05 after switching to armodafinil. Based on economic modeling, and assuming a 10% increase in armodafinil's share of prescriptions, the projected annual cost savings with armodafinil would be $921,949 (per-member-per-month savings of $0.077). Assuming a 20% increase in armodafinil's share, the projected annual savings would be $1,843,897 (per-member-per-month savings of $0.154). **CONCLUSIONS:** By using pharmaceutical claims data in tandem with well-designed economic models, payers can better estimate current and future pharmaceutical spending. Based on this DACON analysis, the utilization of armodafinil has a real-world advantage over modafinil that can significantly affect pharmacy budgets. This research was sponsored by and conducted in collaboration with Cephalon, Inc., Frazer, PA.

PND13
BURDEN OF ILLNESS IN THE UNITED STATES FOR PEDIATRIC EPILEPSY PATIENTS WITH PARTIAL ONSET SEIZURES RECEIVING ANTI-EPILEPTIC DRUGS

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OBJECTIVES: The objective of this retrospective claims database study was to better understand the burden of illness for pediatric patients in the US who have epilepsy with partial onset seizures and who are being treated with anti-epileptic drugs (AEDs). **METHODS:** Data were administrative claims from a large national US health plan. Patients were commercial enrollees ≥2 years and ≤17 years of age with ≥ 1 pharmacy claim for an oral AED from 1/1/2006 – 11/30/2008; index date was defined as the first AED claim. Patients also had ≥ 1 medical claim for epilepsy (ICD-9-CM 345.xx) during the 6 months pre-index period and were continuously enrolled 12 months post-index. **RESULTS:** Within commercially insured pediatric patients, 3,889 children met inclusion criteria; 54% were males; 59% were age 2-11 years; and 51% lived in the southern US. The mean age of the population was 10.08 years. Overall, 77% had a Quan-Charlson comorbidity score of zero. Most frequently reported AHRQ comorbid conditions included epilepsy convulsions (100%), respiratory infections (66%), other nervous system disorders (43%) and headache (20%). Of 8 epilepsy-related risk factors examined patients experienced hyperkinetic syndrome (10%) and developmental disabilities (20%). Of 17 AED medications examined, the most prescribed overall were: oxcarbazepine (OXC) 21%; levetiracetam (LEV) 19%; valporate (VPA) 17%; lamotrigine (LTG) 17%; with least prescribed being gabapentin (GBP) at 1%. Their respective mean annual post-index pharmacy and total costs were: $5441 and $11,430, LTG; $3025 and $9121, LEV; $2095 and $5556, OXC; $1308 and $2807, VPA; and $917 and $1597, GBP. The overall post-index mean annual pharmacy costs were $2637 and mean annual total costs were $6813. **CONCLUSIONS:** Comorbid conditions associated with epilepsy are likely to contribute to the costs of pediatric epilepsy. Lamotrigine and Levetiracetam had the highest annual pharmacy costs compared to other drugs.

PND14
BURDEN OF ILLNESS IN THE UNITED STATES FOR ADULT EPILEPSY PATIENTS WITH PARTIAL ONSET SEIZURES RECEIVING ANTI-EPILEPTIC DRUGS

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OBJECTIVES: The objective of this retrospective claims database study was to better understand the burden of illness for adults in the US who have epilepsy with partial onset seizures and who are being treated with anti-epileptic drugs (AEDs). **METHODS:** Data were administrative claims from a large national US health plan. Patients were commercial enrollees ≥18 years with ≥ 1 pharmacy claim for an oral AED from 1/1/2006 – 11/30/2008; index date was defined as the first AED claim. Patients also had ≥ 1 medical claim for epilepsy (ICD-9-CM 345.xx) during the 6 months pre-index period and were continuously enrolled 12 months post-index. **RESULTS:** Within commercially insured adult patients, 9,889 adults met the study inclusion criteria; 45% were males; the mean age was 43 years; and 49% lived in the

southern region of the US. Overall, 67% had a Quan-Charlson comorbidity score of zero. Most frequently reported AHRQ comorbid conditions included: epilepsy convulsions (100%), respiratory infections (42%), heart disease (36%) and headache (31%). Of 8 epilepsy-related risk factors examined, patients most experienced depression/mood disorders (12%), anxiety (8%), migraine (8%) and sleep disorders (8%). Of 17 AED medications examined, the most prescribed overall were: levetiracetam (LEV) 19%; lamotrigine (LTG) 18%; phenytoin (PHT) 18%; carbamazepine (CBZ) 14%, with the least prescribed being phenobarbital (PB) at 2%. Their respective mean annual post-index pharmacy and total costs were: $5169 and $6806, LTG; $3788 and $6866, LEV; $1609 and $2564, CBZ; $1011 and $2409, PHT; and $245 and $451, PB. The overall post-index mean annual pharmacy costs were $2736, and the mean annual total costs were $4390. **CONCLUSIONS:** Epilepsy is a relatively common neurological disorder associated with a range of comorbidities that impact the medical management and the economic burden related to the disease.

PND15
THE INCREMENTAL COST OF ALZHEIMER'S DISEASE IN THE CALIFORNIA MEDICAID PROGRAM (MEDI-CAL)

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OBJECTIVES: Estimate the incremental costs associated with Alzheimer's Disease (AD). The incremental impact of AD on Medicaid costs has not been updated since 1995 and the impact of AD on other payers is unclear. **METHODS:** Patients age 50+ were identified from de-identified Medicaid paid claims from California [MediCal]. All patients were MediCal eligible for the period 2004-2006 [survivors]. Data included information on payments by MediCal, Medicare and other payers. AD patients had at least one AD diagnosis. A 20% random sample of non-AD patients was selected and a matched control group was identified using propensity score methods. Health care cost and resource utilization were measured annually during the 2004-2006 period broken down by type of service and payer. Multivariate statistical models were estimated to document the incremental impact of AD controlling for baseline characteristics of the matched AD and non-AD patients. **RESULTS:** The incremental cost of AD relative to non-AD patients increased from +$7,217 in 2004 to +$15,563 in 2006, totaling +$34,745 over 3 years. The majority of the cost burden is bourn by MediCal [+$30,090] primarily for nursing home care [+$15,498], home health care [$9,146] and prescription drugs [+$3,938]. The incremental cost of AD on Medicare and other payers [including out-of-pocket costs] were +$2,814 and +$1,842, respectively [p<0.0001 for all estimates]. **CONCLUSIONS:** The incremental impact of AD on the health care system is significant. The increased costs attributed to AD in this analysis are due primarily to higher costs for nursing home care and home health services. New AD medications currently under development, if effective, will benefit Medicaid programs but be paid for largely by Medicare under Part D. This study provides useful information on the potential benefits that could accrue due to an effective AD treatment and documents how these benefits will be distributed by payer.

PND16
CHARACTERIZING DIRECT COSTS ASSOCIATED WITH HEMOPHILIA A: A RESOURCE-BASED COST ANALYSIS

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OBJECTIVES: To examine hemophilia-related healthcare costs among persons with hemophilia A at six US Hemophilia Treatment Centers (HTCs). **METHODS:** Data on 315 persons aged 2-65 years from seven states enrolled in Hemophilia Utilization Group Study (HUGS-Va, 2005-2007) were obtained prospectively from interviews and chart reviews. One-year healthcare utilization data (HTC visits, laboratory tests, outpatient visits, emergency room (ER) visits, hospitalizations) and units of clotting factor dispensed were used to impute costs. HTC visit and laboratory test expenditures were obtained from Medicare payment schedules. Inpatient costs were estimated using ICD-9 codes and HCUP National Inpatient Sample charges adjusted for cost-to-charge ratio from MedPAR. ER costs were estimated using MEPS data. Factor costs were estimated using Medicare Part B reimbursement rates. Per-unit prices for non-factor medications were estimated using wholesale acquisition costs. All costs were converted to 2010 US dollars. Sociodemographic and clinical characteristics associated with higher costs were analyzed using a multivariate model. **RESULTS:** Fifty-one percent of participants were adults; mean age was 21.2(±14.8) years. Two-thirds had severe hemophilia. 94% used clotting factor; 64% of severe patients infused prophylactically. Annual mean healthcare costs per patient (excluding medication) were $3,912(±9,267), $3,975(±8,422), $16,185(±46,097) and $2,852(±7,721), respectively, for patients with mild, moderate, severe hemophilia on episodic treatment, or severe hemophilia on prophylactic treatment. Annual hemophilia-related medication costs for the same groups were $42,377(±115,246, median:$3,573), $63,063(±113,571, median:$22,587), $159,830(±143,220, median:$113,263) and $275,376(±178,573, median:$246,333), respectively (P<0.0001). Inhibitor patients (N=16) had healthcare and medication costs of $13,086(±19,163, median:$2,223) and $721,603(±914,069, median:$199,319), respectively. Older age, higher weight, greater hemophilic severity, with insurance coverage, prophylaxis treatment, and positive inhibitor were associated with higher total costs. **CONCLUSIONS:** Hemophilia is a costly disorder. This data provides information on annual healthcare and factor costs associated with hemophilia. Identifying factors associated with increased healthcare utilization and outcomes will advance our understanding of the economic impact of this condition.