DETERMINANTS OF EMERGENCY DEPARTMENT UTILIZATION FOR MIGRAINE CARE

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OBJECTIVES: Over-utilization of emergency department (ED) services for non-urgent medical conditions has been noted as a problem for decades. Headache is the sixth most common reason for ED visits. This study examined factors of ED use in a migraine population. METHODS: Medical and Rx claims of Georgia Medicaid beneficiaries who had at least one migraine medical claim (ICD-9 of 346.xx) or one triptan/ergot claim between Jan 2002 and Dec 2005, and were continuously eligible from 6 months before to 12 months after first migraine claim were analyzed. Subjects who had a narcotic claim and a medical claim for cancer (ICD-9 140–239), fractures (800–829), musculoskeletal and connective tissues disease (710–739), or sickle cell anemia (282.6x) 6 months before index date were excluded. Likelihood of a migraine ED visit during the 12 months after index date was estimated using logistic regression while controlling for age, gender, race, metropolitan status of county of residence, physician supply in county, butalbital and narcotic medication use 6 months before index date. RESULTS: Data from 43,791 subjects were analyzed. Mean age was 31 years (SD = 17). 79% were male and 55% were Caucasians. Six percent of subjects had used butalbitals and 28% had used narcotics 6 months before index date, and 3% subjects had at least one migraine ED visit 12 months after index date. Females, non-Caucasians, residents of metro counties or counties that had lower blood counts, blood clots (including stroke). A retrospective chart review was undertaken to examine organ involvement and tests as recorded by their physician. Exact and kappa measures of agreement between physician and patient report were calculated for each organ system. RESULTS: The patient sample (n = 70) for 1 to 5 years in a US Medicare Health Maintenance Organization. The study population was identified using ICD-9 codes (332;332.0) for PD and a claim for at least one filled PD prescription identified using NDC codes. Medication Possession Ratio (MPR) was estimated as proxy for adherence to PD medications, with a threshold of 0.80 indicating adherence. PD symptom progression was defined as increase in prescription strength, addition of another PD medication, an emergency room visit or hospitalization related to PD. Demographic, clinical, and economic variables were extracted from the dataset. Prevalence of non-adherence was calculated over all years and for each year of eligibility. Logistic regression was used to assess relation between medication adherence and PD symptom progression. Sensitivity analyses were conducted for MPR scores less than 0.6, 0.4, and 0.2. RESULTS: The study population (N = 470 patient-years) had mean MPR score of 0.49 (±0.38). An average of 66% of study population was not adherent to their PD medications (MPR < 0.8 implies non-adherence). Sensitivity analysis with MPR scores less than 0.6, 0.4, and 0.2 indicated an average of 56%, 46% and 35% were not adherent to their PD medications respectively. Subjects adherent to their PD medications (MPR > 0.8) had 67% less odds of experiencing PD symptom progression (OR = 0.33; CI0.12–0.85) compared to people not adherent to PD medications. All subjects with MPR < 0.2 experienced PD symptom progression. CONCLUSION: High prevalence of non-adherence to PD medication and its association with PD symptom progression, irrespective of MPR threshold chosen, indicates it is a significant problem. There is a need for mechanisms to improve medication adherence in PD, namely improved patient understanding, simplified treatment regimens and improved tolerability profiles.

DEVELOPING A MIGRAINE QUALITY OF CARE MEASUREMENT SET

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OBJECTIVES: To develop a migraine quality of care measurement set at the health plan level, in order to begin measuring and improving migraine care processes and outcomes. METHODS: The measurement set was developed through: 1) review of migraine care guidelines; 2) literature review of quality measurement for migraine care; 3) telephone interviews with thought leaders in migraine care and quality improvement; and 4) assembly of a national advisory board consisting of prominent leaders within migraine care, quality measurement and managed care. The advisory board reviewed collected information from tasks 1–3, discussed candidate measures, and established a consensus on target measures to be included in the set. RESULTS: The advisory board selected 19 potential measures that could be implemented at the health plan level using administrative (claims) data. These measures capture information on: migraine diagnosis and prevalence; use of preventive and therapeutic medications; and, primary care, specialist, emergency, diagnostic radiologic, and inpatient service utilization. The measurement specifications have been developed to mirror technical specifications for administrative measures in the Health Plan Employer Data and Information Set (HEDIS). CONCLUSION: Development of an evidence-based set of quality measures for migraine care is an important advance in seeking to measure and improve care for migraineurs. Despite its prevalence, and impact on direct and indirect costs, migraine is not currently being addressed in the national quality measurement movement. The measurement set is now being pilot tested in health plans to assess feasibility of data collection, properties of the measures, and correlation among the measures.

UNDERSTANDING LIMITATIONS OF PATIENT REPORTED CLINICAL OUTCOMES IN LUPUS

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OBJECTIVES: Patient knowledge is associated with their ability to manage their disease (self-efficacy). The objective of this study was to examine the extent to which patients with systemic lupus erythematosus (SLE) reported specific organs/system involvement that was consistent with medical records. METHODS: In a cross-sectional study, patients with SLE were asked to indicate whether the following organ systems were affected by their lupus: skin/hair/scalp, joints, kidneys, brain, heart/lungs, (abnormal) blood counts, blood clots (including stroke). A retrospective chart review was undertaken to examine organ involvement and tests as recorded by their physician. Exact and kappa measures of agreement between physician and patient report were calculated for each organ system. RESULTS: The patient sample (n = 70) had no effect on ED use. CONCLUSION: Local physician shortage and easy ED access encouraged ED use for non-urgent medical problems. Improving access to primary care facilities is crucial for reducing non-urgent ED use.
had a mean (SD) age of 43.0 (13.4) and was 95.7% female. Exact agreement between organ involvement ranged from 47.8% for blood counts to 86.6% for blood clots. There was significant agreement for involvement of skin/hair/scalp (K = 0.46), kidneys (K = 0.55), brain (K = 0.54), and blood clots (K = 0.60). Poor agreement was noted for abnormal blood counts (K = 0.08) and joint involvement (K = 0.06). CONCLUSION: Similar to studies of patient-physician agreement on quality of life, stronger agreement between patient and physician assessment was reported for more physical manifestations of disease. Results suggest there is opportunity to improve patient management through education and patient-provider communication.

OBJECTIVES: To examine differences in the prevalence of other diseases for patients with and without Alzheimer's Disease (AD), and the independent effect of AD on cost, beyond the expected cost of treating other medical conditions. METHODS: We used MarketScan Medicare Supplemental and Coordination of Benefits claims data, 2003–2004, for over-age-65 individuals with Medicare and employer-sponsored plans including drug benefits. We identified AD patients by an AD diagnosis or an exclusively prescribed AD medication in 2003, and selected a demographically-matched, non-demented Control (3:1 ratio to AD). Applying Diagnostic Cost Groups (DCGs), a comprehensive disease classification and prediction system, we calculated a prospective relative risk score (RRS) that predicts 2004 costs from non-AD illnesses in 2003; the mean RRS of all individuals enrolled for all of 2003 and ≥1 month in 2004 was set to 1.00. We used regression to estimate AD's independent effect on cost overall and among patients with selected non-AD conditions. RESULTS: The AD Cohort (n = 2,109) is sicker (mean RRS 1.23 vs. 1.04) than the Controls (n = 75,327); they have more comorbidities (mean of 8.1 unique medical conditions vs. 6.5) and 34% higher costs ($13,936 vs. $10,369). However, excess annual costs attributable to AD are estimated to be only $2307, with outpatient pharmacy being the key driver ($1711 in excess costs). The AD Cohort has more diabetes, heart, mental health, injuries, vascular, and urinary problems. For patients with certain comorbidities (such as, anxiety disorders), excess costs attributable to AD reach $6000. CONCLUSION: AD patients are sicker than demographically similar patients, yet cost even more than is accounted for by their excess morbidity. Much of the additional cost is due to greater use of outpatient pharmaceuticals.

OBJECTIVES: To compare the psychometric properties of migraine specific health related quality of life instruments based on McHorney and Tarlov (1995). METHODS: Eleven instruments were identified based on the following criteria: at least one peer reviewed publication of the instrument; instrument focus on HRQOL; psychometric data and instrument availability. Identified instruments were evaluated based on the McHorney and Tarlov’s (1995) criteria for individual decision making and included: item information; administration time (practicality); instrument breadth; depth (floor and ceiling effects <15%); reliability (internal consistency and test-retest) and validity. RESULTS: Five migraine specific health related quality of life Instruments were identified: the Migraine Specific Quality of Life Questionnaire (MSQ); Migraine Disability Assessment Score (MIDAS); 24 hr Migraine Specific Quality of Life Questionnaire (MqoslQ); Migraine Specific Quality of Life Measure (MSQOL) and the Headache Impact Test-6 (HIT-6). Ideal psychometric properties were not shown by any of the five instruments evaluated based on study criteria. This was in part due to lacking psychometric data in addition to failure to meet study criteria. For example, MSQ was the only questionnaire available with reported depth and internal consistency data. MSQ, MIDAS, MqoslQ were the most frequently used questionnaires. MSQ was notable for the most extensive psychometric data to support the scale including adequate item information, breadth, depth (floor and ceiling effects <10%) and validity (multitrait-multimethod, convergent, known groups and confirmatory factor analysis). Although internal consistency for all the dimensions of MSQ (α = 0.86–0.96) was adequate for group level decision

NEUROLOGICAL DISORDERS—Methods & Concepts

IMPlications of comorbidity on costs for patients with Alzheimer’s disease

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OBJECTIVES: To evaluate the impact of product enhancements such as a new autoinjector (Rebiject II) and finer needles upon adherence to therapy for patients receiving subcutaneous (sc) Interferon-beta-1a (IFNB-1a) 44 mcg tiw. Injection site reactions (ISRs) are a common cause of treatment discontinuation in patients with multiple sclerosis (MS). Support organizations such as the MS LifeLines program may help patients manage ISRs, however, simplification of the injection process via autoinjectors and finer gauge needles may also help to decrease ISRs. METHODS: Data were gathered by the MS LifeLines program between August 2003 and November 2004 (before product enhancements) and again between December 2004 and March 2006 (after product enhancements). Patients were contacted by nurse educators at regular intervals and asked a series of questions to determine whether they were adherent to therapy or had discontinued, and, if they had discontinued, why they had done so. Reasons for discontinuation were recorded and divided into 3 categories: ISRs, pain and/or burning at the injection site, or other reasons. RESULTS: Between August 2003 and November 2004, 11,783 total patients received subcutaneous (sc) IFNB-1a 44 mcg tiw. Of the 2079 patients who discontinued therapy 190 (9.1%) were due to ISRs and 175 (8.4%) continued therapy 190 (9.1%) were due to ISRs and 175 (8.4%)}