PHS7

PREVALENCE AND COST OF ILLNESS OF SPECIFIC CONDITIONS IN A COMMERCIALLY INSURED UNITED STATES POPULATION

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OBJECTIVES: To calculate the prevalence rates and costs of common conditions using medical and pharmacy claims from a commercially insured US population in 2010. **METHODS:** This retrospective cohort analysis used administrative claims data from 14 major US health plans. Patients had ≥1 claim for a targeted condition (identified by ICD-9 or GPI codes) from 01/01/2010 through 12/31/2010. Descriptive statistics included means and relative frequencies. Costs reported for patients with 12 months continuous eligibility and presented as annualized per patient per month (PMPM) costs to include all patients regardless of length of eligibility. Patients were required to have ≥1 day of eligibility. **RESULTS:** The 10 most prevalent conditions: hyperlipidemia (13.9%), hypertension (13.6%), allergic rhinitis (5.6%), diabetes (4.8%), COPD/COPD-associated conditions (4.8%), diabetes without complications (4.7%), depression (other than major depression and bipolar disorder) 4.0%, osteoarthritis (3.8%), asthma (3.6%), osteoporosis/osteopenia (2.8%). Allergic rhinitis was most common among those ≥34 yrs; hyperlipidemia among patients aged 35-64 yrs; hypertension among patients ≥65 yrs. Highest average (PMPM) medical costs were: bone cancer $82,173 ($119,528); CNS cancer $81,101 ($110,829); brain cancer $74,055 ($187,244); subarachnoid hemorrhage $67,324 ($161,164); intracerebral hemorrhage $60,968 ($203,551); multiple myeloma $43,495 ($68,614); leukemia $41,873 ($68,703); lung cancer $40,691 ($97,279); colorectal cancer $34,498 ($65,025). Highest average (PMPM) pharmacy costs were: multiple myeloma $17,567 ($18,907); multiple sclerosis $14,198 ($14,682); leukemia $9,050 ($$9,983); psoriatic arthritis $8,035 ($8,291); brain cancer $7,766 ($8,861); ankylosing spondylitis $5,989 ($6,324); bone cancer $5,211 ($5,498); CNS cancer $4,697 ($5,748); renal cancer $4,620 ($5,507). **CONCLUSIONS:** Hyperlipidemia and hypertension were more than twice as prevalent as the next most prevalent condition in 2010; this pattern held for males and females and generally held across geographic regions of the U.S. Consistent with prior research, cancers and cancer treatments were consistently ranked among the most expensive for health plans in 2010.

PHS8

USE OF HEALTH CARE ADMINISTRATIVE DATABASES TO ESTIMATE INCIDENCE OF FOOT COMPLICATIONS IN DIABETES PATIENTS

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OBJECTIVES: Foot complications (e.g. infections, abscesses) are common in patients with diabetes mellitus (DM) and are associated with high morbidity and risk of lower extremity amputation. The objective of this analysis was to estimate the incidence of foot complications in patients with a diabetes diagnosis. **METHODS:** DM population in Lombardy Region (Italy) was identified through a data warehouse (DENALI), matching with probabilistic record linkage demographic, clinical and economic data of different Healthcare Administrative databases. We selected individuals with diabetes diagnosis prior to December 31, 2000 (hospital discharge with an IDC-9 CM code 250.XX, and/or two consecutive prescriptions of drugs for diabetes (ATC code A10XXXX) within one year, and/or an exemption from co-payment health care costs specific for DM). From this cohort, we detected patients requiring at least one hospitalization for toe and foot complications (e.g. ICD-9 CM 682.7, "Other cellulitis and abscess-Foot") in the next 9 years of follow-up. **RESULTS:** Over the follow-up period, 5,096 of the 1,322,686 hospitalizations of DM patients (0.39%), were attributable to foot and toe complications. We individuated 3,404 patients (1.09% of the overall diabetes population; N=312,223) with at least one hospitalization for foot and toe complications (males: 64.72%, mean age: 64.64 years). The most frequent conditions were lower limb amputations (ICD-9 CM: V497.X; N=1,729 patients), cellulitis and abscesses of foot (ICD-9 CM: 682.7; N=976 patients) and cellulitis and abscesses of toe (ICD-9 CM: 681.1; N=783 patients). Considering the overall observation period (831 million days, 7.29 years per patient), incidence rates were 0.76, 0.43 and 0.35 events per 1,000 pts-year, for amputations, cellulitis or abscesses of the foot, cellulitis or abscesses of the toe, respectively. **CONCLUSIONS:** Administrative database analysis is an efficient tool to track foot and toe serious complications, as only events requiring hospitalization can be detected with this methodology.

PHS9

REGIONAL AND AGE DISTRIBUTION EVALUATION OF THE OUTPATIENT CARE PHYSIOTHERAPY SERVICES FOR HIGH INCIDENCE TRAUMATIC INJURIES

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OBJECTIVES: To evaluate the most frequent outpatient care physiotherapy services provided for trauma patients, based on age and regional distribution. **METHODS:** Data were derived from the countrywide database of Hungarian Health Insurance Administration (HHIA), based on official reports of outpatient care institutes. The 151 different types of treatment codes are listed in the chapter of the Guidelines of HHIA for 'Physiotherapists, massage-therapists, conductors and other physiotherapy practices'. Of the physiotherapeutic services provided for trauma patients, the knee and lower leg injuries (ICD code S80-89) occurred with

the highest incidence. Data collected from the year 2008 were further analyzed based on the distribution among the 7 different Hungarian regions and based on age distribution, set to 5 years intervals. **RESULTS:** The total number of the provided 151 different types WHO-classified physiotherapy services was 29045736 in the year of 2008; 3188650 of them with the ICD code group S00-S99 with the highest incidence: 713898 of services for knee and lower leg injuries (S80–S89). The highest number of physiotherapy treatment in total of 86048 cases was provided for patients in the age group 30 to 34, followed by age group of 35 to 39 with 77903 cases. The average number of cases was 71.17/1000 persons. Injuries related treatments occurred with the highest incidence in the Central-Hungarian region (81.07 cases/ 1000 population) and with the lowest incidence in the Western-Transdanubian region (62.52 cases/1000 population). **CONCLUSIONS:** In case of the traumatic injuries, the highest demand of the outpatient care physiotherapy services occurred for knee and lower leg injured patients. The differences of the incidences (calculated per 1000 persons) in the regional distributions require further studies.

PHS10

HBA1C TESTING FREQUENCY IN PRIMARY CARE DIABETES PATIENTS IN GERMANY AND IN THE UK

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OBJECTIVES: The HbA1c test is a lab test, which reveals average blood glucose over a period of two to three months. Tight blood glucose control could reduce the risk of diabetes related complications. Expert opinion recommends 6-monthly HbA1c testing in stable and 3-monthly testing in type 1 and unstable type 2 diabetes patients. Moreover, HbA1c should be measured more frequently for patinets whose therapy is changing. The aim of this study was to measure the quality of diabetic care as indicated by HbA1c testing frequency and to compare the frequency of HbA1c testing in primary care diabetes patients in Germany (DE) and UK. **METHODS:** Computerized data on lab values (IMS Disease Analyzer Multi-Country Solution, 01/2011-12/2011) from general medicine practices throughout DE and UK have been analysed and compared. This data warehouse includes the complete diagnosis and therapy relevant information on diabetes patients in several countries. 159,031 T2D patients and 1,910 T1D patients from 1,001 GP practices in Germany and 34,375 T2D patients and 1.506 T1D patients from 104 GP practices in UK were included. **RESULTS:** 53.1% of T2D patients and 42.0% of T1D patients in Germany, 87.0% of T2D patients and 69.1% of T1D patients in UK had at least one HbA1c testing in the observation time. In Germany there were 1.5 HbA1c tests per year in T2D patients and 1.1 tests per year in T1D patients. In UK T2D patients have in average 3.1, T1D patients 2.0 HbA1c tests in 2011. **CONCLUSIONS:** The study revealed that HbA1c testing was underused in both T1D and T2D patients. Improvement is needed in the utilization of HbA1c testing among most diabetes patients in Germany and UK. HbA1c tests should be obtained routinely in all persons with diabetes, for the blood glucose control documentation and as part of continuing care.

PHS11

RELATIONSHIP BETWEEN PHYSICAL FUNCTION AND MUSCLE STRENGTH IN THE UNITED STATES ELDERLY POPULATION

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OBJECTIVES: To examine physical function by muscle strength in the US elderly population. **METHODS:** Individuals aged 50 and above from the National Health and Nutrition Examination Survey (NHANES) 1999-2002databases were selected. Physical function was measured via 20-foot walking speed [WS] in meters/second, having difficulty walking up 10 steps (yes/no), and having difficulty standing up from armless chairs (yes/no). Muscle strength was measured via the isokinetic quadriceps strength in newtons. Two study cohorts were constructed based on age and gender (10 groups) adjusted muscle strength (high strength = above the median within each age and gender group). Demographics, comorbidities, and body mass index (BMI) were compared between the high and low strength groups. The association between high/low muscle strength and 20-foot WS was analyzed via multiple linear regression that utilized survey strata and weighting and controlled for between-group differences in demographics, BMI, and comoribidites. Logistic regressions were employed to examine the relationship between having difficulty walking up 10 steps or standing up from armless chairs and high/low muscle strength, respectively. **RESULTS:** The study included 646 individuals with 320 in the high and 326 in the low strength cohorts. More individuals with low muscle strength had diabetes, arthritis, and osteoporosis than those with high muscle strength. Mean BMI was also higher in the high strength cohort. Controlling for differences in demographics, comorbidities, and BMI, individuals in the high strength cohort had significantly faster 20-foot WS speed (0.10, p<0.05) and were less likely to have difficulty standing up from armless chairs (Odds Ratio = 0.32, p<0.05) compared with those in the low strength cohort. **CONCLUSIONS:** Among individuals aged 50 and above in the US, high muscle strength is positively correlated with WS but negatively correlated with having difficulty standing up from armless chairs.

PHS12

META-ANALYSIS OF PARKINSON'S DISEASE RISK WITH HYPERTENSION, SERUM TOTAL CHOLESTEROL, AND DIABETES MELLITUS

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OBJECTIVES: Emerging evidence suggests that cardiovascular risk factors like hy-