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EVALUATION OF THE QUALITY OF LIFE OF DIABETIC PATIENTS IN MINAS GERAIS STATE, BRAZIL

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OBJECTIVES: To evaluate the quality of life (QoL) of diabetic patients and its associated factors. **METHODS:** In January to Febrary 2014 patients with diabetes mellitus (DM) were interviewed in cities of Minas Gerais State about sociodemographic, clinical and QoL aspects of. QoL was measured by the EuroQol questionnaire (Eq5D). Descriptive analysis, correlation, linear regression multivariate analyzes were performed. **RESULTS:** We interviewed 2,620 patients. Of these, 69% were women, 84% had type 2 DM and 10% type 1. The mean age was 61 years (σ = 16). The descriptive system Eq5d scores ranged from -0.1896 and 1.000 (μ = 0.7158; σ = 0.22) and for the visual analog scale from 0 to 100 (μ = 67.5; σ = 22). These values are consistent with the utility values (-0.235 to 0.869) for the general population of Minas Gerais. The mean QoL of diabetic patients was 0.716 (σ=0.22). Multivariate analysis showed that the following aspects significantly decrease QoL of the patients: (I) not being able to do usual activities; (II) bedridden for sickness; (III) worse self-rated health status; (IV) history of arthritis, osteoarthritis or rheumatism; (V) obesity; (VI) depression; (VII) stroke; (VIII) retinopathy; (IX) neuropathy; (X) chronic lung disease; (XI) thrombosis; (XII) need for help to take medicines; (XIII) growing old; (XIV) years on medication; (XV) living alone; (XVI) have been hospitalized in the last 15 days; (XVII) have spent money on supplies for diabetes and (XVIII) not do exercise ($p < 0.05$). **CONCLUSIONS:** The interviewed diabetic patients had worse QoL than the general population and the diabetes complications decreases QoL of these patients, which points out to the need for better disease control, monitoring and more educational activities that effectively contribute to the self-care.

HEALTH SERVICES – Health Care Use & Policy Studies

PHS92

PREDICTORS OF MAMMOGRAPHY SCREENING AMONG WOMEN AGED 50-74

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OBJECTIVES: Breast cancer is the most common cancer and the second highest cause of death due to cancer among women. The US Preventive Services Task Force and the American Association of Family Physicians recommend biennial mammography screening for women aged 50-74. This study is aimed at determining factors associated with mammography screening among women in this age group. **METHODS:** Women (50-74 years) who participated in the Behavioral Risk Factor Surveillance System in 2013 were included (n=15,426). Weighted mammogram screening prevalence within the past two years was estimated and logistic regression was used to assess sociodemographic (age, race, marital status, education, income, healthcare coverage, employment), clinical (time since last routine check-up and pap smear, health status, history of cancer), and lifestyle (physical activity and smoking status) factors associated with mammogram screening. **RESULTS:** Most participants (77.4%) reported having a mammogram within the past 2 years. Factors associated with mammogram screening within the past 2 years included: older age (ORs range: 1.26-1.57), higher income (ORs range: 1.23-1.50), having a health plan (OR=2.63;95%CI=2.22-3.12), check-up within past year vs. 2 years or more (OR=5.02;95%CI=4.30-5.86), pap smear within past year vs. 5 years or more (OR=9.25;95%CI=8.01-10.69), history of cancer (OR=1.23;95%CI=1.08-1.39), being physically active (OR=1.21;95%CI=1.08-1.36), and non-smoking (OR=1.70;95%CI=1.50-1.93). Blacks were more likely to screen than whites (OR=1.69;95%CI=1.40-2.04). Those with less than high school education were less likely to screen than those who attended college (OR=0.81;95%CI=0.66-0.999). The retired were more likely to screen than those employed for wages (OR=1.31;95%CI=1.12-1.52). The unmarried were less likely to screen than the married (OR=0.79;95%CI=0.70-0.90). **CONCLUSIONS:** Mammogram screening prevalence was below the 81.1% recommended by Healthy People 2020. Our findings identified population subgroups that may benefit from focused interventions. Policymakers may want to consider ensuring that patients have health insurance, regular check-ups and pap smears.

PHS93

DISCUSSION BETWEEN PROVIDERS AND PATIENTS ABOUT PROSTATE SPECIFIC ANTIGEN TESTING IN USA

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OBJECTIVES: Objectives of this study were to explore a) the effect of socio-demographic and personal characteristics on extent of discussions between men and healthcare providers about prostate specific antigen (PSA) testing and b) effect of discussions on PSA testing **METHODS:** This retrospective cross-sectional study analyzed data collected from the 2012 wave of the Behavioral Risk Factor Surveillance System (BRFSS). A discussion with providers about PSA testing was considered as a dependent variable. Baseline category logit model was used to measure effect of socio-demographic and personal variables on three levels of discussions (complete, partial and none). Logistic regression was used to test association between levels of discussion and whether a person had PSA test. **RESULTS:** Among 133,040 males, 84996 (63.9%) said their providers discussed advantages of PSA with them, while 94,818 (71.3%) said providers never discussed disadvantages of PSA testing. For 46,971(35.3%), neither advantages nor disadvantages were discussed. Highest level of education, age, recommendation for having a PSA test by provider and having a unique personal provider were positively associated with discussions about PSA testing. Odds of not having a PSA test was at least 6.67 times (OR = 7.14, 95% CI =6.67, 7.69) more for those who had no discussion compared to those who had discussed either advantages or disadvantages and was less by at least 81% (OR = 0.18, 95% CI = 0.17, 0.19) for those who discussed both advantages and disadvantages compared to those who discussed nothing. **CONCLUSIONS:** Most men and providers did not discuss disadvantages of PSA testing. Men with higher education, being older and having a unique personal provider were more likely to have discussed about PSA testing with their providers. Discussions with providers had a significant positive impact on PSA testing. Providers should discuss completely about PSA testing with men to help them in decision making.

PHS94

LONG-TERM IMPACT OF A PHARMACIST-LED DIABETES MEDICATION MANAGEMENT PROGRAM ON GLYCEMIC CONTROL

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OBJECTIVES: Due to its chronic nature and the severity of its complications, diabetes has major clinical and financial impacts on patients and health care. Evidence suggests that community-based disease management models have the ability to improve outcomes for patients with diabetes. Scott & White Health Plan (SWHP) offers a medication management program (MMP) in which eligible members with diabetes receive monthly educational visits with a pharmacist, anti-diabetic medications, and testing supplies at no cost. This study aims to evaluate the clinical impact of the diabetes MMP offered by SWHP by comparing long-term glycemic control in diabetic patients who are enrolled in the MMP to those not enrolled. **METHODS:** Diabetic patients aged 18 to 61 at time of MMP enrollment (index) with continuous enrollment in SWHP one year prior and four years post-index were included. Patients in MMP must be enrolled for four years, with control subjects receiving standard diabetes care during this time. Control subjects were matched 2:1 on age, gender, diabetes type (I or II), insulin use, and physical comorbidity. HbA1c data were obtained from medical records. Bivariate analyses assessed differences in patient characteristics by group. **RESULTS:** A total of 73 diabetic patients were matched with standard care patients for a combined sample of 219, with 56% female and mean age 52 years (SD=5.7). Although MMP patients had greater baseline HbA1c (median: 8.8% MMP vs. 7.4% control; $p<0.01$ per Wilcoxon rank-sum test), they experienced a greater reduction in HbA1c after 4 years (median reduction: 1.0% MMP vs. 0.1% control, $p<0.01$). Eighteen (25%) MMP patients who were uncontrolled at baseline were at or below goal by the end of the study period. **CONCLUSIONS:** Participation of diabetic patients in the MMP demonstrated an improvement in glycemic control, supporting the idea that ambulatory pharmacists can be effective in community-based diabetes management.

PHS95

ASSESSING A PHYSICIAN VISIT FOR HEPATIC DYSFUNCTION BASED ON DATABASE MERGING CLAIMS AND ANNUAL HEALTH CHECKUP DATA IN JAPAN

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OBJECTIVES: Objective of this study is to assess a trend of physician visit among individuals who were detected as hepatic dysfunction by the annual health checkup (Kenshin) which is implemented in Japan. **METHODS:** This is a retrospective cohort study using Japan Medical Data Center (JMDC) database. Annual health checkup data in 2012 and the associated claims data were merged by unique identifiers. Individuals ($18 \leq age \leq 64$) with ALT>30(IU/L) as hepatic dysfunction were identified. The proportion of individuals who visited a physician office after the annual health checkup for liver related diagnosis up to month 3,6,9 and 12 from the date of the annual health checkup was evaluated. The number of visits associated with liver related diagnosis and confirmed diagnosis with liver-related disease by gender and age was assessed. The cox proportional hazard regression model was used to evaluate variables associated with a physician visit. **RESULTS:** 353,384 individuals were received hepatic function tests at the annual health checkup in 2012. 57,059 individuals were identified ALT>30(IU/L) without any liver related diagnosis in preceding 12 months of the annual health checkup. Among them, the cumulative proportion of individuals who visited physician office was 4%(month 3), 11%(month 6), 20%(month 9), and 30%(month 12). 4,379(8%) of individuals were confirmed with liver related diagnosis at month 12. Fatty liver was major diagnosis followed by alcoholic hepatic disease, virus hepatitis, hepatic fibrosis or cirrhosis and liver cancer. Individuals with higher ALT values, older age, and female are more likely to visit physician's office after the annual health checkup. **CONCLUSIONS:** One in six individuals was newly detected with hepatic dysfunction at the annual checkup. Despite of the serious consequence of liver related diseases, small number of individuals with hepatic dysfunctions detected by the annual health checkup visited physician office for further evaluation of the diagnosis.

PHS96

RELATIVE AGE IN CLASS AND ADHD IN SCHOOL CHILDREN â€“ DIAGNOSIS AND MEDICATION PATTERNS â€“ INTRA-ANNUAL AND INTER-ANNUAL DISPARITY

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OBJECTIVES: Diagnosis of children with attention-deficit/hyperactivity disorder (ADHD) is increasing. Recent studies have shown a tendency for younger children in a school cohort being diagnosed with the condition, suggesting the diagnosis is associated with immaturity. Given potential sequelae of treatment, there is a great need to evaluate potential misdiagnosis. The present study sought to identify characteristics and treatment patterns of children with ADHD, compare younger to older children within single age cohorts, and find seasonality and trends in disparity of diagnosis and pharmacotherapy, within a non-selective real-world setting. **METHODS:** Children aged 6-11 who were members of Clalit Health Services January 2010. Diagnosis (ICD-9 314.[0,1,2,8,9]) and medication (ATC codes 'N06BAx') were extracted from the Clalit Health Services database. Calendar months of first

diagnosis (2003-2011) and months of drug purchases (2010-2011) were compared by month of birth. Trends of diagnosis and treatment were determined for the various sub-cohorts, and population sector differences were compared. **RESULTS:** Of total population (400,828 children, 51% male), 40467 (10.1%) were diagnosed with ADHD and 33188 (8.3%) were treated (usually methylphenidate). Diagnosis levels for younger (Y: Aug-Nov) children (10.9%) were lower than older (O: Dec, Jan-March) children (9.2%, RR 1.18 CI 1.16 to 1.21). The rate disparity was higher beginning school-year (September-December; RR 1.21 CI 1.17-1.26). Any-purchase dispensing RR was 1.19 (CI 1.16 to 1.22), while monthly RR was 1.18 (1.17-1.19). RR for dispensing was stable between age-cohorts (1.17-1.22) without trend. Among children purchasing drugs, the seasonal variation in drug purchases (adherence) is similar Y:O **CONCLUSIONS:** ADHD diagnosis and medication are common in the primary school population. The increased incidence and prevalence among younger children in a cohort questions the appropriateness of both diagnosis and medication, suggesting behavioral treatment may often be more suitable to avoid long term costs and deleterious effects, than pharmacological intervention.

PHS97

SPECIALTY PHARMACY MEDICATION COMPLIANCE AND PERSISTENCE PROGRAM FOR PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION

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OBJECTIVES: Past experience using third party vendors to administer clinical programs for patients with chronic, progressive conditions resulted in low opt-in rates. A direct approach using the Specialty Pharmacy (SP) may have a better opt-in rate and compliance and persistence (C&P) with medication regimens. The objective of this interventional program administered by a specialty pharmacy (SP) [Accredo Specialty Pharmacy, Memphis, TN] was to evaluate a C&P program for bosentan (Actelion Pharmaceuticals Ltd., Allschwil, Switzerland) by comparing Pulmonary Arterial Hypertension (PAH) patients in the C&P program to a historical control group. **METHODS:** A pharmacist-based C&P program was administered directly by the SP that provided the medication and counseling, and patients were initially ranked using Morisky medication adherence scale to assess risk of non-adherence. Retrospective analysis was performed to measure program opt-in rate and C&P. Claims from a historical group (controls) and from the intervention group (cases) that received the SP-based C&P program between 04/29/2013 through 11/30/2013 were analyzed. Claims for naïve users of bosentan were reviewed at 120 days and 180 days for both persistence (bosentan claims not spaced > 45 days apart) and compliance (number of calendar days supplied with bosentan divided by 120 or 180 days). Early refills were adjusted when considering days covered. Opt-in rates were also measured. **RESULTS:** Opt-in rate for the enhanced SP-based C&P program was robust at 97%. No statistically significant difference was seen between the control and case groups for persistence or compliance. Use of the Morisky scale to drive the number of pharmacist interventions did not impact outcomes in the case group. **CONCLUSIONS:** SP-based programs can achieve high participation that may drive medication compliance, which is essential in progressive diseases like PAH. Future programs should be SP-based to replicate the high opt-in rate while establishing new interventions to drive compliance and persistence.

PHS98

DO PHARMACISTS' BARRIERSâ€"INCLUDING NON-REIMBURSEMENT FOR NON-DISPENSING SERVICESâ€"INFLUENCE THE LEVEL OF ADHERENCE PROMOTION ACTIVITIES FOR PERSONS LIVING WITH HIV?

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OBJECTIVES: Despite significant advancements in antiretroviral therapy (ART), long-term consistent adherence to therapy remains a challenge for many persons living with HIV (PLWH). Pharmacists are well-positioned to promote adherence to ART beyond mandated dispensing services, but face many barriers, including non-reimbursement for adherence promotion activities (APA). Our study examines the extent to which pharmacists' barriers (e.g., inadequate staff, no space) influence the level of APA in different pharmacy settings. **METHODS:** We test the hypothesis that pharmacists with fewer barriers provide fewer APA to PLWH, using generalized linear modelling (GLM). We use factor analysis to generate the APA index based on 38 APA (e.g., adherence assessment, customized interventions, monitoring activities). **RESULTS:** We surveyed 225 pharmacists from 41 U.S. states: (22% North East; 23% Midwest; 28% West; 27% South). The sample was mostly female (63%) Caucasian (66%), and >30 years (67%). Most pharmacists had a HIV certification (68%); 31% worked in specialty-only and 21% in traditional-only pharmacies. Only 26% of pharmacists reported APA-related reimbursements. Despite most pharmacists (95%) reporting >5 barriers, the barriers index odds ratio (OR) was insignificant (OR: 1.007; p<.774). Insurance status [public vs. none (OR: 1.76 (p<.002) & private vs. none (OR: 1.90 p<.004)], pharmacy type [specialty vs. traditional (OR: 2.24 p<0.001)] and HIV certification vs. none (OR: 3.65; p<.001) were significant predictors of APA. Interestingly, the OR of high volume (>500 scripts/day) was significant only at 10% level (OR: 0.73 p<.07). **CONCLUSIONS:** The choice of pharmacy largely determines PLWH access to adherence promotion services from certified pharmacists. Our finding that pharmacies that invest in HIV certification training are more likely to have higher levels of APA has implications for third party payers interested in adherence promotion as a cost containment strategy. Despite lack of reimbursement for adherence promotion, many pharmacists are providing these important services to PLWH.

PHS99

REGISTRY ADOPTED AS PUBLIC POLICY FOR PROPER RISK MANAGEMENT IN CHRONIC KIDNEY DISEASE IN COLOMBIA

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OBJECTIVES: This article presents results about risk management indicators performed to HIC (Health Insurance Companies) for CKD (chronic kidney disease) and its precursor diseases based on the analysis of large databases achieved through the implementation of registry as public policy in Colombia. Also presents the economic incentives perceived by them thanks to the good results in risk management **METHODS:** CAC (Cuenta de Alto Costo) collects information from HIC in Colombia. By law, they report all patients diagnosed with HTA (hypertension),DM (diabetes) or CKD in a structure with 81 variables. After the data collection there is an audit process and finally, a database of approximately 3.050.000 records is obtained which is analyzed and allows the measurement of risk management indicators including: early diagnosis of CKD, effectiveness in clinical management, progression detention of CKD (less incidence) and calculating the prevalence of CKD5. **RESULTS:** The early diagnosis of CKD is the number of patients with HTA or DM studied for CKD corresponding to 38.25 %. The incidence of CKD5 corresponds to 11.01 per 100.000 affiliates. The effectiveness in clinical treatment corresponding to the proportion of patient with controlled HTA is 66.54% and finally, the calculation of ERC5 prevalence corresponds to 668 ppm. With these results we can determine the economic incentives for risk management which is distributed among the country's HIC corresponding to USD 44,284,255. **CONCLUSIONS:** Quality record of information as public policy, allows results based evaluation which improves attention quality. Of the 52 health insurance companies existing in Colombia, 25% exceed country risk management goals for all indicators and receive a larger sum of money for risk management. Risk management as a public policy in Colombia encourages results based competence and contributes to achieve savings in the attention of the disease through the implementation of nephroprotection programs.

PHS100

WITHDRAWN

PHS101

HEALTHCARE RESOURCE USE AMONG PATIENTS WITH CONGESTIVE HEART FAILURE IN A LARGE HEALTH ORGANIZATION

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OBJECTIVES: We characterize healthcare utilization among congestive heart failure (CHF) patients in Israel who survived at least a year after diagnosis. **METHODS:** Adult members of a health maintenance organization in Israel (Maccabi Healthcare Services, MHS) who were diagnosed with CHF between January 2006 and December 2012 were assessed. MHS databases are derived from electronic medical records of longitudinal data from a stable population of over 2 million and provide comprehensive clinical, demographic and health service data. **RESULTS:** Of 7691 eligible patients followed for 3 years after first diagnosis, 6357 (82.6%) survived ≥1year following diagnosis (mean age 72.7 years (SD 12.3 years)). During the first 6 months following diagnosis, these patients had, on average, 11.3 (SD 7.7), 2.8 (SD 3.0) and 0.11 (SD 0.5) visits to their primary care physician, cardiologist, and nephrologist, respectively, and almost 70% had ≥1 hospital admission. Healthcare services use decreased after the first 6 months. Men were on average younger than women (70.2 vs. 76.0 years), had higher rates of cardiovascular comorbidity and saw a cardiologist more often (p<0.001) than women. More women had hypertension and chronic kidney disease but saw a nephrologist less often (p<0.001) than men. In the first 6 months following diagnosis, women were hospitalized for longer periods than men (10.2 (SD 19.8) vs. 9.0 (SD 18.9) mean cumulative days of hospitalization, respectively). Similar trends were observed in primary care physician and hospital visits between genders. Patients surviving <1 year from diagnosis tended to use outpatient services less often and inpatient services more often than ≥1 year survivors. **CONCLUSIONS:** Considerable resources are expended on CHF patients, with variations between male and female patients. Observations underscore the considerable healthcare burden of CHF patients, apparent even in this Israeli population,