years were employable and actually employed, respectively. Average HAQ scores at week 24 were 1.08 and 0.92 for MTX and GLM, respectively. Among patients 'unemployable' at baseline, 33% of GLM and 15% of MTX patients became employable at wk24 (p=0.04). GLM-treated patients maintained HAQ improvement through wk160 (mean score=0.88). In logistic regression modeling, for patients with a mean age of 50 years, expected EALYs were 5.92 and 7.15 for female and male GLM-treated patients, compared with 4.96 and 6.28 for female and male MTX-treated patients, an increase of 0.96 (19.2%) and 0.87 (13.8%) EALYs in GLM-treated females and males. Sensitivity analysis demonstrated improvements of 0.81 (16.4%) and 0.74 (11.8%) ELAYs in male and female GLM-treated patients relative to MTX-treated patients. **CONCLUSIONS:** Results of EALY analysis indicated GLM+MTX-treated RA patients can realize improvement in employability over time.

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IMPACT OF ANTI-TNF ON HEALTH CARE UTILIZATION AND COSTS IN PATIENTS WITH RHEUMATOID ARTHRITIS IN ALBERTA, CANADA

Ohinmaa A[1], Thanh NX[1], Martin L[2], Russell A[3], Barr S[2], Shelter D[3], Penney C[2], Yan C[1], Maksymowych W[3]
[1]*Institute of Health Economics, Edmonton, AB, Canada,* [2]*University of Calgary, Calgary, AB, Canada,* [3]*University of Alberta, Edmonton, AB, Canada*

OBJECTIVES: Rheumatoid Arthritis (RA) patient registries that follow up patients who are on anti-TNF medication provide a rich source of data to evaluate costs and effectiveness of these treatments in real world practice. The study aims to assess the impact of anti-TNF as compared with standard DMARDs on healthcare utilization and costs in an inception patient cohort with RA in Alberta. **METHODS:** The Alberta Rheumatoid Arthritis Biologics Study Database includes patients treated with either standard DMARDs or one of three available anti-TNFs and followed for up to 3 years. Provincial administrative databases between 1.4.2004 and 31.3.2009 were analyzed to identify physician visits, emergency room (ER) and other ambulatory visits, hospitalizations, and costs. A propensity score matching technique was used to compare these outcomes in the first anti-TNF-only to DMARD-only, DMARD switch to anti-TNF, or anti-TNF switch to another anti-TNF groups, and bootstrap method was used to estimate 95% confidence intervals of the differences. 2008 Alberta costs of health services were used for analysis. **RESULTS:** Of 1,222 patients in the database, 1,087 had at least 3 months of administrative data. The average annual number of visits and costs for the first anti-TNF-only group were for physician services (19.1; $1,568), emergency room (6.7; $1,378), and hospitalizations (0.22; $1,983), with the total annual per patient cost being $4,929. Compared to this group, the costs and utilizations in the anti-TNF switching to another anti-TNF were significantly higher (except hospital costs). However, the DMARD groups' higher utilization and cost estimates were not statistically significant. **CONCLUSIONS:** Staying on the first anti-TNF reduces significantly the utilization and cost of health services compared to patients switching anti-TNF medication. Due to small samples the comparison to patients starting DMARD medication did not show significant differences.

PMS49

ADOPTION, CHOICE, AND UTILIZATION OF BIOLOGIC THERAPIES FOR RHEUMATOID ARTHRITIS IN THE MEDICARE POPULATION

McElligott S, Li P, Schwartz S, Doshi JA
University of Pennsylvania, Philadelphia, PA, USA

OBJECTIVES: To examine adoption, choice, and utilization of rheumatoid arthritis (RA) biologic therapies and the patient and plan characteristics associated with these in Medicare. **METHODS:** Nationally representative 2006–2008 5% Medicare Parts A, B, and D files were examined. The sample (N=47,511) consisted of pooled annual cross-sections of fee-for-service beneficiaries with Part D coverage and >1 inpatient or 2 outpatient claims with RA diagnosis (ICD-9-CM 714.xx). Logistic regressions with robust clustered standard errors were estimated to identify patient and plan characteristics associated with any biologics use, biologics use under Part B (i.e. physician administered infusion) versus Part D (i.e. self-injectable), and use of specific biologics under Part D. **RESULTS:** From 2006 to 2008, RA biologics use decreased slightly (15.0% to 14.0%). The proportion of biologic users utilizing Part D biologics decreased from 60% to 50%. Disabled or female RA patients were more likely (OR=1.3, 95% CI 1.2-1.5, for both) to use biologics; older patients were less likely (OR=0.5, 95%CI .4-0.5). RA patients in the South were more likely to use biologics relative to the Northeast (OR=1.3, 95% CI 1.2-1.5). Among RA biologic users, patients in the Midwest (OR=0.5, 95% CI 0.4-0.7) or South (OR=0.6, 95% CI 0.5-0.8) were less likely to use Part D biologics relative to the Northeast. Patients qualifying for Part D low-income subsidies (LIS) with minimal Part D cost-sharing were more likely to use Part D biologics compared to non-LIS patients (OR=2.6, 95% CI 1.8-3.8). Furthermore, non-LIS RA patients were more likely to use adalimumab (OR=1.5, 95% CI 1.1-2.1) if they were enrolled in plans that had more utilization management tools for etanercept; however, a similar effect was not noted in LIS patients. **CONCLUSIONS:** Strong geographic variation exists in utilization of RA biologics in Medicare. Part D cost-sharing and utilization management tools also influence choice of biologics.

PMS50

PATTERNS OF TREATMENT UTILIZATION FOR OSTEOPOROSIS IN ELDERLY WOMEN RESIDING IN THE COMMUNITY AND IN LONG-TERM CARE FACILITIES

Loh FE[1], Stuart B[2]
[1]*University of Maryland School of Pharmacy, Baltimore, MD, USA,* [2]*University of Maryland, Baltimore, Baltimore, MD, USA*

OBJECTIVES: The objective of this study is to compare prevalence of treatment for osteoporosis and identify predictors for osteoporosis treatment in elderly women residing in the community and in long-term care facilities. **METHODS:** This is a cross-sectional study using Medicare beneficiaries participating in the Medicare Current Beneficiary Survey (MCBS) between 2000 and 2003. The study population was female Medicare beneficiaries aged 65 and older with evidence of osteoporosis. The outcome variable captured drugs used to treat osteoporosis, including bisphosphonates, calcitonin, estrogens, parathyroid hormone analog and selective estrogen receptor modulator (SERM). The covariate of interest was an indicator of type of residence (i.e. commumity or long-term care facility) identified from survey data. **RESULTS:** The final study sample included 4,221 community dwellers and 394 facility residents with evidence of osteoporosis. The unadjusted prevalence of osteoporoses treatment was 52.1% for community dwellers and 40.9% for facility residents. However, after adjusting for other covariates, the adjusted prevalence of treatment was 52.0% (95% CI=[51.6%, 52.5%]) for community dwellers and 65.3% (95% CI=[64.9%, 65.7%]) for facility residents. The main factors that caused the flip in adjusted prevalence of treatment were age and limitations in activities of daily living (ADLs). Compared to patients aged 65-74, patients aged 75 and older were significantly less likely to be treated (AOR=0.81, 95% CI=[0.69,0.95] for age 75-84 and AOR=0.54, 95% CI=[0.44, 0.67] for age 85 and older). Each additional ADL reduced to odds of treatment by AOR=0.87, 95% CI=[0.64, 0.91]. **CONCLUSIONS:** The lower prevalence of osteoporoses treatment observed among community dwellers compared to facility residents is mainly due to differences in age and ADL limitations. For elderly women with the same characteristics, residents in long-term care facilities were actually more likely to receive osteoporosis treatment compared to their community counterparts over the study period.

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RACIAL DISPARITIES IN UTILIZATION OF BIOLOGIC AND DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS IN A CALIFORNIA MEDICAID POPULATION WITH RHEUMATOID ARTHRITIS

Nichol MB[1], Wu J[1], Harker JO[2], Knight TK[1], Wong AL[3]
[1]*University of Southern California, Los Angeles, CA, USA,* [2]*Olive View-UCLA Education and Research Institute, Sylmar, CA, USA,* [3]*Olive View-UCLA Medical Center, Sylmar, CA, USA*

OBJECTIVES: 1) To investigate racial disparities in medication use in Rheumatoid Arthritis (RA) patients; 2) To identify factors associated with using a biologic tumor necrosis factor inhibitor (biologic-TNF). **METHODS:** We identified patients 18-64 years old with at least two diagnoses of RA and one prescription fill for Disease-Modifying Anti-Rheumatic Drugs (DMARDs) within the first year of diagnosis from the California Medicaid (Medi-Cal) claims data (1995-2006). The annual prevalence of medication use for each racial group was calculated. A generalized linear model was used to assess for predictors of annual biologic-TNF use during 1999-2006. **RESULTS:** We analyzed 6,463 patients. The biologic-TNF use increased from 7.0%, 6.5%, 2.5% in 1999 to 22.9%, 24.5%, and 14.3% in 2006; but the DMARD use decreased from 80.7%, 82.3%, 76.8% in 1995 to 71.9%, 72.4%, and 71.4% in 1999 for Whites, Hispanics, and Blacks, respectively (all p<0.0001). The difference in prevalence of biologic-TNF use between Whites and Blacks ranged from 4.5% in 1999 to 11.0% in 2005. The DMARD use among racial groups was not different during 1995-2000 (pre-biologic) (all p>0.05). Hispanics (75.3% to 81.0%) were more likely to use DMARDs than Whites (74.0% to 70.1%) or Blacks (64.0%) to 66.5%) from 2001 to 2006 (all p<0.001). The differences in prevalence of DMARD use between Whites and Blacks were largest (12.4%) in 2002, but decreased to 3.6% in 2006 (all p<0.001). Significant predictors of biologic-TNF use included Blacks [Odd ratio (OR)=0.48], Hispanics (OR=0.68) as compared to Whites, Medi-Cal and Medicare dual eligibility (OR=1.34), not filling DMARD (OR=0.34), greater number of RA medication fills (OR=2.12), fewer comorbidities (OR=0.88), and access to a Rheumatologist (OR=1.01). **CONCLUSIONS:** Biologic-TNF and DMARDs were used disproportionately in Blacks and Hispanics across 1999 to 2006. In addition to race, clinical/treatment factors, comorbidity, and Medicare eligibility have significant impact on utilization of biologic-TNF.

PMS52

PREDICTORS OF BISPHOSPHONATE PRESCRIPTION IN PATIENTS WITH OSTEOPOROSIS

Patel AV, Wu IH, Ho L, Aparasu RR
University of Houston, Houston, TX, USA

OBJECTIVES: Bisphosphonates are cornerstone of osteoporosis management as they are effective in both prevention and treatment of osteoporosis. The objective of this study is to identify the predictors of bisphosphonate prescription among patients with osteoporosis. **METHODS:** All patients > 40 years and diagnosed with osteoporosis (*ICD-9-CM: 733.0*) were identified from National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS), 2006-07. Bivariate and multivariate logistic regression was carried out to identify the predictors of Bisphosphonate prescription. **RESULTS:** According to the survey, about 44.4 (CI: 38.8 – 50.8) million visits were made for osteoporosis. Of the visits, about 14 (CI: 11 – 16.4) million visits involved bisphosphonates. Alendronate (61.5%) and Risedronate (25.29%) were the most commonly prescribed bisphosphonates. Multivariate analysis suggested that women (OR: 2.74; C.I.:1.62-4.62) were more likely to be prescribed bisphosphonates as compared to males. Also visits made by patients of age ≥ 70 (OR: 2.60; C.I.:1.11-6.06) were more likely to be prescribed bisphosphonates than those between 40-49 years. Race, physician speciality, metropolitan area and payment type were not associated with bisphosphonates prescription. **CONCLUSIONS:** Bisphosphonates are commonly used in osteoporosis management. However drug utilization rates vary with age and gender. More research is needed to understand the variation in bisphophonate prescribing.