years and mean days of hospitalization 6.44±4.47 were observed. Disease duration of more than 2 years was observed in 336 (55.8%) patients. RA alone, RA with 1 comorbidity, RA with 2 comorbidities, RA with 3 comorbidities, RA with 4 comorbidities, RA with 5 comorbidities, were present in 227 (37.7%), 171 (28.4%), 118 (19.6%), 58 (9.6%), 19 (3.2%), 9 (1.5%) patients respectively. The most common comorbidities were diabetes mellitus 114 (18.94%), hypertension 104 (17.28%) and EAM was anemia 351 (58.30%). **CONCLUSIONS:** Comorbidities and EAM were present in substantial proportion of RA patients. Diabetes mellitus, hypertension and anemia were found to be most common in our setting. Early diagnosis and management are necessary to reduce their impact on therapeutic outcomes in RA.

PMS3

IMPACT OF COMORBIDITY BURDEN ON REAL-WORLD HEALTH CARE COSTS OF RHEUMATOID ARTHRITIS PATIENTS IN TURKEY

Baser O[1], Burkan A[2], Baser E[3], Koselerli R[2], Ertugay E[2], Altinbas A[4]
[1]*STATinMED Research/The University of Michigan, Ann Arbor, Michigan, MI, USA,* [2]*Social Security Institution, Ankara, Turkey,* [3]*STATinMED Research, Ankara, Turkey,* [4]*Diskapi Yildirim Beyazi Education and Research Hospital, Gastroenterology Clinic, and STATinMED Research, Ankara, Turkey*

OBJECTIVES: To determine the impact of comorbidity burden on real-world health care costs of rheumatoid arthritis (RA) patients in Turkey, using nationwide real-world data. **METHODS:** Study data was obtained from MEDULA (2009-2011). Using International Classification of Disease Tenth Revision Clinical Modification (ICD-10-CM) codes, adult RA patients (ages 18-99) were identified for the identification period (June 1, 2010 - December 31, 2010). Patients were required to have two RA diagnoses at least 60 days apart, and were grouped as prevalent and incident cases. The date of the first RA claim was identified for each patient and designated as the index date. Total health care costs were examined over the 12-month period following the index date. To control for clinical characteristics, a comorbidity index score for each patient during the baseline period was calculated using the Elixhauser method. This index is the sum of a comprehensive set of 30 present comorbid conditions, and is widely-used in the outcomes research field to determine patient health status. Individual comorbidities, such as diabetes, respiratory diseases, allergy and cardiovascular diseases, were identified using ICD-10 codes. **RESULTS:** A total of 2,613 patients met all inclusion criteria (693 incident; 1,920 prevalent patients). Prevalent patients had higher comorbidity index scores relative to incident patients. Nearly 35% of incident and 40% of prevalent patients had at least one cardiovascular, diabetic, respiratory, or allergy comorbid condition prior to the diagnosis. The mean Elixhauser Comorbidity Index score was calculated as 5.31 for incident and 5.7 for prevalent patients. Prevalent patients with respiratory and cardiovascular comorbid conditions incurred additional health care costs of €302 and €283 respectively. For incident patients, respiratory comorbid conditions increased the health care costs with €916. **CONCLUSIONS:** Respiratory comorbid conditions were associated with health care costs for both prevalent and incident RA patients in Turkey.

PMS4

EFFECTS OF CLAIMS-BASED RHEUMATOID ARTHRITIS SEVERITY ON BIOLOGIC THERAPY USE AND HEALTH CARE COSTS IN TURKEY

Baser O[1], Baser E[2], Altinbas A[3], Burkan A[4]
[1]*STATinMED Research/The University of Michigan, Ann Arbor, Michigan, MI, USA,* [2]*STATinMED Research, Ankara, Turkey,* [3]*Diskapi Yildirim Beyazi Education and Research Hospital, Gastroenterology Clinic, and STATinMED Research, Ankara, Turkey,* [4]*Social Security Institution, Ankara, Turkey*

OBJECTIVES: To apply a previously validated claims-based severity index for rheumatoid arthritis (SIFRA) to prevalent rheumatoid arthritis (RA) groups in Turkey and assess the effect of claims-based RA severity on health care costs and biologic use. **METHODS:** The Turkish national health insurance database MEDULA (01JUN2009-31DEC2011) was used for the study. Prevalent RA patients were required to be age 18-99 with two RA diagnoses ≥60 days apart and continuous enrollment 1 year pre- (baseline period) and post-index date (follow-up), which was the first RA claim during the identification period (01JUN2010-31DEC2010). SIFRA was calculated for the baseline period. For the follow-up period, total health care costs and biologic use were examined. To determine health care costs, generalized linear models were applied, and multivariate logistic regression determined the effect of SIFRA on outcome measures for biologic use. **RESULTS:** A total of 1,920 RA patients were identified. The mean SIFRA score was 14.21. There was a significant variation in scores across cities. Study results confirmed increased biologic use in more severe patients. After adjusting for differences in age, gender, region and comorbidity index, patients in the high SIFRA tercile were 5.16 times more likely to be prescribed biologics (p<0.001, confidence interval [CI]: 3.46-7.69), and incurred more annual health care costs in the amount of €2,091 (p<0.001, CI: €1,557-€2,625) than those in the low SIFRA tercile. **CONCLUSIONS:** This study showed that RA severity is a significant determinant of health care costs and biologic therapy use. Biologic use was positively correlated with the severity score. According to severity scores, the total medical costs of RA patients in Turkey ranged from €1,435 to €3,275. Since statistically omitting a variable from population models provides biased and inconsistent estimates, any comparative effectiveness studies on RA treatment should include severity scores in the analysis.

PMS5

THE IMPACT OF PERSISTENCE AND COMPLIANCE WITH ORAL BISPHOSPHONATES ON FRACTURE RATES ASSESSED USING THE CLINICAL PRACTICE RESEARCH DATALINK (CPRD) IN THE UNITED KINGDOM

Feudjo Tepie M[1], Taylor A[2], Roddam A[1], Critchlow C[3], Iqbal M[2], Ferguson S[1], Bayly J[4]
[1]*Amgen Ltd., Uxbridge, UK,* [2]*Amgen Ltd., Cambridge, UK,* [3]*Amgen Inc, Thousand Oaks, CA, USA,* [4]*University of Derby, Derby, UK*

OBJECTIVES: To assess the impact of persistence and compliance on fracture rates and health care resource use (HRU) in women treated with oral bisphosphonates (oBPs). **METHODS:** This analysis of the UK CPRD included women with first oBP prescription (index event) between January 2004–December 2007, ≥50 years of age, with no history of cancer and a minimum of 12 months' data before and 6 months' after the index event. Follow-up for any osteoporotic fracture was until December 2008. Persistence was defined as duration of continuous oBP use with no gaps >3 months; compliance was assessed using the medication possession ratio (MPR; proportion of time with treatment available). HRU was evaluated using total primary care contact (including prescriptions), and all specialist referrals and hospitalisations. Analyses were stratified by persistence and compliance. **RESULTS:** A total of 21,717 patients were included (mean age, 73.5 years). Between 2004–2007, fracture rates per patient–year were: 0.14 (95% CI: 0.12, 0.16; group with MPR <80%) and 0.11 (0.10, 0.12; MPR ≥80%) for patients with 12–24 months' persistence *vs* 0.09 (0.08, 0.10) and 0.07 (0.06, 0.08), respectively, for patients with ≥36 months' persistence. Hospitalisation rates were 0.38 (0.34, 0.42; MPR <80%) and 0.30 (0.29, 0.32; MPR ≥80%) for patients with 12–24 months' persistence *vs* 0.55 (0.52, 0.59) and 0.18 (0.17, 0.19), respectively, for patients with ≥36 months' persistence. Among patients who discontinued oBPs and had <12 months' persistence and MPR ≥80% before discontinuation, fracture rates were 0.02 (0.01, 0.03) and 0.09 (0.07, 0.12) in the first and second 6 months following discontinuation, respectively, and hospitalisation rates were 0.09 (0.07, 0.11) and 0.48 (0.42, 0.55), respectively. **CONCLUSIONS:** Outcomes associated with oBPs were improved with longer persistence and higher compliance. However, in patients with <12 months' persistence, protection against fractures and hospitalisation diminished 6 months after discontinuation of oBPs.

PMS6

INDIRECT COMPARISON OF JOINT DAMAGE PREVENTION WITH ADALIMUMAB V. ABATACEPT, EACH IN COMBINATION WITH METHOTREXATE, IN EARLY RHEUMATOID ARTHRITIS

Wu EQ[1], Cifaldi M[2], Diener M[3], Kaltenboeck A[3], Ganguli A[2], Bergman M[4]
[1]*Analysis Group, Inc., Boston, MA, USA,* [2]*AbbVie Inc., North Chicago, IL, USA,* [3]*Analysis Group, Inc., New York, NY, USA,* [4]*Taylor Hospital, Ridley Park, PA, USA*

OBJECTIVES: The AMPLE trial concluded comparable efficacy of adalimumab (ADA) and abatacept (ABA) after one-year methotrexate (MTX) combination treatment for rheumatoid arthritis (RA). This study compared effects of adalimumab v. abatacept, each in MTX combination, on progressive RA joint damage, adjusting for study population characteristics. **METHODS:** Two placebo-controlled trials in early RA, PREMIER (ADA+MTX v. MTX) and AGREE (ABA+MTX v. MTX) were selected based on design and comparability of enrollment criteria. Patient-level data from PREMIER were adjusted, using propensity score weighting, to match average baseline characteristics from AGREE, including RA duration and clinical measures. Radiographic progression (RP) was a change in total Sharp score (TSS) > 0 (modified TSS in PREMIER and Genant-modified TSS in AGREE). Joint space narrowing (JSN) and joint erosion (JE) scores in PREMIER were scaled to proportion with AGREE measures. After re-weighting, one-year incremental effects were compared for ADA+MTX vs. ABA+MTX, including RP rates, mean JSN and JE score changes from baseline, disease activity score (DAS28) remission rates, and American College of Rheumatology 50% improvement (ACR50). **RESULTS:** Compared to AGREE patients, PREMIER patients were slightly older, more likely to be Caucasian, had longer RA duration, higher C-reactive protein levels, more severe joint damage, and lower functional impairment at baseline. After re-weighting, more ADA+MTX patients had no RP after one year compared to ABA+MTX patients (27.0% v. 8.3%; p=0.02). Mean improvements in JSN (-1.41 v. -0.04) and JE (-1.54 v. -0.39) scores from baseline were numerically greater with ADA+MTX; statistical significance could not be assessed as standard errors were not published for AGREE. No statistically significant differences were observed in DAS28 remission rates (p=0.47) and ACR50 responses (p=0.72). **CONCLUSIONS:** Although both combination therapies yielded similar disease activity measures at one year in early RA patients, ADA+MTX offered greater protection against radiographically-confirmed joint damage than ABA+MTX.

PMS7

META-ANALYSIS OF EFFICACY OF ETANERCEPT FOR TREATMENT OF PSORIATIC ARTHRITIS

Aggarwal S, Topaloglu H
Novel Health Strategies, Bethesda, MD, USA

OBJECTIVES: Psoriatic arthritis (PA) is an inflammatory disease affecting joints and connective tissues. The anti-tumor necrosis factor (TNF) biologics are increasingly being used in patients who have failed traditional disease-modifying antirheumatic drugs. Etanercept has shown efficacy in treatment of PA. The objective of this study was to conduct meta-analysis and present total evidence for etanercept in treatment of PA. **METHODS:** For this meta-analysis we included randomized controlled trials (RCTs)evaluating etanercept for the treatment of PS. RCTs studying adult populations with active and progressive PA with an inadequate response to previous DMARD therapy were eligible. Trials conducted among PA populations with prior experience with anti-TNF agents, including an inadequate response, were excluded. A systematic literature search for Etanercept trials was undertaken for the databases Pubmed, Embase, Biosis, Google Scholar, and Cochrane. Data was collected for the study size, interventions, year, and the three outcomes HAQ, PASI and PsARC. For meta-analysis, random effects and fixed effects models were used to obtain cumulative statistics. **RESULTS:** Two RCTs with a total of 131 patients were identified. The pooled response rates for Etanercept for PsARC were 75% (95% CI 60%-90%), for HAQ were 59% (95% CI 46%-72%), and for PASI were 24% (95% CI 13%-34%). The pooled response rates for placebo for PsARC were 30% (95% CI 26%-35%), for HAQ were 5% (95% CI 1%-9%), and for PASI were 3% (95% CI 0%-7%). For PsARC the cumulative relative risk with Etanercept versus placebo was 0.40 (95% CI 33%-48%). For HAQ, the cumulative relative risk with placebo versus Etanercept was 0.08 (95% CI 5%-12%). For PASI, the cumulative relative risk with placebo versus Etanercept was 0.14 (95% CI 8%-20%). **CONCLUSIONS:** Meta-analysis shows Etanercept offers patients with psoriatic arthritis an effective therapeutic option for control of their disease.