

retrospective medical chart-review of RA patients was conducted to collect de-identified data for those recently treated with a biologic as part of usual care. Physicians (rheumatologists) were screened for duration of practice (3–30yrs) and patient volume (incl. >5 RA biologic patients/month) and recruited from a large panel to be geographically representative. Eligible patient charts ( $\geq 3$ ) were randomly selected from a sample of patients visiting each center/practice during the screening period. Physicians abstracted patient diagnosis, treatment patterns/dynamics and patient symptomatology/disease status/outcomes. Patients on adalimumab/etanercept monotherapy were analyzed. **RESULTS:** 169 eligible RA patient charts were abstracted; 43 on adalimumab (female: 63%, age: 51.7 yrs, average months on adalimumab: 39.5, 98% on first biologic) and 63 on etanercept (female: 78%, age: 49.3 yrs, average months on etanercept: 40.2, 87% on first biologic). Top-3 comorbidities (adalimumab vs. etanercept) were obesity: 21% vs. 10%, dyslipidemia: 21% vs. 6% and depression/anxiety: 12% vs. 11%. Among patients with available data, latest lab measures documented were (adalimumab vs. etanercept): ESR: 26.4 mm/h vs. 23.4 mm/h, CRP: 2.6 mg/dl vs. 1.7 mg/dl, rheumatoid factor-positive: 84% vs. 73%, and anti-CCP-positive: 65% vs. 59%. Latest disease severity measures documented were (adalimumab vs. etanercept): Swollen Joint Counts: 1.7 vs. 1.6, Tender Joint Counts: 2.5 vs. 2.8, and VAS score: 2.4 vs. 2.2. **CONCLUSIONS:** RA patients on adalimumab monotherapy were slightly older and had a lower percentage of female patients than those on etanercept. Most (>85%) were on their first biologic. The adalimumab group appeared to have a slightly higher disease burden and comorbidities. Factors influencing the observed patterns (including the choice of specific biologic for targeted patient profiles) may warrant further scrutiny to optimize therapeutic interventions and improve outcomes.

#### PMS14

##### EFFICACY OF TOFACITINIB IN COMBINATION WITH METHOTREXATE COMPARED TO BIOLOGICAL DMARDs IN COMBINATION WITH METHOTREXATE IN RHEUMATOID ARTHRITIS PATIENTS WITH AN INADEQUATE RESPONSE TO METHOTREXATE: OVERVIEW OF SYSTEMATIC REVIEW

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**OBJECTIVES:** Tofacitinib is a new oral drug which has demonstrated efficacy and safety in pivotal clinical trials. This study sought to assess the efficacy of tofacitinib in combination with methotrexate compared with biological DMARDs in combination with methotrexate, in rheumatoid arthritis (RA) patients with an inadequate response to methotrexate. **METHODS:** We performed an analysis of systematic review published in the last five years that assessed biological DMARDs (Adalimumab, certolizumab, infliximab, etanercept, golimumab, tocilizumab, rituximab and abatacept) or tofacitinib to treatment of RA after inadequate response to methotrexate. The search was realized in the database of Medline, EMBASE, Cochrane, LILACS, DARE and HTA. The data collection was realized by two researchers independently. Clinical trials that had been included in the systematic reviews were extracted and evaluated their methodological quality with checklist Cochrane. With mixed treatment comparison, the effectiveness between biological DMARDs and tofacitinib was compared using methotrexate as a common comparator. The outcomes considered in terms of effectiveness were improvement rates by ACR20, ACR50, ACR70 and HAQ criteria at 12 and 24 weeks. In order to evaluate the impact of heterogeneity, we performed analysis of sensibility and subgroups. **RESULTS:** 27 systematic reviews were included of which 30 clinical trials were assessed and analyzed. The indirect comparison showed that tofacitinib has similar efficacy in comparison to biological DMARDs in ACR20, ACR50, ACR70 and HAQ at 12 and 24 weeks. However, certolizumab displayed better response than tofacitinib in ACR20 at 12 weeks (OR 0.373 IC 95% 0.201 – 0.615). The sensitivity and subgroup analyses by the design of clinical trials, years of disease and number of swollen joint showed consistent results. **CONCLUSIONS:** The mixed treatment comparison indicated that tofacitinib is similar in terms of efficacy than biological DMARDs in RA patients with an inadequate response to methotrexate.

#### PMS15

##### COMPARISON OF DISEASE STATUS AND OUTCOMES OF PATIENTS WITH PSORIATIC ARTHRITIS (PSA) RECEIVING ADALIMUMAB OR ETANERCEPT MONOTHERAPY IN THE UNITED STATES (US)

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**OBJECTIVES:** To compare the disease status and outcomes of patients with PsA receiving adalimumab and etanercept monotherapy in the US. **METHODS:** A retrospective medical chart-review of PsA patients was conducted to collect de-identified data for those recently treated with a biologic as part of usual care. Physicians (rheumatologists) were screened for duration of practice (3–30yrs) and patient volume (incl. >5 PsA biologic patients/month) and recruited from a large panel to be geographically representative. Eligible patient charts ( $\geq 3$ ) were randomly selected from a sample of patients visiting each center/practice during the screening period. Physicians abstracted patient diagnosis, treatment patterns/dynamics and patient symptomatology/disease status/outcomes. Patients on adalimumab/etanercept monotherapy were analyzed. **RESULTS:** 84 eligible PsA patient charts were abstracted; 37 on adalimumab (male: 54%, age: 46.5 yrs, average months on adalimumab: 28.2, 92% on first biologic) and 29 on etanercept (male: 62%, age: 42.3 yrs, average months on etanercept: 32.2, 100% on first biologic). Top-5 comorbidities (adalimumab vs. etanercept) were obesity: 24% vs. 17%, dyslipidemia: 8% vs. 7%, diabetes: 8% vs. 3%, kidney disease: 8% vs. 0%, migraine: 3% vs. 3%. Among patients with available data, latest lab measures documented were (adalimumab vs. etanercept): ESR: 28.0 mm/h vs. 15.8 mm/h and CRP: 3.9 mg/dl vs. 2.3 mg/dl. Latest disease severity measures documented were (adalimumab vs. etanercept): Swollen Joint Counts: 1.8 vs. 1.1, Tender Joint Counts: 2.6 vs. 3.9, and HAQ rating: 0.7 vs. 0.3. **CONCLUSIONS:** PsA patients on adalimumab monotherapy were slightly older and on adalimumab for fewer average months than patients on etanercept. Most (>90%) were on their first biologic. The adalimumab group appeared to have a

slightly higher disease burden and comorbidities. Factors influencing the observed patterns (including the choice of specific biologic for targeted patient profiles) may warrant further scrutiny to optimize therapeutic interventions and improve outcomes.

#### PMS16

##### ASSESSMENT OF THE QUALITY OF LIFE IN CHINESE MYASTHENIA GRAVIS PATIENTS

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**OBJECTIVES:** Myasthenia Gravis (MG) is an autoimmune disease of neuromuscular junction, which influences patients' quality of life (QoL). Studies had showed MG patients with poor QoL, but there is no data in Chinese MG patients. **METHODS:** Consecutive MG patients are enrolled in three hospitals in Shenyang, China, from July, 2008 to June, 2010. Patients ( $14 \leq \text{age} < 75$  years) with class  $\uparrow$ T,  $\uparrow$ Ua, or  $\uparrow$ Ub MG according to Osserman's classification are enrolled, and are separated into Ocular, Mild and Moderate groups. Familial MG, congenital MG and drug-induced MG are excluded. QoL is assessed by the SF-36 (rang: 0–100); severity of the disease is assessed by Chinese Score for MG (CSMG rang 12–60; higher scores worse weakness). Differences are tested using ANOVA and Kruskal-Wallis as appropriate. **RESULTS:** Analysis is based on 248 patients (male 110, 44%; age:  $46 \pm 18$  year), of whom 27%, 35% and 38% classified into Ocular, Mild and Moderated groups respectively. The disease history is  $47 \pm 64$  months (median 24). Fifty-nine patients have at least one comorbidity, and 71 with thymic hyperplasia, and 49 thymectomy. There is no significant difference in demographic characteristics among three groups ( $P > 0.05$ ), and no difference in disease history, comorbidity and treatment either. Ocular group has better QoL than Mild and Moderated groups: 64, 57, 51 for each group respectively ( $P = 0.000$ ), and better weakness in CSMG scores: 21, 23, 26 respectively ( $P = 0.000$ ). Significant differences is found in all the subscales of SF-36 among groups ( $P < 0.05$ ), except for general health ( $P = 0.054$ ), social functioning ( $P = 0.490$ ), and role-emotional ( $P = 0.104$ ). **CONCLUSIONS:** Our study reveals that Chinese MG patients have poor QoL, and Ocular MG patients have better QoL than those who are Mild and Moderate MG, and QoL is influence by the degree of muscle weakness.

#### PMS17

##### LONG-TERM DECREASE IN GOUT FLARE RATES ASSOCIATED WITH EFFECTIVE URATE LOWERING THERAPY

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**OBJECTIVES:** Previous clinical trials have demonstrated that gout patients who achieve the target serum urate acid (SUA) level  $\leq 6$  mg/dl with urate lowering therapy (ULT) experience a reduction in the frequency of gout flares over time. This finding has not been fully exploited in pharmacoeconomic models of ULTs that associate constant flare rates with SUA levels. The objective of this study was to quantify the long-term rate of decrease in flare frequency among subjects who achieved the target SUA level in the fEbuXostat/allopurinol Comparative Extension Long-term study (EXCEL). **METHODS:** The EXCEL trial reported the proportion of subjects experiencing  $\geq 1$  gout flare requiring treatment by two-month intervals. Binomial regression was used to fit Gompertz and Weibull survival models to the observations at least 6 months after baseline, pooled across treatment arms. Model fit was assessed by a chi-square test of the model deviance. **RESULTS:** The goodness of fit test for the Gompertz survival model indicated that the model provides an adequate fit to the data (model deviance = 14.14 with 15 degrees of freedom;  $p = 0.5146$ ). However, the goodness of fit test for the Weibull survival model indicated an inadequate fit to the data (model deviance = 55.01 with 15 degrees of freedom;  $p < 0.0001$ ). The maximum likelihood estimate of the shape parameter of the Gompertz survival model is  $-0.0906$ , where time is measured in months. **CONCLUSIONS:** The long-term ( $\geq 6$  months after baseline) gout flare results reported in the EXCEL trial can be adequately modeled by a Gompertz survival model, which estimates that the gout flare rate decreased by 9.06% per month for subjects who achieved the target SUA level of  $\leq 6$  mg/dL. The results of this analysis may be useful for modeling the long-term clinical and economic outcomes of ULTs in patients with gout.

#### PMS18

##### USE OF ANTI-OSTEOPOROSIS MEDICATIONS AND FRACTURE RISK AMONG ELDERLY PATIENTS WITH END-STAGE RENAL DISEASE: A RETROSPECTIVE COHORT STUDY

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**OBJECTIVES:** Evidence supporting the use of anti-osteoporosis (AO) medications (AOMs) for preventing fracture among elderly patients with end-stage renal disease (ESRD) was scarce. This study evaluated the benefits of AOMs in fracture prevention for elderly patients with ESRD. **METHODS:** Using 1997–2008 Taiwan's National Health Insurance research database, we identified incident chronic dialysis patients with concomitant diagnosis of osteoporosis who had received AOMs during the year before dialysis between 1998 and 2007; the AOMs included salmon calcitonin, alendronate, zoledronate, raloxifene, and teriparatide. Following the inception of dialysis, patients who continued AOMs were categorized into AO treated cohort and those who ceased using AOMs were AO untreated cohort. Study outcomes were defined as hospitalizations due to hip or vertebral fracture during the follow-up period. **RESULTS:** We identified 490 patients receiving AOMs during the year before dialysis. The mean age of AO untreated cohort and AO treated cohort were 74.40 and 71.64. Fracture hazard risk (HR) in the AO treated cohort was not significantly lower than the AO untreated cohort, either unadjusted (HR = 1.02, 95%CI = 0.40–2.62,  $p = 0.96$ ) or adjusted (HR = 0.92, 95%CI = 0.30–2.82,  $p = 0.89$ ). Further analysis in female patients resulted in a similar finding. **CONCLUSIONS:** This study found that use of AOMs was not associated with a reduction of fracture risk in elderly chronically dialyzed patients.