72 systematic reviews and health technology assessments were included, 30 clinical trials were excluded, which can be treated with methotrexate. The results of mixed treatment comparison revealed that tocitumab displays similar safety as adalimumab, certolizumab, infliximab, etanercept, goltimub, rituximab, tocilizumab and abatacept in occurrence of serious adverse events (SAEs). SAEs were observed in 24% and 19% patients through trials, and in the outcome of withdrawal due to adverse events, etanercept showed less probability of occurrence than tocitumab (OR = 2.21, 95% CI: 1.02-4.03), regarding to other biologics, DMARDs, they reported the same risk than tocitumab: CONCLUSIONS: The results of mixed treatment comparison indicated that tocitumab is similarly safe than biological DMARDs considering the occurrence of serious adverse events and serious infections.

PMS3
FACTORS AND REASONS ASSOCIATED WITH SWITCHING IN RHEUMATOID ARTHRITIS PATIENTS EXPERIENCED ON BIOLOGIC DMARDS AND IMPACT ON HEALTH CARE RESOURCE UTILIZATION IN AN INTEGRATED HEALTHCARE SYSTEM

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OBJECTIVES: Evaluate factors and reasons associated with switching from biologic disease-modifying anti-rheumatic drugs (bDMARD) in Kaiser Permanente Southern California (KPS) experienced RA patients; evaluate RA related health care resource utilization (HCRU) and costs associated with bDMARD switching. METHODS: A retrospective database study was conducted using KPS patient data. A total of 21,711 patients greater than or equal to 18 years of age and with a diagnosis of RA (ICD-9-CM: 714.xx) and at least one documented visit prior to index date was identified. The index period was from 01/01/2009 to 12/31/2012. The date was defined as the first identified bDMARD prescription during the identification period. Patients were on the same index bDMARD for 24 months prior to index date and were followed up for 12 months post-index. Patients were categorized into a switch and a non-switch group during follow up. A multivariate regression analysis was conducted to evaluate factors associated with patients switching bDMARD. Chart notes were reviewed 30 days prior and 28 days post switch date to identify reasons for switching. RA related HCRU and costs were calculated for 12 months pre/post-index for both groups. RESULTS: 1,753 patients were identified (5% switchers, and 95% non-switchers). Factors associated with bDMARD switching patterns in RA patients; however these unique data from this integrated healthcare system emphasize in reports and monitoring is needed to reduce the risks in these patients.

PMS4
FACTORS AND REASONS ASSOCIATED WITH SWITCHING IN RHEUMATOID ARTHRITIS PATIENTS NEWLY INITIATED ON BIOLOGIC DMARDS AND IMPACT ON HEALTH CARE RESOURCE UTILIZATION IN A MANAGED CARE ORGANIZATION

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OBJECTIVES: Evaluate factors and reasons associated with switching from biologic disease-modifying anti-rheumatic drugs (bDMARDs) in Kaiser Permanente Southern California (KPS) RA patients, to evaluate RA related healthcare resource utilization (HCRU) and cost associated with bDMARD switching. METHODS: A retrospective database study from time period 01/01/2007 to 12/31/2012 was used to identify KPS patient’s ≥ 18 years of age and with a diagnosis of RA (ICD-9-CM: 714.xx). The index date was defined as the first bDMARD prescription with no prior history of bDMARD use 12 months pre-index date. Patients were followed up for 12 months post-index and were categorized into a switch group and a non-switch group during follow up. A multivariate regression analysis was conducted to evaluate factors associated with bDMARD switching. Chart notes were reviewed 30 days prior and 30 days post bDMARD switch to identify reasons for switching. RA related HCRU and costs were calculated for 12 months pre/post-index for both groups. RESULTS: 2,171 patients were identified (12% switchers, and 88% non-switchers). The average age for patients to switch was 110 days (SD = 35.5). Differences in baseline characteristics included more use of corticosteroids, nontoxicities, and higher ER and outpatient visits in the switch group. Factors associated with bDMARD switching were: female gender, obesity, corticosteroids use, other conventional DMARD use, higher ER/outpatient use in the prior 6 months, and patients initiated on Etanercept. Over 70% of patients switched due to adverse events, lack of efficacy. Patients who switched had higher RA related costs during 12 months pre/post-index compared to the non-switch group. CONCLUSIONS: This is a single study conducted in a managed care system to evaluate reasons associated with bDMARD switching in this RA population. Reasons associated with bDMARD switching included medication adverse events, and lack/loss of efficacy; bDMARD switched had significantly higher RA related costs.

PM5
META-ANALYSIS OF EFFICACY AND SAFETY OF DENSOSUMAB IN POSTMENOPAUSAL OSTEOPOROSIS

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OBJECTIVES: Densosumab is a human monoclonal antibody against receptor activator of nuclear factor kappa-B ligand (RANKL), which can be used for treatment as an antiresorptive agent. The aim of this study was to evaluate the efficacy and safety of densosumab for the treatment of postmenopausal osteoporosis by performing a meta-analysis. METHODS: Pubmed, EMBASE, the Cochrane Central Register of Controlled Trials, and other electronic databases were searched. Inclusion criteria were randomized, placebo-controlled clinical trials on patients with postmenopausal osteoporosis, 60mg of densosumab every 6 months, consistent time point framework, and clinical outcome measures. Adverse events were analyzed. RESULTS: 10 RCTs involving 9,134 patients were included. The results showed that densosumab was associated with a significant reduction in new vertebral fractures risk (RR = 0.35, 95%CI: 0.256 to 0.412, p = 0.001). A decreased risk of nonvertebral fractures was also observed (OR = 0.789, 95%CI: 0.709-0.880). As compared to the placebo arm, the densosumab arm showed no evidence of significant risk of total adverse events [RR = 1.003, 95%CI 0.991 to 1.015], serious adverse events [RR = 1.042, 95%CI 0.967 to 1.124], and fatal adverse events [RR = 0.785, 95%CI 0.557 to 1.067]. In addition, densosumab stopped taking their drugs. CONCLUSIONS: the occurrence of ADRs in patients treated for rheumatoid arthritis is common, especially in those associated with the use of biologics and anti-rheumatic drugs. This should be emphasized in reports and monitoring is needed to reduce the risks in these patients.

PM57
INCIDENCE AND PROGNOSTIC FACTORS FOR CONTRALATERAL HIP FRACTURE AMONG HUNGARIAN MEN OVER 60 YEARS

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OBJECTIVES: Patients with low-energy hip fracture represent a high-risk group for subsequent hip fractures. Our nationwide study focused on the effect of demographic and clinical factors on the risk of contralateral hip fractures in Hungarian men over 60 years. METHODS: The retrospective observational cohort study based on data of the Hungarian National Health Insurance Fund. Men aged 60 years and over and diagnosed with primary femoral neck fracture in year 2000 and 2001 were included in the study. The incidence of contralateral fractures was investigated between 01 January 2000 and 31 December 2008. Occurrence of secondary hip fractures was analyzed in relation to patients’ age, place of living, hospital providing treatment for primary hip fracture, type of primary fracture, comorbidities, type of surgical intervention for primary fracture and survival time. To evaluate the prognostic factors multivariate Cox proportional hazard model was conducted to calculate pooled relative risks with a 95% confidence interval. Heterogeneity across studies was also assessed. RESULTS: 56,079 hip fracture cases per person-year, these were from a cohort of 1,364 users followed for an average of 23.8±12.9 months. There was a female preponderance (n=36, 87.4%) and a mean age of 52.7±13 years. The highest incidence rates for ADRs were reported for tocilizumab, rituximab and infliximab with 28.8, 23.1 and 13.3 reports per 100 patient-years respectively. The most frequent were “Elevated transaminase levels” and “Dyspepsia”. Overall, 87.7% of ADRs were type A, 36.6% were classified as mild, 40.7% as moderate and 16.1% as severe. As of patient’s fall risk. 0.73% of patients stopped taking their drugs. CONCLUSIONS: the occurrence of ADs in patients treated for rheumatoid arthritis is common, especially in those associated with the use of biologics and anti-rheumatic drugs. This should be emphasized in reports and monitoring is needed to reduce the risks in these patients.