literate, willingness to change treatment, or decisional conflict. We found a significant improvement in pre-post willingness to change treatment in intervention vs. control participants (0.5 vs 0.01, p=0.01). We calculated an effect size (Glass’s delta) for the intervention of 0.48 (i.e. moderate). Moreover, decisional conflict about treatment change decreased; there was no significant difference in pre-post differences in decision conflict between groups.

Conclusion: This randomized trial testing a novel patient-directed intervention advocating for T2T strategy implementation in RA care increased self-reported willingness to change RA treatment. Further studies are needed to evaluate if this effect is sustained over time and if it translates into actionable behavior change.

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THU0115
IS INCIDENT RHEUMATOID ARTHRITIS INTERSTITIAL LUNG DISEASE ASSOCIATED WITH METHOTREXATE TREATMENT? RESULTS FROM A MULTIVARIATE ANALYSIS IN THE ERAS AND ERAN INCEPTION COHORTS:

Patrick KIELY1, Amanda Busby2, Elena Nikiphorou3, Keith Sullivan4, Adam Young5. 1St George’s University Hospitals NHS Foundation Trust, Rheumatology, London, United Kingdom; 2University of Hertfordshire, Center for Health Services and Clinical Research and Post Graduate Medicine, Hatfield, United Kingdom; 3King’s College, London, Academic Rheumatology, London, United Kingdom

Background: Rheumatoid arthritis interstitial lung disease (RA-ILD) is a rare but significant manifestation of RA, with high mortality. Methotrexate (MTX) is known to cause hypersensitivity pneumonitis, but its effect on the onset of RA-ILD is less clear.

Objectives: To assess predictive factors for rheumatoid arthritis interstitial lung disease (RA-ILD) in two early RA inception cohorts with a focus on MTX exposure.

Methods: Patients with new diagnosis of RA recruited to the early RA study (ERAS) and the early RA network (ERAN), Standardised data including demographics, drug therapies and clinical outcomes including the presence of RA-ILD were collected at baseline, within 3-6 months, at 12 months and annually for up to 25 years thereafter. Primary outcome was the association of MTX exposure with incident RA-ILD. Secondary outcomes were the association of demographic, comorbid and RA specific factors on incident RA-ILD using univariate and multivariate analyses and the association of MTX exposure on time to RA-ILD diagnosis using time to event Cox proportional hazards analysis.

Results: Of 92 eligible ILD cases, 39 occurred in 1578 (2.5%) MTX exposed and 53 in 1114 (4.8%) non-MTX exposed cases. The primary analysis of incident RA-ILD cases only developing after any csDMARD treatment (n=67) showed MTX exposure not to be associated with incident RA-ILD (O.R. 0.85 CI 0.49, 1.49 p=0.578) and a non-significant trend for delayed ILD diagnosis (O.R. 0.54 CI 0.28, 1.06 p=0.072) (see Figure). In an extended analysis including all RA-ILD cases (n=92, including those present pre csDMARD exposure), MTX exposure was associated with a significantly reduced risk of incident RA-ILD (O.R. 0.48, CI 0.3, 0.79 p<0.004) and longer time to ILD diagnosis (O.R. 0.41, CI 0.23, 0.75 p<0.004). Other independent baseline associations with incident RA-ILD were higher age of RA onset, ever smoking, male gender, ESR, and a longer time from first RA symptoms to first secondary care visit. There is no association between MTX treatment and incident RA-ILD. MTX may have a protective role in delaying the onset of RA-ILD.

Acknowledgement: All recruiting ERAS and ERAN centers

Conclusion: In ERAS/ERAN, incident RA-ILD is significantly associated with older age of RA onset, ever smoking, nodules, RF positivity, male gender, ESR, and a longer time from first RA symptoms to first secondary care visit. There is no association between MTX treatment and incident RA-ILD. MTX may have a protective role in delaying the onset of RA-ILD.

THU0116
COMPARATIVE SAFETY OF BIOLOGIC DMARDs AND ABATACEPT IN RHEUMATOID ARTHRITIS WITH COPD: A REAL-WORLD POPULATION-BASED OBSERVATIONAL STUDY

Samy Suissa1, Marie Hudson1, Pierre Ernst1, Sophie Shen2, Teresa Simon3. 1McGill University, Montreal, Canada; 2Bristol-Myers Squibb, New Jersey, United States of America

Background: The biologic DMARD abatacept has been associated with respiratory adverse events in patients with RA who have chronic obstructive pulmonary disease (COPD) in the ASSURE trial (NCT00048932), based on only 54 patients with RA and COPD.1 A large observational study of patients with RA and COPD, involving over 1,800 patients using abatacept did not find an increased incidence of respiratory adverse events with abatacept compared with other biologic DMARDs.2 It remains uncertain, however, whether this potential respiratory risk affects all biologic DMARDs, including abatacept, when compared with non-biologic DMARDs.

Objectives: To assess in a real-world observational setting whether patients with RA and COPD treated with biologic DMARDs, including abatacept, have an increased risk of serious respiratory adverse events compared with similar patients treated with non-biologic DMARDs.

Methods: The Truven MarketScan® Commercial and Supplemental Medicare databases were used to identify patients diagnosed with RA and COPD, treated with a biologic or non-biologic DMARD between January 2007 and December 2015. A prevalent new-user cohort design was used to match each new user of a biologic DMARD with a new user of a non-biologic DMARD on time-conditioned propensity scores. Patients were followed up from new use until the end of enrolment or 31 December 2015. The Cox model was used to estimate the hazard ratios (HRs) of respiratory adverse events associated with biologic DMARDs compared with non-biologic DMARDs.
with non-biologic DMARDs, further adjusted for confounders found to be unbalanced despite matching on propensity scores.

Results: The study cohort included 7,424 new users of biologic DMARDs matched to 7,424 new users of non-biologic DMARDs, followed for up to 9 years. The adjusted HR (95% CI) of the combined respiratory endpoint, including severe COPD exacerbation, bronchitis and severe pneumonia or influenza, with biologic DMARD use relative to non-biologic DMARDs was 0.86 (0.81-0.91) for severe COPD exacerbation it was 0.88 (0.84-0.91) for bronchitis, while for pneumonia or influenza it was 0.87 (0.81-0.95) if hospitalized and 1.01 (0.89-1.14) as outpatient. For users of abatacept relative to non-biologic DMARDs, the HR of the combined respiratory endpoint was 1.06 (0.80-1.42). Results remained unchanged with sensitivity analyses.

Conclusion: In this large real-world study of patients with RA and COPD, the risk of pre-specified serious respiratory adverse events was not significantly increased in patients using biologic DMARDs, and specifically abatacept, compared with those using non-biologic DMARDs. This study does not support the safety signal for abatacept from the ASSURE trial.

REFERENCES:

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