literacy, 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:

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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, rheumatoid nodules and longer time from first RA symptom to first out-patient visit (see Table).

Table Multivariate logistic analysis showing co-variables independently associated with RA-ILD development

	Primary analysis, RA-ILD onset after any csDMARD exposure, $n=67$	Wald test	Extended cohort, including RA-ILD onset pre any csDMARD, $n=92$	Wald test
	O.R. (95% C.I.)	p value	O.R. (95% C.I.)	p value
Methotrexate exposure	0.85 (0.49, 1.49)	0.578	0.48 (0.3, 0.79)	0.004
Age RA onset	1.04 (1.02, 1.06)	<0.001	1.04 (1.02, 1.06)	<0.001

Smoking, ever, baseline	2.21 (1.21, 4.03)	0.01	1.91 (1.13, 3.25)	0.016
Male gender	1.44 (0.83, 2.48)	0.193	1.74 (1.05, 2.86)	0.03
RF positive, baseline	2.02 (1.07, 3.82)	0.029		n.s.
RA nodules, baseline		n.s.	2.19 (1.08, 4.41)	0.029
Onset - 1 st OPD	1.04 (1.00, 1.07)	0.027	1.03 (1.0, 1.07)	0.04
Baseline major co-morbidities	0.62 (0.40, 0.95)	0.027	0.67 (0.46, 0.98)	0.037
Baseline ESR	-	n.s.	1.01 (1.0, 1.02)	0.047

Abstract THU0115 – Figure 1. Cox proportional time to event analysis showing time of onset of RA-ILD from first joint symptoms of RA in MTX exposed and non-MTX exposed groups; primary analysis: cases with RA-ILD first recorded after any csDMARD exposure, $n=67$.

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.

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THU0116

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

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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-conditional propensity scores.³ 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