Conclusion: Although patients with active RA and inadequate response to MTX have different therapeutic combination of biologics or small molecules options, the best relative efficacy in terms of ACR50 response after 24 weeks of treatment is for upadacitinib 15 mg/day.

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POS0632

THE LONGITUDINAL ASSOCIATIONS OF METHOTREXATE AND BIOLOGIC USE ON HOSPITAL ADMISSION FOR RHEUMATOID ARTHRITIS PATIENTS IN WESTERN AUSTRALIA POPULATION (1995- 2014)

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Background: Rheumatoid arthritis (RA) carries a substantial burden for patients and society in terms of morbidity, enduring disability, and costs [1]. The Australian Pharmaceutical Benefits Scheme (PBS) has subsidised biological disease-modifying anti-rheumatic drugs (B-DMARDs) since 2003 [2].

Objectives: We examined the impact of B-DMARDs availability on RA hospitalisation rate in the Western Australia (WA) population pre- and post- B-DMARDs introduction to the PBS (1995-2002 and 2003-2014).

Methods: Population PBS dispensing data for WA of DMARD were obtained and converted to defined daily doses (DDD)/1000 population/day using the WA population census. RA inpatient records were extracted from the WA Hospital Morbidity Data Collection using ICD-9 codes 714 and ICD-10 codes M05.00-M06.99). Principal component analysis (PCA) was applied to determine the relationship between DMARDs use and RA hospital admission rates.

Results: There was a total of 17,125 patients who had 50,353 admissions with a diagnostic code for RA during the study period. DMARD use for RA rose from 1.45 to 3.19 DDD/1000 population/day over 1995-2014 (Figure 1). In 1995-2002, the number of RA admissions fell from 7.9 to 2.6 per 1000 hospital separations, then dropped further from 2.9 to 1.9 per 1000 hospital separations in 2003-2014. Based on PCA analysis, conventional DMARDs (methotrexate) and B-DMARDs dispensing had an inverse association with hospital admissions for RA.

Conclusion: The increased availability of conventional and biological DMARDs for RA was associated with a significant decline in hospital admissions for RA patients in WA.

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Figure 1. The hospital separations and total drugs use patterns of RA in 1995-2014 in Western Australia.

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POS0633

DURATION OF STARTING bDMARDs ARE ALMOST 3 TIMES LONGER IN RA PATIENTS THAN PsA PATIENTS: HUR-BIO REAL LIFE RESULTS

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Background: Before using biological DMARDs, EULAR suggests the use of synthetic DMARDs (especially methotrexate) for RA and PsA [1-2].

Objectives: It was aimed to evaluate the differences of disease duration and csDMARDs till first bDMARD in RA and PsA patients.

Methods: HUR-BIO (Hacettepe University Biologic Registry) is a prospective, single center database of biological treatments since 2005 and to date 2070 RA and 520 PsA patients have been recorded. Demographic, clinical and laboratory data before bDMARDs of the patients were noted. When investigating the differences between groups, the effects of gender, age and disease duration were adjusted using two-way ANOVA and ANCOVA tests. The selection was made for the gender, age and for indifference of the relevant groups by using propensity score matching.

Results: We included 481 RA, and 482 PsA age and gender matched patients in the study. Age, gender and disease duration information were given in the Table 1. 72.8% of the RA patients were RF or anti-CCP positive. Overall, 56.3, 100% of the RA, and PsA patients first biologic therapies were anti-TNFs, respectively. All RA patients started with csDMARDs before bDMARD treatments, whereas 450 of 482 (93.4%) PsA patients. Methotrexate was the anchor csDMARD for both diseases. RA patients more frequently used all csDMARDs included methotrexate, leflunomide, sulphasalazine hydroxychloroquine and corticosteroids as well. Median disease duration till bDMARD treatments in RA and PsA patients were 55 and 18.5 months respectively ($p < 0.001$) (Table 1).

Table 1. Demographic characteristics and csDMARDs before first bDMARD

	RA (n=481)	PsA (n=482)	P value
Female, n (%)	319 (66.3)	332 (68.9)	0.218
Age, years (mean±SD)	48.2 ± 13.5	47.4 ± 12.2	0.332
Disease duration, years*	10 (6-16)	7 (3-12)	0.000
Symptom duration before diagnosis, years*	0 (0-1)	1 (0-4)	0.000*
The period of time between diagnosis and bDMARD initiation, months*	55 (24-115)	18.5 (8-58)	0.000*
The period of time between symptoms and bDMARD initiation, months*	70 (35-151)	48 (20-124)	0.000*
Methotrexate	Ever n (%)	400 (83.3)	373 (77.5)
	Just before bDMARD initiation n (%)	251 (52.2)	230 (47.7)
			0.093
Hydroxychloroquine sulfate	Ever n (%)	292 (60.8)	170 (35.3)
	Just before bDMARD initiation n (%)	262 (54.5)	99 (20.5)
			0.000*
Leflunomide	Ever n (%)	237 (49.4)	129 (26.8)
	Just before bDMARD initiation n (%)	160 (33.3)	96 (19.9)
			0.000*
Sulphasalazine	Ever n (%)	353 (73.5)	265 (55.1)
	Just before bDMARD initiation n (%)	156 (32.4)	146 (30.3)
			0.259*
Corticosteroids	Ever n (%)	419 (87.3)	281 (58.4)
	Just before bDMARD initiation n (%)	335 (69.6)	187 (38.8)
			0.000*

*Median (IQR)

Conclusion: According to HUR-BIO real life data, for inflammatory arthritis patients who started bDMARDs, the periods of time between diagnosis and bDMARDs were more reasonable (18 months) in PsA patients than RA patient's periods which were approximately three times longer. RA patients were used much more and longer duration of csDMARDs. This explicit distinction may be explained by synthetic DMARDs on activity differences between the RA and PsA.

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