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THU0748-HPR EVALUATION OF ADHERENCE TO BIOLOGIC DISEASE MODIFYING ANTI-RHEUMATIC DRUGS IN PATIENTS WITH INFLAMMATORY ARTHRITIS

Y.C. Lim[1], W.G. Teo[2], M.N. Eng[1], H.M. Cheen[1], X.Y. Tay[1], S.I. Yeo[3], T.G. Lim[1]. *[1]Pharmacy, Singapore General Hospital; [2]Pharmacy, National Heart Centre Singapore; [3]Rheumatology and Immunology, Singapore General Hospital, Singapore, Singapore*

Background: In recent years, bDMARDs have revolutionised IA treatment in improving IA symptoms, as well as slowing down structural damage. However, efficacy observed in the controlled settings of clinical trials may not always translate to effectiveness in clinical practice.[1 2] Currently, there are no published studies assessing adherence to bDMARDs and its associated factors among IA patients in Singapore. Knowledge of the extent of poor adherence to bDMARDs and its risk factors can facilitate efficient implementation of interventions to improve adherence and IA outcomes.
Objectives: The primary objective of the study was to assess adherence to bDMARDs among patients with IA in Singapore. The secondary objective was to identify factors associated with poor adherence to bDMARDs.
Methods: A retrospective observational study was conducted at Singapore General Hospital, a 1600-bed academic medical centre. Electronic records of patients diagnosed with rheumatoid arthritis (RA), spondyloarthritis (SpA) or psoriatic arthritis (PsA) who had received at least six consecutive months of bDMARDs between 1 st January 2010 and 31 st December 2015 were reviewed. Adherence was calculated by proportion of days covered (PDC) using the following formula: PDC=[$\sum$(number of doses×prescribed frequency)]/(total duration)×100%. Patients with PDC $\geq$0.80 were considered adherent.[3] Factors associated with adherence to bDMARDs were identified using multivariate logistic regression using the entire dataset and then by type of IA.
Results: Among 115 patients included in the analyses, majority of the patients were Chinese (n=77, 67%) and females (n=61, 53%). Other pertinent demographics and clinical characteristics are detailed in table 1. The mean PDC was 0.82 (±0.18) and 69 (60%) patients were adherent (i.e. PDC $\geq$0.8). Multivariate logistic regression did not identify any factors significantly associated with adherence. Patients with SpA who previously received a bDMARD (OR=5.12; 95% CI 1.02–25.8; p=0.048) and who did not receive subsidy (OR=0.21; 95% CI 0.50–0.89; p=0.034) were found to be significantly associated with adherence.

Abstract THU0748HPR – Table 1. Patient demographics and clinical characteristics

Characteristics (n=115)		n, (%) unless indicated
Mean age at bDMARD initiation, years (±SD)		45.5 (±12.0)
Gender	Male	54 (47.0)
	Female	61 (53.0)
Race	Chinese	77 (67.0)
	Indian	17 (14.8)
	Malay	9 (7.8)
	Others	12 (10.4)
Diagnosis	RA	45 (39.0)
	SpA	44 (38.0)
	PsA	26 (23.0)
Biologic Naïve	Yes	79 (68.7)
	No	36 (31.3)
Current Biologic	TNFi	101 (87.8)
	Non-TNFi	14 (12.2)

Conclusions: The findings of this study suggest that IA patients have suboptimal adherence to bDMARDs. Determinants of poor adherence remain elusive and further research into the social, psychological and environmental aspects is warranted. Measures to improve affordability of bDMARDs such as obtaining government subsidies and offering patient access schemes may improve adherence as seen in patients with SpA.

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HPR Patients' perspectives, functioning and health (descriptive: qualitative or quantitative)

FRI0702-HPR TREATMENT SATISFACTION IN PATIENTS WITH JUVENILE IDIOPATHIC ARTHRITIS

A. Tollisen[1], A.M. Selvaag[1], T. Ingebrigtsen[1], A. Aasland[2], A. Lerdal[3], B. Flatø[1]. *[1]Department of Rheumatology; [2]Department of Clinical Neurosciences for Children, Rikshospitalet, Oslo University Hospital; [3]Department of Research, Lovisenberg Diaconal Hospital, Oslo, Norway*

Background: Limited information exists regarding treatment satisfaction in patients with Juvenile Idiopathic Arthritis (JIA).
Objectives: The aim of this study was to investigate satisfaction with synthetic and biologic disease-modifying anti-rheumatic drugs (sDMARDs and bDMARDs) in adults with JIA.
Methods: Patients with JIA who attended Oslo University Hospital from 1995–2000 with <18 months disease duration were invited to participate. From a cohort of 96 patients, 52 (54%) used DMARDs. Patients treated with Methotrexate (MTX) or biologics were assessed with the 14-item Treatment Satisfaction Questionnaire for Medication (TSQM, one questionnaire for each medication). The TSQM covers 4 domains (effectiveness, side effects, convenience and global satisfaction) with a score range from 0 – 100 and with higher score representing higher satisfaction on the domain.
Results: The mean age of the 52 participants was 25.1 (4.6) years, 75% were female and 33 (63%) patients had polyarticular couse JIA. The following DMARDs were used; MTX (n=29), biologics [n=37 (etanercept, n=13; adalimumab, n=8; tocilizumab, n=6; infliximab, n=3; certolizumab, n=3; golimumab,n=2; anakinra, n=1 and rituximab, n=1)] and sulfasalazine (n=5). 19 patients used a combination of sDMARDs and bDMARDs or 2 sDMARDs.

Clinical characteristics	All patients (N=96)	Patients on DMARDs (n=52)
Disease duration, years, mean (SD)	18.9 (1.5)	18.7 (1.6)
Age at disease onset, years, mean (SD)	6.1 (4.0)	6.3 (4.4)
ILAR classification, n (%)		
Systemic arhtitis	7(7)	2 (4)
Polyarticular RF negative	24 (25)	16 (31)
Plyarticular RF positive	1 (1)	1 (2)
Oligoarticular persistent	36 (38)	13 (25)
Oligoarticular extended	10 (10)	7 (13)
Enthesitis-related arthritis	5 (5)	2(4)
Psoriatic arthritis	4 (4)	4 (8)
Undifferenciated arthritis	9 (9)	7 (13)

TSQM domains, mean (SD)	MTX (n=29)	Biologics (n=37)	P-value
Effectiveness	59.8 (19.6)	74.2 (15.5)	0.002
Side effects	62.(30.1)	90.1 (20.5)	<0.001
Convenience	64.3 (22.1)	69.1 (13.3)	0.282
Global satisfaction	48.5 (23.1)	70.4 (18.9)	<0.001

A correlation was found between the domain side effects and age in patients using MTX (rs 0.368, p=0.049). No other associations were found between TSQM domains and age, gender, disease duration or polyarticular disease course.
Conclusions: Patients reported higher treatment satisfaction with biologics compared to MTX in the domains effectiveness, side effects and global satisfaction. An association was found between age and the TSQM domain side effects in patients using MTX. Other domains of TSQM were not related to patient or disease characteristics in JIA. In order to ensure good health care, information of patients' treatment satisfaction should be incorporated in the process of treatment decision-making.
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