(GLSM ratio (90% CI): 0.91 (0.84, 0.99)), but ATV C_{max} was slightly reduced (GLSM ratio (90% CI): 0.82 (0.69, 0.98)). 2-OH-ATV exposure (C_{max} and AUC_{inf}) were unaffected (GLSM ratio (90% CI): 0.98 (0.81, 1.18) for C_{max} and 1.12 (1.02, 1.22) for AUC_{inf}), and were within the pre-specified lack-of-effect bounds. Following coadministration with filgotinib, PRA AUC_{inf} was unaffected (GLSM ratio (90% CI): 1.22 (1.06, 1.42)), but PRA C_{max} was slightly higher (1.25 (1.01, 1.54)). ROS exposure (C_{max} and AUC_{inf}) were moderately higher upon coadministration with filgotinib (GLSM ratio (90% CI): 1.68 (1.43, 1.97) for C_{max} and 1.42 (1.30, 1.56) for AUC_{inf}), and these changes in rosuvastatin exposure are not considered to be clinically relevant.

Conclusion: All study treatments were generally well tolerated. Co-administration with filgotinib did not have a clinically meaningful impact on the exposure of ATV, PRA, and ROS. These data support concomitant use of filgotinib with OATP substrates such as statins.

REFERENCES:

[1] Piepoli MF, Hoes AW, Agewall S, et al. *Eur Heart J*. 2016;37(29): 2315-2381.

Disclosure of Interests: Kacey Anderson Shareholder of: Gilead Sciences, Employee of: Gilead Sciences, Cara Nelson Shareholder of: Gilead Sciences, Employee of: Gilead Sciences, Qi Gong Shareholder of: Gilead Sciences, Employee of: Gilead Sciences, Muhsen Alani Shareholder of: Gilead Sciences, Employee of: Gilead Sciences, Thomas Tarnowski Shareholder of: Gilead Sciences, Employee of: Gilead Sciences, Ahmed A. Othman Shareholder of: Gilead Sciences, Employee of: Gilead Sciences

DOI: 10.1136/annrheumdis-2021-eular.1685

AB0260

LONG-TERM EFFICACY AND SAFETY OF UPADACITINIB IN PATIENTS FROM CHINA, BRAZIL, AND SOUTH KOREA WITH RHEUMATOID ARTHRITIS AND AN INADEQUATE RESPONSE TO CONVENTIONAL SYNTHETIC DISEASE-MODIFYING ANTIRHEUMATIC DRUGS: RESULTS AT 64 WEEKS

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Background: Upadacitinib (UPA), an oral Janus kinase inhibitor, in combination with conventional synthetic disease-modifying antirheumatic drugs (csDMARDs), showed significant improvements in clinical and functional measures compared with placebo (PBO) up to 12 weeks (wks), in patients (pts) from China, Brazil, and South Korea with rheumatoid arthritis (RA) and prior inadequate response to csDMARDs (csDMARD-IR).¹

Objectives: To assess the efficacy and safety of UPA up to 64 wks (long-term extension; LTE) in csDMARD-IR pts with RA from China, Brazil, and South Korea. **Methods:** Pts were randomized to 12 wks of blinded treatment with UPA 15 mg once daily (QD) or PBO, in combination with csDMARDs. From Wk 12 onward, pts could continue to receive open-label UPA 15 mg QD. Efficacy endpoints were analyzed by original randomized treatment group sequences over 64 wks and included American College of Rheumatology (ACR) responses, and key remission and low disease activity measures. Non-responder imputation was used to handle missing data for binary endpoints. Treatment-emergent adverse events (TEAEs) per 100 patient-years (PY) were summarized for pts receiving ≥ 1 dose of UPA from baseline through to Wk 64.

Results: Of 338 randomized pts who received ≥ 1 dose of study drug, 310 (91.7%) entered the LTE and 275 (81.4%) completed 64 wks of treatment. Among those initially randomized to UPA, the proportion of pts achieving 20%/50%/70% improvement in ACR criteria, and key remission and low disease activity measures increased over 64 wks of treatment (Figure 1). Improvements from baseline in the Health Assessment Questionnaire-Disability Index and pts' assessment of pain were observed over 64 wks of UPA treatment (data not shown). By Wk 64, efficacy results for pts who switched from PBO to UPA at Wk 12 followed a similar trajectory to those originally randomized to UPA.

The observed rate of serious infections was 8.1 events/100 PY. Herpes zoster events were mostly non-serious, involving only 1 or 2 dermatomes. Most cases of hepatic disorders were Grade 1 or 2 hepatic transaminase elevations. There was 1 case of venous thromboembolic event (VTE; concurrent pulmonary embolism and deep vein thrombosis [DVT] in a patient with a history of DVT) and 3 cases of malignancy. Adjudicated major adverse

cardiovascular events (Table 1) occurred in 2 pts (1 with non-fatal myocardial infarction and 1 with non-fatal stroke) who had underlying risk factors for cardiovascular disease. There were no deaths, active tuberculosis, or renal dysfunction.

Conclusion: UPA 15 mg was effective in treating the signs and symptoms of RA and in improving physical function over 64 wks with no new safety signals¹ in csDMARD-IR pts with RA from China, Brazil, and South Korea.

REFERENCES:

[1] Zeng A, et al. *Ann Rheum Dis* 2020;79(Suppl 1):1016 [abstract SAT0160]

Table 1. TEAEs at Wk 64

Event (E/100 PY)	UPA 15 mg (n=322; PY=334.5)
Any AE	421.5 (399.8–444.1)
Serious AE	19.1 (14.7–24.4)
AE leading to discontinuation of study drug	9.0 (6.1–12.8)
Deaths ^a	0
AEs of special interest	
Serious infection	8.1 (5.3–11.7)
Opportunistic infection	0.9 (0.2–2.6)
Herpes zoster	9.0 (6.1–12.8)
Hepatic disorder	42.2 (35.5–49.7)
Gastrointestinal perforation (adjudicated)	0.3 (0.0–1.7)
Any malignancy (excluding NMSC)	0.6 (0.1–2.2)
NMSC	0.3 (0.0–1.7)
MACE (adjudicated) ^b	0.6 (0.1–2.2)
VTE (adjudicated) ^c	0.3 (0.0–1.7)
Anemia	11.1 (7.8–15.2)
Neutropenia	11.7 (8.3–15.9)
Lymphopenia	7.8 (5.1–11.4)
CPK elevation	11.1 (7.8–15.2)

^aIncluding non-treatment-emergent deaths. ^bDefined as cardiovascular death, non-fatal myocardial infarction, and non-fatal stroke. ^cIncluding DVT and pulmonary embolism. AE, adverse event; CPK, creatine phosphokinase; E, events; MACE, major adverse cardiovascular event; NMSC, non-melanoma skin cancer

Figure Efficacy over 64 wks (non-responder imputation)

ACR20/50/70, 20%/50%/70% improvement in American College of Rheumatology criteria; DAS28(CRP), Disease Activity Score in 28 joints using C-reactive protein; PBO, placebo; QD, once daily; SDAI, Simple Disease Activity Index; UPA, upadacitinib; wks, weeks

Acknowledgements: AbbVie funded this study; contributed to its design; participated in data collection, analysis, and interpretation of the data; and in the writing, review, and approval of the abstract. No honoraria or payments were made for authorship. Yanna Song, PhD, of AbbVie provided statistical support. Medical writing support was provided by Laura Chalmers, PhD, of 2 the Nth (Cheshire, UK), and was funded by AbbVie.

Disclosure of Interests: Xiaofeng Zeng: None declared, Dongbao Zhao: None declared, Sebastiao Radominski: None declared, MAURO KEISERMAN: None declared, Chang-Keun Lee: None declared, Naomi Martin Employee of: AbbVie employee and may own stock or options, Sebastian Meerwein Employee of: AbbVie employee and may own stock or options, Yunxia Sui Employee of: AbbVie employee and may own stock or options, Won Park: None declared
DOI: 10.1136/annrheumdis-2021-eular.1807

AB0261

A MULTINATIONAL, PROSPECTIVE, OBSERVATIONAL STUDY IN PATIENTS WITH RHEUMATOID ARTHRITIS RECEIVING BARICITINIB, TARGETED SYNTHETIC OR BIOLOGIC DISEASE-MODIFYING THERAPIES (RA-BE-REAL) – STUDY DESIGN AND BASELINE CHARACTERISTICS

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Background: Baricitinib (BARI) is a JAK1-2 inhibitor approved for the treatment of adults with moderately to severely active rheumatoid arthritis (RA). RA-BE-REAL is a 3-year, prospective, observational study of adult RA patients (pts) evaluating adherence to treatment in clinical practice.

Objectives: To describe pt and disease characteristics of pts enrolling into RA-BE-REAL in 5 European countries.

Methods: The primary endpoint of RA-BE-REAL is time until discontinuation of initial treatment for all causes (excluding sustained clinical response) over a 24-month (M) period. Secondary endpoints include clinical and pt reported outcomes, healthcare resource utilization and treatment patterns over a 36M period. Two pt cohorts are assessed: cohort A, started treatment with BARI (2-mg or 4-mg), and cohort B, any other targeted synthetic (ts)DMARDs or biologic (b)DMARD (Fig. 1). Treatment initiation and changes are at the discretion of the pt and physician. Data is collected at baseline and at routine visits (~3M, 6M, 12M, 18M, 24M and 36M). Summaries are presented with t-test and chi-square test of independence.

Results: Between October 2018 and March 2020, 1074 adult RA pts were enrolled from France, Germany, Italy, Spain, and UK. In cohort A, 88.2% of pts are treated with BARI 4-mg. At time of enrolment pts in cohort A are more likely to commence treatment as a monotherapy as compared to pts in cohort B who are more likely to commence treatment in combination with csDMARDs ($p < 0.001$). Cohort A are more likely to be older (59.2 vs 57.0, mean years $p = 0.009$) and have higher Health Assessment Questionnaire-Disability Index (HAQ-DI) scores (1.4 vs 1.3, $p = 0.03$). A greater percentage of cohort A pts have received prior treatment with either 1 b/tsDMARD (15.3 vs 11.0%), 2 b/tsDMARD (20.2 vs 14.7%) or >2 b/tsDMARD (15.9 vs 12.9%), while cohort B are more likely to be treatment naïve (61.4 vs 48.5%). There are no significant differences in other baseline characteristics shown in Table 1.

Conclusion: There are few but potentially clinically important differences between cohorts. Pts in cohort A are more likely to be older, have a longer disease duration, have received prior b/tsDMARD treatment, and are more likely to receive treatment as a monotherapy as compared to pts in cohort B.

Figure 1. Study Design. Participants entered cohort A or B based on their treatment decision for BARI or another b/tsDMARD, pts in each cohort were with/without concomitant csDMARDs.

Table 1. Patient disposition and baseline characteristics.

	Cohort A Baricitinib (n=509)	Cohort B			Overall (n=1074)
		TNFi (n=338)	non-TNFi (n=161)	tsDMARD (n=66)	
Combination Therapy with any csDMARD	238 (46.8)	231 (40.9)	110 (19.5)	38 (6.7)	617 (57.4)
monotherapy	271 (53.2)	107 (18.9)	51 (9.0)	28 (5.0)	457 (42.6)
Values represent n (%)	Cohort A	Cohort B	p-value		Overall (n=1074)
	(n=509)	(n=565)			
Age in years	59.2 (13.2)	57.0 (13.9)	0.009		58.0 (13.6)
Disease duration in years	10.3 (9.2)	9.1 (9.8)	0.05		9.7 (9.5)
CDAI	24.1 (11.7)	23.9 (12.4)	0.75		24.0 (12.1)
Swollen joint count	5.2 (4.8)	4.7 (4.9)	0.18		4.9 (4.8)
Tender joint count	7.3 (6.1)	7.8 (6.5)	0.19		7.6 (6.3)
PhGA	5.6 (2.0)	5.5 (2.1)	0.39		5.6 (2.0)
PGA	5.9 (2.3)	5.8 (2.4)	0.49		5.9 (2.4)
Pain VAS	59.0 (23.1)	56.4 (24.3)	0.08		57.6 (23.8)
HAQ-DI	1.4 (0.7)	1.3 (0.7)	0.03		1.4 (0.7)
b/tsDMARDs treatment any time before enrolment; n (%)			<0.001*		
Naïve	247 (48.5)	347 (61.4)			594 (55.3)
1 b/tsDMARD	78 (15.3)	62 (11.0)			140 (13.0)
2 b/tsDMARDs	103 (20.2)	83 (14.7)			186 (17.3)
>2 b/tsDMARDs	81 (15.9)	73 (12.9)			154 (14.3)

Values represent mean (SD), unless otherwise stated. b/tsDMARD, biologic/targeted synthetic disease-modifying antirheumatic drug; CDAI, Clinical Disease Activity Index; HAQ-DI, Healthy Assessment Questionnaire-Disability Index; P(h)GA, Patient's (Physician's) global assessment of disease activity; VAS, Visual analogue scale. *chi-square test of independence for comparison of b/tsDMARD treatment received before enrolment.

Acknowledgements: The authors would like to acknowledge Luke Healy for medical writing support.

Disclosure of Interests: Rieke Alten Speakers bureau: Janssen Pharmaceuticals, Eli Lilly and Company, Pfizer Inc., and Galapagos, and Gilead Sciences, Consultant of: Eli Lilly and Company, Pfizer Inc., Galapagos NV, and Gilead Sciences, Grant/research support from: Bristol-Myers Squibb, Eli Lilly and Company, Pfizer Inc., Galapagos NV, and Gilead Sciences, Gerd Rüdiger Burmester Speakers bureau: AbbVie, Gilead Sciences, Eli Lilly and Company, and Pfizer Inc., Consultant of: AbbVie, Gilead Sciences, Eli Lilly and Company, and Pfizer Inc., Marco Matucci-Cerinic Speakers bureau: Actelion, Janssen Pharmaceuticals, MSD, Eli Lilly and Company, Biogen Inc., Grant/research support from: MSD, Actelion, Jean-Hugues Salmon: None declared, Pedro López-Romero Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, WALID FAKHOURI Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Inmaculada De La Torre Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Anja Gentzel-Jorczyk Employee of: Eli Lilly and Company, Thorsten Holzkaemper Shareholder of: Eli Lilly and Company, Employee of: Eli Lilly and Company, Bruno Fautrel Consultant of: AbbVie, Biogen, Bristol-Myers Squibb, Celgene, Janssen Pharmaceuticals, Eli Lilly and Company, Medac, MSD, NORDIC Pharma, Novartis, Pfizer Inc., Roche, Sanofi-Aventis, SOBI, UCB, Grant/research support from: AbbVie, MSD, Pfizer Inc.
DOI: 10.1136/annrheumdis-2021-eular.2035

AB0262

CLINICAL EFFICACY OF SWITCHING FROM ORAL TO SUBCUTANEOUS METHOTREXATE IN MANAGEMENT OF RHEUMATOID ARTHRITIS: EXPERIENCE FROM OUT-PATIENT SETTING OF A DISTRICT GENERAL HOSPITAL IN UK

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Background: Methotrexate (MTX) is an anchor drug in the treatment of Rheumatoid arthritis. The literature review has shown that subcutaneous (SC) methotrexate has shown better efficacy, less adverse side effects and better compliance in inflammatory arthritis. Our department modified Inflammatory arthritis pathway in 2018 where all patient with moderate or severe disease are switched from oral to SC Methotrexate injection for improved management.

Objectives: The aim of our study is to review whether switching of oral methotrexate (PO MTX) to subcutaneous methotrexate (SC MTX) helps to improve disease activity in patients with rheumatoid arthritis and avoids the need to introduce biologic therapy.

Methods: We conducted a retrospective audit of patients with rheumatoid arthritis seen between January 2018 to January 2020 recording their age, gender, diagnosis, date of MTX switch and disease activity score 6 months after switching to SC MTX. Significance of change was calculated with test of proportion/chi square test.