Methods: FUTURE 5 is a randomised, double-blind, placebo-controlled 2-year phase 3 trial in pts with active PsA.² Pts randomised to SEC 150mg could be escalated to 300mg from Week (Wk) 52 to 104, based on investigators' judgement. The pts were categorised as either not achieving REM/LDA, achieving it once only or sustained REM/LDA, which was defined as pts who achieved REM/LDA between Wks 24-52 and maintained the same response at least 2 of the next 6 visits (visit every 8 Wks). Of pts who did not achieve REM/LDA, achieved REM/LDA (VLDA, DAPSA REM, MDA, DAPSA LDA+REM) between Wk 24 and 52, the relationship between absence of REM/LDA, REM/LDA, sustained REM/LDA, proportion of pts with non-radiographic progression (assessed using the van der Heijde [mTSS]), physical function (health assessment questionnaire disability index [HAQ-DI]), and short form-36 physical component score [SF-36 PCS])³ were assessed.

Results: In total, 996 pts were randomised to one of 4 treatment groups: SEC 300mg loading dose (LD; N=222), SEC 150mg LD (N=220), SEC 150mg no loading dose (NL; N=222), and placebo (N=332). The baseline clinical characteristics were comparable across treatment groups. Majority of pts could achieve either sustained MDA/sustained DAPSA LDA+REM (Figure 1). Pts achieving REM/LDA, whether at one visit or consistently, showed improved physical function and SF36-PCS at Wk 104.³ A high proportion of pts did not show radiographic progression at Wk 104 irrespective of achievement of REM/LDA category (Table 1).

Conclusion: The majority of patients treated with secukinumab were able to achieve sustained LDA. Sustained LDA/REM was associated with improved HRQoL, physical function and inhibition of structural damage progression.

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Figure 1. Proportion of patients achieving VLDA/MDA/DAPSA REM/DAPSA REM+LDASustained REM/LDA was defined if the same response was achieved at least 2 out of the next 6 visits (every 8 weeks), respectively. DAPSA, Disease activity in Psoriatic Arthritis; LD, loading dose; LDA, Low Disease Activity; MDA, Minimal Disease Activity; N, number of randomised patients assessed at both Week 24 and 104; NL, without loading dose; REM, remission; SEC, secukinumab; VLDA, Very Low Disease Activity

Table 1. Percentage of vdH-mTSS no progression at Week 104 (change from baseline ≤ 0.5) by REM/LDA and sustained REM/LDA status

REM and LDA composite indices, n (%)	Treatment group	No REM/LDA	REM/LDA only once	Sustained REM/LDA
MDA	SEC 150mg LD	64 (75.3)	16 (80.0)	76 (86.4)
	SEC 150mg NL	56 (75.7)	15 (78.9)	69 (82.1)
	SEC 300mg LD	58 (79.5)	19 (95.0)	100 (94.3)
VLDA	SEC 150mg LD	108 (78.8)	15 (83.3)	30 (88.2)
	SEC 150mg NL	95 (75.4)	13 (81.3)	32 (91.4)
	SEC 300mg LD	115 (84.6)	17 (94.4)	45 (100.0)
DAPSA REM	SEC 150mg LD	77 (76.2)	11 (78.6)	46 (92.0)
	SEC 150mg NL	65 (71.4)	10 (76.9)	50 (87.7)
	SEC 300mg LD	82 (83.7)	14 (93.3)	63 (96.9)
DAPSA LDA + REM	SEC 150mg LD	29 (70.7)	16 (84.2)	80 (84.2)
	SEC 150mg NL	23 (71.9)	15 (75.0)	79 (79.0)
	SEC 300mg LD	39 (88.6)	21 (84.0)	97 (89.0)

Sustained REM/LDA was defined if the same response was achieved at least twice out of the next 6 visits (every 8 weeks), respectively. n, number of evaluable patients; vdH-mTSS, van der Heijde- modified total Sharp score

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POS1052 PSORIATIC ARTHRITIS AND OBESITY IMPACT DRUG PERSISTENCE IN USTEKINUMAB-TREATED PATIENTS WITH PSORIASIS IN THE BRITISH ASSOCIATION OF DERMATOLOGISTS BIOLOGIC AND IMMUNOMODULATORS REGISTER (BADBIR): A 10-YEAR FOLLOW-UP STUDY

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Background: Up to 80% of patients with psoriatic arthritis (PsA) have comorbid psoriasis (PsO).¹ However, data on the impact of comorbid PsA on treatment persistence in PsO patients are limited with mixed findings.²⁻⁴ Other factors have been implicated in predicting response to treatment, including obesity, which is associated with PsA and has demonstrated a varying effect on biologic persistence.^{2,3,5,6}

Objectives: The primary objective of this study was to evaluate whether comorbid PsA and obesity impact ustekinumab (UST) persistence in PsO patients using the British Association of Dermatologists Biologic and Immunomodulators Register (BADBIR). Additionally, the effect of line of therapy was investigated.

Methods: This retrospective observational study used data from PsO patients receiving UST in the BADBIR (first enrolled 07/2009; 10/2020 data cut-off). Time to discontinuation (TTD) was defined as time from treatment start date until treatment stop date, censoring for loss to follow-up where patients are lost to follow-up or active in the registry without a recorded treatment stop date. Kaplan-Meier survival analysis was used to estimate probability of discontinuation over time and median TTD. Patients were stratified by PsA diagnosis (recorded as a comorbidity at enrolment) and prior biologic experience (history of treatment with ≥ 1 other biologic). The log-rank test was used to compare persistence among groups. Hazard ratios (HRs), confidence intervals (CI) and p-values for effect of obesity, PsA status and prior biologic exposure on TTD were generated using Cox proportional hazards regression.

Results: Univariate analysis found that median TTD was shorter for patients with comorbid PsO and PsA (5.04 years; n=585) vs. patients with PsO alone (7.19 years; n=2698; p<0.0001). Biologic-experienced patients with comorbid PsO and PsA (n=292) had a significantly higher likelihood of discontinuation than any other group, with a median TTD of 3.84 years (p<0.0001; Figure 1). In

Fig. 1: Drug survival in patients with PsO treated with UST, stratified by presence of comorbid PsA and prior biologic experience.

p-value for drug survival probability across all groups. PsA, psoriatic arthritis; PsO, psoriasis; UST, ustekinumab.

multivariable models, biologic-experienced patients were more likely to discontinue treatment (HR 1.21 [95% CI 1.04–1.43]; $p=0.017$) vs. biologic-naïve patients, while PsA had no significant effect on TTD alone vs. no PsA (HR 1.12 [95% CI 0.9–1.4]; $p=0.31$). However, comorbid PsA increased the likelihood of treatment discontinuation for biologic-experienced patients (HR 1.45 [95% CI 1.06–1.97]; $p=0.018$). Obesity was a further predictor of discontinuation (HR 1.15 [95% CI 1.02–1.31]; $p=0.027$) and this was independent of comorbid PsA and prior biologic exposure (Table 1).

Conclusion: Comorbid PsA was associated with reduced time-to-discontinuation of UST in biologic-experienced patients, but not biologic-naïve patients. Obesity also impacted TTD but independently of PsA status.

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Table 1. Multivariate analysis of UST discontinuation in PsO patients (N=3,174).

Covariate	Status (n)	HR	95% CI	p-value
Comorbid PsA	No PsA	ref	-	-
	(n=2609) PsA	1.12	0.90–1.40	0.31
Biologic experience	(n=565) No prior biologic (n=2371)	ref	-	-
	Prior biologic (n=803)	1.21	1.04–1.43	0.017
PsA*prior biologic experience	No PsA, prior biologic	ref	-	-
	(n=539) PsA, prior biologic	1.45	1.06–1.97	0.018
Obesity (BMI, kg/m ²)	(n=264) <30	ref	-	-
	(n=1554) ≥30	1.15	1.02–1.31	0.027
	(n=1620)			

BMI, body mass index; CI, confidence interval; HR, hazard ratio; PsA, psoriatic arthritis; PsO, psoriasis; ref, reference; UST, ustekinumab.

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POS1053

COMPARISON OF BASELINE CHARACTERISTICS BETWEEN PATIENTS CONTINUING OR DISCONTINUING APREMILAST AT TWELVE MONTHS IN THE REWARD STUDY (THE NETHERLANDS)

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Background: Previous analysis of the REWARD study reported that patients with limited joint involvement have a considerable burden of disease¹. Recent data suggest that patients with moderately active psoriatic arthritis (PsA) and a limited joint involvement have a high likelihood of achieving treatment goals when treated with apremilast². According to EULAR recommendations a PDE4 inhibitor may be considered in patients with mild disease and an inadequate response to at least one csDMARD, in whom neither a bDMARD nor a JAK inhibitor is appropriate and the value of apremilast may be found in treating patients with relatively mild disease (oligoarticular)³.

Objectives: The objective of this prospective, multicentre, non-interventional study is to describe patient reported outcomes, effectiveness and real-life use of

apremilast in patients with PsA. Patients will be followed up for a maximum of 12 months. This interim analysis compared the baseline characteristics and experience on apremilast for two subgroups of patients, those remaining on apremilast versus the ones that discontinued.

Methods: In this interim analysis we included patients with data available at cut-off date of 03 November 2020. Patient enrollment and follow up of current subjects is ongoing. Descriptive statistics (n's and percents for categorical data, means for continuous data) were used to summarize the baseline data by subgroup. Kaplan Meier plots are presented to show patients' experience on apremilast by subgroup.

Results: 85 patients were included in the analysis. 30 patients have completed the study, 39 patients have discontinued and 16 are ongoing. At baseline 22 (26%) patients were biologic experienced and 62 (74%) were biologic naïve. Both groups had a comparable disease activity measured with clinical disease activity in psoriatic arthritis (cDAPSA) scores. Biologic experienced patients had a longer disease duration compared to biologic naïve patients (mean 9.7 vs 6.2 years). Inefficacy of previous medication was the main reason for starting apremilast in both subgroups. Overall, 86% (n=69) of patients were still receiving apremilast at month 3, 60% (n=46) at month 6, and 41% (n=26) at month 12 (Figure 1). Drug survival (length of time until discontinuation of apremilast) for biologic naïve patients was 93% at month 3, 73% at month 6 and 58% at month 12. Drug survival of biologic experienced patients was 67%, 20%, and 0% at months 3, 6, and 12, respectively. At baseline mean values of body mass index (BMI), swollen joint count (SJC), tender joint count (TJC), psoriatic arthritis impact of disease (PsAID) were comparable between both groups (Table 1). Reasons for discontinuation were mainly lack of efficacy (49%) and adverse events (44%). In this analysis the nature and frequency of adverse events is in line with the known profile of apremilast.

Conclusion: In this interim analysis, patients who were biologic naïve had a better probability to remain on treatment than those who were biologic experienced. Baseline characteristics were similar between the two groups, apart from disease duration that was longer in the biologic experienced group. Best drug survival is achieved when apremilast is prescribed earlier in the PsA treatment course, before biologics and after csDMARDs, as per apremilast EU label.

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POS1054

UPADACITINIB PHARMACOKINETICS AND EXPOSURE-RESPONSE RELATIONSHIPS FOR EFFICACY AND SAFETY IN PSORIATIC ARTHRITIS – ANALYSES OF THE PHASE 3 SELECT-PsA STUDIES

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Background: Upadacitinib (UPA) is an oral, reversible, JAK inhibitor approved for the treatment of rheumatoid arthritis (RA). The efficacy and safety profile of UPA in psoriatic arthritis (PsA) has been established in the SELECT-PsA program which includes two global Phase 3 studies.

Objectives: These analyses characterize UPA pharmacokinetics and exposure-response relationships for efficacy and safety endpoints using data from the SELECT-PsA studies.

Methods: The SELECT-PsA program enrolled patients with prior inadequate response (IR) or intolerance to ≥1 non-bDMARD1 (N=1705) and prior IR or intolerance to ≥1 bDMARD2 (N=642). Data from both trials was integrated for patients receiving placebo (PBO), UPA 15mg once daily (QD) and UPA 30mg QD; adalimumab data was excluded from this analysis. UPA pharmacokinetics were characterized in PsA patients using Bayesian population pharmacokinetics analyses and utilizing prior information from analyses in healthy subjects and RA patients. Exposure-response analyses were conducted using logistic regression to characterize the relationships between upadacitinib average plasma concentration during a dosing interval (C_{avg}) and the percentage of patients achieving