

FRI0521 SECUKINUMAB PROVIDES SUSTAINED IMPROVEMENTS IN WORK PRODUCTIVITY AND HEALTH RELATED QUALITY OF LIFE IN PATIENTS WITH ACTIVE PSORIATIC ARTHRITIS: 2-YEAR RESULTS FROM FUTURE 1 AND FUTURE 2

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Background: Patients (pts) with PsA experience significant impairment of work productivity (WP) and health-related QoL (HRQoL). Secukinumab (SEC) has previously been shown to rapidly improve symptoms, physical function and HRQoL in pts with active PsA.^{1,2}

Objectives: To assess the impact of SEC on WP and HRQoL through 2 years (yrs) in TNF inhibitor (TNF)-naïve PsA pts and those with an inadequate response or intolerance to TNF inhibitors (TNF-IR).

Methods: 606 and 397 pts were randomized to SEC or placebo (PBO) in FUTURE 1 (10 mg/kg IV followed by 150 or 75 mg SC) and FUTURE 2 (300, 150 or 75 mg SC), respectively. PBO pts were re-randomized to SEC at Wk 16/24. WP was assessed using the WP and Activity Impairment-General Health (WPAI-GH) questionnaire. WPAI-GH includes 6 questions to measure absenteeism, presenteeism, work productivity and impairments in unpaid activity because of health problems during the preceding 7 days. HRQoL was assessed using the PsAQoL questionnaire, encompassing 20 statements that pts rate as true or false on the day of completion. Across both trials, approximately 68% of pts were TNF-naïve and 32% were TNF-IR. Observed data are presented from the full analysis set and in subgroups stratified by prior TNF exposure. Only data with approved doses of SEC (300 and 150 mg) are shown.

Results: In FUTURE 1, 88 of 202 in the SEC 150 mg group were employed and working at baseline (BL); 61 of 100 and 59 of 100 were employed and working at BL in the SEC 300 mg and 150 mg groups of FUTURE 2, respectively. Improvements in all elements of WPAI were reported with SEC 300 and 150 mg in the overall population at Wk 16; responses were sustained through Wk

104 (Table). The greatest improvements were seen in presenteeism (-10.0), work productivity (-10.3) and activity impairment (-14.1), which corresponded to improvements from BL of approximately 29%, 26% and 30%, respectively in the overall population of FUTURE 1 at Wk 104; similar improvements were seen in FUTURE 2 at Wk 104 (300 mg: -14.4 [42%], -11.2 [33%] and -17.7 [38%]; 150 mg: -16.8 [50%], -16.8 [45%] and -18.5 [38%]). Sustained improvements in all elements of WPAI were also evident with SEC in TNF-naïve and TNF-IR pts in both FUTURE 1 and FUTURE 2. Improvements in PsAQoL were reported as early as Wk 4 and sustained through Wk 104. At Wk 104 of FUTURE 2, PsAQoL scores had improved by approximately 46% from BL with SEC 300 mg and 49% with SEC 150 mg in the overall population. Similar improvements were seen in TNF-naïve (47% and 51%, respectively) and TNF-IR pts (45% and 45%, respectively). Consistent results were reported in FUTURE 1. The efficacy of SEC was consistent regardless of concomitant MTX use.

Conclusions: SEC provided sustained improvements in WP and PsAQoL in pts with PsA for up to 104 wks, regardless of prior TNF exposure.

References:

- [1] McInnes. *Lancet* 2015;386:1137-46.
- [2] Mease. *NEJM* 2015;373:1329-39.

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FRI0522 THE ASSOCIATION BETWEEN OCCUPATIONAL-RELATED MECHANICAL STRESS AND RADIOGRAPHIC DAMAGE IN PSORIATIC ARTHRITIS

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Background: Mechanical stress is thought to play a role in the development of psoriatic arthritis (PsA).

Objectives: To determine the association between occupational-related mechanical factors and the severity of radiographic peripheral and axial joint damage in patients with PsA.

Methods: A retrospective cohort study was conducted in patients with long-standing PsA (>10 years duration). Patients were asked to report all paid employment since the age of 18. The key predictor variables included various occupational-related mechanical exposures. For each job, the Occupational Information Network (O*NET) was used to rate the level of exposure to 11 workers abilities and 16 occupational exposures. The outcomes of interest were the extent of radiographic damage in the peripheral and axial joints, as measured by the modified Steinbrocker score (mSS), and the modified Stokes Ankylosing Spondylitis Score (mSASSS). The association between the predictor and outcome variables was assessed by linear multivariable regression models after adjusting for age, sex, PsA duration and lifestyle habits.

Results: 307 eligible patients were analyzed. Univariate analysis identified several occupational factors associated with radiographic damage (Table 1-2). In the multivariable regression analysis prolonged repetitive hand movements

Table. WPAI-GH and PsAQoL outcomes in FUTURE 1 and FUTURE 2 through Week 104

	FUTURE 1			FUTURE 2		
	Overall	TNF-naïve	TNF-IR	Overall	TNF-naïve	TNF-IR
	SEC	SEC	SEC	SEC	SEC	SEC
	IV-150 mg	IV-150 mg	IV-150 mg	300 mg	150 mg	300 mg
WPAI GH^a (change from BL)						
Absenteeism (% work time missed due to health)^b						
Wk 52	-4.0 (n=77)	-5.9 (n=59)	2.3 (n=18)	-2.3 (n=48)	-8.2 (n=51)	-3.4 (n=37)
Wk 104	-2.9 (n=58)	-2.4 (n=46)	-4.9 (n=12)	-0.4 (n=45)	-6.8 (n=41)	-1.1 (n=34)
Presenteeism (% impairment while working due to health)^b						
Wk 52	-13.4 (n=73)	-16.2 (n=55)	-5.0 (n=18)	-16.7 (n=49)	-18.2 (n=49)	-11.9 (n=32)
Wk 104	-10.0 (n=55)	-10.7 (n=43)	-7.5 (n=12)	-14.4 (n=45)	-16.8 (n=38)	-10.7 (n=27)
Work Productivity (% overall work impairment due to health)^b						
Wk 52	-15.8 (n=71)	-18.5 (n=55)	-6.3 (n=16)	-16.3 (n=48)	-18.3 (n=48)	-11.5 (n=31)
Wk 104	-10.3 (n=55)	-11.3 (n=44)	-5.2 (n=11)	-11.2 (n=44)	-16.8 (n=37)	-9.4 (n=26)
Activity Impairment (% activity impairment due to health)^b						
Wk 52	-14.9 (n=174)	-14.8 (n=126)	-15.2 (n=48)	-20.0 (n=52)	-22.1 (n=89)	-20.7 (n=61)
Wk 104	-14.1 (n=143)	-12.2 (n=107)	-20.0 (n=36)	-17.7 (n=84)	-18.5 (n=78)	-19.8 (n=52)
PsAQoL (change from BL)^{c,d}						
Wk 52	-4.0 (n=181)	-4.1 (n=130)	-3.6 (n=51)	-4.1 (n=94)	-5.2 (n=88)	-4.0 (n=82)
Wk 104	-3.8 (n=149)	-3.6 (n=110)	-4.4 (n=39)	-4.6 (n=85)	-5.6 (n=76)	-4.4 (n=52)

^aIn all categories, higher scores indicate higher impact on patients, employers, and society; a decrease from baseline represents improvement. ^bAssessed in 'employed' subjects only. ^cAssessed regardless of subject's employment status; ^dHigher scores represent greater impact on patients' QoL; a decrease from baseline represents improvement
BL, baseline; IV, intravenous; m, number of patients with sufficient data for evaluation; n, number of responders; SEC, secukinumab.

Table 1. Linear Regression Analysis – The association between high level of work-related exposure and modified Steinbrocker score

Exposure	Univariate analysis		Multivariable Reduced Model*	
	β (95% CI)	P value	β (95% CI)	P value
Sitting	-15.7 (-29.2, -2.3)	0.02	-11.9 (-25.4, 1.6)	0.085
Hands handle	23.1 (4.4, 42)	0.02		
Repetitive hands motions	33 (11.7, 54.4)	0.002	29.5 (8.2, 50.8)	0.007
Twisting/Bending	18.8 (1.4, 36.2)	0.03		
Minor burns	21.5 (2.7, 40.4)	0.03		
Awkward body position	17.7 (-1.1, 36.5)	0.06		

Table 2. Linear Regression analysis – The association between workers' abilities and modified Steinbrocker score

Exposure	Univariate analysis		Multivariable Reduced Model*	
	β (95% CI)	P value	β (95% CI)	P value
Manual dexterity	2.5 (0.4, 4.6)	0.02		
Arm-hand steadiness	2.7 (0.6, 5.0)	0.01		
Finger dexterity	5.3 (1.4, 9.2)	0.008	5.4 (1.6, 9.2)	0.005
Trunk strength	2.0 (-0.3, 4.4)	0.09		
Wrist-finger speed	3.2 (-0.4, 6.8)	0.08		
Extent flexibility	1.9 (-0.3, 4.2)	0.10		

*Each model was adjusted for age, sex, duration of PsA, smoking, BMI, Biologics therapy (ever), DMARDs therapy (ever).