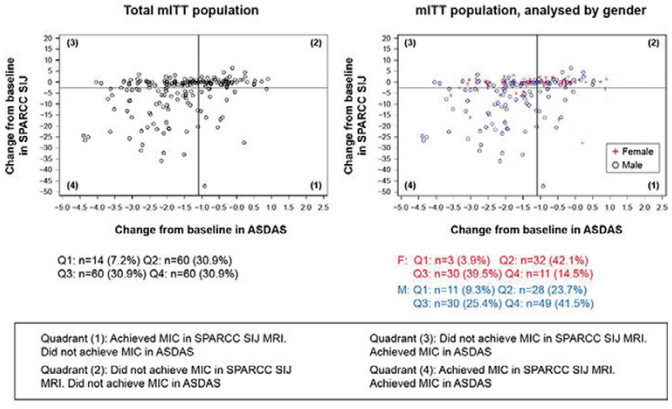
multinomial logistic regression modelling was used to calculate which BL characteristics were associated with clinical improvements when adjusted for all other BL characteristics.

Results: At screening, male patients had significantly higher median SPARCC SIJ scores compared with female patients (4.83 [range 0.0–48.0] vs 1.5 [0.0–32.0], $P<0.0001$). At wk48, 69.1% of 194 patients achieved MIC in either SPARCC SIJ scores, ASDAS or both (Q1/3/4, Figure). There was a statistically significant difference in the number of male versus female patients who achieved MIC in both scores (Q4), compared with patients who achieved MIC in only one or neither (Q1–3, Figure) ($P<0.0001$). However, multinomial logistic regression modelling showed that age ($P=0.0358$), BL ASDAS ($P<0.0001$), and screening SPARCC Spine ($P=0.0358$) and SPARCC SIJ ($P<0.0001$) scores, not gender, were significantly associated with achievement of MIC in both SPARCC SIJ and ASDAS at wk48 for the total population (after adjustment for the effects of other variables).

Figure: Numbers of Patients who Did or Did Not Achieve MIC in SPARCC SIJ Score (≥2.5 cfb) or ASDAS (≥1.1 cfb)



ASDAS, Ankylosing Spondylitis Disease Activity Scores; cfb, change from baseline; MIC, minimally important change; mITT, modified intent-to-treat; SIJ, sacroiliac joint; SPARCC, SpondyloArthritis Research Consortium of Canada.

Conclusions: Although BL summaries showed a significant difference in gender across quadrants, the BL SPARCC SIJ score was strongly correlated with gender (male patients had more inflammation). When both were included in a multivariable model, gender was non-significant. Only age, BL ASDAS, and screening SPARCC SIJ and Spine scores were associated with MIC after 48 weeks of etanercept treatment.

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Disclosure of Interest: K. de Vlam Consultant for: Abbott, Celgene, Janssen, Pfizer, and UCB, Speakers bureau: Abbott, Celgene, Janssen, Pfizer, and UCB, A. Burden Employee of: Quanticate, M. A. Dilleen Shareholder of: Pfizer, Employee of: Pfizer, C. Boone Shareholder of: Pfizer, Employee of: Pfizer

DOI: 10.1136/annrheumdis-2017-eular.1873

THU0376 REAL-WORLD USE OF SECUKINUMAB WITH AND WITHOUT A LOADING REGIMEN AMONG PATIENTS WITH ANKYLOSING SPONDYLITIS IN THE UNITED STATES: PATIENT PROFILE AND DOSING

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Background: Secukinumab is a fully human anti–interleukin-17 monoclonal antibody approved for the treatment of patients with moderate to severe plaque psoriasis, psoriatic arthritis and ankylosing spondylitis (AS), and may be administered with or without a loading regimen of 150 mg at weeks 0, 1, 2, 3 and 4 followed by maintenance dosing every 4 weeks. The dosing pattern of secukinumab in a real-world setting of patients with AS has not been evaluated since its approval in the United States on January 15, 2016.

Objectives: To describe the demographic, clinical and treatment characteristics (loading, dose) of patients with AS who were treated with secukinumab in routine clinical practice in the United States.

Methods: Retrospective data from the Symphony Health Solutions Lx commercial claims database were used to identify AS patients who had ≥1 secukinumab treatment between January 15, 2016 and June 30, 2016. Patients eligible for inclusion were ≥18 years of age who had the diagnosis of AS and ≥1 pharmacy or medical claim in the 12 months prior to their first secukinumab treatment (index date). Patient demographics and secukinumab dosage were examined at the index date. Clinical characteristics, comorbidities and treatment history in the 12 months prior to the index date were identified and presented by use versus no use of a loading regimen of secukinumab.

Results: A total of 152 patients who initiated secukinumab were included in this study; the mean (SD) age of included patients was 45.3 (11.1) years and 53.9% were female. Of the 152 patients, 119 patients (78.3%) received a loading regimen and 33 (21.7%) did not. Patient demographics, clinical characteristics and treatment history were not significantly different between the two cohorts (Table 1). The majority of patients (65.5%) with loading initiated secukinumab with the 150-mg dose, whereas the majority of patients (60.6%) without loading initiated with the 300-mg dose. More than half of the patients in each cohort received a biologic therapy during the 12-month baseline period (loading, 65.5%; no loading, 51.5%). Other prior treatments included oral corticosteroids (30.3% for both), conventional synthetic disease-modifying antirheumatic drugs (DMARDs) (loading, 31.9%; no loading, 21.2%) and targeted synthetic DMARDs (loading, 4.2%; no loading, 12.1%). The prevalence of comorbidities was similar between the two cohorts, with the most prevalent comorbidities being hypertension (19.1%), rheumatoid arthritis (19.1%) and other skin diseases (18.4%).

Table 1. Demographics, clinical characteristics and treatment history of patients with AS treated with secukinumab with or without a loading dose of 150 mg

	Overall (n = 152)	Loading (n = 119)	No Loading (n = 33)
Age, mean (SD), years	45.3 (11.1)	46.0 (10.8)	42.6 (11.9)
Female, n (%)	82 (53.9)	67 (56.3)	15 (45.5)
Region, n (%)			
South	46 (30.3)	37 (31.1)	9 (27.3)
Northeast	37 (24.3)	29 (24.4)	8 (24.2)
Midwest	36 (23.7)	25 (21.0)	11 (33.3)
West	33 (21.7)	28 (23.5)	5 (15.2)
Index dose, n (%)			
150 mg	91 (59.9)	78 (65.5)	13 (39.4)
300 mg	61 (40.1)	41 (34.5)	20 (60.6)
Physician specialty, n (%)			
Rheumatology	121 (79.6)	94 (79.0)	27 (81.8)
Internal medicine	8 (5.3)	5 (4.2)	3 (9.1)
Treatment history, n (%)			
NSAID	38 (25.0)	27 (22.7)	11 (33.3)
Oral corticosteroid	46 (30.3)	36 (30.3)	10 (30.3)
csDMARD	45 (29.6)	38 (31.9)	7 (21.2)
tsDMARD	9 (5.9)	5 (4.2)	4 (12.1)
Biologic	95 (62.5)	78 (65.5)	17 (51.5)
Etanercept	31 (20.4)	23 (19.3)	8 (24.2)
Adalimumab	30 (19.7)	27 (22.7)	3 (9.1)
Certolizumab	22 (14.5)	19 (16.0)	3 (9.1)
Golimumab	17 (11.2)	13 (10.9)	4 (12.1)
Infliximab	15 (9.9)	12 (10.1)	3 (9.1)
Ustekinumab	3 (2.0)	3 (2.0)	0 (0.0)
Comorbidities, n (%)			
Rheumatoid arthritis	29 (19.1)	21 (17.6)	8 (24.2)
Hypertension	29 (19.1)	24 (20.2)	5 (15.2)
Other skin diseases	28 (18.4)	23 (19.3)	5 (15.2)
Hyperlipidemia	25 (16.4)	19 (16.0)	6 (18.2)
Fatigue	19 (12.5)	13 (10.9)	6 (18.2)
Depression	18 (11.8)	13 (10.9)	5 (15.2)
Cancer	17 (11.2)	12 (10.1)	5 (15.2)
Psoriatic arthritis	17 (11.2)	13 (10.9)	4 (12.1)
Diabetes	10 (6.6)	9 (7.6)	1 (3.0)
Anxiety	8 (5.3)	6 (5.0)	2 (6.1)
Obesity	6 (3.9)	4 (3.4)	2 (6.1)

AS, ankylosing spondylitis; csDMARD, conventional synthetic disease-modifying antirheumatic drug; NSAID, nonsteroidal anti-inflammatory drug; tsDMARD, targeted synthetic disease-modifying antirheumatic drug.

Conclusions: In this retrospective, administrative claims-based study, the majority of patients with AS initiated secukinumab treatment with a loading regimen. Although only the 150-mg dose of secukinumab is approved for the treatment of AS, almost 40% of patients received the 300-mg dose, indicating a need to better understand patient and treatment characteristics for secukinumab in patients with AS. The results of this study provide early insights into real-world use of secukinumab with and without a loading regimen in patients with AS in the United States.

Acknowledgements: This study was sponsored by Novartis Pharmaceuticals Corporation, East Hanover, NJ.

Disclosure of Interest: K. Oelke Consultant for: Novartis, Speakers bureau: Amgen, AbbVie, Bristol-Meyers Squibb, Pfizer, G. Chun Employee of: Novartis, Y. Li Employee of: Novartis, X. Liu Consultant for: Novartis, Employee of: KMK Consulting, Inc, Y. Park Employee of: Novartis

DOI: 10.1136/annrheumdis-2017-eular.1543

THU0377 LOW DOSE IL-2 THERAPY CAN RECOVERY TH17/TREG CELL BALANCE IN PATIENTS WITH SPONDYLOARTHROPATHY THROUGH INCREASING REGULATORY T CELLS NUMBERS

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Background: The imbalance in the number of Th17 and Treg cells is suggested to be associated with the pathogenesis of SpA. Recent studies have shown that interleukin-23 (IL-23) and Th17 play a crucial role in the pathogenesis of SpA. However the status of CD4+CD25+Foxp3+Treg cells which exert immunoregulatory functions are remains to investigate.