since diagnosis, employment status, biologic DMARD use, BMI, number of joints affected.

Results: Of 1,909 patients (539 US, 1,370 EU), 35% of patients had joint only disease, while 26%, 23%, and 16% experienced joint disease plus 1-3%, >3-10%, and >10% BSA respectively (Figure 1). Patients were comparable demographically (Table 1). After controlling for demographics and number of joints involved, results showed BSA independently and significantly impacted QoL, work productivity, disability (Table 2).

Table 1. Comparison of patient demographic and disease characteristics by joint and skin disease involvement

	Joints only (n=673)	1-3% (n=493)	>3-10% (n=447)	>10% (n=296)	p-value
Age, mean (SD)	49.2 (13.7)	49.2 (13.2)	47.6 (12.4)	47.6 (13.8)	0.09
Male, n (%)	379 (56.3)	260 (52.7)	248 (55.5)	155 (52.4)	0.53
BMI, mean (SD)	26.9 (4.9)	26.8 (4.6)	26.7 (4.2)	26.5 (4.7)	0.52
Caucasian, n (%)	621 (92.3)	442 (89.7)	399 (89.3)	270 (91.2)	0.41
Full-time employment, n (%)	391 (60.9)	275 (57.7)	259 (59.1)	153 (53.1)	0.01
Biologic tx, n (%)	420 (62.4)	283 (57.4)	218 (48.8)	141 (47.6)	<0.01
Months since diagnosis, mean (SD)	68.4 (76.2)	56.7 (68.2)	54.2 (67.3)	52.1 (75.1)	<0.01
Current BSA %, mean (SD)	0.0	1.7 (0.8)	6.3 (2.0)	21.3 (10.1)	<0.01
*66 swollen joint count, mean (SD)	1.5 (3.6)	2.1 (4.2)	7.1 (11.1)	6.9 (10.5)	<0.01
*68 tender joint count, mean (SD)	2.1 (4.1)	3.7 (6.4)	6.0 (7.7)	9.8 (10.0)	<0.01

*Calculated on available data, n=394

Table 2. Incremental impact of BSA on PROs

	BSA in addition to joint involvement	Change in predicted PRO values	P value
EQ5D utility (n=656)	Joint only (ref)	0.85	
	1-3%	-0.02	0.31
	>3-10%	-0.06	<0.01
	>10%	-0.06	<0.01
EQ5D VAS (n=668)	Joint only	78.14	0.74
	1-3%	-0.58	0.03
	>3-10%	-3.78	0.14
	>10%	-3.04	
WPAI % overall work impairment (n=369)	Joint only	15.88	0.91
	1-3%	+0.32	<0.05
	>3-10%	+5.11	0.01
	>10%	+7.51	
HAQ-DI (n=635)	Joint only	0.32	0.41
	1-3%	+0.04	<0.01
	>3-10%	+0.22	<0.01
	>10%	+0.27	
PsAID12 (n=642)	Joint only	1.66	0.03
	1-3%	+0.42	<0.01
	>3-10%	+1.22	<0.01
	>10%	+1.37	

α PRO key for worse outcome (range): EQ5D utility (0-1.0) = lower; EQ5D VAS (1-100) = lower; WPAI (0-100) = higher; HAQ-DI (0-3) = higher; PsAID12 (0-10) = higher

Figure 1: Prevalence of joint and skin involvement across regions

Conclusion: Two thirds of this sample of actively treated PsA patients have skin involvement. Over half would be considered moderate-severe (BSA >3%). After controlling for joint symptoms, results show that increasing skin involvement in PsA patients adversely impacts QoL, disability and work productivity.

Disclosure of Interests: Jessica A. Walsh Grant/research support from: AbbVie, Pfizer, Janssen, Consultant of: AbbVie, Novartis, Eli Lilly and Company, UCB, Alexis Ogdie Grant/research support from: Pfizer to Penn,

Novartis to Penn, Amgen to Forward/NDB, Consultant of: Abbvie, Amgen, Bristol-Myers Squibb, Celgene, Corrona, Janssen, Eli Lilly, Novartis, Pfizer, Kaleb Michaud Grant/research support from: Janssen, Steve Peterson Employee of: Janssen Research & Development, LLC, Elizabeth Holdsworth Employee of: Adelphi Real World, Sara Bruce Wirta Employee of: Janssen-Cilag Sweden AB, Sophie Meakin Employee of: Adelphi Real World, Soumya D Chakravarty Shareholder of: Johnson & Johnson, Employee of: Janssen Scientific Affairs, LLC, Agata Schubert Employee of: Janssen-Cilag, Laure Gossec Grant/research support from: Lilly, Mylan, Pfizer, Sandoz, Consultant of: AbbVie, Amgen, Biogen, Celgene, Janssen, Lilly, Novartis, Pfizer, Sandoz, Sanofi-Aventis, UCB

DOI: 10.1136/annrheumdis-2020-eular.5758

AB0819

FLARES AMONG PATIENTS WITH PSORIATIC ARTHRITIS (PSA) - FREQUENCY AND IMPACT ON PATIENT OUTCOMES: REAL-WORLD SURVEY IN THE US AND EUROPE

A. M. Orbai¹, W. Tillett², S. Grieb¹, S. Peterson³, E. Holdsworth⁴, S. Meakin⁴, S. Bruce Wirta⁵, S. D. Chakravarty⁶, L. Gossec⁷. ¹Johns Hopkins U School of Medicine, Baltimore, United States of America; ²U of Bath, Combe Park, United Kingdom; ³Janssen Global Services, LLC, Horsham, United States of America; ⁴Adelphi Real World, Bollington, United Kingdom; ⁵Janssen-Cilag, Solna, Sweden; ⁶Janssen Scientific Affairs, LLC/Drexel U College of Medicine, Horsham, United States of America; ⁷Sorbonne U, Paris, France

Background: Flares in PsA, presenting as periods of acute disease activity, are thought to negatively impact patients' lives. This has not been extensively studied in a real-world setting.

Objectives: Describe flares, assess impact on quality of life and work productivity, and explore predictors.

Methods: A cross-sectional survey among patients with PsA recruited by rheumatologists and dermatologists was conducted in France, Germany, Italy, Spain, UK and US. Data were collected Jun-Aug 2018 via patient record forms and patient self-complete forms. Physicians recorded flare status (in flare currently/flare in last 12 mo/longer than 12 mo or never), demographics, physician perceived severity and clinical outcomes. Patients reported quality of life [QoL] (EQ5D-5L), work productivity (WPAI), disability (HAQ-DI), pain (PsAID12 pain scale). Patients were compared by flare status using parametric or non-parametric tests. Logistic regression explored predictors of flare. Multivariate regression explored the impact of flare status on patient reported outcomes (PRO). The model was adjusted for gender, age, BMI, physician speciality.

Results: Data were collected for 2,238 patients (586 US, 1,652 EU). Mean age was 48.7 years (13.2 SD), 53.8% were male. Physicians reported 7.5% were currently in flare and 22.0% had flared in the last 12 mo. Patients had experienced 2.2 mean flares in the last 12 mo (4.9 SD), lasting a mean 16.4 days (16.2 SD). Patients in flare were comparable demographically with those not; however, those in flare were less likely to work full time (43.6 vs. 59.3%, p<0.01). Patients not in flare had clinically active disease (Table 1).

Table 1. Clinical characteristics of patients by flare status

	Currently in flare (n=168)	Flared in last 12 mo (n=492)	Not flared in last 12 mo/never flared (n=1578)	p-value
In remission, n (%)	4 (2.4)	157 (33.2)	799 (53.5)	<0.01
*Current BSA affected, mean (SD)	10.3 (12.0)	6.5 (7.6)	5.0 (7.7)	<0.01
*66 SJC, mean (SD)	5.4 (4.6)	4.5 (7.3)	2.4 (6.9)	<0.01
*68 TJC, mean (SD)	7.8 (5.8)	5.5 (8.3)	3.1 (5.6)	<0.01
Physician-perceived severity, n (%)				
Mild	35 (20.8)	346 (70.3)	1297 (82.2)	<0.01
Moderate	101 (60.1)	139 (28.3)	261 (16.5)	
Severe	32 (19.0)	7 (1.4)	20 (1.3)	

*Calculated on available data: Total base sizes: BSA=1665; SJC=514; TJC=493; Satisfaction=931

Results showed that flare status significantly impacted QoL, work productivity, disability, and pain (Table 2). Exploring predictors of flare in the last 12 mo in un-adjusted analyses showed that demographic characteristics were not predictive of flare status, however patients presenting as moderate or severe at diagnosis were at greater risk of flare. Patients who were prescribed a bDMARD at diagnosis were at lower risk (Figure 1).

Table 2. Impact of flare status on PROs

	Current flare status	Change in predicted PRO values	P value
EQ5D utility (n=933)	Not in flare (ref) In flare	0.83 -0.23	<0.01
EQ5D VAS (n=946)	Not in flare In flare	76.1 -21.3	<0.01
WPAI % overall work impairment (n=496)	Not in flare In flare	20.1 +28.5	<0.01
HAQ-DI (n=901)	Not in flare In flare	0.4 +0.6	<0.01
PsAID12 pain score (n=922)	Not in flare In flare	2.5 +3.0	<0.01

PRO key for worse outcome (range): EQ5D utility (0-1.0) = lower; EQ5D VAS (1-100) = lower; WPAI (0-100) = higher; HAQ-DI (0-3) = higher; PsAID12 pain (0-10) = higher

Figure 1. Predictors of flaring in last 12 months

Conclusion: One third of patients surveyed were either currently in flare or had flared in the last 12 mo. Being in flare adversely impacted QoL, disability and work productivity. Flare may be predicted by overall physician-reported PsA disease severity at diagnosis.

Disclosure of Interests: Ana-Maria Orbai Grant/research support from: Abbvie, Eli Lilly and Company, Celgene, Novartis, Janssen, Horizon, Consultant of: Eli Lilly; Janssen; Novartis; Pfizer; UCB. Ana-Maria Orbai was a private consultant or advisor for Sun Pharmaceutical Industries, Inc, not in her capacity as a Johns Hopkins faculty member and was not compensated for this service., William Tillett Grant/research support from: AbbVie, Celgene, Eli Lilly, Janssen, Novartis, Pfizer Inc, UCB, Consultant of: AbbVie, Amgen, Celgene, Lilly, Janssen, Novartis, MSD, Pfizer Inc, UCB, Speakers bureau: AbbVie, Amgen, Celgene, Lilly, Janssen, Novartis, Pfizer Inc, UCB, Suzanne Grieb Grant/research support from: Janssen, Steve Peterson Employee of: Janssen Research & Development, LLC, Elizabeth Holdsworth Employee of: Adelphi Real World, Sophie Meakin Employee of: Adelphi Real World, Sara Bruce Wirta Employee of: Janssen-Cilag Sweden AB, Soumya D Chakravarty Shareholder of: Johnson & Johnson, Employee of: Janssen Scientific Affairs, LLC, Laure Gossec Grant/research support from: Lilly, Mylan, Pfizer, Sandoz, Consultant of: AbbVie, Amgen, Biogen, Celgene, Janssen, Lilly, Novartis, Pfizer, Sandoz, Sanofi-Aventis, UCB

DOI: 10.1136/annrheumdis-2020-eular.5898

AB0820

COMPARATIVE EFFICACY OF GUSELKUMAB IN PATIENTS WITH PSORIATIC ARTHRITIS: RESULTS FROM SYSTEMATIC LITERATURE REVIEW AND NETWORK META-ANALYSIS

I. McInnes¹, P. J. Mease², K. Eaton³, A. Schubert⁴, S. Peterson⁵, T. Disher⁶, W. Noel⁷, H. Fareen⁸, C. Karyekar⁵, S. Van Sanden⁷, C. T. Ritchlin⁹, W. H. Boehnke¹⁰. ¹University of Glasgow, Glasgow, United Kingdom; ²Swedish Medical Center/Providence St. Joseph Health & University of Washington, Seattle, WA, United States of America; ³EVERSANA, Burlington, Canada; ⁴Janssen-Cilag, Warsaw, Poland; ⁵Janssen Global Services, Horsham, PA, United States of America; ⁶EVERSANA, Sydney, Canada; ⁷Janssen Pharmaceutica NV, Beerse, Belgium; ⁸Janssen EMEA, High Wycombe, United Kingdom; ⁹University of Rochester, Rochester, NY, United States of America; ¹⁰Geneva University Hospitals, Geneva, Switzerland

Background: The efficacy of the interleukin (IL)-23 subunit p19 inhibitor guselkumab (GUS) for psoriatic arthritis (PsA) has recently been demonstrated in two Phase 3 trials (DISCOVER-1 & -2) but has not been evaluated versus existing targeted therapies for PsA.

Objectives: To compare GUS to targeted therapies for PsA through network meta-analysis (NMA).

Methods: A systematic literature review was performed to identify PsA randomized controlled trials from 2000 to 2018. Bayesian NMAs were performed to compare treatments on American College of Rheumatology (ACR) 20/50/70 response,

Psoriasis Area Severity Index (PASI) 75/90/100 response, Health Assessment Questionnaire Disability Index (HAQ-DI) score, resolution of enthesitis (RoE), resolution of dactylitis (RoD), adverse events (AEs) and serious adverse events (SAEs). Analyses used random effects models that adjusted for placebo response via meta-regression on baseline risk when feasible. Results are summarized by ranking treatments according to median absolute probabilities of response derived from NMAs.

Results: Twenty-six Phase 3 studies were included in the quantitative synthesis. Studies were placebo-controlled up to 24 weeks and evaluated 13 targeted therapies for PsA. Absolute probabilities are reported for PASI 90 & ACR 20 responses according to Figure 1, and a forest plot of relative risks versus placebo for AEs is reported according to Figure 2. For ACR 20 response, GUS 100mg every 4 weeks (Q4W) and every 8 weeks (Q8W) ranked 5th and 8th out of 20 interventions and were comparable to IL-17A inhibitor (IL-17Ai) and most tumor necrosis factor inhibitor (TNFi) agents. Similar findings were observed for ACR 50 and 70 responses. For PASI 90 response, GUS Q4W and Q8W ranked 1st and 2nd out of 15 interventions and were highly likely to provide a greater benefit than most other agents. Similar findings were observed for PASI 75 and 100 responses. For HAQ-DI score, GUS Q4W and Q8W ranked 6th and 10th out of 20 interventions and were comparable to IL-17Ai and most TNFi agents. For RoE, GUS Q4W and Q8W ranked 8th and 6th out of 13 interventions and were comparable to IL-17Ai and TNFi agents. For RoD, GUS Q4W and Q8W ranked 8th and 9th out of 13 interventions and were comparable to most IL-17Ai and TNFi agents. For AEs, GUS Q4W and Q8W ranked 3rd and 2nd out of 19 interventions and were comparable to IL-17Ai and TNFi agents. Likewise, for SAEs, GUS Q4W and Q8W ranked 4th and 5th out of 20 interventions and were comparable to IL-17Ai and TNFi agents. Analyses that controlled for previous exposure to biologics or assessed outcomes at alternative timepoints were broadly consistent with primary analysis results.

Figure 1: Absolute Probability of Response for PASI 90 & ACR 20

Median proportion of PASI 90 (purple) and ACR 20 (teal) responders with associated 95% credible intervals according to best-fitting NMAs.

Figure 2: Forest Plot of Adverse Events vs. Placebo

Forest plot comparing relative risks (RR) and 95% credible interval (CrI) versus placebo for adverse events. Probability better than placebo shown on the right.

Conclusion: NMA results indicate that GUS is comparable to most targeted PsA treatments for improvement in arthritis, soft tissue damage, physical function, and safety outcomes. For PASI outcomes, GUS is highly likely to provide a greater benefit than other targeted PsA treatments.