RWD150

Characteristics of Plaque Psoriasis Patients Initiating Guselkumab by Country: A Multinational, Real-world Survey of Dermatology Practices

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BACKGROUND/OBJECTIVE

- Psoriasis (PsO) is a chronic, immune-mediated, and relapsing inflammatory skin disease[1] that affects approximately 3% of the US adult population[2] and 2% of the adult population in Western Europe[3]
- Guselkumab (GUS) is an interleukin (IL)-23 inhibitor indicated for the treatment of adults with moderate-to-severe PsO[4]
- This retrospective, observational study describes the differences in characteristics of patients initiating GUS for the treatment of PsO within the United States and the European Union 5 countries (EU5; France, Germany, Italy, Spain, United Kingdom)

METHODS

- Data were collected using cross-sectional surveys from the Adelphi Psoriasis IX Disease Specific Program® completed between August 2018 and March 2019 within the United States and the EU5
- Demographic and clinical factors were assessed at the time of the survey, and disease characteristics were assessed at the time of GUS initiation
- Differences among GUS users by country of origin were assessed
- *P* values <0.05 were considered statistically significant

RESULTS

- A total of 493 patients were eligible for this analysis, consisting of: 26.4% from the United States, 20.1% from Germany, 16.6% from France, 15.0% from Spain, 11.6% from the United Kingdom, and 10.3% from Italy
- The median age ranged from 41 to 45 years, with the majority of patients being male (50.5%-72.5%) and White (70.2%-96.1%; **Table 1**)
- Significant differences in ethnicity, employment, and body mass index (all *P* <0.01) were observed among countries
- US GUS users had the highest percentage of full-time employment (81.5%) and shortest median PsO disease duration (3.0 years)

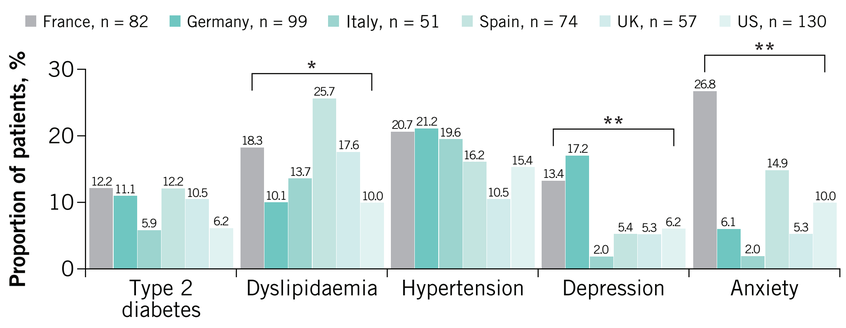
Table 1. Current Patient Demographic and Disease Characteristics

Characteristic	France n = 82	Germany n = 99	Italy n = 51	Spain n = 74	UK n = 57	US n = 130	*P* value
Age, years, median (IQR)	45 (38-56)	41 (35-50)	45 (35-52)	45 (38-53)	42 (36-48)	42 (32-54)	0.38
Sex, n (%)							0.16
Male	48 (58.5)	50 (50.5)	37 (72.5)	48 (64.9)	35 (61.4)	77 (59.2)	
BMI, kg/m², median (IQR)	25 (22.5-27.8)	25.3 (22.8-27.0)	25.4 (23.2-27.7)	26.2 (23.3-28.7)	27 (24.5-29.8)	25.8 (24.3-28.5)	<0.01
Ethnicity, n (%)							<0.01
White	77 (93.9)	94 (94.9)	49 (96.1)	69 (93.2)	40 (70.2)	107 (82.3)	
Employment, n (%)							<0.01
Full time	49 (59.8)	65 (65.7)	27 (52.9)	55 (74.3)	26 (45.6)	106 (81.5)	
Part time	10 (12.2)	3 (3.0)	5 (9.8)	3 (4.1)	3 (5.3)	6 (4.6)	
Retired	8 (9.8)	6 (6.1)	3 (5.9)	4 (5.4)	2 (3.5)	4 (3.1)	
Unemployed	5 (6.1)	3 (3.0)	5 (9.8)	0	5 (8.8)	1 (0.8)	
Other/unknown	10 (12.2)	22 (22.2)	11 (21.6)	12 (16.2)	21 (36.8)	13 (10.0)	
Time since PsO diagnosis, years, median (IQR)[a]	9.4 (4.9-18.9)	8.3 (4.2-20.2)	9.3 (3.0-19.4)	10.1 (3.1-18.0)	10.4 (5.3-18.8)	3.0 (1.6-6.7)	<0.01

IQR, interquartile range; BMI, body mass index; PsO, psoriasis.
[a]Missing patient data include: France, n = 18; Germany, n = 18; Italy, n = 30; Spain, n = 34; UK, n = 33; US, n = 51.

- The incidence of dyslipidaemia (*P* = 0.03), depression (*P* <0.01), and anxiety (*P* <0.01) varied significantly by country of origin
  - Spain had the highest incidence of comorbid dyslipidaemia (25.7%), while Germany and France had the highest proportion of patients with depression (17.2%) and anxiety (26.8%), respectively (**Figure 1**)

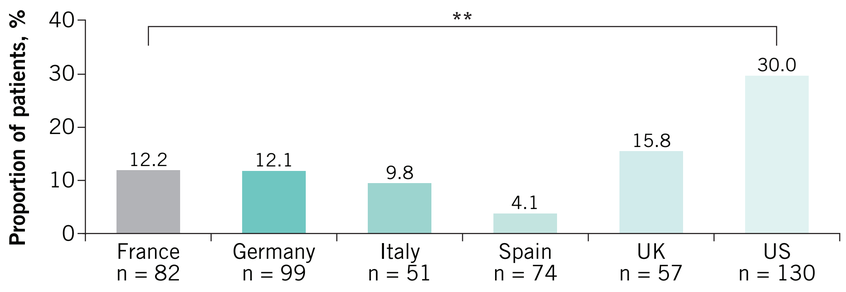
Figure 1. Proportion of Patients With Common Comorbidities



**P <0.05 across countries.*
***P <0.01 across countries.*

- The United States had approximately twice as many patients diagnosed with concomitant psoriatic arthritis (PsA; 30.0%) as the next leading country (United Kingdom, 15.8%; **Figure 2**)

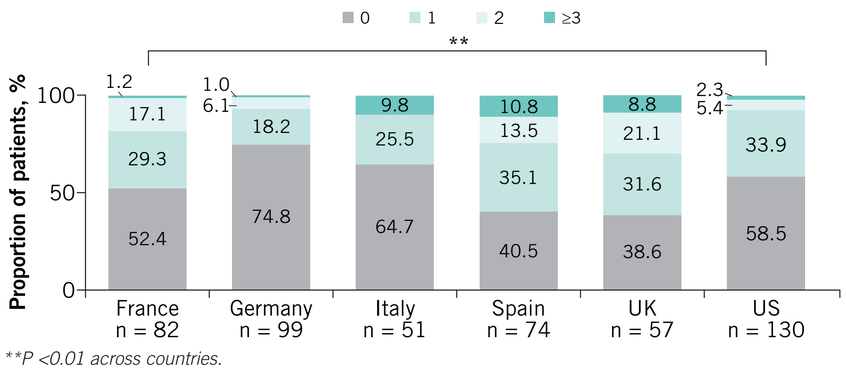
Figure 2. Concomitant PsA Among GUS Users



PsA, psoriatic arthritis; GUS, guselkumab.
***P <0.01 across countries.*

- Biologic exposure differed by country of origin (*P* <0.01), with Germany having the highest proportion of biologic-naïve patients (74.8%) and the United Kingdom having the highest proportion of patients with previous biologic therapy use (61.4%; **Figure 3**)

Figure 3. Proportion of Patients With Previous Biologic Treatment Experience

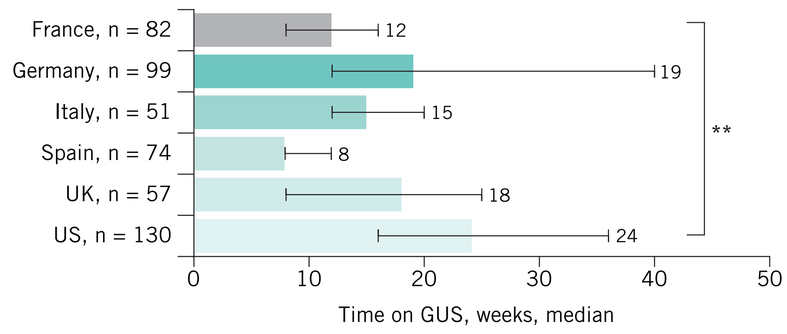


***P <0.01 across countries.*

- Disease severity was significantly different based on country of origin in terms of: body surface area (BSA) affected (*P* <0.01), presence of sensitive-area lesions (*P* = 0.04), and physician-reported disease severity (*P* <0.01; **Table 2**)
  - The highest median BSA was reported in Germany (30), while GUS users in France reported experiencing lesions in sensitive areas at a higher rate than GUS users in any other country (58.5%)

- Time on GUS treatment was significantly different when compared across countries of origin (*P* <0.01), with the US patient population having the longest duration of treatment (24 weeks; **Figure 4**)

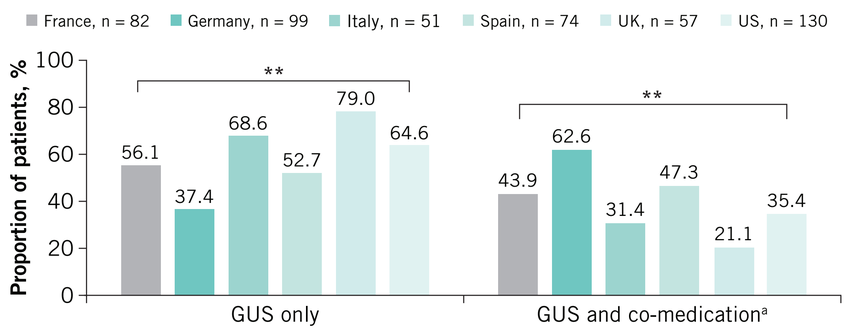
Figure 4. Time on GUS Treatment



GUS, guselkumab.
***P <0.01 across countries.*

- Treatment history differed by country of origin (**Figure 5**)
  - The United Kingdom had the highest proportion of patients receiving biologic monotherapy (79.0%), while Germany had the highest proportion of patients receiving a biologic plus concomitant therapy (62.6%)

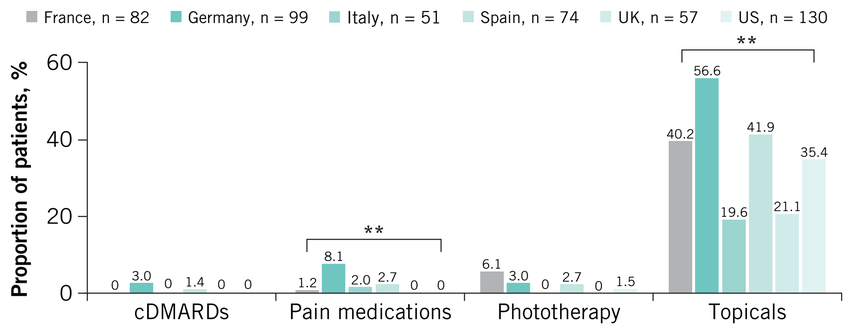
Figure 5. Proportion of GUS Users Using Mono- or Combination PsO Therapy



GUS, guselkumab; PsO, psoriasis.
[a]Co-medication includes ≥1 of the following treatments: conventional disease-modifying antirheumatic drugs, pain medication, phototherapy, or topicals.
***P <0.01 across countries.*

- Use of pain medication and topicals differed by country of origin (both *P* <0.01)
  - With the highest proportion of PsO patients receiving co-prescribed medications, Germany had the greatest proportion of patients receiving conventional disease-modifying antirheumatic drugs, pain medications, and topicals (3.0%, 8.1%, and 56.6%; **Figure 6**)

Figure 6. Co-prescribed Medications for the Treatment of PsO



PsO, psoriasis; cDMARD, conventional disease-modifying antirheumatic drug.
***P <0.01 across countries.*

Table 2. Severity of PsO at GUS Initiation

	France n = 82	Germany n = 99	Italy n = 51	Spain n = 74	UK n = 57	US n = 130	*P* value
BSA, median (IQR)	25 (14.5-35)	30 (18-40)	18 (15-25)	15 (10-30)	25 (15-40)	16.5 (10-25)	<0.01
Sensitive-area lesions,[a] n (%)	48 (58.5)	48 (48.5)	20 (39.2)	38 (51.4)	19 (33.3)	55 (42.3)	0.04
Physician-reported disease severity, n (%)							<0.01
Mild	3 (3.7)	0	0	6 (8.1)	0	1 (0.8)	
Moderate	27 (32.9)	31 (31.3)	33 (64.7)	32 (43.2)	11 (19.3)	70 (53.8)	
Severe	52 (63.4)	68 (68.7)	18 (35.3)	36 (48.6)	46 (80.7)	59 (45.4)	

PsO, psoriasis; GUS, guselkumab; BSA, body surface area; IQR, interquartile range.
[a]Sensitive lesions ever experienced in the following areas: scalp, face, nails, genitalia, palms, and soles.

CONCLUSIONS

- **Patients and disease characteristics of GUS users initiating therapy from 2018 to 2019 varied by country**
- **Evidence of higher disease burden among GUS users was noted in Germany (highest BSA) and the UK (highest rates of physician-reported disease severity and longest PsO disease duration) among the countries included**
- **Relative to patients from other countries, US patients on GUS had shorter PsO disease duration and a higher rate of concomitant PsA**
- **Additional research is warranted to further understand treatment practice differences among countries and their potential impact on patient outcomes**

Acknowledgements

This study was sponsored and funded by Janssen Global Services, LLC. Medical writing support was provided by Kiley Margolis, PharmD, of Lumanity Communications Inc., and was funded by Janssen Global Services, LLC.

Disclosures

MM, FY, and RET are employees of Janssen Global Services, LLC. TF is an employee of Janssen Scientific Affairs, LLC. JP and JL are employees of Adelphi Real World, which received research funding from Janssen during the conduct of this study.

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Presented at the International Society for Pharmacoeconomics and Outcomes Research (ISPOR) Europe Annual Meeting; 6-9 November 2022; Vienna, Austria, and Virtual.