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Do Real-World Treatment Patterns Reflect PsA Recommendations: Results From the PRO-SPIRIT Study

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OBJECTIVE

- To report on real-world treatment patterns reflecting PsA treatment recommendations using results from the PRO-SPIRIT study

CONCLUSIONS

- Patients in IL-17Ai, IL-12/23i, IL-23i, and JAKi groups showed a higher prior use of b/tsDMARD treatment compared with those in TNFi and PDE4i groups
- In general, patients enrolled in PRO-SPIRIT had polyarticular disease[a] at baseline
- Patients with skin and nail involvement were more commonly treated with IL-17Ai and IL-23i over TNFi and JAKi
- Patients with axial manifestations were more commonly treated with IL-17Ai, TNFi, and JAKi over IL-12/23i and IL-23i
- The results add to the evidence on real-world PsA treatment patterns and recommendations sets for guiding individualized PsA treatment

LIMITATIONS

- The number of patients in the IL-12/23i, IL-23i, and PDE4i groups are small relative to IL-17Ai, TNFi, and JAKi groups

[a]Defined as any joint involvement ≥5.

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BACKGROUND

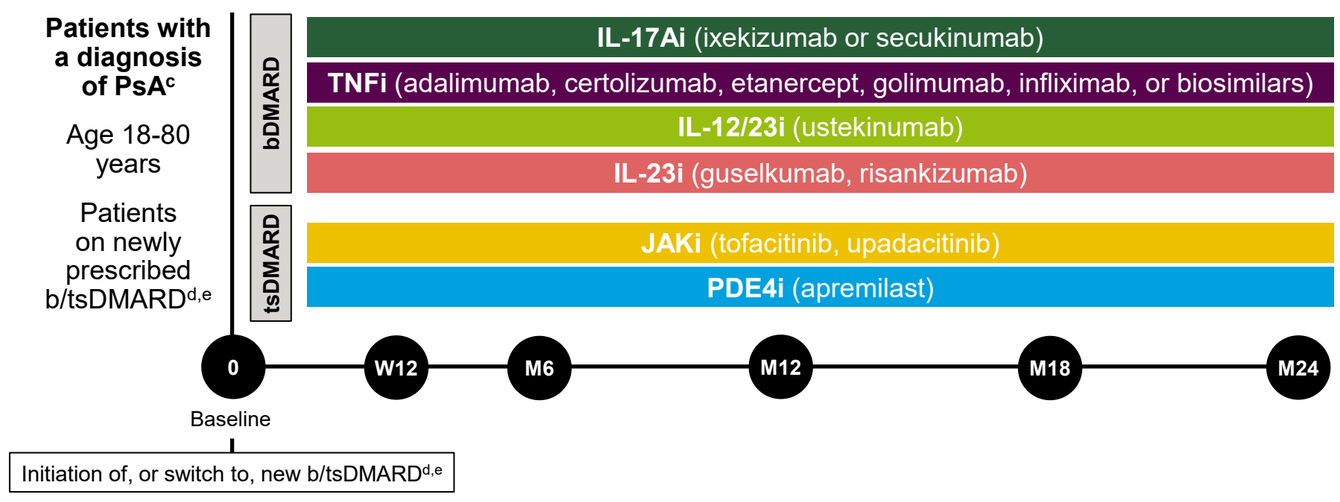
- The GRAPPA[1] and the EULAR[2] have developed evidence-based recommendation sets for PsA treatment[3]
  - All bDMARDs are equally recommended for peripheral arthritis
  - IL-17Ai and IL-12/23i are preferred over TNFi for PsA with significant skin involvement
  - IL-12/23i are not recommended for PsA with axial manifestations
- PRO-SPIRIT is the first large-sample multinational, prospective, observational, cohort study including ixekizumab, with the goal to investigate the real-world effectiveness of b/tsDMARDs for PsA

STUDY DESIGN: PRO-SPIRIT

1192 Patients were enrolled from 2019 to 2022[a]

6 Participating countries[b]

6 Treatment groups were compared
>14 Biologics



Exclusion Criteria

- Change in dose or dosing interval at baseline for an existing b/tsDMARD
- Restarted treatment with a previously used b/tsDMARD
- Previous withdrawal from this study or current participation in another PsA study and/or with any non-approved investigational product for PsA

[a]A small number of patients were treated with doses off-label; [b]Canada, France, Germany, Italy, Spain, and the United Kingdom; [c]Diagnosed for ≥6 months before baseline, as determined by the investigator; [d]Including biosimilars; [e]According to country specific–approved indication.

Methods

Assessments

- Patient demographic and disease activity
- Treatment characteristics
- Clinical and patient-reported outcomes

Statistical Analyses

- Data were collected at baseline
- Descriptive results were presented
- Missing baseline values were imputed using multiple imputation

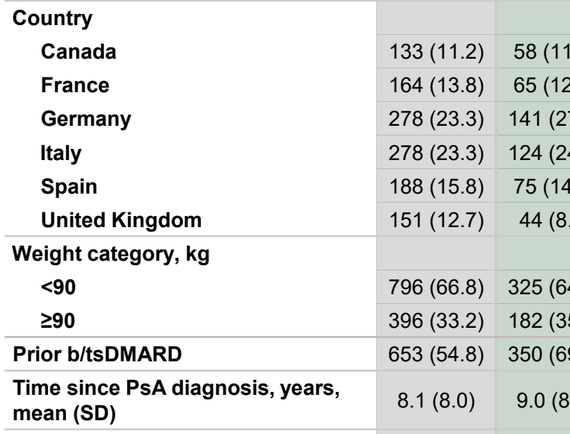
Results

Baseline Demographics and Disease Characteristics

Characteristics	Overall N=1,192	bDMARD IL-17Ai[a] (N=507)	bDMARD TNFi (N=436)	bDMARD IL-12/23i (N=35)	bDMARD IL-23i (N=56)	tsDMARD JAKi (N=124)	tsDMARD PDE4i (N=32)
Age category, years							
<65	1008 (84.6)	421 (83.0)	378 (86.7)	31 (88.6)	45 (80.4)	103 (83.1)	28 (87.5)
≥65	184 (15.4)	86 (17.0)	58 (13.3)	4 (11.4)	11 (19.6)	21 (16.9)	4 (12.5)
Female	740 (62.1)	325 (64.1)	262 (60.1)	19 (54.3)	33 (58.9)	81 (65.3)	20 (62.5)
Country							
Canada	133 (11.2)	58 (11.4)	39 (8.9)	1 (2.9)	12 (21.4)	23 (18.5)	0
France	164 (13.8)	65 (12.8)	62 (14.2)	5 (14.3)	7 (12.5)	23 (18.5)	1 (3.1)
Germany	278 (23.3)	141 (27.8)	60 (13.8)	7 (20.0)	23 (41.1)	44 (35.5)	3 (9.4)
Italy	278 (23.3)	124 (24.5)	123 (28.2)	7 (20.0)	11 (19.6)	2 (1.6)	11 (34.4)
Spain	188 (15.8)	75 (14.8)	69 (15.8)	10 (28.6)	3 (5.4)	17 (13.7)	14 (43.8)
United Kingdom	151 (12.7)	44 (8.7)	83 (19.0)	5 (14.3)	0	15 (12.1)	3 (9.4)
Weight category, kg							
<90	796 (66.8)	325 (64.1)	307 (70.4)	24 (68.6)	32 (57.1)	83 (66.9)	24 (75.0)
≥90	396 (33.2)	182 (35.9)	129 (29.6)	11 (31.4)	24 (42.9)	41 (33.1)	8 (25.0)
Prior b/tsDMARD	653 (54.8)	350 (69.0)	136 (31.2)	26 (74.3)	43 (76.8)	90 (72.6)	7 (21.9)
Time since PsA diagnosis, years, mean (SD)	8.1 (8.0)	9.0 (8.5)	6.6 (7.3)	8.2 (8.9)	8.9 (8.1)	9.0 (7.6)	8.8 (7.7)
Joint involvement							
SJC ≥5	454 (38.1)	196 (38.7)	172 (39.4)	12 (34.3)	16 (28.6)	50 (40.3)	7 (21.9)
TJC ≥5	795 (66.7)	341 (67.3)	289 (66.3)	22 (62.9)	35 (62.5)	90 (72.6)	17 (53.1)
SJC ≥5 or TJC ≥5	828 (69.5)	354 (69.8)	306 (70.2)	22 (62.9)	36 (64.3)	92 (74.2)	17 (53.1)
SJC ≥5 and TJC ≥5	421 (35.3)	183 (36.1)	155 (35.6)	12 (34.3)	15 (26.8)	48 (38.7)	7 (21.9)
Skin involvement							
BSA percent affected, mean (SD)	5.0 (10.4)	5.6 (11.6)	4.4 (9.5)	5.9 (8.7)	7.9 (12.7)	3.2 (8.2)	4.4 (5.4)
BSA ≥3%	454 (38.1)	207 (40.8)	149 (34.2)	17 (48.6)	31 (55.4)	34 (27.4)	16 (50.0)
Nail psoriasis	454 (38.1)	196 (38.7)	160 (36.7)	10 (28.6)	28 (50.0)	44 (35.5)	15 (46.9)
Enthesitis	495 (41.5)	205 (40.4)	180 (41.3)	9 (25.7)	32 (57.1)	56 (45.2)	12 (37.5)
Dactylitis	236 (19.8)	104 (20.5)	83 (19.0)	6 (17.1)	13 (23.2)	25 (20.2)	5 (15.6)
Axial manifestations	428 (35.9)	189 (37.3)	161 (36.9)	10 (28.6)	11 (19.6)	49 (39.5)	7 (21.9)

[a]IL-17Ai treatment group included 341 patients treated with ixekizumab, 87 patients treated with secukinumab 150 mg, and 79 patients treated with secukinumab 300 mg.
Note: Data are presented as n (%) unless stated otherwise.

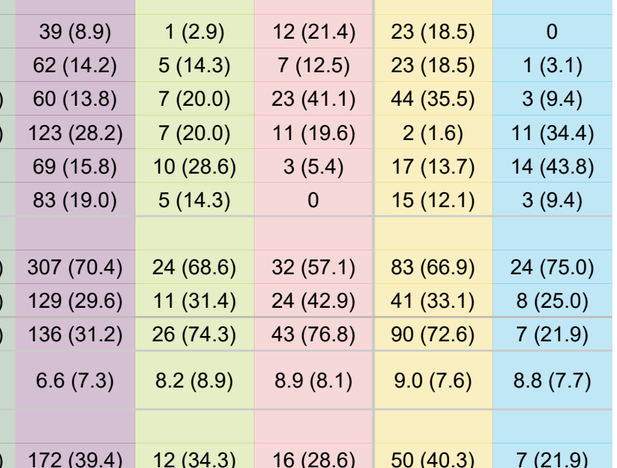
Prior Use of b/tsDMARD Treatments



[a]70% of patients treated with ixekizumab had previously used b/tsDMARD, 54% of patients treated with secukinumab 150 mg had previously used b/tsDMARD, and 80% of patients treated with secukinumab 300 mg had previously used b/tsDMARD.

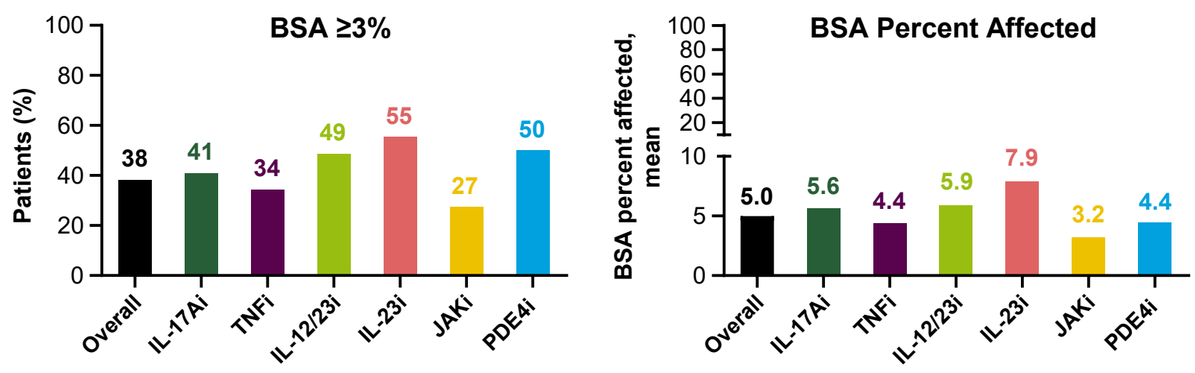
- Prior use of b/tsDMARDs was higher in patients treated with IL-17Ai, IL-12/23i, IL-23i, and JAKi

Real-World Treatment Patterns for Patients With Joint Involvement



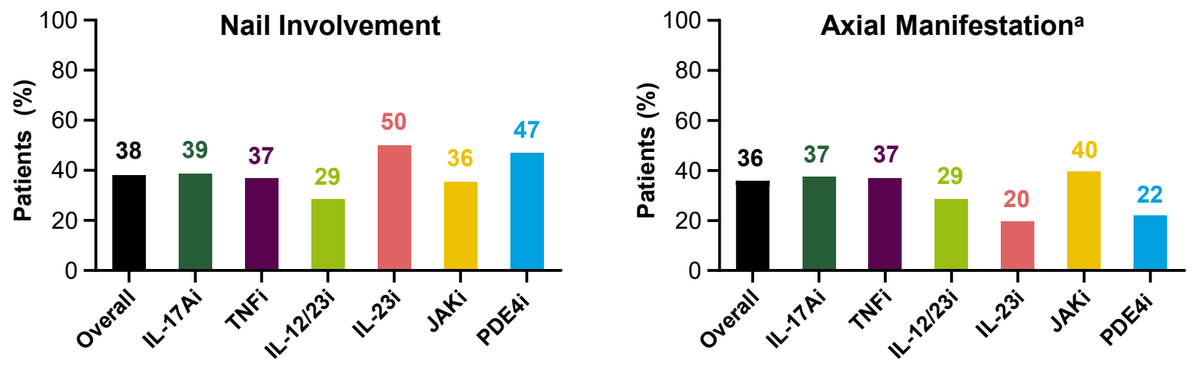
- Patients with joint involvement were equally distributed across treatment classes, except for a lower percentage in the PDE4i class

Real-World Treatment Patterns for Patients With Skin Involvement



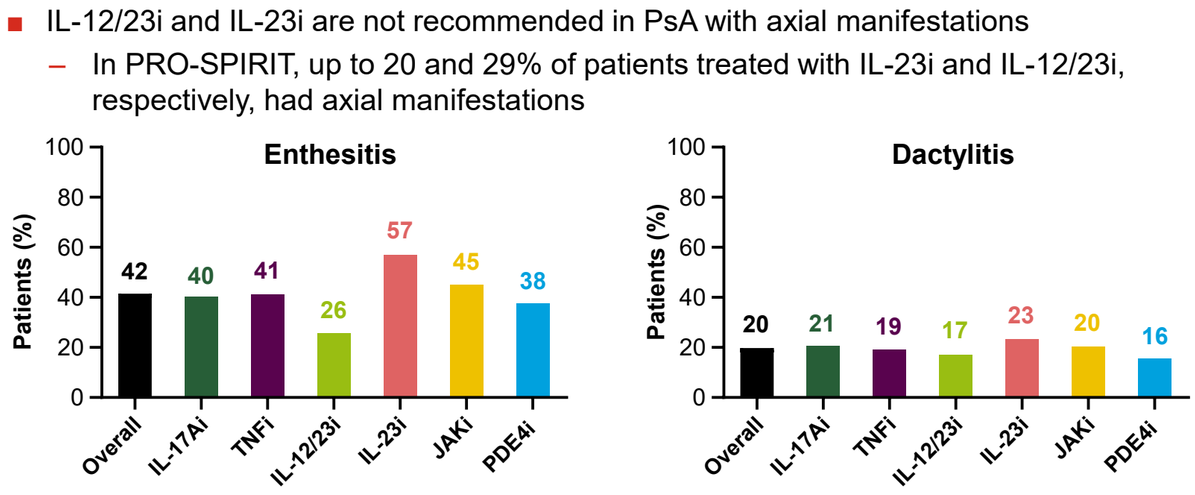
- IL-17Ai, IL-12/23i, and IL-23i are preferred over TNFi for PsA with significant skin involvement
- Patients with BSA ≥3% were less likely to receive TNFi or JAKi
- Patients in the TNFi, JAKi, and PDE4i groups had a lower BSA percent affected than other groups

Real-World Treatment Patterns for Patients With:



[a]Axial manifestation was assessed clinically only using BASDAI but was not reconfirmed based on imaging or diagnosis criteria.

- Treatment with IL-17Ai, IL-23i, or PDE4i was highest in patients with nail involvement
- A lower proportion of patients receiving IL-12/23i had nail involvement compared with the other groups
- Patients with axial manifestations were more commonly receiving IL-17Ai, TNFi, and JAKi but less receiving IL-12/23i, IL-23i, and PDE4i
- IL-12/23i and IL-23i are not recommended in PsA with axial manifestations
  - In PRO-SPIRIT, up to 20 and 29% of patients treated with IL-23i and IL-12/23i, respectively, had axial manifestations



- Patients with enthesitis were more commonly receiving IL-23i
- Patients with dactylitis were equally distributed across treatment classes

References: 1. Coates L, et al. *Nat Rev Rheum.* 2022;18:465-479. 2. Gossec L, et al. *Ann Rheum Dis.* 2020;79:700-712. 3. Coates L and Gossec L. *Joint Bone Spine*. 2023;90:105-469.

Abbreviations: *BASDAI=Bath Ankylosing Spondylitis Disease Activity Index; BSA=body surface area; b/tsDMARD=biologic/targeted synthetic DMARD; DMARD=disease-modifying anti-rheumatic drug; EULAR=European Alliance of Associations for Rheumatology; GRAPPA=Group for Research and Assessment of Psoriasis and PsA; IL=interleukin; IL-12/23i=IL-12/23 inhibitor; IL-17Ai=IL-17A inhibitor; JAKi=janus kinase inhibitor; M=Month; PDE4i=phosphodiesterase-4 inhibitor; PsA=psoriatic arthritis; SJC=swollen joint count; SD=standard deviation; TJC=tender joint count; TNFi=tumor necrosis factor inhibitor; W=Week*

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