Unmet Criteria for Achieving Minimal and Very Low Disease Activity Among Patients with Psoriatic Arthritis Initiating Biologic or Targeted Synthetic Disease-Modifying Antirheumatic Drugs in the CorEvitas PsA/SpA Registry

Table 1 Baseline characteristics of the MDA and VLDA cohorts, stratified by MDA and VLDA status, respectively, 6 months

55.3 (12.1) [1,287

861/1,284 (67.1)

1,181/1,271 (92.9)

130 (10.3)

812 (64.2)

544/1,270 (42.8)

203/1,279 (15.9)

326 (25.3)

6.6 (8.1) [1,27]

11.0 (12.1) [1,277

4.0 (5.6) [1,276]

6.2 (11.6) [1,271

65.1 (21.2) [1,279

58.0 (22.5) [1,281

1.2 (0.6) [1,282]

1.7 (2.9) [1,288]

469 (36.4)

335 (26.0)

106 (8.2)

166 (12.9)

409 (31.8)

315 (24.5)

[a] MDA: >5/7 criteria fulfilled. VLDA: 7/7 criteria fulfilled; [b] There were 37 non-achievers (<4/7 criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled) with missing data for any of the seven MDA criteria fulfilled.

VLDA criteria who were excluded from the analysis; [d] Included abatacept (n=54) and three non-approved PsA biologics captured in the CorEvitas PsA/SpA registry that are sometimes used for PsA treatment (tocilizumab, anakinra, and rituximab); [e] Included b/tsDMARDs used prior to the start

228 (17.7)

Non-Achievers^b

245/396 (61.9)

358/390 (91.8)

65 (16.6)

86 (21.9)

241 (61.5)

308/398 (77.

209/394 (53.

49/396 (12.4)

27 (6.8)

93 (23.4)

61 (15.3)

5.7 (6.8) [395]

4.5 (6.3) [395]

1.8 (3.0) [395

5.6 (11.6) [392]

54.3 (24.4) [39

47.1 (24.0) [39

0.9 (0.6) [395

0.6 (1.4) [398]

167 (42.0)

91 (22.9)

25 (6.3)

27 (6.8)

25 (6.3)

137 (34.4)

113 (28.4)

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Objective

To determine the most commonly unmet minimal disease activity (MDA) and very low disease activity (VLDA) criteria among patients with psoriatic arthritis (PsA) initiating treatment in a real-world setting and to gain insight into unmet needs with current therapies

Background

- PsA is a chronic inflammatory disease that affects multiple tissues and may progress without effective intervention, thereby affecting patients' quality of life. 1,2
- MDA/VLDA are desirable clinical targets for patients with PsA as they are associated with reduced disease progression and improved quality of life. However, despite clinical advances, it remains challenging for patients to reach MDA/VLDA.3,4

Methods

- Eligible patients with PsA in the CorEvitas PsA/Spondyloarthritis (SpA) registry (03/2013–09/2023) who initiated biologic/targeted synthetic disease-modifying antirheumatic drugs (b/tsDMARDs) had MDA/VLDA computed on the day of treatment initiation (index date) and 6 months (range: 5-9 months) post-index (**Figure 1**).
- Baseline characteristics associated with index were assessed at the registry index visit, defined as either the registry visit at which treatment initiation occurred (index) or the closest prior registry visit within four months of index if treatment initiation occurred between registry visits.
- Patients in MDA at index were ineligible for the MDA cohort. Patients in VLDA at index were ineligible for the VLDA cohort. However, patients in MDA at index could be included in the VLDA cohort.
- At 6 months, patients in each cohort were classified by the number of criteria met out of the seven MDA/VLDA criteria: achievers (MDA: \geq 5/7; VLDA: 7/7); all non-achievers (MDA: \leq 4/7; VLDA: \leq 6/7); non-achievers by 1 criterion (MDA: 4/7; VLDA: 6/7); and non-achievers by >1 criterion (MDA: $\leq 3/7$; VLDA: <5/7).
- MDA/VLDA criteria included: tender joint count (TJC) \leq 1; swollen joint count (SJC) \leq 1; psoriasis body surface area (BSA) \leq 3%; patient pain visual analog scale (VAS) \leq 15; Patient's Global Assessment of disease activity (PGA) VAS \leq 20; Health Assessment Questionnaire-Disability Index (HAQ-DI) \leq 0.5; tender entheseal points <1
- The proportion of patients not meeting each MDA/VLDA criterion at treatment initiation and at the 6 month follow-up was reported.

Results

Cohort and Baseline Characteristics

- The MDA and VLDA cohorts had 2,093 and 2,491 patients, respectively. Most patients (65%) in each cohort had prior b/tsDMARD experience at index.
- Baseline characteristics by cohort and MDA/VLDA status after 6 months of b/tsDMARD treatment are summarized in **Table 1**.
- In the MDA cohort, after 6 months of treatment, 18% (n/N=370/2,093) of patients were MDA achievers and 82% (n/N=1,723/2,093) were non-achievers; 19% (n/N=398/2,093) of patients missed one criterion to achieve MDA (Table 1).
- In the VLDA cohort, after 6 months of treatment, 8% (n/N=187/2,491) of patients were VLDA achievers and 92% (n/N=2,304/2,491) were non-achievers; 9% (n/N=236/2,491) of patients missed one criterion to achieve VLDA (Table 1)
- At baseline, MDA/VLDA non-achievers were older, and a higher proportion were female, were current smokers, were obese, and had public insurance. Non-achievers also had higher rates of depression, anxiety, and fibromyalgia, higher disease activity, and worse patient-reported outcomes (PROs) at baseline (**Table 1**).

Unmet MDA/VLDA Criteria

- The proportion of MDA achievers not meeting each MDA criterion decreased after 6 months of treatment; however, 40% (n/N=148/370) of patients did not meet the patient pain threshold at 6 months despite achieving MDA (Figure 2).
- Among MDA/VLDA non-achievers, PROs, including patient pain, PGA, and HAQ-DI, were the most commonly unmet criteria at baseline and after 6 months of treatment. These PROs had the least change in the proportion of patients not meeting the threshold for MDA/VLDA between baseline and follow-up (Figures 2-3).
- Among non-achievers who missed MDA by one criterion after 6 months of treatment (N=398), the most commonly unmet criteria were patient pain (86% [n=343]), PGA (75% [n=299]), and HAQ-DI (64% [n=254]; Figure 2). Most patients who missed one criterion to achieve VLDA (N=236) did not meet the patient pain (41% [n=96]), TJC (12% [n=29]), and HAQ-DI (12% [n=29]) criteria (**Figure 3**).

Conclusions

A low proportion of patients treated with b/tsDMARDs between 2013 and 2023 achieved MDA/VLDA after 6 months of treatment

Patient pain was the most commonly unmet criterion among MDA achievers and non-achievers who missed MDA/VLDA by one criterion, suggesting a high unmet need for pain management, even among patients achieving a degree of disease control.

PROs, including patient pain, PGA, and HAQ-DI, were the least likely criteria to be met after 6 months of b/tsDMARD treatment among MDA/VLDA non-achievers, suggesting the need for an enhanced focus on PROs in the treatment of patients with PsA.

Summary

VLDA, respectively

Demographic Characteristics

Age, years, mean (SD) [n]

Private Insurance, n/N (%

Current Smoker, n/N (%)

Disease Characteristics

TJC (0-68), mean (SD) [n]

SJC (0–66), mean (SD) [n]

Treatment Characteristics

b/tsDMARD at Index, N

IL-17i, n (%)

IL-23i, n (%)

JAKi, n (%)

PDE4i, n (%)

Non-TNFi,d n (%)

Prior Number of b/tsDMARDs,

b/tsDMARD Monotherapy, n/N (%)

IL-12/23i, n (%)

Psoriasis BSA, mean (SD) [n]

Comorbidities, N

Work Status (full-time), n/N (%)

Cardiovascular Disease, n (%)

Underweight/Normal (<18.5-24.9), n (%)

PsA Disease Duration, years, mean (SD) [n]

Patient Pain (VAS: 0-100), mean (SD) [n]

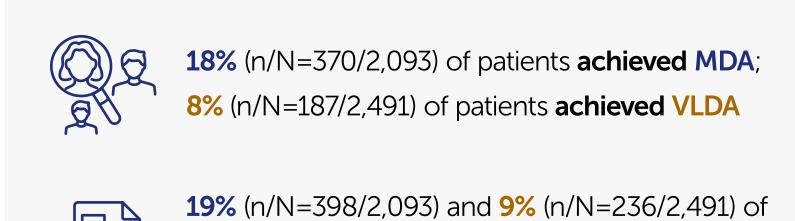
Tender Entheseal Points (0-16), mean (SD) [n]

PGA of Arthritis and Psoriasis (VAS: 0-100), mean (SD) [n]

Overweight (25.0-29.9), n (%)

White Race, n/N (%)

st **commonly unmet MDA/VLDA** criteria among patients with PsA, this study assessed the neeting each criteria at the time of b/tsDMARD treatment initiation and after 6 months



An additional 16% (n/N=343/2,093)

of patients would have achieved MDA had they met the patient

st commonly unmet criteria for MDA/VLDA non-achievers were PROs:

54.7 (12.4) [2,091

1,321/2,086 (63.3

1,894/2,062 (91.9)

250 (12.1)

1,279 (62.1)

1,593/2,093 (76.1)

997/2,064 (48.3)

290/2,079 (13.9)

235 (11.2)

6.4 (8.0) [2,075]

8.9 (10.9) [2,060

3.5 (5.0) [2,059]

6.0 (11.6) [2,052]

53.2 (24.0) [2,062

1.3 (2.5) [2,093]

1.367/2.093 (65.3)

1.1 (0.6) [2,075]

60.3 (23.5) [2,072



after b/tsDMARD initiation

patients missed one criterion to achieve MDA and





n enhanced focus on PROs in the treatment of patients

190/369 (51.5)

323/365 (88.5)

51 (13.9)

107 (29.2)

209 (56.9)

317/370 (85.7)

229/366 (62.6)

33/369 (8.9)

50 (13.5)

6.4 (8.5) [367]

6.0 (7.4) [363]

3.6 (4.6) [363]

6.1 (11.7) [362]

49.6 (24.7) [366]

0.7 (0.5) [367]

0.7 (1.4) [370]

166 (44.9)

95 (25.7)

15 (4.1)

20 (5.4)

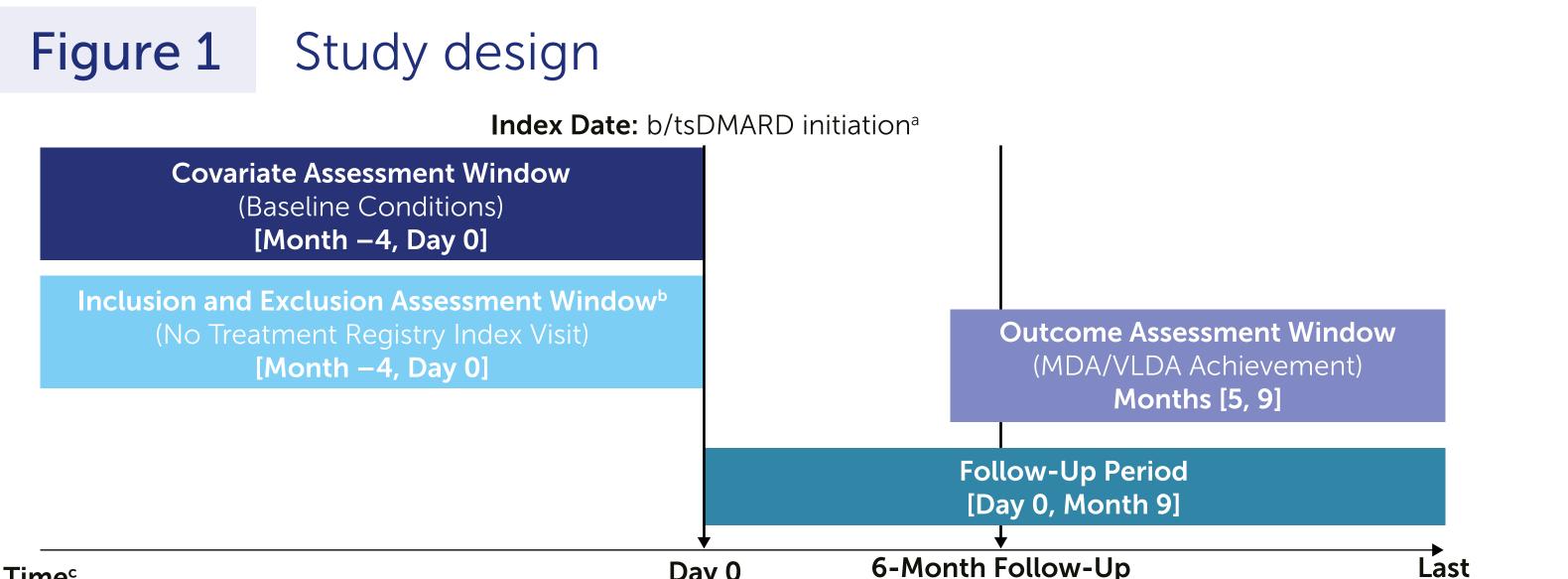
42 (11.4)

5 (1.4)

169 (45.7)

119 (32.2)

259/370 (70.0)



abatacept. ustekinumab. guselkumab. risankizumab. tofacitinib. upadacitinib. PDE4i. tocilizumab, anakinra, or rituximab; [b] Inclusion criteria: enrolled in the CorEvitas PsA/SpA registry and had a PsA diagnosis; initiated an approved b/tsDMARD; not in a state of MDA or VLDA at index (patients in MDA) at index were ineligible for the MDA cohort. Patients in VLDA at index were ineligible for the VLDA cohort; however, patients in MDA but not VLDA at index were eligible for the VLDA cohort) and had a follow-up visit at 6 (range: 5–9) months. Exclusion criteria: no index or follow-up visit or insufficient criteria to compute MDA and VLDA at index visit or follow-up; [c] The first baseline visit occurred in April 2013; [d] The follow-up visit could occur 5–9 months following the registry index visit. If there were multiple registry visits in the follow-up period, the registry visit closest to 6 months was used as

77/186 (41.4)

164/186 (88.2)

30 (16.1)

86 (46.2)

165/187 (88.2)

137/185 (74.1

16/187 (8.6)

4 (2.1)

6.7 (8.5) [185

3.9 (6.2) [184

2.4 (4.2) [184

6.6 (13.4) [183]

34.8 (26.3) [185]

31.3 (24.5) [185]

0.3 (0.8) [187]

94 (50.3)

46 (24.6)

94 (50.3)

129/187 (69.0)

0.4 (0.5) [186

54.5 (12.5) [2,488]

1,511/2,482 (60.9)

2,246/2,453 (91.6)

318 (13.0)

1,485 (60.6)

1,915/2,491 (76.9

1,237/2,454 (50.4)

272 (10.9)

524 (21.0)

346 (13.9)

6.5 (8.0) [2,471

7.8 (10.5) [2,447]

3.0 (4.8) [2,446]

5.8 (11.2) [2,442]

54.7 (26.6) [2,461]

48.3 (26.1) [2,453]

0.9 (0.7) [2,467

1.1 (2.3) [2,491

981 (39.4)

614 (24.6)

198 (7.9)

134 (5.4)

165 (6.6)

328 (13.2)

71 (2.9)

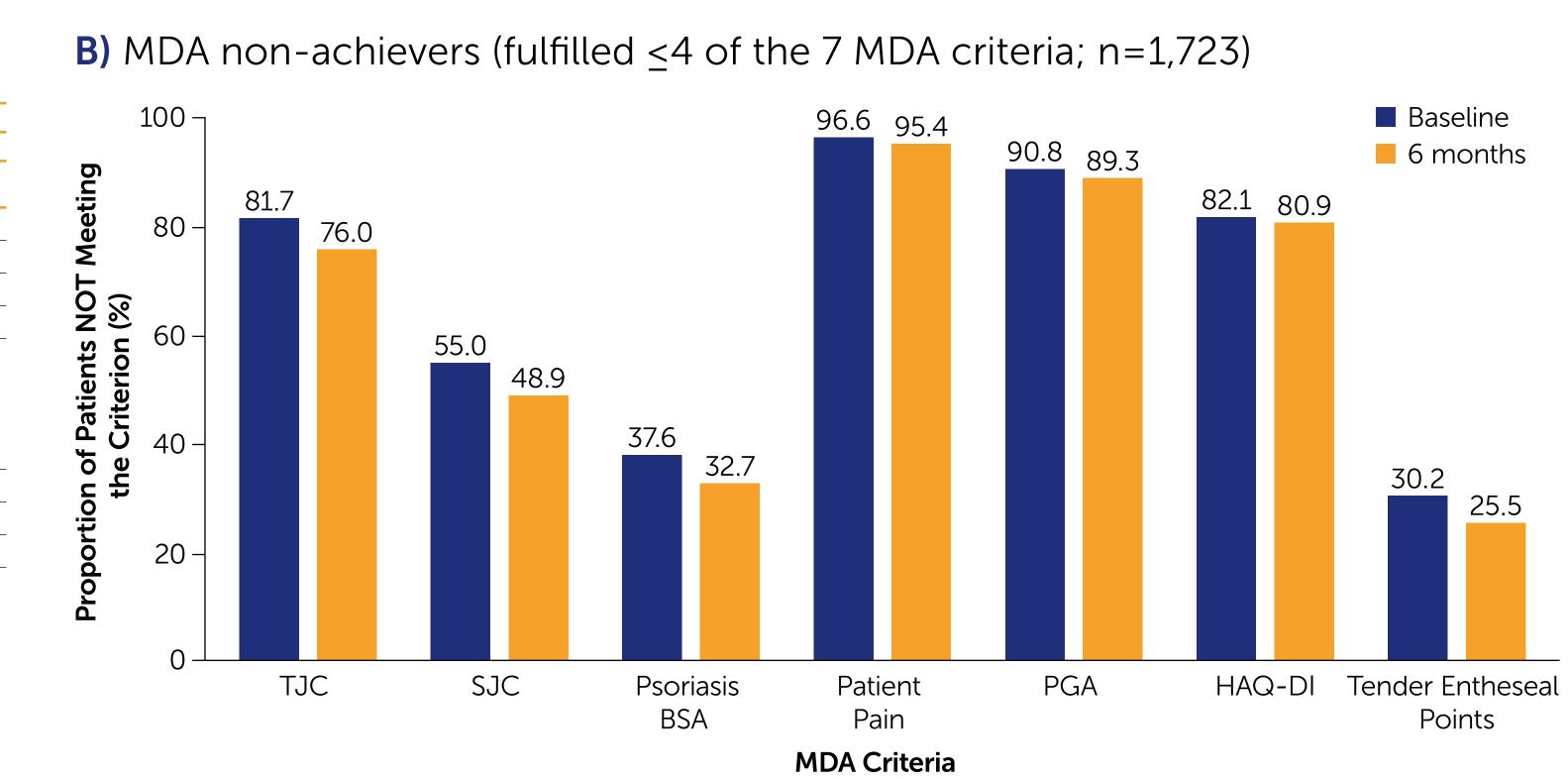
868 (34.8)

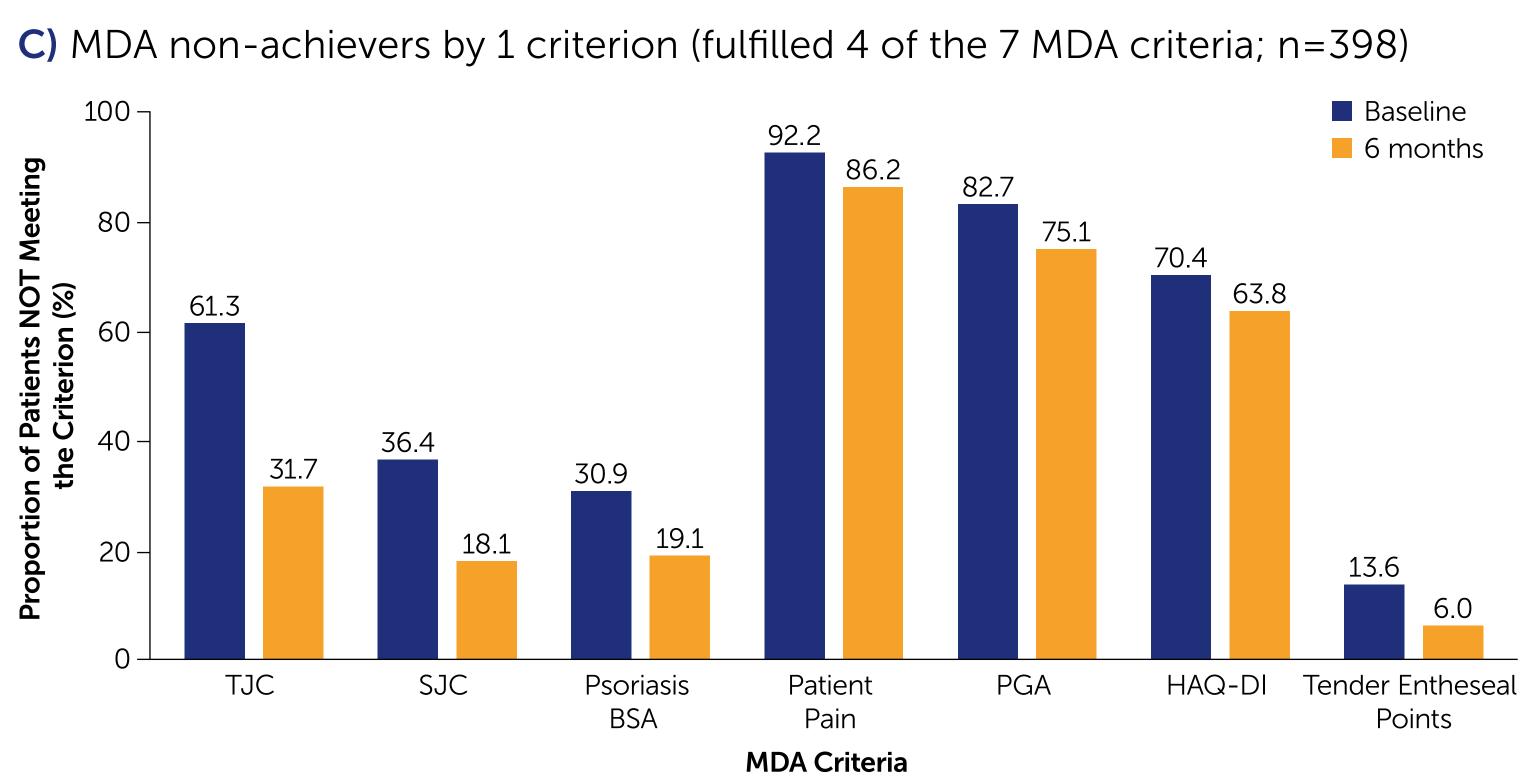
624 (25.1

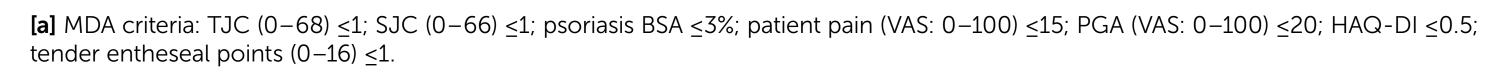
1,634/2,491 (65

323/2,468 (13.1

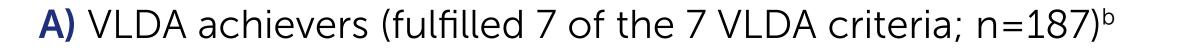
Figure 2 Proportion of patients NOT meeting each MDA criterion,^a stratified by MDA status after 6 months of b/tsDMARD treatment A) MDA achievers (fulfilled ≥ 5 of the 7 MDA criteria; n=370) 6 months

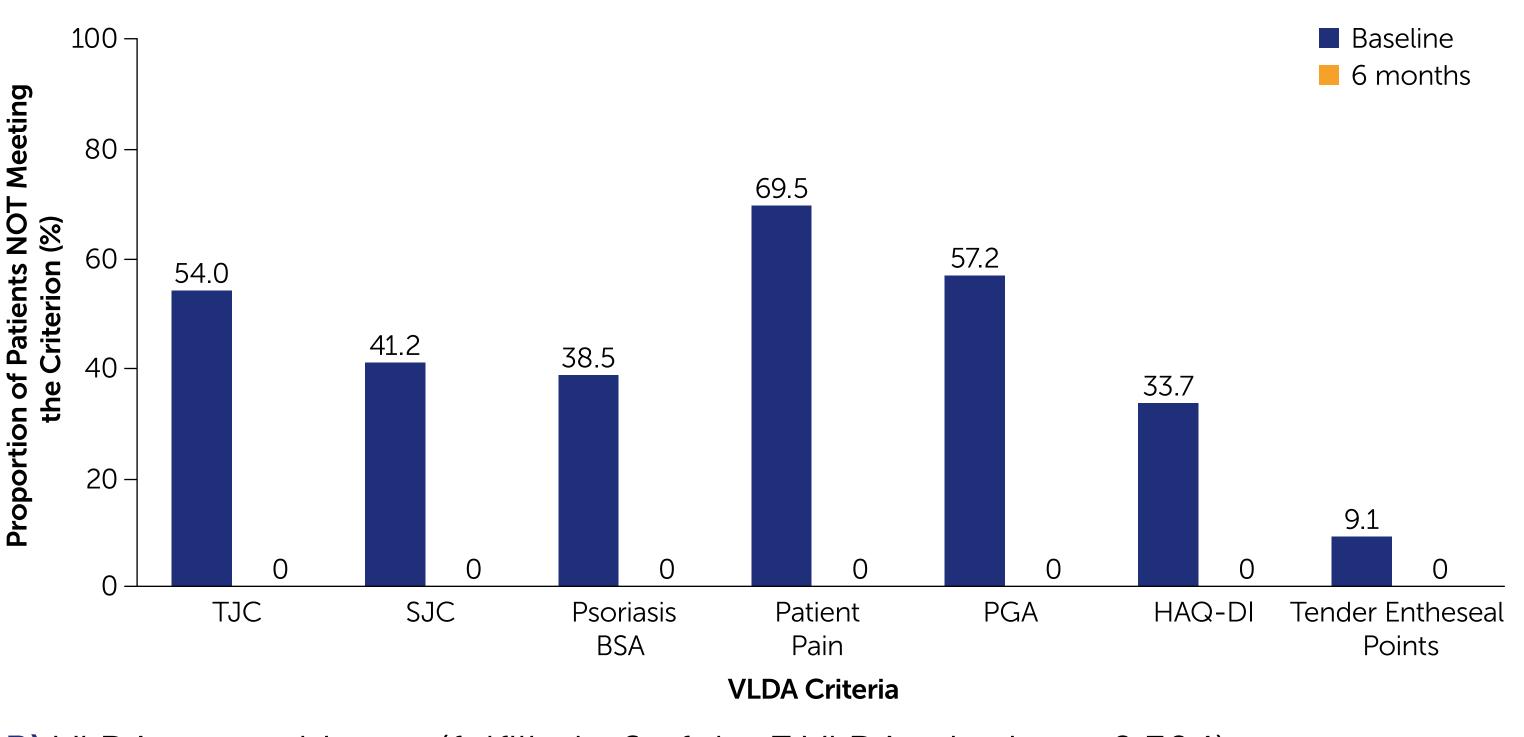


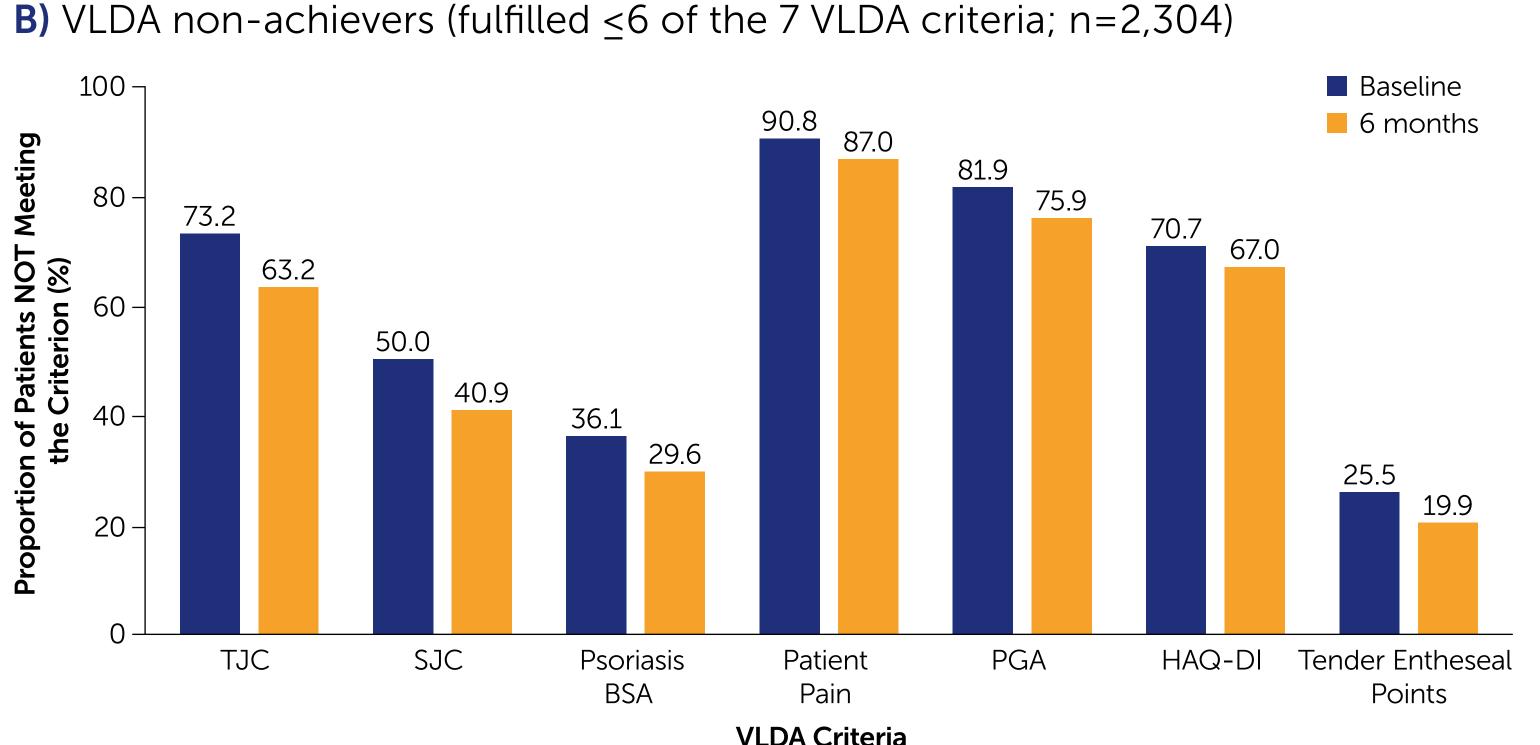


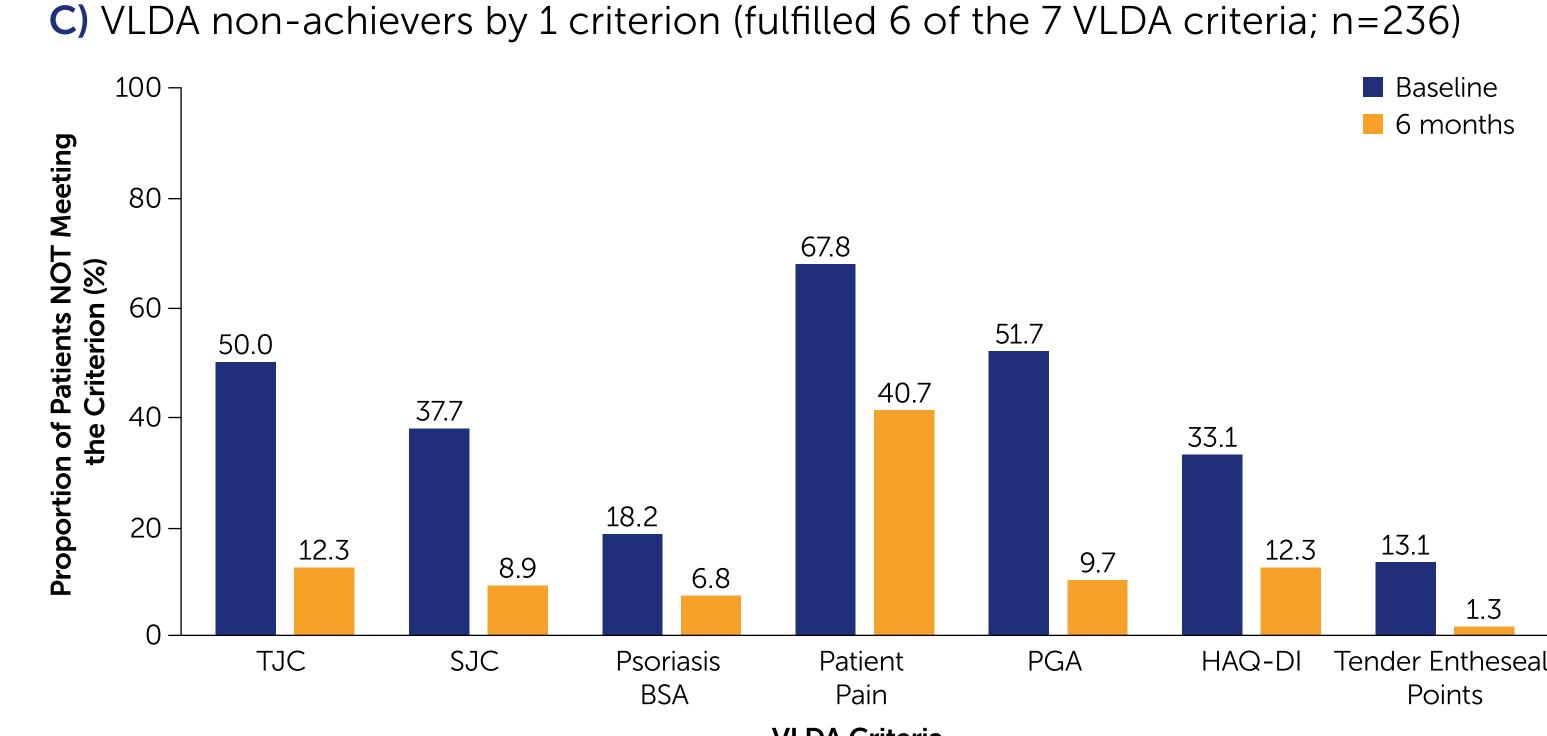


Proportion of patients NOT meeting each VLDA criterion,^a stratified by VLDA status after 6 months of b/tsDMARD treatment









[a] VLDA criteria: TJC (0-68) <1; SJC (0-66) <1; psoriasis BSA <3%; patient pain (VAS: 0-100) <15; PGA (VAS: 0-100) <20; HAQ-DI <0.5 tender entheseal points $(0-16) \le 1$; **[b]** By definition, VLDA achievers fulfilled 7/7 criteria at 6 months. Hence, there are no bars present for the

of the CorEvitas PsA/SpA registry (March 2013) or b/tsDMARDs prescribed by physicians outside of the registry. tin tin terleukin; JAK: Janus kinase; WDA: minimal disease activity; PDE4: phosphodiesterase-4; PGA: point count; SpA: point count; SpA: phosphodiesterase activity; PDE4: phospho

Non-Achievers^c

53.3 (13.4) [236]

6.4 (8.0) [236]

3.6 (5.7) [232]

2.2 (3.9) [232]

0.5 (1.4) [236]

50 (21.2)

16 (6.8)

102 (43.2)

115/236 (48.7)

55.0 (12.3) [2,003

1,278/1,999 (63.9)

1,815/1,974 (91.9)

231 (11.7)

1,247 (63.2)

1,505/2,006 (75.0

924/1,977 (46.7)

281/1,987 (14.1)

241 (12.0)

461 (23.0)

308 (15.4)

6.5 (7.9) [1,989]

8.6 (11.0) [1,985]

3.2 (5.0) [1,984]

5.9 (11.2) [1,976]

58.9 (24.7) [1,991]

52.0 (24.9) [1,988

1.0 (0.6) [1,993]

1.3 (2.5) [2,006]

2,006

747 (37.2)

508 (25.3)

162 (8.1)

120 (6.0)

266 (13.3)

2,006

651 (32.5)

506 (25.2)

849 (42.3)

1,306/2,006 (65.1)

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