Impact of deucravacitinib on psoriasis severity and overall patient-reported outcomes in a US prospective cohort study

Alexis Ogdie,[1] Sarah Lonowski,[2] Laetitia N'Dri,[3] Vadim Khaychuk,[3] Rebecca Schumacher,[4] Kaleb Michaud[2,4]

[1]University of Pennsylvania, Philadelphia, PA; [2]University of Nebraska Medical Center, Omaha, NE; [3]Bristol Myers Squibb, Princeton, NJ; [4]FORWARD Databank, Wichita, KS

Synopsis

- Deucravacitinib, an oral, selective, allosteric tyrosine kinase 2 (TYK2) inhibitor, is approved in the US, EU, and other countries for the treatment of adults with moderate to severe plaque psoriasis (PsO) who are candidates for systemic therapy[1-4]
- The efficacy of deucravacitinib has been demonstrated in phase 3 and phase 4 trials,[5-7] but the long-term effectiveness in a real-world population has not been validated
- This registry-based real-world study demonstrated that after 6 months of deucravacitinib treatment, patients reported substantial improvements in PsO signs and symptoms, quality of life, body surface area involvement, and treatment satisfaction

Objective

- To understand the impact of deucravacitinib on the improvement of PsO signs and symptoms, and overall treatment satisfaction at 6-month follow-up

Methods

Patients

- Adults who initiated deucravacitinib within ≤14 days of survey enrollment were recruited from
  - US dermatology offices that were part of a national practice group
  - Through a patient support program for deucravacitinib
  - Online through the FORWARD registry website
- Patients were enrolled between August 2023 and November 2024
- Patients who completed 6-month follow-up and were persistent on therapy (ie, continued deucravacitinib at the time of follow-up) were included in the analysis
- All outcomes were patient-reported

Primary outcome

- Psoriasis Symptoms and Signs Diary (PSSD) score (0-100)

Additional outcomes

- Dermatology Life Quality Index (DLQI) (range 0-30)
- Global assessment of PsO (range 0-100)
- Global assessment of itch (numeric rating scale [NRS]; range 0-10)
- Global assessment of nail disease (range 0-100)
- Patient Report of Extent of Psoriasis Involvement (PREPI), a proxy for PsO body surface area (BSA), %
  - Mild: 0%-2%
  - Moderate: 3%-10%
  - Severe: >10%
- Treatment satisfaction
  - 5-point scale: highly satisfied, satisfied, neutral, dissatisfied, highly dissatisfied

Statistical analysis

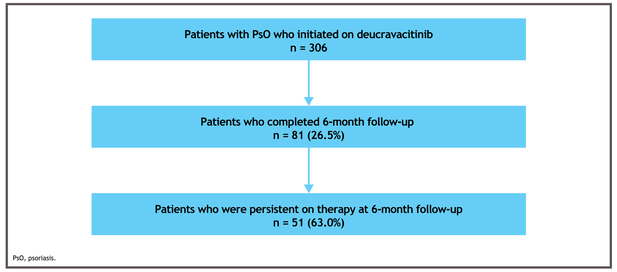
- Demographics, disease characteristics, current treatments, and comorbidities were captured for all patients at enrollment and reported descriptively
- Patient-reported outcomes (PROs) reported as mean change from baseline to 6-month follow-up among patients who were persistent on deucravacitinib at follow-up

Results

Patients

- Among 306 patients with PsO initiating deucravacitinib, 81 (26.5%) completed a 6-month follow-up
- Of patients who were persistent on therapy, 51 (63.0%) were persistent on therapy (**Figure 1**)
- Patient demographics and baseline disease characteristics are shown in **Table 1**
  - Baseline demographics and characteristics did not differ substantially between the overall cohort of treatment initiators and those who completed a 6-month follow-up

Figure 1. Patient flow chart



PsO, psoriasis.

Table 1. Patient demographics and disease characteristics

	Completed 6-month follow-up (n = 81)
Age, mean (SD)	52.7 (13.9)
BMI, mean (SD)	28.2 (5.1)
Female, n (%)	47 (58.0)
Male, n (%)	34 (42.0)
White, n (%)	76 (93.8)
Education, n (%)	
Less than high school	1 (1.2)
High school	35 (43.2)
4-year college or greater	45 (55.6)
Insurance, n (%)	
Private	62 (76.5)
Public	17 (21.0)
No insurance	0 (0)
Unsure/unknown	2 (2.5)
Region, n (%)	
Northeast	16 (19.8)
Midwest	20 (24.7)
South	33 (40.7)
West	12 (14.8)
Alcohol use, n (%)	
None/never	26 (32.1)
≤1 drink/week	32 (39.5)
≥2 drinks/week	22 (27.2)
Smoking status, n (%)	
Never smoked	49 (60.5)
Currently smoke	5 (6.2)
Formerly smoked	26 (32.1)
Baseline comorbidities,[a] n (%)	
Acne	25 (30.9)
ADHD	6 (7.4)
Anxiety	24 (29.6)
Allergy	14 (17.2)
Apnea	8 (9.9)
Asthma	12 (14.8)
Cholesterol	20 (24.7)
Depression	22 (27.2)
Diabetes	10 (12.3)
Diarrhea	15 (18.5)
Headache	27 (33.3)
Hypertension	23 (28.4)
Limb	4 (4.9)
Nausea	7 (8.6)
Obesity	25 (30.9)

[a]Comorbidities reported by ≥10% in either patient group.
ADHD, attention-deficit hyperactivity disorder; BMI, body mass index; SD, standard deviation.

Patient-reported outcomes

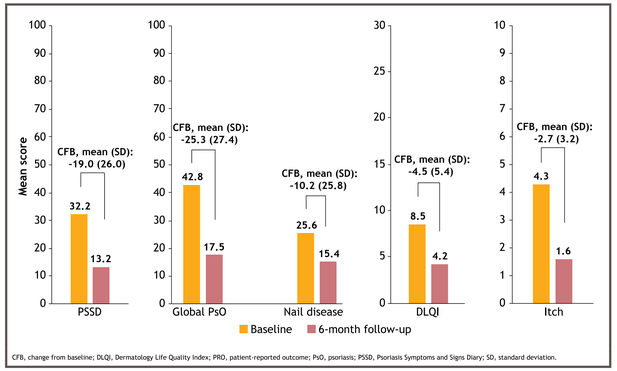
- Mean PROs at baseline are displayed in **Table 2**
  - Mean (SD) DLQI was 8.5 (4.7), indicating moderate impact of disease on quality of life
- Patients reported improvement in all PROs at 6-month follow-up (**Figure 2**)

Table 2. Baseline PROs

	Persistent (n = 51)
PSSD, mean (SD)	32.2 (24.0)
DLQI, mean (SD)	8.5 (4.7)
Global PsO assessment, mean (SD)	42.7 (28.7)
Nail disease, mean (SD)	25.6 (31.9)
Itch, mean (SD)	4.3 (3.0)

DLQI, Dermatology Life Quality Index; PRO, patient-reported outcome; PsO, psoriasis; PSSD, Psoriasis Symptoms and Signs Diary; SD, standard deviation.

Figure 2. Change from baseline in PRO measures at 6-month follow-up

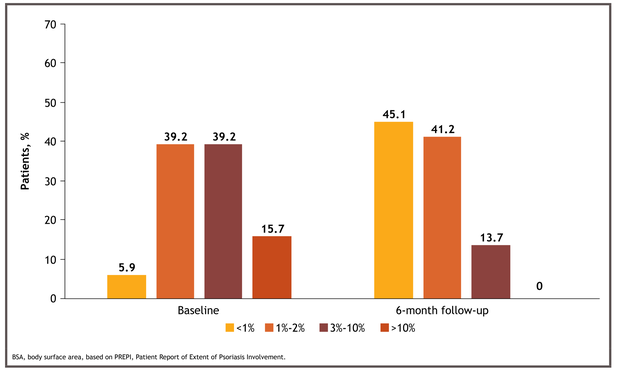


CFB, change from baseline; DLQI, Dermatology Life Quality Index; PRO, patient-reported outcome; PsO, psoriasis; PSSD, Psoriasis Symptoms and Signs Diary; SD, standard deviation.

Body surface area

- More than 86% of patients reported BSA ≤2% (based on PREPI) at 6-month follow-up, an increase from 45% at baseline (**Figure 3**)

Figure 3. BSA involvement was improved at 6-month follow-up

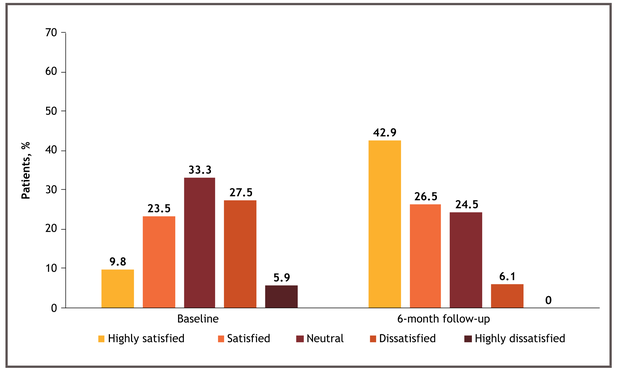


BSA, body surface area, based on PREPI, Patient Report of Extent of Psoriasis Involvement.

Treatment satisfaction

- Treatment satisfaction was high among patients persistent on deucravacitinib, with 69% of patients reporting they were satisfied or highly satisfied at 6-month follow-up, compared with 33% at baseline (**Figure 4**)

Figure 4. Treatment satisfaction improved from baseline among patients persistent on deucravacitinib



Conclusions

- Deucravacitinib was associated with clinically meaningful improvements in psoriasis severity and PROs in a real-world setting
- Patients who persisted on deucravacitinib therapy reported improvements in treatment satisfaction

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Email: alexis.ogdie-beatty@uphs.upenn.edu