IMPACT OF ACTINIC KERATOSIS ON PATIENT-REPORTED AK SYMPTOMS, EMOTIONS AND FUNCTIONING MEASURED USING SKINDEX-16, AMONG PATIENTS WITH ACTINIC KERATOSIS ADMINISTERED TIRBANIBULIN IN REAL-WORLD COMMUNITY PRACTICES ACROSS THE U.S. (PROAK STUDY)

Darrell Rigel MD, MS[1]; Mark Lebwohl MD[1]; Todd Schlesinger MD[2]; April Armstrong MD[3]; Brian Berman MD, PhD[4]; Neal Bhatia MD[5]; James Del Rosso DO[6]; Leon Kircik MD[1]; Vishal A. Patel MD[7]; Siva Narayanan PhD[8]; Volker Koscielny MD[9]; Ismail Kasujee PhD[9]

[1]Mount Sinai Icahn School of Medicine, New York, NY, USA; [2]Clinical Research Center of the Carolinas, Charleston, SC, USA; [3]Keck School of Medicine, University of Southern California, Los Angeles, CA, USA; [4]University of Miami Miller School of Medicine, Miami, FL, USA; [5]Therapeutics Clinical Research, San Diego, CA, USA; [6]JDR Dermatology Research/Thomas Dermatology, Las Vegas, NV, USA; [7]George Washington School of Medicine and Health Sciences, Washington, DC, USA; [8]Avant Health LLC, Bethesda, MD, USA; [9]Almirall SA, Barcelona, Spain.

SYNOPSIS

Objectives: Objective of the analysis is to evaluate changes in patient-reported AK symptoms, emotions and functioning, among patients with AKs treated with tirbanibulin in community practices across the U.S.

Methods: A single-arm, prospective cohort study (PROAK) was conducted among adult patients with AKs on the face or scalp who were newly initiated with tirbanibulin treatment in real-world community practices in the U.S, as part of usual care. Patients and clinicians completed surveys and clinical assessments at baseline, week-8 (timeframe for main endpoints) and week-24. Skindex-16, completed at baseline and week-8, is a 16-item survey with 3 domains: symptoms (items 1-4), emotions (items 5-11) and functioning (items 12-16), with each item scored on a seven-point adjectival response scale, with a potential score of 0 (never bothered) to 6 (always bothered). Changes from baseline in proportion of patients reporting a score of 0 or 1 (never or least bothered; i.e., least disease burden) was analyzed for all Skindex-16 items at week-8.

Results: A total of 290 patients with AKs completed the study assessments at week-8 (female: 31.38%; Fitzpatrick skin type: I: 7.59%, II: 71.38%, III: 18.62%, IV: 1.38%, V: 1.03%). Patient self-reported skin-texture was – dry: 39.66%, smooth: 47.59%, rough: 19.66%, bumpy: 18.62%, scaly: 35.17%, blistering/peeling: 6.55%. Within symptoms domain of Skindex-16 related to itching, burning/stinging, hurting, and irritation, proportion of patients reporting "never or least bothered" increased significantly for each item at week-8 (p<0.0001). Within emotions domain of Skindex-16 related to persistence of condition, worries about skin, appearance, frustration, embarrassment, being annoyed, and feeling depressed, proportion of patients reporting "never or least bothered" increased significantly for each item at week-8 (p<0.0001). Within functioning domain of Skindex-16 related to interactions with others, desire to be with others, show affection, effect on daily activities, and effect on work or enjoyable activities, proportion of patients reporting "never or least bothered" increased significantly for each item at week-8 (p<0.0001).

Conclusion: Patients with AKs who used once-daily tirbanibulin treatment for 5-days reported a significant reduction in the AK burden, as indicated by the improvement in AK symptoms and emotional/functional impact, at week-8.

OBJECTIVE

- Actinic Keratosis (AK) has been shown to negatively affect emotional functioning and skin-related quality of life of patients[1]. Impact of tirbanibulin treatment in alleviating AK disease burden in patients with AKs is not adequately understood. Objective of the analysis is to evaluate changes in patient-reported AK symptoms, emotions and functioning, among patients with AKs treated with tirbanibulin in community practices across the U.S.
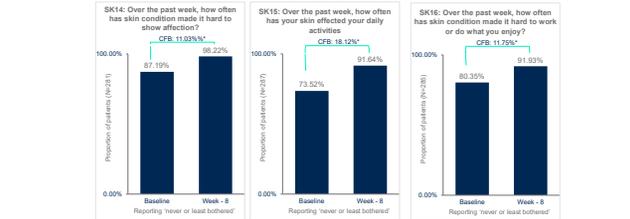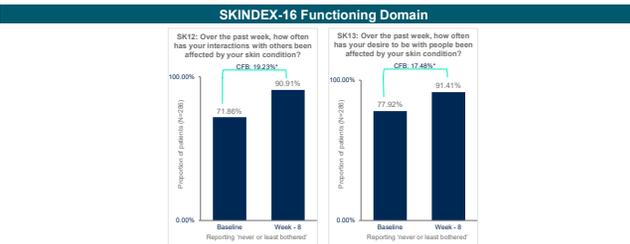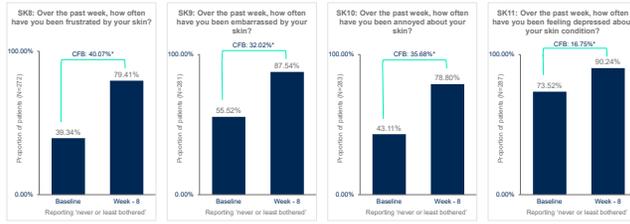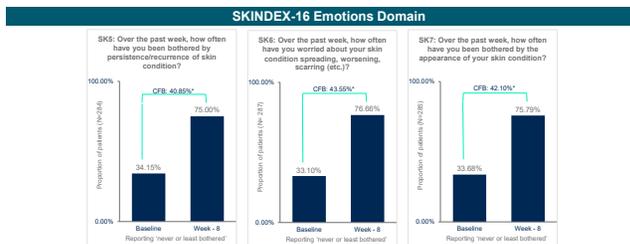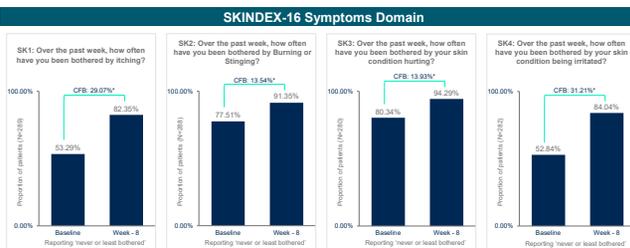
  Reference: 1. Br J Dermatol. 2013;168(2):277-283.

METHODS

- A single-arm, prospective cohort study (PROAK) was conducted among adult patients with AKs on the face or scalp who were newly initiated with once-daily tirbanibulin treatment (5-day course) in real-world community practices in the U.S, as part of usual care.
- A total of 300 subjects were enrolled from 32 community practices across the U.S.
  - Patients and clinicians completed surveys and clinical assessments at baseline, week-8 (timeframe for main endpoints) and week-24, concerning safety and effectiveness of tirbanibulin.
  - Skindex-16, a validated PRO instrument, was completed by patients at baseline and Week-8.
    - This 16-item survey has 3 domains, namely, symptom domain (4 items), emotions domain (7 items) and functioning domain (5 items).
    - All items are scored on a seven-point adjectival response scale, with a potential score of 0 (never bothered) to 6 (always bothered).
- Changes from baseline in proportion of patients reporting a score of 0 or 1 (never or least bothered; i.e., least disease burden) was analyzed for each of the Skindex-16 items at week-8.

RESULTS

- PROAK study (NCT05260073) was initiated in 2022, with more than 75% of the study patients treated with tirbanibulin between April and August of 2022.
- Out of 300 enrolled patients, a total of 290 patients with AKs completed the study assessments at Week-8, and hence included in the analyses.
- All patients (100%) completed their 5-day once-daily treatment course.
- Ten patients were not included in the week-8 analyses: 1 patient had missing data, and 9 patients were discontinued from the study due to patient voluntary withdrawal of consent or lost to follow-up.
  - No discontinuations were related to adverse drug reactions (ADRs), and there were no Serious ADRs reported at week-8.

Patient's AK burden significantly reduced over the 8-week tirbanibulin treatment period, as indicated by the SKINDEX-16 responses.

SKINDEX-16 Symptoms Domain, Emotions Domain, and Functioning Domain bar charts (SK1–SK16) showing proportion of patients reporting 'never or least bothered' at Baseline vs Week-8.

In comparison to baseline: *p<0.001.

Table 1: Baseline Patient Characteristics

		N=290
Age, mean years [min, max]		66.30 [30.00, 90.00]
Gender, %	Female	31.38
	Male	68.62
Primary health insurance, %	Private Insurance	41.72
	Medicaid	3.10
	Medicare	53.79
	Uninsured	1.38
History of skin cancer, %		61.72
Fitzpatrick skin type, %	Type I	7.59
	Type II	71.38
	Type III	18.62
	Type IV	1.38
	Type V	1.03
Baseline patient self-reported skin-texture, %	Dry	39.66
	Smooth	47.59
	Rough	19.66
	Bumpy	18.62
	Scaly	35.17
	Blistering	0.34
	Peeling	6.21
Baseline severity of skin photodamage in AK affected area, %	Absent	1.03
	Mild	21.38
	Moderate	56.55
	Severe	20.34

Table 2: Site Characteristics

	N=32
Current workplace: Private, office-based practice, %	100
Total number of board-certified dermatologists in the clinic/practice, Mean	3.53
Number of patients with AKs managed by the clinic in a given month, Mean	136.34
Number of years practicing dermatology, Mean	15.66

CONCLUSIONS

- Patients with AKs who used once-daily tirbanibulin treatment for 5-days reported a significant reduction in AK burden, as indicated by the improvement in AK symptoms and emotional/functional impact, at week-8.
- The demonstrated effectiveness and the safe and tolerable profile of once-daily tirbanibulin treatment highlights the benefits associated with this novel therapeutic option in routine community practice settings, for optimal management of AKs.