Patient-Reported Outcomes for Tirbanibulin Effectiveness and Safety in Actinic Keratosis in Real-world Settings: PROAK Study Protocol

Brian Berman,1 April Armstrong,2 Mark Lebwohl,3 Aymen Grada, 4 Vishal A. Patel,4 Darrel Rigel,1 James Del Rosso,5 Todd Schlessinger,6 Leon Kirilc,7 Raimd Salem,8 Ismail Kasuje8

1University of Miami Miller School of Medicine, Miami, FL, USA; 2Yale School of Medicine, University of California, San Francisco, CA, USA; 3Yale School of Medicine, New York, NY, USA; 4Windsor Laboratories, New York, NY; 5American Academy of Dermatology, Rosemont, IL; 6Dermatologic Surgery and Skin Cancer Center, Miami, FL, USA; 7University of Miami, Miami, FL, USA; 8University of Miami School of Medicine, New York, NY, USA; 9Dermatology Research/Therapeutics Department, Irvine, CA, USA; 10Clinical Research Center of the Cardeol, Charleston, SC, USA.

Acknowledgements: This study is supported by Almirall, LLC. Medical writing, editorial assistance, and graphic support for this paper were provided under the direction of the authors by MedThink SciCom and funded by Almirall, LLC.

Disclosure: LB has served as an investigator, speaker, advisory board member, or consultant for: Ferndale Laboratories, Biofrontera AG, Amirall, Sun Pharmaceutical Industries, La Roche-Posay, Mayne Pharma Group, Ortho Derm., Sanofi/Regeneron, ISDIN, Galderma Laboratories, Vyome Therapeutics Limited, EPI Health, Dermavant Sciences, Sanofi Aventis, Bausch (Ortho Dermatology); he has also been paid on the Advisory Board for Dr. Reddy. KB reports receiving grant/research funding from Abbvie, Aclaris, Allergan, Anterios, AOBiome, Arcutis Premier Research, Astellas Ralexar, Regeneron, Sanofi-Genzyme, Sente, Solgel, Sonoma (Intraderm) Sun Pharma, UCB, Verrica, and VYNE (Foamix/Menlo).

INTRODUCTION

• Actinic keratosis (AK) lesions occur primarily on visible, sun-exposed areas such as the face and scalp and may negatively affect health-related quality of life (HRQoL).
• Common treatments are also associated with severe local skin reactions (LSRs)1,2 that may further impact HRQoL.

DESIGN

• This is a prospective cohort study enrolling 300 participants 218 years with AK on the face or scalp treated with tirbanibulin 1% ointment from 50 community practices across the United States (Figure 1).

Patient inclusion criteria

• Diagnosed with AK of the face and scalp
• Has clinically typical, visible, and discrete AK lesions

• As a potential candidate for tirbanibulin treatment
• Male or female, aged 18 years and above at the time of initiation of treatment with tirbanibulin.

Visit 1: Confirm patient eligibility, obtain informed consent/assent, baseline data collection

Visit 2: Assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Visit 3: Assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Figure 1. PROAK study design: AK, actinic keratosis; EPQ, expert panel questionnaire; PRO, patient-reported outcome.

Visit 4: Start 5-day tirbanibulin 1% ointment treatment

Week 0

Visit 5: Repeat assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Week 1

Visit 6: Repeat assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Week 2

Visit 8: Repeat assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Week 4

Visit 9: Repeat assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Week 24

Visit 10: Repeat assessment of AK clinical status, PROs, effectiveness/safety, perceptions

Assessments

• The primary endpoint is patient-reported outcomes at week 8 assessed by Skindex-16, with additional endpoints described in Figure 2.

• Recognizing the need for an AK-specific patient-reported outcome (PRO) instrument, the EPQ (Figure 3) was developed during a consensus advisory board held in 2021; after discussion of proposed questions, revisions were made and consensus on all items was reached by all 9 advisors.

Figure 2. Comparison of questionnaires used to assess outcomes.

SKINDEX-16

• Number of items: 16
• 6-point scale (never to almost always)
• Signs and symptoms (itching, burning, hurting, irritation, permanence, appearance)
• Emotional impact (worry about condition, frustration, embarrassment, being annoyed, feeling depressed)
• Impact on interactions with others (desire to be with people, showing affection, daily activities, work or other activities)

PROAK study design. AK, actinic keratosis; EPQ, expert panel questionnaire.

Week 0

Week 1

Week 2

Week 4

Week 24

Figure 3. Actinic keratosis-specific questionnaire.

• EPQ

• Number of items: 11
• Patient-reported
  1. Overall appearance
  2. Satisfaction with improvement in appearance
  3. Satisfaction with improvement in symptoms
  4. Satisfaction with duration of skin reactions
  5. Severity of skin reactions compared to previous treatment
  6. Impact on daily activities compared to previous treatment
  7. Convenience and ease of use
  8. Overall satisfaction
  9. Likelihood of re-treating with tirbanibulin

• Clinician-reported
  10. Overall improvement in AK
  11. Severity of photodamage in treated area

Number of items: 11
5-point scale from much worse to much improved
7-point scale from extremely dissatisfied to extremely satisfied
7-point scale from extremely shorter to much longer
5-point scale from very unlikely to very likely
5-point scale from not cleaned to completely cleaned
5-point scale from never to always

PROs, patient-reported outcomes.