
Comparative effectiveness of less commonly used systemic monotherapies and common combination therapies for moderate to severe psoriasis in the clinical setting

Junko Takeshita, MD, PhD,^{a,b} Shuwei Wang, MD,^c Daniel B. Shin, MS,^{a,b} Kristina Callis Duffin, MD, MSCI,^d Gerald G. Krueger, MD,^d Robert E. Kalb, MD,^e Jamie D. Weisman, MD,^f Brian R. Sperber, MD, PhD,^g Michael B. Stierstorfer, MD,^h Bruce A. Brod, MD,ⁱ Stephen M. Schleicher, MD,^j Andrew D. Robertson, PhD,^k Kristin A. Linn, PhD,^b Russell T. Shinohara, PhD,^b Andrea B. Troxel, ScD,^b Abby S. Van Voorhees, MD,^a and Joel M. Gelfand, MD, MSCE^{a,b}

Philadelphia, North Wales, Lancaster, and Hazleton, Pennsylvania; Salt Lake City, Utah; Buffalo, New York; Atlanta, Georgia; Colorado Springs, Colorado; and Portland, Oregon

Background: The effectiveness of psoriasis therapies in real-world settings remains relatively unknown.

Objective: We sought to compare the effectiveness of less commonly used systemic therapies and commonly used combination therapies for psoriasis.

From the Departments of Dermatology,^a and Epidemiology and Biostatistics, Center for Clinical Epidemiology and Biostatistics,^b University of Pennsylvania Perelman School of Medicine, Philadelphia; Thomas Jefferson University, Philadelphia^c; Department of Dermatology, University of Utah School of Medicine^d; Department of Dermatology, State University of New York at Buffalo School of Medicine and Biomedical Sciences^e; Peachtree Dermatology Associates, Atlanta^f; Colorado Springs Dermatology Clinic^g; East Penn Dermatology, North Wales^h; Dermatology Associates of Lancasterⁱ; DermDox Centers for Dermatology, Hazleton^j; and the National Psoriasis Foundation, Portland.^k

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Reprint requests: Junko Takeshita, MD, PhD, Department of Dermatology, University of Pennsylvania, 1463 Penn Tower, One Convention Ave, Philadelphia, PA 19104. E-mail: Junko.Takeshita@uphs.upenn.edu.

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Methods: This was a multicenter cross-sectional study of 203 patients with plaque psoriasis receiving less common systemic monotherapy (acitretin, cyclosporine, or infliximab) or common combination therapies (adalimumab, etanercept, or infliximab and methotrexate) compared with 168 patients receiving methotrexate evaluated at 1 of 10 US outpatient dermatology sites participating in the Dermatology Clinical Effectiveness Research Network.

Results: In adjusted analyses, patients on acitretin (relative response rate 2.01; 95% confidence interval [CI] 1.18-3.41), infliximab (relative response rate 1.93; 95% CI 1.26-2.98), adalimumab and methotrexate (relative response rate 3.04; 95% CI 2.12-4.36), etanercept and methotrexate (relative response rate 2.22; 95% CI 1.25-3.94), and infliximab and methotrexate (relative response rate 1.72; 95% CI 1.10-2.70) were more likely to have clear or almost clear skin compared with patients on methotrexate. There were no differences among treatments when response rate was defined by health-related quality of life.

Limitations: Single time point assessment may result in overestimation of effectiveness.

Conclusions: The efficacy of therapies in clinical trials may overestimate their effectiveness as used in clinical practice. Although physician-reported relative response rates were different among therapies, absolute differences were small and did not correspond to differences in patient-reported outcomes. (J Am Acad Dermatol 2014;71:1167-75.)

Key words: biologics; combination therapy; comparative effectiveness; Dermatology Life Quality Index; Physician Global Assessment; psoriasis; quality of life; systemic treatments.

Psoriasis is a common chronic inflammatory disease that affects approximately 125 million people worldwide.¹ Nearly 25% with psoriasis have moderate to severe disease,¹ which is an indication for treatment with systemic therapy or phototherapy. Despite the major advances in psoriasis treatments that have accompanied the development of several targeted biologic medications over the past decade, there are few head-to-head comparisons of the currently available psoriasis therapies. As a result, no clear first-line therapy for moderate to severe psoriasis exists.² In addition, although clinical trials generally report high efficacy, especially for biologic therapies, clinical experience and long-term follow-up of patients receiving biologics suggest loss of efficacy over time.^{3,4} Furthermore, we have observed that the efficacy of treatments as reported in clinical trials may overestimate their effectiveness as used in the clinical setting.⁵ Additional comparative effectiveness studies of moderate to severe psoriasis therapies are, therefore, greatly needed to help guide physicians' and patients' treatment choices in the real-world setting. The purpose of this multicenter cross-sectional study was to expand our previous comparative effectiveness study

CAPSULE SUMMARY

- Little is known about the effectiveness of therapies for psoriasis in the real-world setting.
- Clinical trials may overestimate the effectiveness of therapies in the clinical setting. Objective response rates vary by treatment but patient-reported outcomes are similar in clinical practice.
- Longitudinal comparative effectiveness studies of psoriasis therapies are needed.

findings by determining the effectiveness of less commonly used systemic monotherapies and commonly used combination therapies for treatment of moderate to severe psoriasis.

METHODS

Study design and participant protection

We conducted a multicenter cross-sectional study to determine the effectiveness of less commonly used systemic monotherapy and

commonly used combination therapies for moderate to severe psoriasis. The study was approved by the University of Pennsylvania and University of Utah institutional review boards, and informed consent was obtained from all patients. The study was conducted in accordance with the Declaration of Helsinki and reported in accordance with the Strengthening the Reporting of Observational Studies in Epidemiology guidelines.⁶

Setting

Data were collected by 12 clinicians (10 dermatologists and 2 physician assistants) who are members of the Dermatology Clinical Effectiveness Research Network (DCERN), which includes 2 academic medical centers (University of Pennsylvania and University of Utah, each with a hospital-based

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