

# Navigating Psoriasis Treatment Innovations

Carolynne Vo, BS; Raquel Wescott, BS; Jashin J. Wu, MD

**P**сориаз is a chronic autoimmune skin condition that affects approximately 2% to 4% of the US population and notably impacts overall quality of life.<sup>1,2</sup> There is no cure for this long-lasting condition. Fortunately, recent developments in research have led to more targeted therapies, paving the way for a more promising transformative landscape of psoriasis management. Herein, we explore the most up-to-date advancements and developments in the realm of psoriasis care.

## Emerging Systemic Therapies

Biologics are cutting-edge treatments available for moderate to severe plaque psoriasis, as IL-17A, IL-23, and tumor necrosis factor  $\alpha$  (TNF- $\alpha$ ) have been recognized as key targets.<sup>3</sup>

**IL-17**—Bimekizumab is a unique monoclonal antibody that inhibits the activity of both IL-17A and IL-17F cytokines.<sup>3</sup> This treatment was approved by the US Food and Drug Administration (FDA) in October 2023 for patients with moderate to severe plaque psoriasis who are candidates for systemic therapy or phototherapy.<sup>4</sup>

Bimekizumab outperformed ustekinumab in the BE VIVID phase 3 trial, with 273 of 321 patients (85%) receiving bimekizumab vs 81 of 163 patients (50%) receiving ustekinumab experiencing at least 90% improvement in psoriasis area and severity index (PASI) score at week 16.<sup>4</sup> In a 2020 observational study (PSO-BIO-REAL), the efficacy rate of skin clearance after 6 months of treatment with biologics was only 25% (1/4).<sup>5</sup> Aside from moderate to severe plaque psoriasis, bimekizumab demonstrated notable improvement in patients with psoriatic arthritis who had inadequate response or intolerance to TNF- $\alpha$  inhibitors compared to a placebo group in the BE COMPLETE phase 3 trial.<sup>6</sup>

**IL-23**—Guselkumab, risankizumab, and tildrakizumab are injectable therapies approved by the FDA in 2017 for moderate to severe plaque psoriasis.<sup>3</sup> They inhibit IL-23 signaling by targeting the p19 subunit in addition to sparing IL-12.<sup>3,7</sup>

A novel oral therapeutic peptide, JNJ-2113—the first oral IL-23 receptor antagonist peptide that blocks IL-23 signaling—has been developed, offering a new way to treat moderate to severe plaque psoriasis. Trial results from a phase 2 study (FRONTIER1) have supported JNJ-2113's advancement into phase 3.<sup>7,8</sup> Patients who received JNJ-2113 successfully achieved PASI75 in addition to surpassing PASI90 and PASI100 at greater proportions compared to placebo at week 16.<sup>7</sup>

The promising early results of JNJ-2113 provide patients with greater flexibility and convenience for treatment options to address the manifestations of psoriasis. Although a considerable number of patients with moderate to severe plaque psoriasis qualify for advanced therapies, a substantial proportion remain untreated. Introducing an oral route of medication administration may help overcome barriers to therapy access due to a greater preference for pills over injections.<sup>9</sup>

**TNF- $\alpha$  Inhibitors**—Adalimumab is a TNF- $\alpha$  inhibitor that is used to treat moderate to severe chronic plaque psoriasis in adults who are candidates for systemic phototherapy.<sup>1,10</sup> However, one of the main barriers to initiating treatment has been cost. Biosimilars contribute to market competition, thus allowing the possibility of lower drug prices.<sup>10</sup>

There are 9 FDA-approved biosimilar products for adalimumab, with 2 having interchangeable designation. The first interchangeable biosimilar to enter the US market, adalimumab-adbm, became available in July 2023.

Carolynne Vo is from the University of California Riverside School of Medicine. Raquel Wescott is from the University of Nevada, Reno School of Medicine. Dr. Wu is from the University of Miami Miller School of Medicine, Florida.

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Correspondence: Jashin J. Wu, MD, University of Miami Miller School of Medicine, 1600 NW 10th Ave, RMSB, Room 2023-A, Miami, FL 33136 (jashinwu@gmail.com). ORCID: 0000-0002-1722-1892. Scopus Author ID: 14629788600  
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In October 2023, adalimumab-afzb was granted interchangeable designation,<sup>11</sup> which enables pharmacists to swiftly substitute brand products for lower-cost biosimilars, providing patients with equally safe and effective alternatives without the delay of involving the prescribing clinician.<sup>12</sup> Pricing information indicates an initial 5% discount, which may later increase to 60%, from brand name adalimumab. Hopefully, reduced drug costs due to market competition will allow more patients to overcome barriers to therapy access.

**IL-12/IL-23**—Ustekinumab is a monoclonal antibody that targets IL-12 and IL-23. The FDA recently approved ustekinumab-auub as the first interchangeable ustekinumab biosimilar for the treatment of various inflammatory diseases, including moderate to severe plaque psoriasis and psoriatic arthritis.<sup>12,13</sup> The approval of ustekinumab-auub expands therapeutic options for the treatment of diverse inflammatory diseases. As the first interchangeable biosimilar in its category, this development underscores the importance of biosimilars in providing effective and accessible treatment.<sup>12,14</sup>

### Topical Innovations

In October 2023, the FDA approved an expanded indication for roflumilast cream 0.3% to treat children as young as 6 years for plaque psoriasis, even for use in intertriginous areas,<sup>15</sup> which is a milestone given the lack of treatment options for the pediatric population because topical steroids, the most common treatment option for plaque psoriasis, can have safety concerns related to long-term use. With the advent of this steroid-free topical agent, pediatric patients have a safe and well-tolerated option for managing plaque psoriasis.<sup>16</sup> This promising effort will now expand to trials in children as young as 2 years to test efficacy.<sup>16</sup>

Engel et al<sup>17</sup> proposed a new algorithmic approach to the topical management of psoriasis with roflumilast cream and tapinarof cream as first-line treatments for mild disease due to their novelty in treating intertriginous areas, whereas traditional topical steroids in these areas would be inapt.<sup>17</sup> The latest indication for roflumilast cream suggests that this proposed recommendation could be a promising and convenient enhancement to psoriasis management, potentially outperforming traditional topical corticosteroids.<sup>15,17</sup>

### Final Thoughts

Innovative targeted therapies ranging from new biologic agents to broader applications of topical treatments hold the potential to transform conventional psoriasis management with greater efficacy and safety, which can help create a more effective and personalized approach with greater patient satisfaction, ultimately enhancing overall quality of life. The choice of treatment is dependent not only on the severity of the disease but also on accessibility considerations such as cost. Overall, these innovative therapies add substantial value to the treatment armamentarium for psoriasis.

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