



**PERSPECTIVES
ON PSORIATIC
DISEASE AND
ATOPIC DERMATITIS**
THE EVOLVING TREATMENT LANDSCAPES

ADDITIONAL RESOURCES

FDA-APPROVED BIOLOGIC AND NEW SMALL MOLECULE SYSTEMIC THERAPIES FOR PSORIASIS, PSORIATIC ARTHRITIS, AND ATOPIC DERMATITIS

| APPROVED MEDICATION | APPROVED FOR PSORIASIS | APPROVED FOR PSORIATIC ARTHRITIS | APPROVED FOR ATOPIC DERMATITIS |
|-----------------------------|------------------------|----------------------------------|--------------------------------|
| TNFi | | | |
| Adalimumab | Yes | Yes | |
| Certolizumab pegol | | Yes | |
| Etanercept | Yes | Yes | |
| Golimumab | | Yes | |
| Infliximab | Yes | Yes | |
| PDE4i | | | |
| Apremilast, small molecule | Yes | Yes | |
| IL-4 | | | |
| Dupilumab | | | Yes |
| IL-12/23i | | | |
| Ustekinumab | Yes | Yes | |
| IL-23i | | | |
| Guselkumab | Yes | | |
| Tildrakizumab | Yes | | |
| Risankizumab | Yes | | |
| IL-17i | | | |
| Ixekizumab | Yes | Yes | |
| Secukinumab | Yes | Yes | |
| Brodalumab | Yes | | |
| CTLA4 | | | |
| Abatacept | | Yes | |
| JAK2/3i | | | |
| Tofacitinib, small molecule | | Yes | |

Note:

1. Crisaborole, an FDA-approved, small-molecule, PDE4 inhibitor for treatment of atopic dermatitis, is not included in the chart because it is a topical medication.
2. FDA-approved conventional systemic pharmacotherapies include: acitretin, cyclosporine, and methotrexate for psoriasis; leflunomide, methotrexate, and sulfasalazine for psoriatic arthritis; and systemic corticosteroids for atopic dermatitis.
3. Systemic immunomodulatory agents—cyclosporine, methotrexate, mycophenolate mofetil, azathioprine, and interferon gamma—although not approved in the United States for the treatment of atopic dermatitis, are used for cases with severe, difficult-to-manage symptoms.

REFERENCES

- Blauvelt A, de Bruin-Weller M, Gooderham M, et al. [Long-term management of moderate-to-severe atopic dermatitis with dupilumab and concomitant topical corticosteroids \(LIBERTY AD CHRONOS\): a 1-year, randomised, double-blinded, placebo-controlled, phase 3 trial.](#) *Lancet.* 2017;389:2287-2303.
- Clowse MEB, Förger F, Hwang C, et al. [Evaluating transfer of certolizumab pegol into breast milk: results from a prospective, post marketing, multicenter pharmacokinetic study.](#) *J Am Acad Dermatol.* 2017;76(6): AB127.
- Gordon KB, Strober B, Lebwohl M, et al. [Efficacy and safety of risankizumab in moderate-to-severe plaque psoriasis \(UltIMMa-1 and UltIMMa-2\): results from two double-blind, randomised, placebo-controlled and ustekinumab-controlled phase 3 trials.](#) *Lancet.* 2018;392:650-661.
- Gottlieb A, Merola JF. [Psoriatic arthritis for dermatologists.](#) [Epub ahead of print]. *J Dermatolog Treat.* 2019:1-18. doi: 10.1080/09546634.2019.1605142.
- Gottlieb AB, Blauvelt A, Thaçi D, et al. [Certolizumab pegol for the treatment of chronic plaque psoriasis: Results through 48 weeks from 2 phase 3, multicenter, randomized, double-blinded, placebo-controlled studies \(CIMPASI-1 and CIMPASI-2\).](#) *J Am Acad Dermatol.* 2018;79:302-314.
- Griffiths CE, Reich K, Lebwohl M, et al. [Comparison of ixekizumab with etanercept or placebo in moderate-to-severe psoriasis \(UNCOVER-2 and UNCOVER-3\): results from two phase 3 randomised trials.](#) *Lancet.* 2015;386:541-551.
- Kimball AB, Mahadevan U, Porter C, et al. [Lack of active placental transfer of certolizumab pegol: preclinical and clinical data.](#) *J Am Acad Dermatol.* 2016;74(5): AB33.
- Langley RG, Elewski BE, Lebwohl M, et al. [Secukinumab in plaque psoriasis--results of two phase 3 trials.](#) *N Engl J Med.* 2014;371:326-338.
- Lebwohl M, Blauvelt A, Paul C, et al. [Certolizumab pegol for the treatment of chronic plaque psoriasis: results through 48 weeks of a phase 3, multicenter, randomized, double-blind, etanercept- and placebo-controlled study \(CIMPACT\).](#) *J Am Acad Dermatol.* 2018;79:266-276.
- Leonardi CL, Kimball AB, Papp KA, et al. [Efficacy and safety of ustekinumab, a human interleukin-12/23 monoclonal antibody, in patients with psoriasis: 76-week results from a randomised, double-blind, placebo-controlled trial \(PHOENIX 1\).](#) *Lancet.* 2008;371:1665-1674.
- Menter A, Feldman SR, Weinstein GD, et al. [A randomized comparison of continuous vs. intermittent infliximab maintenance regimens over 1 year in the treatment of moderate-to-severe plaque psoriasis.](#) *J Am Acad Dermatol.* 2007;56:31.e1-15.

REFERENCES

- Menter A, Strober BE, Kaplan DH, et al. [Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with biologics](#). *J Am Acad Dermatol*. 2019;80:1029-1072.
- Menter A, Tying SK, Gordon K, et al. [Adalimumab therapy for moderate to severe psoriasis: a randomized, controlled phase III trial](#). *J Am Acad Dermatol*. 2008;58:106-115.
- Papp KA, Langley RG, Lebwohl M, et al. [Efficacy and safety of ustekinumab, a human interleukin-12/23 monoclonal antibody, in patients with psoriasis: 52-week results from a randomised, double-blind, placebo-controlled trial \(PHOENIX 2\)](#). *Lancet*. 2008;371:1675-1684.
- Papp KA, Reich K, Paul C, et al. [A prospective phase III, randomized, double-blind, placebo-controlled study of brodalumab in patients with moderate-to-severe plaque psoriasis](#). *Br J Dermatol*. 2016;175:273-286.
- Papp KA, Tying S, Lahfa M, et al. [A global phase III randomized controlled trial of etanercept in psoriasis: safety, efficacy, and effect of dose reduction](#). *Br J Dermatol*. 2005;152:1304-1312.
- Raychaudhuri SP, Wilken R, Sukhov AC, Raychaudhuri SK, Maverakis E. [Management of psoriatic arthritis: early diagnosis, monitoring of disease severity and cutting edge therapies](#). *J Autoimmun*. 2017;76:21-37.
- Reich K, Armstrong AW, Foley P, et al. [Efficacy and safety of guselkumab, an anti-interleukin-23 monoclonal antibody, compared with adalimumab for the treatment of patients with moderate to severe psoriasis with randomized withdrawal and retreatment: results from the phase III, double-blind, placebo- and active comparator-controlled VOYAGE 2 trial](#). *J Am Acad Dermatol*. 2017;76:418-431.
- Reich K, Nestle FO, Papp K, et al. [Infliximab induction and maintenance therapy for moderate-to-severe psoriasis: a phase III, multi-centre, double-blind trial](#). *Lancet*. 2005;366:1367-1374.
- Reich K, Papp KA, Blauvelt A, et al. [Tildrakizumab versus placebo or etanercept for chronic plaque psoriasis \(reSURFACE 1 and reSURFACE 2\): results from two randomised controlled, phase 3 trials](#). *Lancet*. 2017;390:276-288.
- Rich P, Gooderham M, Bachelez H, et al. [Apremilast, an oral phosphodiesterase 4 inhibitor, in patients with difficult-to-treat nail and scalp psoriasis: results of 2 phase III randomized, controlled trials \(ESTEEM 1 and ESTEEM 2\)](#). *J Am Acad Dermatol*. 2016;74(1):134-142.
- Simpson E, Bieber T, Guttman-Yassky E, et al. [Two phase 3 trials of dupilumab versus placebo in atopic dermatitis](#). *N Engl J Med*. 2016;375:2335-2348.
- Thaçi D, L Simpson E, Deleuran M, et al. [Efficacy and safety of dupilumab monotherapy in adults with moderate-to-severe atopic dermatitis: a pooled analysis of two phase 3 randomized trials \(LIBERTY AD SOLO 1 and LIBERTY AD SOLO 2\)](#). *J Dermatol Sci*. 2019;94:266-275.

