

Psoriasis Pharmacology



PLAY PICMONIC

Cyclosporine

Cycle-spear-gun

Cyclosporine is a calcineurin inhibitor that binds cyclophilin. It prevents IL-2 transcription leading to the inactivation of T-cell, which is the mediated cell for the psoriasis pathogenesis.

Methotrexate

Moth-T-Rex-ate

Methotrexate is an antimetabolite analog of folic acid that reduces DNA synthesis by competitively inhibiting dihydrofolate reductase. It is used if the topical agent fails to treat psoriasis.

Topical Agents

Topical Agent

Topical agents used to treat psoriasis are corticosteroids, tacrolimus, tazarotene, and vitamin D analogs. It is effective in mild to moderate psoriasis, with less than 5% of the body surface affected, sparing the genitals, hands, feet, and face.

Antibody Therapy

Infliximab

N-flicks

TNF- γ is one of the cytokines involved in the pathogenesis of psoriasis. Interfering with this process will help treat moderate to severe psoriasis, defined with more than 5% body surface area or involving hands, feet, face, or genitals. Infliximab is one example of a TNF- γ inhibitor. It provides the most rapid clinical response among other biologic therapies.

Adalimumab

A-Dali-mummy

Adalimumab is another example of a TNF- α inhibitor that targets soluble TNF- α . Patients should also be screened for TB, PPD tuberculin test due to the risk of TB reactivation. This is also indicated in patients using infliximab.

Etanercept

E-tan-nurse Interceptor

Etanercept acts by blocking the interaction between TNF and its receptor. It can be used as a treatment option to treat moderate to severe psoriasis.

Guselkumab

Goose-elephant

IL-23/IL-17 axis is currently thought to involve in the principal pathogenic pathway in psoriasis. Guselkumab is the first drug in its class, IL-23 blocker, to be approved by FDA as a treatment option for moderate-severe plaque psoriasis.

Natalizumab (Tysabri)

Nature-man

Natalizumab targets $\alpha 4$ -integrin, which is responsible for WBC adhesion. It can increase the risk of PML in patients infected by the JC virus.

Ustekinumab

US-Tech-man

Psoriasis patients are found to respond to treatment that interferes with lymphocyte activation, the tumor necrosis factor (TNF) pathway, agents blocking interleukin (IL)-17, or the IL-12/23p40 subunit.
Ustekinumab is a fully human immunoglobulin G1? (IgG1?) monoclonal antibody that targets the p40 subunit shared by IL-12 and IL-23.

Ixekizumab

Exit-man with I-shaker

Ixekizumab is an IL-17A antagonist used to treat moderate to severe plaque psoriasis. It should be avoided in patients with inflammatory bowel disease.

Secukinumab

Second (2nd)-man

Secukinumab is an IL-17A antagonist used to treat moderate to severe plaque psoriasis.
