

Psoriasis and Biologics

Overview of Biologic Drugs Prescribed by Dermatologists to Treat Psoriasis in the Adult Australian population

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PSORIASIS

- A chronic inflammatory disease in which there is an abnormal excessive growth of the epidermal layer of the skin.
- Presents as thick silvery scales and dry, itchy, red patches (plaques) that can be painful
- Effects 2-3% of the Australian population
- 25% of them have moderate to severe Psoriasis.
- PASI (Psoriasis Area & Severity Index) is a tool used to measure the severity and extent of psoriasis.

For a patient to qualify for a biologic on the PBS they must have

- PASI score greater than 15 for the whole body **or**
- greater than 30% surface area of face, hands and feet **or** sub scores 3 or 4 **and**
- have failed or have a toxicity to at least two of five systemic treatments, e.g MTX, Cyclosporine, UVB, Acitretin or Apremilast.
- 6 monthly dermatology visits required for ongoing PBS applications. The PASI score must be 75% better than baseline.
- Face, palms and soles surface area must decrease by 75% or subscores reduce to 0 or 1
- Keep record of baseline data.
- If patient takes a break from the biologic e.g., for pregnancy, travel, surgery, submit a 'Change, Resumption' PBS form to Medicare. The patient will have 5 years to reenter the program.

<https://www.servicesaustralia.gov.au/psoriasis-severe-chronic-plaque-psoriasis?context=23021>



BIOLOGICS

Biologics are proteins derived from living sources, human, animals and plants. They are designed to imitate or inhibit the actions of specific naturally occurring proteins in the immune system, that cause the inflammation.

Below are the current Biologics used in Australia to treat Moderate to Severe Psoriasis

ANTI TNF Alpha- also listed for PsA (Psoriatic Arthritis)

Avoid in patients with moderate to severe heart failure and active TB

- **Etanercept** Enbrel - 50mg weekly, s/c, auto injectors, also targets TNF Beta, room temperature 4 weeks (Biosimilar –Brenzys)
- **Infliximab** Remicade- IV infusion 5mg/kg 8 weekly (Biosimilar- Inflectra Reniflex)
- **Adalimumab** Humira- 40mg q2w, s/c syringe & auto injector, also listed for H.S, room temperature 2 weeks (Biosimilars- Amgevita, Hadlimac, Hyrimoz, Idacio)

ANTI IL 12/23 – also listed for PsA

- **Ustekinumab** Stelara - q12w s/c, vial & syringe weight based ≤100kg 45mg, >100kg 90mg,.

ANTI IL 17- also listed for PsA

Avoid in patients with inflammatory bowel disease or recurrent thrush.

- **Ixekizumab** Taltz - IL 17A – 80mg q4w, s/c auto injectors, room temperature for 5 days, injections can be painful.
- **Secukinumab** Cosentyx - IL 17 A - 300mg (2 injections) monthly, s/c auto injectors
- **Bimekizumab** Bimzelx - IL 17 A & F - 320mg (2 injections) q8w s/c syringe or auto injectors , kept up to 30 days < 25 degrees, (awaiting PBS listing)

ANTI IL 23 p19- more targeted agent

- **Guselkumab** Tremfya - 100mg q8w, s/c syringe, also listed for PsA
- **Tildrakizumab** Ilumya - 100mg q12w, s/c syringe, can be kept up to 30 days <25 degrees
- **Risankizumab** Skyrizi - 150mg (2 injections), q12w s/c, syringe

SIDE EFFECTS

To date, biologics have few side effects due to the targeted action.

The most common side effects

- Increased risk of infection.
- Injection site reactions ISR
- Nasopharyngitis
- Upper respiratory tract infection (URTI)
- Headaches
- Nausea/Vomiting
- Arthralgia
- IL 17- Candida infections (thrush)
- Anti TNF- demyelinating disorders, CCF, lupus erythematosus

SCREENING

PATIENTS

Due to the immunomodulatory nature of the biologic agent, patients need to have screening tests and their immunization status checked prior to starting.

Screening Tests Recommended-

- Baseline Bloods- FBE, UEC, LFT, CRP, ANA, betaHCG, lipids, glucose
- QuantiFERON Gold
- Check- Hep B,C, HIV, Varicella, EBV, CMV, Syphilis, measles and strongyloides.
- CXR
- Examination- FSC, lymph nodes
- Encourage age-appropriate malignancy screening

HEALTH PROFESSIONAL

RESOURCE

Visit ATEP (Advanced Therapies Education Portal)
<https://atep.edu.au/welcome-to-atep/>

PATIENT INFORMATION

- Pharmaceutical companies offer Patient Support Program (PSP) which provide injection training, sharp bins, dose reminders and education resources.
- Biologics need to be stored in the fridge between 2-8 degrees and removed about 30-mins prior to injecting.
- Withhold the drug if unwell.
- No live vaccinations while on a biologic. Live vaccines should be given at least 4 weeks prior to starting biologic treatment.
- Flu and Covid vaccinations recommended, avoid having the vaccination in the same week as the biologic
- Ice packs can be applied to injection sites if painful
- Arrange for travel letters to accompany the patients if they travel with the biologic. The medication should be kept in hand luggage and packed in ice.

REFERENCES

- Derm Net- <https://dermnetnz.org/topics/biologics>
- Skin Health Institute- ATEP, masterclasses
- Skin Health Institute- protocol for screening biologic patients
- Services Australia- Severe Chronic Plaque Psoriasis

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