CDDFT pathway for Biologics in Psoriasis (based on Leeds Pathway for Biologics in Psoriasis)

History of SEVERE PSORIASIS defined as:

PASI> 10 and DLQI >10 and METHOTREXATE, CICLOSPORIN, LIGHT THERAPY failed or contraindicated or not tolerated or not possible

1.Which therapy

Consider: Anti TNF (adalimumab, certolizumab, infliximab) or

Anti-IL- 12/23 (ustekinumab) or

Anti- IL 17/17R (secukinumab, ixekinumab, brodalumab) or

Anti- IL 23 (guselkumab, tildrakizumab)

In choosing therapies, take into account:

Disease severity, Disease impact

Contraindications, Co-morbidities

Drug Cost, Patient wishes and beliefs

Disease phenotype, Concurrent psoriatic arthritis

Patient age, Family planning issues

First Line: Adalimumab

Special considerations:

- **Psoriatic arthritis:** consider adalimumab, then anti IL17 or anti-IL 23
- **Pregnant/pregnancy planned/ breastfeeding:**
- consider certoluzumab
- **Risk of infection and/ or malignancy:** consider ustekinumab
- **Fast onset of effect desired/ particularly severe disease:**
- Anti-IL 23 or anti –IL 17/17R

In cases where PASI> 20 or where other treatments listed on left and/or combination therapies (eg. Methotrexate) have yielded an unsatisfactory response, consider infliximab infusions

IMPORTANT NOTES: Whenever possible, the lower cost drug should be selected (note that this is not necessarily the oldest or least efficacious option)

See notes on primary vs secondary failure below

For all parts of the pathway, ensure topical treatment are fully optimised

Manage psoriatic arthritis in collaboration with rheumatology

Certolizumab is the only licensed biologic in pregnancy/ breast feeding

Evidence in the context of infection/ malignancy is still emerging: weigh risk versus benefit jointly with patient and the wider healthcare team and where necessary seek advice from eg. Infectious diseases and oncology

Whilst some patients remain well controlled on etanercept, its cost-benfit profile suggests it should not be routinely initiated for biologic naïve individuals

2.Measuring success

Assess success of treatment defined as:

75% reduction in PASI75 or

50% reduction in PASI50 and 1 point reduction in DLQI

Aiming for post-initiation assessment:

10 weeks after starting treatment for infliximab

12 weeks for Etanercept, ixekizumab and secukinumab

16 weeks for adalimumab, guselkumab and ustekinumab

SUCCESSFUL TREATMENT → **YES**

Maintain treatment and re-assess every 3-12 months (for most stable patients, 6 monthly is likely optimal)

NO

NOTE: Patients who are to switch on to their 4th and every subsequent biologic, need to be discussed at a meeting with the Severe Psoriasis Clinic team consultants once a WEEK/MONTH

1.For **PRIMARY FAILURE** (response inadequate after first assessment post- initiation) or the first biological drug cannot be tolerated or becomes contraindicated: chose alternative therapy from different class where possible

2.For **SECONDARY FAILURE** (the psoriasis initially responds adequately but subsequently loses this response): choose alternative but consider switching within class

CT Pharmacy/ MV Dermatology
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Key References

• Smith C H et al. British Association of Dermatologists guidelines for biologic therapy for psoriasis Br J Dermatol 2017; 177: 628-136.
• Singh, J.A. et al. Adverse effects of biologics: a network meta-analysis and Cochrane overview. Cochrane Database Syst Rev 16
• Griffiths, C.E. 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 386, 541-51 (2015).
• Griffiths, C.E. et al. Long-Term Efficacy of Guselkumab for the Treatment of Moderateto-Severe Psoriasis: Results from the Phase 3 VOYAGE 1 Trial Through Two Years. J Drugs Dermatol. 2018 Aug 1;17(8):826-832.
• Thaci, D. et al. Secukinumab is superior to ustekinumab in clearing skin of subjects with moderate to severe plaque psoriasis: CLEAR, a randomized controlled trial. Journal of the American Academy of Dermatology 2015: 73, 400-9.
• Warren, R.B. et al. Differential Drug Survival of Biologic Therapies for the Treatment of Psoriasis: A Prospective Observational Cohort Study from the British Association of Dermatologists Biologic Interventions Register (BADBIR). Journal of Investigative Dermatology 2015: 135, 2632-40.
• Clowse M.E.B. Pregnancy Outcomes After Exposure to Certolizumab Pegol: Updated Results From a Pharmacovigilance Safety Database. Arthritis Rheumatol. 2018 Sep;70(9):1399-1407
• Papp K.A. A prospective phase III, randomized, double-blind, placebo-controlled study of brodalumab in patients with moderate-to-severe plaque psoriasis. Br J Dermatol. 2016 Aug;175(2):273-86
• Kavanaugh A. Efficacy of Subcutaneous Secukinumab in Patients with Active Psoriatic Arthritis Stratified by Prior Tumor Necrosis Factor Inhibitor Use: Results from the Randomized Placebo-controlled FUTURE 2 Study. J Rheumatol. 2016 Sep;43(9):1713-7
• Mease P.J. Improvement in Psoriasis Signs and Symptoms Assessed by the Psoriasis Symptom Inventory with Brodalumab Treatment in Patients with Psoriatic Arthritis. J Rheumatol. 2016 Feb;43(2):343-9
• Deodhar A. Efficacy and safety of guselkumab in patients with active psoriatic arthritis: a randomised, double-blind, placebo-controlled, phase 2 study. Lancet. 2018 Jun 2;391(10136):2213-2224

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