

MEDICATION COVERAGE POLICY

PHARMACY AND THERAPEUTICS ADVISORY COMMITTEE

| | | | |
|--------------------------|-----------------|-----------------------|--|
| POLICY | Psoriasis (PsO) | P & T DATE | 09/14/2021 |
| THERAPEUTIC CLASS | Dermatology | REVIEW HISTORY | 9/20, 02/07, 02/08, 06/08, 05/10, 11/12, 02/13, 10/14, 05/15, 11/15, 02/16, 02/17, 02/18, 05/19, 05/20 |
| LOB AFFECTED | MCL | | |

This policy has been developed through review of medical literature, consideration of medical necessity, generally accepted medical practice standards, and approved by the HPSJ Pharmacy and Therapeutic Advisory Committee.

OVERVIEW

Psoriasis (PsO) is an autoimmune, inflammatory skin disorder that disease that fluctuates between disease remission and relapse. The economic burden of psoriasis and psoriatic arthritis is significant. In 2004, the annual direct and indirect costs of psoriasis was reported to be \$1.4 billion.¹ However, in 2013, it was estimated that the annual direct and indirect cost of psoriasis in the United States had increased to \$112-\$135 billion.² This review will examine the treatment guidelines of PsO, the currently available PsO drug products, and their coverage criteria.

Table 1. Available Psoriasis Agents (Current as of 02/2020)

| Topical Agents | | | | | |
|------------------------------|---|---------------------|------------------|------------|--|
| Therapeutic Class | Generic Name (Brand Name) | Available Strengths | Formulary Limits | Cost/Month | Notes |
| Topical Corticosteroid (TCS) | Betamethasone Diprop (Augmented) Cream, Oint, Lotion | 0.05% | NF | \$57.34 | |
| | Betamethasone Diprop Lotion | 0.05% | ST | \$27.72 | Step therapy to step 1 topical steroid of same potency level. |
| | Betamethasone Valerate Cream, Lotion, Oint | 0.1% | ST | \$46.04 | Step therapy to step 1 topical steroid of same potency level. |
| | Clobetasol Propionate Cream, Oint, Solution | 0.05% | QL | \$33.26 | Limit 60 per 90 days due to high systemic absorption and HPA axis suppression. |
| | Clobetasol Propionate Shampoo, Gel | 0.05% | ST; QL | \$108.80 | Step therapy to step 1 topical steroid of same potency level. Limit 60 per 90 days due to high systemic absorption and HPA axis suppression. Shampoo limited to 118mL per 90 days. |
| | Clobetasol Propionate Emollient | 0.05% | NF | -- | |
| | Desonide Oint, Cream, Lotion | 0.05% | ST | \$82.45 | Step therapy to step 1 topical steroid of same potency level. |
| | Fluocinolone Acetonide Lotion, Oil | 0.01%, 0.025% | - | \$55.59 | |
| | Fluocinolone Acetonide Cream, Oint | 0.025% | ST | \$63.64 | Step therapy to step 1 topical steroid of same potency level. |
| | Fluocinolone Acetonide Solution, Oil | 0.01% | - | \$59.69 | |
| | Fluocinonide, Fluocinonide-Emollient Gel, Oint, Cream | 0.05% | ST, NF* | \$79.29 | Step therapy to step 1 topical steroid of same potency level. *Fluocinonide 0.1% is non-formulary. |
| Fluocinonide Solution | 0.05% | -- | \$43.69 | | |

| | | | | | |
|---|--|------------------------------------|-------------------------|----------------------------|--|
| | Fluticasone Propionate | 0.05% | NF | -- | |
| | Halobetasol Propionate Cream, Oint | 0.05% | ST, QL | \$72.27 | Step therapy to step 1 topical steroid of same potency level. Limit 60 per 90 days due to high systemic absorption and HPA axis suppression. |
| | Hydrocortisone Cream, Oint, Lotion | 0.5%, 1%, 2.5% | - | \$5.46 | 2.5% cream with application is step therapy to step 1 topical steroid of same potency level. |
| | Mometasone Furoate Cream*, Oint | 0.1% | ST* | \$13.59 | Step therapy to step 1 topical steroid of same potency level. |
| | Triamcinolone Acetonide Cream, Ointment, Lotion | 0.025%, 0.05%, 0.1% | - | \$7.52 | |
| Topical Calcineurin Inhibitors (TCI) | Pimecrolimus (Elidel) Cream | 1% | ST; QL | \$333.86 | Step-therapy to medium/high potency corticosteroid. |
| | Tacrolimus (Protopic) Oint | 0.03%, 0.1% | ST; QL | \$177.30 | Step-therapy to medium/high potency corticosteroid. |
| Miscellaneous (Psoriasis only) | Anthralin (Dritho-Creme) Cream | 1% | - | \$353.87 | |
| | Calcipotriene (Dovonex) Cream, Oint, Solu | 0.005% | ST; PL | \$2 | |
| | Calcipotriene/Betamethasone (Taclonex) Cream, Topical Suspension | 0.005%-0.064% | NF | \$779.05 | Use agents separately. |
| | Tazarotene (Tazorac) Cream, Gel | 0.05%, 0.1% | PA; PL; QL | \$324.97 | Restricted to use by dermatologists only. Limit 30gm per month. |
| Systemic Agents | | | | | |
| Therapeutic Class | Generic Name (Brand Name) | Available Strengths | Formulary Limits | Cost/Month* | Notes |
| Oral Retinoid | Acitretin (Soriatane) | 10mg, 25mg | PL | \$328.65 | Request needs to be initiated by a dermatologist. |
| | Cyclosporine, micronized | 25mg, 100mg Capsule | - | \$152.81 | Regular cyclosporine is non-formulary. |
| | Methotrexate Tablet, Vial | 2.5mg; 25mg/2ml | - | \$12.02 | |
| PDE-4 Inhibitor | Apremilast (Otezla) | 30mg | PA; PL; SP | \$3,443.61 | Reserved for treatment failure to one or more oral DMARD. |
| Biologics | Adalimumab (Humira, Humira CF) | 20mg/0.4ml, 40mg/0.8ml, 40mg/0.4ml | PA; PL; SP | \$5,333.83 | Reserved for treatment failure to adequate trial of DMARD therapy. |
| | Etanercept (Enbrel) | 25mg/ml, 50mg/ml | PA; PL; SP | \$6,916.74 | Reserved for treatment failure to adequate trial of DMARD therapy. |
| | Infliximab-dyyb (Inflectra) Infliximab-abda (Renflexis) | 100mg IV vial | PA; PL; SP | -- | Reserved for treatment failure to adequate trial of DMARD therapy. |
| | Infliximab (Remicade) | 100mg | NF | -- | Non-Formulary |
| | Brodalumab (Siliq) | 210mg/1.5ml | PA; PL; SP | -- | Reserve for treatment failure to Adalimumab, Etanercept, OR Infliximab. |
| | Guselkumab (Tremfya, Tremfya One-Press) | 100mg/ml | PA; PL; SP | \$10,687.25 | |
| | Secukinumab (Cosentyx) | 150mg/ml | PA; PL; SP | \$6,559.48 | |
| | Ixekizumab (Taltz) | 80 mg/ml | PA; PL; SP | \$5,370.14 | |
| | Tildrakizumab (Ilumya) | 100mg/ml | PA; PL; SP | -- | |
| | Ustekinumab (Stelara) | 45mg/0.5ml, 90mg/ml | PA; PL; SP | \$10,904.54 \$22,315.05 | Reserve for treatment failure to Adalimumab/Etanercept/ Infliximab AND Secukinumab/Guselkumab/Brodalumab/Tildrakizumab/Ixekizumab. |

| | | | | | |
|---|-----------------------|----------|----------|-----------|---|
| | Certolizumab (Cimzia) | 200mg/ml | PA;PL;SP | \$7082.70 | Reserve for 1) treatment failure to Adalimumab/Etanercept/ Infliximab AND Secukinumab/Guselkumab/Brodalumab/Tildrakizumab/Ixekizumab OR 2) women currently pregnant or breastfeeding. |
| ST = Step Therapy; QL = Quantity Limit; PL = Prescriber Limit (Must be prescribed by Rheumatologist/Dermatologist); PA = Prior Authorization Required; NF = Non-Formulary; SP = Specialty; DMARDs = Disease Modifying Anti-Rheumatic Drug; PDE-4 = Phosphodiesterase-4 Inhibitor; | | | | | |

✚ EVALUATION CRITERIA FOR APPROVAL/EXCEPTION CONSIDERATION

Below are the coverage criteria and required information for each agent. These coverage criteria have been reviewed approved by the HPSJ Pharmacy & Therapeutics (P&T) Advisory Committee. For conditions not covered under this Coverage Policy, HPSJ will make the determination based on Medical Necessity as described in HPSJ Medical Review Guidelines (UM06).

Topical Corticosteroids

See table 2 with formulary topical corticosteroids and their coverage criteria.

| Coverage Criteria: For listed topical corticosteroids, step 2 listed agents require step therapy to one fill of a step 1 listed agent in the corresponding topical steroid potency class within the last 30 days. Step 1 | Step 2 |
|---|---|
| Class 1 - Super High Potency | |
| 15891 - CLOBETASOL PROPIONATE 0.05 % SOLUTION 32130 - CLOBETASOL PROPIONATE 0.05 % OINT. (G) 32140 - CLOBETASOL PROPIONATE 0.05 % CREAM (G) | 15892 - CLOBETASOL PROPIONATE 0.05 % GEL (GRAM) 21475 - CLOBETASOL PROPIONATE 0.05 % SHAMPOO 31211 - HALOBETASOL PROPIONATE 0.05 % OINT. (G) 31251 - HALOBETASOL PROPIONATE 0.05 % CREAM (G) |
| Class 2 - High Potency | |
| 31233 - TRIAMCINOLONE ACETONIDE 0.5 % CREAM 31244 - TRIAMCINOLONE ACETONIDE 0.5 % OINT. (G) | 54650 - FLUOCINONIDE/EMOLLIENT BASE 0.05 % CREAM (G) |
| Class 3 - Upper Mid Potency | |
| 31401 - FLUOCINONIDE 0.05 % SOLUTION 45930 - MOMETASONE FUROATE 0.1 % OINT. (G) | 31110 - BETAMETHASONE VALERATE 0.1 % OINT. (G) 31380 - FLUOCINONIDE 0.05 % GEL (GRAM) 31390 - FLUOCINONIDE 0.05 % CREAM (G) 31400 - FLUOCINONIDE 0.05 % OINT. (G) |
| Class 4 - Medium Potency | |
| 24484 - FLUOCINOLONE/SHOWER CAP 0.01 % OIL 31242 - TRIAMCINOLONE ACETONIDE 0.1 % OINT. (G) | 31261 - TRIAMCINOLONE ACETONIDE 0.1 % LOTION 45850 - MOMETASONE FUROATE 0.1 % CREAM (G) |
| Class 5 - Lower Mid Potency | |
| 29135 - HYDROCORTISONE 1 % LOTION 30841 - HYDROCORTISONE ACETATE 1 % CREAM (G) 30851 - HYDROCORTISONE ACETATE 1 % OINT. (G) 30942 - HYDROCORTISONE 1 % CREAM (G) 30943 - HYDROCORTISONE 2.5 % CREAM (G) 30951 - HYDROCORTISONE 1 % OINT. (G) 30952 - HYDROCORTISONE 2.5 % OINT. (G) 30974 - HYDROCORTISONE 1 % LOTION 30975 - HYDROCORTISONE 2.5 % LOTION 31232 - TRIAMCINOLONE ACETONIDE 0.1 % CREAM 31241 - TRIAMCINOLONE ACETONIDE 0.025 % OINT. 92421 - HYDROCORTISONE/ALOE VERA 1 % CREAM | 28850 - HYDROCORTISONE 2.5 % CRM/PE APP 31080 - BETAMETHASONE DIPROPIONATE 0.05 % LOTION 31101 - BETAMETHASONE VALERATE 0.1 % CREAM (G) 31120 - BETAMETHASONE VALERATE 0.1 % LOTION 31260 - TRIAMCINOLONE ACETONIDE 0.025 % LOTION 31344 - FLUOCINOLONE ACETONIDE 0.025 % CREAM 31351 - FLUOCINOLONE ACETONIDE 0.025 % OINT. (G) 31430 - DESONIDE 0.05 % OINT. (G) |
| Class 6 - Low Potency | |
| 31231 - TRIAMCINOLONE ACETONIDE 0.025 % CREAM 31360 - FLUOCINOLONE ACETONIDE 0.01 % SOLUTION 85080 - FLUOCINOLONE ACETONIDE 0.01 % OIL | 31342 - FLUOCINOLONE ACETONIDE 0.01 % CREAM (G) 31425 - DESONIDE 0.05 % CREAM (G) 48971 - DESONIDE 0.05 % LOTION |

- Limits:**
 - Clobetasol Propionate 0.05% Gel/Ointment/Cream/Solution: Limited to 60 units per 90 days to prevent HPA axis suppression.
 - Clobetasol Propionate 0.05% Shampoo: Limited to 118 mL per 90 days to prevent HPA axis suppression.
 - Halobetasol Propionate 0.05% Ointment/Cream: Limited to 60 units per 90 days to prevent HPA axis suppression.
- Required Information for Approval:** None.
- Non-Formulary:** Clobetasol Emollient, Fluocinonide 0.1%, Fluticasone Topical

Topical Calcineurin Inhibitors

Pimecrolimus (Elidel), Tacrolimus (Protopic)

- Coverage Criteria:**
 - **Tacrolimus Ointment (Protopic):** Step-therapy to 1 fill of a formulary medium/high potency topical corticosteroid within the last 30 days.
 - **Pimecrolimus Cream (Elidel):** Step therapy to 1 fill of a formulary medium/high potency topical corticosteroid AND Tacrolimus ointment in the last 30 days.
- Limits:** 30gm per month.
- Required Information for Approval:** Prescription history of medium/high potency topical corticosteroid (e.g. Triamcinolone, Betamethasone, Fluocinolone, Fluocinonide, Mometasone, Clobetasol) within the last 30 days.
- Other Notes:** For use on face, documentation of 1 fill of hydrocortisone within the last 30 days.

Miscellaneous

Tazarotene (Tazorac)

- Coverage Criteria:** Tazarotene is reserved for treatment failure to 1 fill of medium/high potency topical corticosteroid within the last 30 days. Must be prescribed by Dermatologists.
- Limits:** 30gm per month.
- Required Information for Approval:** Prescription history of medium/high potency topical corticosteroid (e.g. Triamcinolone, Betamethasone, Fluocinolone, Fluocinonide) within the last 30 days.
- Other Notes:** None

Calcipotriene (Dovonex)

- Coverage Criteria:** Calcipotriene is step-therapy to 1 fill of medium/high potency topical corticosteroid within the last 30 days.
- Limits:** None.
- Required Information for Approval:** Prescription history of medium/high potency topical corticosteroid (e.g. Triamcinolone, Betamethasone, Fluocinolone, Fluocinonide) within the last 30 days.
- Other Notes:** None
- Non-Formulary:** Calcipotriene/Betamethasone (Taclonex) Cream, Suspension

Oral Retinoid

Acitretin (Soriatane)

- Coverage Criteria:** None.
- Limits:** None.
- Required Information for Approval:** Request is initiated from a dermatologist.
- Other Notes:** None.

Oral DMARDs

Cyclosporine (Modified), Methotrexate 25mg/ml Vial, Methotrexate Tablets

- Coverage Criteria:** None.
- Limits:** None.
- Required Information for Approval:** None.
- Non-Formulary:** Otrexup, Rasuvo, Cyclosporine (Regular)

Phosphodiesterase-4 Inhibitor (PDE-4 Inhibitor)

Apremilast (Otezla)

- Coverage Criteria:** Reserved for treatment failure to an adequate trial of oral DMARDs. If patient is unable to tolerate one oral DMARD, a second oral DMARD must be tried. Must be prescribed by a dermatologist.
- Limits:** None
- Required Information for Approval:** Clinic notes or prescription history indicating patient has tried at least 12 weeks of dose-optimized oral DMARD (Methotrexate, Cyclosporine, etc).
- Other Notes:** Medication is to be dispensed by HPSJ's designated specialty pharmacy.

Biologics

1st line—Adalimumab (Humira, Humira CF), Etanercept (Enbrel), Infliximab-dyyb (Inflectra), Infliximab-abda (Renflexis)

- Coverage Criteria:** Reserved for treatment failure to 12 weeks of dose-optimized, oral DMARD therapy (Methotrexate 15-25mg/week, Cyclosporine, and Acitretin). If patient is unable to tolerate one oral DMARD, a second oral DMARD must be tried. Must be prescribed by a dermatologist.
- Limits:** None
- Required Information for Approval:** Clinic notes or prescription history indicating patient has tried at least 12 weeks of dose-optimized oral DMARD (Methotrexate, Cyclosporine, Acitretin, etc).
- Other Notes:**
 - o Medication is to be dispensed by HPSJ's designated specialty pharmacy.
 - o Biologics exceeding labeled standard maintenance doses may be approved 1 month at a time. Subsequent fills of the increased maintenance dose will require documentation of symptom improvement.
 - o Remicade is non-formulary.

2nd line—Secukinumab (Cosentyx), Guselkumab (Tremfya, Tremfya One-Press), Brodalumab (Siliq), Tildrakizumab (Ilumya), Ixekizumab (Taltz)

- Coverage Criteria:** Secukinumab, Guselkumab, Brodalumab, Tildrakizumab, and Ixekizumab are reserved for treatment failure/documented intolerance to Adalimumab, Etanercept, or Infliximab. Must be prescribed by dermatologist. Restricted to specialty pharmacy.
- Limits:** None
- Required Information for Approval:** Prescription history of Adalimumab, Etanercept, or Infliximab.
- Other Notes:** Medication is to be dispensed by HPSJ's designated specialty pharmacy. Biologics exceeding labeled standard maintenance doses may be approved 1 month at a time. Subsequent fills of the increased maintenance dose will require documentation of symptom improvement.

3rd line—Ustekinumab (Stelara)

- Coverage Criteria:** Ustekinumab is reserved for treatment failure/documented intolerance to [1] Adalimumab, Etanercept, or Infliximab AND [2] Secukinumab, Guselkumab, Brodalumab, Tildrakizumab, or Ixekizumab. Must be prescribed by dermatologist.
- Limits:** None
- Required Information for Approval:** Prescription history, medical authorization history, or clinic notes indicating fills of Adalimumab/Etanercept/Infliximab AND Secukinumab/Guselkumab, Brodalumab/Tildrakizumab/Ixekizumab.
- Other Notes:** Medication is to be dispensed by HPSJ's designated specialty pharmacy. Biologics exceeding labeled standard maintenance doses may be approved 1 month at a time. Subsequent fills of the increased maintenance dose will require documentation of symptom improvement.

3rd line—Certolizumab (Cimzia)

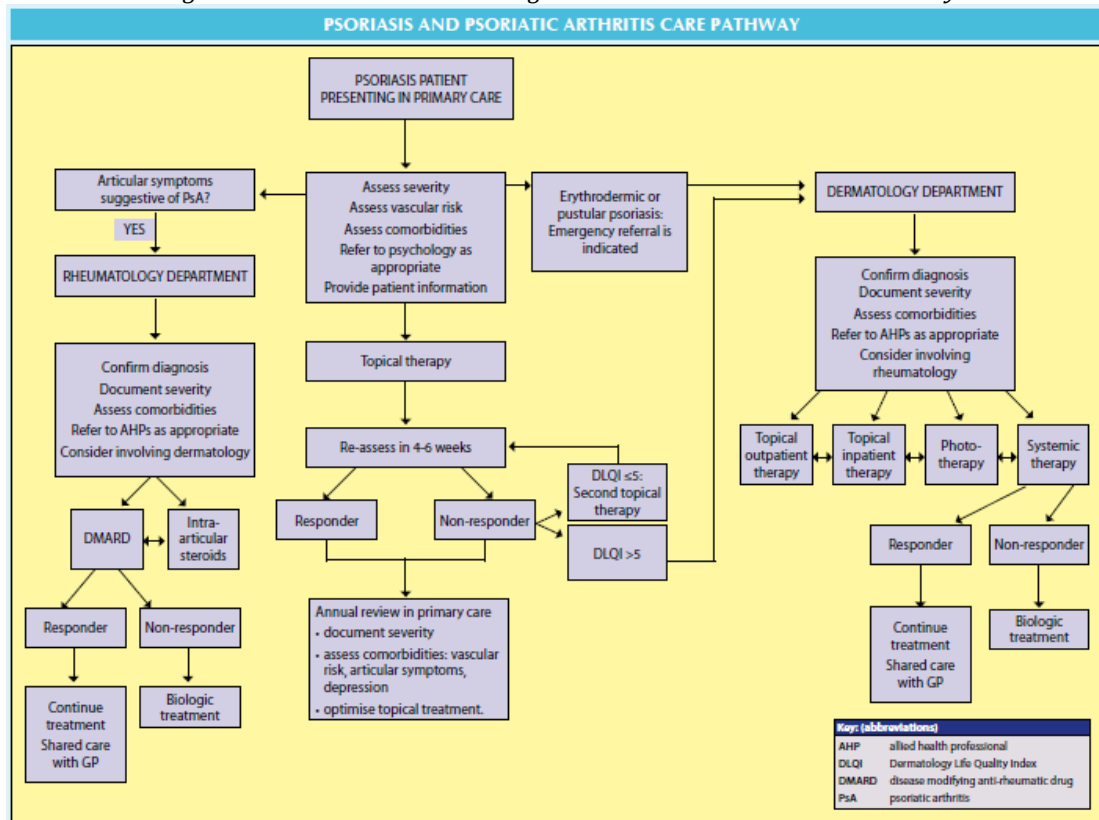
- Coverage Criteria:** Reserved for [1] treatment failure/documentated intolerance to A) Adalimumab, Etanercept, or Infliximab and B) Secukinumab, Guselkumab, Brodalumab, Tildrakizumab, or Ixekizumab OR [2] women that are currently pregnant or breastfeeding. Must be prescribed by dermatologist. Restricted to specialty pharmacy.
- Limits:** None
- Required Information for Approval:** Prescription history of Adalimumab, Etanercept, or Infliximab and Secukinumab, Guselkumab, Brodalumab, Tildrakizumab, or Ixekizumab OR pregnancy/breastfeeding status.
- Other Notes:** Medication is to be dispensed by HPSJ’s designated specialty pharmacy.

⊕ CLINICAL JUSTIFICATION

The treatment goal for patients with PsO is to minimize disease activity by regularly monitoring regimen. The *2008 American Academy of Dermatology PsO³⁻⁶ Guidelines* and *2010 Scottish Intercollegiate Guideline Network⁷* recommends the following:

| Limited Disease |
|--|
| <ul style="list-style-type: none">• Topical corticosteroids are the mainstay of therapy.• For patients requiring long-term TCS therapy, may want to consider “Pulse therapy” or adding on corticosteroid-sparing agents (tacrolimus, pimecrolimus, calcipotriene, tazarotene).• Tacrolimus and pimecrolimus are not as effective as other topical therapies unless used on intertriginous areas or areas where skin is occluded. |
| Extensive Disease |
| <ul style="list-style-type: none">• Oral DMARDs and phototherapy are first-line treatment therapies.• TNF inhibitor biologics should be considered in patients who have failed 1 or more dose-optimized DMARD therapy for 3-6 months.• Consider combination therapy (topical + phototherapy OR topical/phototherapy + DMARD/TNF) for improved effectiveness. |

Figure 1. 2010 Scottish Intercollegiate Guideline Network Care Pathway



The extent and staging of psoriasis drives the type of treatment. According to the 2008 American Academy of Dermatology guidelines, treatment with topical treatments are appropriate for patients with mild or localized psoriasis.³ Patients with more extensive disease may require phototherapy and/or systemic agents. The National Psoriasis Foundation supports phototherapy as first-line therapy for treatment of psoriatic lesions.⁸ Methotrexate, cyclosporine, and acitretin are all effective, first-line systemic agents for treatment of extensive psoriasis or psoriasis with inadequate response to topical therapies. It is important to note that not all patients with limited skin disease should be treated with systemic therapy even if treatment with topical therapy is inadequate; the risk-to-benefit ratio should be evaluated. In most cases, the patient may likely benefit first with a trial of phototherapy in combination with topical corticosteroids. Patients with severe, refractory psoriasis (treatment failure to 1 or more DMARD) may be a candidate for biologic therapy. The efficacy between biologics do not differ significantly but the cost may vary due to differences in administration frequency (twice monthly vs. weekly vs. monthly, and so forth). Therefore, HPSJ's order of preference of the biologic therapies are based on the cost-benefit ratio where the first-line biologics are agents associated with the lowest cost-benefit ratio.

According to the 2020 Joint AAD-NPF Guidelines of Care for the Management of Psoriasis with Systemic Non-Biological Therapies, apremilast is a level A recommendation for treatment in psoriasis, which is the same level of recommendation as other oral DMARDs such as methotrexate.⁶⁶

Role of oral agents (DMARDs and immunosuppressants)

Oral DMARDs are commonly used as first-line therapies in many mild-moderate inflammatory disorders with a few exceptions (e.g. Ankylosing Spondylitis). For most patients, treatment with oral agents may be sufficient for their condition. Generally, 12 weeks of continuous DMARD therapy is considered to be an adequate trial—assuming the drug is adequately dosed. In patients with liver and/or renal impairment, DMARDs are not necessarily excluded right away. In most cases, DMARDs can be safely used as long as there is regular monitoring of labs and side effects and the dosing is adjusted accordingly.

Table 2: Commonly used oral agents in chronic inflammatory diseases

| Oral Agent | Joint | Skin | GI | liver damage | kidney damage | Pregnancy | Breastfeeding |
|--------------------------|-------|------|----|--------------|-----------------------|-----------------|---|
| Acitretin | | X | | avoid use | avoid use | Contraindicated | Contraindicated; wait at least 3 years after tx |
| Azathioprine | X | X* | X | monitor | monitor & dose adjust | Avoid use | Not recommended |
| Cyclosporine | X* | X | X* | monitor | monitor & dose adjust | Avoid use | Not recommended |
| Leflunomide | X | X | X* | avoid use | avoid use | Contraindicated | Unknown |
| Mercaptopurine | X* | X* | X | monitor | monitor & dose adjust | Avoid use | Unknown |
| Methotrexate | X | X | X | avoid use | monitor & dose adjust | Contraindicated | Contraindicated |
| Mycophenolate | | X* | X* | monitor | monitor & dose adjust | Avoid use | Avoid during and 6 wks after tx |
| Sulfasalazine | X | X* | X | monitor | monitor | Generally safe | Generally safe |
| <i>*limited evidence</i> | | | | | | | |

Special Populations

Pregnancy

Guidelines for pregnancy, as stated by the Canadian guidelines and the American National Psoriasis Foundation, indicate that 1st line therapy includes low- to moderate potency corticosteroids, 2nd line therapy includes narrow band UVB, and 3rd line therapy, only to be used if benefits outweigh risks, includes cyclosporine or TNF inhibitors.²⁷⁻²⁸ Other DMARDs deemed safe include sulfasalazine and azathioprine, and possibly leflunomide.²⁹ Azathioprine has a risk for premature births and, although limited animal data contraindicates its use. Leflunomide has an apparently low human teratogenicity risk. Cyclosporine and sulfasalazine seem to be the safest or most preferred DMARD agents.²⁹

Elevated LFTs

Specific guidelines for patients who have elevated LFTs are not available, but the American Academy of Dermatology guidelines do have suggestions for LFT monitoring and some recommendations on protocol if LFTs are elevated to a certain level. For methotrexate, if elevation exceeds 2x normal levels, LFT monitoring must be checked more frequently; if elevation exceeds 3x normal levels, consider dose reduction (administer 75% of dose); if elevation exceeds 5x normal, discontinuation of the medication is recommended. No other drugs have specific guidelines for LFT levels.³⁰ The 2008 ACR guidelines state that leflunomide, methotrexate, and sulfasalazine should not be started nor resumed if liver transaminases were >2x the upper normal limit. Despite this, there are no recommendations on discontinuation.³¹ A paper regarding expert opinion on the treatment of psoriasis in special circumstances speaks to the use of biologics in the setting of fatty liver disease. The panel considered etanercept and ustekizumab to be the best options for use in a patient with fatty liver disease.³²

Additional Information

NICE guidelines state a 3-month trial for methotrexate and cyclosporine, and 4 months for acitretin should be done before assessing treatment response.³³

Some evidence exists regarding combination therapies with traditional systemic therapies and biologics. Two different papers provide the most evidence for a biologic and methotrexate combination (with etanercept and methotrexate being the most studied).³⁴⁻³⁵ Less evidence is available for acitretin and a biologic such as etanercept. Also, very limited data exists for cyclosporine and a biologic as well as a two biologic combination and are thus not recommended or require caution and close monitoring.

A review article regarding calcineurin inhibitors states that tacrolimus and pimecrolimus have demonstrated efficacy for use on thin or sensitive skin areas, such as the face or genitals, although no studies regarding the comparative efficacy of the two agents exist. One study suggests that these agents are not as potent efficacy wise compared to corticosteroids (study was comparing pimecrolimus to topical steroids).³⁶ Regarding the safety tolerability of these calcineurin inhibitors, two studies found no difference between pimecrolimus or tacrolimus when compared to placebo in the setting of facial or intertriginous psoriasis.³⁷⁻³⁸ There is no information on utilizing both calcineurin inhibitors in combination. Furthermore, high-potency steroids should be avoided when used on thin or sensitive skin areas, including the face and genitals, but calcineurin inhibitors can be used in cases involving the face or other sensitive skin areas. If necessary, the 2009 Canadian guidelines do suggest that a short course of moderate potency topical steroid can be used in combination with calcineurin inhibitors as well.³⁹ In addition the NICE 2012 and NHS 2016 guidelines for psoriasis also recommend a short course of mild to moderate potency corticosteroid for facial psoriasis in children and adolescents.^{33,40}

The American Academy of Dermatology guidelines mention that it is rational to use different vehicles of the same agent at different times of the day (morning vs evening) and also mention that different vehicles have different indications for certain areas of the body.⁴¹ Nothing specific was mentioned on using the same agent with different vehicles at the exact same time or application, but with the previous statements, it is rational to use multiple vehicles at the same time. Also, caution not to use over the recommended maximum daily or weekly amount if using a high-potency steroid such as clobetasol.

High-potency steroids such as clobetasol have an upper bound of 50g/week over 2-4 weeks as stated by the American Academy of Dermatology guidelines.⁴¹ Of note, there is some evidence that HPA axis suppression can occur in doses as low as 2g/day for 2 or more weeks.⁴⁴ For this reason, proper selection of patients and conservative use is important when prescribing high-potency steroids. Table 3 provides guidance for standard amounts of topical needed, in grams and based on BSA, in adults and children. Some factors that predispose HPA axis include chronic use, use on sensitive or permeable skin, application to a large area of skin, occlusion, poor skin integrity, young age and liver failure. The American Academy of Dermatology does state that in practice longer durations of use over 4 weeks is possible, but proper supervision is needed to avoid side effects. The guidelines further state that consideration should be put into reducing dose once clinical improvement occurs, intermittent use, or combination therapy with non-steroidal agents.

Table 3. Fingertip Unit Guide for Adults and Children^{41, 45}

Adults

| Area to Be Treated | No. of FTU (Fingertip Units) | Approx. Dose (Gm)* | Approx. BSA (%) |
|---|------------------------------|--------------------|-----------------|
| Scalp | 3 | 1.5 | 6 |
| Face and neck | 2.5 | 1.25 | 5 |
| One hand (front and back) and fingers | 1 | 0.5 | 2 |
| One entire arm including entire hand | 4 | 2 | 8 |
| Elbows | 1 | 0.5 | 2 |
| Both soles | 1.5 | 0.75 | 3 |
| One foot (dorsal and sole) including toes | 1.5 | 0.75 | 3 |
| One entire leg including entire foot | 8 | 4 | 16 |
| Buttocks | 4 | 2 | 8 |
| Knees | 1 | 0.5 | 2 |
| Trunk (anterior) | 8 | 4 | 16 |
| Trunk (posterior) | 8 | 4 | 16 |
| Genitalia | 0.5 | 0.25 | 1 |

*1 FTU = 500mg

Children[^]

| Age | Face & Neck | Arm & Hand | Leg & Foot | Trunk (Anterior) | Trunk (Posterior) and Buttocks |
|------------|-------------|------------|------------|------------------|--------------------------------|
| 3-6 Months | 1 | 1 | 1.5 | 1 | 1.5 |
| 1-2 Years | 1.5 | 1.5 | 2 | 2 | 3 |
| 3-5 Years | 1.5 | 2 | 3 | 3 | 3.5 |
| 6-10 Years | 2 | 2.5 | 4.5 | 3.5 | 5 |

[^]All values are FTU

The application of steroids to open wounds should theoretically increase the risk of HPA axis suppression and other systemic side effects. Nonetheless, there is data that suggests applying corticosteroids to chronic wounds does help improve the healing process. In these cases, usually only low-dose topical steroids are used.⁴²⁻⁴³

☒ REFERENCES

1. Feldman SR, Burudpakdee C, Gala S, Nanavaty M, Mallya UG. The economic burden of psoriasis: a systemic literature review. *Expert Rev Pharmacoecon Outcomes Res.* 2014. 14(5): 685-705.
2. Brezinski, E, Dhillon J, Armstrong A. Economic Burden of psoriasis in the United States: a systematic review. *JAMA Dermatol.* 2015. doi:10.1001/jamadermatol.2014.3593.
3. Menter A, Korman N, Elmets C, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 3—Guidelines of care for the management and treatment of psoriasis with topical therapies. *J Am AcadDermatol.* 2009; 60:643-59.
4. Menter A, Korman N, Elmets C, et al. Menter A, Gottlieb A, Feldman S, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 5—Guidelines of care for the treatment of psoriasis with phototherapy and photochemotherapy. *J Am AcadDermatol.* 2010; 62: 114-135.
5. Menter A, Gottlieb A, Feldman S, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 1—Overview of psoriasis and guidelines of care for the treatment of psoriasis with biologics. *J Am AcadDermatol.* 2008; 58: 826-50.
6. Menter A, Korman N, Elmets C, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis: Section 4—Guidelines of care for the management and treatment of psoriasis with traditional systemic agents. *J Am AcadDermatol.* 2009; 61: 451-85.
7. Scottish Intercollegiate Guidelines Network (SIGN). Diagnosis and management of psoriasis and psoriatic arthritis in adults. Edinburgh: SIGN; 2010. (SIGN publication no. 121).
8. National Psoriasis Foundation. Policy Brief: phototherapy copayments impact access to treatment.
9. Ramiro S, Smolen SJ, Landewe Ro, et al. Pharmacological treatment of psoriatic arthritis: a systematic literature review for the 2015 update of the EULAR recommendations for the management of psoriatic arthritis. *Ann Rheum Dis.* December 2015. doi:10.1136/annrheumdis-2015-208466.
10. Garnock-Jones KP. Secukinumab: A Review in Moderate to Severe Plaque Psoriasis. *Am J Clin Dermatol.* 2015 July; 16:323-330
11. Malakouti M, et al. Treatment challenges in the management of moderate-to-severe plaque psoriasis – role of secukinumab. *Clinical, Cosmetic and Investigational Dermatology.* 2016 Oct; 9:347-355.
12. Paul C, et al. Efficacy, safety, and usability of secukinumab administration by autoinjector/pen in psoriasis: a randomized, controlled trial (JUNCTURE). *J EADV.* 2015;29:1082-1090
13. Blauvelt A, et al. Secukinumab administration by pre-filled syringe: efficacy, safety and usability from a randomized controlled trial in psoriasis. *British Journal of Dermatology.* 2015;172:484-493.
14. Langley RG, Elewski BE, Lebwohl M, et al. Secukinumab in plaque psoriasis — results of two phase three trials. *N Engl J Med* 2014;371:326-38.
15. Gordon KB, et al. Phase 3 Trials of Ixekizumab in Moderate-to-Severe Plaque Psoriasis. *N Engl J Med.* 2016 June; 375:345-56.
16. Farahnik B, et al. Ixekizumab for the Treatment of Psoriasis: A Review of Phase III Trials. *Dermatol Ther.* 2016 Feb; 6:25-37.
17. Yoo DH, Racewicz A, Brzezicki J, et al. A phase III randomized study to evaluate the efficacy and safety of CT-P13 compared with reference infliximab in patients with active rheumatoid arthritis: 54-week results from the PLANETRA study. *Arthritis Res Ther* 2016;18:82.
18. ClinicalTrials.Gov. Efficacy and Safety Study of ABP 501 Compared to Adalimumab in Subjects With Moderate to Severe Rheumatoid Arthritis. October 23, 2016. <https://clinicaltrials.gov/ct2/show/NCT01970475>. Accessed January 22, 2017.
19. Griffiths CE, et al. The EGALITY study: A confirmatory, randomised, double-blind study comparing the efficacy, safety and immunogenicity of GP2015, a proposed etanercept biosimilar, versus the originator product in patients with moderate to severe chronic plaque-type psoriasis. *Br J Dermatol.* 2016 Oct 27. doi: 10.1111/bjd.15152.
20. Dapavo P, et al. The infliximab biosimilar in the treatment of moderate to severe plaque psoriasis. *Journal of American Academy of Dermatology.* 2016 Oct;75(4):736-9.
21. FIMEA. Interchangeability of Biosimilars—Position of Finnish Medicines Agency Fimea. May 22, 2015. http://www.fimea.fi/instancedata/prime_product_julkaisu/fimea/embeds/fimeawwwstructure/29197_Biosimilaarien_vaihtokelpoisuus_EN.pdf. Accessed January 22, 2017.

22. FDA. Summary Minutes of the Arthritis Advisory Committee Meeting. July 12, 2016. <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/ArthritisAdvisoryCommittee/UCM520027.pdf>. Accessed January 21, 2017.
23. Dörner T, Strand V, Cornes P, et al. The changing landscape of biosimilars in rheumatology. *Ann Rheum Dis* 2016; 75:974–82. doi:10.1136/annrheumdis-2016-209166
24. FDA. Biosimilars: Questions and Answers Regarding implementation of Biologics Price Competition and Innovation Act of 2009. April 2015. <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM444661.pdf>. Accessed January 21, 2017
25. Dapavo P, et al. The infliximab biosimilar in the treatment of moderate to severe plaque psoriasis. *Journal of American Academy of Dermatology*. 2016 Oct;75(4):736-9
26. Results from the NOR-SWITCH study support switch from Remicade to Remsima (biosimilar infliximab). Mundipharma. 19 October 2016. <http://www.mundipharma.com/docs/default-source/default-document-library/161019-ueg-press-release-final.pdf?sfvrsn=0>. Accessed 2 Feb 2017.
27. Canadian Psoriasis Guidelines Addendum Committee. 2016 Addendum to the Canadian Guidelines for the Management of Plaque Psoriasis 2009. *J Cutan Med Surg*. 2016 Sep;20(5):375-431.
28. Bangsgaard N, et al. Treating Psoriasis During Pregnancy: Safety and Efficacy of Treatments. *Am J Clin Dermatol*. 2015. 16:389-398.
29. Kurizky PS, et al. Treatment of psoriasis and psoriatic arthritis during pregnancy and breastfeeding. *An Bras Dermatol*. 2015;90(3):367-75.
30. Menter A, et al. Guidelines of care for the management of psoriasis and psoriatic arthritis. Section 4. Guidelines of care for the management and treatment of psoriasis with traditional systemic agents. 2009 Sep; 61(3): 451-485.
31. Saag KG, et al. American College of Rheumatology 2008 Recommendations for the Use of Nonbiologic and Biologic Disease-Modifying Antirheumatic Drugs in Rheumatoid Arthritis. 2008 Jun 15; 59(6):762-784.
32. Carrascosa JM, et al. Expert Recommendations on Treating Psoriasis in Special Circumstances. 2015 April. 106(4):292-309.
33. National Institute for Health and Clinical Excellence (2012) Psoriasis: assessment and management. Clinical Guideline (CG153).
34. Cather J, Crowley J. Use of Biologic Agents in Combination with Other Therapies for the Treatment of Psoriasis. *Am J Clin Dermatol*. 2014. 15:467-478.
35. Armstrong A, et al. Combining Biologic Therapies With Other Systemic Treatment in Psoriasis. *JAMA Dermatol*. 2015. 151(4): 432-438.
36. Wang C, Lin A. Efficacy of Topical Calcineurin Inhibitors in Psoriasis. *Journal of Cutaneous Medicine and Surgery*. 2014. 18(1): 8-14.
37. Lebwohl M, et al. Tacrolimus ointment is effective for facial and intertriginous psoriasis. *J Am Acad Dermatol*. 2004;51(5):723.
38. Gribetz C, et al. Pimecrolimus cream 1% in the treatment of intertriginous psoriasis: a double-blind, randomized study. *J Am Acad Dermatol*. 2004;51(5):731.
39. Papp K, et al. Canadian Guidelines for the management of plaque psoriasis: overview. *J Cutan Med Surg*. 2011 Jul-Aug;15(4):210-9.
40. Guidelines for the management of patients with Psoriasis (Updated Jan 2016). NHS Southwark Clinical Commission Group and NHS Lambeth Clinical Commission Group. Jan 2016. <http://www.lambethccg.nhs.uk/news-and-publications/meeting-papers/lambeth-borough-prescribing-committee/Lambeth%20Borough%20Prescribing%20Committee/Clinical%20Guidelines/Management%20of%20patients%20with%20psoriasis%20Jan%202016.pdf>. Accessed 2 Feb 2017.
41. Menter A, et al. Guidelines for the management of psoriasis and psoriatic arthritis. Section 3. Guidelines of care for the management and treatment of psoriasis with topical therapies. *J Am Acad Dermatol*. 2009 Apr;60(4):643-59.
42. Bosanquet DC, et al. Topical steroids for chronic wounds displaying abnormal inflammation. *Ann R Coll Surg Engl* 2013. 95: 291-296.
43. Hofman D, et al. Use of topical corticosteroids on chronic leg ulcers. *J Wound Care*. 2007 May;16(5):227-30.
44. Walsh P, et al. Hypothalamus-pituitary-adrenal axis suppression by superpotent topical steroids. *J Am Acad Dermatol*. 1993;29(3):501.

45. Long CC, et al. A practical guide to topical therapy in children. *British Journal of Dermatology*. 1998; 138:293-296.
46. Reich K, Burden AD, Eaton JN, Hawkins NS. Efficacy of Biologics in the Treatment of Moderate to Severe Psoriasis. *The British Journal of Dermatol*. 2012;166(1):179–188.
47. Nast A, Jacobs A, Rosumeck S, Werner RN. Efficacy and Safety of Systemic Long-Term Treatments for Moderate-to-Severe Psoriasis: A Systematic Review and Meta-Analysis. *J Invest Dermatol*. 2015 Nov;135(11):2641-8. doi: 10.1038/jid.2015.206. Epub 2015 Jun 5.
48. Smith CH, Jabbar-Lopez ZK, Yiu ZZ, et al. British Association of Dermatologists guidelines for biologic therapy for psoriasis 2020: a rapid update. *Br J Dermatol* 2020; 10:1111.
49. Sbidian E, Chaimani A, Garcia-Doval I, Doney L, Dressler C, Hua C, Hughes C, Naldi L, Afach S, Le Cleach L. Systemic pharmacological treatments for chronic plaque psoriasis: a network meta-analysis. *Cochrane Database of Systematic Reviews* 2021, Issue 4. Art. No.: CD011535. DOI: 10.1002/14651858.CD011535.pub4. Accessed 30 July 2021.
50. Kay et al. Consensus-based recommendations for the use of biosimilars to treat rheumatological diseases. *Ann Rheum Dis* 2018;77:165–174.
51. Tanaka Y, Yamanaka H, Takeuchi T, Inoue M, Saito K, Saeki Y, et al. Safety and efficacy of CT-P13 in Japanese patients with rheumatoid arthritis in an extension phase or after switching from infliximab. *Modern Rheumatol* 2017;27:237–45.
52. Park W, Yoo DH, Miranda P, Brzosko M, Wiland P, Gutierrez-Urena S, et al. Efficacy and safety of switching from reference infliximab to CT-P13 compared with maintenance of CT-P13 in ankylosing spondylitis: 102-week data from the PLANETAS extension study. *Ann Rheum Dis* 2017;76:346–54.
53. Jorgensen KK, Olsen IC, Goll GL, Lorentzen M, Bolstad N, Haavardsholm EA, et al. Switching from originator infliximab to biosimilar CT-P13 compared with maintained treatment with originator infliximab (NOR-SWITCH): a 52-week, randomised, double-blind, non-inferiority trial. *Lancet* 2017;389:2304–16.
54. Yoo DH, Prodanovic N, Jaworski J, Miranda P, Ramiterre E, Lanzon A, et al. Efficacy and safety of CT-P13 (biosimilar infliximab) in patients with rheumatoid arthritis: comparison between switching from reference infliximab to CT-P13 and continuing CT-P13 in the PLANETRA extension study. *Ann Rheum Dis* 2017;76:355–63.
55. Bridges, S. L., White, D. W., Worthing, A. B., Gravallese, E. M., O'Dell, J. R., Nola, K., Kay, J., Cohen, S. B. and on behalf of the American College of Rheumatology (2018), The Science Behind Biosimilars. *Arthritis Rheumatol*. doi:10.1002/art.40388
56. Johnson&Johnson. Janssen Announces U.S. FDA Approval of Novel TREMFYA® (guselkumab) One-Press Patient-controlled Injector for Adults with Moderate-to-Severe Plaque Psoriasis. <https://www.jnj.com/janssen-announces-u-s-fda-approval-of-novel-tremfya-guselkumab-one-press-patient-controlled-injector-for-adults-with-moderate-to-severe-plaque-psoriasis>. Accessed May 13, 2019.
57. Efficacy and Safety Study of Guselkumab in the Treatment of Participants With Moderate to Severe Plaque-Type Psoriasis - Study Results. Study Results - ClinicalTrials.gov. <https://clinicaltrials.gov/ct2/show/results/NCT02905331?view=results>.
58. lauvelt A, Papp KA, Griffiths CE, et al. Efficacy and safety of guselkumab, an anti-interleukin-23 monoclonal antibody, compared with adalimumab for the continuous treatment of patients with moderate to severe psoriasis: results from the phase III, double-blinded, placebo- and active comparator-controlled VOYAGE 1 trial. *J Am Acad Dermatol*. 2017;76(3):405–417.
59. 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(3):418–431.
60. Humira.com. (2019). *HUMIRA® (adalimumab) Citrate-free Injection*. [online] Available at: <https://www.humira.com/citrate-free>.
61. Nash P, Vanhoof J, Hall S, et al. Randomized Crossover Comparison of Injection Site Pain with 40 mg/0.4 or 0.8 mL Formulations of Adalimumab in Patients with Rheumatoid Arthritis. *Rheumatol Ther*. 2016;3(2):257–270. doi:10.1007/s40744-016-0041-3
62. ILUMYA (tildrakizumab) [package insert]. Whitehouse Station, NJ; Merck; March 2018.
63. 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(10091):276–288.

64. Menter A, Strober BE, Kaplan DH, et al. Joint AAD-NPF guidelines of care for the management and treatment of psoriasis with biologics. *JAAD*. 2019;80(4):1029-1072. [https://www.jaad.org/article/S0190-9622\(18\)33001-9/fulltext](https://www.jaad.org/article/S0190-9622(18)33001-9/fulltext). Published February 13, 2019.
65. Practice Management Center. Psoriasis guideline | American Academy of Dermatology. <https://www.aad.org/practicecenter/quality/clinical-guidelines/psoriasis>.
66. Menter A, Gelfand J, Connor C, et al. Joint AAD-NPF Guidelines of Care for the Management of Psoriasis with Systemic Non-Biological Therapies. *JAAD*. 2020. doi: <https://doi.org/10.1016/j.jaad.2020.02.044>.
67. Lexi-Drugs. Lexicomp. Wolters Kluwer Health, Inc. Riverwoods, IL. Available at: <http://online.lexi.com>. Accessed September 12, 2019.
68. Blauvelt A, Leonardi CL, Gooderham M, et al. Efficacy and Safety of Continuous Risankizumab Therapy vs Treatment Withdrawal in Patients With Moderate to Severe Plaque Psoriasis: A Phase 3 Randomized Clinical Trial. *JAMA Dermatol*. Published online April 08, 2020. doi:10.1001/jamadermatol.2020.0723
69. Reich K, Gooderham M, Thaci D, et al. Risankizumab compared with adalimumab in patients with moderate-to-severe plaque psoriasis (IMMvent): a randomised, double-blind, active-comparator-controlled phase 3 trial. *Lancet*. Published online July 04, 2019. doi:10.1016/S0140-6736(19)30952-3
70. Götestam Skorpen C, Hoeltzenbein M, Tincani A, et al. The EULAR points to consider for use of antirheumatic drugs before pregnancy, and during pregnancy and lactation. *Ann Rheum Dis*. 2016;75(5):795-810. doi:10.1136/annrheumdis-2015-208840
71. Sammaritano LR, Bermas BL, Chakravarty EE, et al. 2020 American College of Rheumatology Guideline for the Management of Reproductive Health in Rheumatic and Musculoskeletal Diseases. *Arthritis Rheumatol*. 2020;72(4):529-556. doi:10.1002/art.41191
72. Porter ML, Lockwood SJ, Kimball AB. Update on biologic safety for patients with psoriasis during pregnancy. *Int J Womens Dermatol*. 2017;3(1):21-25. Published 2017 Feb 4. doi:10.1016/j.ijwd.2016.12.003
73. Ferreira C, Azevedo A, Nogueira M, Torres T. Management of psoriasis in pregnancy - a review of the evidence to date. *Drugs Context*. 2020;9:2019-11-6. Published 2020 Mar 9. doi:10.7573/dic.2019-11-6
74. Romanowska-Próchnicka K, Felis-Giemza A, Olesińska M, Wojdasiewicz P, Paradowska-Gorycka A, Szukiewicz D. The Role of TNF- α and Anti-TNF- α Agents during Preconception, Pregnancy, and Breastfeeding. *Int J Mol Sci*. 2021;22(6):2922. Published 2021 Mar 13. doi:10.3390/ijms22062922
75. Krause ML, Amin S, Makol A. Use of DMARDs and biologics during pregnancy and lactation in rheumatoid arthritis: what the rheumatologist needs to know. *Ther Adv Musculoskelet Dis*. 2014;6(5):169-184. doi:10.1177/1759720X14551568
76. ACOG Committee Opinion No. 776: Immune Modulating Therapies in Pregnancy and Lactation. *Obstet Gynecol*. 2019;133(4):e287-e295. doi:10.1097/AOG.0000000000003176
77. Humira (adalimumab) [package insert]. North Chicago, IL: Abbott Laboratories; 2021.
78. Cimzia (certolizumab pegol) [package insert]. Smyrna, GA: UCB, Inc; 2019.
79. Menter A, Gelfand JM, Connor C, et al. Joint American Academy of Dermatology-National Psoriasis Foundation guidelines of care for the management of psoriasis with systemic nonbiologic therapies. *J Am Acad Dermatol*. 2020;82(6):1445-1486. doi:10.1016/j.jaad.2020.02.044
80. FDA approves cimzia for plaque psoriasis. FDA approves Cimzia for plaque psoriasis: National Psoriasis Foundation. <https://www.psoriasis.org/advance/fda-approves-cimzia-for-plaque-psoriasis/>. Accessed August 24, 2021.
81. Skyrizi (risankizumab) [package insert]. North Chicago, IL: AbbVie Inc.; 2019.

REVIEW & EDIT HISTORY

| Document Changes | Reference | Date | P&T Chairman |
|-------------------------|---|-------------|--------------------------|
| Creation of Policy | Psoriasis - biologicals 2-20-07.docx | 02/2007 | Allen Shek, PharmD |
| Updated Policy | Biological Response Modifiers Review 2-19-08.docx | 02/2008 | Allen Shek, PharmD |
| Updated Policy | HPA Suppression among Medium Potency Topical Corticosteroids.docx | 06/2008 | Allen Shek, PharmD |
| Updated Policy | Biologic Response Modifiers 2010 final.docx | 05/2010 | Allen Shek, PharmD |
| Updated Policy | Calcipotriene.docx | 11/2012 | Allen Shek, PharmD |
| Updated Policy | Biologic Response Modifiers for Psoriasis 2013-2-19.docx | 02/2013 | Allen Shek, PharmD |
| Updated Policy | Psoriatic Arthritis & Ankylosing Spondylitis.docx | 10/2014 | Jonathan Szkotak, PharmD |

| | | | |
|----------------|---|---------|---------------------------------|
| Updated Policy | Class Review of Topical & Systemic Agents Used for Skin Inflammation Disorders with an Emphasis on Psoriasis.docx | 05/2015 | Jonathan Szkotak, PharmD |
| Updated Policy | HPSJ Coverage Policy - Dermatology – Psoriasis 2015-05.docx | 05/2015 | Jonathan Szkotak, PharmD, BCACP |
| Updated Policy | Coverage Policy Update – Dermatology – Psoriasis & Psoriatic Arthritis 2015-11.docx | 11/2015 | Johnathan Yeh, PharmD |
| Updated Policy | Class Review- Biologics, Apremilast, and Tofacitinib in Inflammatory Joint, Skin, and Bowel Diseases.docx | 02/2016 | Johnathan Yeh, PharmD |
| Updated Policy | HPSJ Coverage Policy - Dermatology – Psoriasis 2017-02.docx | 02/2017 | Johnathan Yeh, PharmD |
| Updated Policy | HPSJ Coverage Policy - Dermatology – Psoriasis 2018-02.docx | 02/2018 | Johnathan Yeh, PharmD |
| Updated Policy | HPSJ Coverage Policy - Dermatology – Psoriasis 2019-05.docx | 05/2019 | Matthew Garrett, PharmD |
| Updated Policy | Psoriasis.docx | 05/2020 | Matthew Garrett, PharmD |
| Updated Policy | Psoriasis.docx | 09/2020 | Matthew Garrett, PharmD |
| Updated Policy | Psoriasis.docx | 09/2021 | Matthew Garrett, PharmD |

Note: All changes are approved by the HPSJ P&T Committee before incorporation into the utilization policy