MEDICATION COVERAGE POLICY

PHARMACY AND THERAPEUTICS ADVISORY COMMITTEE

Health Plan of San Joaquin

POLICY	Psoriasis (PsO)	**P & T DATE**	09/15/2020
THERAPEUTIC CLASS	Dermatology	**REVIEW HISTORY**	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
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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.

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

Azathioprine, Cyclosporine (Modified), Leflunomide, Methotrexate 25mg/ml Vial, Methotrexate Tablets, Sulfasalazine IR/DR 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, Leflunomide, 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, Acitretin, and Leflunomide). 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, Leflunomide, etc).
- ❒ **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.
  - 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. 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.

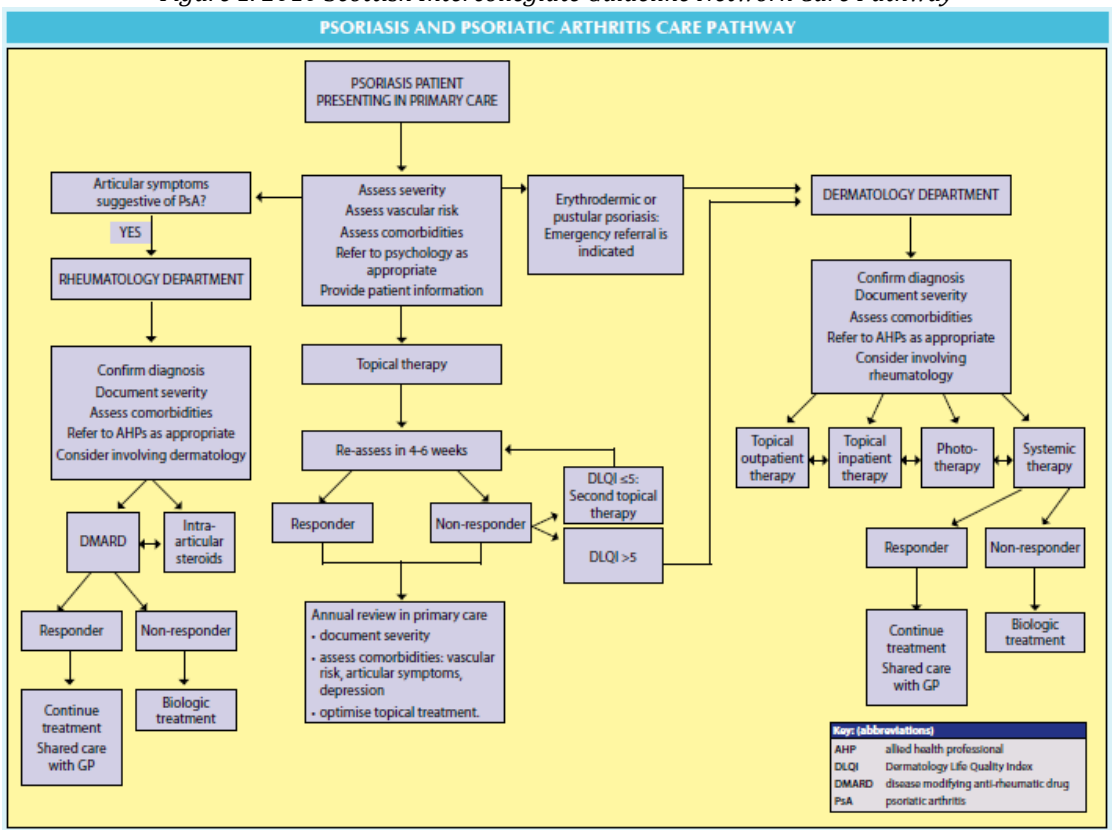
- ❒ **Other Notes:** Medication is to be dispensed by HPSJ's designated specialty pharmacy. Biologics exceeding labeled standard maintenance doses may be approved 1 month at a time. Subsequent fills of the increased maintenance dose will require documentation of symptom improvement.

⌖ CLINICAL JUSTIFICATION

The treatment goal for patients with PsO is to minimize disease activity by regularly monitoring regimen. The *2008 American Academy of Dermatology PsO*[3-6] *Guidelines* and 2010 *Scottish Intercollegiate Guideline Network*[7] recommends the following:

Limited Disease
• Topical corticosteroids are the mainstay of therapy. • For patients requiring long-term TCS therapy, may want to consider "Pulse therapy" or adding on corticosteroid-sparring 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
• 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. As recommended by the 2015 EULAR Psoriasis Task Force, there is insufficient evidence to suggest the combination of Otezla with a biologic (i.e. Enbrel, Humira, Stelara, etc) will lead to synergistic effect. Evidence supporting this regimen is limited to a single case study and this regimen has not been endorsed by any national dermatology guidelines.[9] Therefore, HPSJ considers the combination use of Otezla and biologics to be experimental.

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
**limited evidence*							

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 ban 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]

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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

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

Appendix:

Switch Studies with Biosimilars launched in the US

Study	Study design	Dosage regimen	Key efficacy outcomes	Immunogenicity	Key safety outcomes	Study conclusions
Yoo et al. PLANETRA study switching extension to week 102	Phase III, open-label, extension study RA patients CT-P13 (n = 302) INX (n = 304) for 54 weeks then CT-P13 maintenance (n = 158) or switch to CT-P13 (n = 144) for up to 102 weeks	3 mg/kg IV CT-P13 or INX, weeks 0, 2, 6 then q8wks + MTX 12.5-25 mg/wk + folic acid 55 mg/wk to week 54 then CT-P13/ MTX/folic acid as above (weeks 64-102)	**ACR20 response rate** CT-P13 maintenance: 71.7% CT-P13 switch: 71.8% (95% CI: -10, 10) **ACR50 response rate** CT-P13 maintenance: 48.0% CT-P13 switch: 51.4% **ACR70 response rate** CT-P13 maintenance: 24.3% CT-P13 switch: 26.1% **Mean improvement in DAS28/CRP** CT-P13 maintenance: -2.40 CT-P13 switch: -2.48 **Good EULAR response (CRP)** CT-P13 maintenance: 40.1% CT-P13 switch: 44.4%	**ADAs at week 78** CT-P13 maintenance: 44.7% CT-P13 switch: 46.2% **ADAs at week 102** CT-P13 maintenance: 40.3% CT-P13 switch: 44.8%	**Overall TEAEs** CT-P13 maintenance: 53.5% CT-P13 switch: 53.8% **TEAEs related to treatment** CT-P13 maintenance: 22.0% CT-P13 switch: 18.9% **Most frequently reported TEAEs related to treatment** **CT-P13 maintenance**: infusion related reaction, latent TB, URTI, LRTI, UTI, bursitis **CT-P13 switch**: infusion-related reaction, latent TB, LRTI, abnormal LFT test, URTI, UTI, urticaria **Serious TEAEs** CT-P13 maintenance: 7.5% CT-P13 switch: 9.1% **Serious TEAEs related to treatment** CT-P13 maintenance: 1.3% CT-P13 switch: 2.8% No deaths	Comparable efficacy and tolerability were observed in patients who switched from INX to CT-P13 for an additional year and in those who had long-term treatment with CT-P13 for 2 years
Tanaka et al. Japanese switching extension study to week 134	Phase I/II open-label, singlearm, multicenter, extension study RA patients CT-P13 (n = 50) INX (n = 51) 54 weeks then CT-P13 maintenance (n = 38) or	3 mg/kg IV CT-P13 or INX, weeks 0, 2, 6 then q8wks + MTX 6-16 mg/wk + folic acid 55 mg/wk to week 54 then CT-13/MTX/folic acid as above (weeks 64-104); CT-P13 dose increase allowed to 10 mg/wk	**ACR20 response rate** CT-P13 maintenance: 78.4% CT-P13 switch: 62.5% **ACR50 response rate** CT-P13 maintenance: 70.3% CT-P13 switch: 53.1% **ACR70 response rate** CT-P13 maintenance: 54.1% CT-P13 switch: 40.1% **Mean improvement in DAS28/ESR**	**ADAs at week 110** CT-P13 maintenance: 11.8% CT-P13 switch: 21.7% **ADAs at week 134** CT-P13 maintenance: 15.6% CT-P13 switch: 17.4%	**Overall TEAEs** CT-P13 maintenance: 89.5% CT-P13 switch: 87.9% **Most frequently reported TEAEs related to treatment** **CT-P13 maintenance**: nasopharyngitis, URTI inflammation, herpes zoster, rash	CT-P13 was well tolerated with persistent efficacy in Japanese patients with RA who maintained treatment after 54 weeks and in patients who switched to CT-P13 after 54 weeks of INX treatment

	switch to CT-P13 (n = 33) up to week 134		CT-P13 maintenance: 3.17 CT-P13 switch: 3.96		**CT-P13 switch**: nasopharyngitis, infusion-related reaction and Osteoporosis **Serious TEAEs** CT-P13 maintenance: 5.3% CT-P13 switch: 12.1%	
Jorgensen et al. NOR-SWITCH	Phase IV randomized, non-inferiority, double blind study RA, AS, PA, Psoriasis patients stable on INX for 24 weeks, then INX maintenance (n=202) or switch to CT-P13(n=206) for 24 weeks	Dose stayed the same as prior to randomization.	Disease worsening occurred in 53 (26%) patients in the infliximab originator group and in 61 (30%) patients in the CT-P13 group.	INX: 7.1% CT-P13" 7.9%	**Overall AE** INX: 70% CT-P13: 68% **Serious adverse events** INX: 10% CT-P13: 9% AE leading to discontinuation: INX: 4% CT-P13: 3%	CT-P13 was shown to be non-inferior to continued treatment with infliximab according to prespecified non-inferiority margin of 15%.
AS						
Park et al. PLANETAS	Phase I double blind, multicenter, parallel group study CT-P13 (N=125) INX (N = 125)	5 mg/kg IV CT-P13 or INX, weeks 0, 2, 6 then q8wks + continued stable use of glucocorticoids/ NSAIDs allowed	ASAS20 response rate CT-P13: 67.0% INX: 69.4% (95% CI: 0.50, 1.59) ASAS40 response rate CT-P13: 54.7% INX: 49.1% (95% CI: 0.73, 2.15) ASAS partial remission CT-P13: 19.8% INX: 17.6%	ADAs at week 30 CT-P13: 19.5% INX: 23.0%	Overall TEAEs CT-P13: 74.2% INX: 67.2% TEAEs related to treatment CT-P13: 50.0% INX: 51.6%	CT-P13 and INX have highly comparable efficacy, safety and immunogenicity and PK profiles up to week 54