DORSET MEDICINES ADVISORY GROUP

The management of psoriasis in adults

Psoriasis is a common, genetically determined, inflammatory and proliferative disorder of the skin, the most characteristic lesions consisting of chronic, sharply demarcated, dull-red, scaly plaques, particularly on the extensor prominences and in the scalp.

Self-care advice

Many people's psoriasis symptoms start or become worse because of a certain event, known as a trigger. Common triggers include:

- an injury to skin such as a cut, scrape, insect bite or sunburn (this is known as the Koebner response)
- drinking excessive amounts of alcohol
- smoking
- stress
- hormonal changes, particularly in women (for example during puberty and the menopause)
- certain medicines such as lithium, some antimalarial medicines, anti-inflammatory medicines including ibuprofen, ACE inhibitors (used to treat high blood pressure) and beta blockers (used to treat congestive heart failure)
- throat infections - in some people, usually children and young adults, a form of psoriasis called guttate psoriasis (which causes smaller pink patches, often without a lot of scaling) develops after a streptococcal throat infection, although most people who have streptococcal throat infections do not develop psoriasis
- other immune disorders, such as HIV, which cause psoriasis to flare up or to appear for the first time

Advice for patients can be found here

Management pathway

For people with any type of psoriasis assess:

- disease severity
- the impact of disease on physical, psychological and social wellbeing
- whether they have psoriatic arthritis
- the presence of comorbidities.

Consider using the Dermatology quality of life assessment : **http://www.pcds.org.uk/p/quality-of-life**

Assess the severity and impact of any type of psoriasis:

- at first presentation
- before referral for specialist advice and at each referral point in the treatment pathway
- to evaluate the efficacy of interventions.

Assess the impact of any type of psoriasis on physical, psychological and social wellbeing by asking:

- what aspects of their daily living are affected by the person's psoriasis
- how the person is coping with their skin condition and any treatments they are using
- if they need further advice or support
- if their psoriasis has an impact on their mood
- if their psoriasis causes them distress (be aware the patient may have levels of distress and not be clinically

depressed)

•if their condition has any impact on their family or carers.

Treatment Pathway

Step 1: general measures

- As with other chronic skin conditions time is needed by the GP or practice nurse to discuss the condition
- Provide a patient information leaflet (from British Association of Dermatologists (BAD))
- Patient support groups
- Advise on a pre-payment certificate where appropriate

Step 2: assess for related comorbidities

- Psoriatic arthritis recent studies suggest that the prevalence of psoriatic arthritis in patients with psoriasis may be up to 30%.
- Cardiovascular disease (CVD) ◦ there is a large amount of evidence pointing to an association between psoriasis and CVD. This is more apparent in cases of severe psoriasis
- It is important that healthcare professionals working with psoriasis patients including in cardiology, dermatology and general practice, need to target modifiable risk factors and have a lower threshold for investigating patients with cardiovascular symptoms

Step 3: emollients

- Reduce the amount of scale by prescribing copious emollients - these make the skin more comfortable. Several emollients are available in the UK in the form of creams, ointments, bath and shower additives, lotions, and sprays. There is no evidence that any one emollient is better than another. However Hydromol® is an effective de-scaler (as recommended by local CCG Dermatology working group).
- In general, ointments are preferred for use on dry skin, whereas creams and lotions can be used on less dry skin. Ointments may be poorly tolerated compared with creams; this may affect their acceptability, and hence adherence to their use.
- On first presentation, it may be useful to prescribe a trial of several emollients (of small pack size), so that the person can make an informed choice as to which suits them best.
- The active treatments below should be used for psoriasis flare-ups until the plaques are controlled, with a treatment holiday between flare-ups when the use of regular emollients should still be encouraged.

Step 4: topical treatments (see table 1)- choice based on individual requirements

- Use Calcipitrol (or combination with betamethasone, Dovobet ® gel or Enstilar® foam) OD as first line to encourage a rapid improvement and hence compliance in chronic plaque psoriasis. Dovobet® gel can also be used on the scalp. The combinations are best avoided on areas of thin skin e.g. the face, flexures and the genitalia. Appropriate quantities (i.e. 120g) should be prescribed, and the patient should always be advised to shake the bottle well, before application. Usual duration of therapy 4 weeks; if necessary, treatment may be continued beyond 4 weeks or repeated, on the advice of a specialist
- Large thin plaques - it is preferable to use tar preparations e.g. Exorex ® lotion or Alphosyl HC ® cream (avoid the latter in egg allergy)
- Dithranol preparations, such as the short contact Dithranol regime remain the most effective topical treatments but patient acceptability limits their use

- In patients presenting with lesions that have thick scale it may be necessary to use de-scaling agents prior to commencing the treatments referred to above.

Step 5: second line treatments (see table 2)

- Patients with moderate-severe psoriasis at the onset, and those who fail to respond adequately to topical treatments such be referred for consideration of second line treatments, which include:
- Phototherapy - most patients receive narrow band UVB known as TL01 therapy. UVA therapy by way of PUVA is sometimes used. There is a maximum dose of light therapy that a patient may receive in a life time to limit the risks of skin cancer
- Ciclosporin - acts quickly. It is an immunosuppressive agent and so is best used in younger patients who have not already received light therapy. The main risks are of hypertension and renal damage, which limit how long the treatment can be given for.
- Methotrexate - is still one of the most effective treatments and it can also help some patients with psoriatic arthritis. The main risks are liver damage and bone marrow suppression which can occur in the early stages of treatment - patients should be advised to report immediately for a FBC if they have a sore throat or other signs of infection. Methotrexate cannot be used in pregnancy (http://www.medicines.org.uk/emc/).
- Acitretin - It can be particularly useful in hyperkeratotic hand / foot psoriasis. Acitretin is highly teratogenic and pregnancy needs to be avoided while on acitretin and for two years after, for this reason it is generally avoided in women of child bearing age
- Others drugs – fumaric esters – not routinely commissioned currently.

Step 6: apremilast and biologic agents (see table 3)

Responsibility for use of systemic therapy should be in specialist settings only with the choice of agent and dosing schedule tailored to the needs of the individual. NICE CG 153 suggests this should include consideration of:

- the person's age
- disease phenotype, pattern of activity and previous treatment history
- disease severity and impact
- the presence of psoriatic arthritis (in consultation with a rheumatologist)
- conception plans
- comorbidities
- the person's views.

The risks and benefits of the selected treatment should be explained using absolute risks and natural frequencies when possible. A Hospital Anxiety and Depression Score(HADS) will be undertaken by the specialist before initiating a prescription for apremilast .This would be repeated at 3 monthly intervals to monitor any changes.

Monitor people using systemic treatment for all types of psoriasis in accordance with national and local drug guidelines and policy see specific dug monitoring below. Offer people with psoriasis who are starting treatment with a systemic non-biological or biological drug the opportunity to participate in long-term safety registries (for example the British Association of Dermatologists Biologic Interventions Register
Apremilast, Etanercept, Infliximab, Ixekizumab, Adalimumab, Secukinumab and Ustekinumab are all approved as first line options within their respective TAs. They differ in their mode of action, method of delivery and review criteria. Follow the links for more details.

Consider changing to an alternative drug in adults (i.e. rotating treatments if there is a loss of efficacy)
or :

- the psoriasis does not respond adequately to a first drug as defined in NICE technology appraisals (at 10 weeks after starting treatment for infliximab, 12 weeks for etanercept, ixecizumab and secukinumab, and 16 weeks for apremilast, adalimumab and ustekinumab; primary failure) or
- the psoriasis initially responds adequately but subsequently loses this response, (secondary failure) or
- the first drug cannot be tolerated or becomes contraindicated.

For adults in whom there is an inadequate response to a second drug, seek supra-specialist advice from a clinician with expertise in biological therapy. (This would be from Southampton Hospital). Some patients may not be able to tolerate the biological agents.

Management Pathway for Scalp Psoriasis

Shampoo: for long-term management

- Tar based preparations e.g. Polytar (plus) ® or Capasal ® shampoo are useful when scale is present - massage into the scalp for five minutes to allow the shampoo to penetrate the scale and then wash out
- Some patients are not keen on the smell of tar based preparations and may wish to try an alternative such as Dermax ® shampoo

Topical applications: for flare-ups

- If the shampoo alone does not suffice add in a topical application
- Dovobet ® gel should be considered first line as it has the benefit of combining a topical steroid with a vitamin D analogue, and is proven to be superior when compared to using either agent alone. Massage in to a dry scalp, with the bottle being well shaken before application, and wash out the following morning with shampoo. Dovobet® gel can leave the scalp feeling greasy and so it is recommended that shampoo is massaged in to the treated areas of the scalp and left on for about five minutes before washing off
- There are a number of alternatives to the Dovobet® gel such as Betacap ® scalp application and Etrivex ® shampoo. It is best to avoid alcohol based solutions, which are not as well tolerated. Betacap® needs to be left on the scalp, whereas Etrivex® is a shampoo that needs to be massaged on to the scalp and left on for 20 minutes before washing out

Thick scale

- Some patients present with thick scale and this needs to be removed before commencing the topical applications referred to above
- Sebco ® scalp ointment is very effective at removing scale - massage into affected areas of the scalp for five minutes and leave on for at least two hours, or overnight, before washing out with shampoo (some patients cannot tolerate the treatment for more than a few hours)
- The treatment is messy and so if left on overnight patients should use an old pillowcase or towel, alternatively the scalp can be occluded with a shower cap. Sebco® may be need to be used for a few days until the scale diminishes, and then used PRN as the scale builds up
- Warn patients that hair loss may occur as the scale come away, but that this will recover

Hair margins

- Consider topical 1% Hydrocortisone or Eumovate ® BD

Severe scalp psoriasis

- Patients not responding adequately to treatment should for referred to a dermatologist for consideration of other treatments such as methotrexate

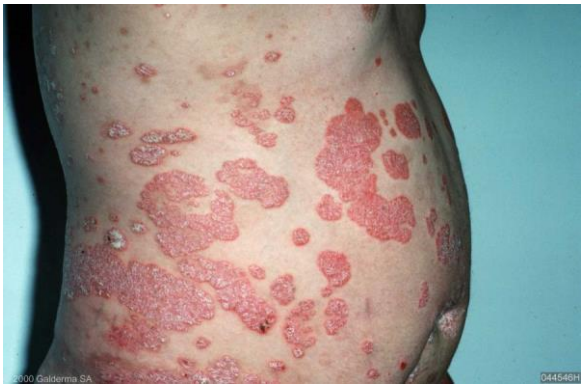
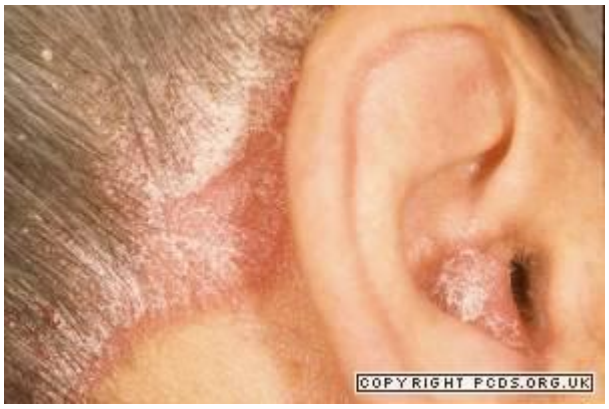
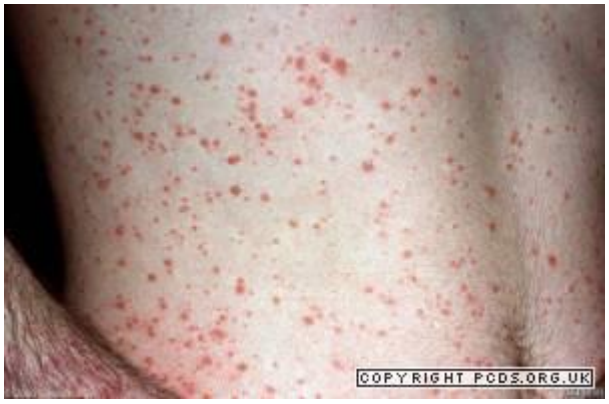
Management of flexural psoriasis

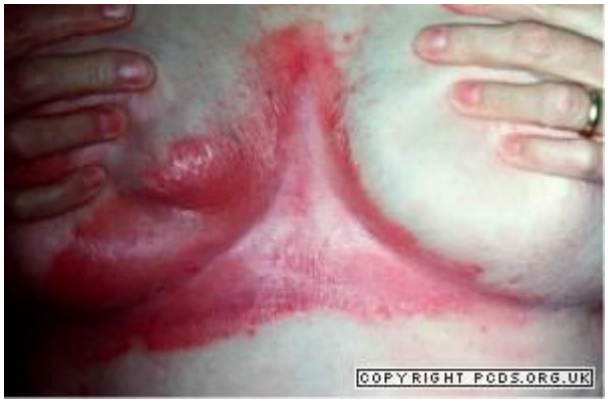
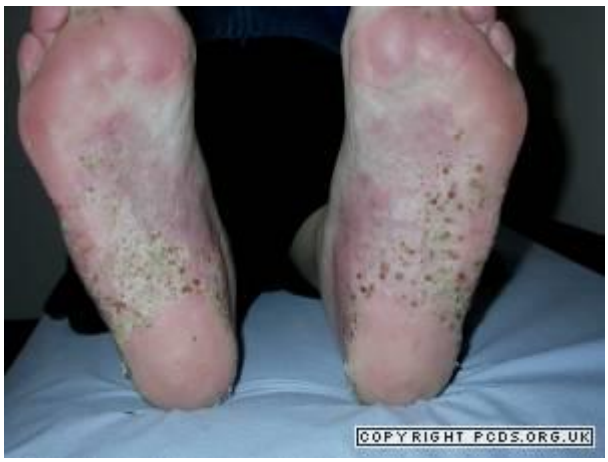
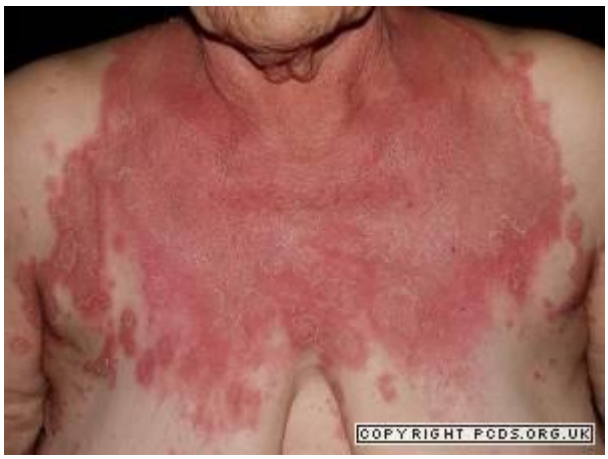
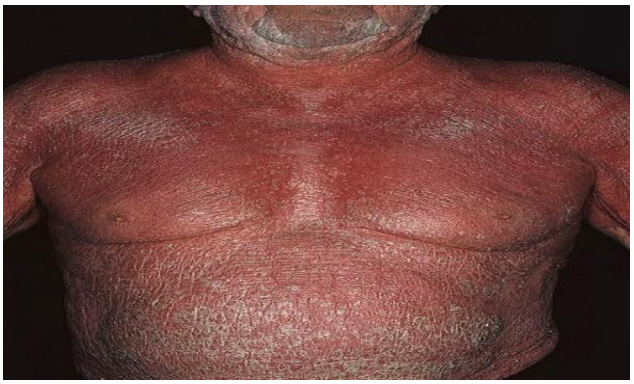
- **Emollients**
- **Topical steroids**
    - The skin on flexural sites and the genitalia is relatively thin and so mild topical steroids such as Eumovate ® cream are preferred options
    - In cases of co-existent yeast a combination product such as Trimovate ® cream should be used. Stronger topical steroids need to be used with care and only for a few days at any one time

    - Treatment with topical steroids should be discontinued once symptoms settle
    - The overuse of topical steroids in body folds may cause striae and can result in long-term aggravation of psoriasis (tachyphylaxis)
- If there are concerns that too much topical steroid is being used it can be worth trying a **vitamin-D compound** such as Curatoderm ® lotion / ointment or Silkis ® ointment. Another option are the **calcineurin inhibitors** Elidel ® (pimecrolimus) cream or Protopic ® (tacrolimus) ointment, although both are off-label in psoriasis
- The skin on the gluteal cleft is thicker than on the other sites and so more potent treatments can be used if needed

Types of Psoriasis

There are several different types of psoriasis. Many people have only one form of psoriasis at a time, although two different types can occur together. One type may change into another type or may become more severe.

Plaque psoriasis This is the most common form, accounting for about 90% of cases. Its symptoms are dry, red skin lesions, known as plaques, which are covered in silver scales. They normally appear on your elbows, knees, scalp and lower back but can appear anywhere on your body. The plaques can be itchy, sore or both. In severe cases, the skin around your joints may crack and bleed.	
Scalp psoriasis This can occur on parts of your scalp or on the whole scalp. It causes red patches of skin covered in thick silvery-white scales. Some people find scalp psoriasis extremely itchy, while others have no discomfort. In extreme cases it can cause hair loss, although this is usually only temporary.	
Nail psoriasis In about half of all people with psoriasis, the condition affects the nails. Psoriasis can cause your nails to develop tiny dents or pits, become discoloured or grow abnormally. Often nails can become loose and separate from your nail bed. In severe cases, your nails may crumble.	
Guttate psoriasis Guttate psoriasis causes small (less than 1cm or 1/3 inch) drop-shaped sores on your chest, arms, legs and scalp. There is a good chance that guttate psoriasis will disappear completely after a few weeks, but some people go on to develop plaque psoriasis. This type of psoriasis sometimes occurs after a streptococcal throat infection and is more common among children and teenagers.	

Inverse (flexural) psoriasis This affects folds or creases in your skin, such as the armpits, groin, between the buttocks and under the breasts. It can cause large, smooth red patches in some or all of these areas. Inverse psoriasis is made worse by friction and sweating, so it can be particularly uncomfortable in hot weather.	
Pustular psoriasis Pustular psoriasis is a rarer type of psoriasis that causes pus-filled blisters (pustules) to appear on your skin. Different types of pustular psoriasis affect different parts of the body. **Palmoplantar pustular psoriasis** This causes pustules to appear on the palms of your hands and the soles of your feet. The pustules gradually develop into circular brown scaly spots, which then peel off. Pustules may reappear every few days or weeks.	
Generalised pustular psoriasis or von Zumbusch psoriasis This causes pustules on a wide area of skin, which develop very quickly. The pus consists of white blood cells and is not a sign of infection. The pustules may reappear every few days or weeks in cycles. During the start of these cycles, von Zumbusch psoriasis can cause fever, chills, weight loss and fatigue.	
Erythrodermic psoriasis Erythrodermic psoriasis is a rare form of psoriasis that affects nearly all the skin on the body. This can cause intense itching or burning. Erythrodermic psoriasis can cause your body to lose proteins and fluid. This can lead to further problems such as infection, dehydration, heart failure, hypothermia and malnutrition	

Treatment of Psoriasis - Prices and prescribing information

Table1 - Topical treatments

Product name	Dose	Price
Calcipotriol (Calcipotrol , Dovonex ®)	• Plaque psoriasis – Apply ointment once or twice daily max 100g a week(less with scalp application)Children apply twice a day – 6-12 years 50g weekly , over 12 years 75g weekly. • Scalp psoriasis – Apply scalp solution twice daily – max 60ml weekly (less with ointment)	**Calcipotriol** Ointment 120g = £24.04 Scalp Solution 60ml = £41.85 120ml = £83.71 **Dovonex ®** Ointment 30g = £5.78
Calcipotriol with Betamethasone (Dovobet ®, Enstilar®)	• Stable plaque psoriasis – Apply daily to max of 30% of body max 15g daily • Scalp psoriasis-apply 1 – 4 g to scalp daily	Dovobet® Ointment 30g = £16.54 Dovobet® Gel 30g = £16.54, 60g = £33.08, 2x 60g = £61.43 Enstilar® Foam 60g = £39.68
Calitriol (Silkis ®)	Adult and child over 12 apply twice a day , not more than 35% of body surface to be treated daily – max 30g daily	Ointment 100g = £16.34
Tacalcitol (Curatoderm ®)	Adult and child over 12 apply once daily max 10g ointment or 10ml lotion daily	Lotion 30ml = £12.73 Ointment 30g = £13.40 60g = £23.14 100g = £30.86
Non – Proprietary Preparations Calamine and Coal Tar Ointment BP Coal Tar and Salicylic Acid Ointment BP Coal Tar Paste BP Zinc and Coal Tar Paste BP	Apply one to three times daily starting with low **strength** preparations	Difficult to obtain
Proprietary Preparations **Tars** (Carbo-Dome ® , Cocois ®, Exorex ® , Psoriderm ®, Sebco ®,)	Apply one to three times daily starting with low strength preparations	**Carbo-Dome®** Cream 30g = £4.77 100g = £16.38 **Cocois®** Scalp Ointment 40g = £6.22 100g = £11.69 **Exorex®** Lotion 100ml = £ 8.11 250ml = £ 16.24 **Psoriderm ®** Cream 225ml = £ 9.42 **Sebco®** Scalp Ointment 40g = £ 4.54 100g = £8.52
Tars – Bath Preparations (Coal Tar Solution BP , Polytar Emollient ®, Psoriderm ®)	To be used in bath	Coal Tar Solution BP 500ml = £11.20 Polytar Emollient® 500ml = £5.78 Psoriderm ® 200ml = £2.74
Non Proprietary Preparations - Dithranol (Dithranol Ointment BP,		Difficult to obtain

Dithranol Paste BP)		
Proprietary Preparations - Dithranol (Dithrocream®, Micanol®, Psorin ®		**Dithrocream®** 0.1% 50g = £ 3.77 0.25% 50g = £ 4.04 0.5% 50g = £ 4.66 1% 50g = £ 5.42 2% 50g = £ 6.79 **Micanol®** cream 1% 50g = £ 16.18 3% 50g = £ 20.15 **Psorin®** Ointment 0.11% 50g = £ 9.22 100g = £ 18.44 Scalp Gel 0.25% 50g = £ 7.03

Table 2 – second line treatments

Product name	Dose	Price
Salicylic Acid Zinc and Salicylic Acid Paste BP (Lassar's Paste)	Apply twice a day	Secondary care only
Acitretin (Neotigason®)	Adult over 18 initially 25-30mg daily for 2 to 4 weeks then adjusted according to response , usual range 25mg to 50mg daily up to 75mg daily for short periods	Capsules 10mg 60 caps = £ 17.30 Capsules 25mg 60 caps = £ 43.00
Ciclosporin (Capimune ® , Capsorin®, Deximune®, Neoral®)	For severe psoriasis – for Adults and children over 16 initially 2.5mg / kg daily in divided doses, increased gradually to a max of 5mg / kg.	**Capimune ®** Capsules 25mg 30 caps = £ 13.50 Capsules 50mg 30 caps = £ 26.80 Capsules 100mg 30 caps = £ 51.30 **Neoral® (if liquid required)** Oral Sol.100mg /ml 50ml= £ 108.73
Methotrexate	Adults – 2.5mg to 10mg once weekly , increased according to response in steps of 2.5mg -5mg at intervals of at least one week Maximum weekly dose 30mg. Children 2 -18 years – initially 200 micrograms / kg (max 10mg) once weekly increased accordingly to response to 400 micrograms / kg (max 25mg)once weekly	Tablets 2.5mg 24 tablet pack = £ 2.22 Tablets 2.5mg 28 tablet pack = £ 2.60 Tablets 10mg 100 tab. pack = £37 .06 Injection (**Metrojet)** 50mg / ml 0.15ml (7.5mg) = £ 14.85 0.2ml (10mg) = £ 15.29 0.25ml (12.5mg) = £ 16.50 0.3ml (15mg) = £ 16.57 0.35ml (17.5mg) = £ 17.50 0.4ml (20mg) = £ 17.84 0.45ml (22.5mg) = £ 18.45 0.5ml (25mg) = £ 18.48 0.55ml (27.5mg) = £ 18.89 0.6ml (30mg) = £ 18.95

Table 3 – Specialist use only drugs

Product name	Dose	Price	Cost per annum based on 70kg adult patient (NHS England commissions for paediatric patients)
Apremilast (Otezla® oral tablets)	Adults -dosage is 30 mg twice daily after an initial titration schedule. A single 10 mg dose is given on the first day of treatment; this is titrated to 30 mg twice daily over 5 days	£550.00 for a 28-day pack (56×30 mg tablets) (excluding VAT; British National Formulary online, accessed July 2016).	£7,170 (Patient access scheme agreed with the Department of Health based on a simple discount to the list price of apremilast. The level of the discount is commercial in confidence.
Adalimumab (Humira®) Sub-cut injection	Adults – initially 80mg , then 40mg on alternate weeks starting 1 week after initial dose	40mg pre-filled pen / syr. = £ 352.14 40mg / 0.8ml vial = £ 352.14	£9508 (1 x 80mg , 25 x 40mg)
Etanercept (Enbrel ®) Sub-cut injection	Adults – 25mg twice weekly or 50mg once weekly	Powder vial (with solv.) 25mg = £ 89.38 Pre-filled syringe 25mg = £ 89.38 Pre-filled syringe 50mg = £178.75	**Adults** £9296 (104 x 25mg) £9,296 (52 x 50mg)
Infliximab (Remicade®) Iv infusion	Adults – 5mg / kg repeated 2 weeks and 6 weeks after initial infusion , then every 8 weeks	100mg vial = £ 419.62	£13,428 (Dose = 350mg x 8) (8 x 400mg)
Infliximab (Remsima®) Iv infusion	Adults – 5mg / kg repeated 2 weeks and 6 weeks after initial infusion , then every 8 weeks	100mg vial = £377.66	£12,085 (Dose = 350mg x 8) (8 x 400mg)
Infliximab (inflectra®) Iv infusion	Adults – 5mg / kg repeated 2 weeks and 6 weeks after initial infusion , then every 8 weeks	100mg vial = £377.66	£12,085 (Dose = 350mg x 8) (8 x 400mg)
Ustekinumab (Stelara®)	Adults – body weight under	Pre-filled syr. 0.5ml (45mg) = £ 2147	

Sub-cut injection	100kg initially 45mg , then 45mg 4 weeks after initial dose , then 45mg every 12 weeks over 100kg initially 45mg to 90mg , then 45mg to 90mg 4 weeks after initial dose , then 45mg to 90mg every 12 weeks .		£10,735 (5 x 45mg)
Secukinumab (Cosentyx®)	The recommended dosage is 300 mg at weeks 0, 1, 2 and 3, followed by monthly maintenance dosing starting at week 4.	https://www.nice.org.uk/guidance/ta350 The undiscounted price for 2 × 150 mg prefilled pen or syringe is £1218.78 (excluding VAT, 'Monthly Index of Medical Specialities' [MIMS] May 2015). The company has agreed a patient access scheme with the Department of Health. This scheme provides a simple discount to the list price of secukinumab, with the discount applied at the point of purchase or invoice. The level of the discount is commercial in confidence	£19,500 (16x300mg) in first year £14,625.36 (12x300mg) in subsequent years
Ixekizumab (Taltz®)	The recommended dosage by subcutaneous injection is; 160 mg at week 0, followed by 80 mg every 2 weeks until week 12. After week 12, 80 mg every 4 weeks.	https://www.nice.org.uk/guidance/ta442 The list price is £1,125 for 80 mg, and £2,250 for 2×80 mg. The company has agreed a patient access scheme with the Department of Health. This scheme provides a simple discount to the list price of ixekizumab, with the discount applied at the point of purchase or invoice. The level of the discount is commercial in confidence.	£19,125 (initial dose of 160mg and 15 subsequent doses at 80mg) in first year £13,500 (12x80mg) in subsequent years)

Based on:

http://www.pcds.org.uk/clinical-guidance/psoriasis-an-overview

http://www.nice.org.uk/guidance/cg153

Etanercept, infliximab and adalimumab for the treatment of psoriatic arthritis nice guidance

Golimumab for the treatment of psoriatic arthritis nice guidance

Adalimumab for the treatment of adults with psoriasis nice guidance

Etanercept and efalizumab for the treatment of adults with psoriasis nice guidance

Infliximab for the treatment of adults with psoriasis nice guidance

Ustekinumab for the treatment of adults with moderate to severe psoriasis nice guidance

Secukinumab for the treatment of moderate to severe plaque psoriasis nice guidance

Apremilast for treating moderate to severe plaque psoriasis nice guidance

Ixekizumab for treating moderate to severe plaque psoriasis nice guidance

Dermatology Quality of Life Index

Version 3

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