

# PHC Chapter 5: zoySkin Conditions

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## 5.1 DRY SKIN

L85.3

### DESCRIPTION

- » The skin is dry and rough, together with varying degrees of scaling.
- » Severe forms are mainly inherited, e.g. ichthyosis.
- » Milder forms (xeroderma), seen as dryness with only slight scaling are common in the elderly and some chronic conditions, e.g. HIV disease, malignancies and atopic eczema.

### GENERAL MEASURES

- » Avoid the use of soap.

### MEDICINE TREATMENT

- Soap substitutes, e.g.:
- Aqueous cream (UEA).
  - Rub on skin, before rinsing off completely.
  - Aqueous cream should not be used as an emollient.
- Emollient, e.g.:
- Emulsifying ointment (UE)

## 5.2 ITCHING (PRURITUS)

L29.0-3/L29.8-9

### DESCRIPTION

Itching may be:

- » localised or generalised,
- » accompanied by obvious skin lesions or skin conditions e.g. eczema, chicken pox,
- » accompanied by many systemic diseases, e.g. hepatitis,
- » caused by scabies and insect bites.

### GENERAL MEASURES

- » Diagnose and treat the underlying condition.
- » Trim fingernails.
- » Avoid scratching.

### MEDICINE TREATMENT

- Calamine lotion, apply when needed.

#### For pruritus associated with dry skin:

- Emollient, e.g.:
- Emulsifying ointment (UE).

**If pruritis is severe and requires short term control:**Children

Chlorphenamine, oral, 0.1 mg/kg/dose 6 to 8 hourly. See dosing table: Chapter 23.

Adults

LoE: IVb1
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- Chlorphenamine, oral, 4 mg, 6 to 8 hourly.

**Note:** Chlorphenamine is sedating and may only be required in the evening for mild cases.

**If pruritis is severe and requires long term control, e.g. for chronic pruritus:**Children: 2 to 6 years of age

Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

Children >6 years of age and adults

- Cetirizine, oral, 10 mg once daily.

**REFERRAL**

- » No improvement after 2 weeks.
- » Underlying malignancy or systemic disease suspected.

**5.3 ACNE VULGARIS**

L70.0-5/L70.8-9

**DESCRIPTION**

- » Acne is an inflammatory condition of the hair follicle.
- » It is caused by hormones and sebum gland keratinisation, leading to follicular plugging producing comedones and proliferation of *Propioni bacterium* acnes.
- » Distributed on face, chest and back.
- » Occurs more commonly in adolescence, but may also occur in adulthood.
- » May also occur as a result of the inappropriate use of topical steroids, or as a side effect of medicine e.g. Isoniazid.

**Mild acne:**

Predominantly consists of non-inflammatory comedones.

**Moderate acne:**

Consists of a mixture of non-inflammatory comedones and inflammatory papules and pustules.

**Severe acne:**

It is characterised by the presence of widespread nodules and cysts, as well as a preponderance of inflammatory papules and pustules.

## GENERAL MEASURES

- » Do not squeeze lesions.
- » Avoid greasy or oily cosmetics and hair grooming products that block the hair follicle openings.
- » Discourage excessive facial washing.

## MEDICINE TREATMENT

### Mild inflammatory acne:

- Benzoyl peroxide 5%, topical, apply in the morning to affected areas as tolerated.
  - Wash off in the evening.
  - If ineffective and tolerated, increase application to 12 hourly.
  - Avoid contact with eyes, mouth, angles of the nose and mucous membranes.

LoE:IVb<sup>2</sup>

### Moderate inflammatory acne:

- Benzoyl peroxide 5%, topical, apply in the morning to affected areas as tolerated.
  - Wash off in the evening.
  - If ineffective and tolerated, increase application to 12 hourly.
  - Avoid contact with eyes, mouth, angles of the nose and mucous membranes.

LoE:IVb<sup>3</sup>

### AND

- Doxycycline, oral, 100 mg daily for 3 months. A
  - Review patient after 3 months of treatment.
  - It should be taken with meals.
  - Do not take it together with iron preparations and antacids.

LoE:IVb<sup>4</sup>

**Note:** Doxycycline should always be used with a topical agent and should not be used as monotherapy.

### For non-inflammatory acne:

#### Topical retinoids

- » Main therapeutic objective is to control comedone formation.
- » Introduce topical retinoids gradually as a night-time application to limit skin irritant effects, as they are not photo-stable and degrade when exposed to sunlight (e.g. start twice a week and titrate up).

### CAUTION

Do not use if pregnant or planning pregnancy.  
Limit exposure to sunlight. If sunburn occurs, discontinue therapy  
until the skin has recovered.

LoE:IIa<sup>5</sup>

- Tretinoin, topical, apply at night to affected areas for at least 6 weeks.
  - Review patient after 6 weeks' treatment.
  - Minimise exposure to sunlight. If sunburn occurs, discontinue therapy until the skin has recovered.
  - Acne may worsen during the first few weeks.
  - Apply about a pea-sized amount to entire face. Avoid contact with eyes and area around mouth and nose.

**REFERRAL**

- » All severe cases.
- » Poor response to treatment.

**5.4 BACTERIAL INFECTIONS OF THE SKIN****5.4.1 BOIL, ABSCESS**

L02.0-4/L02.8-9/H00.0/H60.0/N76.4/J34.0 + (B95.6)

**DESCRIPTION**

- » Localised bacterial skin infection of hair follicles or dermis, usually with *S. aureus*.
- » The surrounding skin becomes:
  - swollen
  - hot
  - red
  - tender to touch

**Note:**

- » Check blood glucose level if diabetes is suspected or if the boils are recurrent. Boils in diabetic or immunocompromised patients require careful management.
- » For axillary abscesses and pustules, see Section 5.17: Hidradenitis suppurativa.

**GENERAL MEASURES**

- » Encourage general hygiene e.g.: frequent showering, keeping nails short.
- » Drainage of abscess is the treatment of choice. Perform surgical incision only when the lesion is fluctuant.


**MEDICINE TREATMENT**

**Systemic antibiotics are seldom necessary, unless the following features are present:**


- » swollen, tender lymph nodes in the area
- » extensive surrounding cellulitis
- » fever
- » boils on the face

**Antibiotics are also indicated in immunocompromised patients, diabetic patients, and neonates:**


Children ≤ 7 years of age:

- Cefalexin, oral, 25 mg/kg/dose 12 hourly for 5 days.  See dosing table:Chapter 23.


**OR**

- Flucloxacillin, oral, 12–25 mg/kg/dose 6 hourly for 5 days.  See dosing table:Chapter 23.

Children >7 years of age and adults:

- Cefalexin, oral, 500 mg 6 hourly for 5 days. 

**OR**

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days. 

**For severe penicillin allergy:**

Z88.0

Children

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg /kg/dose daily for 3 days. W See dosing table: Chapter 23.

Adults

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days. W

**REFERRAL**

- » Poor response to treatment.
- » Abscesses of the palm of the hand and pulp space abscess of the fingers.
- » Features of severe sepsis requiring intravenous antibiotics.
- » Deep abscess e.g. ischiorectal and breast abscess.

**5.4.2 IMPETIGO**

L01.0-1

**DESCRIPTION**

- » A common contagious skin infection caused by streptococci or staphylococci.
- » Predominantly occurs in children.
- » Often secondary to scabies, insect bite, eczema or tinea capitis.
- » Clinical features:
  - » pus containing blisters - erosion of blisters with honey-coloured crusts
  - commonly starts on the face or » spreads to neck, hands, arms and legs buttocks
- » Post-streptococcal glomerulonephritis is a potential complication.

**GENERAL MEASURES**

- » Counsel on good personal and household hygiene to avoid spread of the infection and to reduce carriage of organisms.
- » Trim finger nails.
- » Wash and soak sores in soapy water to soften and remove crusts.
- » Continue with general measures until the sores are completely healed.
- » Check urine for blood if the sores have been present for more than a week.

**MEDICINE TREATMENT**

- Povidone iodine 5%, cream or 10% ointment, apply 8 hourly.

**If extensive or systemic signs of infection (fever, unwell, fatigued), ADD:**Children ≤ 7 years of age:

- Cefalexin, oral, 25 mg/kg/dose 12 hourly for 5 days. A See dosing table: Chapter 23.

**OR**

- Flucloxacillin, oral, 12–25 mg/kg/dose 6 hourly for 5 days. **A** See dosing table: Chapter 23.

Children >7 years of age and adults:

- Cefalexin, oral, 500 mg 6 hourly for 5 days. **A**

**OR**

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days. **A**

LoE: IVb<sup>6</sup>

**For severe penicillin allergy:**

Z88.0

Children

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg/dose daily for 3 days. **W** See dosing table: Chapter 23.

Adults

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days. **W**

**Note:** If impetigo has improved, but has not completely cured, give a 2<sup>nd</sup> 5-day course of antibiotics.

## REFERRAL

- » No improvement after second course of antibiotics.
- » Presence of blood on urine test strip for longer than 5 to 7 days.
- » Clinical features of glomerulonephritis. See Section 8.3.1: Nephritic syndrome.

## 5.4.3 CELLULITIS

L03.0-3/L03.8-9

### DESCRIPTION

- » A diffuse, spreading, acute infection within skin and soft tissues, commonly caused by streptococci.
- » Characterised by:
  - oedema
  - increased local temperature
  - redness
  - no suppuration
- » Frequently associated with lymphangitis and regional lymph node involvement.
- » Commonly occurs on the lower legs, but may occur elsewhere.
- » May follow minor trauma.
- » May present as an acute fulminant or chronic condition.
- » May occur with systemic manifestations of infection:
  - fever
  - chills
  - hypotension
  - tachycardia
  - delirium/altered mental state



## GENERAL MEASURES

- » Elevate the affected limb to reduce swelling and discomfort.

## MEDICINE TREATMENT

### Children $\leq 7$ years of age

- Cefalexin, oral, 25 mg/kg/dose 12 hourly for 5 days. A See dosing table: Chapter 23.

### OR

- Flucloxacillin, oral, 12–25 mg/kg/dose 6 hourly for 5 days. A See dosing table: Chapter 23.

### Children $>7$ years of age and adults

- Cefalexin, oral, 500 mg 6 hourly for 5 days. A

### OR

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days. A

LoE: IVb <sup>7</sup>
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### **For severe penicillin allergy:**

Z88.0

### Children:

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg/kg/dose daily for 3 days. A See dosing table: Chapter 23.

### Adults:

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days. A

### **Severe cellulitis:**

Refer for parenteral antibiotics.

## REFERRAL

### **Urgent**

- » Children who have significant pain, swelling or loss of function (to exclude osteomyelitis).
- » Haemorrhagic bullae, gas in the tissues or gangrene.
- » Extensive cellulitis.
- » Recurrent cellulitis associated with underlying conditions, e.g. lymphoedema.
- » Cellulitis with systemic manifestations, e.g. confusion, hypotension.
- » Poorly controlled diabetic patients.
- » Involvement of the hand, face and scalp.

### **Non-urgent**

- » Inadequate response to initial antibiotic treatment.

### 5.4.4 CHRONIC LOWER LEG ULCERS

L97

#### DESCRIPTION

- » A chronic relapsing disorder of the lower limbs.
- » Associated with vascular insufficiency (predominantly venous insufficiency) and patient immobility.
- » Commonly associated with neuropathy, infections, neoplasia, trauma or other rare conditions.

#### GENERAL MEASURES

- » If the ulcer is oedema- or stasis-related, rest the leg in an elevated position.
- » In venous insufficiency, compression (bandages or stockings) are essential to achieve and maintain healing, provided the arterial supply is normal.
- » In patients with arterial insufficiency, avoid pressure on bony prominences and toes.
- » In patients with neuropathy, relieve pressure from the area.
- » Exclude diabetes with finger prick blood glucose test.
- » Avoid topical application of home remedies.
- » Stress meticulous foot care and avoidance of minor trauma. Encourage patients with neuropathy not to walk barefoot, check their shoes for foreign objects, examine their feet daily for trauma and to test bath water before bathing to prevent getting burnt.
- » Avoid excessive local heat.
- » Walking and exercises are recommended.

#### MEDICINE TREATMENT

Refer for assessment and initiation of treatment.

##### Local wound care:

##### Topical cleansing:

Use bland, non-toxic products to clean the ulcer and surrounding skin.

##### For clean uninfected wounds:

- Sodium chloride, 0.9% or sterile water.

##### Dress frequently with:

- Moistened dressing e.g. gauze with sodium chloride, 0.9%.

LoE: IIIb<sup>8</sup>

##### For exudative, infected wounds:

- Povidone-iodine 5% cream, topical apply daily

LoE: IVb<sup>9</sup>

##### For venous ulcers:

- Paraffin gauze dressing.

#### REFERRAL

- » No improvement after 1 month.
- » All foot ulcers.
- » Ulcers with atypical appearance.
- » Venous ulcers that are persistently infected, or have offensive odour.

## 5.5 FUNGAL INFECTIONS OF THE SKIN

### 5.5.1 CANDIDIASIS, SKIN

B37.2

Vaginal candidiasis: See Section 12.1: Vaginal discharge syndrome (VDS).

#### DESCRIPTION

A skin infection caused by *C. albicans*.

Most common sites for infection are skin folds such as:

- » under the breasts
- » axillae
- » nail folds
- » natal cleft
- » groins
- » neck folds, peri-anal, perineum and groins in infants

The skin lesions or sores:

- » are red raw-looking patches
- » appear moist (weeping)
- » have peripheral outlying white pustules, red scaly lesions which become confluent

#### GENERAL MEASURES

- » Exclude diabetes.

#### MEDICINE TREATMENT

- Imidazole, e.g.:
- Clotrimazole 1%, topical, apply 3 times daily for 14 days.

### 5.5.2 RINGWORM AND OTHER TINEAS

Fungal infections affecting the body (tinea corporis; tinea versicolor), feet (tinea pedis), scalp (tinea capitis) and nails (tinea unguium). These infections may be contagious.

#### 5.5.2.1 RINGWORM – TINEA CORPORIS

B35.4

#### DESCRIPTION

- » Clinical features include:
  - itchy ring-like patches
  - patches slowly grow bigger
  - raised borders
- » As the patch extends a clear area develops in the center which may become hyper-pigmented in dark skin.
- » Extensive disease is common in HIV, often with no evidence of the patches developing clear centres.

#### GENERAL MEASURES

- » Prevent spreading the infection to others.
- » Do not share clothes, towels, or toiletries (especially combs and hair brushes).
- » Wash skin well and dry before applying medicine treatment.

**MEDICINE TREATMENT**

- Imidazole, e.g.:
- Clotrimazole 1%, topical, apply 3 times daily.
  - Continue using cream for at least 2 weeks after lesions have cleared.

**Note:** Treat any secondary skin infection with antibiotics. See Section 5.4.2: Impetigo.

**REFERRAL**

- » Extensive disease.

**5.5.2.2 ATHLETE'S FOOT – TINEA PEDIS**

B35.3

**DESCRIPTION**

- » A common contagious fungal infection of the foot, characterised by itching, burning and stinging between the toes or on the sole.
- » The skin between the toes is moist and white (maceration) and may become fissured. There is also associated erythema, scaling and peeling.
- » Secondary eczema of the hands may be an associated condition. See Section 5.8.1: Eczema, atopic.
- » Vesicles may occur in inflammatory cases.
- » Pain and tenderness in the web spaces may indicate secondary bacterial infection.
- » Re-infection is common.

**GENERAL MEASURES**

- » Discourage the use of shared bathing or swimming areas, whilst infected.
- » Keep feet dry:
  - wear open sandals,
  - do not wear socks of synthetic material,
  - dry between toes after washing the feet or walking in water.
- » Wash and dry feet twice daily before applying medicine treatment.

**MEDICINE TREATMENT**

- Imidazole, e.g.:
- Clotrimazole 1%, topical, apply twice daily for 4 weeks.

**Note:** For nail infection, see Section 5.6.3: Nail infections – *tinea unguium*.

**REFERRAL**

- » No improvement after 4 weeks.

**5.5.2.3 SCALP INFECTIONS – TINEA CAPITIS**

B35.0

**DESCRIPTION**

- » Round or patchy bald areas with scales and stumps of broken off hair.

**GENERAL MEASURES**

- » Avoid shaving head in children.
- » Do not share toiletries such as combs and hair brushes.

**MEDICINE TREATMENT**Children:

- Fluconazole, oral, 6 mg/kg once daily, for 28 days. See dosing table: Chapter 23.

LoE: IIb<sup>10</sup>Adults:

- Fluconazole, oral, 200 mg weekly, for 6 weeks.

LoE: IIIb<sup>11</sup>

**Note:** Do not give to women of child-bearing age unless they are on effective contraceptive.

**5.5.2.4 PITYRIASIS VERSICOLOR – TINEA VERSICOLOR**

B36.0

**DESCRIPTION**

- » Round macules which are often lighter than normal skin (but may be darker).
- » Mostly found on the upper chest and back, less common on the neck, face, abdomen and upper limbs.
- » Macules on the chest and back often coalesce, and the condition spreads with the formation of new macules on the periphery.
- » Pigmentation may take months to return to normal after treatment.
- » Recurrences are common, especially in hot weather.

**GENERAL MEASURES**

- » Avoid wearing clothing that impairs ventilation in hot weather to reduce perspiration.

**MEDICINE TREATMENT**

- » Oral antifungal therapy is not indicated.
- Selenium sulfide, 2.5% suspension, apply once weekly for three weeks.
  - Lather shampoo on affected parts.
  - Leave on overnight, then wash off the following day.

LoE: IVb<sup>12</sup>

**5.5.2.5 NAIL INFECTIONS – TINEA UNGUIUM**

See Section 5.6.3: Nail infections – *tinea unguium*.

**5.6 NAILFOLD AND NAIL INFECTIONS****5.6.1 PARONYCHIA, ACUTE**

L03.0

**DESCRIPTION**

- » Small subcutaneous collection of pus under the nailfold.
- » Often associated with cutting nails too short, or nail biting.


**GENERAL MEASURES**

- » Avoid cutting finger nails too short.
- » Avoid nail biting.

**MEDICINE TREATMENT**

- » Drain abscess by puncture or incision.

Adults:

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days. 

**5.6.2 PARONYCHIA, CHRONIC**

L03.0

**DESCRIPTION**

- » Chronic, red, swollen nailfold, lifted off the nail plate with whitish pus.
- » Commonly caused by working in water and contact with household detergents.

**GENERAL MEASURES**

- » Avoid hand contact with household detergents, washing powders and fabric softeners.
- » Wear rubber gloves when washing clothes, linen and kitchen utensils to keep hands clean and dry as far as possible.

**MEDICINE TREATMENT**

- Corticosteroid, potent, topical, e.g.: (Doctor prescribed)
- Betamethasone 0.1%, topical, apply at night until lesions have cleared.
  - Wash hands, then massage cream into the nailfold.

If secondary infection is present, indicated by pain and tenderness in the nail fold, treat with antibiotics (see Section 5.4.2: Impetigo).

**REFERRAL**

- » No response to treatment.

**5.6.3 NAIL INFECTIONS – TINEA UNGUIUM**

B35.1

**DESCRIPTION**

- » Nails are lifted, distorted, crumbling and discoloured.
- » One or more nails may be affected.

**GENERAL MEASURES**

- » Topical treatment is generally ineffective for fungal nail infections.
- » Systemic treatment is often unsuccessful and recurrent infections are common if repeat exposure is not prevented.

**REFERRAL**

- » Patients that are distressed by cosmetic appearance.

**5.7 PARASITIC INFESTATIONS OF THE SKIN****5.7.1 LICE (PEDICULOSIS)****DESCRIPTION**

An infestation of the body with parasitic lice.

Clinical features include:

- » Itching,
- » bite marks,
- » presence of secondary eczema, or secondary infection.

**CAUTION**

**Do not** use commercial insect sprays as they are toxic.  
Lotions used for the treatment of lice are toxic when swallowed.

**Note:** Treat secondary infection with antibiotics. See Section 5.4.2: Impetigo.

**5.7.1.1 HEAD LICE**

B85.0

**DESCRIPTION**

Head lice are common in children. The eggs (nits) appear as fixed white specks on the hair.

**GENERAL MEASURES**

- » Use a fine tooth comb to comb out the nits after washing hair.
- » Shaving of the head may expedite treatment, where socially acceptable.
- » Prevent spread by treating other contacts.
- » Remove nits from eyelashes by application of white soft paraffin.

**MEDICINE TREATMENT**

- Permethrin 5%, topical
  - Apply permethrin 5% lotion to towel-dried or dry hair. Comb into hair repeatedly with a normal comb until scalp is covered completely.
  - Remove lice and nymphs with fine lice comb by dividing scalp into sections and combing away from scalp.
  - Rinse lice comb in a white bowl filled with hot water between hair strokes to identify removed lice, or detach on white tissue paper. Paralysed and dead lice will present as dark spots (like ground pepper).
  - Take note of the physical size of removed lice and nymphs, as the size should get smaller with consecutive treatments.
  - Keep on combing with fine lice comb, rinsing or wiping comb frequently.
  - Permethrin 5% lotion is safe and can be left in the hair for up to one hour.
  - After combing, rinse hair with lukewarm water and wash permethrin 5% lotion out with normal shampoo (more than one foaming might be needed).
  - Repeat this procedure every 5 days for 3 weeks.
  - Thereafter, carry out frequent inspections to detect new infestations early.
  - **Do not** apply to broken skin or sores.
  - **Avoid** contact with eyes.

LoE: IIIb <sup>14</sup>
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**5.7.1.2 BODY LICE**

B85.1/B85.4

**DESCRIPTION**

- » Body lice live in the seams of clothing and only come to the skin to feed.
- » **Note:** Body lice may carry typhus fever.

**GENERAL MEASURES**

- » Regularly wash bed linen and underclothes in hot water and expose to sunlight.



## MEDICINE TREATMENT

### Adolescents and adults:

- Benzoyl benzoate 25% lotion, undiluted, once weekly for 3 weeks.
  - Apply over the whole body, excluding the neck and face.
  - Leave on overnight and wash off the next day.
  - **Note:**
    - Avoid contact with eyes and broken skin or sores.
    - The lotion is toxic if swallowed.
    - Do not continue if a rash or swelling develops.
    - Itching may continue for 2–3 weeks after treatment.

LoE:IIIb <sup>15</sup>
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### 5.7.1.3 PUBIC LICE

B85.3/B85.4

#### DESCRIPTION

- » Pubic lice are acquired as STIs and nits are found on pubic hair and eyelashes.

#### GENERAL MEASURES

- » Prevent spread by treating other contacts.

#### MEDICINE TREATMENT

- Benzoyl benzoate 25% lotion, apply once weekly for two weeks
  - Apply to affected area.
  - Leave on for 24 hours, then wash thoroughly.
  - Repeat in 7 days.

#### For pediculosis of the eyelashes or eyebrows:

- Yellow petroleum jelly (Note: Do not use white petroleum jelly near the eyes).
  - Apply to the eyelid margins (cover the eyelashes) daily for 10 days to smother lice and nits.
  - Do not apply to eyes.

LoE: IVb
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#### REFERRAL

- » Lice infestation of eyelashes in children to exclude suspected sexual abuse.

### 5.7.2 SCABIES

B86

#### DESCRIPTION

- » An infestation with the parasite *Sarcoptes scabiei*.

- » Commonly occurs in the skin folds. The infestation spreads easily, usually affecting more than one person in the household.
- » Clinical features include:
  - intense itching, which is more severe at night,
- » small burrows between fingers, toes, elbow areas and buttocks where the parasite has burrowed under the skin,
  - secondary infection which may occur due to scratching with dirty nails,
  - vesicles and pustules on the palms, soles, and sometimes scalp, in small babies.

### GENERAL MEASURES

- » Treat all close contacts simultaneously even if they are not itchy.
- » Cut finger nails and keep them clean.
- » Wash all linen and underclothes in hot water.
- » Expose all bedding to direct sunlight.
- » Put on clean, washed clothes after medicine treatment.

### MEDICINE TREATMENT

#### Children <6 years of age:

- Permethrin 5%, topical, apply lotion undiluted to the whole body from neck to feet
  - Leave on overnight (8 to 12 hours) and wash off the following morning.

LoE: IVb<sup>16</sup>

#### **If permethrin is unavailable for children <6 years of age:**

- Benzoyl benzoate 25% lotion:
  - Children 0 months to 1 year of age:
    - o Dilute 1 part of benzoyl benzoate to 3 parts of water to form an emulsion of 6%.
    - o Apply diluted emulsion to the whole body from neck to feet as described above.
  - Children 1 to 6 years of age:
    - o Dilute 1 part of benzoyl benzoate with an equal amount of water to form an emulsion of 12.5%.
    - o Apply diluted emulsion to the whole body from neck to feet as described above.

LoE: IVb<sup>17</sup>

#### Children ≥ 6 years of age and adults:

- Benzoyl benzoate 25% lotion, applied undiluted to the whole body from neck to feet.
  - Allow the lotion to remain on the body for 24 hours, then wash off using soap and water.
  - Treatment may be repeated after 24 hours **once** within 5 days for severe infestations.
  - All infested persons living in the household, or likely to contract the infestation, should be treated at the same time.

#### **If benzoyl benzoate is unsuccessful:**

- Permethrin 5%, topical, apply lotion undiluted to the whole body from neck to feet.
  - Leave on overnight (8–12 hours) and wash off the following morning.

LoE: IIIb<sup>18</sup>**Note:**

- Benzoyl benzoate and permethrin are toxic if swallowed.
- Avoid contact with eyes and broken skin or sores.
- Do not continue if rash or swelling develops.
- Itching may continue for 2–3 weeks after treatment.
  - Treatment may need to be repeated again after one week.
- Treat secondary infection with antibiotics. See Section 5.4.2: Impetigo.

**5.7.3 SANDWORM**

B76.0

**DESCRIPTION**

- » Creeping eruption (cutaneous larva migrans) caused by *Ancylostoma braziliense*, a hookworm of dog or cat.
- » Larvae of ova in soil penetrate skin commonly through the feet, legs, buttocks or back and cause a winding thread-like trail of inflammation with itching, scratching dermatitis and bacterial infection.

**MEDICINE TREATMENT**

- Albendazole, oral:
  - Children <2 years of age: 200 mg daily for 3 days
  - Children ≥ 2 years of age and adults: 400 mg daily for 3 days

**AND**Children

- Chlorphenamine, oral, 0.1 mg/kg/dose 6 to 8 hourly. See dosing table: Chapter 23.

AdultsLoE: IVb<sup>19</sup>

- Chlorphenamine, oral, 4 mg, 6 to 8 hourly.

**Note:** Chlorphenamine is sedating and may only be required in the evening for mild cases.

**5.8 ECZEMA AND DERMATITIS****5.8.1 ECZEMA, ATOPIC**

L20.0/L20.8-9

**DESCRIPTION**

- » An inflammatory disorder with an itchy red rash or dry rough skin.
- » In babies it appears at approximately 3 months.
- » Family history of asthma, hay fever or atopic dermatitis is common.
- » Clinical features:

- occurs on the inner (flexural) surfaces of elbows and knees, the face and neck,
- » can become chronic with thickened scaly skin (lichenification),
  - secondary bacterial infection may occur with impetigo or pustules,
- » can be extensive in infants ,
  - very itchy at night.
- » Eczema is usually a chronic condition and requires long-term care.
- » Sufferers of atopic eczema are particularly susceptible to herpes simplex and may present with large areas of involvement with numerous vesicles and crusting surrounded by erythema (eczema herpeticum). See Section 5.13: Herpes simplex.

## GENERAL MEASURES

- » Avoid direct skin contact with woollen or rough clothes.
- » Avoid overheating by blankets at night.
- » Trim fingernails to prevent scratching.
- » Counsel on good personal hygiene with regular washing to remove crusts and accretions, and to avoid secondary infection.
- » Diet modification has no role in atopic eczema treatment.
- » Avoid soap on affected areas.

## MEDICINE TREATMENT

(For management of severe eczema, start at step 3.)

### STEP 1

- Avoid soap, use soap substitutes such as aqueous cream (UEA).
  - Rub on skin, then rinse off completely.
  - Do not use aqueous cream as an emollient.
- Emollient, e.g.:
- Emulsifying ointment (UE).

If no response within seven days/worsening symptoms:

### STEP 2

- Hydrocortisone 1% topical, applied twice daily for 7 days.
  - Apply sparingly to the face.
  - Do not apply around the eyes.

If there is a response:

Reduce the use of the hydrocortisone cream to once daily for a further few days, then stop and maintain treatment with:

- Aqueous cream (UEA) as a wash-off soap.

### AND

- Emollient, e.g.:
- Emulsifying ointment (UE).

If no response within seven days or severe eczema:

### STEP 3

- Corticosteroid, potent, topical, e.g.: (Doctor prescribed)

- Betamethasone 0.1%, topical, apply ointment once daily for 7 days.
  - **Do not** apply to face, neck and flexures.

LoE: IIb<sup>20</sup>

If there is a response:

Reduce use of corticosteroid ointment for a further few days, then stop and maintain treatment with:

- Aqueous cream (UEA) as a soap.

**AND**

- Emollient, e.g.:
- Emulsifying ointment (UE).

**If the patient is itching:**

Children:

- Chlorphenamine, oral, 0.1 mg/kg/dose at night for a maximum of 2 weeks. See dosing table: Chapter 23.

LoE: IVb<sup>21</sup>

Adults:

- Chlorphenamine, oral, 4 mg, at night for a maximum of 2 weeks.
  - **Note:** Chlorphenamine is sedating.

**If itch is not controlled or is more severe during the day, switch to:**

Children: 2 to 6 years of age:

- Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

Children >6 years of age and adults:

- Cetirizine, oral, 10 mg once daily.

LoE: IVb

## REFERRAL

- » No improvement in 2 weeks.
- » Infants and children requiring more than 1% hydrocortisone cream.
- » Extensive involvement.
- » Eczema herpeticum.

## 5.8.2 ECZEMA, ACUTE, MOIST OR WEEPING

L20.0/L20.8-9

### DESCRIPTION

- » A form of eczema with small or large vesicles, associated with oozing and eventual crusting and scaling.
- » Yellow pustules with crust indicate secondary sepsis.

**GENERAL MEASURES**

- » Sodium chloride, 0.9% dressings, applied daily or twice daily.  
Avoid use of soap on affected areas.

**MEDICINE TREATMENT**

- Topical steroids, e.g.:
- Hydrocortisone 1% topical, applied 12 hourly, until improved.
  - Topical steroids should be applied to both moist and dry inflamed areas.

**Antibiotic treatment if secondary infection is present:**Children ≤7 years of age:

- Cefalexin, oral, 25 mg/kg/dose 12 hourly for 5 days. A See dosing table: Chapter 23.

**OR**

- Flucloxacillin, oral, 12–25 mg/kg/dose 6 hourly for 5 days. A See dosing table: Chapter 23.

Children >7 years of age and adults:

- Cefalexin, oral, 500 mg 6 hourly for 5 days. A

**OR**

- Flucloxacillin, oral, 500 mg 6 hourly for 5 days. A

**Severe penicillin allergy:**

Z88.0

Children:

- Macrolide, e.g.:
- Azithromycin, oral, 10 mg /kg/dose daily for 3 days. W See dosing table: Chapter 23.

Adults:

- Macrolide, e.g.:
- Azithromycin, oral, 500 mg daily for 3 days. W

**If the patient is itching:**Children

- Chlorphenamine, oral, 0.1 mg/kg/dose at night. See dosing table: Chapter 23.

Adults

- Chlorphenamine, oral, 4 mg, at night.

**Note:** Chlorphenamine is sedating.LoE: IVb<sup>22</sup>**If itch is not controlled or is more severe during the day, switch to:**Children: 2–6 years of age

- Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

Children >6 years of age and adults

- Cetirizine, oral, 10 mg once daily.

LoE: IVb

**For itching in children <2 years of age:**

- Calamine lotion, applied on the skin.

**REFERRAL**

- » No improvement after a week.
- » Severe acute moist or weeping eczema.

**5.8.3 DERMATITIS, SEBORRHOEIC**

L21.0-1/L21.8-9

**DESCRIPTION**

- » Dandruff is an uninfamed form of seborrhoeic dermatitis.
- » Pruritus may or may not be present in seborrhoeic dermatitis.
- » The scalp, face, ears and skin folds e.g. axillae, groins, under the breasts are commonly affected.
- » May become very extensive, particularly in infants and HIV infected patients.

**GENERAL MEASURES**

- » Trim nails.
- » Avoid scratching affected areas.
- » Avoid perfumed soap.

**MEDICINE TREATMENT**

- Hydrocortisone 1% topical, apply twice daily until improved.
  - Then apply once or twice weekly for maintenance as needed.

**For severe dermatitis:**

- Corticosteroid, potent, topical, e.g.: (Doctor prescribed)
- Betamethasone 0.1%, topical, apply ointment once daily for 5–7 days.
  - Do not apply to face neck and flexures.

LoE: IIb<sup>23</sup>**For itching scalp, scaling and dandruff:**

- Selenium sulphide, 2.5% suspension, apply weekly.
  - Lather on the scalp.
  - Rinse off after 10 minutes.
    - Apply weekly, until improved, then every second week to maintain control.

**5.9 NAPPY RASH**

L22

**DESCRIPTION**

- » A diffuse reddish eruption in the nappy area, usually caused by irritation from:

- persistent moisture and irregular cleaning and drying of the nappy area,
  - diarrhoeal stools,
  - underlying skin conditions in some cases, or
  - improper rinsing of nappies to remove urine and stool breakdown products.
- » Rash is predominantly on areas in contact with the nappy, and spares the flexures.

### GENERAL MEASURES

- » Prompt changing of soiled nappies.
- » Avoid waterproof pants.
- » Expose nappy area to air if possible especially with severe nappy dermatitis.
- » Educate caregiver on washing, rinsing and drying of the nappy when soiled.

### MEDICINE TREATMENT

- Zinc emollient, e.g.:
- Zinc and castor oil, topical, apply ointment after each nappy change.

If rash involves the flexures, suspect candida:

- Imidazole, e.g.:
- Clotrimazole 1%, topical, apply cream beneath zinc and castor oil ointment after each nappy change until symptoms are resolved.

### REFERRAL

- » No improvement after 3 days of treatment.

## 5.10 ALLERGIES

### 5.10.1 URTICARIA

L50.0-6/L50.8-9

#### DESCRIPTION

- » Urticaria is a skin disorder characterised by itchy wheals (hives).
- » There are many causes, including allergic, toxic or physical:
- » Allergic urticaria may be caused by drugs, plant pollen, insect bites or foodstuffs, e.g. fish, eggs, fruit, milk and meat.
  - Commonly caused by medicines e.g. aspirin, NSAIDs, or codeine.

### GENERAL MEASURES

- » Take detailed history to determine trigger factors.
- » Lifestyle adjustment.

### MEDICINE TREATMENT

**Note:** Avoid the use of oral corticosteroids.

LoE: IVb



Children

- Chlorphenamine, oral, 0.1 mg/kg/dose at night. See chlorphenamine dosing table, Chapter 23.

LoE:IVb <sup>24</sup>
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Adults

- Chlorphenamine, oral, 4 mg, 6 to 8 hourly.

**For long term use in adults and school going children:**Children: 2–6 years of age

- Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

Children >6 years of age and adults

- Cetirizine, oral, 10 mg once daily.
- Calamine lotion, applied on the skin.

**REFERRAL**

- » No improvement or response after 24 hours.

**5.10.2 ANGIOEDEMA**

T78.3 + (Y14.99/Y34/Y57.9)

**DESCRIPTION**

- » Localised oedema of the subcutaneous tissue affecting particular parts of the face i.e. lips, eyes and tongue. May also affect the larynx, causing life threatening airway obstruction and anaphylaxis.
- » ACE-inhibitors are the most common cause in adults. Other causes include other medicines and allergies.

**GENERAL MEASURES**

- » Stop all suspected agents e.g. ACE-inhibitor.
- » In the case of airway obstruction, a definitive airway must be established if oedema is extensive or progressing.

**MEDICINE TREATMENT****If urticaria and/or itch present (no imminent airway compromise):**

- Cetirizine, oral, 10 mg as a single dose.

LoE:IVb
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**OR**

- Promethazine, IM, 25 to 50 mg immediately.

**In severe cases where airway obstruction is present:**Adults

- Adrenaline (epinephrine), 1:1000 solution, 0.5 mL into the lateral thigh, administered immediately and repeated every 5 to 15 minutes as needed.

Children

- Adrenaline (epinephrine), IM, 0.01 mL/kg of 1:1000 solution, administered immediately.
  - Maximum dose of 0.3 mL

**AND**

- Hydrocortisone, IV, 100 mg as a single dose.

**Note:** Observe all cases until resolution.

**REFERRAL**

- » Failure to respond.
- » No obvious cause found.
- » Severe ACE-inhibitor induced angioedema.

**5.10.3 FIXED DRUG ERUPTIONS**

L27.0-1

**DESCRIPTION**

- » Dark coloured round macules that can occur anywhere on the body following the ingestion of a medicine to which the patient has become allergic.
- » They recur on the same spot and increase in number with each successive attack.
- » In the acute stage they are itchy, red around the edge or even bullous.

**GENERAL MEASURES**

- » Stop the suspected offending medicine(s).

**MEDICINE TREATMENT****Acute/active stage**

- Hydrocortisone 1%, topical, apply daily for 5 days.

LoE: IVb

**REFERRAL**

- » Widespread eruptions.

**5.10.4 PAPULAR URTICARIA**

L50.8

**DESCRIPTION**

- » Hypersensitivity response to insect bites.
- » Initial lesion is a red papule, which may blister, become excoriated, and then heal with hyperpigmentation. Usually occur in crops over several months.

- » Common and often severe in HIV infections. (See Section 11.3.12: Papular pruritic eruption.)

## GENERAL MEASURES

- » Reduce exposure to insects by treating pets, using mosquito nets and fumigating houses regularly. Use of insect repellents may be helpful.

## MEDICINE TREATMENT

### New, inflamed lesions:

- Hydrocortisone 1%, topical, apply daily for 5 days.

### For relief of itch:

#### Children

- Chlorphenamine, oral, 0.1 mg/kg/dose 6–8 hourly. See dosing table: Chapter 23.

LoE:IVb <sup>25</sup>
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#### Adults

- Chlorphenamine, oral, 4 mg, 6–8 hourly.

**Note:** Chlorphenamine is sedating and may only be required in the evening for mild cases.

### For long term use in adults and school going children:

#### Children 2–6 years of age:

- Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

#### Children >6 years of age and adults:

- Cetirizine, oral, 10 mg once daily.

## REFERRAL

- » Non-responsive and chronic cases.

## 5.10.5 ERYTHEMA MULTIFORME

L51.0/L51.8-9

### DESCRIPTION

- » A self-limiting and commonly recurrent inflammatory eruption of the skin.
- » May involve mucous membrane (but not more than one surface), and usually without systemic symptoms.
- » Usually lasts for 10–14 days before complete recovery occurs.
- » Symmetrically distributed crops of target lesions (dark centre, an inner, pale ring surrounded by an outer red ring) occur on the extremities, and in particular, on the backs of the hands and forearms, palms and soles.
- » This condition is usually due to an infection, commonly herpes simplex or mycoplasma.

**REFERRAL**

- » All patients with systemic symptoms or mucosal involvement.
- » Unsure of the diagnosis.

**5.10.6 SEVERE CUTANEOUS ADVERSE DRUG REACTIONS****5.10.6.1 STEVENS-JOHNSON SYNDROME (SJS)/TOXIC EPIDERMAL NECROLYSIS (TEN)**

L51.1/ L51.2

**DESCRIPTION**

- » An acute, systemic condition with vesico-bullous lesions involving the skin and mucous membranes ( $\geq 2$  mucosal surfaces), but occasionally only the mucous membranes.
- » The eruption may start as widespread red irregular macules and patches. There may be a vesicle or bulla in the central area of the lesion. The blisters rupture leaving denuded areas of skin. Mucous membrane erosions often with slough covering the surface are frequently seen.
- » Toxic epidermal necrolysis (TEN) is a more severe form of the condition and is suggested if the skin lesions cover  $>30\%$  of the body surface area. The mucous membranes such as the mouth, eyes and vagina are also more severely affected.
- » The condition is usually caused by medicines e.g. sulphonamides, anti-retrovirals (nevirapine), anti-epileptics (phenytoin, phenobarbitone, carbamazepine, lamotrigine).
- » Systemic involvement with multi-organ dysfunction is common.

**GENERAL MEASURES**

- » Immediate withdrawal of offending medicine.
- » Patients usually require care in a high or intensive care unit with dedicated nursing.

**REFERRAL**

- » All patients.

**5.10.6.2 DRUG REACTION WITH EOSINOPHILIA AND SYSTEMIC SYMPTOMS (DRESS)**

L27.0 + (D72.1)

**DESCRIPTION**

- » Severe hypersensitivity reaction to a medicine.
- » Typically occurs within 3 months of starting the offending medicine.
- » Clinical symptoms include:
 

- maculopapular rash	- fever $>38^{\circ}\text{C}$
- lymphadenopathy	- hepatitis or other organ involvement

- eosinophilia and/or other blood count abnormalities
- » Medicines that commonly induce the DRESS syndrome include phenobarbital, carbamazepine, phenytoin, lamotrigine, allopurinol, sulphonamides, abacavir, nevirapine.

## REFERRAL

- » All patients.

## 5.11 PITYRIASIS ROSEA

L42

### DESCRIPTION

- » A common disease of unknown cause, probably due to a viral infection as it occurs in minor epidemics.
- » Most common in young adults but any age may be affected.
- » The rash involves the trunk, neck and mainly proximal parts of the limbs.
- » Presents as pink papules and macules. The macules are oval and have a thin collar of scale towards, but not at, the periphery of the lesions.
- » The eruption is usually preceded by a few days by one larger, oval, slightly scaly area ("herald patch"), commonly found in the scapular area or abdomen. The macules on the thorax characteristically lie parallel to the long axis of the ribs ("Christmas tree" distribution).
- » The itch is usually mild and there are few or no constitutional symptoms. It is self-limiting and resolves within about 6–8 weeks.

### GENERAL MEASURES

- » Counsel on the benign but prolonged nature of the condition.

### MEDICINE TREATMENT

#### Children

- Chlorphenamine, oral, 0.1 mg/kg/dose at night. See dosing table: Chapter 23.

LoE: IVb<sup>26</sup>

#### Adults

- Chlorphenamine, oral, 4 mg at night.

**Note:** Chlorphenamine is sedating.

**If itch is not controlled or more severe during the day, switch to:**

#### Children: 2 to 6 years of age

- Cetirizine, oral, 5 mg once daily. See dosing table: Chapter 23.

#### Children >6 years of age and adults:

- Cetirizine, oral, 10 mg once daily.

LoE: IVb

**5.12 MOLLUSCUM CONTAGIOSUM**

B08.1

**DESCRIPTION**

- » Infectious disease caused by a poxvirus.
- » Presents with dome-shaped papules with a central depression (umbilication). Varies from occasional lesions to large crops of lesions particularly in immunocompromised or HIV-infected patients.
- » Papules are commonly seen on the face in children, but may be found at any skin site, except on the palms and soles. They may also occur on the genitalia as an STI.
- » Most infections resolve spontaneously except in the immunocompromised.

**GENERAL MEASURES****In non-genital molluscum contagiosum:**

- » Allow lesions to heal spontaneously if the lesions are few in number and the patient not immunocompromised.
- » Manual removal of lesions or expression of contents is not recommended as it may result in unintentional inoculation of other parts of the body, increase the risk of spread to others, or result in secondary bacterial infection.

LoE:IVb<sup>27</sup>**In genital molluscum contagiosum:**

- » Counsel on risk reduction for transmission of STIs.
- » Counsel that the partner(s) should be notified, examined, and treated.

**MEDICINE TREATMENT**

- Tincture of iodine BP, applied to core of individual lesions using an applicator.

LoE:IIIb<sup>28</sup>**CAUTION**

Beware of hypersensitivity to iodine.

**REFERRAL**

- » Extensive disease.
- » Those failing to respond to simple measures.
- » Peri-ocular lesions to an ophthalmologist.

**5.13 HERPES SIMPLEX**

B00.0-4/B00.7-9

**DESCRIPTION**

- » Infection caused by herpes simplex virus type 1 or 2.
- » Primary herpes infection involving gingivostomatitis (usually type 1) or the genital area (usually type 2) may be extensive, and may occur at other sites, e.g. the face.

- » It is characterised by grouped crusted vesicles surrounded by erythema. The vesicles rupture soon after forming, producing discrete ulcers.
- » Recurrences are usually mild and last a few days, except in immunosuppressed patients. Recurrences of oral herpes may be triggered by other respiratory tract infections or exposure to ultraviolet light.
- » Sufferers of atopic eczema are particularly susceptible to the virus and may present with large areas of involvement with numerous vesicles and crusting surrounded by erythema (eczema herpeticum).
- » Herpes simplex mucocutaneous ulceration that persists for >1 month is an AIDS-defining illness. See Section 11.3.10: Herpes simplex ulcers, chronic.
- » Herpes simplex infection may be the precipitating event in many cases of erythema multiforme.

## GENERAL MEASURES

Keep the skin lesions clean and dry.

## MEDICINE TREATMENT

### Extensive herpes, eczema herpeticum or chronic mucocutaneous ulcerations:

#### Children <15 years of age:

- Antiviral, (active against herpes simplex) e.g.:
- Aciclovir, oral, 250 mg/m<sup>2</sup>/dose, 8 hourly for 7 days. See dosing table: Chapter 23.

#### Children ≥ 15 years of age and adults:

- Antiviral, (active against herpes simplex) e.g.:
- Aciclovir, oral, 400 mg, 8 hourly for 7 days.

LoE: IIIb<sup>29</sup>

## 5.14 HERPES ZOSTER

See Section 11.3.11: Herpes zoster (Shingles).

## 5.15 WARTS

### DESCRIPTION

A common, infectious, self-limiting condition of the skin or mucous membrane caused by human papilloma virus.

### 5.15.1 COMMON WARTS

B07

### DESCRIPTION

- » Seen most often on the hands and fingers, but can be found anywhere on the body.
- » Raised nodules with a rough 'warty' surface.

**GENERAL MEASURES**

- » Usually does not require treatment as they will resolve spontaneously .

**MEDICINE TREATMENT**

- Salicylic acid, 15 to 30%, topical liquid application.
  - Protect surrounding skin with petroleum jelly.
  - Apply daily to wart and allow to dry.
  - Occlude for 24 hours.
  - Soften lesions by soaking in warm water and remove loosened keratin by light abrasion.
  - Wash affected area well, dry, reapply the wart paint, and occlude.
  - Repeat process daily until the wart disappears.

LoE: IIIb <sup>30</sup>
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**REFERRAL**

- » Extensive warts.

**5.15.2 PLANE WARTS**

B07

**DESCRIPTION**

- » Very small warts that are just slightly raised.
- » Present as smooth, flat, skin-coloured or slightly pigmented surface.
- » Frequently present on the face, backs of the hands, and knees.
- » Commonly seen in immunocompromised patients.

**MEDICINE TREATMENT**

These warts are notoriously difficult to treat with a poor response.

- Salicylic acid, 2%, topical.

LoE: III <sup>31</sup>
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**REFERRAL**

- » Failure to respond.
- » Extensive cases involving the face.

**5.15.3 PLANTAR WARTS**

B07

**DESCRIPTION**

- » Commonly appear on the pressure-bearing areas of the soles and can be painful and interfere with walking.
- » Lesions often have a flat, circular appearance, as pressure on the sole of the foot forces them deep into the dermis. They have a rough surface and are often thick and hard due to increased keratin formation.
- » As they are contagious, walking barefoot in communal areas should be discouraged.



## MEDICINE TREATMENT

- Salicylic acid, 15 to 30%, topical liquid application.
  - Protect surrounding skin with petroleum jelly.
  - Apply daily to wart and allow to dry.
  - Occlude for 24 hours.
  - Soften lesions by soaking in warm water and remove loosened keratin by light abrasion.
  - Wash affected area well, dry, reapply the wart paint and occlude.
  - Repeat process daily until the wart disappears.

LoE: IIIb<sup>32</sup>

## REFERRAL

- » No response to treatment.
- » Diabetic patients.

### 5.15.4 GENITAL WARTS: CONDYLOMATA ACCUMINATA

See Section 12.12: Genital warts (GW): condylomata acuminata.

## 5.16 PSORIASIS

L40.0-5/L40.8-9

## DESCRIPTION

- » Inflammatory condition of the skin and joints of unknown aetiology. Lesions present as scaly, itchy plaques, especially on the extensor surfaces of the knees, elbows, sacrum and scalp.
- » Psoriasis may spread to involve other sites, although the face is usually spared.
- » The nails and skin folds are often involved.
- » Often aggravated by stress, and may be provoked by HIV disease.

## GENERAL MEASURES

- » Counselling regarding precipitating factors and chronicity.
- » HIV test, if acute onset and patient has risk factors for HIV infection.
- » Encourage sun exposure as tolerated.

## MEDICINE TREATMENT

For flares (if delay experienced in obtaining a dermatological consultation):

- Coal tar (Liquor picis carbonis - LPC) BP 5%, topical one to four times daily.

OR

- Corticosteroid, potent, topical, e.g.: (Doctor prescribed)
- Betamethasone 0.1%, topical, apply 12 hourly.
  - Decrease according to severity, reduce to hydrocortisone 1%, topical, and then stop.

LoE: IVb<sup>33</sup>

**REFERRAL**

- » All patients, if diagnosis is not already confirmed.
- » Complications such as pustular psoriasis, acute flares, chronic local plaques.

**5.17 HIDRADENITIS SUPPURATIVA**

L73.2

**DESCRIPTION**

- » A chronic disorder of the pilosebaceous follicles, involving the formation of abscesses and cysts, often accompanied by scarring and sinus tract formation.
- » Commonly found in axillae, groin, between the thighs, perianal and perineal areas.
- » Flare-ups may be triggered by perspiration, hormonal changes (such as menstrual cycles), humidity and heat, and friction from clothing.

**GENERAL MEASURES**

- » Avoid tight clothing or clothing made of non-breathable material.

**REFERRAL**

- » All patients with abscesses, infected cysts or sinuses suspected to be due to hidradenitis suppurativa.

**5.18 HYPOPIGMENTORY DISORDERS****5.18.1 ALBINISM**

E70.3

**DESCRIPTION**

- » Congenital disorder characterised by the complete or partial absence of pigment in the skin, hair and eyes.
- » Albinism is associated with a number of visual symptoms or defects such as photophobia, nystagmus, strabismus, and amblyopia.
- » Lack of skin pigmentation increases a person's susceptibility to sunburn and skin cancers.

**GENERAL MEASURES**

To avoid sunburn and skin damage:

- » Avoid sun exposure during periods of maximum intensity (i.e. between 10:00 and 15:00).
- » Wear a wide-brimmed hat and long-sleeved top when exposed to the sun.
- » Wear sunscreens with a high sun protection factor (SPF); a SPF of between 20 and 30 will provide adequate protection. The product should also provide protection against both UVA and UVB rays.
- » To reduce photophobia and prevent retinal damage:

- Wear sunglasses that preferably have UV filters.  
Check skin regularly for signs of skin cancer such as a new spot or growth on their skin.

## MEDICINE TREATMENT

- Zinc oxide, topical ointment.
  - Apply evenly to all sun exposed areas at least 15 minutes before going out into the sun.

LoE: IVb<sup>34</sup>

## OR

- High potency (SPF) sunblock, topical (UV block).
  - Apply evenly to all sun exposed areas at least 15 minutes before going out into the sun.

LoE: IVb<sup>35</sup>

## REFERRAL

- » To dermatologist for regular skin checks.
- » To ophthalmologist for visual rehabilitation and regular eye checks.

## 5.18.2 VITILIGO

L80

- » Autoimmune disease characterised by patches of the skin losing their pigment.
- » Presents as pale patchy areas of depigmented skin which tend to occur on the extremities.
- » They are most prominent on the face, hands and wrists. The loss of pigmentation is particularly noticeable around body orifices such as the mouth, eyes, nostrils, genitalia, and umbilicus.
- » The patches often begin in areas of skin that are exposed to the sun.
- » New patches appear over time and can occur over large portions of the body, or can be restricted to a particular area.

## GENERAL MEASURES

- » Encourage sun exposure, moderate sun exposure is beneficial.

## MEDICINE TREATMENT

- High potency (SPF) sunblock, topical (UV block)
  - Apply evenly to all sun exposed areas at least 15 minutes before going out into the sun.

LoE: IVb<sup>36</sup>

## REFERRAL

- » All patients.

**5.19 PRESSURE ULCERS/SORES**

L89.0-3/L89.9

**DESCRIPTION**

- » Localised damage to the skin and underlying tissue that usually occurs over bony prominences as a result of pressure, or pressure in combination with shear force and/or friction.
- » The most common sites are the skin overlying the sacrum, coccyx, heels, and hips, but other sites can also be affected.
- » Pressure ulcers most commonly develop in individuals who are immobile, including those bedridden or confined to a wheelchair.
- » Other factors increasing the risk of pressure ulcer development are:
  - Skin wetness e.g. incontinence.
  - Reduced blood flow e.g. arteriosclerosis.
  - Reduced skin sensation e.g. paralysis or neuropathy.

**GENERAL MEASURES****Skin care**

- » The skin should be kept clean and dry. Ensure that the skin folds are dried thoroughly.

**Wound odour**

- » Regular cleansing, debridement and management of infection.
- » Activated charcoal dressings may be used.

**Pressure redistribution**

- » Repositioning and turning at regular intervals, every 2-4 hours. Individual receiving palliative care should be repositioned in accordance with the individual's wishes, comfort and tolerance.
- » Avoid positioning the individual on the wound if erythema is present.

**MEDICINE TREATMENT**

Cleanse the skin prior to application of a barrier product.

- Zinc and castor oil, topical ointment.

LoE:IIIb<sup>37</sup>

For pain:

See Chapter 20: Pain.

**REFERRAL**

- » Patients with pressure sores or those at high risk of development of pressure sores to rehabilitation services, if available.

LoE:IIIb<sup>38</sup>

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## SOUTH AFRICAN PRIMARY HEALTHCARE & ADULT HOSPITAL LEVEL ESSENTIAL MEDICINES LIST

### CHAPTER 5: SKIN CONDITIONS

#### NEMLC RECOMMENDATIONS FOR MEDICINE AMENDMENTS (2020-4)

The Primary Health Care (PHC) Skin Conditions chapter underwent detailed clinical editing and editorial changes for clarity.

Medicine amendment recommendations, with supporting evidence and rationale are listed below.

Kindly review the medicine amendments in the context of the respective standard treatment guideline (STG) and supporting medicine reviews. *All reviews and costing reports may be accessed at:* <https://www.health.gov.za/nhi-edp-stgs-eml/>.

#### A: MEDICINE AMENDMENTS:

SECTION	MEDICINE/MANAGEMENT	ADDED/DELETED/AMENDED/ NOT ADDED/ RETAINED
<b>5.2 Itching (Pruritus) and 5.8.1 Ectopic eczema and 5.8.2 Eczema, acute, moist, or weeping and 5.10.1 Urticaria and 5.10.4 Papular urticaria and 5.11 Pityriasis rosea</b>	Antihistamines	Caution box for <2 years deleted
	Chlorphenamine, oral	Retained and amended
	Cetirizine, oral	Retained and amended
<b>5.3 Acne vulgaris</b>	Benzoyl peroxide, topical	Retained
	Topical, retinoids	Directions for use amended
	Doxycycline, oral	Directions for use amended
<b>5.4.1 Boils, abscess</b>	Povidone iodine	Not added
	<u>Children ≤ 7 years of age:</u> Cefalexin	The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age
<b>5.4.2 Impetigo</b>	Flucloxacillin, oral	Indication amended
	Cefalexin, oral	Indication amended
	<u>Children ≤ 7 years of age:</u> Cefalexin	The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age
<b>5.4.3 Cellulitis</b>	Flucloxacillin, oral	Retained
	Cefalexin, oral	Retained
	<u>Children ≤ 7 years of age:</u> Cefalexin	The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age
	Amoxicillin, oral	Not added
	Clindamycin, oral	Not added
<b>5.4.4 Chronic lower leg ulcers</b>	Hydrocolloid dressings	Not added
	Moistened dressing e.g., gauze with Sodium chloride, 0.9%.	Retained
<b>5.5.2.4 Pityriasis versicolor – Tinea versicolor</b>	Selenium sulfide, 2.5% suspension	Directions for use amended
<b>5.6.3 Nail infections – Tinea unguium</b>	Fluconazole, oral	Not added
<b>5.7.1.1 Head lice</b>	Permethrin 5%, topical	Retained
<b>5.7.2 Scabies</b> -children <6 years of age	Permethrin 5% topical	Retained
	Benzoyl benzoate 25% lotion	Added
<b>5.8.1 Ectopic eczema</b>	Emollient	Retained as a therapeutic class
	Emulsifying ointment (UE)	Retained as an example of class (emollient) listed in the STG
	Cetamacrogol	Not added as an example of class (emollient) – already included on the therapeutic interchange database
	Corticosteroid, potent, topical	Retained as a therapeutic class



SECTION	MEDICINE/MANAGEMENT	ADDED/DELETED/AMENDED/ NOT ADDED/ RETAINED
	Betamethasone 0.1%, topical	Retained as an example of class (potent corticosteroid) listed in the STG
	Fluocinolone, topical	Not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database
<b>5.8.2 Eczema, acute, moist or weeping</b>	Hydrocortisone 1% topical	Retained
	Betamethasone 0.1%, topical	Not added
	Fluocinolone, topical	Not added
	Children ≤ 7 years of age: Cefalexin	The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age
<b>5.8.3 Dermatitis, seborrhoeic</b>	Corticosteroid, potent, topical:	retained as a therapeutic class
	Betamethasone 0.1%, topical:	retained as an example of class (potent corticosteroid) listed in the STG
	Fluocinolone, topical:	not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database
<b>5.9 Nappy Rash</b>	Topical corticosteroid	Not added
<b>5.10.3 Fixed drug eruptions</b>	Potent topical corticosteroid	Not added
<b>5.10.4 Papular urticaria</b> - new inflamed lesions	Hydrocortisone 1%, topical	Retained
	Fluocinolone, topical	Not added
	Hydrocortisone 1%, topical	Retained
	LPC 5%	Not added
<b>5.11 Pityriasis rosea</b>	Calamine lotion	Not added
	Hydrocortisone 1%, topical	Not added
	Aqueous cream	Deleted
<b>5.12 Molluscum contagiosum</b>	Benzoyl peroxide, topical	Not added
	Tincture of iodine BP	Retained
<b>5.15.1 Common Warts</b>	Histofreeze	Not added
<b>5.16 Psoriasis</b>	Corticosteroid, potent, topical	Retained as a therapeutic class
	Betamethasone 0.1%, topical	Retained as an example of class (potent corticosteroid) listed in the STG
	Fluocinolone, topical	Not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database
	Biologics	Not added
<b>5.17 Hidradenitis suppurativa</b>	Monoclonal antibodies	Not added
	Steroids	Not added
	Antibiotics	Not added
<b>5.18.1 Albinism</b>	Zinc oxide, topical	Retained, directions for use not amended
	Titanium dioxide, topical ointment/cream (UV block)	Retained, directions for use not amended, product name revised to high potency (SPF) sunblock, topical (UV Block)
	Titanium dioxide, topical ointment/cream (UV block)	Retained, product name revised to high potency (SPF) sunblock, topical (UV Block)
<b>5.19 Pressure Ulcers/ Sores</b>	Referral criterion (for rehabilitation)	Added

\*The dosing of cefalexin in the chapter was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age.

## B: MEDICINE AMENDMENTS 2025

SECTION	MEDICINE/MANAGEMENT	ADDED/DELETED/AMENDED/ NOT ADDED/ RETAINED
<b>5.3 Acne vulgaris</b>	Benzoyl peroxide, topical	Retained, STG amended from “gel” to “topical”

## 5.2 ITCHING (PRURITUS) and 5.8.1 ECTOPIC ECZEMA and 5.8.2 ECZEMA, ACUTE, MOIST, OR WEEPING and 5.10.4 PAPULAR URTICARIA and 5.11 PITYRIASIS ROSEA

The NEMLC recommended at the meeting of the 23 June 2022<sup>1</sup> that the PHC/Adult Hospital Level ERC review the caution of restricting chlorphenamine to children older than 2 years of age and align the dosing with guidance in the Paediatric Hospital Level STGs and EML.

Thus, the following caution box was deleted throughout the STGs, and the weight-band dosing tables for chlorphenamine will be updated in chapter 23: Standard paediatric dosing tables to include dosing for children <2 years of age, accordingly.

<b>CAUTION</b>
<del>Do not give an antihistamine to children &lt; 2 years of age.</del>

Chlorpheniramine: *retained*

Cetirizine: *retained and amended*

Guidance for antihistamines was made consistent throughout these STGs for short-term use with chlorphenamine and long-term/chronic use with non-sedating antihistamine, cetirizine.

### **If pruritis is severe and requires short term control:**

#### Children

- Chlorphenamine, oral, 0.1 mg/kg/dose 6–8 hourly. See chlorphenamine dosing table, chapter 23.

#### Adults

- Chlorphenamine, oral, 4 mg, 6–8 hourly.

**Note:** Chlorphenamine is sedating and may only be required in the evening for mild cases.

### **If pruritis is severe and requires long term control, e.g. for chronic pruritis**

#### Children: 2–6 years of age

- Cetirizine, oral, 5 mg once daily. See cetirizine dosing table, chapter 23.

#### Children > 6 years of age and adults

- Cetirizine, oral, 10 mg once daily.

**Level of Evidence: Expert opinion**

Several external comments were received to amend management with antihistamines in these clinical settings. However, no supporting evidence was submitted, despite follow-up requests.

## 5.3 ACNE VULGARIS

Benzoyl peroxide, topical: *retained*

Following consultation with the Paediatric Hospital Level Committee, it was agreed that the current recommendation of benzoyl peroxide for mild acne be retained, which was supported at the NEMLC meeting on 23rd June 2022<sup>2</sup>.

Topical, retinoids: *directions for use amended*

<sup>1</sup> Minutes of the NEMLC meeting of 23 June 2022

- The Medicines Control Council (MCC) had issued a safety alert in 2007 for promethazine contra-indication in children less than 2 years of age, as serious life-threatening cases of respiratory depression, including fatalities have been reported

<https://www.bing.com/ck/a?!&p=4b3c6391536fd84aJmldHM9MTY2MTExNiMyMiZpZ3VpZD0xYiBiZDE2OC05OWY0LTQxZDQyYTBmNS01ODBlYmM2NThkMGUmaW5zaWQ9NTE0Mw&ptn=3&hsh=3&fclid=e65d78bc-2195-11ed-accd-88709b8260e8&u=a1aHR0cHM6Ly93d3cuc2FocHJhLm9yZy56YS9zYWZldHktYWwlcncRzL21zYS1wcm9tZXRoYXppbmUtMi8&ntb=1>

<sup>2</sup> Minutes of the NEMLC meeting of 23 June 2022

External comments on gradual titrated administration of topical retinoids, applying a “pea-sized” amount to the face and avoiding contact with eyes, and the area around the mouth and nose was accepted as pragmatic advice; and the STG text was amended as follows:

**For non-inflammatory acne:**

**Topical retinoids**

Main therapeutic objective is to control comedone formation.

Introduce topical retinoids gradually as a night-time application to limit skin irritant effects, as they are not photo-stable and degrade when exposed to sunlight (e.g. start twice a week and titrate up).

**CAUTION**

Do not use if pregnant or planning pregnancy.  
Limit exposure to sunlight. If sunburn occurs, discontinue therapy until the skin has recovered.

- Tretinoin, topical, apply at night to affected areas for at least 6 weeks.
  - Review patient after 6 weeks' treatment.
  - Minimise exposure to sunlight. If sunburn occurs, discontinue therapy until the skin has recovered.
  - Acne may worsen during the first few weeks.
  - Apply about a pea-sized amount to entire face. Avoid contact with eyes and area around mouth and nose.

**Level of Evidence: Expert opinion**

Doxycycline: directions for use amended

Following an external comment, the STG text was amended as follows:

- Doxycycline, oral, 100 mg daily for 3 months.
    - Review patient after 3 months of treatment.
    - It should be taken with meals.
    - Do not take it together with iron preparations and antacids.
- Note:** Doxycycline should always be used with a topical agent and should not be used as monotherapy.

However, an external comment to extend the duration of use for doxycycline from 3 months to 6 months was submitted without supporting evidence and was not considered, noting the concerns of antibiotic resistance.

**5.4.1 BOIL, ABSCESS**

Povidone iodine scrub: not added

An external comment was received for povidone iodine scrub as an anti-Staphylococcus measure for recurrent boils, without supporting evidence. Staining of clothing was also a concern. Available evidence<sup>3</sup> that was identified suggests chlorhexidine as a topical antiseptic and an adjunctive interventional strategy for reducing the risk of staphylococcal postoperative surgical site infections.

**5.4.2 IMPETIGO**

The NEMLC recommended at the meeting of the 25 August 2022<sup>4</sup> that the PHC/Adult Hospital Level ERC review the evidence for the retention and recommendation of cefalexin for *S Aureus* infections in relation to other antibiotics. An evidence review<sup>5</sup> was summarized including two Cochrane Reviews<sup>6,7</sup> (low & moderate quality review) and

<sup>3</sup> Edmiston CE Jr, Bruden B, Rucinski MC, Henen C, Graham MB, Lewis BL. Reducing the risk of surgical site infections: does chlorhexidine gluconate provide a risk reduction benefit? Am J Infect Control. 2013 May;41(5 Suppl):S49-55.

<sup>4</sup> Minutes of the NEMLC meeting of 25 August 2022.

<sup>5</sup> Cefalexin: National Department of Health: Affordable Medicines, EDP- Primary Healthcare and Adult Hospital Level. Medicine Review: Evidence summary of the use of cephalexin for S Aureus skin infections, September 2022.

<sup>6</sup> Kilburn SA, Featherstone P, Higgins B, Brindle R. Interventions for cellulitis and erysipelas. Cochrane Database Syst Rev. 2010 Jun 16;2010(6):CD004299. doi: 10.1002/14651858.CD004299.pub2. PMID: 20556757; PMCID: PMC869318

<sup>7</sup> Koning S, van der Sande R, Verhagen AP, van Suijlekom-Smit LW, Morris AD, Butler CC, Berger M, van der Wouden JC. Interventions for impetigo. Cochrane Database Syst Rev. 2012 Jan 18;1(1):CD003261. doi: 10.1002/14651858.CD003261.pub3. PMID: 22258953; PMCID: PMC7025440

In September 2022, an additional search brought up a protocol of a study that is still underway entitled antibiotic therapy for skin and soft tissue infections: a protocol for a systematic review and network meta-analysis (biomedcentral.com)<sup>9</sup>. Remaining, studies date back to the 1990's and early 2000's.

In summary.<sup>Error! Bookmark not defined.</sup>

- The Cochrane reviews could not definitively recommend one antibiotic treatment over another
- It was unclear if oral antibiotics are superior to topical antibiotics for the management of impetigo.
- Penicillin was not as effective as other antibiotics as an intervention for the management of impetigo.
- Mostly there was no significant difference between cefalexin and other treatments, however cefalexin was the most effective treatment (significantly different versus penicillin) in the treatment of non-bullous impetigo. In this case *S aureus* was the most common cause of impetigo in a paediatric population and cefalexin was the most effective treatment.

### Level of Evidence: Low to Moderate certainty evidence

Cefalexin, oral: retained

The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age.

Flucloxacillin, oral: retained & indication amended

As not all cases of impetigo need antibiotics, the indication for cefalexin/flucloxacillin was amended to: '*If extensive or systemic signs of infection (fever, unwell, fatigued)*', for clarity purposes.

#### 5.4.3 CELLULITIS

Flucloxacillin, oral: retained

Cefalexin, oral: retained

Amoxicillin: not added

Clindamycin, oral: not added

The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age.

External comment to replace flucloxacillin/cefalexin with amoxicillin/clindamycin without supporting evidence was not considered, noting that macrolides are already included as an alternative for severe penicillin allergy. A summary of the evidence<sup>10</sup> for the use of cefalexin in *S Aureus* skin infections showed that cefalexin might be the more effective treatment (significantly different versus penicillin in a pediatric population). Furthermore, the IDSA guidelines recommend cefalexin in combination with other antibiotics for both streptococci and Methicillin-resistant *Staphylococcus aureus* (MRSA) but also indicate that cefalexin alone is efficacious in pure cellulitis.<sup>11</sup>

<sup>8</sup> Intravenous antibiotics (severe cellulitis and erysipelas): Stevens DL, Bisno AL, Chambers HF, Dellinger EP, Goldstein EJ, Gorbach SL, Hirschmann JV, Kaplan SL, Montoya JG, Wade JC; Infectious Diseases Society of America. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. Clin Infect Dis. 2014 Jul 15;59(2):e10-52. <https://www.idsociety.org/practice-guideline/skin-and-soft-tissue-infections/>

<sup>9</sup> Bartoszko JJ, Mertz D, Thabane L, Loeb M. Antibiotic therapy for skin and soft tissue infections: a protocol for a systematic review and network meta-analysis. Syst Rev. 2018 Sep 11;7(1):138. doi: 10.1186/s13643-018-0804-8. PMID: 30205844; PMCID: PMC6134765.

<sup>10</sup> Cefalexin: National Department of Health: Affordable Medicines, EDP- Primary Healthcare and Adult Hospital Level. Medicine Review: Evidence summary of the use of cephalexin for *S Aureus* skin infections, September 2022.

<sup>11</sup> Intravenous antibiotics (severe cellulitis and erysipelas): Stevens DL, Bisno AL, Chambers HF, Dellinger EP, Goldstein EJ, Gorbach SL, Hirschmann JV, Kaplan SL, Montoya JG, Wade JC; Infectious Diseases Society of America. Practice guidelines for the diagnosis and management of skin and soft tissue infections: 2014 update by the Infectious Diseases Society of America. Clin Infect Dis. 2014 Jul 15;59(2):e10-52. <https://www.idsociety.org/practice-guideline/skin-and-soft-tissue-infections/>

#### 5.4.4 CHRONIC LOWER LEG ULCERS

Hydrocolloid dressings: *not added*

Moistened dressing e.g. gauze with Sodium chloride, 0.9%: *retained*

External comment was submitted without evidence to include hydrocolloid dressings for local wound care. There is no evidence to support the superiority of one dressing type over another when applied under appropriate multilayer compression bandaging<sup>12</sup>.

#### 5.5.2.4 PITYRIASIS VERSICOLOR – TINEA VERSICOLOR

Selenium sulfide, 2.5% suspension: *directions for use amended*

Directions for use was amended as follows for pragmatic purposes:

- » Oral antifungal therapy is not indicated.
- Selenium sulfide, 2.5% suspension apply once weekly for three weeks.
  - Lather shampoo on affected parts.
  - Leave on overnight, then wash off the following day.

**Level of Evidence: Expert opinion**

#### 5.6.3 NAIL INFECTIONS – TINEA UNGUIUM

Fluconazole, oral: *not added*

An external comment to include oral fluconazole was not considered, as the STG provides guidance for referral to secondary level of care if patients are distressed by cosmetic appearance.

Fluconazole was historically not added as evidence reviewed by the Expert Review Committee (2014) indicated minimal benefit of fluconazole for tinea unguium with mainly open label RCTs showing higher cure rates.<sup>13</sup> Therapy is also noted as costly.

#### 5.7.1.1 HEAD LICE

Permethrin 5%, topical: *retained*

#### 5.7.2 SCABIES

**Children < 6 years of age**

Permethrin 5%, topical: *retained*

Benzyl benzoate 25% lotion: *added*

There have been consistent reports of supply issues with permethrin 5%, thus guidance was provided to consider diluted benzyl benzoate in young children, aligned with SAMF<sup>14</sup>.

The STG text was updated as follows:

**If permethrin is unavailable for children < 6 years of age:**

Benzoyl benzoate 25% lotion:

- Children 0 months to 1 year of age:
  - Dilute 1 part of benzoyl benzoate to 3 parts of water to form an emulsion of 6%.
  - Apply diluted emulsion to the whole body from neck to feet as described above.

**Level of Evidence: Guidelines**

<sup>12</sup> Palfreyman SJ, Nelson EA, Lochiel R, Michaels JA. Dressings for healing venous leg ulcers. Cochrane Database Syst Rev. 2006 Jul 19;(3):CD001103. doi: 10.1002/14651858.CD001103.pub2.

<sup>13</sup> National Essential Medicines List Committee Implementation Slides- 2012

<sup>14</sup> SAMF, 2022

### 5.8.1 ECZEMA, ATOPIC

Emollient: retained as a therapeutic class

Emulsifying ointment (UE): retained as an example of class (emollient) listed in the STG

Cetamacrogol: not added as an example of class (emollient) – already included on the therapeutic interchange database

Corticosteroid, potent, topical: retained as a therapeutic class

Betamethasone 0.1%, topical: retained as an example of class (potent corticosteroid) listed in the STG

Fluocinolone, topical: not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database

### 5.8.2 ECZEMA, ACUTE, MOIST OR WEEPING

Hydrocortisone 1% topical: retained

Betamethasone 0.1%, topical: not added

Fluocinolone, topical: not added

The dosing of cefalexin was aligned to the PHC paediatric dosing table, chapter 23 for children ≤ 7 years of age.

External comment without supporting evidence to replace mild topical corticosteroids with potent topical corticosteroids was not considered, noting that historically, hydrocortisone 1% cream was added as a water based topical steroid for the treatment of acute and weeping eczema<sup>15</sup>; while the PHC STGs and EML recommends doctor prescribing of potent topical corticosteroids.

### 5.8.3 DERMATITIS, SEBORRHOEIC

Corticosteroid, potent, topical: retained as a therapeutic class

Betamethasone 0.1%, topical: retained as an example of class (potent corticosteroid) listed in the STG

Fluocinolone, topical: not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database

### 5.9 NAPPY RASH

Topical corticosteroid: not added

External comment without evidence, to include topical steroids for the treatment of nappy rash was not considered, noting that guidance is provided for referral to secondary level of care if there is no improvement after 3 days.

### 5.10.3 FIXED DRUG ERUPTIONS

Potent topical corticosteroid: not added

External comment without evidence, to include potent topical corticosteroids was not considered, noting that the PHC STGs and EML recommends doctor prescribing of potent topical corticosteroids.

### 5.10.4 PAPULAR URTICARIA

Hydrocortisone 1%, topical: retained

Fluocinolone, topical: not added

External comment without supporting evidence to replace hydrocortisone 1%, topical with potent topical corticosteroid, fluocinolone, was not considered, noting that the PHC STGs and EML recommends doctor prescribing of potent topical corticosteroids.

<sup>15</sup> Primary Healthcare Essential Medicines List NEMLC Report. Chapter 5: Skin. 28 November 2013.

LPC 5%: not added

External comment without supporting evidence to consider LPC 5% to relieve itching was not considered.

#### 5.10.4 PAPULAR URTICARIA

Hydrocortisone 1%, topical: retained

Fluocinolone, topical: not added

External comment without supporting evidence to replace hydrocortisone 1%, topical with potent topical corticosteroid, fluocinolone, was not considered, noting that the PHC STGs and EML recommends doctor prescribing of potent topical corticosteroids.

LPC 5%: not added

External comment without supporting evidence to consider LPC 5% to relieve itching was not considered. Review of the literature did not result in high certainty evidence for the use of LPC 5% in the treatment of papular urticaria.

#### 5.11 PITYRIASIS ROSEA

Calamine lotion: not added

Hydrocortisone 1%, topical: not added

Aqueous cream: deleted

External comment without supporting evidence to consider calamine lotion and topical mild corticosteroids and to remove aqueous cream for the management of pityriasis rosea was received. Guidelines for management of the condition were sought but evidence to support the addition of calamine or topical corticosteroids for this indication could not be justified.

At the NEMLC meeting on the 25 August 2022 it was raised that there might be a safety issue with the use of aqueous cream due to the ingredient sodium lauryl sulphate which can be irritant<sup>16</sup>, and therefore NEMLC recommended the use of aqueous cream should be reconsidered. Although sodium lauryl sulphate free products are available on the market, no evidence could be found for the explicit use of aqueous cream in pityriasis rosea, and therefore aqueous cream was removed from the PHC STG and EML for this indication.

#### 5.12 MOLLUSCUM CONTAGIOSUM

Benzoyl peroxide: not added

Tincture of iodine BP: retained

External comment without supporting evidence for benzoyl peroxide as an irritant to allow lesions to become inflamed and then involute was received. Review of the literature showed that the Centers for Disease Control (CDC) recommendations<sup>17</sup> suggest physical removal of lesions through cryotherapy (freezing the lesion with liquid nitrogen), curettage and laser therapy all outside the scope of PHC level. The CDC guidance does not recommend the patient try and remove lesions or the fluid inside of lesions as it may unintentionally autoinoculate other parts of

<sup>16</sup> Aqueous cream: may cause skin irritation. <https://www.gov.uk/drug-safety-update/aqueous-cream-may-cause-skin-irritation#:~:text=Although%20aqueous%20cream%20is%20useful,%2C%20burning%2C%20itching%20and%20redness>. 11 March 2014.

<sup>17</sup> Molluscum contagiosum. Centers for Disease Control. <https://www.cdc.gov/poxvirus/molluscum-contagiosum/treatment.html>.

the body, risk spreading it to others and result in bacterial infection. A Cochrane review showed that iodine is used as a treatment option but no single treatment is convincingly effective in the treatment of molluscum contagiosum<sup>18</sup>.

## Level of Evidence: Low certainty systematic review evidence and Guidelines

### 5.15.1 COMMON WARTS

Histofreeze: not added

External comment without supporting evidence for histofreeze was received. Review of the available evidence showed that Histofreeze would require a portable cryosurgical system at a high cost and therefore was not included.

### 5.16 PSORIASIS

Corticosteroid, potent, topical: retained as a therapeutic class

Betamethasone 0.1%, topical: retained as an example of class (potent corticosteroid) listed in the STG

Fluocinolone, topical: not added as an example of class (potent corticosteroid) – already included on the therapeutic interchange database

Biologics: not added

External comments received from two manufacturer motivating for early use of biologics in patients with psoriasis, was not accepted. However, the matter was referred to the Tertiary and Quaternary Expert Review Committee for consideration.

### 5.17 HIDRADENITIS SUPPURATIVA

Monoclonal antibodies: not added

Steroids: not added

Antibiotics: not added

External comment received from a manufacturer for antibiotic, steroids and biologics for the management of hidradenitis suppurativa. However, individualised management of patients is required with treatment of symptoms and comorbidities. Treatment varies and includes therapeutics such as topical treatment, anti-androgenic medicines and spironolactone. The STGs do provide for management of furuncles and abscesses. Refractory therapy includes the following therapeutic options: rifampicin, dapsone, laser therapy, surgery and monoclonal antibodies. The matter pertaining to monoclonal antibodies was referred to the Tertiary and Quaternary Expert Review Committee for consideration.

In addition, the following text was added to the STG:

#### Referral

» All patients with abscesses, infected cysts or sinuses suspected to be due to hidradenitis suppurativa

### 5.18.1 ALBINISM

Zinc oxide, topical ointment: retained, directions for use not amended

Titanium dioxide, topical ointment/cream (UV block): retained, directions for use not amended, product name revised to high potency (SPF) sunblock, topical (UV Block)

<sup>18</sup> van der Wouden JC, van der Sande R, Kruithof EJ, Sollie A, van Suijlekom-Smit LW, Koning S. Interventions for cutaneous molluscum contagiosum. Cochrane Database Syst Rev. 2017 May 17;5(5):CD004767. doi: 10.1002/14651858.CD004767.pub4. PMID: 28513067; PMCID: PMC6481355.



External comment *without* supporting evidence to re-apply sunscreens at least every 2 hours was received. Although sunscreens are recommended for hypo pigmentation,<sup>19</sup> and drug information sites<sup>20</sup> indicate that most sun screens can be easily removed from the skin and therefore should be reapplied every one to two hours for adequate protection (especially after swimming and severe perspiration); the practicality of the reapplication at least every 2 hours could not be guided by strong evidence.

### 5.18.2 VITILIGO

*Titanium dioxide, topical ointment/cream (UV block): retained, product name revised to high potency (SPF) sunblock, topical (UV Block)*

External comment *without* supporting evidence to remove UV blocks in vitiligo was received. Review of the available evidence indicated that sunscreens are recommended in the management of vitiligo, and was retained with a revision of the active ingredient of the treatment from titanium dioxide, topical ointment/ cream to high potency (SPF) sunblock, topical (UV Block)

Text encouraging patients to only use sunscreen when the sun is at its strongest was deleted from the STG, as application of sunscreen was deemed appropriate at any time of the day.

The STG was revised as follows:

#### From

#### MEDICINE TREATMENT

- Titanium dioxide, topical ointment/cream (UV block),
  - o Only use when sun is at its strongest i.e., between 10:00 and 15:00.
  - o Apply evenly to all sun exposed areas at least 15 minutes before going out into the sun during this time

#### To

#### MEDICINE TREATMENT

- High potency (SPF) sunblock, topical (UV block)
  - Apply evenly to all sun exposed areas at least 15 minutes before going out into the sun.

### 5.19 PRESSURE ULCERS/SORES

Referral criterion (for rehabilitation): added

Referral criterion was added for referral to rehabilitation on receipt of motivation from RuReSA and Rehabilitation Associations of SA in collaboration with the Department of Health and Rehabilitation Sciences, Stellenbosch University for electrical stimulation for wound management in addition to standard care to improve healing<sup>21</sup>; and for prevention of pressure sores e.g., wheelchair users should be referred to rehabilitation for wheelchair and transfers training<sup>22 23</sup>.

The STG text was amended as follows:

#### Referral

<sup>19</sup> Hill JP, Batchelor JM. An approach to hypopigmentation. BMJ. 2017 Jan 12;356:i6534. doi: 10.1136/bmj.i6534. PMID: 28082370.

<sup>20</sup> Sunscreen Agent (Topical application). <https://www.drugs.com/cons/sunscreen-agent-topical-application.html>

<sup>21</sup> Arora M, Harvey LA, Glinisky JV, Nier L, Lavrencic L, Kifley A, Cameron ID. Electrical stimulation for treating pressure ulcers. Cochrane Database Syst Rev. 2020 Jan 22;1(1):CD012196. <https://pubmed.ncbi.nlm.nih.gov/35244315/>

<sup>22</sup> Harvey LA, Glinisky JV, Bowden JL. The effectiveness of 22 commonly administered physiotherapy interventions for people with spinal cord injury: a systematic review. Spinal Cord. 2016 Nov;54(11):914-923. <https://pubmed.ncbi.nlm.nih.gov/27349607/>

<sup>23</sup> Wang J, Ren D, Liu Y, Wang Y, Zhang B, Xiao Q. Effects of early mobilization on the prognosis of critically ill patients: A systematic review and meta-analysis. Int J Nurs Stud. 2020 Oct;110:103708. <https://pubmed.ncbi.nlm.nih.gov/32736250/>

## POST PUBLICATION AMENDMENTS:2025

### 5.3 ACNE VULGARIS

Benzoyl peroxide, topical: *retained*

Following the publication of chapter, the NDoH Bid Specification Committee requested NEMLC to update the STG text to recommend benzoyl peroxide “topical” instead of “gel” in order to allow for wider choice of products in the market. The STG has been amended as follows:

PHC Chapter 5: Skin Conditions	
Section: 5.3 Acne Vulgaris	
Amended from	Amended To
<b>MEDICINE TREATMENT</b> <b>Mild inflammatory acne:</b> <ul style="list-style-type: none"><li>• Benzoyl peroxide 5%, gel, apply in the morning to affected areas as tolerated.<ul style="list-style-type: none"><li>o Wash off in the evening.</li><li>o If ineffective and tolerated, increase application to 12 hourly.</li><li>o Avoid contact with eyes, mouth, angles of the nose and mucous membranes.</li></ul></li></ul>	<b>MEDICINE TREATMENT</b> <b>Mild inflammatory acne:</b> <ul style="list-style-type: none"><li>• Benzoyl peroxide 5%, topical, apply in the morning to affected areas as tolerated.<ul style="list-style-type: none"><li>o Wash off in the evening.</li><li>o If ineffective and tolerated, increase application to 12 hourly.</li><li>o Avoid contact with eyes, mouth, angles of the nose and mucous membranes.</li></ul></li></ul>