

Management

- Treatment modalities for skin disease can be broadly categorised into medical therapy (topical and systemic treatments) and physical therapy (e.g. cryotherapy, phototherapy, photodynamic therapy, lasers and surgery).
- Topical treatments directly deliver treatment to the affected areas and this reduces systemic side effects. It is suitable for localised and less severe skin conditions. They consist of active constituents which are transported into the skin by a base (also known as a 'vehicle'). Examples of active ingredients are steroids, tar, immunomodulators, retinoids, and antibiotics. The common forms of base are lotion (liquid), cream (oil in water), gel (organic polymers in liquid, transparent), ointment (oil with little or no water) and paste (powder in ointment).
- Systemic therapy is used for extensive and more serious skin conditions, if the treatment is ineffective topically or if there is systemic involvement. However, they have the disadvantage of causing systemic side effects.

Learning objectives:

Ability to describe the principles of use of the following drugs:

- emollients
- topical/oral corticosteroids
- oral aciclovir
- oral antihistamines
- topical/oral antibiotics
- topical antiseptics

Emollients

- Examples**
- Aqueous cream, emulsifying ointment, liquid paraffin and white soft paraffin in equal parts (50:50)
- Quantity**
- 500 grams per tub
- Indications**
- To rehydrate skin and re-establish the surface lipid layer
 - Useful for dry, scaling conditions and as soap substitutes
- Side effects**
- Reactions may be irritant or allergic (e.g. due to preservatives or perfumes in creams)

Topical/Oral corticosteroids

- Examples**
- Topical steroids: classified as mildly potent (e.g. hydrocortisone), moderately potent (e.g. clobetasone butyrate (*Eumovate*)), potent (e.g. betamethasone valerate (*Betnovate*)), and very potent (e.g. clobetasol propionate (*Dermovate*))
 - Oral steroids: prednisolone
- Quantity**
- Usually 30 grams per tube (enough to cover the whole body once)
- Indications**
- Anti-inflammatory and anti-proliferative effects
 - Useful for allergic and immune reactions, inflammatory skin conditions, blistering disorders, connective tissue diseases, and vasculitis
- Side effects**
- Local side effects (from topical corticosteroids): skin atrophy (thinning), telangiectasia, striae, may mask, cause or exacerbate skin infections, acne, or perioral dermatitis, and allergic contact dermatitis.
 - Systemic side effects (from oral corticosteroids): Cushing's syndrome, immunosuppression, hypertension, diabetes, osteoporosis, cataract, and steroid-induced psychosis

Oral acyclovir

- Examples**
- Acyclovir
- Indications**
- Viral infections due to herpes simplex and herpes zoster virus
- Side effects**
- Gastrointestinal upsets, raised liver enzymes, reversible neurological reactions, and haematological disorders

Oral antihistamines

- Examples**
- Classified into nonsedative (e.g. cetirizine, loratadine) and sedative

antihistamines (e.g. chlorpheniramine, hydroxyzine)

- Indications**
- Block histamine receptors producing an anti-pruritic effect
 - Useful for type-1 hypersensitivity reactions and eczema (especially sedative antihistamines for children)
- Side effects**
- Sedative antihistamines can cause sedation and anticholinergic effects (e.g. dry mouth, blurred vision, urinary retention, and constipation)

Topical/Oral antibiotics

- Examples**
- Topical antibiotics: fusidic acid, mupirocin (*Bactroban*), neomycin
 - Oral antibiotics: penicillins, cephalosporins, gentamicin, macrolides, nitrofurantoin, quinolones, tetracyclines, vancomycin, metronidazole, trimethoprim
- Indications**
- Useful for bacterial skin infections, and some are used for acne
- Side effects**
- Local side effects (from topical antibiotics): local skin irritation/allergy
 - Systemic side effects (from oral antibiotics): gastrointestinal upset, rashes, anaphylaxis, vaginal candidiasis, antibiotic-associated infection such as *Clostridium difficile*, and antibiotic resistance (rapidly appears to fusidic acid)

Topical antiseptics

- Examples**
- Chlorhexidine, cetrimide, povidone-iodine
- Indications**
- Treatment and prevention of skin infection
- Side effects**
- Local side effects: local skin irritation/allergy

Oral retinoids

- Examples**
- Isotretinoin, Acitretin
- Indications**
- Acne, psoriasis, and disorders of keratinisation
- Side effects**
- Mucocutaneous reactions such as dry skin, dry lips and dry eyes, disordered liver function, hypercholesterolaemia, hypertriglyceridaemia, myalgia, arthralgia and depression
 - Teratogenicity: effective contraception must be practised one month before, during and at least one month after isotretinoin, but for two years after Acitretin (consult current BNF for further details)