Dermatology

Dr Matt Smialowski

GP, Tunbridge Wells

Introduction

- Overview of General Practice Dermatology
- Based on curriculum matrix
- Images from dermnet.nz
- Management from dermnet.nz and NICE CKS
- Focus on the common presenting complaints and overview of treatments
- Quiz and Questions

Dermatology Vocabulary

- Useful to be able to describe the problem in notes / referrals

- Configuration
  - Nummular / discoid: round or coin-shaped
  - Linear: often occurs due external factors (scratching)
  - Target: concentric rings
  - Annular: lesions grouped in a circle.
  - Serpiginous: snake like
  - Reticulate: net-like with spaces

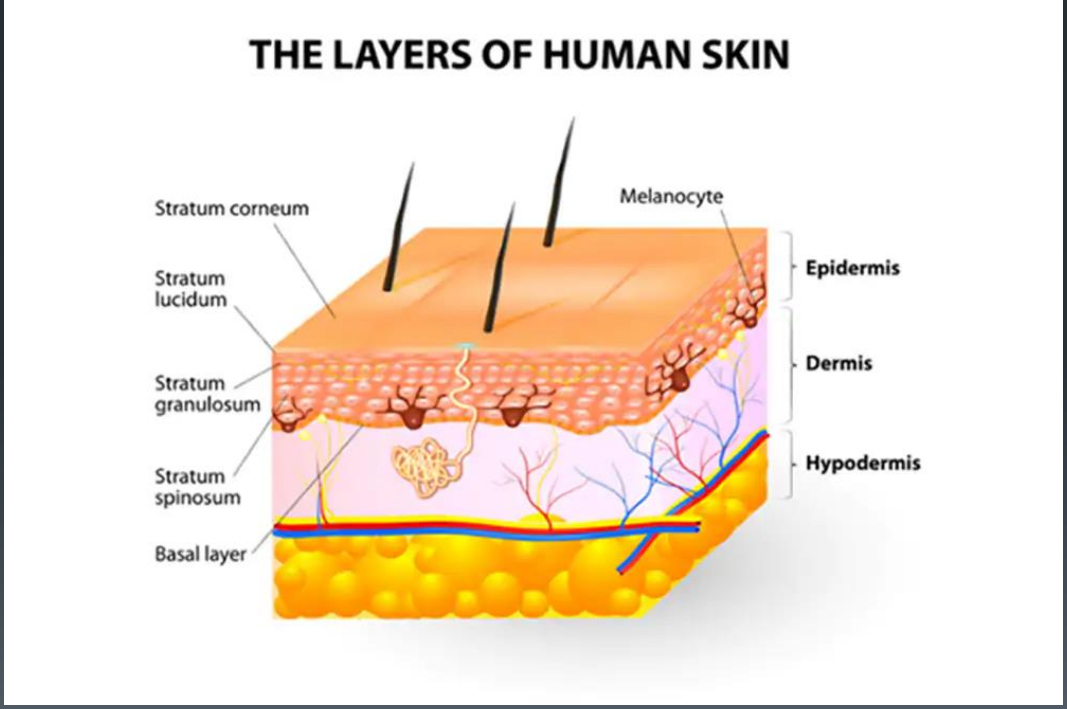
Dermatology Vocabulary

- Morphology
  - Macule: small area of skin 5-10mm, altered colour, not elevated
  - Patch: larger area of colour change, with smooth surface
  - Papule: elevated, solid, palpable <1cm diameter
  - Nodule: elevated, solid, palpable >1cm diameter
  - Cyst: papule or nodule that contains fluid / semi-fluid material
  - Plaque: circumscribed, palpable lesion >1cm diameter
  - Vesicle: small blister <1cm diameter that contains liquid
  - Pustule: circumscribed lesion containing pus (not always infected)
  - Bulla: Large blister >1cm diameter that contains fluid
  - Weal: transient elevation of the skin due to dermal oedema

Skin Function

- Prevention of water loss
- Immune defence
- Protection against UV damage
- Temperature regulation
- Synthesis of vitamin D
- Sensation
- Aesthetics

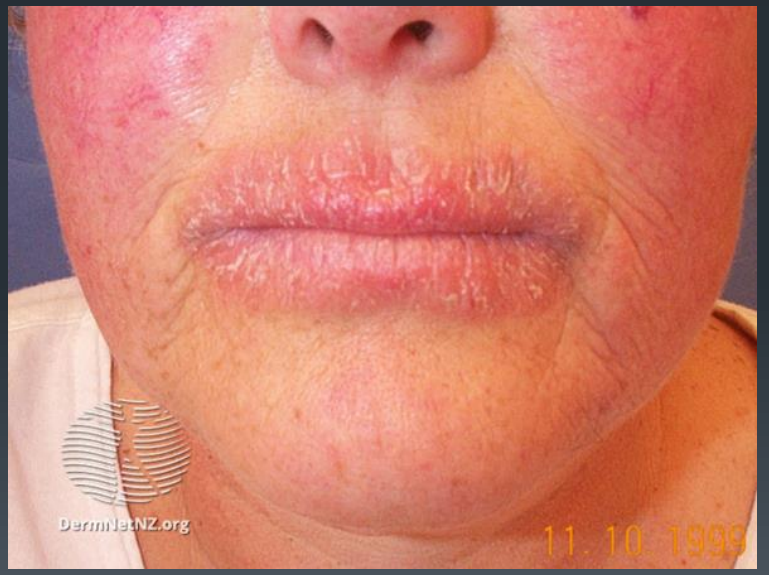
Skin Structure



Eczematous Eruptions

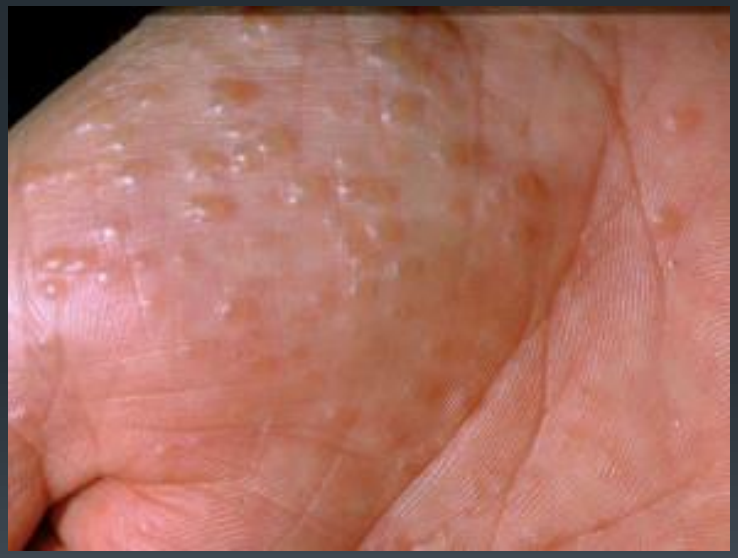
Cheilitis / Peri-oral Dermatitis

- Common problem
- Acute / relapsing / recurrent
- Causes
  - Chelitis
    - Environmental: sun damage
    - Inflammatory
  - Angular cheilits
    - Infection: fungal
    - Vitamin B / iron deficiency
  - Perioral dermatitis
    - Potent topical steroids



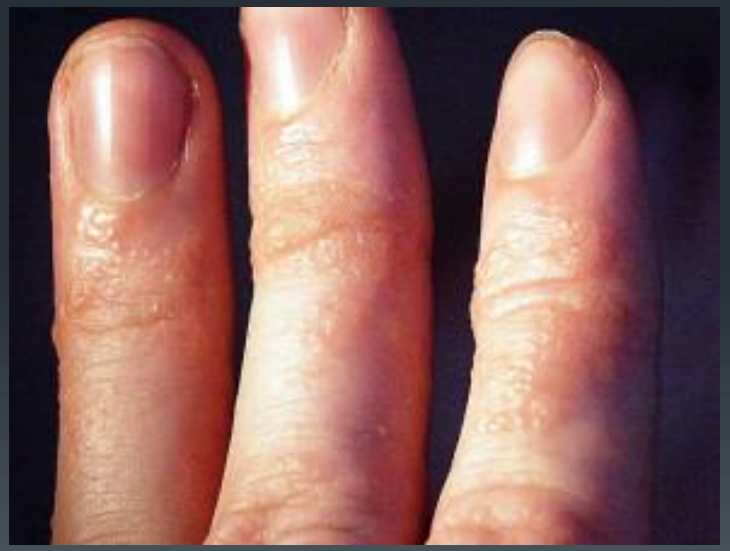
Pompholyx

- Vesicular form of hand or foot eczema.
- Commonly affects young adults.
- Causes
  - Sweating
  - Irritants
- Recurrent crops of itchy deep-seated blisters.



Pompholyx

- General Measures
  - Cold packs
  - Soothing emollients
  - Gloves / avoid allergens
- Prescription:
  - Potent topical steroids
  - Oral steroids
  - Antibiotics if infected



Napkin Dermatitis

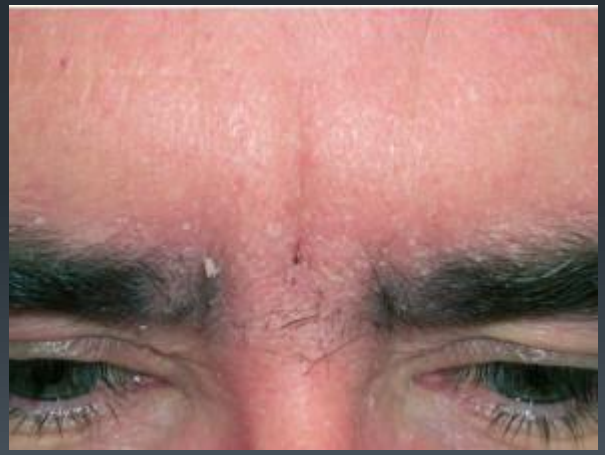
- >50% of infants
- Usually an irritant contact dermatitis.
- May develop fungal infection – satellite lesions,
- Other causes
  - Seborrhoeic dermatitis
  - Bacterial infection
  - Psoriasis
  - Allergic contact dermatitis.
- Treatment
  - Mild topical corticosteroids
  - Antifungal creams
  - Barrier creams (hydromol)

Napkin rash unresponsive to standard treatment

- Think again
- Check how the area is washed and what is being applied
- Skin swabs / scrape for fungus
- Psoriasis: well demarcated, minimal scale, starting on convex surface of buttocks
- Blisters / erosions: SSSS – admission
- Purpura / ulceration: Langerhans cell histiocytosis
- Zinc deficiency: psoriasiform dermatitis around the mouth and napkin area, paronychia, sparse hair, failure to thrive, recurrent candidia

Adult Seborrhoeic Dermatitis

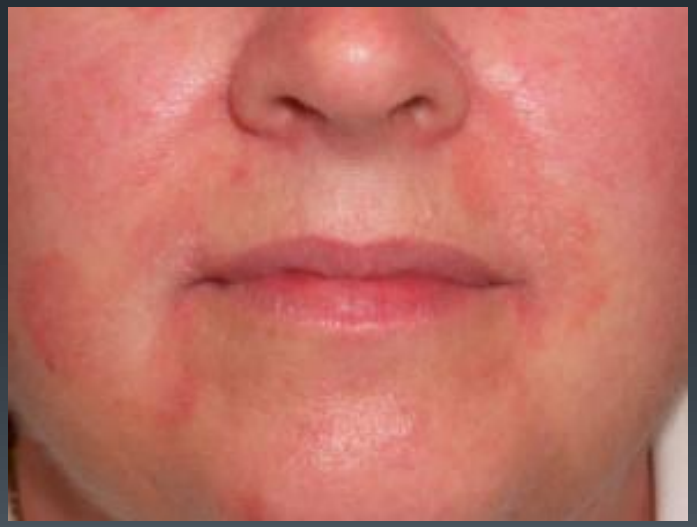
- Common, relapsing or chronic dermatitis that affects sebaceous gland rich regions.
- Proliferation of Malassezia (yeast) skin commensal.
- Features:
  - Minimal itch
  - Scaly patches / erythema
  - Blepharitis



Adult Seborrhoeic Dermatitis

- Management
  - Keratolytics to remove scale
  - Ketoconazole shampoo
  - Mild topical steroids

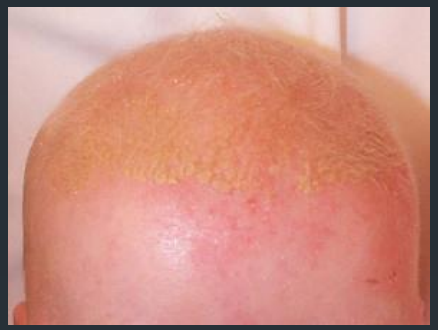
  - Second Line
    - Tacrolimus
    - Oral antifungals

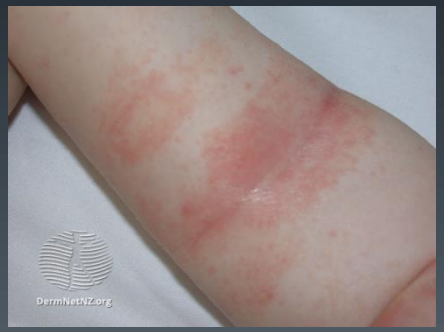


Infant Seborrhoeic Dermatitis

- Cradle cap
- May spread to armpit and groin folds (napkin dermatitis)
- Salmon pink patches that may flake or peel.

- Management
  - Regular washing
  - Topical antifungals

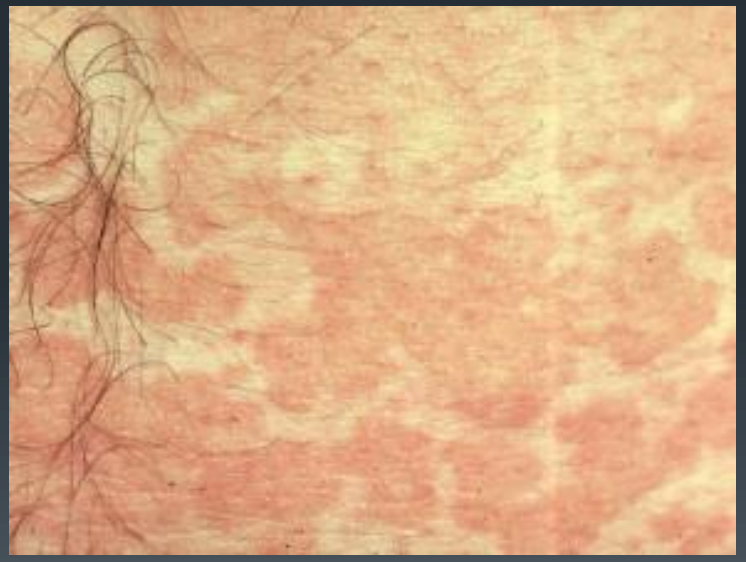




Papulosquamous Diseases

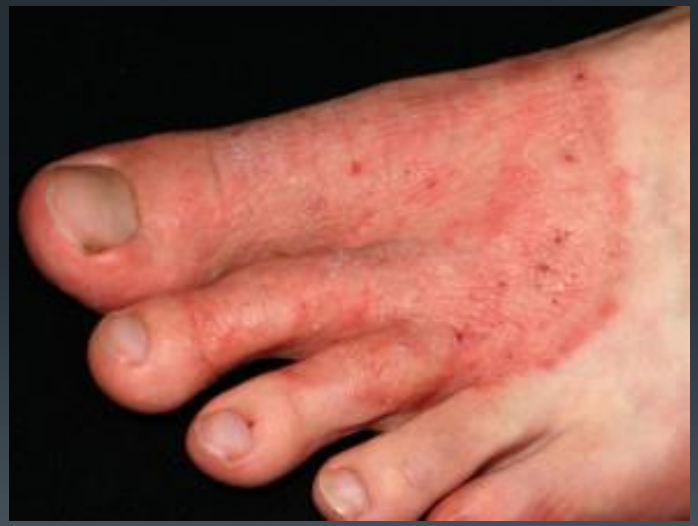
Pityrasis Versicolour

- Mycelial growth of Malassezia.
- Flaky discoloured patches on the chest and back.
- Young adults.
- Yellow-green fluorescence under Woods lamp.
- Topical ketoconazole.
- Often leaves hypopigmentation.



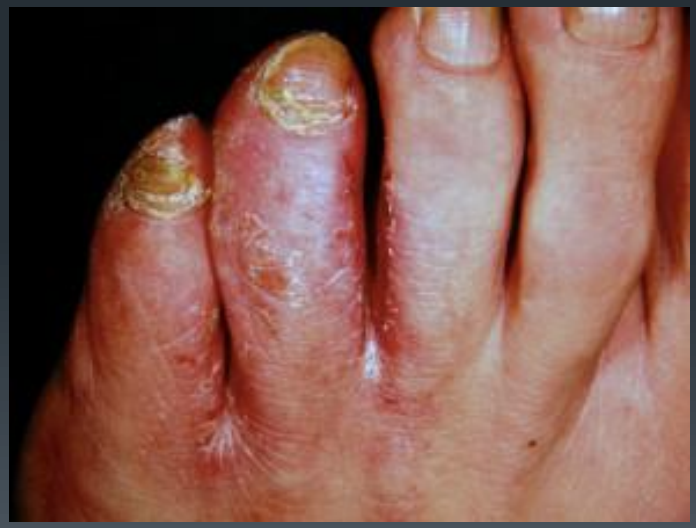
Tinea Pedis

- Athlete's foot
- Presentation:
  - Asymmetrical
  - Itchy erosion / scale, or
  - Scale covering sole / sides, or
  - Small blisters
- Differential
  - Inflammatory tend to be symmetrical



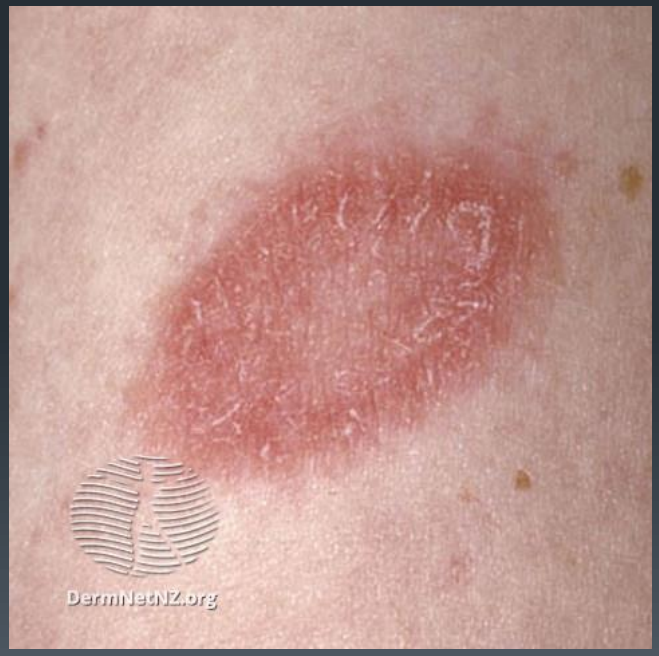
Tinea Pedis

- Treatment
- General measures
  - Drying feet
  - Avoiding occlusive footwear
  - Sandals in communal areas
- Topical antifungals
- Oral antifungals



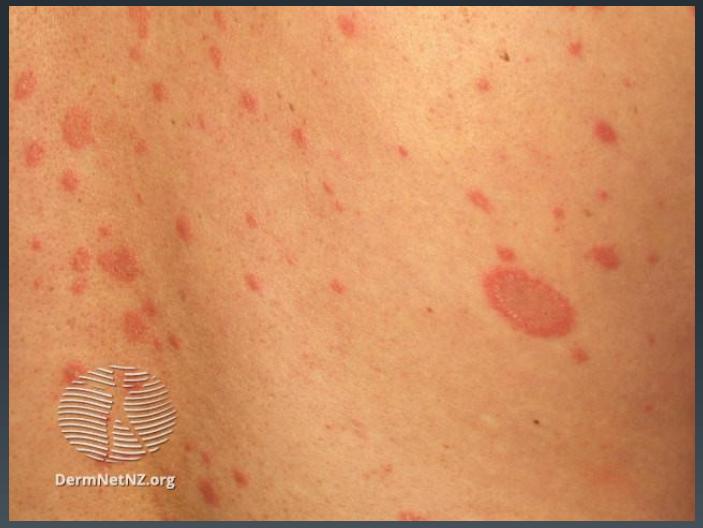
Pityriasis Rosea

- Viral rash lasting 6-12 weeks.
- Herald patch, followed by similar, smaller oval red patches following relaxed skin tension lines – Fir Tree
- Associated with reactivation of herpes viruses 6 & 7



Pityriasis Rosea Treatment

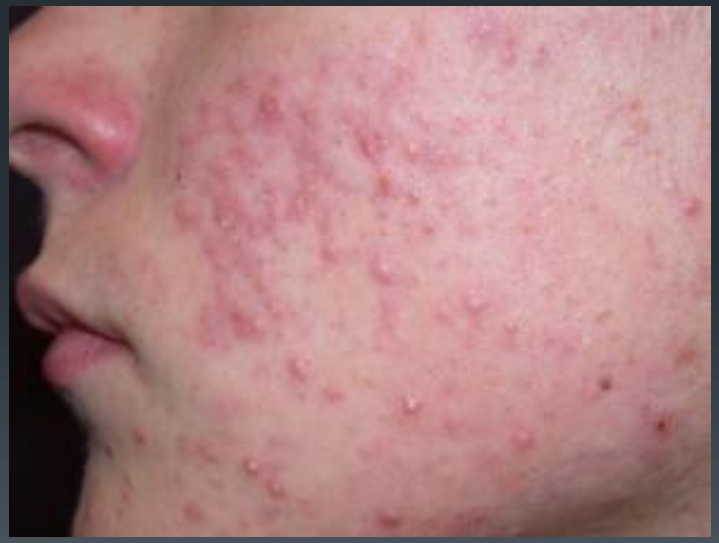
- General
  - Wash with aqueous cream
  - Emollients
  - Sunlight
- Prescriptions
  - Not generally needed
  - Topical steroid for itch



Acneiform eruptions

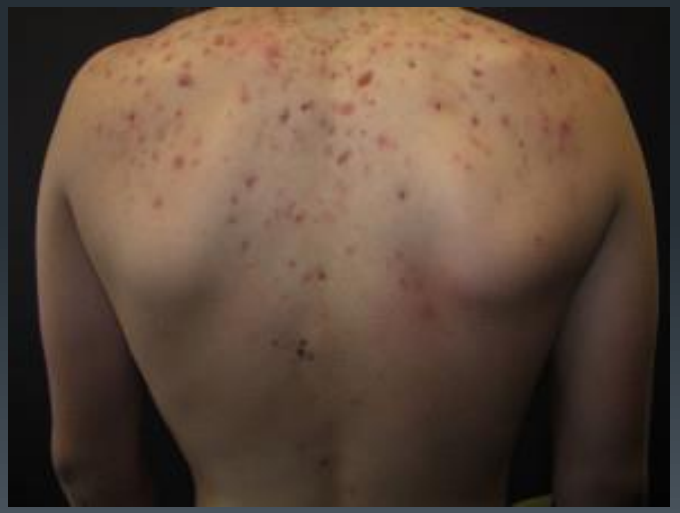
Acne Vulgaris

- Face > neck, chest & back
- Colonisation of the pilosebaceous unit by *Propionibacterium acnes*
- Primary
  - Open / closed comedones
  - Papules / pustules
  - Nodules / pseudocysts
- Secondary
  - Excoriations
  - Macules
  - Scarring



Acne Vulgaris Grading

- **Mild acne**
  - <20 comedones
  - <15 inflammatory lesions
  - Or, total lesion count <30
- **Moderate acne**
  - 20–100 comedones
  - 15–50 inflammatory lesions
  - Or, total lesion count 30–125
- **Severe acne**
  - >5 pseudocysts
  - Total comedo count >100
  - Total inflammatory count >50
  - Or total lesion count >125



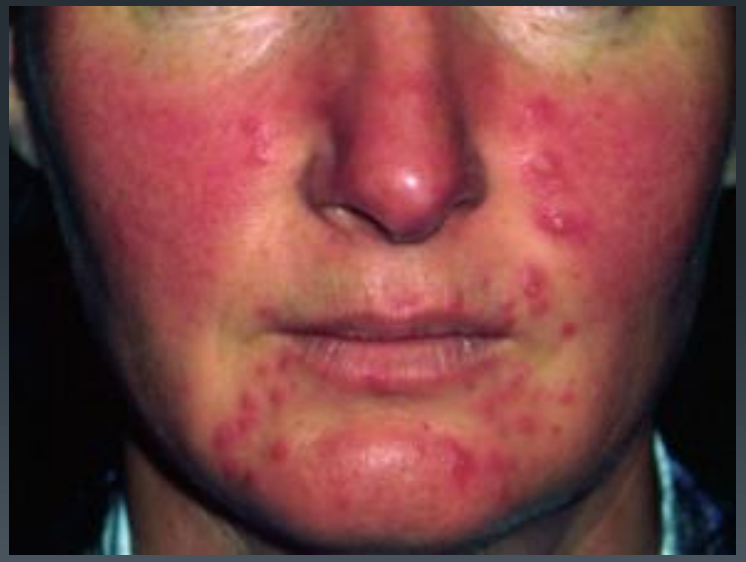
Acne Vulgaris Treatment

- Mild-to-moderate
  - Single topical Rx: retinoid / antibiotic / cleanser
  - If response inadequate – consider oral antibiotics (tetracycline) for 3 months.
  - COCP is an alternative to oral antibiotic in women.
  - Use topical cleanser in combination with oral to reduce risk of antibiotic resistance developing.

- Severe / not responding to treatment or causing scarring
  - Refer dermatology for consideration of isotretinoin
    - Arrange fasting bloods

Rosacea

- Generally presents in 4th decade.
- Clinical diagnosis
  - Diagnostic clinical features
    - Phymatous changes
    - Persistent erythema
  - Major clinical features
    - Flushing
    - Inflammatory papule/pustules
    - Telangectasia
    - Eye symptoms



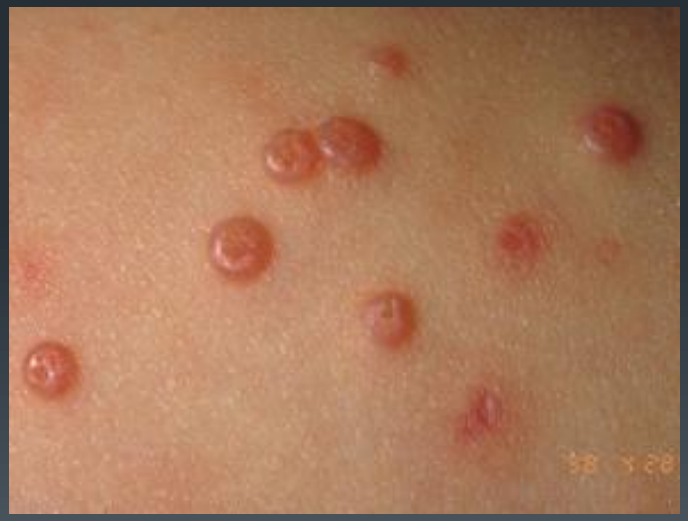
Rosacea Management

- Self management
  - Avoid trigger factors, use sun protection, non-oily emollients
  - Skin camouflage referral – Changing Faces (yellow/green tinted)
- First line
  - Brimonidine may reduce flushing
  - Ivermectin / metronidazole topically for mild to moderate papules / pustules
  - Oral doxycycline 8-12 weeks (review response in this time)
- Blepharitis – lid hygiene and artificial tears
- Referral
  - Persisting disease not responding / prominent non-inflamed phymatous disease

Viral Diseases

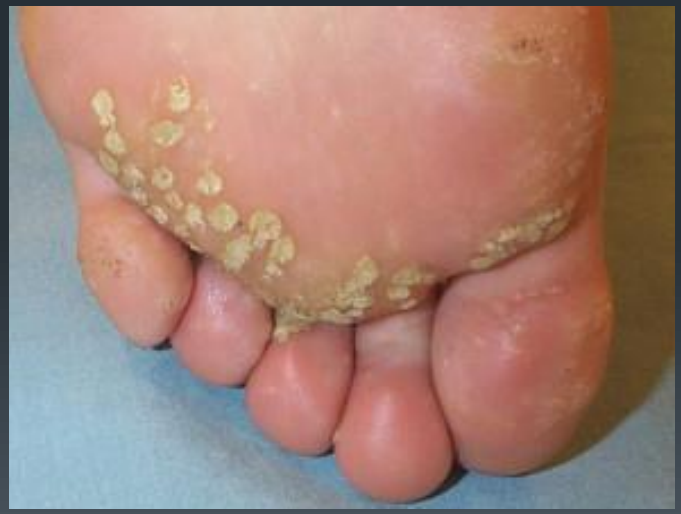
Molloscum Contagiosum

- Common cutaneous poxvirus infection
- Easily spread
- Firm, skin coloured to pink papules, central umbilication
- Inflammatory reactions
- Generally resolves over months to years



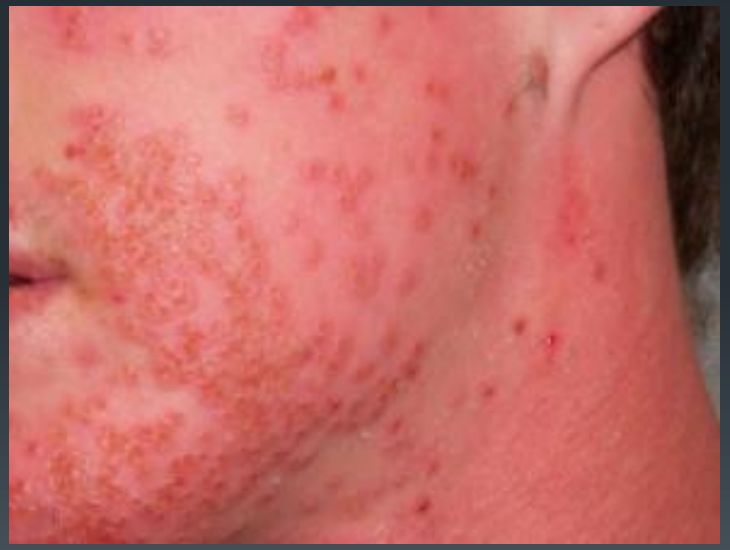
Viral Warts

- Caused by HPV.
- Common in school aged children & immune-suppressed.
- Hard, keratinous surface.
- Treatment
  - No treatment (9
  - Stimulate immune system
  - Topical salicylic acid
  - Cryotherapy
  - Electrosurgery – may recur in the scar.

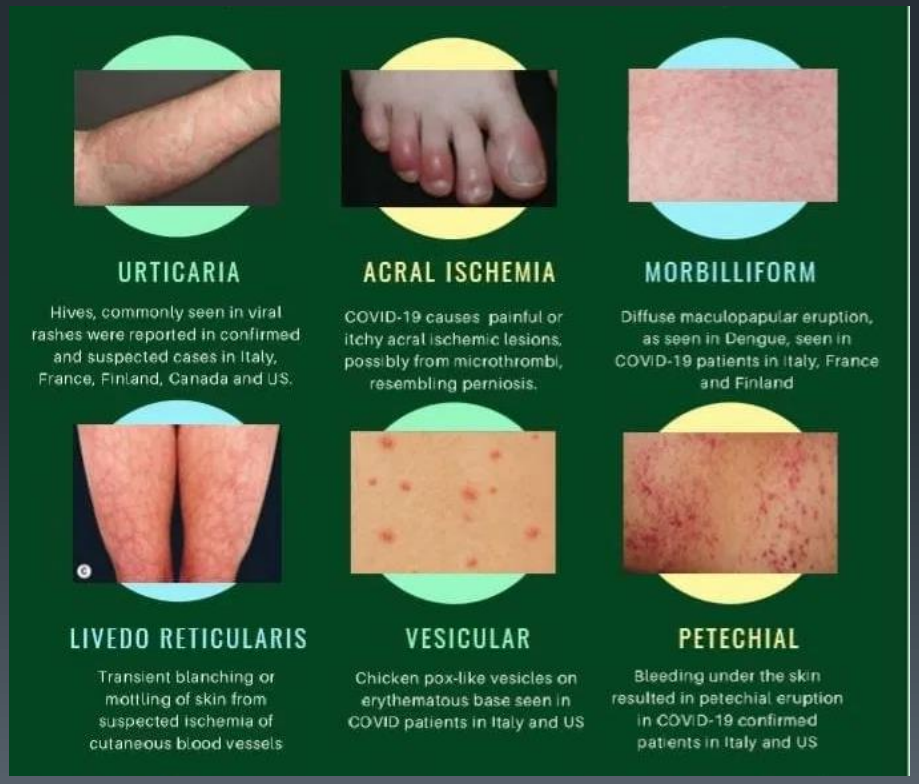


Eczema Herpeticum

- Disseminated viral infection characterised by fever and clusters of itchy blisters or punched-out erosions.
- Caused by HSV 1 or 2
- Admission
- Serious complications
  - Eye involvement
  - Meningeal involvement



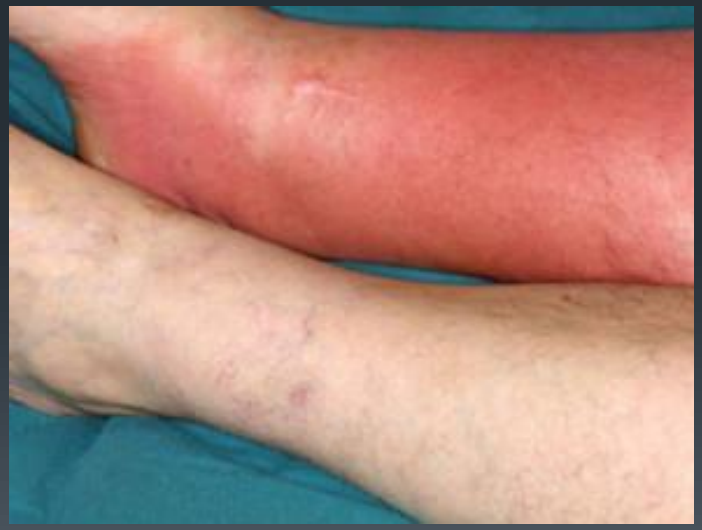
Covid-19 Rashes



Bacterial Infections

Cellulitis

- Bacterial infection of the lower dermis or sc tissue.
- Commonly strep pyogenes and staph aureus
- Usually unilateral & affecting a limb.
- Systemic symptoms may occur first, followed by localised signs of painful, red, swollen skin.



Cellulitis Eron Classification

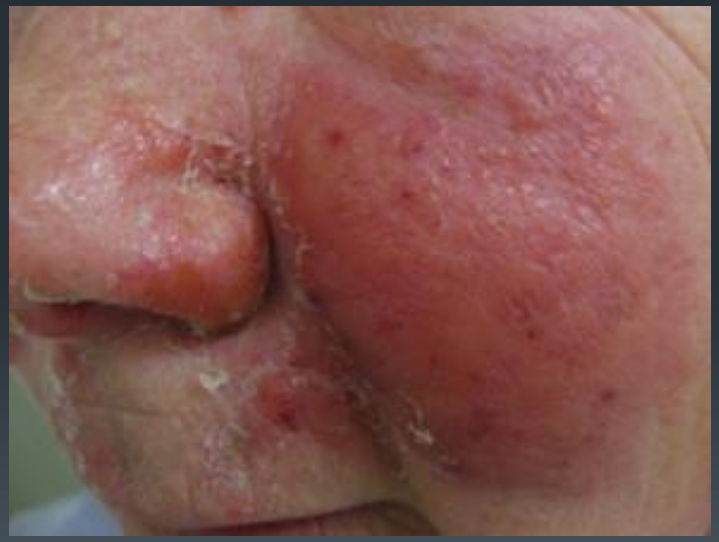
- Class I — there are no signs of systemic toxicity and the person has no uncontrolled comorbidities.
- Class II — the person is either systemically unwell or systemically well but with a comorbidity (for example peripheral arterial disease, chronic venous insufficiency, or morbid obesity) which may complicate or delay resolution of infection.
- Class III — the person has significant systemic upset, such as acute confusion, tachycardia, tachypnoea, hypotension, or unstable comorbidities that may interfere with a response to treatment, or a limb-threatening infection due to vascular compromise.
- Class IV — the person has sepsis or a severe life-threatening infection, such as necrotizing fasciitis

Cellulitis Management

- Eron Class III / IV need admission
- Eron Class II may be managed by home treatment service (home iv Abx and follow up), or admission.
- Eron Class I
  - Mark area, emollient for dry skin.
  - Antibiotics (follow local guidelines)
    - Flucloxacillin or clarithromycin / doxycycline
    - Facial / bites – Co-amoxiclav / clarithromycin
    - Water-borne – take advice from microbiology
    - Continue for at least 14 days from time definite clinical response seen and until all signs of acute inflammation have resolved.
  - Review after 2-3 days or sooner if worsening

Erysipelas

- Superficial form of cellulitis.
- Affects the upper dermis and extends into the superficial cutaneous lymphatics.
- Also known as St Anthony's fire due to the intense rash associated with it.
- Caused by Group A beta-haemolytic streptococcus (strep pyogens)



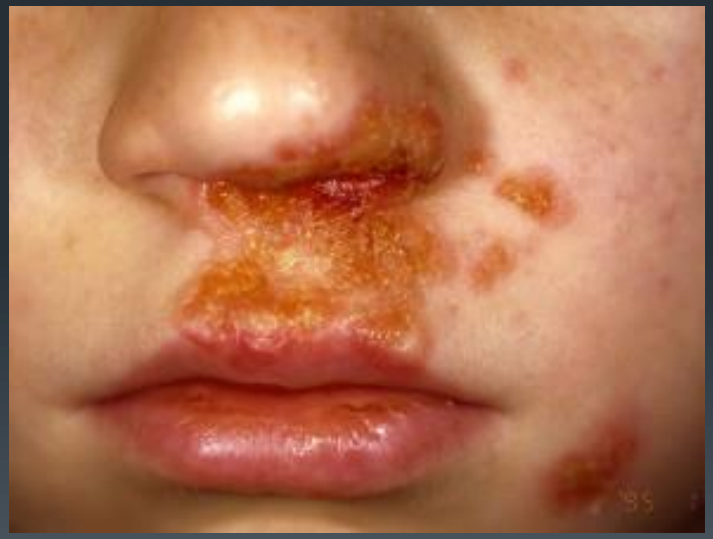
Erysipelas

- Clinical features
  - Skin of lower limbs or face typically
  - Sharp raised border, bright red, firm and swollen (more than cellulitis).
  - May blister or develop purpura.

- Treatment
  - Cold pack, analgesia, elevation, compression stockings
  - Antibiotics
    - Flucloxacillin / Clarithromycin / Doxycyline for 10-14 days.

Impetigo

- Common superficial bacterial skin infection.
- Pustules & honey-coloured crusted erosions.
- Often seen in children.
- May be non-bullous or bullous.



Impetigo Treatment

- Localised non-bullous impetigo
  - Topical hydrogen peroxide 1% or
  - Topical fusidic acid for 5-7 days
- Widespread non-bullous impetigo
  - Topical or oral antibiotic (not in combination)
- Bullous impetigo / systemically unwell
  - Short course oral antibiotic: flucloxacillin / clarithromycin
- Follow up

Quiz & Questions

- What is the infective agent implicated in acne?
  - Staphylococcus aureus
  - Streptococcus pyogenes
  - Staphylococcus epidermidis
  - Propionibacterium acnes

- What disorder is characterised by an initial ‘herald patch’ which is then followed by scaly erythematous plaques usually in a ‘Christmas tree’ distribution?
  - Pityriasis rosea
  - Herpes
  - Varicella zoster virus
  - Pityriasis versicolour

- How does impetigo present?
  - Golden honey coloured crust over an erythematous base
  - Salmon coloured plaque with silvery scale
  - Comedones, pustules and nodules
  - Flesh coloured papule with a rough surface

- A 67 year old man comes to your clinic with a facial rash that started as intermittent flushing several years ago, that he had never really worried about. More recently he has noticed his face becoming more red and itchy and he came today as he noted some papules on the cheeks.
- On examination he has erythematous skin over the forehead and both cheeks with sparing of the peri-orbital and peri-oral areas. He has pustules on both cheeks.
- What you be your initial management?
  - Oral doxycycline
  - Advice about lid hygiene
  - Topical metronidazole gel
  - Referral to skin camouflage service?

- A 17 year old girl comes to see you about her skin. She is upset and embarrassed about the spots on her face and has tried lots of over the counter creams over the last 2 years and nothing has worked.
- On examination you notice that she has multiple small comedones and some larger pustules on both cheeks and across her forehead.
- How would you grade her acne?
  - Mild
  - Moderate
  - Severe
- What treatment would you suggest at this stage?
  - Benzyl peroxide based cleanser?
  - Progesterone only pill?
  - Topical antibiotic with a skin cleanser?
  - Roaccutane?