Skin infections and infestations

Julia Schofield

What are you expecting me to talk about?

Skin infections

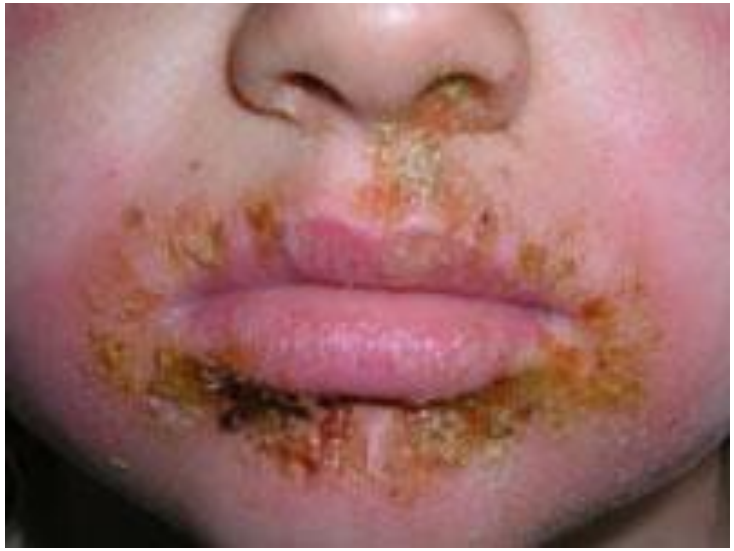
- Bacterial
- Fungus/yeasts
- Viral including warts
- Infestations

Bacterial

- Impetigo
- Ecthyma
- Folliculitis
- Furunculosis
- Erythrasma
- Cellulitis and erysipelas

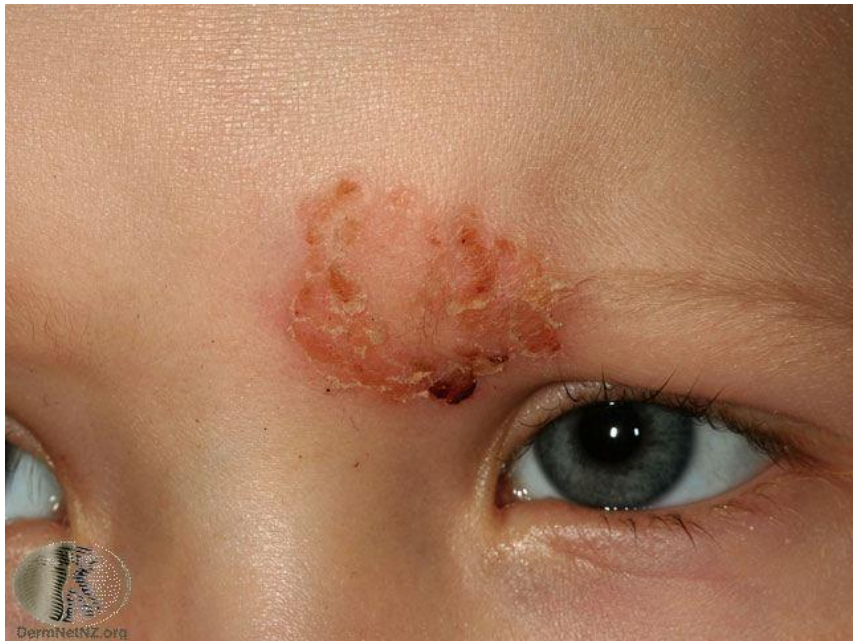
Impetigo

- Common
- May complicate eczema
- Golden crust
- Contagious
- May be bullous
- Staphylococci, sometimes streptococci



Impetigo treatment

- DTB articles 2007 and 2008
- Topical therapy: fusidic acid, retapamulin
- Oral therapy
- Flucloxacillin and or penicillin
- Erythromycin



Cochrane review

http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD003261.pub3/full

What did the review look at?

- Do topical antibiotics work
- Are they as good as oral antibiotics
- Which oral antibiotics work and which don’t
- Do we need different treatments for localised and extensive disease
- Do disinfectant treatments work

What do you think will be the answers?

Cochrane results (1)

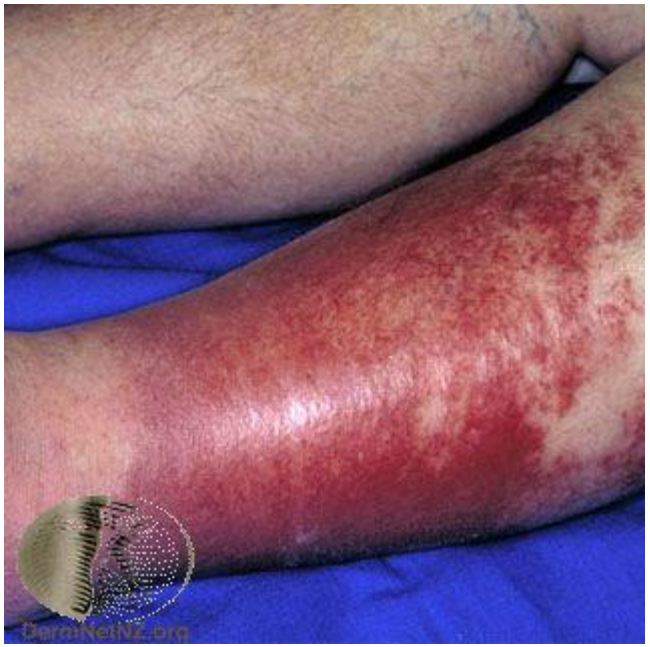
- 68 RCTs (n 5708) oral treatments and topical treatments, including placebo,
- Topical antibiotics better than topical placebo
- Topical mupirocin and fusidic acid as effective as oral antibiotics for localised disease There
- Topical mupirocin superior to oral erythromycin

Cochrane results (2)

- Oral penicillin not effective for impetigo, but others are e.g. erythromycin and cloxacillin
- Not clear if oral antibiotics are superior to topical antibiotics for extensive impetigo
- Lack of evidence to suggest that using disinfectant solutions improves impetig
- When 2 studies with 292 participants were pooled, topical antibiotics were significantly better than disinfecting treatments

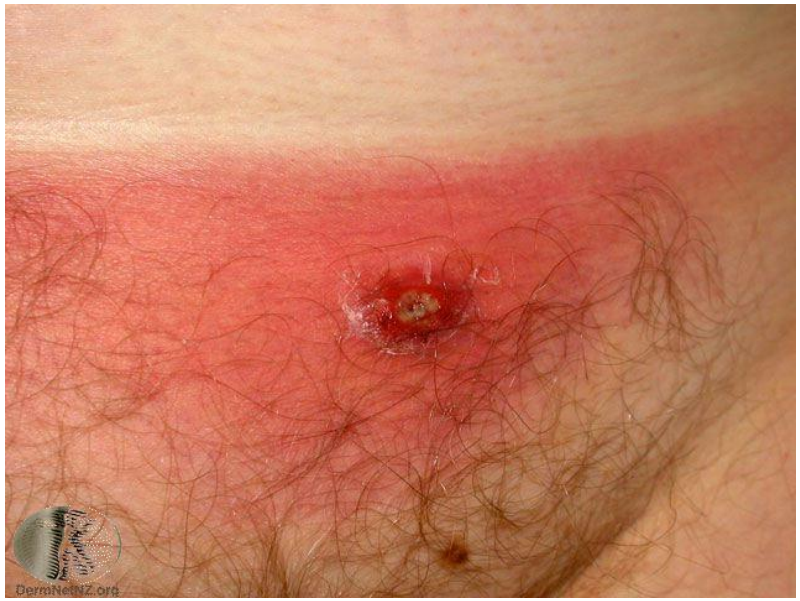
Cellulitis

- Bacterial infection of the skin and deeper tissues
- Commonest on the legs
- May be localised symptoms
- Commonly systemic symptoms, fever and malaise



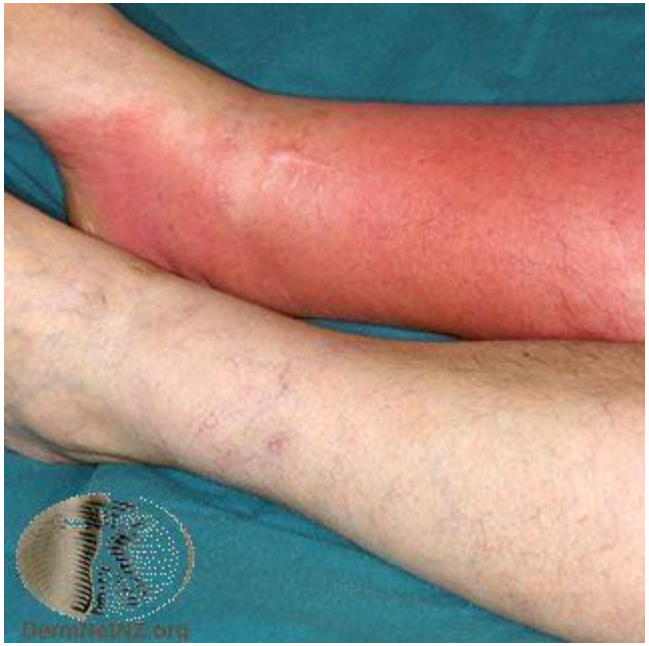
Cellulitis: clinical features

- Redness
- Swelling
- Increased warmth
- Tenderness
- Blistering
- Abscess
- Erosions and ulceration



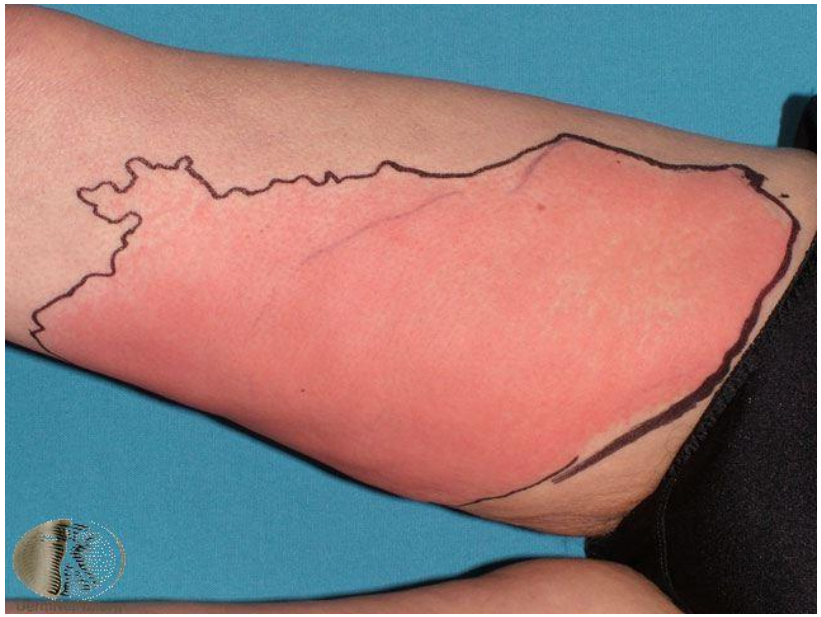
Cellulitis: predisposing factors

- Previous episode(s) of cellulitis
- Venous disease,leg ulcers
- Current or prior injury (e.g. trauma, surgical wounds)
- Diabetes
- Alcoholism
- Obesity
- Pregnancy
- Tinea pedis in the toes of the affected limb
- Fissured eczema soles



Cellulitis:organisms and treatment

- Two thirds due to strep pyogenes
- Staph aureus
- Rarities (dog bites etc)
- Oral or IV antibiotics
- Usually penicillin or erythromycin
- TREAT UNDERLYING PREDISPOSING FACTOR



Cellulitis Cochrane review

http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD004299.pub2/abstract

Cellulitis: Cochrane review

- 25 CTs, no two trials investigated the same antibiotics, and there was no standard treatment regime used as a comparison
- The best treatment for cellulitis could not be decided on the evidence
- No single treatment was clearly superior

Cellulitis: Cochrane review

- Surprisingly, oral antibiotics appeared to be more effective than IV for moderate to severe celullitis
- IM antibiotics as effective as IV
- More studies needed

Recurrent cellulitis

Patients with recurrent cellulitis should:

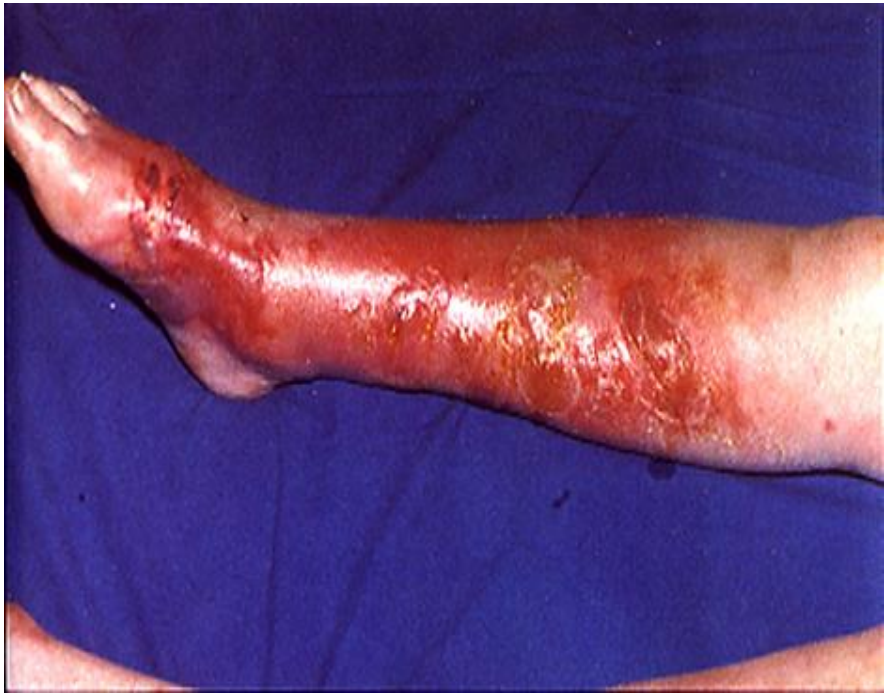
- Avoid trauma
- Keep skin clean and nails well tended
- Avoid blood tests from the affected limb
- Treat fungal infections of hands and feet early
- Keep swollen limbs elevated during rest periods to aid lymphatic circulation
- Chronic lymphoedema: compression garments.
- Long term low dose antibiotic treatment with penicillin or erythromycin.

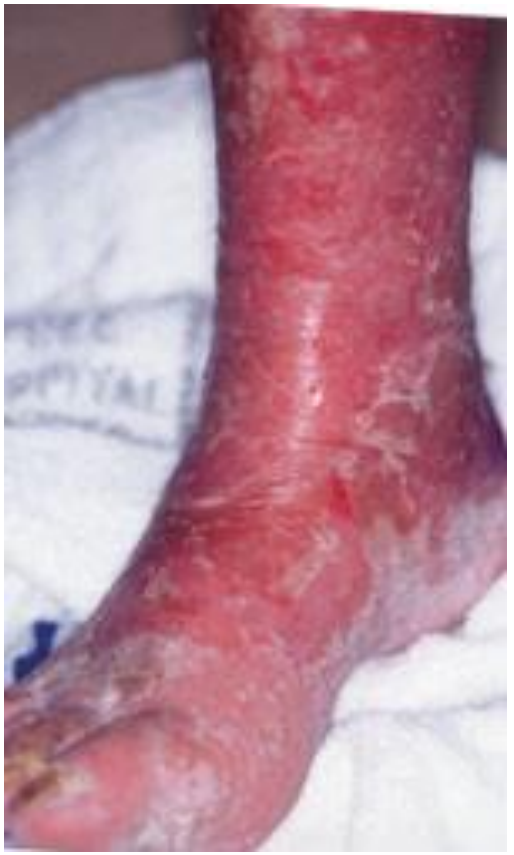
Recurrent cellulitis (PATCH study)

- Systematic review
- Antibiotic prophylaxis reduces recurrent cellulitis
- Not clear what dose, what length of time or which antibiotic
- PATCH studies used 12 months penicillin V 250 twice daily
- http://www.nottingham.ac.uk/research/groups/cebd/projects/patch.aspx

Diagnostic difficulty

Cellulitis vs eczema





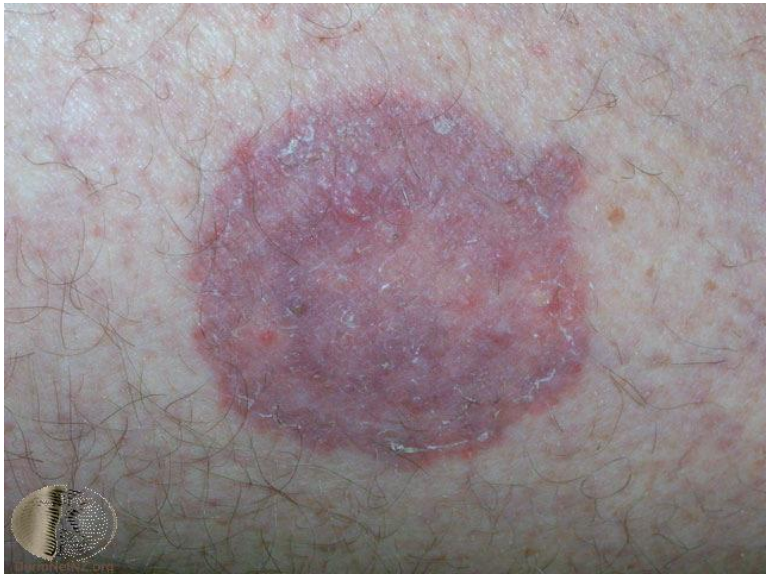
Fungal/yeast

- Dermatophytes
  - Tinea corporis, cruris, pedis
  - Tinea capitis
  - Tinea unguum
- Yeasts
  - Candidiasis
  - Intretrigo

Dermatophytes: tinea corporis

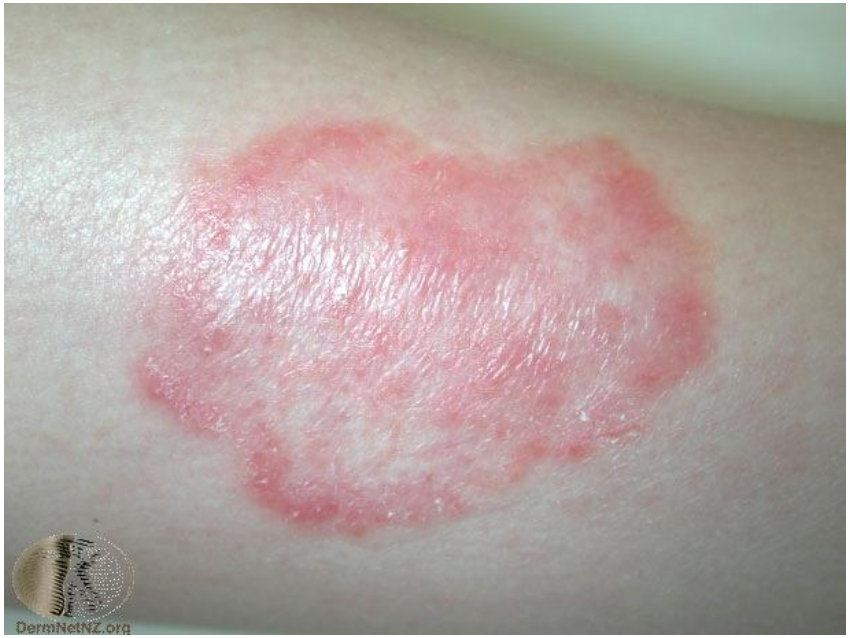
Common

- Groins: cruris
- Trunk
- Feet: may predispose to cellulitis
- Hands
- Fungus causes eczematous reaction



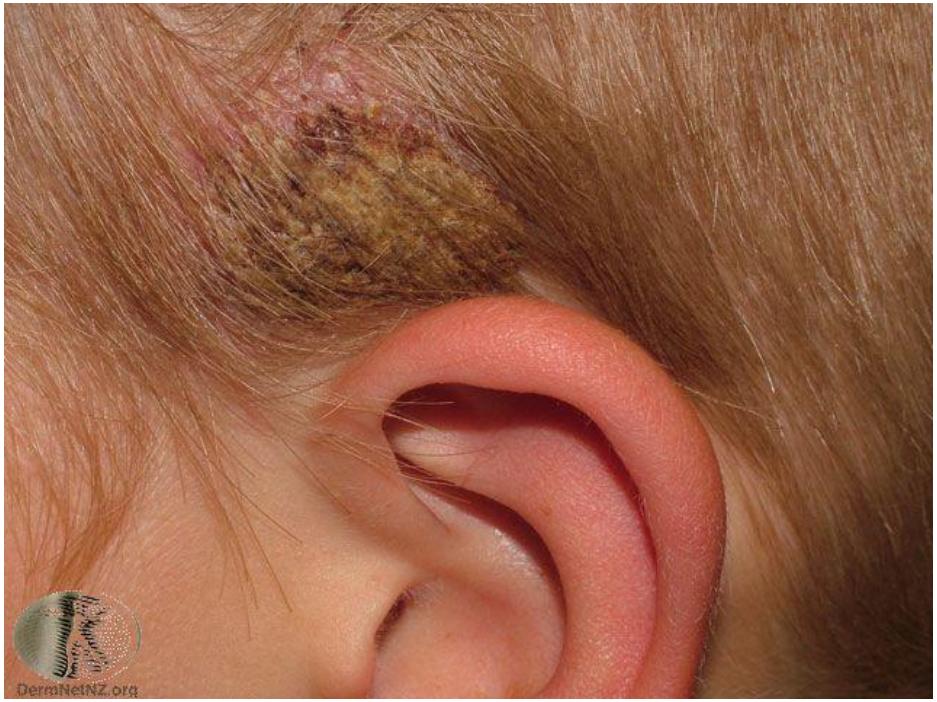
Tinea corporis

- Asymmetrical
- Ringed/annular
- Central sparing
- Scaly
- Pruritic
- Ideally take scraping for mycology
- Topical imidazole and steroid eg Daktacort



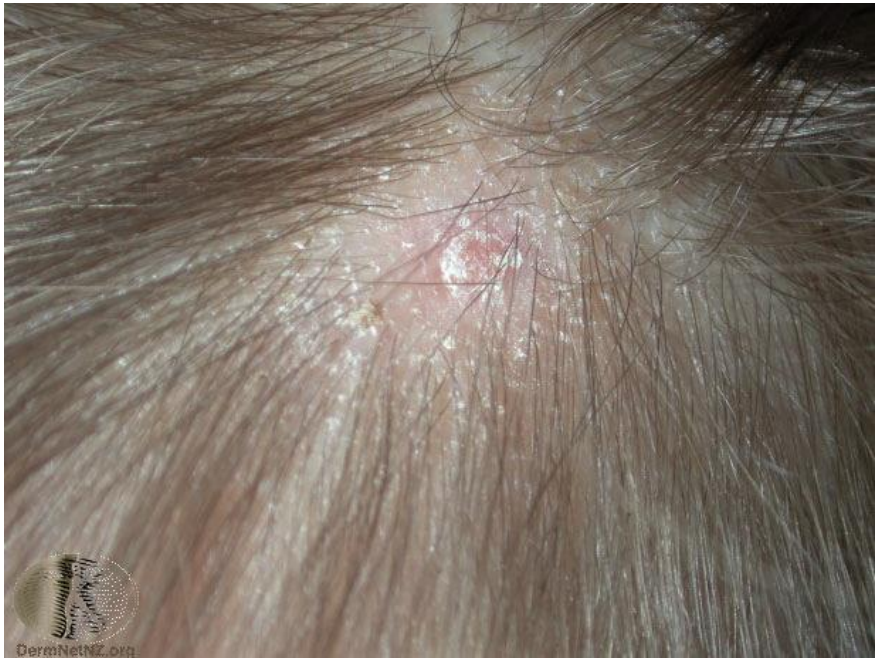
Dermatophytes: tinea capitis

- Not usually from animals these days
- Typically trichophytum tonsurans
- Children
- Scaly patches, itchy
- Hair loss
- Spreads between families



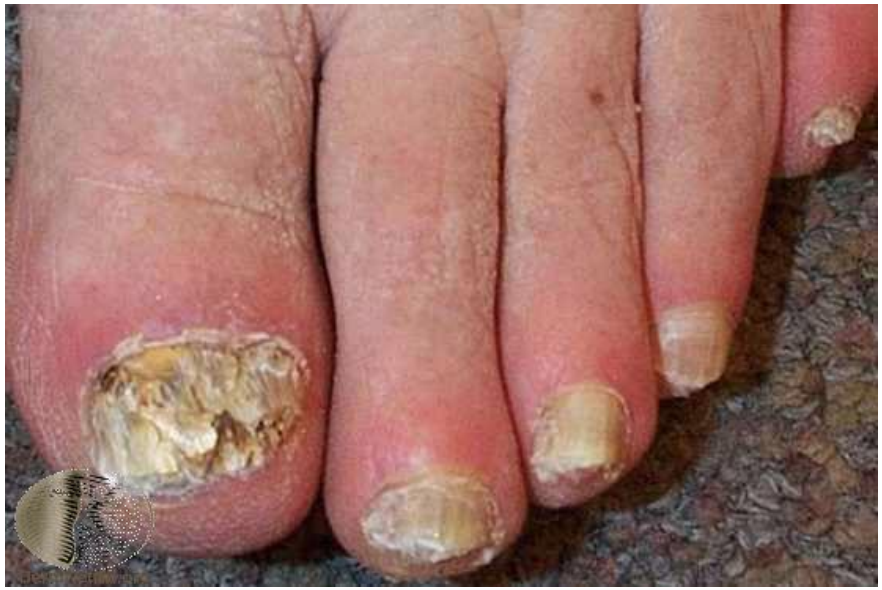
Tinea capitis

- Hair for mycology (NOT just skin) and family
- Confirm diagnosis mycologically
- Treat with terbinafine wherever possible: 12 weeks
- DTB article reviews choices
- No licence for children but accepted practice



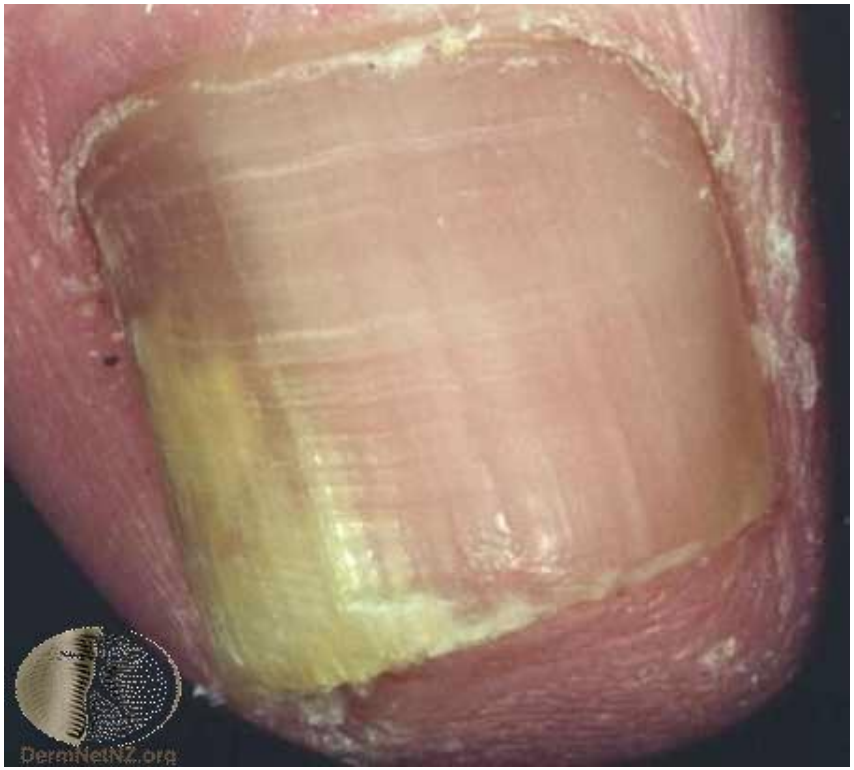
Dermatophytes: tinea unguum

- Very common
- Typically elderly
- May act as a reservoir for recurrent infections
- Nail dystrophy
- Asymmetrical
- Confirm with mycology



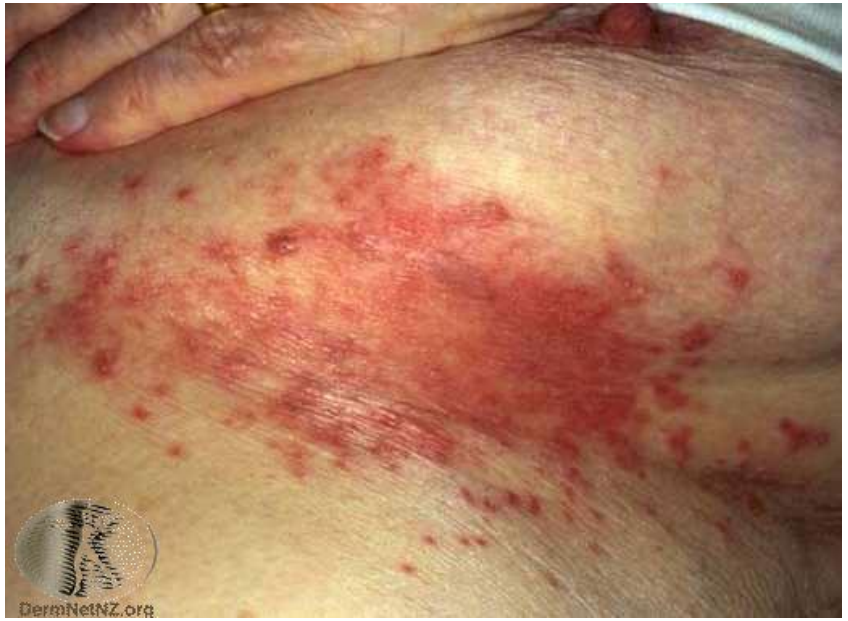
Tinea unguum

- DTB review of treatment
- Topical therapy relatively ineffective
- Amorolfine nail paint
- Oral therapy: terbinafine 12 week course
- Relatively safe
- Recurrence common



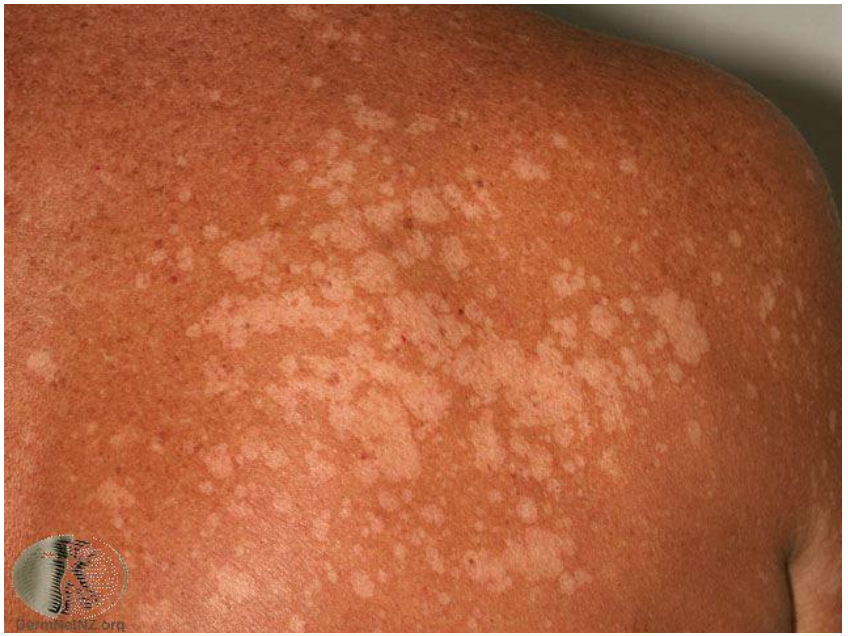
Candidal skin infections

- Common cause of nappy rash
- Candidal vulvitis
- Pruritic
- Satellite lesions
- Responds to imidazole creams



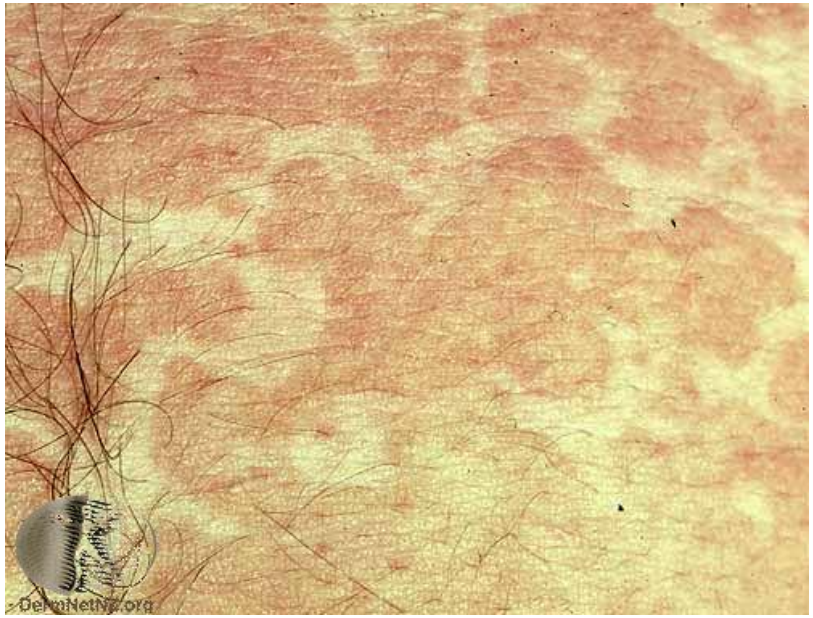
Pityriasis versicolor

- Common in young adults
- Widespread scaly erythematous macules
- Slow progression
- Often presents with hypopigmented macules



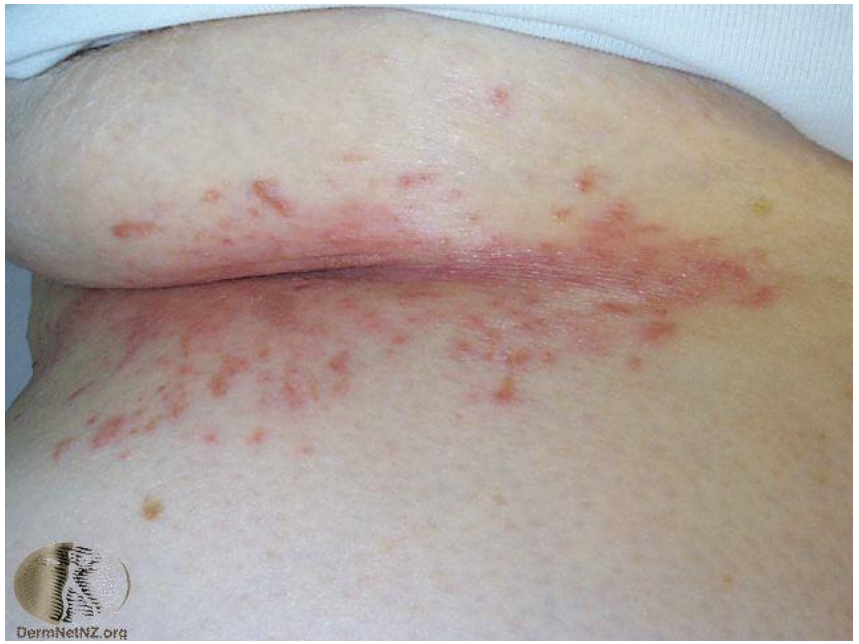
Pityriasis versicolor

- Treatment difficult
- Itraconazole orally 200mg one week
- Topical imidizole cream
- Ketoconazole shampoo
- May recur



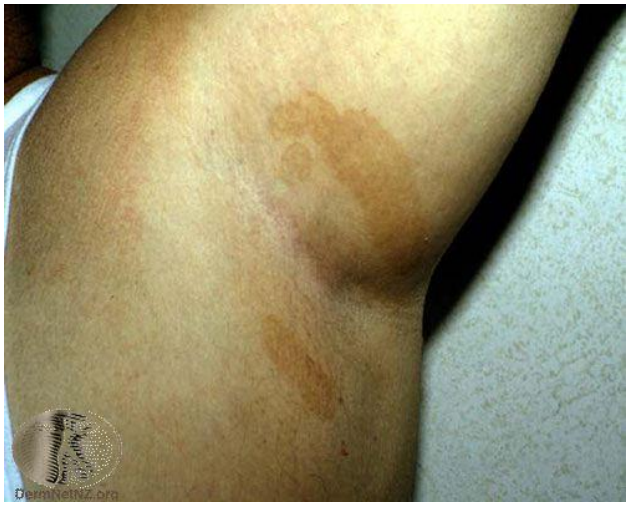
Intertrigo

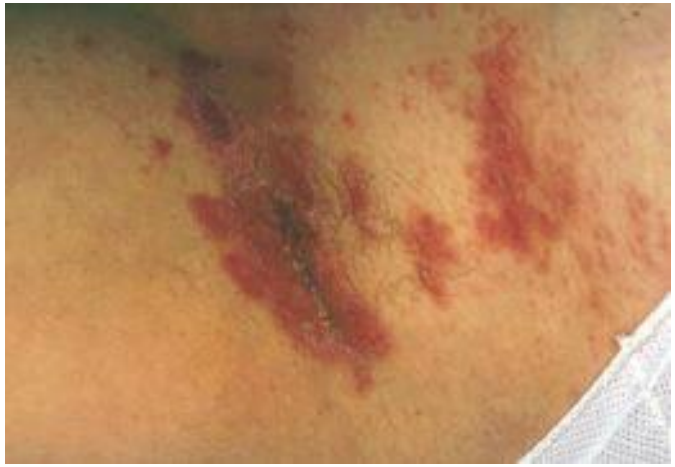
- Rash in body folds
- Moist environment
- Bacteria and yeast thrive
- Range of different causes
- Infections and inflammatory dermatoses
- Treat underlying cause

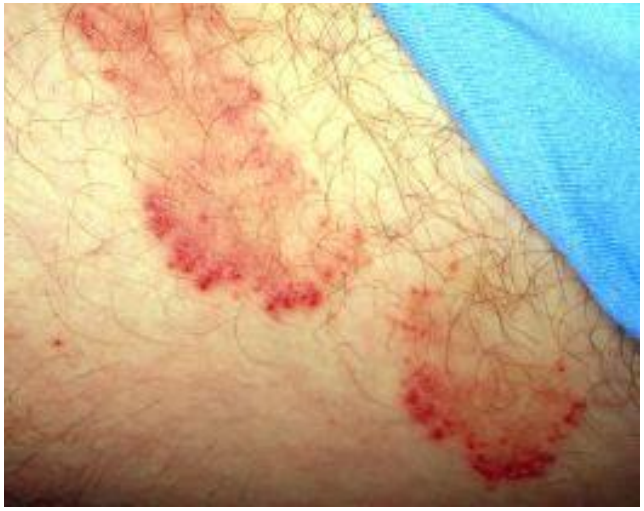


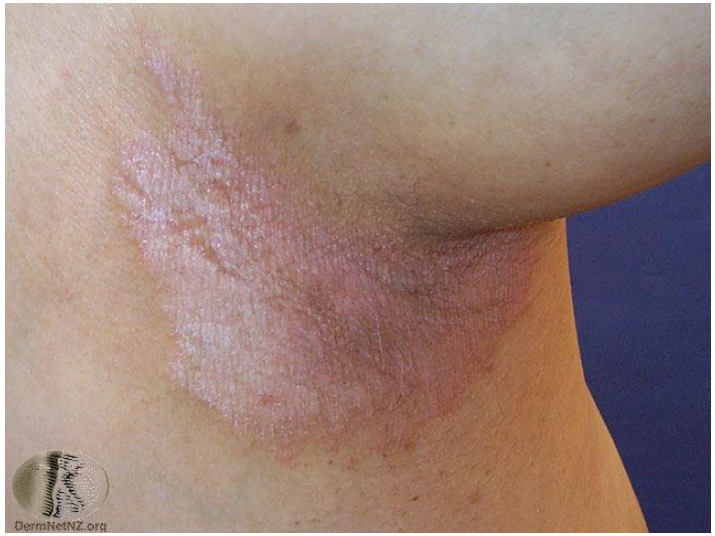
Candidal intertrigo

Intertrigo







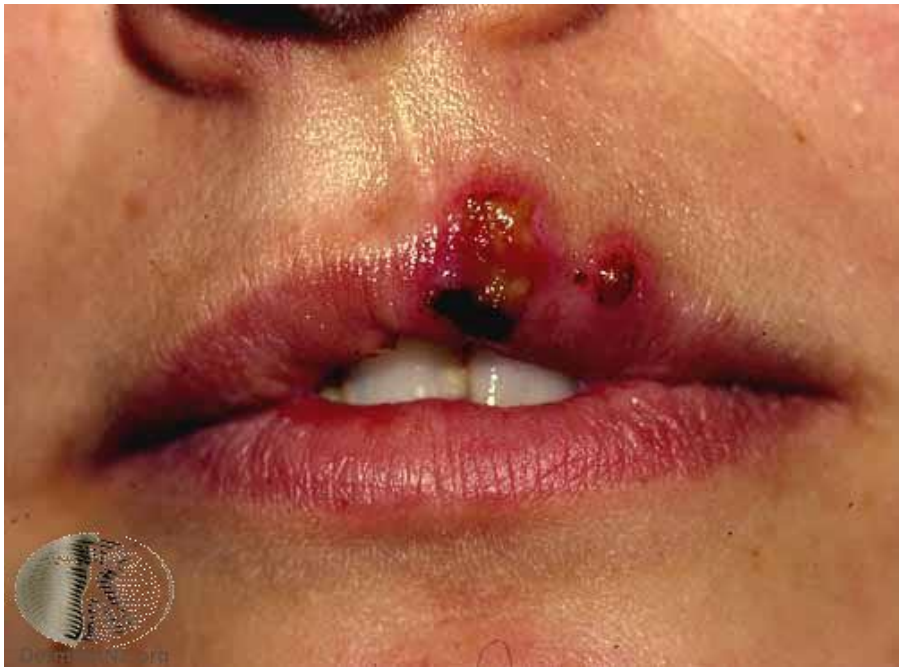


Treatment of viral skin infections

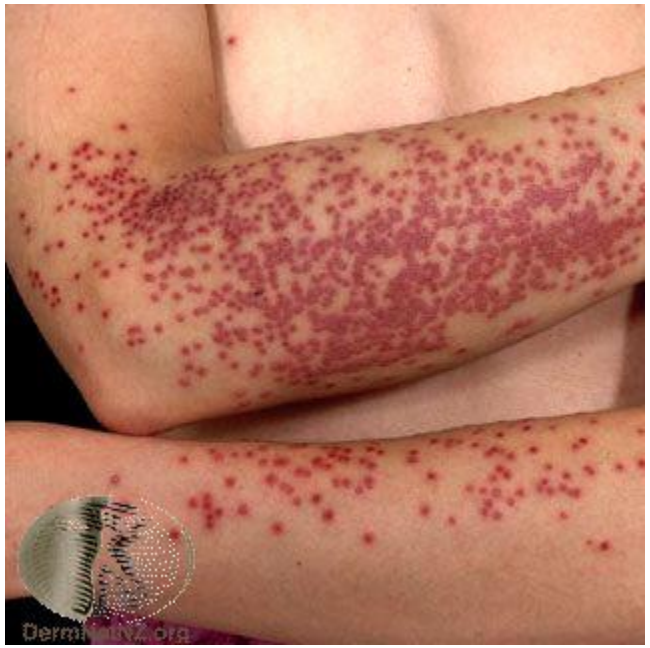
- Herpes simplex
- Herpes zoster
- Warts and molluscum

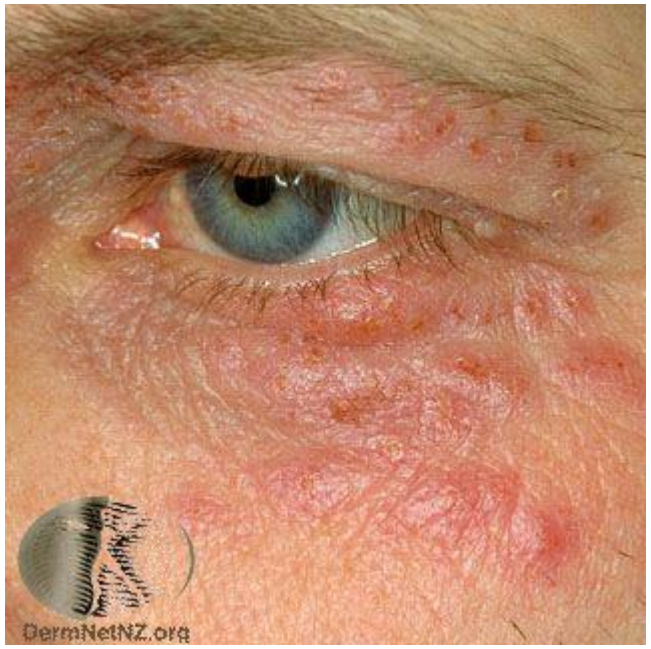
Herpes simplex

- Type 1 commonest
- Primary episode stomato-gingivitis often mild
- Herpes labialis
- Prodrome: burning
- Vesicles and crusting
- Self limiting

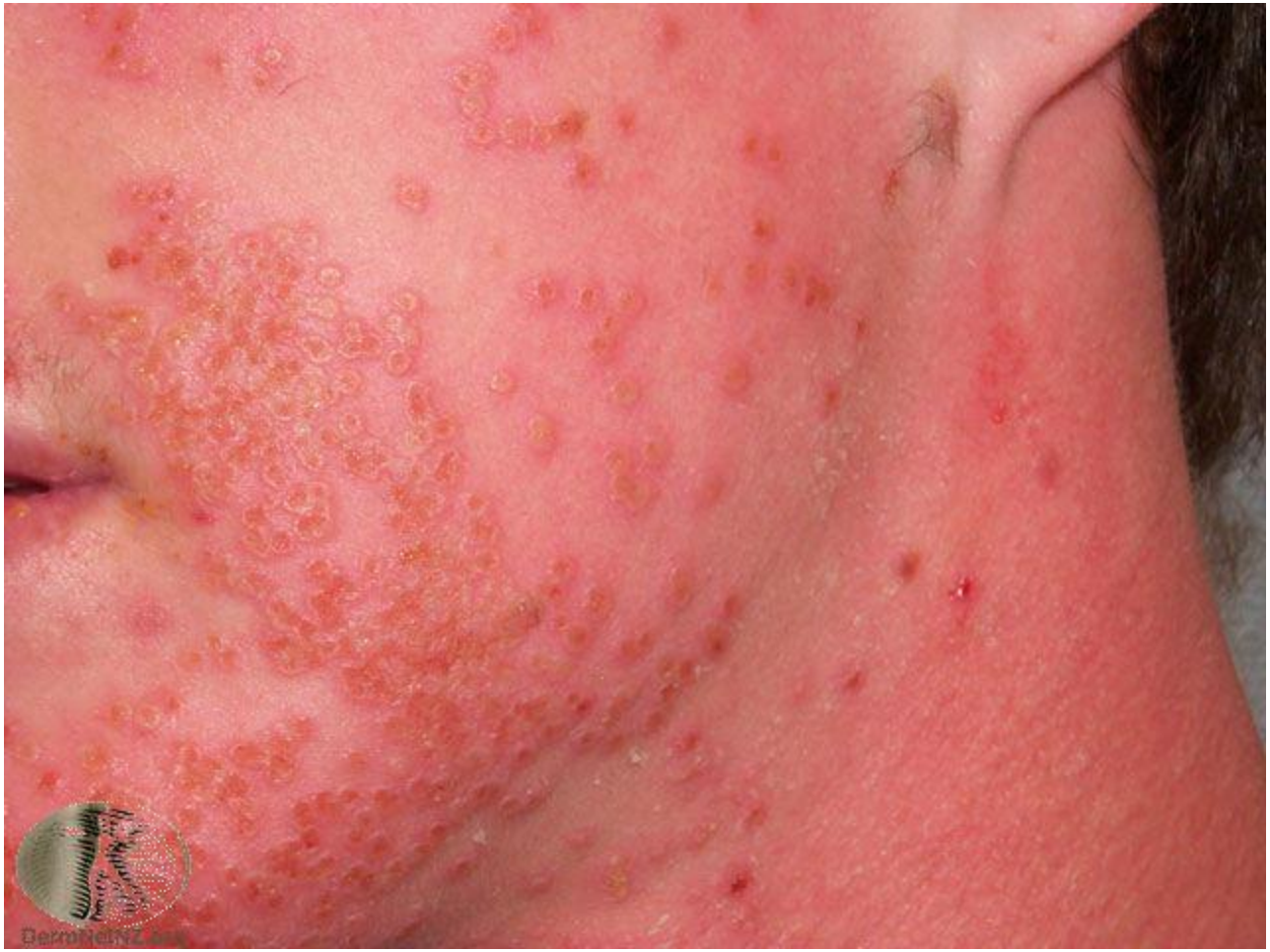


HSV type 1 other presentations





HSV: eczema herpeticum

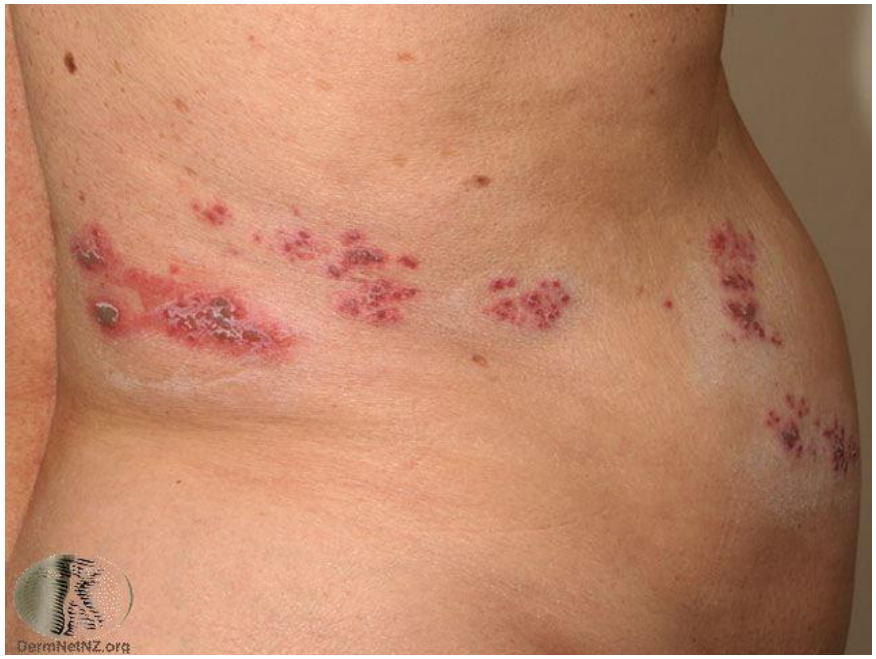


HSV type 1: key points

- Usually symptomatic treatment
- Patient initiated aciclovir tablets
- Long term aciclovir for recurrent episodes
- Suspect eczema herpeticum: treat and refer

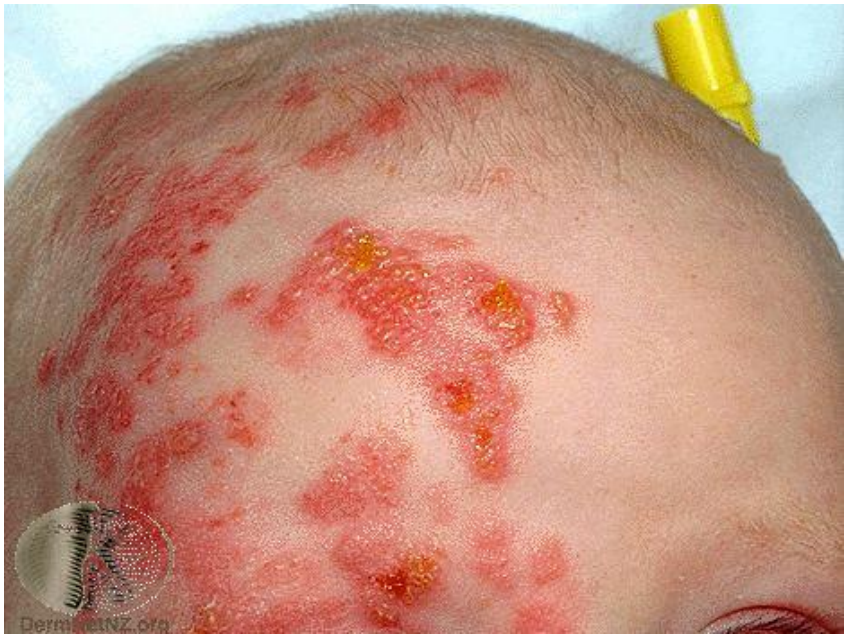
Herpes zoster (shingles)

- Reactivation of chicken pox virus
- Virus in vesicles
- Commoner in elderly and immune compromised
- Occurs in children
- Dermatomal pattern



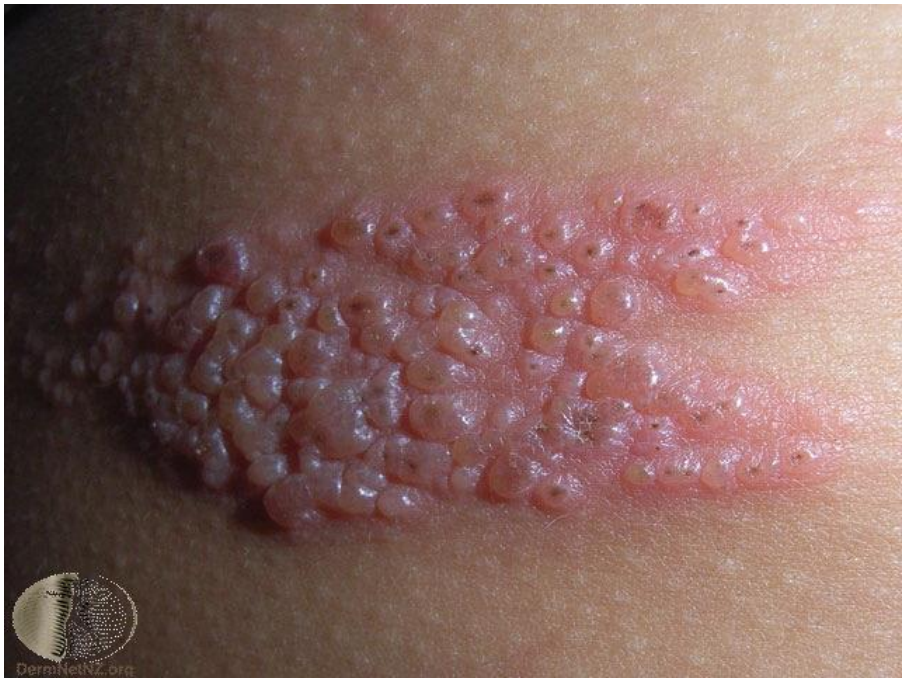
Herpes zoster

- Pain precedes rash
- 1-3 days later crops of blisters
- Chest neck and forehead commonest sites
- Healing slow in the elderly
- Post-herpetic neuralgia



Herpes zoster management

- If early, antivirals orally
- Topical antiseptics or antibacterials as necessary
- Pain relief
- Capsaicin
- Gabapentin



Antiviral treatment for preventing nerve pain after shingles (postherpetic neuralgia)

Published:
6 February 2014

Authors:
Chen N, Li Q, Yang J, Zhou M, Zhou D, He L

Primary Review Group:
Neuromuscular Group

See the full Review on the Cochrane Library ▶

Review question

We reviewed the evidence about the effect of antiviral medicines for preventing postherpetic neuralgia (PHN).

Background

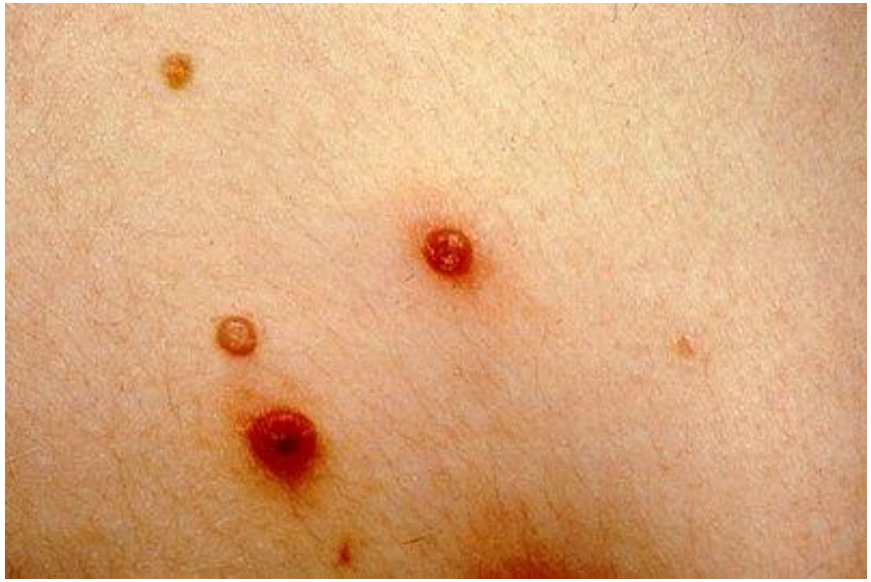
PHN is a painful condition that can occur after shingles (herpes zoster) in the area where the rash occurred. Many people with PHN find that treatments work only a little or not at all. Attention has therefore turned to stopping the development of PHN. Some people suggested that medicines that target the virus that causes shingles (antiviral medicines), given at the time of the rash, might prevent PHN. The aim of this review was to assess the whether antiviral medicines are able to prevent PHN.

Am score 46
Who is talking about this article?

Cochrane Crowd
Become a citizen scientist

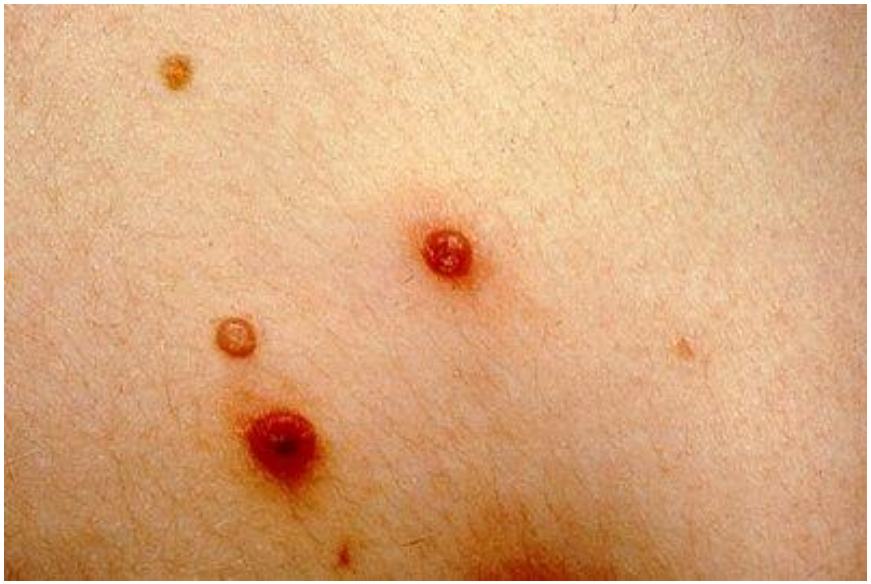
http://www.cochrane.org/CD006866/NEUROMUSC_antiviral-treatment-for-preventing-nerve-pain-after-shingles-postherpetic-neuralgia

Warts and molluscum



Molluscum contagiosum

- Common
- Children especially with eczema
- Pox virus
- Self limiting
- Treatments poor



Interventions for cutaneous molluscum contagiosum (Review)

van der Wouden JC, van der Sande R, van Suijlekom-Smit LWA, Berger M, Butler CC, Koning S

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2009, Issue 4

http://www.thecochranelibrary.com

Molluscum contagiosum: Cochrane 2010

- Cochrane review 2010
- 11 studies 495 participants
- Poor quality
- Australian lemon myrtle oil ? Some benefit
- Overall no single intervention convincingly effective…

Molludab is a topical treatment for Molluscum contagiosum, a viral skin infection

With the exciting news that MolluDab® has become available on prescription in England, Wales and Northern Ireland (and over the counter fr
your pharmacist), we have created this site to help patients or parents affected by Molluscum contagiosum. Read on to understand a bit more
about the condition, how to identify it, what to expect and how to use MolluDab to treat it.

PEDIATRIC DERMATOLOGY

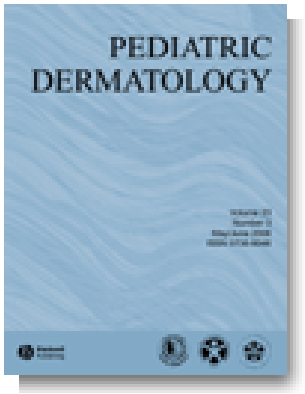
Double-Blind, Randomized, Placebo-Controlled Trial of the Use of Topical 10% Potassium Hydroxide Solution in the Treatment of Molluscum Contagiosum

Katherine A. Short M.R.C.P., L. Claire Fuller F.R.C.P. and Elisabeth M. Higgins F.R.C.P.

Article first published online: 12 JUN 2006

DOI: 10.1111/j.1525-1470.2006.00235.x

Issue



Pediatric Dermatology

Volume 23, Issue 3, pages 279–281, May 2006

Viral warts

- Very common
- Self limiting
- Studies show 12% in 4-6 yr olds, 4.9% in 16 year olds
- Those with warts at 11yrs, 93% no warts at 16yrs old
- Commoner in butchers, abbatoir workers
- HPV self limiting

Viral warts

- What treatments do you know?
- Are they effective

Clinical Review

Management of cutaneous viral warts

BMJ 2014 ; 348 doi: http://dx.doi.org/10.1136/bmj.g3339 (Published 27 May 2014)
Cite this as: *BMJ* 2014;348:g3339

Magnus D Lynch, dermatology registrar[1], *Jane Cliffe, general practitioner with specialist interest in derma*
Rachael Morris-Jones, consultant dermatologist[1]

Author affiliations

Correspondence to: M D Lynch magnus.lynch@nhs.net

Topical treatments for cutaneous warts (Review)

Kwok CS, Gibbs S, Bennett C, Holland R, Abbott R

This is a reprint of a Cochrane review, prepared and maintained by The Cochrane Collaboration and published in *The Cochrane Library* 2012, Issue 9

http://www.thecochranelibrary.com

Warts: treatment options

- None
- Cryotherapy
- Salicylic acid wart paints
- Duct tape
- Homeopathy
- Laser
- Cimetidine….etc etc
- Poor evidence of efficacy of anything!

Cryotherapy for warts: outcomes

- 3 month cure rate 52%
- Cure rate in second 3 months 41%
- Cryotherapy as effective as wart paint after 3 months
- 25% are unresponsive

Cryotherapy for warts: outcomes

Cure at 3 months (non-defaulters)

- 66% with weekly Rx
- 47% with 2 weekly Rx
- 30% with 3 weekly Rx

Treatment of warts

Cure after 12 treatments

- 43% for weekly
- 48% for 2 weekly
- 44% for 3 weekly

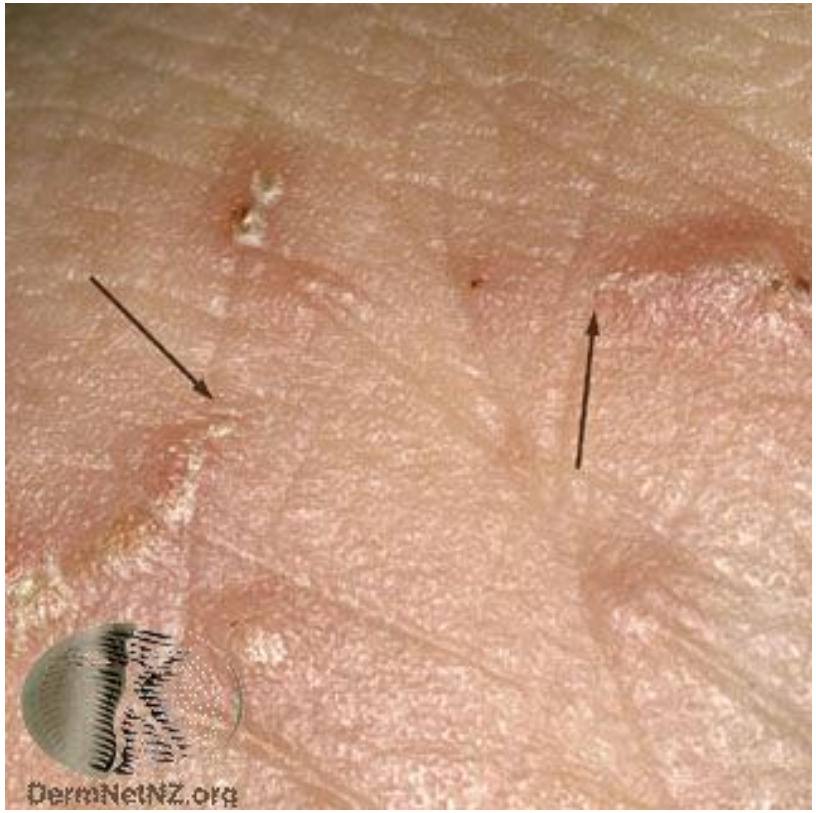
Number of treatments determines cure

Infestations

- Scabies
- Pediculosis
- Cutaneous larva migrans

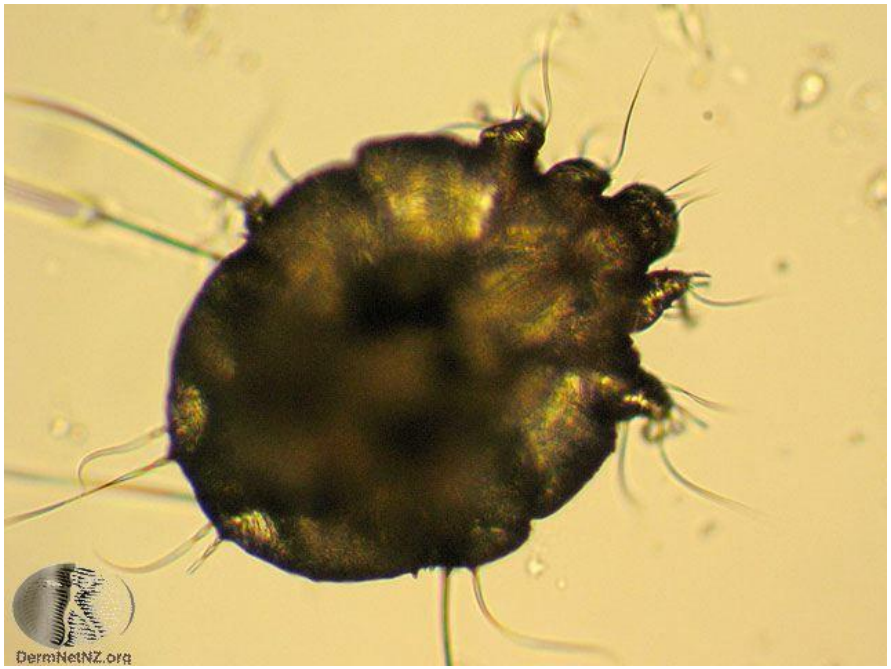
Scabies

- Sarcoptes scabeii mite
- Burrows fingers wrists
- 4-6 weeks later eczematous reaction
- Intensely pruritic
- Widespread eczema major feature
- Spreads between close contacts



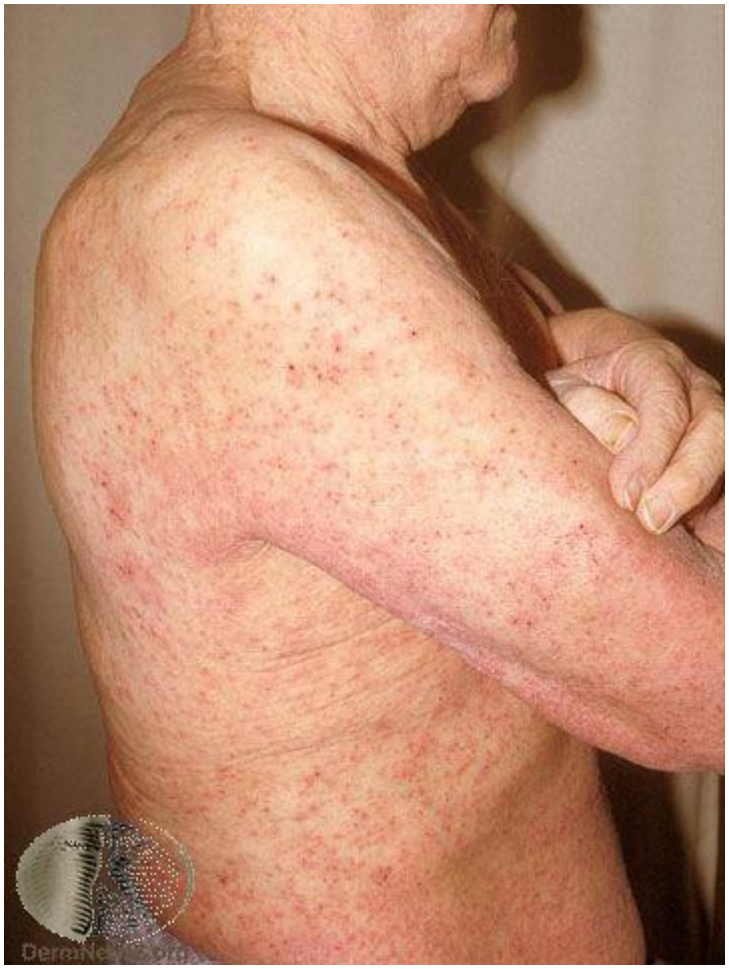
Scabies: treatment of mite

- Treat whole family/all close contacts
- Permethrim cream (lyclear)
- All at the same time
- Neck down, overnight application
- Wash bedlinen
- Retreat one week later



Scabies: treat eczema

- Very important
- Eczema may persist for 4-6 weeks after clearing mite
- Topical steroids and emollients
- Extent of eczema variable



Ivermectin and scabies

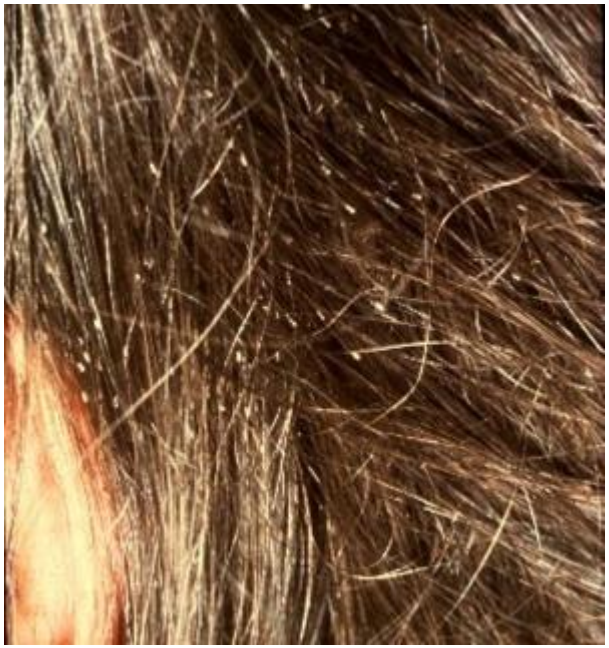
- Difficult to treat scabies
- Oral ivermectin
- Single oral dose 200mcg per kg
- Particularly crusted/Norwegian scabies
- https://www.nice.org.uk/advice/esuom29/chapter/Key-points-from-the-evidence

Pediculosis: Head lice

- Common
- Louse feeds on scalp blood
- Nits on hair
- May be relatively asymptomatic

Head lice

- Widespread problem
- Treatment difficult
- Chemical measures
- Physical methods
- Suffocation (!)
- New treatments



Head lice

- Isopropyl myristate 50% in cyclomethicone solution
- Full Marks Solution – SSL International
- Physical mode of action
- 10-minute contact time
- Very effective
- First line treatment
- DTB article http://dtb.bmj.com/content/47/5/50

Summary

Skin infections are common:

- Bacterial
- Fungus/yeasts
- Viral including warts
- Infestations