SKIN DISEASE IN CHILDREN

Screening

A) FUNGAL INFECTIONS – "RING WORM"

1. Skin screen annually as part of the child health check.
2. Screening by observation or questioning (as appropriate) for all children when they attend the clinic.

Case Definition

Tinea is a fungal infection; in children it commonly affects the scalp, face and body.

It causes an itchy, scaly rash with a raised spreading edge however scalp (tinea capitus) lesions may appear as patches of bare skin with brittle broken hair or as a boggy area. Any unusual scalp lesion should raise the suspicion of tinea.

Many cases of tinea corporis (on the body) and face will be clinically diagnosed without a specimen but with widespread disease or scalp or nail (onychomycosis) involvement specimens for confirmation in the lab are required for diagnosis. (See Box 1).

Principles of Management

1. Tinea often looks like other diseases (such as dermatitis, psoriasis). If unsure of the diagnosis take skin scrapings.
2. Emphasize to the child's carer that the treatment often takes several weeks.
3. Look for and treat superimposed bacterial infections.
4. Tinea of the nails or feet or widespread severe tinea in children requires review with a doctor +/- a pediatrician to consider other underlying illness.
5. Tinea is a contagious disease and often is shared amongst family contacts. Avoid sharing towels and encourage family members to come in for a check up.

Therapeutic Protocols

1. Take a skin scraping or nail clipping before commencing treatment.

Box 1: How to do a skin scraping

- Use a disposable scalpel.
- Scrape the raised edge of the scaly patch and collect flakes of skin in a plastic specimen jar (more flakes the better).
- Avoid bleeding – scraping should be firm but along the surface of the skin, not into the skin.
- Send for Fungal Microscopy and Culture.

2. For small areas of tinea on skin use: Ketoconazole 2% topically twice daily until the infection has disappeared, then continue treatment for a further week.
3. For large areas or scalp: use oral Griseofulvin (tablets crushed and given with food). Advise parent/carer that gut side effects may occur.

Child weight (kg)	Daily dose of griseofulvin (Griseovin (R))
10 - 15	125mg daily (1 x 125mg tablet)
16 - 20	187.5mg daily (1 1/2 of the 125mg tablets)
21 - 25	250mg daily (2 x 125mg tablets)
> 25	500mg daily (1 x 500mg tablet)
Anyone of childbearing age (male and female) must be counselled regarding risks relating to pregnancy.	

Duration of treatment:

Tinea Capitus - 4 to 8 weeks treatment then review. (See flow chart, page 3).

Tinea Corporis - 4 weeks then review (See flow chart, page 3).

For treatment of onychomycosis take nail clippings and scrapings and consider terbinafine (discuss with doctor).

- Fingernails - 6 weeks.
- Toenails - 12 to 16 weeks.

Follow-up

See flow chart, page 3.

Refer / Discuss

Any child with nail (fingers or toes) fungal infection needs to be reviewed with a doctor +/- paediatrician.

B) TINEA VERSICOLOR

Case Definition

Tinea Versicolor is caused by a yeast (Malassezia) that is on the skin of most people.

It appears as light patches on dark skin or dark patches on light skin with a fine scale. These are usually seen on the upper trunk but may occur on other parts of the body.

There may be a slight itch, but many people have no symptoms.

It is not contagious.

Principles of Management

1. Treatment may not be needed if client is not bothered by symptoms or appearance of rash.
2. Emphasise to the parent / carer that the skin discolouration takes weeks to months to return to normal after treatment.

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Therapeutic Protocols

Selsun Gold (selenium sulfide 2.5%) suspension topically to wet skin, leave on for at least 60 minutes or overnight. Repeat daily for seven days.

If skin has not returned to normal colour within 3 months, take a skin scraping (see Box 1, page 1), re-treat with Selsun Gold while awaiting results, and refer / discuss with doctor.

It can be recurrent in some patients.

Follow-up

Routine follow up is not necessary.

Note that although the fungal infection may have cleared, the skin may take many weeks / months to return to normal colour.

Refer / Discuss

Refer to GP if rash not clearing after 3 months with recommended treatment.

C) IMPETIGO AND SCABIES

Case Definition

Impetigo is a skin infection caused by Staphylococcus aureus or Group A Streptococcus and presents as crusted lesions / sores or less often as blistering.

Scabies (a parasitic mite), is transmitted person to person. The most frequent sites for scabies are between fingers, on wrists, elbows, knees, ankles and bottom. Itching is often widespread and occurs especially at night.

Impetigo and scabies commonly occur together in children.

Principles of Management

1. As skin disease in the Kimberley is associated with significant kidney and heart disease, aggressive management is required.
2. When treating impetigo always consider treating for scabies.
3. Reinforce relationship between good hygiene and healthy skin.
4. Consider other underlying conditions such as anaemia and failure to thrive (FTT).
5. Avoid topical antibacterials as resistance rapidly develops.
6. Swabs for MC&S are not usually required unless resistant or recurrent disease suspected.

Therapeutic Protocols

Impetigo

- Clean with regular soap and warm water daily. Remove crusts (use vegetable or baby oil to soften overnight).
- If there are more than 6 sores or individual sores are large, give single dose benzathine penicillin (Bicillin LA® - 900mg / 2.3mls):

Weight (kg)	Dose of LA Bicillin (R) 900mg / 2.3ml
> 20	2.3mls
10.1 - 20	1.2mls
5.1 - 10	0.75mls
< 5	Discuss with doctor

- If penicillin allergy, then give Roxithromycin daily for 10 days.
- If refuses IM, give oral flucloxicillin 4 times a day. Use flucloxicillin 250mg / 5mls.

Weight (kg)	Dose of flucloxacillin 250mg / 5mls
> 20	5mls 4 times / day
10.1 - 20	4mls 4 times / day
5.1 - 10	3mls 4 times / day
< 5	Discuss with doctor

Scabies

- Treat child and contacts with permethrin 5% cream. Wash all clothes and sheets and dry in sun. If infected see impetigo management.
- If child < 2 months old, discuss with GP before treating.

Follow-up

Impetigo: Review after 48 hours if no improvement or earlier if condition worsening.

Scabies: Review children with moderate to severe scabies in two weeks to establish success of treatment.

Refer / Discuss

With Doctor / Paediatrician if:

- Contributing conditions such as anaemia, FTT.
- If child febrile or unwell.
- Suspected crusted scabies or scabies not responding to treatment.

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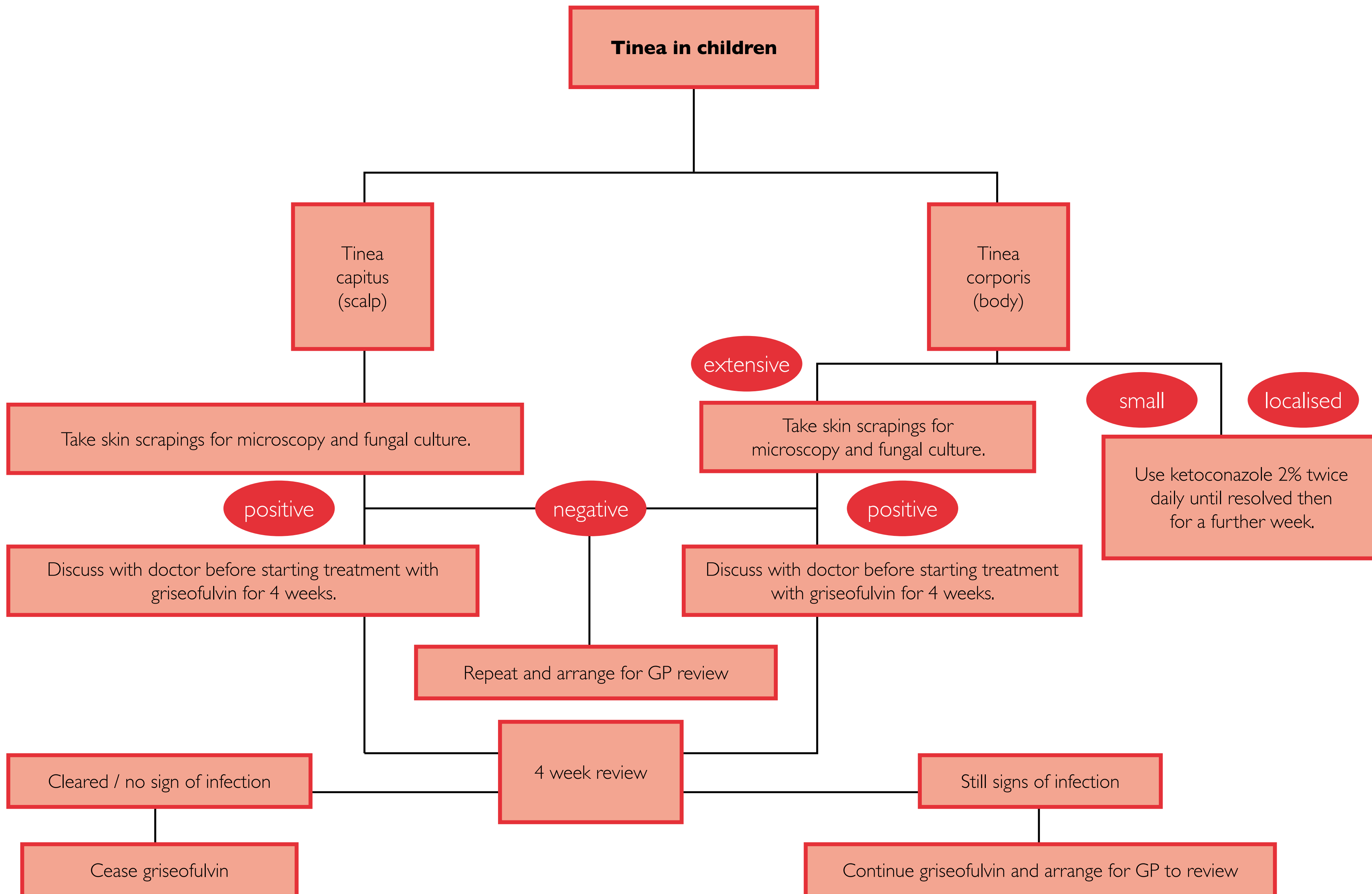

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