Government of **Western Australia**
South Metropolitan Health Service
Fiona Stanley Fremantle Hospitals Group

Dermatology pre-referral guidelines – tinea capitis (ringworm)

Fiona Stanley Hospital Dermatology

Disclaimer

These guidelines have been produced to guide clinical decision making for General Practitioners (GPs) and referring non-GP Specialists. They are not strict protocols. Clinical common-sense should be applied at all times. These clinical guidelines should never be relied on as a substitute for proper assessment with respect to the particular circumstances of each case and the needs of each patient. Clinicians should also consider the local skill level available and their local area policies before following any guideline.

Introduction

Tinea capitis is a superficial dermatophyte (fungal) infection of the hair and scalp, most frequently caused by Trichophyton tonsurans in Australia. It typically presents as scaling (hyperkeratosis or flaking) of the scalp, which may be localised to a certain area or diffuse over the entire scalp. Over time, there is often associated hair thinning or hair breaking. When hair loss occurs, it is usually temporary. Scalp itch may be present. The presence of scalp scaling and hair thinning in a child should trigger a high index of suspicion for tinea capitis.

Occasionally scalp tinea can present as a kerion. Kerion refers to inflammatory tinea capitis with infection of the deep follicles. Kerion presents with follicular pustules or boggy swelling with purulent secretions, and untreated can lead to scarring alopecia. Fever, regional lymphadenopathy and Id-reactions can occur. Co-infection or super-infection with bacterial skin infection is common.

Tinea infections of the skin and nails are often seen concurrently with tinea capitis; therefore, full skin examination is recommended when tinea capitis is suspected.

Pre-referral investigations

- Hair pluck and scalp scrape should be sent for fungal MC&S prior to referral. Make sure no creams, lotions or medicated shampoos have been applied for 48 hours before the sample is taken.
- Examine the patient's skin for evidence of tinea corporis. If suspicious rash is present, a skin scrape should be sent for fungal MC&S.
- Examine the patient's finger- and toenails. If abnormal, a nail clip should be sent for fungal MC&S.

Pre-referral management

General measures

- Once the hair pluck and scalp scrape have been taken, commence the patient on Ketoconazole 2% shampoo twice weekly while awaiting results. This may limit the spread of tinea capitis to close contacts.
- Clinical assessment of household contacts is recommended (skin, hair, nails) as they may also have tinea, which leads to re-infection.
- Advise patients to avoid sharing pillows, towels, clothing, hair combs or brushes, hair elastics/scrunchies, hats, beanies, hoodies and scarves used on the head.
- Linen, clothing, towels, hats and hair elastics/scrunchies should be washed on a hot cycle.
- In cases of zoophilic infection (e.g. Microsporum canis), family pets should be checked by a veterinarian and treated accordingly.

Specific measures

- Tinea capitis needs to be treated with an oral medication, typically taken for a minimum of 4-weeks. Examples include Terbinafine, Griseofulvin and Itraconazole.

- Once tinea capitis is mycologically-confirmed with a positive culture result, treatment as per one of the following guidelines is recommended:

  - National Healthy Skin Guideline, 2nd Edition - https://www.thekids.org.au/globalassets/media/documents/our-research/healthy-skin-arf/hsg-digital-04-12-2023.pdf

  - Therapeutic Guidelines (requires subscription)

  - Australian Medicines Handbook Children's Dosing Companion (requires subscription)

When to refer

If the diagnosis is unclear, the hair pluck/scalp scrape returns a negative result, the tinea capitis fails to clear with treatment or recurs following treatment, or you are concerned regarding kerion / inflammatory tinea, please refer to the Dermatology Department.

Essential information to include in your referral

- Duration of tinea capitis and complications of this (i.e. hair loss, secondary bacterial infection, embarrassment, pain, itch).
- Previous and current treatment, and how long this was used for.
- Results of hair pluck / scalp scrape.
- Close contacts affected.

References

1. The Australian Healthy Skin Consortium. National Healthy Skin Guideline: for the Diagnosis, Treatment and Prevention of Skin Infections for Aboriginal and Torres Strait Islander Children and Communities in Australia (2nd edition), 2023. https://www.thekids.org.au/globalassets/media/documents/our-research/healthy-skin-arf/hsg-digital-04-12-2023.pdf
2. Paller and Mancini – Hurwitz Clinical Pediatric Dermatology: A Textbook of Skin Disorders of Childhood and Adolescence (6th edution). Elsevier, 2022.

Useful patient resources

1. https://dermnetnz.org/topics/tinea-capitis - Dermnet NZ
2. https://www.dermcoll.edu.au/atoz/tinea-capitis/ - Australasian College of Dermatologists
3. spd_tinea_color_web-final.pdf (pedsderm.net) - Society of Pediatric Dermatology

Fiona Stanley Hospital
11 Robin Warren Drive, MURDOCH WA 6150
Postal address: Locked Bag 100, PALMYRA DC WA 6961
www.fsfhg.health.wa.gov.au

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