SKIN AND SOFT TISSUE INFECTIONS
Dermatophyte Infection of the Scalp

Fungal infection of the scalp is also known as 'tinea capitis' or 'scalp ringworm', and it describes infection of scalp hair follicles and the surrounding skin caused by dermatophytes (*Trichophyton tonsurans, Microsporum spp.).* Fungal scalp infection predominantly affects prepubertal children with a peak incidence between 3–7 years and spreads through contact with an infected person.

Send scrapings or brushings and plucked hairs for microscopy and culture, to determine diagnosis.

As *Trichophyton tonsurans* frequently spreads within families, it is important to ask about symptoms in other family members and take scrapings or brushings where appropriate.
Trichophyton indotineae is an emerging pathogen which causes extensive pruritic plaques, typically on the trunk, extremities, and groin, which are often minimally inflammatory. This organism is often resistant to first line treatment. Consider if patient has travelled or close contact with a potentially infected individual or failure to improve on treatment.

Self-care management strategies:

- Soften surface crusts (e.g., by applying moistened dressings to affected areas), and then gently tease away.
- Discard or disinfect objects that can transmit fungal spores, e.g., hats, scarves, hairbrushes, combs, pillows, blankets, and scissors, to prevent re-infection or transmission of infection to others.
- Do not share towels, and ensure they are washed frequently.
- Parents or carers should inspect the scalps of other children and household contacts regularly for clinical signs of infection, and manage appropriately.
- If a household pet is suspected of being the source of infection, it should be assessed and treated by a vet.
- Once appropriate treatment is started, school, nursery or work can be attended as normal.

British Association of Dermatologists information sheet.
Medicines for Children Griseofulvin leaflet.

Treatment

- **Treatment of tinea capitis always requires an oral antifungal.** If oral antifungal treatment is being considered in children, seeking specialist advice is usually advisable. Consider prescribing only if confident of the diagnosis and experienced in treating scalp ringworm in children.
- *Trichophyton tonsurans* infections are more likely to respond to terbinafine.
- *Microsporum spp*. Infections are more likely to respond to griseofulvin.
- Concurrent use of a topical antifungal e.g., ketoconazole shampoo during the first 2 weeks of treatment can reduce transmission.
- If intractable disease, then discuss it with a dermatologist.

Treatment[1]	Dose	Duration
Griseofulvin Best absorbed when taken with or after a high fat meal e.g., whole milk ice cream. *Reduce dose when the response occurs, daily dose may be taken once daily or in divided doses.*	**Child 1 month–11 years:** 10mg/kg daily (max. per dose 500mg), increased if necessary to 20mg/kg daily (max. per dose 1g), for severe infections. **Child 12–17 years:** 500mg daily, increased to 1g once daily, if needed for severe infections. **Adult:** 1g once daily or 500mg twice a day	For at least 4-8 weeks. Continue until there is no clinical or laboratory evidence of infection.
OR Terbinafine (off-label) *Monitoring not required for healthy patients if treatment course is 4 weeks. If monitoring is required, LFTs recommended at baseline and 1 month into treatment.*	**Child 1–17 years:** Body weight 10–19kg: 62.5mg once daily Body weight 20–39kg: 125mg once daily Body weight ≥40kg: 250mg once daily **Adult:** 250mg once daily	For at least 4 weeks. Continue until there is no clinical or laboratory evidence of infection.

[1]See BNF and BNFC for appropriate use and dosing in specific populations, e.g., hepatic, or renal impairment, pregnancy, breastfeeding.