# **Tinea Infection Treatment Guidelines**

Tinea fungal infections, commonly known as ringworm, are contagious fungal infections that can affect various parts of the body. These infections are caused by dermatophytes, fungi that thrive in warm, moist environments.

## **Treatment options**

According to Ely, Rosenfeld, et. al (2014), below are some of the common treatment options for Tinea infections.

#### **Terbinafine (Lamisil)**

Terbinafine, commonly known by the brand name Lamisil, is a topical antifungal cream widely used to treat Tinea corporis, Tinea cruris, and Tinea pedis. It works by inhibiting the growth of the fungi responsible for these infections, providing relief from symptoms like itching and scaling.

#### **Butenafine (Lotrimin ultra)**

Butenafine, available as Lotrimin Ultra, is another effective topical treatment for Tinea infections. It is particularly useful for treating localized cases of athlete's foot and jock itch, offering relief by reducing fungal activity on the skin.

#### Oral antifungal agents

Oral antifungal agents are often necessary for patients dealing with extensive infections, those who have not responded to topical treatments, or individuals who are immunocompromised. These medications are typically prescribed for severe cases, such as moccasin-type tinea pedis, to ensure complete eradication of the fungi.

Tinea capitis requires treatment with systemic antifungal agents, as topical treatments cannot penetrate the hair shaft effectively. In the initial two weeks, it is advisable to use 1% or 2.5% selenium sulfide (Selsun) shampoo or 2% ketoconazole shampoo in conjunction with systemic therapy to help reduce transmission. For many years, griseofulvin has been the first-line treatment for tinea capitis due to its proven safety and effectiveness.

#### **Proper aftercare**

Proper aftercare is crucial for preventing recurrence and ensuring effective treatment of Tinea infections. Patients should wear wide shoes to avoid pressure on the affected areas, dry between their toes thoroughly after bathing, and place lamb's wool between the toes to maintain dryness and reduce the risk of fungal growth. These measures help create an environment where fungi cannot thrive, promoting faster healing and reducing the likelihood of re-infection.

### **Newer agents**

Below are newer agents used for treating tinea capitis:

• **Griseofulvin:** Griseofulvin is available in a concentration of 125 mg per 5 ml, with a recommended dosage of 20 to 25 mg per day, either as a single daily dose or divided into two doses, and is suitable for children older than two years.

- **Teebinafine:** This is available in 250mg tablets and 125mg granule packs. For children weighing below 25kg, the recommended dosage is 125mg once a day; for those weighing between 25kg and 35kg, it is 187mg once a day; and for children over 35kg, it is 250mg once a day. This medication is suitable for children four years and older.
- Fluconazole (Diflucan): It comes in 50mg and 100mg tablets, as well as a suspension with concentrations of 10mg per ml and 40mg per ml. The daily dosing is 6mg per kg for 3-6 weeks, or it can be administered weekly at 6mg per kg once a week. Fluconazole is approved for use in children older than six months.
- **Itraconazole (Sporanox):** This is available as a 10mg per ml solution and 100mg capsules. The capsule dosage is 5mg per kg daily for 4-6 weeks, while the solution dosage is 3mg per kg daily for 4-6 weeks. Pulse therapy with capsules involves taking 5mg per kg daily for one week each month for 2-3 months, and the oral solution can be used in pulse therapy at 3mg per kg daily for one week each month for 2-3 months.

For tinea unguiuim, below are newer agents for treatment:

- **Ciclopirox:** Ciclopirox is available in a topical bottle of 6.6ml. It should be applied daily to the affected nail and adjacent skin, and removed with alcohol every seven days. This treatment is suitable for persons older than 12 years.
- **Fluconazole:** This is available in tablet forms of 50mg, 100mg, 150mg, and 200mg, as well as in suspension of 10mg per ml and 40mg per ml. For children, the dosage is 3-6mg per kg once weekly. Adults may take 150 to 300mg once weekly. This medication is suitable for children and adults older than six months

## **Other treatments**

Patients suffering from chronic or recurrent tinea pedis may find relief by wearing wide shoes, ensuring thorough drying between the toes after bathing, and placing lamb's wool between their toes. For those with tinea gladiatorum, a widespread form of tinea corporis commonly observed in wrestlers, it is essential to administer topical therapy for 72 hours before resuming wrestling activities.

Ely, J. W., Rosenfeld, S., & Stone, M. S. (2014). Diagnosis and management of tinea infections. *American Family Physician*, *90*(10), 702–711. <u>https://www.aafp.org/pubs/afp/issues/2014/1115/p702.html</u>