ONCHOMYCOSIS: DERMATOPHYTE INFECTION OF THE FINGERNAILS AND TOENAILS V3.0

Scope

This guideline is for treatment of onychomycosis (dermatophyte nail infection) in adults. Seek specialist opinion for treatment in children.

Comments from the Expert Advisory Group

- Risk factors for onychomycosis include concomitant fungal skin infection, psoriasis, diabetes mellitus, peripheral arterial disease, immunocompromised states, repeated nail trauma and occlusive footwear.

- Clinicians should discuss the potential benefits, risks, and possibility of treatment failure with the patient to support an individualised decision on whether treatment is appropriate.

- Initial management of onychomycosis should involve self-care strategies mentioned below.

- **Advise on self-care management strategies:**
    - Keep nails trimmed short and filed down. Avoid sharing toenail clippers with family members.
    - Wear well-fitting non-occlusive shoes, without high heels or narrow toes. Consider replacing old footwear that could be contaminated with fungal spores.
    - Wear cotton, absorbent socks.
    - Maintain good foot hygiene (refer to HSE A to Z fungal nail infection).
    - Wear protective footwear when using communal bathing places, locker rooms, and gymnasiums, to avoid re-exposure.
    - Avoid prolonged or frequent exposure to warm, damp conditions if possible
    - Avoid trauma to the nails if possible.
- Concomitant tinea pedis is common and should be treated promptly as it is a risk factor for onychomycosis treatment failure. Refer to the dermatophyte skin infection guideline for more information.

- Topical treatments are limited to those specifically licensed for treatment of nail disease, other topical antifungals (e.g. creams) are not suitable as they do not penetrate the nail.

- Topical treatment should only be used when less than 50% of the nail is affected and the infection has not spread to the nail matrix and/or lunula.

- Oral antifungal therapy is considered the gold standard for treatment of onychomycosis, however in cases where there are contraindications for systemic treatment, potential for drug-drug interactions or patient preference, then topical treatment may be considered.

- For patients with a non-responsive dermatophyte infection, especially those with relevant travel history or contact with someone with a persistent dermatophyte infection, consider discussing the case with Microbiology for specialist advice.

- If a decision is made to start antifungal treatment, nail samples should be taken. Systemic treatment as described in treatment tables can be started if dermatophyte infection is confirmed. For nail infection caused by non-dermatophyte moulds seek specialist opinion.

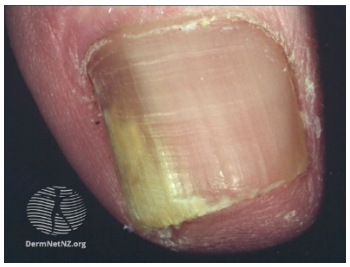
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Nail Sampling:

- Most viable fungi are usually found in the most proximal part of diseased nail.
- Include full thickness clippings of the diseased nail and subungual debris.
- Sample as far back from nail tip as possible, as this is where fungi are usually found; also sample debris from under the diseased part of the nail.
- In superficial infections, scrape surface of diseased nail plate with scalpel blade.

Images: (image source: DermNet)

Note: rashes and skin conditions can appear different on black or brown skin





Treatment

ONYCHOMYCOSIS - DERMATOPHYTE INFECTION OF THE FINGERNAILS AND TOENAILS TREATMENT TABLE (Page 1 of 2)			
Topical treatment			
Drug	**Dose**	**Duration**	**Notes**
5% amorolfine nail lacquer	Apply once weekly	Fingernails: 6 months Toenails: 9–12 months (review at 3 monthly intervals)	File down nail surface as much as possible. Clean and degrease surface of nail with an alcohol cleaning pad. Apply nail lacquer to entire surface of affected nail(s) using supplied spatula. Allow to dry for 3-5 minutes. Filing and cleansing of the nail should occur before each application. Do not apply nail varnish over the lacquer.

Treatment table continued on the next page

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ONYCHOMYCOSIS - DERMATOPHYTE INFECTION OF THE FINGERNAILS AND TOENAILS TREATMENT TABLE (PAGE 2 OF 2)			
Oral treatment: 1st choice			
Drug	**Dose**	**Duration**	**Notes**
Terbinafine	250 mg every 24 hours	6 weeks to 3 months depending on severity of infection and nail growth. Some toenail infections may take more than 6 months to clear.	Not recommended in patients with active or chronic liver disease. See renal impairment dosing table for GFR<50 mL/min. Pre-treatment LFTs should be performed. If prolonged treatment is required, repeat LFTs periodically (e.g. after 4-6 weeks).
Oral treatment: 2nd choice			
Itraconazole* – continuous therapy	200 mg every 24 hours	Fingernails: 6 weeks to 3 months Toenails: 3 months	Take capsules immediately after a meal for maximum absorption. Not recommended in patients with active or chronic liver disease. If treatment is for longer than one month then pre-treatment LFTs should be performed and then monitored periodically. Avoid itraconazole (and all oral azoles) in pregnancy* Check for drug interactions before prescribing Avoid in patients with ventricular dysfunction, such as history of congestive heart failure, unless the infection is serious.
OR Itraconazole* – pulse therapy	Fingernails: 200 mg every 12 hours for 7 days, subsequent courses repeated after 21-day intervals. Toenails: 200 mg every 12 hours for 7 days, subsequent courses repeated after 21-day intervals.	Fingernails: 2 courses Toenails: 3 courses	
* Women of childbearing potential taking itraconazole should use contraceptive precautions. Effective contraception should be continued until the menstrual period following the end of itraconazole therapy.			

Patient Information

- HSE A-Z Fungal nail infection