



MANAGEMENT OF SCABIES IN THE UK

EXPERT CONSENSUS GUIDANCE October 2023

BACKGROUND

Scabies is a mite infestation which causes an itchy rash and is passed between people by skin-to-skin contact. Prompt treatment of all those affected, and any possible contact, is required to manage symptoms and prevent complications and spread.

There are increasing reports of patients presenting to both primary care and dermatology departments with scabies, many of whom have difficult-to-treat infestations, although the data are limited.

Currently, the reasons for poor treatment responses are unclear. It may reflect an increased burden of infestation and inadequate/incorrect use of topical treatments. There is ongoing research on possible resistance to treatments as a potential cause of increased rates of problematic infestations.

A diagnosis of scabies can be made according to the IACS criteria by the typical history of itching and itchy contacts, and evidence of mites or mite eggs, or parts on dermoscopy or **direct microscopic examination** of skin scrapings. Confirmation of the diagnosis using microscopy is particularly important for crusted scabies as typical skin lesions may not be visible.

MANAGEMENT

Treatments for scabies include topical preparations and oral ivermectin.

The best way to treat scabies and avoid recurrence is to ensure that both those with infestation and **ALL** relevant contacts (see below) are treated correctly **at the same time**.

In most cases, the mites will not survive for long on bed linen, towels and clothes. Normal washing of these is recommended at the same time as treatment. Any item that cannot be washed should be placed in sealed bags for 3 days.

Itching may last for up to 6 weeks even if treatment has been successful in eliminating the infestation.

If scabies is ongoing or recurrent, then all cases and all relevant contacts will need further treatment.

Who should be considered a 'contact'?

Scabies can spread easily through skin-to-skin contact with other people. Contacts will likely include all household members and sexual partners. It could also include any other skin contacts such as

members of sports teams and individuals who do not live in an affected household but provide care, e.g. visiting family members, child minders and adult day care providers. Not all individuals with scabies have itch and rash. Asymptomatic people will re-infest their contacts if they are not treated concurrently. It is important to recognise that some will feel shame or guilt, which may have an impact on use of treatments, however, in reality, anyone can be infested by scabies. Informing and reassuring relevant contacts so that they can receive effective treatments is vital to stop the spread of scabies.

Topical treatments (advised as first-line)

Correct application information and treatment of close contacts are essential to ensure highest chance of effectiveness (http://badmainstage.wpengine.com/wp-content/uploads/2023/05/topical-scabies-advice-24.3.23.pdf).

Notes about topical treatments:

- There are current supply issues for several topical treatments for scabies

 See the British Association of Dermatologists statement (www.bad.org.uk/uk-shortage-of-scabies-medications-is-a-snowballing-public-health-issue-dermatologists-warn/).
- Potential resistance to topical treatments
 This is an area of current investigation. Topical treatments are likely to be effective in many cases. However, there is some evidence of altered strains of mite which are tolerant of pyrethroids (permethrin).
- Skin irritation
 All topical preparations can cause dermatitis, especially if used repeatedly, which can lead to diagnostic uncertainty. Management with emollients, topical anti-inflammatory treatments (corticosteroids) and antihistamines should be prescribed as necessary.

Advice for application of topical treatments

Effective topical treatment options include permethrin cream, malathion and benzoyl benzoate (liquid medicine). There are no specific studies on the use of these agents in women who are pregnant or breastfeeding, or for babies. These patients or their carers are advised to seek advice on their use from a doctor. These treatments can be prescribed, bought over the counter, or purchased from online pharmacies without a prescription.

The mites may be anywhere on the skin, so the treatment must be applied to **ALL** areas of the skin, and not just to the itchy parts.

Treatment is best applied at night – see below for tips on how to use:

- Remove all clothes.
- Wash before treatment with cool (not hot) water, ensuring the skin creases and areas under nails are cleaned thoroughly. It is best to cut nails short.
- Apply treatment to clean, cool and dry skin.
- Apply to ALL areas of the skin, including all of the body, neck, scalp and face (only avoiding
 areas around the eyes). The product advice may suggest not treating the scalp and face, but
 it is best that all these areas are treated.

- Certain areas of skin need particular attention for treatment to be successful ensure the product is applied generously to:
 - skin between fingers and toes
 - o genital skin
 - skin behind ears
 - nipples
 - o under finger and toenails (use of a soft toothbrush can help with this).
 - Ideally, remove all jewellery or make sure to apply to the skin under jewellery.
 - Apply the product to soles of feet last.

Once applied, leave 10-15 minutes for the product to dry before dressing. Treatment should be left on the skin for **at least 12 hours**.

Some people may benefit from a further application 12 hours later

This will ensure the medication is on their skin for 24 hours. If any skin is washed during this time (most likely to be the hands), the product should be reapplied.

The product should be washed off without soap initially, i.e. just water. Once completely showered, soap and/or moisturisers or emollients can be used.

Once treatment has been used you can return to all normal activities.

Treatments should be repeated as above 7 days later to ensure both the scabies mite and the scabies eggs have been destroyed.

Oral treatment

Ivermectin is now available in the UK for scabies in 3 mg tablets. The dose for scabies treatment is $200 \mu g/kg$, taken in a single dose with food. For example, 15 mg (5 tablets) for a 70 kg person.

Ivermectin is not ovicidal, so a second dose should be given in 7 days to kill recently hatched mites to enhance effectiveness.

Oral ivermectin may be considered:

- If topical treatments have not resolved the symptoms and there is evidence of ongoing infestation with the presence of burrows, etc.
- If topical treatments are difficult to access or are unavailable.
- In conditions where topical treatments may be difficult to apply effectively, e.g. in care home settings, and where treatment of large numbers of persons is required.
- For crusted scabies.

If ivermectin is not available

Infected patients should repeat the permethrin treatment and, in addition, apply malathion for 12 hours 3-4 days after the first and second applications of permethrin.

RELEVANT PUBLICATIONS

- Engelman D, Yoshizumi J, Hay RJ et al. The 2020 International Alliance for the Control of Scabies Consensus Criteria for the Diagnosis of Scabies. *Br J Dermatol* 2020; **183:** 808-20.
- Riebenbauer K, Purkhauser K, Walochnik J et al. Detection of a knockdown mutation in the voltage-sensitive sodium channel associated with permethrin tolerance in Sarcoptes scabiei var. hominis mites. *J Eur Acad Dermatol Venereol* 2023; online ahead of print.
- Sunderkötter C, Wohlrab J, Hamm H. Scabies: Epidemiology, Diagnosis, and Treatment. *Dtsch Arztebl Int* 2021; **118:** 695-704.
- Rosumeck S, Nast A, Dressler C. Ivermectin and permethrin for treating scabies. *Cochrane Database Syst Rev* 2018; **4:** Cd012994.
- Ranjkesh MR, Naghili B, Goldust M, Rezaee E. The efficacy of permethrin 5% vs. oral ivermectin for the treatment of scabies. *Ann Parasitol* 2013; **59:** 189-94.
- Salavastru CM, Chosidow O, Boffa MJ et al. European guideline for the management of scabies. *J Eur Acad Dermatol Venereol* 2017; **31:** 1248-53.
- Ivermectin: new indication. Oral treatment of scabies: simple and effective. *Prescrire Int* 2002; **11:** 137-40.
- Panahi Y, Poursaleh Z, Goldust M. The efficacy of topical and oral ivermectin in the treatment of human scabies. *Ann Parasitol* 2015; **61:** 11-6.
- Levy M, Martin L, Bursztejn AC et al. Ivermectin safety in infants and children under 15 kg treated for scabies: a multicentric observational study. *Br J Dermatol* 2020; **182**: 1003-6.
- Richards RN. Scabies: Diagnostic and Therapeutic Update. J Cutan Med Surg 2021; 25: 95-101.