

## **United Kingdom National Guideline on the Management of Scabies infestation (2007)**

**Clinical Effectiveness Group (British Association of Sexual Health and HIV)**

### **Introduction and methodology**

#### **Scope and purpose**

Scabies infestation is an uncomfortable condition that may indicate the presence of other sexually transmitted infections. This guideline reviews treatment options for scabies

It is aimed primarily at people aged 16 or older presenting to health care professionals working in departments offering level 3 care in STI management in England and Wales, tier 5 in Scotland (1,2). However the recommendations are appropriate in all health care settings.

#### **Stakeholder involvement**

This guideline has been produced by medical specialists from relevant disciplines. Successive drafts have been reviewed by the clinical effectiveness group of BASHH. It was posted for comment for 3 months on the BASHH website.

#### **Rigour of development**

A Medline search was undertaken using search terms scabies, treatment and randomised controlled trial (RCT). The Cochrane database was also searched under scabies. One Cochrane review (3) and one other evidence-based review (4) published since the previous guideline were identified. Three additional clinical trials were considered (5-7). Drugs considered were ivermectin, permethrin, crotamiton and benzyl benzoate. Ivermectin is not licensed as a treatment for scabies in the UK. There are no RCTs involving malathion. Lindane is no longer available in the UK because of its toxicity. There are no controlled studies of treatments for crusted (Norwegian) scabies.

#### **What is new in the guideline**

- No new evidence
- Minor rewording in the follow-up section
- Audit standards added

## **Aetiology**

- The infestation is caused by the mite *Sarcoptes scabiei*. Mites burrow into the skin where they lay eggs. The resulting offspring crawl out onto the skin and make new burrows
- Any part of the body may be affected, and transmission is by skin-to-skin contact.

## **Clinical features**

### **Symptoms**

- The absorption of mite excrement into skin capillaries generates a hypersensitivity reaction. The main symptom, which may take 4 to 6 weeks to develop, is generalised itch – especially at night

### **Signs**

- Characteristic silvery lines may be seen in the skin where mites have burrowed
- Classic sites include the interdigital folds, the wrists and elbows, and around breast nipples in women
- Papules or nodules that may result from itching often affect the genital area
- In HIV infection crusted lesions that teem with mites (Norwegian scabies) pose a significant risk of transmission to others

### **Complications**

- Secondary infection of the skin lesions can occur following repeated scratching.

### **Diagnosis**

- The clinical appearance is usually typical, but there may be diagnostic confusion with other itching conditions such as eczema
- Scrapings taken from burrows may be examined under light microscopy to reveal mites

## **Management**

### **General advice**

- Patients should be advised to avoid close body contact until they and their partner(s) have completed treatment
- Patients should be given a detailed explanation of their condition, and clear and accurate written information on applying the treatment

### **Further investigation**

- A full screen for other STIs should be undertaken, as there is anecdotal evidence of rates of infection similar to other patients attending GUM clinics (8)

### **Treatment**

Two topical treatments are recommended in the UK. Benzyl benzoate is regarded as too irritant, and crotamiton is ineffective compared to the recommended options (3,4)

### **Recommended regimens**

- Permethrin 5% cream. (level of evidence 1b, grade of recommendation A)
- Malathion 0.5% aqueous lotion (level of evidence 4, grade of recommendation C)

These should be applied to the whole body from the neck downwards, and washed off after 12 hours, usually overnight

Itch may persist for several weeks. Application of crotamiton cream may give symptomatic relief, and antihistamines may also be helpful

Potentially contaminated clothes and bedding should be washed at high temperature (>50°C) if possible

Mites separated from the human host die within 72 hours

Norwegian scabies may be treated with oral Ivermectin, available on a named-patient basis, in a dose of 200 mcg/kg. Deaths in elderly patients treated with this drug (9) have not been seen in other settings (3)

### **Allergy**

- Treatments to which there is known hypersensitivity should be avoided

### **Pregnancy and breastfeeding**

- Permethrin is safe during pregnancy and breastfeeding

### **Sexual partners**

- Current sexual partners as well as other members of the household should be examined and treated
- An arbitrary time span is for contacts from the previous 2 months to be traced

### **Follow-up**

- No clear evidence exists as to optimal follow-up
- The appearance of new burrows at any stage post-treatment is indicative of a need for further therapy, although in re-infection symptoms of pruritus may recur before typical burrows have developed
- Pruritus persisting more than 2 weeks after treatment may reflect treatment failure, reinfection or drug allergy to anti-scabietics (10)

### **Auditable outcomes**

Percentage of patients with scabies offered STI screen : Target 100%

Percentage of patients offered written information : Target 100%

### **Conflict of interest**

None

The recommendations in this guideline may not be appropriate for use in all clinical situations. Decisions to follow these recommendations must be based on the professional judgement of the clinician and consideration of individual patient circumstances.

All possible care has been undertaken to ensure the publication of the correct dosage of medication and route of administration. However, it remains the responsibility of the prescribing physician to ensure the accuracy and appropriateness of the medication they prescribe.

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#### **References**

1. The national strategy for sexual health and HIV; July 2001: [www.doh.gov.uk](http://www.doh.gov.uk)
2. Scottish Executive 2005. Respect and Responsibility. Strategy and action plan for improving sexual health. Edinburgh, Scottish Executive.
3. Walker G GJA, Johnstone PW. Interventions for treating scabies. Cochrane Database of Systematic Reviews 2000, Issue 3. Art. No.: CD000320. DOI: 10.1002/14651858.CD000320.

4. Wendel K, Rompalo A. Scabies and pediculosis pubis: an update of treatment regimens and general review. *Clin Inf Dis* 2002;35(suppl):S146-S151.
5. Usha V, Gopalakrishnan Nair TV. A comparative study of oral ivermectin and topical permethrin cream in the treatment of scabies. *J Am Acad Dermatol* 2000; 42:236-40
6. Zargari O, Golchai J, Sobhani A, et al. Comparison of the efficacy of topical 1% lindane vs 5% permethrin in scabies: a randomized, double-blind study. *Indian J Dermatol Venereol Leprol* 2006;72:33-36
7. Madan V, Jaskiran K, Gupta U, et al. Oral ivermectin in scabies patients: a comparison with 1% topical lindane lotion. *J Dermatol* 2001;28:481-484
8. David N, Rajamanoharan S, Tang A. Are sexually transmitted diseases associated with scabies? *Int J STD AIDS* 2002;13:168-70.
9. Barkwell R, Shields S. Deaths associated with ivermectin treatment of scabies. *Lancet* 1997;349:1144-5
10. Chosidow O. Scabies and Pediculosis. *Lancet* 2000;355:819-26.