# SKIN AND SOFT TISSUE INFECTIONS
## Scabies

Scabies is an intensely itchy skin infestation caused by the human parasite *Sarcoptes scabiei.*

**Classical scabies** (typical scabies) involves infestation with a low number of mites (about 5–15 per host).
**Crusted scabies** (formally known as Norwegian scabies) is a hyperinfestation with thousands or millions of mites present in exfoliating scales of skin. It develops as a result of an insufficient immune response by the host.

Management of scabies involves:
- **Simultaneously treating** the affected person and **all** household members, close contacts, and sexual contacts with a topical treatment, even in the absence of symptoms.
- Identifying close contacts of the symptomatic patient within **the 8 weeks** before the initial scabies diagnosis. For definition of close contact see UKHSA.
- Providing information on scabies, including information on how the treatment should be applied.
- Considering symptomatic treatment for itching (for example topical crotamiton).
- Treating any complications (such as cellulitis).

**Hygiene measures are important in the management of scabies and include:**
- Bedding, clothing, and towels (and those of all potentially infested contacts) should be decontaminated by washing at a high temperature (at least 60°C) and drying in a hot dryer, or dry-cleaning, or by sealing in a plastic bag for at least 72 hours.
- Bedclothes and clothing should be changed and washed after treatment.

**Patient Information Leaflets** (British Association of Dermatologists and NHS)

Diagnosis:
Early diagnosis is important, and if in doubt, or if there is a possible case of crusted scabies, specialist advice should be sought (Dermatology, GP with Extended Role in Dermatology, Infection Prevention and Control, Infectious Diseases).

There has been a widespread increase in the number of scabies cases, especially associated with residential institutions. Resistance to scabies treatments is increasing although many failures are due to inadequate treatment application.

The Infection Prevention and Control Team (IPC) should be contacted in the following situations:
- **A single case of crusted scabies in a care setting.**
- **2 or more classical cases in a care setting.**
- **Ongoing complex transmission with multiple treatment failures in the community.**

CityCare Infection Prevention & Control Team: (0115 8834902) or e-mail ncp.ipct@nhs.net or
ICB County Infection Prevention & Control Team: (01623 673081) or e-mail nnicb-nn.ipc@nhs.net

The IPC teams do not manage outbreaks in schools and nurseries. Please refer to the UKHSA: 03442254524

Where occupational exposure of staff has led to their need for treatment, it is recommended that the employer should consider funding any treatment rather than staff paying for their own treatment, either OTC or via a prescription. Where a prescription is required, the staff member should discuss this with their own GP.

## Classical Scabies Treatment:

Scabies is very rare in children under 2 months of age. Specialist (paediatric dermatology) advice should be sought if treatment is required for this age group.

**Permethrin 5% cream**

- Currently the treatment of choice for therapy and prophylaxis and is safe in pregnancy and breastfeeding (unlicensed use).
- The whole body from the jaw line down should be adequately covered with permethrin and washed off after 8-12 hours.
- Particular attention should be paid to the areas between fingers and toes, under nails, wrists, armpits, external genitalia, breasts, and buttocks.
- In children 2months-2years, the immunosuppressed and the elderly, the cream should also be applied to the face, neck, scalp, and ears as well (avoiding contact with eyes), as they are at a greater risk of infestation of the face and scalp.
- **The cream must be reapplied if washed off during that time (especially after washing hands).**

**Malathion 0.5% aqueous liquid**

- Can be used if permethrin is ineffective or not suitable.
- The whole-body including face, neck, scalp, and ears should be adequately covered with malathion and washed off after 24 hours.
- **The liquid must be reapplied if washed off during that time (especially after washing hands or following episodes of incontinence).**

Both treatments should be applied to cool dry skin (not after a hot bath) and allowed to dry before the person dresses in clean clothes. **Both treatments need to be reapplied after 7 days.**

| Medicine[1] | Dosage | Duration | Usual quantity per application |
|---|---|---|---|
| First line | | | |
| Permethrin 5% cream (From 2 months of age) *Available OTC from 2 years* | See written instructions provided with medication | Apply ONCE, leaving on for 8-12 hours, and repeat after 7 days | **2 months to 1 year:** up to an eighth of a tube (3.75g)<br>**1-5 years:** up to a quarter of a tube (7.5g)<br>**6-12 years:** up to half a tube (15g)<br>**Adults and children >12 years:** usually up to one tube (30g). No more than two tubes should be used at each application. |
| Second line | | | |
| Malathion 0.5% aqueous liquid *Available OTC from 6 months* | See written instructions provided with medication | Apply ONCE, leaving on for 24 hours, and repeat after 7 days | **Adult:** 100ml (half a 200ml bottle) of lotion is usually enough for one application. |

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

If symptoms persist for longer than 2–4 weeks after the last application and/or if new burrows have appeared since treatment, **advise re-treatment with topical treatment for index case and contacts.**

**Oral ivermectin**

Should be considered when there has been treatment failure after at least two courses of topical treatment and following the advice of a specialist (Amber 2 on formulary).

Confirmation should be obtained that topical treatment has been used correctly (including treatment of contacts and laundry) and not resolved the symptoms, or that there is evidence of ongoing infestation with the presence of burrows.

Ivermectin is available in 3mg tablets and can be used in adults and children weighing ≥15kg. Patients weighing less than 15kg must be managed by a specialist.

**The dosage for classical scabies treatment is** 200micrograms/kg taken in a single dose with food.
A second dose should be given 7 days later to kill recently hatched mites.

| BODY WEIGHT (kg) | DOSE (number of 3mg tablets) |
|---|---|
| 15 to 24 | One |
| 25 to 35 | Two |
| 36 to 50 | Three |
| 51 to 65 | Four |
| 66 to 79 | Five |
| ≥ 80 | Six |

**Contacts** should be treated with permethrin unless it is determined on an individual basis that ivermectin should be used.

## Crusted Scabies Treatment:

If crusted scabies is suspected, specialist advice should be sought.
The patient may require combination topical treatment and oral ivermectin. This will be advised by the specialist.

### Itch

The itch and eczema of scabies persists for some weeks after the infestation has been eliminated. The itch may be reduced by washing with an emollient after treatment or by using a symptomatic treatment e.g., crotamiton 10% cream.
The persistence of pruritus or post-scabetic nodules does not necessarily indicate a recurrent infestation. Post-scabetic nodules may take several weeks to resolve and treatment with a potent topical steroid may be helpful. Refer to a dermatologist if there is diagnostic uncertainty or persistence after treatment.