

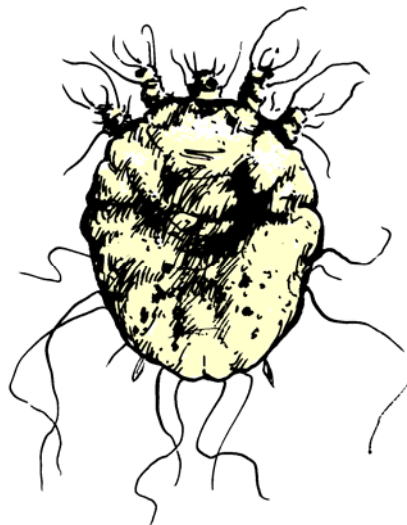


Government of South Australia
Department of Health

DRAFT

SCABIES

**Management Guidelines for the Control of
Scabies in Health Care Facilities**



December 2006

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Management Guidelines for the Control of
Scabies in Health Care Facilities

Available from

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Introduction

What is scabies?

Scabies is an infestation of the skin caused by the scabies mite *Sarcoptes scabiei*. The mite is very tiny, 0.2-0.4mm long, and cannot be seen easily without magnification. It occurs worldwide and in all races and social classes. Scabies infestation is not an indication of poor hygiene.

Scabies and other mites usually infest the skin, especially where there are creases, such as between the fingers, on the front of the wrists and in the folds of the elbows, armpits, buttocks and genitals.

Scabies mites cause intense itching, especially when the body is warm; for example after a hot shower or bath or while in bed at night. Thread-like "tunnels", approximately 10mm long, may be visible as grey lines in the skin, but they are often difficult to detect. Scabies infestation may appear on the genitals as small itchy lumps.

Scabies is usually transmitted by direct skin-to-skin contact, or less commonly by bedding, clothes and towels freshly contaminated by an infested person. In ideal conditions, scabies mites can survive for up to four days away from a human host.

Crusted scabies is a severe form of scabies in which thousands to millions of mites infest an individual (most normal scabies cases involve only 10 to 20 mites). Crusted scabies often occurs in physically incapacitated and immunocompromised patients and results in intense crusting and scaling of the skin, however, the itch generally associated with scabies may be mild or absent. Crusted scabies is highly contagious.

Diagnosis

This should be confirmed by a medical practitioner. A scabies infestation may mimic other skin conditions such as eczema and dermatitis therefore it is important that the condition is diagnosed through the use of a skin scraping. Typically with scabies, the itch is worse at night and after hot showers.

Incubation period

The incubation period for people without previous exposure to scabies is 2-6 weeks. People who have been previously infected will develop symptoms within 1-5 days of re-exposure.

Management

1. Management of an isolated case

1.1. Additional Precautions

- additional contact precautions for affected persons should be implemented immediately on diagnosis and for 24 hours after commencement of treatment. Staff coming into contact with the affected person should wear disposable long sleeved gowns and gloves. This also includes in-house laundry staff who handle the person's linen and clothes;
- if possible isolate the person with scabies from other persons until infection is clear (that is, place in a single room under additional contact precautions);
- in the event that it is necessary to transfer an affected person between facilities the receiving institution and transport provider (such as SAAS) must be notified of the infestation;
- for further information on additional contact precautions refer to the *Infection Control Guidelines for the prevention of transmission of infectious diseases in the health care setting 2004* (available on the web at www.icg.health.gov.au).

1.2. Surveillance

- Progression to multiple cases can be prevented if the source is identified and treated early, therefore vigilance in detecting cases is important; and
- Staff and residents/patients suspected of having direct skin to skin contact with the affected person should be checked for evidence of scabies.

1.3. Treatment

- the affected person and identified contacts (see 1.5) should have a warm shower/bath with soap, and dry body prior to treatment;
- change clothing, towels and bed linen immediately before and after treatment;
- apply medication from the neck down ensuring all skin folds are treated, for example, finger webs, toe webs, natal cleft, external genitalia, umbilicus and axillae (avoid contact with eyes and mucous membranes). Ensure that treatment is also applied to the soles of the feet;
- if medication is washed off during the treatment period, for example, in hand washing, pressure area care etc, medication needs to be reapplied;
- scabies above the neck can occur in infants, the aged and institutionalised. It is recommended that medication be applied to the whole body including the face, neck, behind the ears and scalp in these groups;
- treatment options as per the Therapeutic Guidelines: Antibiotic, version 13:

- **Permethrin 5% cream/lotion** (adult, including pregnant/lactating women, and child >6 months*) topically to dry skin from the neck down, paying particular attention to hands and genitalia, and under the nails with a nailbrush. Leave on the skin for a **minimum of 8 hours** (usually overnight) and reapply to hands if they are washed. The time may be increased to 24 hrs if there has been a treatment failure.

or if the patient is allergic to permethrin . . . or if permethrin fails . . .

- **Benzyl benzoate 25% emulsion** (child <2 years dilute with 3 parts water; child 2 to 12 years and sensitive adult dilute with equal parts of water). Apply topically to dry skin from the neck down paying particular attention to hands and genitalia and under the nails with a nailbrush. Leave on for 24 hours and reapply to hands if they are washed;

* For babies <6 months, medical advice must be sought prior to treatment

- mites may be found under the fingernails after the affected person has been scratching. Fingernails should be trimmed and a thin layer of medication applied under the fingernails. In infants, mittens applied to the hands will prevent removal and ingestion of the treatment product;
- a second course of treatment is recommended **7 days after the first application** to ensure that mites that may have hatched after the first treatment are killed. Over-treatment is common and should be avoided because of the toxicity of some of the treatment agents, therefore the presence of mites should be confirmed with a skin scraping prior to any further treatment following the application of the second course;
- cases should be monitored for evidence of secondary bacterial infections;
- all treatment must be undertaken on a coordinated basis to prevent further spread; and
- a nominated staff member should regularly liaise with the pharmacy to ensure adequate stocks of medication are available in the event of escalating numbers of cases.

1.4. Concurrent Disinfection

- underwear, clothing, towels and bed linen (including any additional personal effects such as slippers, bed jackets, dressing gowns, knee rugs etc) used by the affected person in the 4 days prior to treatment should be laundered using a hot cycle wash and/or 10 minutes in a tumble dryer on a hot setting to kill the mites. If items are unable to be laundered or hot tumble dried, place items in a plastic bag and leave for at least 4 days before airing and then reusing;
- smooth floors need to be thoroughly mopped at least daily using a routine detergent;
- areas such as shared toilet and shared commode chair seats need to be thoroughly wiped after each use with a routine detergent; and
- additional environmental control, such as the use of an insecticide, is unnecessary.

1.5. Management of Contacts

- 'contacts' are all those who have had prolonged, direct skin-to-skin contact with the affected person or their environment within the maximum incubation period (see page 1). Contacts **may** include:
 - other residents/patients,
 - family and friends of affected person,
 - nursing staff (including agency staff),
 - volunteers,
 - medical staff,
 - clergy,
 - allied health staff,
 - SA Ambulance Service personnel, and
 - hairdressers, beauticians, etc.

Consideration should also be given to in-house laundry staff and cleaning staff as contacts (dependant on the level of contact with the affected person and/or their environment);

- contacts should be treated presumptively and simultaneously; and
- it is important to search for unreported and unrecognised cases among contacts.

1.6. Communication

- a meeting of staff may be necessary to explain the situation and to educate affected individuals and those at risk, and may assist in identifying and promptly treating existing and new cases;
- all staff and infected individuals should be provided with written information or directed to the Department of Health website for scabies information.
 - www.dh.sa.gov.au/pehs/environ-health-index.htm
 - www.dh.sa.gov.au/pehs/youve-got-what.htm

2. Management of multiple cases

2.1. Additional Precautions

- same as for 'Additional Precautions' section 1.1;

plus . . .

- implementation of additional contact precautions for all residents/patients in the affected wards/sections of the facility until the outbreak comes under control;
- exclude affected persons from contact with patients/residents/staff from other areas of the facility for 24 hours after commencement of treatment; and
- In some cases facilities may decide to restrict transfers in and out of the affected area.

2.2. Surveillance

- Progression to an epidemic can be prevented if the source is identified and treated early, therefore vigilance in detecting further cases is important;
- when additional cases emerge, it is possible that there is:
 - an unidentified source of crusted scabies,
 - a new (infected) person, or
 - person(s) with re-infection following previous treatment

therefore . . .

- all residents/patients in the affected area should be checked immediately for scabies by visual inspection of entire body:
 - it may be necessary to check all residents/patients in the facility if staff are moving between sections/wards;
- recurrence of infection in the same case (even after a treatment regimen of 2 applications) may indicate that the person has been re-infected or has scabies that is resistant to the treatment product; and

NOTE: The itchiness associated with scabies can often take several weeks to stop completely following treatment. Continued itching during this period does not necessarily imply treatment failure.

- consideration may be given to allocating a staff member as the coordinator to monitor all known and potential cases and to act as a referral agent for coordination of treatment, containment and decontamination.

2.3. Communication

- information should continue to be provided to staff, residents/patients and family members;
- all staff should be informed on a daily basis of management changes and issues:

- all management plans should be readily available for all staff;
- further meetings may be necessary to facilitate the distribution of information to staff as per 1.6. Consideration should also be given to including resident/patients and family members to ensure they are properly informed; and
- communication with the pharmacy is essential to ensure that adequate stocks of medication are available.

2.4. Treatment

- same as for 'Treatment' section 1.3;

plus . . .

- all treatment must be undertaken on a coordinated basis, i.e. on the same day to prevent further spread; and
- treatment guidelines apply to *all* affected people and *all* persons who report any contact regardless of degree/duration (This is to ensure that treatment is provided to people who may have had skin-to-skin contact unnoticed by facility management).

2.5. Concurrent Disinfection

- same as for 'Concurrent Disinfection' section 1.4.

2.6. Management of Contacts

- same as for 'Management of contacts' section 1.5;

plus . . .

- if staff from the affected section/ward have had significant contact with residents/patients in another area, then those residents/patients should also be treated.

3. Management of Crusted Scabies

In ordinary cases of scabies the infected person may only harbour a small number of scabies mites (for example, 10–20). In people with crusted scabies (who are likely to have an impaired immune response so that itching does not readily occur), huge numbers of scabies mites (thousands to millions) may accumulate. The thickened skin flakes that slough off may harbour scabies mites and, within the protection of the skin flake, the scabies mites can survive off the body for longer than the usual limit of 4 days. Mites can therefore be widely disseminated in the environment of the infected person.

3.1. Additional Precautions

- same as for ‘Additional Precautions’ section 1.1;

plus . . .

- exclude affected persons from contact with patients/residents/staff from other areas of the facility for 24 hours after commencement of treatment;
- In some cases facilities may decide to restrict transfers in and out of the affected area; and
- it is recommended that additional precautions stay in effect until skin scraping tests have been negative for three consecutive days.

3.2. Surveillance

- same as for ‘Surveillance’ section 2.2.

3.3. Treatment

- same as for ‘Treatment’ section 2.4;

plus . . .

- the person with crusted scabies may need more than three treatments to clear the infection;
- treatment agents must be applied to scalp, behind ear folds and face and the base of the toenails in addition to areas listed in 1.3;
- keratolytic agents (such as salicylic acid 5-10% cream) may be needed in combination with the scabicide in order to soften or remove the layer of crusting skin. Medical advice should be sought prior to the use of keratolytic agents; and
- treatment with ivermectin may be necessary:
 - in Australia, oral ivermectin is not registered for treatment of scabies but has been used to control severe crusted scabies,
 - as crusted scabies is not a registered indication, medical practitioners need to be aware that it is an 'off label' use but that its safety has been assessed as part of its registration for other indications,

- ivermectin needs to be used under the supervision of a medical practitioner in accordance with the Therapeutic Guidelines: Antibiotic, version 13 (note: dosage regimen will depend on severity).

3.4. Concurrent Disinfection

- same as for 'Concurrent Disinfection' section 2.5;

plus . . .

- fabric covered surfaces such as couches, armchairs and mattresses can be gently ironed then vacuumed or steam cleaned to remove scabies mites; and
- thoroughly wipe over non-fabric covered surfaces such as vinyl chairs, plastic mattress covers etc with a normal cleaning product, then spray with insecticide and vacuum seams with a high suction (i.e. small diameter) nozzle. When using a vacuum cleaner, the areas to be vacuumed should be sprayed with insecticide first in order to prevent the vacuum cleaner itself from spreading live mites around the building. The outside of the vacuum cleaner should also be lightly sprayed with insecticide after use to destroy surface mites that may have accumulated on its surface during cleaning.

Use of an insecticide

- scabies mites are susceptible to low toxicity 'fly spray' type insecticides;
- insecticides need to be used according to the directions on the label;
- only a small amount of spray, evenly applied across a surface is required. Large amounts or residual surface sprays are not required;
- pregnant women should avoid exposure;
- patients/residents should be removed from a room while insecticide is being used;
- rooms should be well-ventilated before being reoccupied; and
- if extensive treatments are required it is recommended that a licensed pest control operator is used.

3.5. Communication

- same as for 'Communication' Section 2.3.

Scabies Management Summary

<i>Type</i>	<i>Additional Precautions</i>	<i>Treatment</i>	<i>Contacts</i>
Isolated Case	Isolate Personal protective equipment Notify on transfer Cleaning/ disinfection of: - personal items - environment	Repeat treatment at 7 days Monitor for evidence of reinfection. Retreat only if mites are present after the second treatment (skin scrapings should be performed).	Identify all contacts
Multiple Cases	As above plus: Isolate affected ward/area Consider restricting transfers in and out	Repeat treatment at 7 days Monitor cases that have previously received 2 treatments for evidence of reinfection. Retreat only if mites are present (skin scrapings should be performed).	All residents/ patients and contacts in the affected ward/section Treatment needs to be undertaken on a coordinated mass basis, i.e. on the same day.
Crusted Scabies	As above and to stay in effect until negative skin scraping tests for three consecutive days Implement additional environmental cleaning measures including insecticide use	As above plus: - Additional treatment often required - Treatment agents must also be applied to scalp, behind ear folds and face and the base of the toenails - Keratolytic agents may be needed. Medical advice should be sought prior to use - Treatment with ivermectin may be needed in addition to topical scabicides	As above.

Further information

Further information on the treatment of scabies can be found at:

SA Department of Health

- Scabies Prevention and Treatment Fact Sheet
www.health.sa.gov.au/pehs/PDF-files/scabies-web-06.pdf
- You've Got What?
www.health.sa.gov.au/pehs/Youve-got-what/specific-conditions/scabies.htm

Victorian Department of Human Services

- Scabies Information Sheet
www.health.vic.gov.au/ideas/bluebook/scabies_info.htm
- Guide to Scabies Management in Residential Care Facilities
www.health.vic.gov.au/ideas/bluebook/scabies_guide.htm

Department of Health and Ageing

- Infection Control Guidelines for the prevention of transmission of infectious diseases in the health care setting (section 32.1)
www.icg.health.gov.au

Therapeutic Guidelines: Antibiotic, version 13

Therapeutic Guidelines Ltd., Melbourne, Australia, 2006.