



وزارة الصحة
Ministry of Health

General directorate of infection prevention and control
MOH guidelines for scabies prevention and control in
healthcare settings

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1. Epidemiology and risk factors of scabies:

1.1 Transmission:

- The scabies mite is usually spread by **direct, prolonged, skin-to-skin contact** with a person who has scabies.
- Generally, contact must be prolonged, such as sleeping or having sex with a person infested with scabies. The longer the skin-to-skin contact, the greater the likelihood of transmission. The risk of transmission from skin-to-skin contact is higher with people who have atypical scabies.
- Scabies is sometimes spread indirectly by sharing articles such as clothing, towels or bedding used by an infested person; such indirect spread can occur much more easily when the infested person has atypical scabies.
- Scabies can also spread more easily in crowded conditions where close body and skin contact is frequent, such as in families, residential aged care facilities and prisons.

1.2 People at risk:

Scabies is found worldwide, and can affect people of all races and social classes.

Facilities such as residential aged care facilities and prisons are often sites of scabies outbreaks.

2. Clinical Presentations

Scabies infestations are generally categorized as typical or atypical (crusted, keratotic or Norwegian).

2.1 Typical scabies

The common symptoms of scabies are:

- Intense itching, which may be worse at night, or after a hot bath or shower
- A pimple-like itchy skin rash (bumpy red rash); itchy skin may become thick, scaly, scabbed and criss-crossed with scratch marks
- Burrows that appear on the skin as short, wavy, raised reddish or darkened lines and can be a centimeter or more in length.

The itch and rash are caused by sensitization (a type of allergic reaction) to mites and their faeces. Itching and rash may affect much of the body or may be limited to common sites such as:

- Between the fingers
- Wrists

- Elbows
- Penis
- Nipple
- Waist
- Buttocks
- Shoulder blades.

The head, face, neck, palms and soles are often involved in infants and very young children, but not usually in adults and older children.

Burrows may be difficult to find. Look for burrows in the webbing between the fingers; in the skin folds on the wrist, elbow or knee; and on the penis, breasts or shoulder blades.

2.2 Atypical Scabies:

- When diagnosis and treatment are delayed, scabies can have an unusual or atypical presentation, involving heavy infestation with hundreds to thousands of mites.
- Atypical clinical presentations are more prevalent in institutionalized or debilitated patients, or those who are immunosuppressed from underlying disease or drug therapy.
- When extensive hyperkeratotic skin lesions with crusting and scaling develop, the infestation is called crusted scabies or hyperkeratotic scabies.
- Crusted scabies is highly contagious because thousands of mites are imbedded in the thick crusts and easily shed in scales and flakes from affected skin.
- Crusted scabies is commonly misdiagnosed by dermatologists, and patients with crusted scabies may develop symptoms of typical scabies in as little as a few days.

2.3 Complications of scabies infestations:

- The intense itching and scratching can cause skin sores. These sores can become infected with bacteria on the skin, such as *Staphylococcus aureus* or beta-haemolytic streptococci.
- Sometimes bacterial skin infections can lead to an inflammation of the kidneys called post-streptococcal glomerulonephritis.

2.4 Incubation period of scabies:

- In a previously unexposed healthy individual, the interval between exposure and the onset of itching is usually 4-6 weeks.
- In persons who have been sensitized to the mite by a previous infestation, re-exposure may produce symptoms in 48 hours or less (owing to prior sensitization to the mite and its saliva and feces).
- Following exposure to a source case with crusted scabies involving extremely large numbers of mites, the incubation period may be reduced from **the usual time of 4-6 weeks** to as little as a few days.

2.5 Period of Communicability:

- Since the scabies mite is an ectoparasite, an exposed individual is potentially immediately infectious to others, even in the absence of symptoms. Cases are communicable from the time of infestation until mites and eggs are destroyed by treatment.

2.6 Diagnosis of scabies:

- Diagnosis is usually made clinically by examining the body for a scabies-like rash or burrows.
- The diagnosis can be confirmed by taking skin scrapings of non-excoriated or non-inflamed areas (burrows and pimple-like rash) using a stitch cutter. Gently scrape the suspected area or burrow using the back of the stitch cutter or by carefully removing the mite from the end of the burrow using the tip of a needle. Collect the specimen (skin scrapings or mite) into a specimen container and transfer it to your pathology service, where it will be examined under a microscope.
- A negative result from a person who has had skin scrapings is not conclusive because the infested person may have few mites, and these can be missed easily.

2.7 General treatment for scabies

After treatment:

- Clean clothing should be worn after treatment.
- Mites generally do not survive more than 2–3 days away from human skin.
- Bedding, clothing and towels used by infested people any time during the 3 days before treatment should be machine washed and dried using the hot water and hot dryer cycles, or be dry-cleaned.
- Items that cannot be dry-cleaned or laundered can be disinfested by storing in a closed plastic bag for several days to a week (at least 72 hours).

3. Prevention and control of scabies:

- Early detection, treatment and implementation of appropriate infection control precautions are essential in preventing scabies outbreaks.
- Facilities should maintain a high level of suspicion that undiagnosed skin rashes and conditions may be scabies, even if the characteristic signs or symptoms of scabies (for example, itching) are absent.
- A scabies outbreak suggests that transmission has been occurring within the facility for **several weeks to months**, with the likelihood that some infested staff or patients may have had time to spread scabies elsewhere in the community, including other facilities.
- Measures to control scabies in a facility depend on factors such as how many cases are diagnosed or suspected, how long infested people have been at the facility while undiagnosed and/or unsuccessfully treated.

3.1 Preventing transmission of scabies:

Guidelines for preventing transmission vary depending on the type of scabies, the number of cases, and the degree and duration of skin exposure that a person has had to an infested person.

Guidelines include the following:

- **A single case of scabies**
- **Multiple cases of scabies**

3.1.1 Guidelines for a single case of scabies:

Surveillance:

- Have an active program for early detection of infested patients and staff.
- When a single case is identified, check that there are no other cases in the facility.
- Maintain a high index of suspicion that scabies may be the cause of undiagnosed skin rashes. Suspected cases should be evaluated by their doctor and, if necessary, confirmed by obtaining skin scrapings.
- All new patients should be screened for scabies.
- Maintain records with the patient's name, age, sex, room number, room-mate names, skin scraping status and results, and names of all staff who provided hands-on care to the patient before the implementation of infection control measures.

Diagnostic services:

- Consult with a dermatologist for assistance in differentiating skin rashes and confirming the diagnosis of scabies.
- Ensure that a staff member is trained and experienced in obtaining skin scrapings to identify scabies mites.

Control and treatment:

Isolation:

Where possible, isolate a suspected or confirmed case in a single room under contact isolation precautions until 24 hours after the first treatment has been completed.

Treatment

- Identify and treat all people suspected or confirmed to have scabies, and staff or relatives who have had **prolonged, direct, skin-to-skin contact** with an infested person before they were treated.
- Offer treatment to household members (for example, spouses and children) of staff who are receiving scabies treatment.

Contact precautions

- All staff and visitors should wear gloves and gowns on entering the single room or when having direct patient contact.
- Gowns and gloves should be single use.
- Gowns and gloves should be changed between each patient.
- Hand hygiene should be performed properly.

Staff exclusion

- Staff can return to work 24 hours after the first treatment has been completed.
- Staff should be monitored to ensure that treatment has been effective.

Environmental disinfection

- Mites generally do not survive more than 2–3 days away from human skin.
- Bedding, clothing and towels used by infested people any time during the 3 days before treatment should be machine washed and dried using the hot water and hot dryer cycles, or be dry-cleaned.

- Items that cannot be dry-cleaned or laundered can be disinfested by storing in a closed plastic bag for several days to a week (at least 72 hours).
- Ensure that bedding and clothing used by a person with crusted scabies are collected and transported in a plastic bag, and emptied directly into a washer to avoid contaminating other surfaces and items.
- Ensure that laundry personnel use gowns and gloves when handling contaminated items.
- Routine cleaning and disinfection of environmental surfaces in rooms used by people with suspected or confirmed scabies are recommended with approved MOH hospital disinfectants however, the mites targeted surface disinfectant is permethrin solution.

Communication

- Provide information about scabies to all staff (nursing, medical, allied and environmental services staff).
- Maintain an open and cooperative attitude between management, staff and visitors.

3.1.2 Guidelines For multiple cases of scabies

Surveillance

- Activate an active program for early detection of infested patients and staff.
- Maintain a high index of suspicion that scabies may be the cause of undiagnosed skin rashes.
- Suspected cases should be evaluated by their doctor and, if necessary, confirmed by obtaining skin scrapings. All new patients should be screened for scabies.
- Notify other institutions to or from which infested or exposed patients may have transferred.
- Remember that people with crusted scabies are infested with very large numbers of mites; this increases the risk of transmission from both brief skin-to-skin contact, and contact with items contaminated with skin scales and crusts shed by a person with crusted scabies, such as bedding, clothing, furniture and floors.
- Use epidemiologic data about distribution of confirmed cases by building, room, floor, wing, occupation (for staff), date of admission, and date of onset of a scabies-like condition to determine:
 - ✓ Levels of risk for patients and staff
 - ✓ The extent of the outbreak (for example, confined or widespread in the facility)
 - ✓ Temporal relationships among cases.

- Maintain records with the patient's name, age, sex, room number, room-mate names, skin scraping status and results, and names of all staff who provided hands-on care to the patient before the implementation of infection control measures.
- Maintain ongoing surveillance for scabies among all patients and staff to identify new or unsuccessfully treated cases of scabies.

Diagnostic services

- Consult a dermatologist for assistance in differentiating skin rashes and confirming the diagnosis of scabies.
- Ensure that a staff member is trained and experienced in obtaining skin scrapings to identify scabies mites.

Control and treatment

Isolation

Isolate suspected or confirmed case of scabies in a single room until all treatments have been successfully completed.

Treatment

- Identify and treat all people suspected or confirmed to have scabies, and staff or relatives who have had both **brief skin-to-skin contact** and **contact with items** such as bedding, clothing, furniture, rugs, carpeting, floors, and other objects that can become contaminated with skin scales and crusts shed by a person with crusted scabies.
- **Offer treatment** to household members (for example, spouses and children) of staff who are receiving scabies treatment.
- Treat patients, staff and household members at the same time to prevent exposure and continuing transmission.
- Staff generally can return to work the day after receiving a dose of treatment with permethrin or ivermectin; however, symptomatic staff who provide hands-on care to any patient may need to use disposable gloves for several days after treatment until sure they are no longer infested.

Contact precautions

- All staff and visitors should wear gloves and gowns on entering the single room or when having direct contact with patients suspected or confirmed to have scabies.
- Gowns and gloves should be single use.
- Gowns and gloves should be changed between each patient.
- Hands should be washed thoroughly after removing gloves.

Movement of Symptomatic Patients from an Affected Unit

- Symptomatic patients from an affected unit should ideally not be transferred to other unit in the hospital or discharged to other health care facility unless coordinated treatment has been given and washed off.
- In circumstances where patient movement is necessary communication is vital between the two units so that appropriate infection prevention and control precautions can be adopted.

Environmental disinfection

- Mites generally do not survive more than 2–3 days away from human skin.
- Bedding, clothing and towels used by infested people any time during the 3 days before treatment should be machine washed and dried using the hot water and hot dryer cycles, or be dry-cleaned.
- Items that cannot be dry-cleaned or laundered can be disinfested by storing in a closed plastic bag for several days to a week (at least 72 hours).
- Ensure that bedding and clothing used by a person with scabies is collected and transported in a plastic bag, and emptied directly into a washer to avoid contaminating other surfaces and items.
- Ensure that laundry personnel use gowns and gloves when handling contaminated items.
- Routine cleaning and disinfection of environmental surfaces in rooms used by people with suspected or confirmed scabies are recommended with approved MOH hospital disinfectants however, the mites targeted surface disinfectant (scabicide) is permethrin solution.
- Clean the room of patients with scabies regularly to remove contaminating skin crusts and scales, which can contain many mites.

Communication

- Establish procedures for identifying and notifying at-risk patients and staff who are no longer at the institution.
- Ensure a proactive approach to scabies, including providing information about scabies to all staff (nursing, medical, allied and environmental services staff) and, where appropriate, their household members, along with visitors to the facility.
- Maintain an open and cooperative attitude between management, staff and visitors.

Management of healthcare workers:

1. Symptomatic Health Care Workers

Health care workers (HCW) refer to all facility employees, contract employees, medical staff, house staff, students and volunteers, etc.

- Immediately remove from work any HCW with signs or symptoms consistent with scabies and refer to employee health or other designated consultant experienced in the diagnosis of scabies. Confirm the presence of scabies by microscopic identification of the mite or its products in one or more symptomatic patient or employee.
- Prepare a line-listing of symptomatic HCWs that includes name, age, gender, symptoms, date of onset, result of scabies evaluation, any prior treatment for scabies, usual work and "float" assignments from six weeks before onset of symptoms until the current date, and symptoms in household or other close contacts .
- Treat all HCWs with confirmed or suspected scabies infestation with an approved scabicide according to consultant's recommendation
- Symptomatic HCWs can return to work as soon as treatment is completed but should use gowns and gloves for direct patient care to prevent reinfestation until all control measures for affected units/areas have been completed.
- Provide scabicide prophylaxis, along with written instructions for application, for all household contacts of symptomatic HCWs

2. HCW Contacts

- Identify and prepare a line listing of all HCWs who were direct contacts to a patient or fellow employee with scabies during the exposure period.
- Interview HCW contacts to determine presence of scabies symptoms and possible source of exposure; manage as a case if symptomatic.
- Provide prophylactic scabicide along with written instructions for application to all HCW with direct contact to a scabies case. HCW scabies contacts who refuse prophylactic treatment must be required to wear gowns and gloves for contacts with patients or fellow employees for 6 weeks from the date of last potential exposure (usually 6 weeks from implementation of control measures).



Management of an increased incident/outbreak of Scabies

