

SCABIES SURVEILLANCE PROTOCOL FOR ONTARIO HOSPITALS

Developed Jointly by the Ontario Hospital Association and
the Ontario Medical Association
Joint Committee on Communicable Disease Protocols
in collaboration with the Ministry of Health and Long Term Care

Approved by
The OHA and The OMA Board of Directors
The Ministry of Health and Long-Term Care –
Provincial Infectious Diseases Advisory Committee
The Minister of Health and Long-Term Care

Published and Distributed by the Ontario Hospital Association
Published January 2000
Last Reviewed and Revised May 2010

Publication #297

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This protocol was developed jointly by the Ontario Hospital Association and the Ontario Medical Association to meet the requirements of the *Public Hospitals Act 1990*, Revised Statutes of Ontario, Regulation 965.

The protocol is based on clinical knowledge, current data and experience, and a desire to ensure maximum cost effectiveness of programs while protecting health care workers and patients. It is intended as a minimum practical standard for Ontario hospitals; however, hospitals may adopt additional strategies when indicated by local conditions.

Members of the Joint OHA/OMA Communicable Disease Surveillance Protocols Committee

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Rationale for Scabies Surveillance Protocol

Scabies is a contagious parasitic infestation of the skin caused by the mite *Sarcoptes scabiei*. The distribution of scabies is worldwide. Epidemics have previously been associated with deterioration of social conditions, crowding and poor sanitation. However, the recent wave of infestation in North America has occurred in the absence of social disturbance, affecting people from all socioeconomic levels and regardless of personal hygiene.

The mite can only survive on humans, and transmission usually occurs directly from person to person. Transmission by fomites (inanimate objects capable of absorbing and transmitting organisms) such as bed linens and clothing, particularly underwear, may occur.

Incubation period is from four to six weeks for a primary infestation. Sensitization to mite antigens occurs and is responsible for the intense pruritus which characterizes the disease. Shorter incubation periods are seen in reinfestation. The skin rash consists of papules, vesicles and cutaneous burrows, from which the mite and/or eggs may be extracted to confirm the diagnosis. Lesions may become excoriated and secondarily infected. In immunocompromised people "Norwegian" or crusted scabies may occur; because of the proliferation of mites this type of scabies is extremely contagious.

Many outbreaks of scabies have been described in health care facilities. Diagnosis of the scabies rash is often delayed and misdiagnosis is common, resulting in extended exposure of staff and patients. The prolonged incubation period may delay recognition of institutional transmission and recognition of an outbreak. Asymptomatic case contacts may transmit mites during incubation. Crusted scabies may be particularly difficult to control because of the high numbers of mites on the patient and the intense environmental contamination. Mites on clothing and linens are killed by regular laundering in the hot cycle of washer and dryer; clothing and linen used by the patient in the last 48-72 hours should be laundered. Mites do not survive more than a few days without contact with skin.

Treatment with scabicial agents is generally effective. Exposure or outbreaks of scabies may be complicated by overuse of topical scabicials with resultant irritant dermatitis which may be mistaken for treatment failure. Treated persons in whom pruritus persists should be evaluated carefully, have repeat skin scrapings, and if these are negative, have symptomatic treatment and reassurance.

Because of the highly contagious nature of scabies, it is essential that persons in whom scabies is suspected be examined as quickly as possible by a physician skilled in its diagnosis and treatment before patient contact resumes. Since skin-to-skin contact is required for transmission, acquisition of scabies can be prevented by Routine Practices, i.e., wearing gloves when touching non-intact skin. This document deals only with the occupational health aspects of scabies control; hospitals should have a complete infection control program to prevent the transmission of scabies.

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I. Purpose

The purposes of this protocol are:

- i. To provide direction to hospitals for the management of scabies in healthcare workers; and
- ii. To establish a system of preventing transmission of scabies among patients and persons carrying on activities in the hospital.

II. Applicability

This protocol applies to all persons carrying on activities in the hospital who have direct patient contact including employees, undergraduate and postgraduate medical trainees, physicians, volunteers and contract workers. The term healthcare worker (HCW) is used in this protocol to describe these individuals. The protocol does not apply to patients or residents of the facility, nor to visitors.

When hiring contract workers or training students, the hospital must inform the supplying agency/school that the agency/school is responsible for ensuring that these personnel are followed up appropriately in accordance with this protocol.

These guidelines are for use by the occupational health service (OHS) in hospitals.

III. Preplacement

Routine screening for scabies in HCWs is neither required nor recommended. HCWs must be informed of the requirement to notify the OHS of skin rashes including scabies infestation or exposure to persons with scabies within the last 6 weeks.

Education must emphasize the importance of using the appropriate barrier precautions when in direct patient contact in order to minimize the risk of transmission of scabies. Specifically, gloves should be worn for contact with non-intact skin of a patient.

IV. Continuing Surveillance

No routine screening for scabies in HCWs is required or recommended.

V. Exposure to Scabies

HCWs who have direct contact with a person with scabies have a responsibility to inform the OHS as soon as possible.

A HCW who has been exposed (see Glossary) to a confirmed case of scabies should be assessed as soon as possible by OHS for signs and symptoms of infestation.

- Asymptomatic HCWs who have had skin-to-skin contact with a patient with typical scabies should be offered the scabicial prophylactic treatment regimen.
- All asymptomatic HCWs who have had skin-to-skin contact with or handled bed linens of a patient with Norwegian (crusted) scabies without wearing gloves must receive the scabicial prophylactic treatment regimen, unless medically contraindicated.
- Asymptomatic household contacts should complete the scabicial prophylactic treatment regimen (see Glossary) as directed, unless medically contraindicated.
- Asymptomatic contacts who have received prophylactic treatment may continue to work. Further follow-up is not required. Advise them to return if symptoms compatible with scabies (see Glossary) develop.
- Asymptomatic HCWs who refuse prophylactic treatment or for whom treatment is medically contraindicated must be assessed at the end of the 6 week incubation period, measured from the last contact, and be examined to ensure they are free of symptoms or signs of scabies. Advise them to return earlier if symptoms compatible with scabies (see Glossary) develop.

VI. Management of Suspected or Confirmed Cases of Scabies

HCWs with symptoms or signs suspected to be caused by scabies infestation (see Glossary) must be excluded from work until the diagnosis of scabies is ruled out by a physician skilled in its diagnosis.

HCWs with scabies who have completed the scabicial treatment (see Glossary) may return to work. They should be reassessed in one week to assess

effectiveness of treatment. (**Note:** itching may persist and skin may become dry and itchy with treatment; this should not be considered a treatment failure).

HCWs who are diagnosed with scabies should be advised regarding assessment and prophylaxis or treatment of their close contacts (i.e., household and sexual contacts).

Occupationally acquired scabies is reportable to the Ministry of Labour and the Workplace Safety and Insurance Board.

Glossary

1. **Direct Patient Contact**

- “hands on” patient care
- handling of infested fomites, such as bed linens

2. **Exposure**

- patient care involving direct skin-to-skin contact, without gloves
- **for crusted scabies**, handling of infested fomites, such as bed linens, without gloves

3. **Symptoms of Scabies**

- intensely pruritic skin rash
- rash characterized by papules, vesicles and cutaneous tracks (burrows) in the skin that may appear as small, threadlike, wavy, slightly elevated, greyish-white
- most common sites are finger webs, hands, anterior surfaces of wrists and elbows; also anterior axillary folds, belt line, thighs, stomach, external genitalia, buttocks and female nipple
- excoriation and secondary bacterial infection
- immunocompromised people may develop generalized dermatitis with extensive scaling, vesiculation and crusting (“Norwegian” scabies); this form of the disease is highly contagious.

4. **Diagnosis**

- confirmation of diagnosis is by recovery of mite from a burrow and identifying it microscopically
- application of mineral oil to lesions facilitates collection and examination of scrapings
- application of ink to skin then washing it off will disclose burrows
- avoid sampling excoriated areas
- **in outbreaks, clinical presentation with rash compatible with scabies may be sufficient for diagnosis; maintain high index of suspicion**

5. *Treatment*

Determine degree of exposure to index case (see above). If exposure has occurred, the following treatment regimen should be used:

Asymptomatic: Prophylaxis

1. Skin should be clean and dry.
2. Massage in 5% permethrin (Kwellada-P™, NIX®) lotion* from neck to soles of feet, particularly to axilla, groin, wrists, web spaces of fingers and toes, under fingernails/toenails, buttocks; avoid eyes and mouth. Usually done before retiring. Put on clean clothes.
3. Leave lotion on for 12-14 hours.
4. Thoroughly wash off by shower or bath in the morning and wash all linen and night clothes in regular laundry detergent and hot water.

Symptomatic: Treatment

5. Follow steps 1 through 4 above.
6. Symptomatic staff must remain off work until treatment is completed.
7. Re-examine person 7-10 days after treatment.
8. Counsel regarding need for assessment and prophylaxis or treatment of close contacts.
9. **Avoid over treatment.** Skin may become dry and itchy with treatment; this should not be considered a treatment failure. Retreatment is only necessary if live mites or new lesions appear.

***Note:** Permethrin lotion is considered by many consultants to be safe for use during pregnancy.

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