



Guidelines for Controlling Non-Crusted Scabies Outbreaks in Long Term Care Facilities and Other Institutional Settings

This document has been adapted from guidance produced by the Centers for Disease Control and Prevention. It can be accessed at the website <http://www.cdc.gov/scabies/hcp/institutions.html>.

Background

Scabies is a parasitic infestation of the skin caused by a mite, *Sarcoptes scabiei*. Scabies infestation is not a reportable disease in Oklahoma; however, long term care facilities and other institutional settings should contact the Acute Disease Service (ADS) of the Oklahoma State Department of Health (OSDH) Epidemiologist-on-Call at (405) 271-4060 (available 24/7/365) if a suspected scabies or other rash illness outbreak is occurring among facility residents and staff. The ADS Epi-on-Call will consult with facility personnel regarding confirmation of the etiologic agent and control measures.

Symptoms

The most common symptoms of scabies, itching and a skin rash, are caused by sensitization (a type of “allergic” reaction) to the proteins and feces of the parasite. A pimple-like (papular) itchy (pruritic) “scabies rash” is also common. Itching and rash may affect much of the body or be limited to common sites such as: between the fingers, wrist, elbow, armpit, penis, nipple, waist, buttocks, or shoulder blades.

Tiny burrows sometimes are seen on the skin. These burrows appear as tiny raised and crooked (serpiginous) grayish-white or skin-colored lines on the skin surface. These burrows may be difficult to find as infestation may be due to a small number of mites (only 10-15 mites per person).

Incubation Period

When a person is infested with scabies mites for the first time, symptoms usually do not appear for up to two months (4-6 weeks) after initial infestation. If a person has had scabies before, symptoms appear much sooner (1-4 days) after exposure. Individuals experiencing a scabies infestation can transmit scabies, even if they do not have symptoms, until they are successfully treated and the mites and eggs are destroyed.

Diagnosis

Diagnosis of a scabies infestation is usually made based upon the customary appearance and distribution of the rash and the presence of burrows. Whenever possible, the diagnosis of scabies should be confirmed by identifying the mite or mite eggs or fecal matter (scybala). This can be done by carefully removing the mite from the end of its burrow using the tip of a needle or by obtaining a skin scraping to examine under a microscope for mites, eggs, or scybala.

Remember that a person can still be infested even if the mites, eggs, or fecal matter cannot be found; typically fewer than 10-15 mites can be present on the entire body of an infested person.

Transmission

The scabies mite is almost always passed by direct, prolonged, skin-to-skin contact with a person who is already infested. An infested person can spread scabies even if he or she has no symptoms. Humans are the only source of infestation; animals do not spread human scabies.

Scabies can be passed by an infested person to his or her household members and sexual partners. Scabies can spread easily under crowded conditions where close body and skin contact is common. Institutions such as nursing homes, extended-care facilities, and prisons are often sites of scabies outbreaks.

Controlling Scabies Outbreaks

A scabies outbreak suggests that transmission has been occurring within the institution for several weeks to months thus increasing the likelihood that some infested staff or patients may have had time to spread scabies elsewhere in the community, including to other facilities. Measures to control scabies in an institution depend on factors such as how many cases are diagnosed or suspected, and how long infested persons have been at the institution while undiagnosed and/or unsuccessfully treated.

Surveillance

- Have an active program for early detection of infested patients and staff; unrecognized scabies is frequently the source of institutional scabies outbreaks.
- Maintain a high index of suspicion that scabies may be the cause of undiagnosed skin rash; suspected cases should be evaluated and confirmed by obtaining skin scrapings; persons with crusted scabies may not show the characteristic symptoms of scabies such as rash and itching (pruritis).
- Screen all new patients and staff for scabies.
- Notify the ADS Epi-on-Call at (405) 271-4060 to discuss control measures; notify other institutions to or from which infested or exposed patients may have transferred.
- Maintain ongoing surveillance for scabies among all patients and staff to identify new or unsuccessfully treated cases of scabies.

Diagnostic Services

- Consult with an experienced dermatologist for assistance in differentiating skin rashes and confirming the diagnosis of scabies.
- Ensure someone on-staff is trained and experienced in obtaining and examining a skin scraping to identify scabies mites.

Control & Treatment

- Maintain records with patient name, age, sex, room number, roommate(s) name(s), skin scraping status and result(s), and name(s) of all staff who provided hands-on care to the patient before implementation of infection control measures: symptoms can take up to 2 months to appear in exposed persons and staff.
- Use epidemiologic data about distribution of confirmed cases by building, room, floor, wing, occupation (for staff), dates of admission, and onset of scabies-like condition to determine: 1) levels of risk for patients, staff, and visitors; 2) extent of outbreak (e.g. confined or widespread in the facility); and 3) temporal relationship among cases.
- Avoid direct skin-to-skin contact with any patient who is suspected or confirmed to have scabies.
- Use gloves when providing hands-on care to any patient who is suspected or confirmed to have scabies; wash hands after providing care to any patient.
- Avoid skin-to-skin contact with persons with scabies for at least 8 hours after application of scabicide treatment.
- Visitors should use the same precautions as staff.
- Identify and treat all patients, staff, and visitors having prolonged, direct skin-to-skin contact with an infested person before he/she was treated.
- Offer treatment to household members (e.g. spouses, children, etc.) of staff who are undergoing scabies treatment.
- Treat patients, staff, and household members at the same time to prevent reinfestation and continued transmission.
- Staff generally can return to work the day after receiving a dose of treatment with permethrin or ivermectin.
- Use procedures that minimize the risk of secondary bacterial infections that may develop with scabies (i.e. proper wound care to prevent bacterial skin infections).

Environmental Disinfection

- Machine wash and dry bedding and clothing of scabies patients using hot water and hot dryer cycles.
- Environmental disinfection is neither necessary or warranted. Routine cleaning and vacuuming of the room should be done.

Communication

- Establish procedures for identifying and notifying at-risk patients and staff who are no longer at the institution.
- Consider implementing a proactive employee health service approach to scabies including providing information about scabies to all staff and providing dermatologic consultation for employees and, where appropriate, their household members.

Scabicides

The following medications for the treatment of scabies are available only by prescription.

1. Permethrin cream 5% (per-meth-rin) (Brand name product: Elimate)
 - Permethrin is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in persons who are at least 2 months of age.
 - Permethrin is the drug of choice for the treatment of scabies. Two (or more) applications, each about a week apart, may be necessary to eliminate all mites, particularly when treating crusted (Norwegian) scabies.
2. Crothamiton lotion 10% and Crothamiton cream 10% (Brand name product: Eurax; Crotan)
 - Crothamiton is approved by the US Food and Drug Administration (FDA) for the treatment of scabies in adults; it is considered safe when used as directed. Crothamiton is not FDA-approved for use in children. Frequent treatment failure has been reported with crothamiton.
3. Lindane lotion 1% (Brand name product: None available)
 - Lindane is an organochloride. Although FDA-approved for the treatment of scabies, lindane is not recommended as a first-line therapy.
 - Overuse, misuse, or accidentally swallowing lindane can be toxic to the brain and other parts of the nervous system; its use should be restricted to patients who have failed treatment with or cannot tolerate other medications that pose less risk.
 - Lindane should not be used to treat premature infants, persons with a seizure disorder, women who are pregnant or breast-feeding, persons who have very irritated skin or sores where the lindane will be applied, infants, children, the elderly, and persons who weigh less than 110 pounds.
4. Ivermectin (Brand name product: Stromectol)
 - Ivermectin is an oral antiparasitic agent approved for the treatment of worm infestations. Evidence suggests that oral ivermectin may be a safe and effective treatment for scabies; however, ivermectin is not FDA-approved for this use.
 - Oral ivermectin has been reported effective in the treatment of crusted (Norwegian) scabies; its use should be considered for patients who have failed treatment with or who cannot tolerate FDA-approved topical medications for the treatment of scabies. A total of two or more doses of ivermectin may be necessary to eliminate a scabies infestation.
5. Sulfur (5%-10%) ointment (multiple brand names)
 - Sulfur in an ointment base (petrolatum) is used to treat scabies in both adults and children.
 - Although the safety of sulfur ointment for treatment of children has not been demonstrated in clinical trials, in published case reports pediatric patients younger than 2 months of age have been successfully treated.
 - Reported side effects in both adults and children are primarily skin irritation. The odor and cosmetic quality may make it unpleasant to use.

Recommendations for Application of Scabicides

- It is best to apply scabicide at bedtime.
- Personnel applying scabicides need to wear gowns and gloves.
- Contact the medical director in two weeks if any new cases of scabies occur or if evidence of reinfestation of a previously treated patient is seen.
- Consider treatment with Benadryl or other medications to decrease inflammation and secondary infection.