Scabies

Cause/Epidemiology

Scabies is an infestation of the skin by the human itch mite *Sarcoptes scabiei*. The adult female scabies mites burrow into the upper layer of the skin (epidermis) where they live and deposit their eggs. Scabies occurs worldwide in all socio-economic conditions, but are common in crowded situations, without regard to age or sex. It can spread easily where close body and skin contact occurs.

Clinical Presentation

Scabies presents as a pimple-like (papular) itchy rash affecting much of the body or is limited to common sites such as the flexor surfaces of the wrists, finger webs, sides of digits, elbows, axillae, male genitalia, nipple areola, and periumbicular area. The rash may also be on the head, neck, palms, and soles in infants. Sensitization to the proteins and feces of the mite causes the itchy rash. Characteristically, the burrows appear as tiny and crooked grayish-white or skin-colored lines on the skin surface. The itching is often worse at night or after bathing. The intense itching of scabies leads to scratching that can cause skin sores. These sores can become infected with bacteria on the skin. These skin infections can lead to an inflammation of the kidneys called post-streptococcal glomerulonephritis.

Confirm diagnosis with a Primary Care Provider, this may require consultation with a dermatologist, infectious disease or occupational health physician. Identification of mites and eggs may be confirmed by skin scrapings of the affected area. Diagnosis may be difficult because of confusion and/or prevalence of dry, frequently itchy skin. Good on-going visual assessment by caregivers during personal care is important.

Crusted/Norwegian Scabies

Some immunocompromised, elderly, disabled or debilitated persons are at risk for a severe form of scabies called crusted or Norwegian scabies. This type of scabies is characterized by vesicles and thick crusts over the skin, which contains large numbers of scabies mites and eggs. Persons with crusted/Norwegian scabies may not demonstrate the usual signs and symptoms of scabies such as the characteristic rash or itching. This can be due to the person’s altered immune status or neurological condition. The rash in these cases may resemble psoriasis or eczema.

Transmission

Transmission of the mite is by direct skin-to-skin contact. An infested person can spread scabies even if they have no symptoms. Indirect contact can occur from undergarments, or bedclothes contaminated by a person with untreated scabies to an uninfected person. Scabies can be easily passed by an infected person to their household members and sexual partners. Personal care activities such as bathing and turning the client provide opportunities for transmission to the health care worker (HCW).
Transmission can occur as long as the infested person remains untreated and until 24 hours after treatment. The mites do not live for more than 3 to 4 days without contact with skin.

**Crusted/Norwegian scabies** is highly infectious because of the large number of mites in the exfoliating skin scales. Minimal, unprotected contact is all that is required for transmission. Persons with crusted/Norwegian scabies should receive prompt and aggressive medical treatment for their infestation to prevent outbreaks of scabies.

**Incubation**

Incubation period is 2-6 weeks. Reinfestation provokes immediate symptoms (1-4 days).

**Reservoir**

Humans are the only reservoir.

**Infection Prevention and Control Practices**

Implement Contact Precautions immediately for a patient with Scabies. Refer to the Clinical Presentation/Microorganism/Infectious Disease Table for specific disease/microorganism information. Refer to Contact Precautions in the Additional Precautions section.

The duration of contact precautions is different for Scabies versus Norwegian scabies.

Following treatment of uncomplicated scabies, pruritus may persist for several weeks even though the mites are dead. This does not typically require that the patient be managed on contact precautions beyond what is recommended in the clinical presentation/infectious disease table. This is not an indication of treatment failure, but rather a reaction to the dead mites. It is not an indication to retreat unless new burrows are identified.

Clothing, linen and towels used 4 days prior to treatment should be washed using hot water and dried using the hot dryer cycle. Items that cannot be washed should be stored in a closed plastic bag for 1 week. Clean and disinfect multiple use equipment (i.e.: blood pressure cuffs), with facility approved disinfectant. Close contacts should consider seeking assessment for Scabies by their healthcare provider.

Coordinate the cleaning of the environment and linen with the timing of treatment. Wash clothing and linens used before treatment in hot water. Segregate or seal in plastic bag and store for 3 days those items that cannot be washed. Wear gloves and gowns when handling contaminated linens (those worn or used before treatment). Vacuuming is sufficient to clean the client’s home.

Exposure to typical scabies should be defined as direct skin-to-skin contact with an infested client/HCW before treatment and until 24 hours after effective treatment.
Crusted/Norwegian scabies are sensitive to the same treatment as typical scabies; however, the large number of mites and the unusual accompanying rash make repeat treatment mandatory. A diagnosis of Norwegian scabies typically requires contact precautions be maintained until lesions have resolved. However, these cases are best managed on a case by case basis.

Exposure to Crusted/Norwegian scabies should be defined as minimal direct contact with an infested client/HCW before treatment and until 24 hours after effective treatment. Only minimal contact is required because of the large number of mites present on the source.

**Reporting:** If there is evidence of transmission of scabies from client to staff, staff to client, or client to client as this may indicate a scabies outbreak and Public Health should be notified. If a diagnosis is confirmed as crusted/Norwegian scabies, Public Health must be consulted for case management.

**Occupational Health**

Contact Occupational and Environmental Safety and Health (OESH) for staff assessment and/or concerns.

**References**


**Protocol Contact:**
Chantelle Riddle-Yarycky, Community Infection Prevention and Control Professional