Vancouver Coastal Health

Infection Prevention and Control

Best Practice Guideline	Investigation and Management of Scabies in Long-Term Care (LTC) and Assisted Living (AL)
Date	June 1, 2023
Reviewed Date	March 6, 2025
Revised Date	

A printed version of this guideline may not be the most recent version. The OFFICIAL version is located at www.ipac.vch.ca.

Site Applicability

All Vancouver Coastal Health owned, operated and contracted Long-Term Care and Assisted Living providers.

Scope of Practice

Leadership and clinical care staff in LTC and AL homes.

Purpose

Provide guidance on the investigation and management of suspected and/or confirmed scabies for residents of LTC and AL homes.

Background

Scabies is a parasitic infection caused by a small mite that burrows under the skin, lays eggs and multiplies. Scabies is highly transmissible in LTC and AL settings. When signs and symptoms of infestation are suspected, initiate containment measures to reduce transmission risk, until Scabies infestation is confirmed or ruled out.

Definitions

Close-Contact: An individual who has had prolonged direct skin-to-skin contact with a confirmed case or their clothing, towels or bedding.

Confirmed case: A person who has had direct examination of lesions, or skin scrapings, that confirms identification of mites, eggs, or mite feces.

Crusted scabies are a “heavy” or widespread infestation characterized by extensive crusting or scaling, hive like bumps or a crusty rash and is confirmed by skin scraping with numerous mites per slide (usually seen in immunocompromised individuals)**.**

Infestation: Most common symptoms of infestation include itching (often nocturnal) and skin rash which usually presents as a papular rash or tiny burrows affecting hairless areas of the body.

Outbreak: Two or more residents/staff with confirmed scabies within 4-6 weeks in the same unit or facility (one case must be a resident).

Post-Scabetic Dermatitis: Persistent itching that occurs after successful treatment due to an allergic reaction secondary to remaining debris from the dead mites. The dermatitis may persist for several months following treatment.

Scabies: A parasitic infestation of the skin caused by *Sarcoptes scabiei*, a type of mite.

Suspect Case: Atypical skin lesions on an individual who has had direct contact with a confirmed case of scabies, their bedding or clothing. Individuals who have an alternate explanation for signs and symptoms, are not considered a suspect case unless determined by the Most Responsible Physician (MRP).

Suspected scabies is defined as atypical skin lesions on individuals who have had direct contact with someone known to have crusted or typical cases, their bedding or clothing.

Typical scabies is defined as a papular rash or burrows with no crusting or scaling, involving a small or moderate area of the skin surface. If a scraping is positive, usually only one mite per slide is found

Atypical Scabies: Crusted or Norwegian scabies is a severe form of scabies that occurs in immunocompromised individuals. People with Norwegian scabies have thick crusts of skin that contain large numbers of scabies mites and eggs. People with Norwegian scabies may not present with typical signs or symptoms of scabies such as characteristic rash and itching.

Transmission

Transmission of Scabies occurs through prolonged direct, skin-to-skin contact with an infected individual and/or through skin-contact with contaminated bedding, clothing or towels.
Transmission can continue as long as a person remains infested and untreated, including during the interval before symptoms develop.

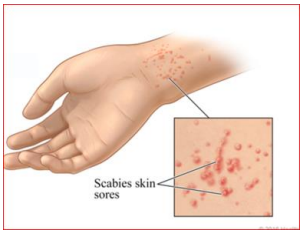
The incubation period is 4-6 weeks.

Signs/Symptoms

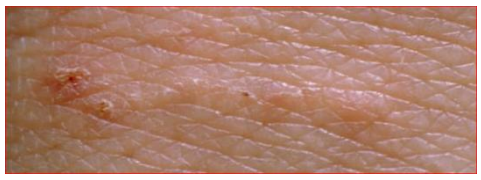
Symptoms include severe itching that is usually worse at night; older adults tend to have more severe itching and rash with tiny blisters or sores.
Symptoms are most likely to occur:

- Between the fingers and on the palm side of the wrists.
- On the outside surfaces of the elbows and in the armpits.
- Around the waistline and navel.
- On the buttocks and anus.
- Around the nipples, the bra line, and the sides of the breasts (in women).
- On the genitals (in men).

Scabies rash



Scabies Burrow



Testing

Methods for scabies testing includes performing a Skin Scraping or a Burrow Ink Test. To review the procedures for each test, please see Appendix A for more information.

Skin Scraping: involves sampling and microscopic examination of the epidermis from sites that may harbor scabies mites. Skin scraping is performed by the Most Responsible Physician.

Burrow Ink Test (BIT): The BIT can be used as an alternative to skin scraping to assist with the diagnosis of scabies. It is less invasive and does not require professional training to perform. The ink test does not always identify the presence of scabies mites (which occasionally appear as a tiny dark dot at the end of a tract), but it can help illuminate the tracking caused by the mite as it burrows. As with any diagnostic test, results must be collaborated with clinical presentation.

Containment Measures and Treatment

When Scabies is Suspected or Confirmed in (≤ 1 Resident Case) Non outbreak

1. Gaining control of a scabies infestation requires containment measures that will address the resident(s) physical environment, application of additional precautions and pharmacological treatment.
2. Initiate Contact precautions:
   a. Residents with suspected or confirmed scabies should remain on precautions until 24 hours after initiation of treatment.
   b. Residents with 'Crusted scabies' should remain on precautions until the rash has resolved.
3. Contact the MRP for an urgent visit to conduct a clinical assessment, obtain Skin Scrapings or perform a Burrow Ink Test. See Appendix A – Testing, for more information.
4. Treatment (dermal cream or lotion) is ordered by MRP. See Appendix B – Treatment of Scabies in Long-Term Care), for more information.
5. After treatment, do not re-treat unless there is demonstration of live mites at least one week after treatment.
6. Itchiness may continue post treatment for up to 4 weeks and this is common and will improve.
7. Clean clothes and bedding should be put on after applying treatment.
8. If resident remains symptomatic with live mites after two treatments, MRP to assess and consider requesting a dermatology consult.
9. If skin scrapings are negative or unavailable and all other symptoms point to a scabies infestation, at the discretion of the MRP, it may be necessary to proceed with treatment measures based on symptoms rather than a lab confirmed diagnosis.
10. Document suspected/confirmed/negative results/date of treatment and when precautions were lifted in the resident's chart.
11. For suspected crusted scabies, do at least one skin scraping.
    a. Negative scrapings from residents with suspected crusted scabies should lead to a reconsideration of the diagnosis.
12. If a resident with scabies infestation has transferred from another health care facility in the previous 4-6 weeks, site leadership should contact alternate sites to inform of infestation and recommend assessment of potential close contacts.
13. The MRP should assess residents who:

a. Develop a generalized rash suggestive of post-scabetic dermatitis.
b. Possible skin sensitivity to treatment lotion.

Monitoring

1. Residents identified as confirmed or contacts must have a daily skin assessment for six weeks.
2. Unit to start a line list, see Appendix C Resident line list.
   a. Send line list to LTC-ICP@vch.ca daily
      i. Scabies lesions should begin to disappear within 48 hours, turning from a pink flesh tone to brown.
      ii. Itchiness may persist for 1-4 weeks and may require the use of emollients or steroidal cream.
3. Start a staff Line list, see Appendix D Staff line list.
4. Residents are to remain on contact precautions for 24 hours once treatment initiated.
   a. Change all bed linens, towels and clothing during treatment.
5. After 24 hours, ask the resident to shower and put on a clean clothing. Perform an isolation discharge clean of the resident room and ensure clean towels and linen on the bed. Remove precautions signage once shower and environmental clean completed.
6. Dress residents in fresh clothing with long sleeves and long pants daily until rash resolved.
7. Discard any jars of creams, lotions or ointments used prior to treatment.
8. Assess affected resident's roommate daily for evidence of a rash/mites (no isolation is required if no rash/mites present).

Outbreak (≥ 2 Residents and/or staff with lab confirmed/ suspected scabies within 4-6 weeks in the same unit or facility; one case must be a resident)

Monitoring

1. Residents identified as confirmed or contacts must have a daily skin assessment for six weeks.
2. Continue to update and send the resident line list when new skin lesions identified to ICP-LTC@vch.ca. See Appendix C, resident line list.
3. Continue to update the staff list, see Appendix D Staff line list.
4. Document assessment of all residents
5. Consult with IPAC to call outbreak over.
   a. Outbreak to be called over six weeks following the last onset of the last symptomatic resident

Environmental Controls/ Laundry

1. Laundry requirements
   a. Place laundry in impervious laundry bags and labeled as infested.
   b. Laundry staff to wear a single use gown and gloves when managing soiled laundry and to remove and discard in regular garbage for disposable or launder for reusable.
   c. All linens (e.g. towels, clothing, bed linens) used by the affected resident(S) within 4 days prior to treatment, should be placed in impervious laundry bags, transported to laundry and laundered in hot water (50° Celsius).
   d. Laundry workers should wear gloves and gown when handling any items prior to laundering.
   e. Use the hot cycle of the dryer for at least 20 minutes.
   f. Place non-washable blankets and articles (shoes) in a plastic bag for 7 days, dry-clean, or tumbled in a hot dryer for 20 minutes to eradicate any persistent mites or fomites.
2. Discontinuation of precautions

a. Following post-treatment shower, an isolation discharge clean of the affected room should occur before the resident returns to room.

3. No need for special treatment of mattresses, upholstered furniture and carpeting, regular cleaning required. Vacuum furniture and mattresses if possible.

Healthcare Staff Self-Monitoring Requirements

1. Staff who have experienced a workplace exposure to scabies should:
   a. Consult with their MRP for assessment and treatment (VCH and Non-VCH Staff)
   b. Scabies is a reportable occupational disease, staff to report a workplace exposure to WorkSafe BC (VCH and Non-VCH Staff)

Declaring the Outbreak Over

1. IPAC will call outbreak over when the there are no further cases of scabies in both staff and residents from 6 weeks from last identified case in the unit
2. Health care staff are to notify relevant internal and external stakeholders that the outbreak is over.

Intake and Transfers

1. Admissions and transfers may continue during a scabies outbreak.
2. Consult IPAC for patient placement in a room on contact precautions for confirmed or suspected scabies (new admission or transfer).

Appendices

Appendix A Testing for Scabies
Appendix B Treatment of Scabies in LTC and AL
Appendix C Scabies Line list - Residents
Appendix D Scabies Line List – Staff

References

1. BCCDC, (2005). Communicable Disease Control: Scabies. Retrieved from: http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/Epid/CD%20Manual/Chapter%203%20-%20IC/InfectionControl_GF_Scabies_Feb_2005.pdf

2. Fraser health (2022). *Infection Control Manual Long-Term Care Part 3 – Standards. IC8: Scabies*. Retrievedfrom: https://www.fraserhealth.ca/-/media/Project/FraserHealth/FraserHealth/Health-Topics/Long-term-care-licensing/Clinical-and-Safety-Information/2022_Management_of_Scabies.pdf?rev=1815cd8e2d674bfc849d7e9ce0dfc952

3. Goldstein, B.G., Goldstein, A.O. (2022). Scabies: Epidemiology, clinical features, and diagnosis. *Up-To-Date*. Retrieved from: https://www.uptodate.com/contents/scabies-epidemiology-clinical-features-and-diagnosis?search=Scabies&source=search_result&selectedTitle=1~99&usage_type=default&display_rank=1

4. HealthLink BC (2018). Retrieved from: https://www.healthlinkbc.ca/healthlinkbc-files/scabies

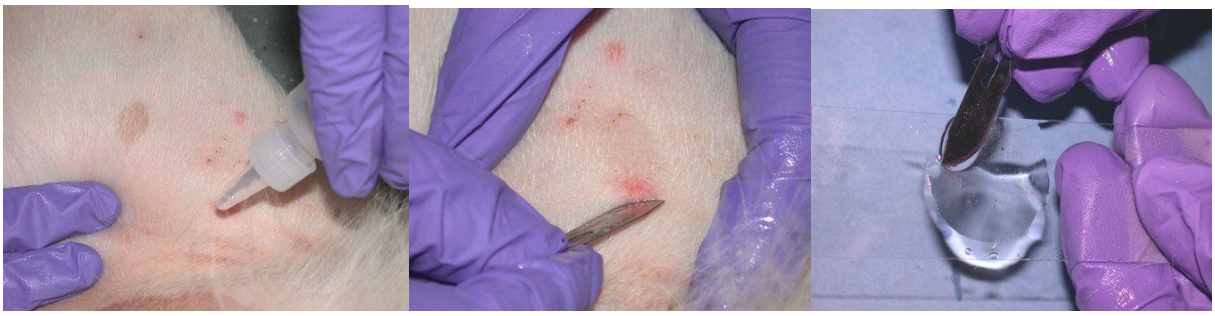
Appendix A – Testing for Scabies

Method 1: Skin Scraping
Skin scraping involves sampling and microscopic examination of the epidermis from sites that may harbor scabies mites.
Only a physician, nurse or other healthcare professional who has been trained to perform this procedure should perform skin scrapings. If no one is available in your facility, a dermatologist may need to be consulted.

Gather Supplies:
1. Glass slides
2. Magnifying lens and light source
3. Sterile scalpel (#15) or a 3mm disposable curette
4. Mineral oil and dropper
5. Sterile screwcap cup, 4oz (must be large enough to hold the glass slides)
6. Applicator sticks
7. Scotch tape
8. PPE as per Point of Care Risk Assessment
9. Sharps container

Procedure:
1. Explain the procedure to the resident.
2. Perform hand hygiene.
3. Lay out supplies on a clean surface.
4. Use a magnifying lens and a strong light to looks for new burrows or papules. Mites will not be found in excoriated, scabbed or infected skin lesions.
5. The Burrow Ink Test may be performed in conjunction with skin scraping to help visualize the tracts in the skin.
6. Prepare the slide by dipping a clean applicator stick into the mineral oil and transferring 2-3 drops to the center of the clean slide.
7. Dip a separate clean applicator stick into the mineral oil and apply a small drop of mineral oil to the selected site to aid in removal of mites, scale and debris.
8. Hold the skin taut, hold the scalpel at a 90-degree angle.
9. Apply light pressure and scrape the lesion making several movements across the lesion.
10. The surface of the lesion should be scraped sufficiently to remove a portion of the epidermis without inducing significant bleeding.
11. It may be necessary to scrape 15 or more burrows as the yield may only produce 1-2 mites or eggs except in the case of crusted scabies in which case, many mites will be present.
12. Transfer skin scrapings to the prepared slide. Scrapings from multiple burrows can be applied to the same slide.
13. Additional mineral oil can be added prior to placement of the coverslip.
14. Apply a second glass slide on top of specimen slide as a coverslip.
15. Secure the glass slides using scotch tape on each end of the slide.
16. Place the specimen in the sterile container with the screwcap lid to secure the specimen.
17. Send the specimen to BCCDC lab for testing.

18. Complete the BCCDC Parasitology Lab Requisition.
19. Clean up supplies.
20. Doff gloves and perform hand hygiene.
21. Don clean gloves, clean and disinfect work surface when task completed.
22. Doff gloves and perform hand hygiene.



Photos obtained from: https://www.dvm360.com/view/obtaining-skin-scraping

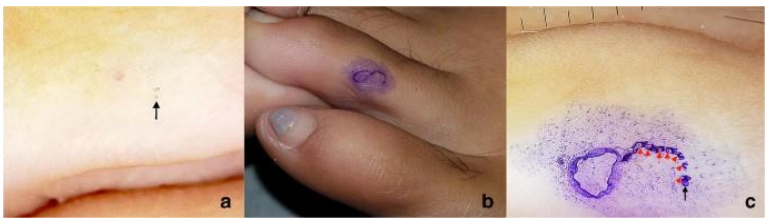
Method 2: Burrow Ink Test (BIT)

Gather Supplies:

1. Gloves
2. Alcohol Swabs
3. Dark Coloured Washable Wide-Tipped Marker

Procedure:

1. Explain the procedure to the resident.
2. Perform hand hygiene.
3. Lay out supplies on a clean surface.
4. Use the marker to "colour" over areas of suspected burrows.
5. Wipe off the ink with alcohol swabs. The alcohol will remove the surface ink but will not remove the ink taken up by the burrow.
6. Remaining ink taken up by the burrow will leave a dark irregular (often zig-zag) line illuminating the burrow tract.
7. If the resident has straight lines that take up the ink, these may be due to scratching and not the presence of burrowing mites.
8. Clean up supplies.
9. Doff gloves and perform hand hygiene.
10. Don clean gloves, clean and disinfect work surface when task complete.
11. Doff gloves and perform hand hygiene.



Photos obtained from: https://link.springer.com/article/10.1007/s11606-020-06522-6

Appendix B – Treatment of Scabies in LTC and AL

Most responsible physician (MRP) to order scabies treatment:

- Treatment of close contacts as determined by the MRP.

Treatment for Residents:

- Before treatment, make sure skin is clean, dry and cool - *Do not take a hot bath or shower before.* Synchronize treatment and clothing/linen change so it is done at the same time for each treatment.
- **Close-contacts** (skin-to-skin contact or sharing of clothes/bed linens) should be treated prophylactically at the same time as confirmed/symptomatic cases.

Treatment for **cases**:	Treatment for **close contacts**:
Initial treatment: • Cream/lotion must be applied everywhere on your body from the neck down *(even non-infected areas)*. Follow manufacturer's instructions for direction and contact time. ▪ This includes between toes, behind ears, under fingernails, etc. Be thorough • Reapply the treatment to hands, genitalia and buttocks, if soap is used for hand washing with 8 hours. **Second treatment:** • Do not retreat unless there is demonstration of live mites at least 7 days after initial treatment. New rashes may be an allergic response to shedding dead mites. • If symptoms do not improve after second treatment, consult with MRP or dermatologist.	Only 1 treatment required.

Health Care Workers (HCW):

- HCWs should discuss treatment options with their MRP.
- Symptomatic HCWs should discuss with their close contacts of possible exposure to scabies.

Discontinuation of Precautions:

- Discontinue Precautions after the following steps are completed:
  - 24 hours after treatment.
  - Resident shower/bath completed.
  - Clean clothing provided and linens changes.
  - Environmental (isolation discharge) cleaning of the room completed.
- If rashes still present, dress resident in clean long-sleeved top and bottom until resolved.
- Monitor all residents on the unit for 6 weeks following treatment of new rashes/lesions.
- Lesions should begin to disappear within 48 hours of treatment.
- Itchiness may persist for 1-4 weeks following treatment and may require use of emollients or steroid creams.

Appendix C – Resident Line List SCABIES OUTBREAK

Facility		Date Outbreak Declared	
Unit		Date last onset skin lesions	

Resident Name (PHN)	Date of onset of skin lesions	Confirmation Date/Method	Date/Type of treatment	Demonstration of live mites post-treatment	Other/Update (include date)

Appendix D – Staff Line List SCABIES OUTBREAK

Facility	
Unit Manager	
Date Outbreak Declared	

Staff Name	Unit	Date of rash onset	Date of confirmation	Method of confirmation	Date of treatment	Date of return to work	Other