Scabies Management in Long-term Care Guideline 10.3.2G

GUIDELINE

Guidelines are recommended actions allowing for professional judgement

island health

Purpose:	The purpose of this guideline is to provide infection prevention and control best practice recommendations for the management of scabies within long term care settings and provide comprehensive information to health care providers to assist in decision making.
Context:	Island Health offers programs and services on the unceded and traditional territories of the Coast Salish, Nuu-chah-nulth, and Kwakwaka'wakw Peoples. As a signatory to the 2015 Declaration of Commitment to Cultural Safety and Cultural Humility, Island Health is committed to addressing the ongoing impacts of colonialism and Indigenous-specific racism in order to provide a culturally safe, inclusive, healthy and respectful environment. The organization is committed to strengthening diversity, equity and inclusion to enable excellence in health and care for everyone, everywhere, every time. Through these commitments, Island Health strives to deliver the highest possible standard of care and to promote safe workplaces.

Scope:	• Audience:
	  ○ HCAs, LPNs, RN, RPNs,
	  ○ NPs, Physicians
	  ○ Allied Health staff, Environmental Support Services staff
	• Environment
	  ○ Island wide
	  ○ Long-term Care

Outcomes:	• Scabies infestations will be identified and managed in a timely manner • Transmission of scabies is limited and impacts to residents and long-term care home reduced

1.0 Introduction

Scabies is a common infestation that poses significant public health concern and is more common in people who are immunocompromised or who reside in a congregate living setting such as long-term care (LTC). An infestation of a single person or multiple people causes significant disability and impairment if not identified and treated early.

Scabies is an ectoparasitic infestation of the skin caused by the human itch mite, *Sarcoptes scabiei var hominis.* The microscopic scabies mite burrows into the upper layer of the skin where it lives and lays its eggs. The most common symptoms of scabies are intense itching and a pimple-like skin rash. The scabies mite usually is spread by direct, prolonged, skin-to-skin contact with a person who has scabies. Mites can survive for 3-4 days away from the human host, therefore, spread can occur by contact with items such as clothing, bedding, slings or towels that have been used by a person with an infestation. During the incubation period, which can be 2-8 weeks, asymptomatic people with an infestation can transmit the disease to others.

2.0 Guideline

2.1 Clinical Assessment

Steps	Key Points
1. Skin assessment for residents is conducted: • upon admission per Admission to Long-term Care procedure • every shift by a Health Care Aide(HCA)/Most Responsible Nurse (MRN) when providing care • weekly with scheduled bath per Skin Integrity Weekly Assessment for Long-term Care Protocol	• Itch (pruritus) is the primary symptom and can be severe, tends to be worse at night, after bathing or at other times when the skin is warm • Scratching can result in excoriation and secondary bacterial infections • Signs of infestation are commonly found in between the fingers, anterior surfaces of wrist and ankles, armpits, groins, folds of skin, breasts and around the belt line. Less commonly on shoulders, upper back and abdomen • In elderly people, manifestations tend to appear in the less common areas and may be confined to areas covered by clothing
2. If the HCA identifies an area of concern, the HCA informs the MRN as soon as possible	• MRN will assess rash, document location, appearance, size etc. in resident's record
3. MRN assesses rash	• Assessment documented in resident's record including appearance, size, location and associated symptoms
4. Initiate Contact Precautions if scabies infestation suspected by the MRN	• Due to the high transmission rate in congregate living settings, Contact Precautions should be initiated upon suspicion of infestation; waiting for confirmatory diagnosis is not needed • Add *Contact Precaution* to Electronic Health Record (EHR) where available and/or inform your IPAC practitioner • Add Contact Precaution signage and personal protective equipment (PPE) to resident's door and follow Contact Precaution Best Practices
5. MRN notifies the resident's Most Responsible Provider (MRP) for assessment of rash	• Diagnosis is difficult because of similarity to other itching skin disorders, such as contact dermatitis, insect bites, and psoriasis. Rashes can vary in appearance between residents • In-person exam is preferred, however if timely in-person exam not possible then virtual (video) visit is the next best option

2.2 Clinical Diagnosis

Steps	Key Points
1. MRP performs history and exam of the resident and rash	• Diagnosis is often delayed in LTC setting due to issues related to cognitive impairment, pre-existing skin conditions and multiple co-morbidities • The rash may have been treated first with topical or systemic steroids resulting in transient changes in signs and symptoms • A high index of suspicion for scabies must be considered whenever more than one resident develops a pruritic rash in a congregate living setting • Crusted scabies is highly contagious and often leads to multiple cases in care homes when misdiagnosed • See Appendix A for example photographs
2. Confirmatory diagnostic testing may be conducted by MRP, such as skin scraping, shave or punch biopsy, or burrow ink test. See Appendix B for procedure guidelines	• Given the small number of mites in an individual with classic scabies, false negatives are common • Skin scrapings are reasonable to pursue in a single suspected case • Once a single case has been confirmed there is no need to do scrapings on more residents before treating anyone with symptoms • A negative diagnostic test in the setting of multiple cases is not a reason to withhold treatment
3. MRP may consider consultation with an expert clinician experienced with diagnosing scabies	• For example: dermatologist, infectious disease specialist or a family physician/NP with enhanced skills
4. Upon diagnosis of scabies, MRN alerts site leadership and MRP contacts Medical Coordinator	• Provide resident with HealthlinkBC file: Scabies • See 2.3 Treatment Considerations • A coordinated team approach with an assigned medical lead and operational lead is strongly recommended with consult to Infection Prevention and Control (IPAC) practitioner • See 2.4 Multiple Case Management

2.3 Treatment Considerations

Consider initiating treatment while waiting for confirmatory diagnostic testing. In the presence of a cluster of multiple itchy, papular rashes suspicious for scabies, treatment can begin based on a clinical/epidemiological diagnosis. If multiple residents are affected, early treatment is recommended.

Medication	Resident-specific factors	Care home-specific factors	Situation-specific factors
Topical Permethrin 5% (lotion, cream) 2 treatments, 7-10 days apart	• Classic scabies diagnosis • Resident able to tolerate application and bathing required • Resident is not bedridden • Minimal scalp, facial involvement	• Enough staff to carry out procedure (application, bathing) • Nursing lead available to instruct staff	• Few cases • Tolerance for delay if necessary to hold other topical meds prior to application
Oral Ivermectin 200mcg per kg body weight A second dose after 2 weeks is associated with improved cure rates	• Classic scabies if topical not an option • Inability to tolerate topical application and bathing • Physical limitations such as excess adipose tissue, contractures • Open lesions or wounds • Significant scalp, facial involvement	• Crowded conditions • Units with shared spaces	• Infestations in multiple residents • Treatment failure • Re-infestation
Combined Ivermectin 200mcg per kg body weight **AND** Permethrin 5% cream (not lotion) to crusted areas	• Crusted scabies		• Recommendations for duration of treatment vary by severity of infestation • See CDC recommendations or contact Dermatologist or ID physician for dosing schedule

Note: Choice of treatment needs to be tailored to the resident's clinical situation. Itch may continue for up to 6 weeks after successful treatment. Itch persisting beyond 6 weeks after treatment is suspicious for treatment failure, relapse or re-infestation. Consider an order for antihistamine if needed. Resident will need monitoring for adverse effects such as drowsiness, sedation or an increase in confusion with antihistamine treatment.

2.3.1 Topical Treatment

Steps	Key points
1. Hold other topical medications and non-medical creams/lotions for 48 hours prior to application of treatment	• If unable to hold other topicals, consider oral treatment instead
2. Discard all topicals used by resident including non-medical creams/lotions, barrier creams etc.	• To prevent re-infestation • Contact Pharmacy for refill
3. Coordinate bath or shower with terminal clean of room including all laundry items and isolation of items that cannot be laundered	• Schedule 48 hours after topical medications held • A bath or shower prior to treatment application is ideal to optimize the penetration of topical treatment • See 2.4 Environmental Measures
4. Bathe or shower resident per usual including trimming of resident's fingernails	• If unable to trim nails, ensure thorough cleaning underneath nails • Examine scalp for lesions • Wear appropriate PPE
5. Towel dry off using patting motion, paying particular attention to skin folds and creases	• All towels and washcloths must be laundered • See 2.4 Environmental Measures
6. Apply topical treatment: shake bottle well and thoroughly massage into skin from neck to soles of feet and under nails while paying particular attention to skin folds and creases	• Document treatment in Medication Administration Record • Avoid applying near eyes and mouth
7. Dress resident in clean hospital gown or pajamas	• Ensure these clothes are freshly laundered
8. Resident returns to room after terminal clean complete	• Bed requires clean sheets • Resident remains on contact precautions
9. Tub room terminally cleaned after use	• Contact ESS
10. 8-12 hours later (next day) after treatment application, rinse off lotion, repeating steps 4-8	• Shower wand preferred • Regular topical medications and non-medical creams/lotions may be re-started the next day
11. Repeat steps 1-11 based on diagnosis and treatment recommendations	• Terminal clean required after second or subsequent treatments

2.3.2 Oral treatment

Steps	Key Points
1. Obtain current weight	• Dosing is weight based, 200mcg per kilogram body weight • Document weight in resident record
2. Consult with Pharmacy for drug interactions, dose and frequency	• Oral treatment is generally well tolerated and has few contraindications although it may enhance the anticoagulant effect of vitamin K antagonists (e.g. Warfarin) • Withholding topical medications is not required, however these should be discarded to prevent re-infestation
3. Administer oral treatment with food and coordinate with terminal clean of room including laundry and isolation of items that cannot be cleaned	• Document in Medication Administration Record • No bathing requirements • See 2.4 Environmental Measures

2.4 Environmental Measures

1. Identify linens, towels, washcloths and clothing used in the previous 4 days for washing by Regional laundry*	• All clothes in resident's closet/drawers must be laundered • Wash in hot water at least 50°C using an industrial washing machine (not commercial or household type), dryer on high • Coordinated with resident treatment • *If an Affiliate site-confirm temperature with laundry service provider or on-site industrial laundry machine
2. Identify resident's personal items that cannot be laundered for alternate cleaning or isolation. Includes wheelchair cushions	• Bag each item and label with resident name and date isolation started • Items that cannot be washed in hot water must be bagged and isolated for 7 days • Fabric furniture, fabric mattresses or rugs are thoroughly vacuumed, steam cleaned with special attention to creases and crevices OR bagged and isolated for 7 days. Consult IPAC • Consult laundry service provider for cleaning of wheelchair cushion covers, slings and transfer belts
3. Terminal clean of resident rooms with special attention to crevices and creases	• Coordinated with resident treatment • Cleaning of wheelchairs coordinated with all treatments • Terminal clean is required after all treatments in full course
4. Review communal areas for shared items and surfaces for laundering, cleaning or isolation	• Transmission via fomites is more likely in care homes than in non-congregate settings • Cleaning all surfaces including furniture especially crevices and creases • Fabric furniture, fabric mattresses or rugs are thoroughly vacuumed, steam cleaned with special attention to crevices and creases OR bagged and isolated for 7 days. Consult IPAC • Items that cannot be washed in hot water must be bagged and isolated for 7 days

2.5 Multiple Case Management

Best practice in the situation of multiple infestation is to designate an Operational lead and Medical lead. A collaborative and coordinated effort for diagnosis, treatment and cleaning is recommended for efficiency and to prevent re-infestation. Additional care staff may be needed for application of treatments, bathing, laundry etc. See Appendix D: Communication Tree.

2.5.1 Operational Lead

1. Designate Operational lead	• General role includes communication with care teams, IPAC, Medical Lead • Coordinate treatments, cleaning etc. with Medical Lead and Environmental Services • Anticipate workload needs and scheduling of additional staff if needed • See Appendix C for Checklist
2. Operational lead contacts Medical Coordinator or alternate to determine Medical Lead	• Once Medical Lead established, Operational lead will provide initial debrief of situation
3. Operational lead initiates regular huddles with care teams	• Recommended to gather information about residents with suspicious rashes and to raise index of suspicion for scabies • Important for timely sharing of information and reinforcing infection control best practices
4. Operational lead to contact IPAC	• Contact IPAC practitioner • Infection control practices are key to avoid spread and re-infestations
5. All residents with rash suspicious for scabies are placed on contact precautions as directed by IPAC and entered into Daily Infection Prevention and Control Surveillance Tool	• Due to the high transmission rate in congregate living setting, contact precautions should be initiated upon suspicion of infestation, waiting for confirmatory diagnosis is not needed • Add *Contact Precaution* to Electronic Health Record (EHR) where available and/or inform your IPAC practitioner • MRN documents rash location, appearance, size, quality etc. in resident record
6. Operational lead communicates with Medical Lead and Environmental Services Support (ESS) to coordinate treatment and cleaning plan for all affected residents	• See 2.3 Treatment Considerations • See 2.4 Environmental Measures

7. Operational lead to identify close contacts (i.e. roommates, visitors) of all residents with scabies diagnosis.	• Close contacts living in the facility should receive treatment in the same 24 hours as case • Coordinate with as above • Instruct close contacts outside of facility to self-monitor for rashes, use contact precautions when visiting resident and consider treatment if direct skin to skin contact with resident prior to resident's treatment • Provide with close contacts with pamphlet HealthlinkBC file: Scabies
8. Operational lead to notify all staff, students, volunteers, medical staff etc. who have worked on the affected unit in the previous 6 weeks	• Instruct on need to self-monitor for rashes and consider treatment if direct skin to skin contact with resident prior to resident's treatment • Symptomatic staff must report to Workplace Health Call Centre 1-866-922-9464 for case management • Staff diagnosed with scabies are relieved of direct care until 24 hours after initiation of treatment • Provide with pamphlet HealthlinkBC file: Scabies
9. Operational lead to review all resident transfers in previous 6 weeks and notify facilities	• Receiving facility should monitor resident for sign of itchy rash and maintain a high index of suspicion for scabies
10. Operational lead to assess need for alternate seating, transfer options for residents with equipment in isolation	• Wheelchair cushion covers, slings and transfer belts do not tolerate high temperature washing/drying and may require bagging and isolation for 7 days

2.5.2 Medical Lead

1. Medical Lead attends or is in contact with the site frequently	• Responsible for communications with MRPs, assessment, diagnosis and coordinating treatment of suspicious rashes for all residents
2. Medical Lead receives debrief from Operational lead	• List of residents with rashes and close contacts
3. Medical Lead communicates with MRPs of all residents regarding presence of scabies at site, establish communication to Medical lead for all suspicious rashes, agreement/participation in single prescriber approach to coordinate treatment	• A single prescriber should coordinate assessment and treatment in collaboration with other practitioners, Operational lead, IPAC and ESS • To avoid the need for multiple treatment cycles, it may be necessary to treat all the residents in a unit experiencing a cluster of cases upon initial detection
4. Medical Lead assesses all residents with rashes with high index of suspicion for scabies	• Includes regular communication with MRP • See 2.2 Clinical Diagnosis
5. Medical Lead, Operational Lead and ESS coordinate treatment and cleaning plan for all affected residents	• See 2.3 Treatment Considerations • See 2.4 Environmental Measures

2.6 Discontinuing Precautions

Contact precautions may be discontinued 24 hours after completion of full treatment course per Discontinuing Precautions Guidelines. Consult with IPAC recommended.

2.7 Considerations for Affiliate Sites

- As scabies is a non-reportable disease to Public Health/Communicable Disease program, Affiliate sites may reach out to their respective Quality Assurance and Contract Management Manager (QACMM) in lieu of IPAC
- Special consideration for laundry required to ensure laundry service provider or washing machines on-site meet the minimum hot water temperature of 50°C
- Sites will engage with their own housekeeping teams to coordinate terminal cleaning and other environmental measures

- Sites are responsible for supplying PPE through their regular suppliers/organization. If PPE demand exceeds available supply, sites may reach out to their QACMM for temporary measures in extenuating circumstances

3.0 Definitions

- **Classic scabies**: main clinical feature is intense generalized pruritus (itchy rash) that is usually worse at night. Symptoms begin 3-6 weeks after primary infestation, but occurs earlier at 1-3 days in a person who has been re-infested probably due to prior sensitization to the mite and mite products. Scabies is therefore infectious before the rash develops. The most common lesions are seen between the fingers, under the fingernails, on the inside of the wrist and on the elbow. In elderly people, manifestations tend to appear in the less common areas and may be confined to areas covered by clothing
- **Crusted scabies** (formerly referred to as Norwegian scabies): occur in people who are immunocompromised, elderly or living in congregate settings. Main clinical feature is scaly, crusted lesions (may appear psoriasis-like) that can be malodorous and can affect any part of the body including the face and scalp. Itching may be mild or absent.
- **Close contact:** Anyone who has had unprotected, direct contact with skin, clothing or linens of a person with untreated scabies
- **Fomite:** an inanimate object capable of transmitting an infectious organism
- **Incubation period:** the time between contact and the appearance of symptoms. For scabies, this can be 2-6 weeks for people without previous exposure and 1-4 days for people previously infested
- **Infestation**: an invasion by pests or parasites. An infestation can include parasites living in or on the body as well as in the environment
- **Medical Lead:** a physician or NP usually appointed by Medical Coordinator (if not the Medical Coordinator themselves) to coordinate the diagnosis and treatment for scabies for the site and liaise with other MRPs
- **MRN:** Most Responsible Nurse, may be LPN, RN, RPN
- **MRP**: Most Responsible Provider, may be physician or nurse practitioner
- **Operational Lead:** appointed by the site lead, may be a CNL, Manager, DOC, ADOC etc. to oversee and coordinate scabies management for the site
- **Re-infestation:** a return of lesions usually due to failure to treat contacts
- **Treatment failure**: persistence of original lesions, the appearance of new lesions or a confirmation of a live mite due to inadequate treatment

4.0 Related Island Health Standards

- Island Health Infection Prevention and Control: Scabies procedure
- Island Health Infection Prevention and Control: Did you Know? Scabies

5.0 References

- Cassell, J. A., Middleton, J., Nalabanda, A., Lanza, S., Head, M. G., Bostock, J., Hewitt, K., Jones, C. I., Darley, C., Karir, S., & Walker, S. L. (2018). Scabies outbreaks in ten care homes for elderly people: a prospective study of clinical features, epidemiology, and treatment outcomes. The Lancet. Infectious Diseases, 18(8), 894–902. https://doi.org/10.1016/S1473-3099(18)30347-5
- Ong, C., & Vasanwala, F. (2018). Infected with Scabies Again? Focus in Management in Long-Term Care Facilities. Diseases, 7(1), 3. https://doi.org/10.3390/diseases7010003
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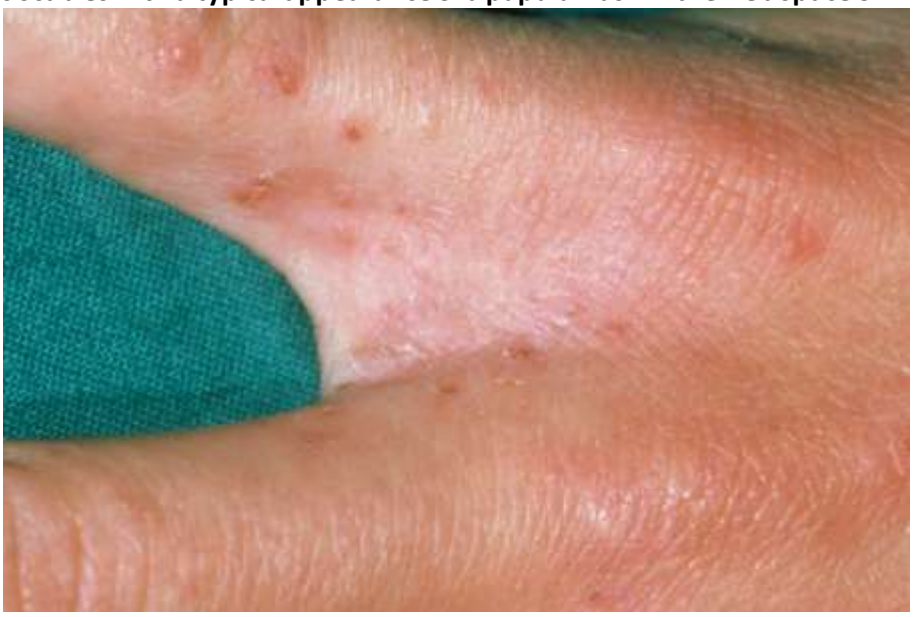
- Hewitt, K. A., Nalabanda, A., & Cassell, J. A. (2015). Scabies outbreaks in residential care homes: factors associated with late recognition, burden and impact. A mixed methods study in England. Epidemiology and Infection, 143(7), 1542–1551. https://doi.org/10.1017/S0950268814002143
- U.S. Centers for Disease Control and Prevention; page accessed February 16, 2022 https://www.cdc.gov/parasites/scabies/health_professionals/meds.html
- Management of Scabies in Long Term Care Facilities. Winnipeg Regional Health Authority. (2019). https://professionals.wrha.mb.ca/old/extranet/ipc/files/manuals/ltc/ScabiesOG.pdf
- New Jersey Department of Health. Management of Scabies in Long-Term Care Facilities, Schools and Other Institutions. (2014). https://www.state.nj.us/health/cd/documents/faq/scabies_guidance.pdf
- Maryland Department of Health. Guidelines for Control of Scabies in Long Term Care Facilities. https://health.maryland.gov/phpa/Pages/scabies-guidelines.aspx

6.0 Resources

- HealthlinkBC file: Scabies (201*). Retrieved from: https://www.healthlinkbc.ca/healthlinkbc-files/scabies

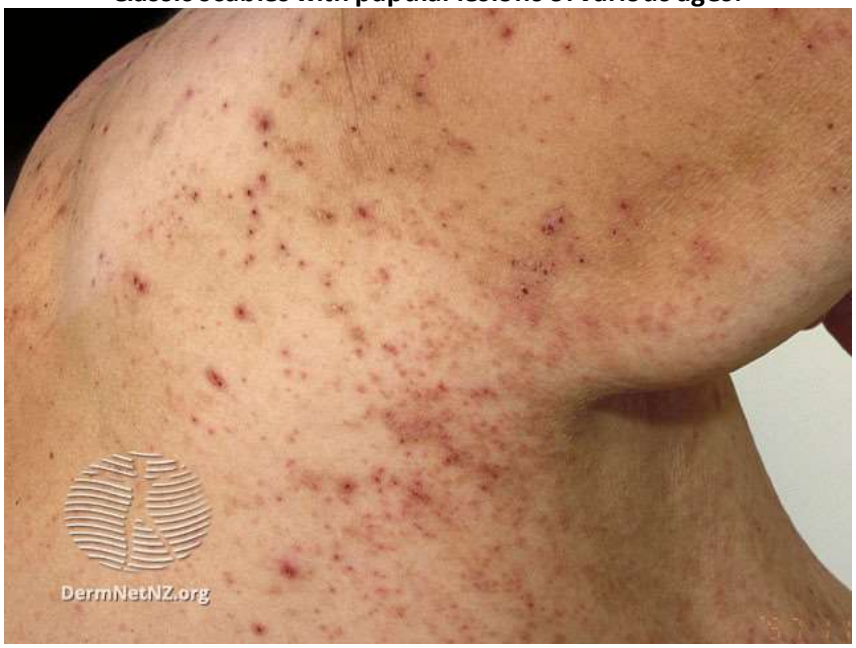
Appendix A: Examples of Scabies Presentations

Classic scabies with a typical appearance of a papular rash in the web space of fingers:



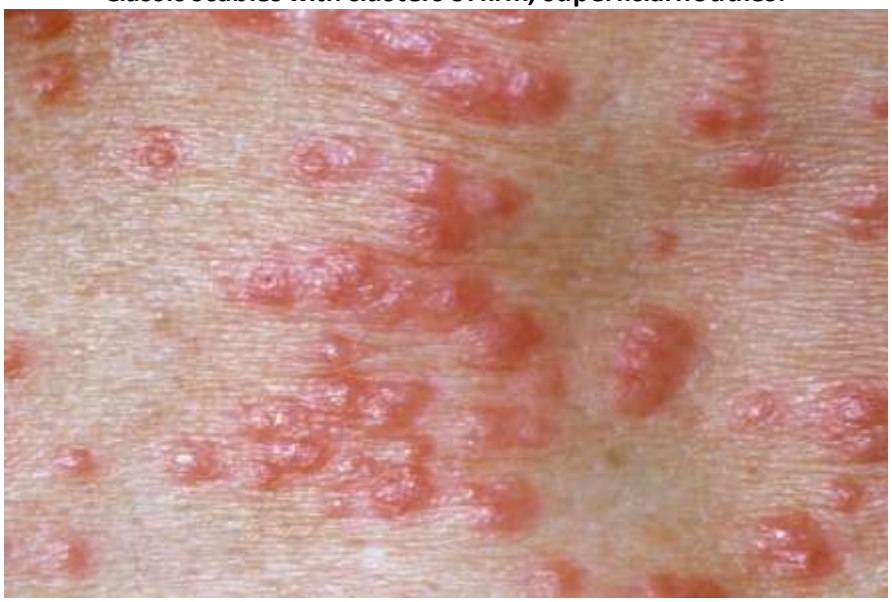
WebMD.com

Classic scabies with papular lesions of various ages:



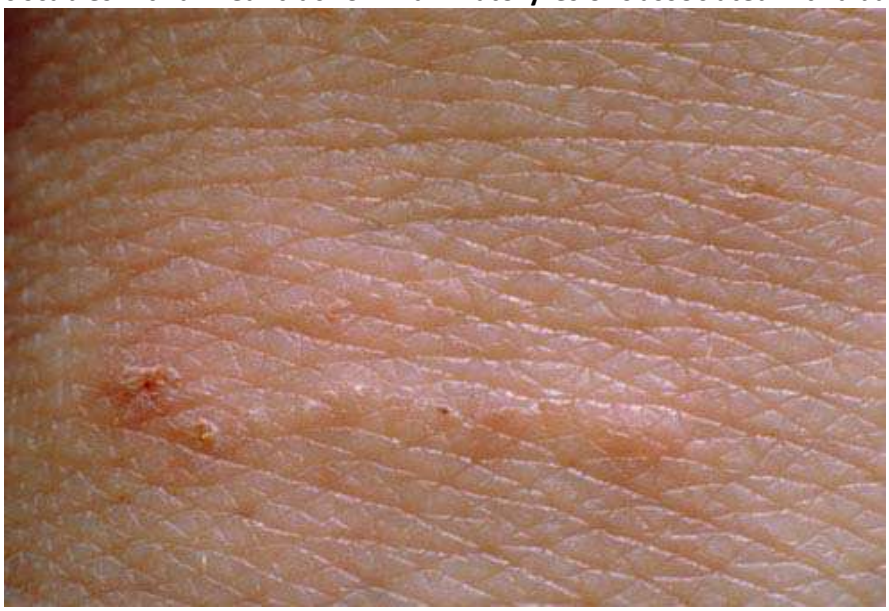
DermNet NZ

Classic scabies with clusters of firm, superficial nodules:



WebMD.com

Classic scabies with a linear track of inflammatory lesions associated with a burrow:



WebMD.com

Crusted scabies (formerly referred to as Norwegian scabies) is more common in immunocompromised or institutionalized people. The lesions are hyperkeratotic and present as thick scaling and may appear psoriasis-like. The scaly rash may contain **thousands of mites** and may be seen on the hands, feet, trunk and face. Itch may be mild or absent.

Crusted scabies with typical hyperkeratotic appearance:

DermNet NZ

Appendix B: Skin Scraping (Performed by MRP)

Equipment:

- Glass slides, cover slips and slide holder
- Scalpel blade
- Mineral oil
- Magnifier (standard hand held)

Procedure:

1. Examine the skin for lesions; best sites are obvious burrows, papules or vesicles. Chose several sites.
2. Apply a small amount of mineral oil to the site; enables mites and eggs to adhere better to the blade and glass slide.
3. Vigorously scrape the lesions with the scalpel blade until there is moist material on the blade. Often, a little bleeding is needed to get an adequate specimen.
4. Scaly lesions must be scraped if crusted scabies is suspected.
5. Wipe or smear the edge of the blade onto the glass slide. One slide may be used for multiple sites.
6. Cover with a coverslip and, if microscope is available, examine at 10-40X magnification to identify mites and eggs.

Burrow Ink Test (performed by MRP)

Equipment:

- Washable felt tip marker
- Alcohol swab
- Magnifier (standard hand held)

1. Examine skin for mite burrow (use magnifier).
2. Apply a washable felt-tip marker apply across the suspicious site.
3. Wash off the excess with an alcohol swab.

When a burrow is present, the ink penetrates the stratum corneum and delineates the site.

Appendix C: Operational Lead Check List

√ CHECKLIST for Operational Lead √	
Operational Lead Name: _____ Phone: _____	
Medical Lead Name: _____ Phone:_____	
IPAC practitioner Name: _____ Phone: _____	
Print off and populate Daily Infection Prevention and Control Surveillance Tool with names of affected residents and resident close contacts that need treatment	
Environmental Services Lead Name: _____ Phone: _____	
Laundry Service Lead Name: _____ Phone: _____	
Treatment - Medication	
Order for topical or oral treatment (or both in cases of crusted scabies) for affected residents.	
Consider order for topical or oral prophylaxis for close contacts of affected residents living in facility	
Order to hold other topical medication for 48 hours prior to topical scabies treatment	
Order to resume other topical medications 24 hours after topical scabies treatment	
Consider order for antihistamine for symptom management, monitor for adverse effects	

Environmental Measures	
Plan developed for coordinated treatment, housekeeping, and laundry process. Additional staff may be required depending on extent of outbreak	
Laundry service provider to confirm industrial washing machine (not commercial or household type) water temperature at least 50°C	
All washable items identified for each affected resident (clothing, linens, towels etc.) for laundering by laundry service provider	
All washable items such as wheelchairs for each affected resident identified and included in terminal cleaning by ESS	
Area for isolation of non-washable items determined and supply of large bags available	
Non-washable items for each affected resident identified (i.e. wheelchair pads, slings, and transfer belts). Label with name and date, bag and isolate for 7 days in designated area Arrangements for alternate seating made if items in isolation	
ESS identifies furniture, surfaces and other fomites in communal areas and establishes cleaning plan coordinated with Operational lead	
ESS thoroughly vacuums fabric furniture items or items are labelled with date, bag and isolate for 7 days in designated area. Consult IPAC	
Communication	
Inform resident of contact precautions, diagnosis etc.	
Contact close contacts of affected residents who do not live in facility	
Plan for regular updates to families/significant others and Resident and Family Council	
Notify all staff, medical staff, volunteers and students etc. who attended site in past 6 weeks	
Notify receiving facilities of all resident transfers in previous 6 weeks	

Appendix D: Communication Tree