

Best Practice Guideline	Management of Lice in Long-Term Care (LTC) and Assisted Living (AL)
Date	19 May 2023
Reviewed Date	
Revised Date	

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Site Applicability

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

Scope of Practice

All leadership and clinical care staff in LTC/AL Homes.

Purpose

Provide guidance on management of lice for residents of LTC and AL homes.

Background

Lice are parasitic insects that can be found on people's heads, bodies, and pubic area. Infestations are spread most commonly by close person-to-person contact. To eradicate infestation and prevent recurrences and spread to close contacts, persons identified with lice should be treated in an effective manner that requires resident's cooperation. Please refer to **Appendix A: Lice Types, Descriptions, and Appendix B: Lice Life Cycle**.

Signs and Symptoms of Lice Infestation

Head Lice

1. Can be asymptomatic
2. Itching of the scalp
3. Tickling feeling
4. Feeling of something is moving in the hair
5. Irritability or sleepiness (lice are most active in the dark)
6. Skin irritation or open sores caused by scratching

Body Lice

1. Intense itching and rash caused by allergic reaction to the louse bites
2. Bites appear as erythematous macules, papules, and excoriations primarily on the trunk
3. Secondary bacterial infection of the skin may occur caused by scratching

Pubic Lice



1. Itching (pruritus) of the anogenital area

Confirmation of Lice Infestation

Head Lice

Live louse must be found to confirm infestation. If crawling lice are not seen, finding nits firmly attached within a ¼ inch of base of the hair shafts strongly suggests, but does not confirm, that a person is infested and should be treated. If no live nymphs or adult lice are seen, and the only nits found are more than ¼-inch from the scalp, the infestation is probably old and no longer active and does not need to be treated.

Body Lice

Finding eggs and crawling lice in the seams of clothing or sometimes can be seen crawling or feeding on the skin.

Pubic Lice

Finding a “crab” louse or eggs on hair in the pubic region or, less commonly, elsewhere on the body (eyebrows, eyelashes, beard, mustache, armpit, perianal area, groin, trunk, and scalp).

Precautions Needed

For suspected or confirmed head lice infestations, initiate [contact precautions](#) until a minimum of 24 hours after start of effective treatment or confirmation that there are no lice present.

Management of Head Lice

Treatment is only recommended for persons confirmed with discovering live lice or nits ¼ inch from the scalp, an active infestation. Treatment can be done by wet combing method or by the use of over-the-counter (OTC) or prescribed medications.

Wet Combing Method

This method removes live head lice without the use of chemicals and may be used for those opposed to using chemicals or if chemicals are not available. It may take about one hour per person to complete below steps thus requiring resident’s cooperation.

Supplies:

- Bright light (daylight is best)
- Regular or wide-toothed comb (to untangle hair)
- Fine-toothed lice comb
- A hand/magnifying glass (optional)
- White tissue or paper towel
- Personal Protective Equipment (PPE)
- Shampoo and conditioner



Steps:

1. Perform hand hygiene
2. Don PPE (gloves and gown)
3. Wash the hair well with ordinary shampoo and rinse
4. Apply a generous amount (at least ½ cup) of conditioner all over head and scalp. Do not rinse.
5. Divide hair into small sections. Using a fine-toothed lice comb, comb sections of hair by drawing the comb from the scalp to the end of the hair. If the comb tugs, add more conditioner as needed. After each stroke, check the comb for lice and rinse comb in a sink or bowl of warm water, and wipe dry. Ensure hair stays wet with conditioner during combing.
6. Rinse hair and leave it dripping wet. Repeat Step 5 without conditioner until no lice are found.
7. Combing treatment method (Steps 1-6) should be done every three or four days for at least two weeks (for example, wet comb on day 1, day 5, day 9, and day 13).
8. If lice found on the final combing, add one more combing in 4 days until no live louse is found.
 - ✓ Any young lice that hatch from eggs after the first session are removed at the second, third and fourth sessions. This is why it is important to do the full series of sessions.
9. Have residents put on clean clothing after treatment and change bed linen.
 - ✓ Personal clothing and belongings that have been in direct contact with the affected resident in the past 48 hours should be:
 - washed in hot water (at least 130°F) and dried on high heat for 20 minutes
 - or sealed in a plastic bag and stored for 10 -14 days.
10. Doff PPE and perform hand hygiene.
11. An isolation discharge clean should be done 24 hours after effective treatment

Chemical Treatments

This requires using an Over-the-Counter (OTC) or prescriptive medication.

Steps for Head Lice:

1. Perform hand hygiene
2. Don PPE (gloves and gown)
3. Apply lice medicine per instructions contained in the box, printed on the label or as per directions by the prescribing MRP.
 - ✓ Pay special attention on how long the medication should be left on the hair and how it should be washed out.
 - ✓ Read and follow the manufacturer's instructions on the medication.
 - ✗ Do not use a combination shampoo/conditioner, or conditioner before using lice medication.
4. Remove all lice and nits with a fine-tooth comb.
 - ✓ Rinse nit comb in warm water
 - ✓ Wipe dry after each stroke
5. Have residents wear clean clothing after treatment and change bed linen.



- ✓ Personal clothing and belongings that have been in direct contact with the affected resident in the past 48 hours need to be:
 - Wash in hot water (at least 130°F) and dry on high heat for 20 minutes
 - or seal in a plastic bag and store for 10-14 days.
- 6. Doff PPE and perform hand hygiene
- 7. An isolation discharge clean should be done 24 hours after effective treatment

Follow-up Assessments 8-12 hours Post Treatment:

1. If a few live lice are still found 8–12 hours after treatment, and are moving more slowly than before, do not re-treat. The medicine may take longer to kill all the lice. Comb dead lice and any remaining live lice out of the hair using a fine-toothed nit comb.
2. If, after 8–12 hours of treatment, no dead lice are found and lice seem as active as before, the medicine may not be working. Do not re-treat until speaking with the Most Responsible Physician (MRP), as a different pediculicide may be necessary.

Follow-up Assessments 2-3 days Post Treatment

1. After each treatment, checking the hair and combing with a nit comb to remove nits and lice every 2–3 days may decrease the chance of self-reinfestation.
2. Continue to check for 2–3 weeks to be sure all lice and nits are gone.
3. Re-treatment is meant to kill any surviving hatched lice before they produce new eggs. For some drugs, re-treatment is recommended routinely about a week after the first treatment (7–9 days, depending on the drug) and for others only if crawling lice are seen during this period. Consult with MRP if needed.

Management of Body Lice

Management of body lice consists of bathing and cleaning clothes/bedding. Chemical treatment is an option.

Steps for Body Lice:

1. Perform hand hygiene
2. Don PPE (gown and gloves)
3. Bathe the resident
4. Use clean clothes and clean bedding
5. Place used clothing in a plastic bag
6. Personal clothing and belongings that have been in direct contact with the affected resident need to be washed
 - ✓ Wash in hot water (at least 130°F) and dry on high heat for 20 minutes
 - ✓ Or seal in a plastic bag and store for 10-14 days
7. Doff PPE and perform hand hygiene
8. An isolation discharge clean should be done 24 hours after effective treatment

Chemical Treatment for Body Lice



Treatment with the use of pediculicide is not necessary if hygiene is maintained and items are laundered appropriately at least once a week. If treatment is chosen, follow the guidelines for treating body lice.

Management of Pubic Lice

Pubic lice can be treated with use of over-the-counter or prescription medicines.

Steps for treating pubic lice NOT on eyebrow or eyelashes

1. Wash the pubic area and towel dry
2. Carefully follow the instructions in the package or label
3. After treatment, remove nits that are attached to hair shafts with gloved finger or by using a fine-toothed comb
4. Put on clean underwear and clothing after treatment
5. Clothing, towels, or bedding should be machine-washed and machine-dried including those items that the infested person used during the 2–3 days before treatment. Use hot water (at least 130°F) and the hot dryer cycle.
6. Items that cannot be laundered can be dry-cleaned or stored in a sealed plastic bag for 10-14 days.
7. Re-treat as recommended for head lice.

Special instructions for treatment of lice and nits found on eyebrows or eyelashes:

- ✓ If only a few live lice and nits are present, it may be possible to remove these with a nit comb or gloved fingertips.
- ✓ If additional treatment is needed for lice or nits on the eyelashes, careful application of ophthalmic-grade petrolatum ointment to the eyelid margins 2-4 times a day for 10 days is effective. Regular petrolatum (e.g., Vaseline)* should not be used because it can irritate the eyes if applied

The Dos and Don'ts of Prevention and Control

A. Do not:

- ✓ Share clothing or wear non-laundered clothes
- ✓ Share towels and blankets
- ✓ Share combs, hair brushes, hats, scarves, and any hair accessories
- ✓ Share headphones for lice sometimes hang out on ear buds for a short time
- ✓ Lie on beds of others
- ✓ Use pillows of others
- ✓ Share or use stuffed animals unless it has been cleaned per manufacturer's instructions

B. Do:

- ✓ Avoid activities that involve hair to hair contact
- ✓ Maintain a regular schedule for bathing and washing hair at least once a week
- ✓ Machine wash and dry clothing, bed linens, and towels on a regular basis



- ✓ Have dedicated personal grooming supplies for each resident (i.e.. Combs, hair brushes, and hair accessories)
- ✓ For hair salons- scissors, hair clippers and re-usable straight blades for cutting hair should be cleaned and low level disinfected between clients. Reusable capes must be used with single use neck strips or towels that are laundered after each client use. Select a hospital grade Low level disinfectant with a DIN that is compatible with the equipment. Low level disinfectants are suitable for surfaces and equipment that would only, at most come into contact with the resident's intact skin.




Appendices

Appendix A – Lice Type and Description

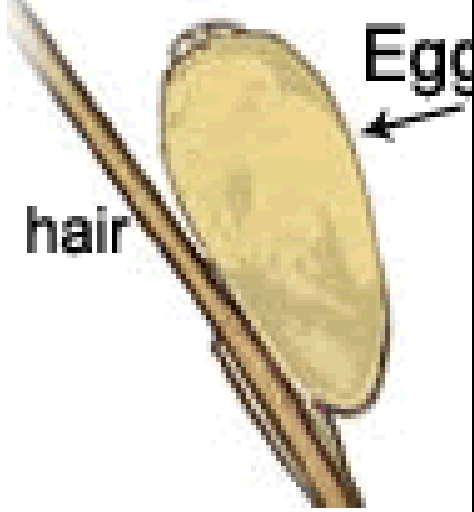


Appendix B Lice Life Cycle



Appendix A – Lice Type and Description

<u>Name:</u>	Head Louse (<i>Pediculus humanus capitis</i>)	Body Louse (<i>Pediculus humanus corporis</i>)	Pubic Louse (<i>Phthirus pubis</i>)
<u>Appearance:</u>			
<u>Location:</u>	<ul style="list-style-type: none"> ● Head/scalp ● Neck ● Eyebrows ● Eyelashes 	<ul style="list-style-type: none"> ● Clothing ● Bedding 	<ul style="list-style-type: none"> ● Pubic and genital regions
<u>Food Source:</u>	<ul style="list-style-type: none"> ● Human Blood 	<ul style="list-style-type: none"> ● Human Blood 	<ul style="list-style-type: none"> ● Human Blood
<u>Size (Length):</u>	<ul style="list-style-type: none"> ● 2.1-3.3 mm 	<ul style="list-style-type: none"> ● 2.3-3.6 mm 	<ul style="list-style-type: none"> ● 1.1-1.8 mm
<u>Movement</u>	<ul style="list-style-type: none"> ● Crawl (cannot hop or fly) 	<ul style="list-style-type: none"> ● Crawl (cannot hop or fly) 	<ul style="list-style-type: none"> ● Crawl (cannot hop or fly)
<u>Transmission:</u>	<ul style="list-style-type: none"> ● Direct person-person contact with infested hair ● Fomites (e.g. hair brushes; combs, towels, hats, upholstered furniture) 	<ul style="list-style-type: none"> ● Close person-person contact ● Indirect contact with infested clothing or bedding 	<ul style="list-style-type: none"> ● Sexual Contact
<u>Disease Transmission:</u>	<ul style="list-style-type: none"> ● None 	<ul style="list-style-type: none"> ● Bartonella quintana ● Epidemic typhus - rare ● Borellia recurrentis (Epidemic relapsing fever) - rare 	<ul style="list-style-type: none"> ● None

Appendix B - Lice Life Cycle

Life Cycle Stage	Description	Illustration
Egg/Nit	<ul style="list-style-type: none"> ● Female adult lice lay eggs and attach them firmly to the hair shaft (head and pubic louse) ● Body lice lay eggs on or near the seams of clothing or bedding ● Eggs are oval in shape and may be yellow or white ● Nits will hatch: <ul style="list-style-type: none"> ➢ Head louse (8-9 days) ➢ Body louse (1-2 weeks) ➢ Pubic louse (6-10 days) ● Lice eggs that are likely to hatch are usually located no more than ¼ inch from the base of the hair shaft. ● Nits located greater than ¼ inch from the base of the hair shaft are likely already hatched, non-viable nits or empty casings 	
Nymph	<ul style="list-style-type: none"> ● An immature louse that hatches from the nit ● Smaller than the adult louse but similar appearance ● Nymph's reach maturity in 9-12 days (head and body lice) except pubic lice take 2-3 weeks after hatching ● Nymphs must feed on blood to live 	
Adult Louse	<ul style="list-style-type: none"> ● The fully developed adult louse is about the size of a sesame seed, has six legs and is tan to grayish-white in color ● Must feed on human blood to survive and live ● An adult head louse can live for about 30 days on a person's head ● Head and pubic lice will die within 1-2 days off the host ● Body lice will die within 5-7 days once away from the blood source ● Female lice are generally larger than males and produce 6-10 eggs per day 	



References

APIC Prevention and Strategies, 2018, pages 46-48 https://apic.org/Resource_/prevention-strategist/issues/ps-fall2018-v11-n3.pdf

CDC Control & Prevention- Lice- Sept 2019 CDC - Lice

FHA- Head Lice- 2023 <https://www.fraserhealth.ca/health-topics-a-to-z/school-health/illness-and-immunizations/head-lice#.ZGfAks7MKlO>

Guidelines for Personal Service Establishment- MOH, Nov 2017, page 23

Head Lice Management Guidelines- Island Health- Sept 2016 Head-Lice-Management-Guidelines-WH-PDF.pdf (sd61.bc.ca)

Health Link BC- Head Lice- March 2019 Head Lice | HealthLink BC

IPAC Diseases and Conditions Table VCH Diseases and Conditions Table.pdf

IPAC Quick Management for Lice...Nov. 2017 Bed Bugs, Lice Scabies Quick Reference.pdf (vch.ca)

Norther Health- Recommended Head Lice Management- Feb. 2022 Recommended head lice management (northernhealth.ca)

Pub Med, Head Lice on Pillows- Aug 2003- Head lice on pillows, and strategies to make a small risk even less - PubMed (nih.gov)

Toronto Public Health- Fact Sheet on Lice- Sept 2016 Head lice fact sheet (toronto.ca)

VCH- Getting Rid of Head Lice- Getting Rid of Head Lice by Wet Combing - Vancouver Coastal Health (vch.ca)

VCH- Head Lice- 2023 Head lice | Vancouver Coastal Health (vch.ca)

