Management Guidelines for Head Lice

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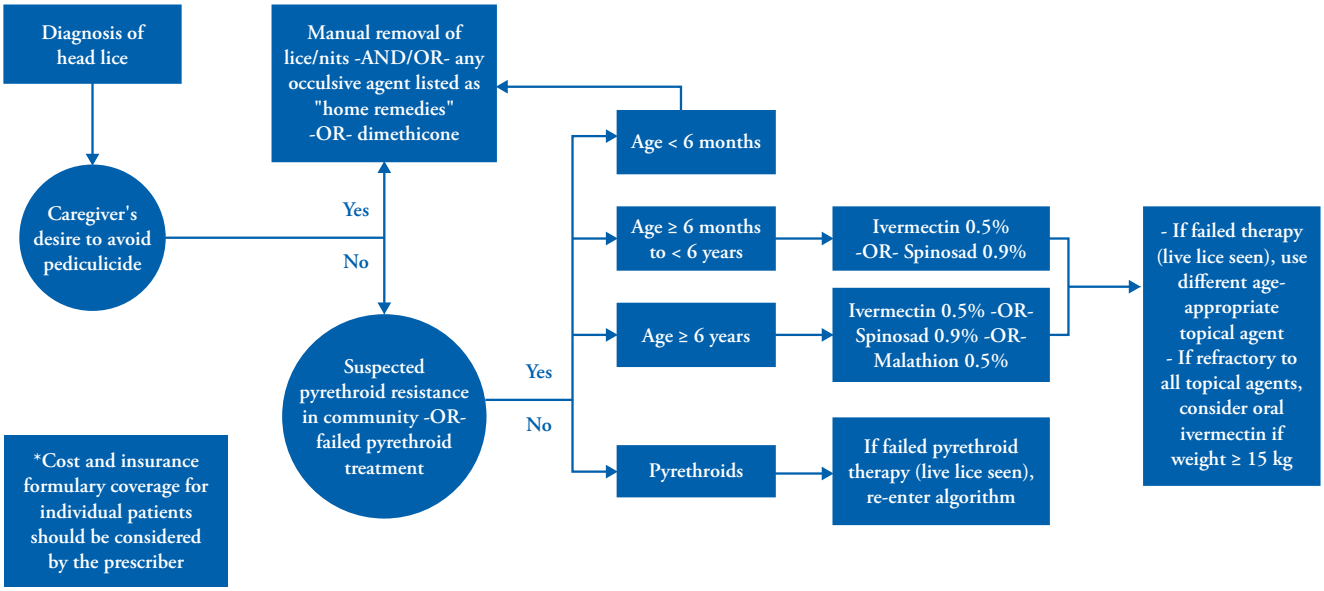
Prescribing Guidelines for Head Lice

When live head lice are identified on a child, treatment should be quickly initiated. Many treatment options exist with the ideal treatment being safe, readily available, easy to use, effective and inexpensive. This prescribing guideline, developed by Partners For Kids in collaboration with experts at Dayton Children's Hospital, is designed to help guide you in the pharmacologic treatment of head lice.

Pediculocidal vs. Ovicidal Agents

- A pediculicide is an agent that kills live lice which includes nymphs and adults.
- An ovicide is an agent that kills lice eggs (nits).
- All topical lice agents have pediculicidal activity, but all do not have complete ovicidal activity.
- Because of the life cycle of a louse, retreatment with most topical lice products is necessary. Retreatment at day 9 is optimal.

Treatment Algorithm



Treatment Considerations

- Do not use more than the recommended product amount, and multiple products should not be used concurrently.
- If medication gets into a child's eyes, it should be flushed out immediately with water.
- Hair should not be shampooed as part of the rinse process nor for 24 to 48 hours after product is washed out.
- Removal of all topical lice treatment medication should be done by rinsing over a sink to help limit skin exposure to the medication that would occur if rinsed in the shower or bath. Warm water should be used, rather than hot, to reduce potential for absorption into the skin.
- Itching or mild burning of the scalp caused by inflammation of the skin in response to topical treatments can persist for several days. Topical corticosteroids or oral antihistamines may relieve symptoms.

Nit Removal

- After each treatment, check hair and remove nits and lice every 2 – 3 days for the next 2 – 3 weeks. You do not need to remove nits when treating with spinosad topical suspension.
- Nit removal with a fine-tooth comb is beneficial, as none of the lice treatments are 100% ovicidal. Although tedious, there are commercially available 'nit combs' that can make the process easier for the caregiver.

Treatment Failure

If there is detection of live lice within 3 weeks of completing therapy, the following should be considered:

- Misdiagnosis
- Lack of adherence
- Inadequate treatment or application
- Reinfestation
- Lack of ovicidal or residual killing properties
- Resistance

Medication Table:

Generic Drug Name (Brand Name)	Average Cost per Script*	Age	Type of Activity	Application	Retreatment†
Permethrin 1% lotion (Ex: Nix®)	~$20	≥2 months	Pediculocidal **(pyrethroid)**	Apply to damp hair and scalp that has been shampooed with a non-conditioning shampoo and towel dried. Rinse after 10 minutes.	9-10 days
Pyrethrins + piperonyl butoxide shampoo (Ex: Rid®)	~$15	≥24 months	Pediculocidal **(pyrethroid)**	Apply to dry hair and scalp. Rinse after 10 minutes. Avoid in patients with chrysanthemum allergy (low risk for reaction).	9-10 days
Ivermectin 0.5% lotion (Sklice®)	~$200	≥6 months	Pediculocidal	Apply to dry hair and scalp. Rinse after 10 minutes.	None
Malathion 0.5% lotion (Ovide®)	~$270	≥6 years (safety not established for <6 years)	Ovicidal & Pediculocidal	Apply to dry hair and scalp and let air dry. Wash off after 8-12 hours. **Highly flammable - no smoking or flames near child.**	7-9 days if live lice are seen after initial dose
Spinosad 0.9% suspension (Natroba®)	~$310	≥6 months	Ovicidal & Pediculocidal	Apply to dry hair, including scalp, working outward to the ends of the hair. Rinse after 10 minutes.	7 days if live lice are seen after initial dose
Ivermectin 3 mg tablet (Stromectol®)	~$10	Any age, if weight ≥15 kg	Anthelmintic (systemic)	Oral: 200 to 400 mcg/kg/dose for 2 doses administered 7 to 10 days apart.	7-10 days

*Average cost per script is based on generic drug when available using an average length of therapy. Prices are for reference and actual cost may vary based on drug strength, quantity and other factors.
†If retreatment is recommended, prescription quantity should be sufficient for both applications.

Alternative Agents (not FDA-approved, not recommended)

- Data supporting the use of alternative agents is highly variable.
- Home remedies, such as "petrolatum shampoo," mayonnaise, melted butter or margarine, herbal oils, and olive oil, applied to suffocate the lice, have been used.
- Dimethicone is an emollient that has been used for head lice treatment.
- Cetaphil® cleanser can also be applied to the hair, dried on with a handheld hair dryer, left on overnight, and washed out the next morning and repeated once per week for 3 weeks.

Environmental Interventions

- Clean items that have been in contact with the individuals' head within 2 days before treatment (hair care items, bedding, clothes, hats, stuffed toys).
  - Machine wash with hot water and dry on high heat setting. If items cannot be washed, seal them in a plastic bag for 2 weeks.
  - Vacuum furniture, carpets, car seats. Pediculicide spray is not recommended.
- The American Academy of Pediatrics (AAP) recommends that healthy children should not be excluded from school because of head lice or nits. The AAP recommends that no-nit policies for return to school should be abandoned.

References

1. CDC. (2024) Treatment of Headlice. https://www.cdc.gov/lice/treatment/index.html
2. Dawn Nolt, Scot Moore, Albert C. Yan, Laura Melnick, COMMITTEE ON INFECTIOUS DISEASES, COMMITTEE ON PRACTICE AND AMBULATORY MEDICINE, SECTION ON DERMATOLOGY; Head Lice. Pediatrics October 2022; 150 (4): e2022059282. 10.1542/peds.2022-059282.

Referrals and Consultations
Online: NationwideChildrens.org
Phone: (614) 722-6600 or (877) 722-6220
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Physician Direct Connect Line for 24-hour urgent physician consultations:
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