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School Health Issues

You ought to have your Head Examined: Pediculus Capitis Redux

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Although body lice are seen in higher frequency in individuals with poor hygiene (usually adults), head lice and pubic lice are not related to uncleanness and can be seen at all socioeconomic levels.

Head to head contact is the primary mode of transmission in pediculosis capitis. Siblings who are bedmates and friends who “sleep over” are at highest risk. *Pediculus humanus capitis* lives for an average of 20 to 30 h away from the human body making fomite transmission less important than once thought.

Diagnosis. The head should be examined with a strong light source; lice scurry to hide making them easier to spot. When the adult lice are not seen pediculosis can be identified by finding unbatched or hatched nit casings attached to the hair. The positions of nits on the hair shaft distinguish between recent and old infections: freshly attached nits are 3 to 4 mm from the scalp; those much farther out are older. Viable nits are opalescent white, whereas empty nit cases are almost clear. Hair spray droplets, hair casts and dandruff are sometimes mistaken for nits.

Acute and chronic forms of pediculosis may be seen (Table 1).

Itching is the primary symptom in acute cases and is usually the clinical tipoff to look for head lice. Most schools have ongoing screening programs and many dispense pediculicide without cost to parents.

Treatment protocol. Permethrin 0.1% (Nix®) is the preferred treatment.¹ This nonprescription cream rinse is applied to the hair and left on for 10 min after regular shampoo. Only one application is required because Nix® is ovicidal.

Environmental measures should include: washing all bedding on hot cycle in washing machine; soaking combs and brushes in Nix®, or boil for 20 min; small nonmetal items can be microwaved for 60 s; clothing and other items that

cannot be washed should be dry cleaned, and items that can be neither washed nor dry cleaned (and are small enough) should be placed in a plastic bag for 5 days; for sofas and large upholstered chairs a pyrethrin aerosol can be used (e.g. RID® or A-200 Spray®) although this is probably not necessary.

CAUTION: Nix® is toxic and does not come in a childproof container.

Refractory cases. If treatment fails it may be difficult to determine whether it failed because instructions were not accurately followed or because the infestation is possibly caused by resistant lice (National Pediculosis Association-News release, January 23, 1996).

Under no circumstances should a home or school be “fumigated” with general insecticides by the pest control industry. The effort is wasted and possibly harmful. Cleaning of carpets is simple vacuuming.

When families fail to understand written instructions (because of a language barrier, illiteracy or other reason) they require help in interpreting and implementing control measures. It is worth the time for a school nurse, public health official or volunteer to make a home visit to assess the problem and assist with correction.

A single family can be the source of chronic reinfestation for an entire school. A Spanish language version of parent instructions for home measures appeared in the June 1992 issue of this journal.²

Some schools enforce a no-nits policy, excluding students from school if nits are present. Complete removal of all nits is almost impossible to achieve and unnecessary if an effective ovicidal product such as Nix® is used. School exclusion should never be necessary if treatment occurs the evening after diagnosis.

On occasion it is necessary to threaten a noncompliant family with school exclusion or with a report to Child Protective Services. Many schools provide the medication to prevent absences from this nuisance condition. Although it is necessary to treat family members, it is unnecessary to treat all students in a school.

Unfortunately there are families who are homeless or without plumbing. In these cases referral to a shelter becomes the first priority.

Prevention. The following actions are helpful in minimizing recurrences of schoolwide pediculosis capitis epidemics³: educate the public on the value of laundering clothing and bedding in hot water (131°F for 20 min, or dry cleaning to destroy nits and lice); avoid physical contact with infested individuals, their clothing and bedding; inspect primary school children for head lice and ensure proper treatment and environmental cleanup; isolate infested individuals until after treatment has begun. Additional reading may be found in References ⁴ and ⁵.

Clinical Condition	Acute	Chronic
Inflammatory response	+++	0
Pruritis	+++	0/+
Clinical course	Usually no recurrence	Persistent
Response to treatment	Excellent	Clears but relapses

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