

Recommendations and Reasons

Committee to Evaluate Drugs (CED)

Isopropyl Myristate

Product:

ISOPROPYL MYRISTATE (Resultz®)
50% topical solution

Class of drugs:

Pediculicide

Indication:

For the treatment of head lice

Manufacturer:

Altana Pharma Inc.

CED Recommendation

The CED recommended that isopropyl myristate (Resultz®) be listed as General Benefit on the Ontario Drug Benefit (ODB) Formulary on the basis that isopropyl myristate (Resultz®) is safer and more effective than the currently funded alternatives.

Executive Officer Decision

Based on the CED's recommendation, the Executive Officer decided to list isopropyl myristate (Resultz®) on the ODB Formulary.

Status

Funding is available through the Ontario Public Drug Programs.

Highlights of Recommendation:

- ◆ Isopropyl myristate is a topical solution used to treat head lice in adults and children aged 4 and older.
- ◆ The recommended dose of isopropyl myristate is two applications to the scalp and nape of the neck seven days apart, which is identical to the dosing regimen of existing products.
- ◆ Currently, pyrethrins, piperonyl butoxide & petroleum distillate (R&C shampoo), permethrin 1% cream rinse (Nix and Kwellada-P) and permethrin 5% lotion (Kwellada-P) are listed under the General Benefit category on the Ontario Drug Benefit Formulary/CDI. Permethrin 5% cream (Nix Dermal Cream) is also listed as a Limited Use benefit to treat patients who have used a less expensive alternative that has not worked. Lindane (gamma benzene hexachloride – Kwellada, PMS-Lindane) 1% shampoo is not listed.
- ◆ The Committee reviewed three clinical trials that showed significantly better success rates in eliminating head lice with isopropyl myristate when compared to existing products.
- ◆ The cost of isopropyl myristate depends upon the length of hair involved and the amount of solution used. It is comparable to Nix but more expensive than R&C shampoo. However, the overall impact on the ODB budget would be small.
- ◆ **Overall, the Committee noted that isopropyl myristate is safer and more effective than the products currently available.**

Background:

Head lice infestation, or pediculosis, affects all socioeconomic groups and is widespread and common in children between the ages of 3 and 12. The infestation may result in considerable discomfort, parental anxiety, and embarrassment to the child and family. The economic consequences of head lice are considerable. They include the direct costs of treatment, physician visits and public health involvement, as well as indirect costs associated with days lost from school or work.

Pediculicides, or topical insecticides containing chemical agents to kill lice, are currently considered the first standard treatment for head lice. However, they are potentially toxic to brain, spinal cord nerves and nerve cells. Head lice can also become resistant to existing topical head lice treatments.

Isopropyl myristate does not contain traditional insecticides and is not considered poisonous to nerves and nerve cells. It dissolves the wax covering the exoskeleton of all insects (including head lice), leading to their death. To date, resistance to isopropyl myristate has not been reported.

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Detailed Discussion:

- ◆ The Committee considered three clinical trials, including one comparing isopropyl myristate to pyrethrin 0.33% and piperonyl butoxide 4%, and one study comparing myristate to permethrin 1% cream rinse. Isopropyl myristate showed significantly greater eradication rates compared to other treatment options currently listed on the Formulary. The reported overall success rate is 46 percent for isopropyl myristate compared with 18 percent for pyrethrin ($p < 0.05$).
- ◆ Isopropyl myristate is also safer than alternatives currently available on the Formulary.
- ◆ **Overall, the Committee noted that isopropyl myristate is safer and more effective than the products currently available on the Ontario Drug Benefit Formulary.**

CEDAC Recommendation:

(<http://www.cadth.ca/index.php/en/cdr/recommendations>)

The Canadian Expert Drug Advisory Committee (CEDAC) did not review this product. Isopropyl myristate is considered a pre-existing drug by Health Canada and did not require a CEDAC review.



Ministry of
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Ontario Public Drug Programs

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