

EMLc

ATC codes: [P02CE01](#)

Indication	Ascariasis <span>ICD11 code: <a href="#">1G33</a></span>
INN	Levamisole
Medicine type	Chemical agent
List type	Core
Formulations	Oral > Solid: 50 mg tablet ; 150 mg tablet (as hydrochloride)
EML status history	First added in 1987 ( <a href="#">TRS 770</a> ) Changed in 1989 ( <a href="#">TRS 796</a> ) Changed in 2007 ( <a href="#">TRS 950</a> ) Changed in 2011 ( <a href="#">TRS 965</a> )
Sex	All
Age	Also recommended for children
Therapeutic alternatives	The recommendation is for this specific medicine
Patent information	Patents have expired in most jurisdictions Read more <a href="#">about patents</a> . 
Wikipedia	<a href="#">Levamisole</a> 
DrugBank	<a href="#">Levamisole</a> 

### Summary of evidence and Expert Committee recommendations

In 2009, the Committee requested a review of the evidence supporting treatment of neglected tropical diseases in children. Neglected tropical diseases are a group of communicable diseases that affect around 1 billion people worldwide in 149 countries where these diseases are endemic. In at least 100 of these countries 2 or more diseases are endemic; in 30 others 6 or more are endemic. There are few new treatments available for the patients affected. The Secretariat commissioned the review which was prepared by Dr Rima Al-Saffer, Specialist Registrar, Paediatrics, United Kingdom and Dr Anna Louise Ridge, Technical Officer, Medicine Access and Rational Use, Department of Essential Medicines and Pharmaceutical Policies, WHO. Expert reviews were provided Dr Lenita Wannmacher and Professor Anita Zaidi. Comments were received from the Department of Control of Neglected Tropical Diseases (NTDs), and from Médecins Sans Frontières. The review focused on antischistosomal, antitrematode, anti-amoebic, anti-giardiasis and antitrypanosomal medicines as these are the categories of medicines on the EMLc. It did not include consideration of dengue, rabies, trachoma, endemic treponematoses, leprosy, and echinococcosis. The Committee noted that the review, while comprehensive, was limited to English-language articles, excluding potentially-relevant articles in Arabic, French, Portuguese, or Spanish, which may also reflect differences in strain susceptibility in different geographical regions. The review focuses on the following medicines: diethylcarbamazine (DEC), diloxanide, eflornithine, ivermectin, levamisole, mebendazole, melarsoprol, metronidazole, niclosamide, nifurtimox, oxamniquine, pentamidine, praziquantel, pyrantel, suramin sodium, and triclabendazole. For anthelmintics, the proposal from the expert reviews was to delete levamisole from the Model List as the evidence is limited and its efficacy in treating helminthic infections is less than that of albendazole, mebendazole, or pyrantel. The NTD Department expressed the need to retain levamisole, while noting that its use alone is indeed becoming obsolete. It is listed in the 2006 guidelines, in combination with mebendazole, as a third-line option for the large-scale treatment of intestinal nematodiasis. The Committee noted the comments from the NTD Department but pointed out that the evidence does not support continuing the inclusion of levamisole and hence recommended that it be marked for consideration of deletion at the next meeting

of the Committee. The Committee also added a note to the List that it is recommended that levamisole only be used in combination with other anthelmintics.

