MEMORANDUM

From:	Director, NTD	**To:**	Secretary, Expert Committee on the Selection and Use of Essential Medicines	**Date:** 10 January 2007
Our ref:	P2/180/1 NTD/PCT	**Attention:**		
Your ref:	E/19/81/15	**Through:**		
Originator:	Coordinator, PCT/NTD	**Subject:**	**APPLICATION FOR LEVAMISOLE TO BE DELETED FROM THE WHO MODEL LIST OF ESSENTIAL MEDICINES**	

In response to your memo of 30 November 2006, we understand that the application for deletion of levamisole from the WHO model list of essential medicines, as received by the Expert Committee is specifically for its removal from the list under item "8.2 cytotoxic medicine", on the basis of a well documented report evaluating side effects against efficacy in the case of cancer therapy. We have no objection to this action.

This report, however, does not suggest removing levamisole from the list under item 6.1.1 as an anthelminthic medicine. We would be opposed to its removal under item 6.1.1 because levamisole is a good single-dose anthelminthic of a different family than pyrantel and the benzimidazoles. It also has recently been assessed in combination with mebendazole and as such has shown value in delaying the development of benzimidazole resistance (Albonico, M *et al*, Bull World Health Organ, Geneva, 2003: 81(5)). Levamisole, therefore, undoubtedly, has its place as an anthelminthic on the WHO model list of essential medicines.

We would like to add that according to the 35th edition (2007) of Martindale (The Extra Pharmacopoeia), it is suggested that side-effects of levamisole are more likely to occur at the higher dosages and more prolonged administration used in cancer therapy. Furthermore, the report from the Wenzhou Medical College, China on "Post-marketing surveillance and re-evaluation for levamisole" (see attached) posted on the internet on 10 January 2007, is clearly insufficient evidence to support its removal from the WHO model list of essential medicines.

In conclusion, we believe that a thorough documentation of the occurrence of side-effects, particularly levamisole-induced demyelinating encephalopathy (LIDE), at the low dose single administration used for deworming is required before we can envisage the complete removal of levamisole from the WHO model list of essential medicines.

Dr Lorenzo Savioli

... Encls. as stated.

cc: Dr L. Chitsulo, PCT/NTD
Dr A. Gabrielli, PCT/NTD