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New treatments raise hope of cutting sleeping sickness deaths

Sarah Boseley, The Guardian, Friday 15 May 2009



A malnourished child in Angola sits next to his mother, who has sleeping sickness. Photograph: Clive Mtshali/Associated Press

Prospects for people threatened by one of Africa's most lethal diseases are about to be transformed by new treatments to replace arsenic-based drugs that kill some of those they are meant to cure.

The Drugs for Neglected Diseases Initiative (DNDi), a public-private partnership set up to find new and better medicines, has made two breakthroughs on sleeping sickness – African trypanosomiasis – its first major target. Today the UK government announced a fund of £18m to advance its work.

Sleeping sickness, a disease spread by the bite of parasite-carrying tsetse flies in sub-Saharan Africa, has been one of the most grossly neglected tropical diseases. About 48,000 people died of it last year.

Current treatments are old and toxic or very difficult to use. Melarsoprol, an arsenic derivative, causes the patient great pain and kills one in 20 of those who take it. Eflornithine has to be given by 56 infusions in a hospital, one every two hours for 14 days, which is virtually impossible in many of the worst-affected areas.

First to reach patients will be a treatment requiring infusions twice a day for 10 days. NECT (Nifurtimox eflornithine combination therapy) has been approved by the World Health Organisation after successful trials. The combination of drugs reduces the risk of resistance emerging.

More exciting still is the prospect of a simple pill. DNDi is about to announce that it is ready to start trials in humans of a drug called fexinidazole. The first trials, which they hope will start this year, will test for safety in healthy volunteers in Paris. If those go well it will move on to people with the disease, probably in the Democratic Republic of the Congo.

"There has never been so much optimism," said Els Torreele, senior project manager for the two treatments at DNDi. "Everyone is very enthusiastic about the results (of the NECT trial) and ready to roll it out and countries have been informed and are all ready to start using it. But it is still quite complicated and the real goal is to have a truly simplified treatment."

The UK's Department for International Development will back further efforts against sleeping sickness and other neglected diseases. "Sleeping sickness may be relatively unheard of but the reality is that it is a killer," said the international development minister, Ivan Lewis.

"Millions of lives in Africa are at risk from this disease ... it is important we continue to invest in research that will unearth treatments that are affordable, effective and that will ultimately save millions of lives."

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