



SLEEPING SICKNESS

MAKING MEDICAL HISTORY WITH REVOLUTIONARY TREATMENTS

Transmitted by the bite of a tsetse fly, sleeping sickness (human African trypanosomiasis) causes neuropsychiatric symptoms, including the debilitating disruption of sleep patterns that have given this neglected disease its name. The illness can evolve into coma and is usually fatal without treatment. While sleeping sickness is now on the cusp of elimination thanks to intensified case detection and innovative new treatments, history shows that it can surge again if control measures are withdrawn, as happened from the 1960s to the 1990s.

SLEEPING SICKNESS STATISTICS



8.5 MILLION
people live in areas of moderate to very high risk



90%
reduction in reported cases from 1998 to 2018



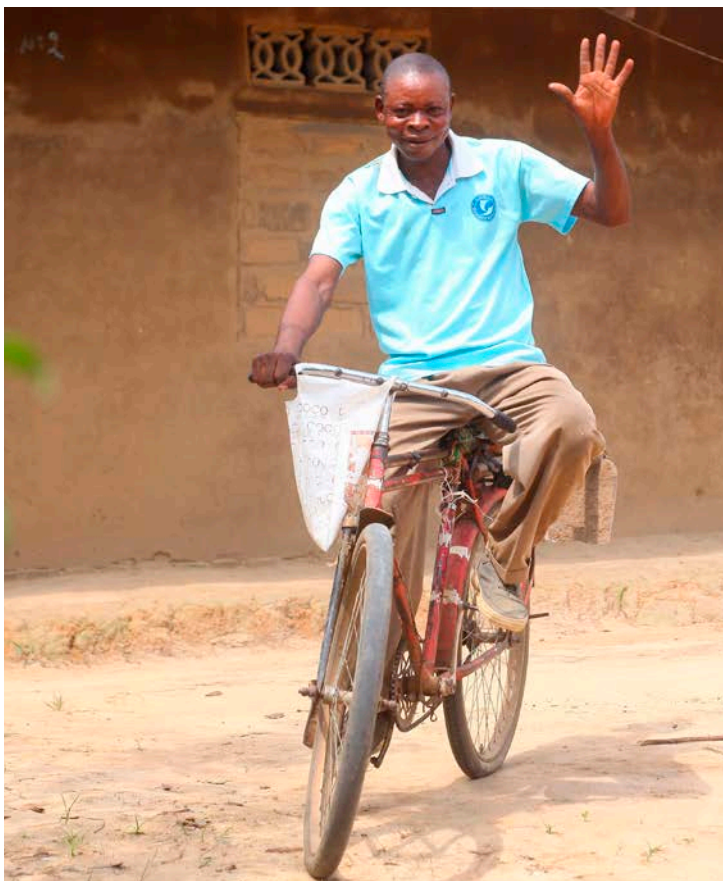
2/3
of reported cases in 2018 were in the DRC

THE TREATMENT CHALLENGE

Until a decade ago, the only treatment available for sleeping sickness was melarsoprol, an arsenic derivative, killing 1 in 20 patients. In 2009, NECT, a shorter and less toxic combination treatment for the advanced stage of the disease was introduced by DNDi and partners, but it still required hospitalization. Patients also had to endure painful spinal taps to determine the stage of the disease.

In 2018, DNDi and partners delivered fexinidazole, the first all-oral treatment for the *T.b. gambiense* strain of sleeping sickness that affects West and Central Africa. Fexinidazole is a 10-day, once-a-day treatment that eliminates the need for systematic hospitalization for advanced-stage patients.

Nevertheless, the dreaded arsenic derivative is still the main treatment option for severe patients affected by the rarer *T.b. rhodesiense* strain of sleeping sickness found in East Africa.



“ I was suffering for months, with fever, sleeping problems, becoming aggressive. I took several malaria treatments, but nothing worked. Finally, I went to Bandundu Hospital and received fexinidazole. Shortly after I felt better, and plan to start working again as a teacher. ”

Jean Kitala Sedi, the first patient to receive fexinidazole for sleeping sickness following its approval and registration for use in the Democratic Republic of the Congo (DRC)

Progress for tools to support sustained disease elimination

Fexinidazole was approved by the European Medicines Agency in November 2018 and was added to the WHO Essential Medicines List in July 2019. For the rest of 2019, DNDi and the National Sleeping Sickness Control Programme (PNLTHA) conducted training sessions of health workers throughout the endemic areas of the DRC on the correct way to administer this new oral drug. The first treatments outside of clinical trials were administered in January 2020.

DNDi continues to develop its second sleeping sickness drug, acoziborole, an oral drug administered as a single dose to treat both stages of sleeping sickness, which could give a radical boost to sleeping sickness elimination plans. A Phase II/III study of the drug in the DRC and Guinea is currently being completed.

Finally, a clinical trial launched in Malawi in 2019 is studying fexinidazole for treatment of *T.b. rhodesiense* sleeping sickness to see if the drug works for this acute version of the disease.

“ Fexinidazole is a true game-changer for sleeping sickness. If acoziborole, a single-pill treatment, is shown to be safe and effective, we’re hopeful it would provide national programmes an even better tool to help achieve global elimination goals. ”

Katey Owen

Director of Neglected Tropical Diseases,
Bill & Melinda Gates Foundation

“ Bringing new, oral, safe and easy-to-administer treatments is a great boost to our efforts to eliminate sleeping sickness in the coming years by finding and treating the last isolated patients in distant rural communities with poor access to healthcare. ”

Dr Erick Mwamba Miaka

Physician Director, DRC National Sleeping Sickness Control Programme (PNLTHA)