

In Niger, mass distribution of antibiotics proves effective: study

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The mass administration of antibiotics to villages in Niger led to a reduction of a childhood mortality, without apparently creating resistance to antibiotics so feared by public health experts, according to a study published Wednesday.

But the study doesn't provide a final answer to this question, because other research has showed a more mixed impact of such distribution.

A team of researchers at the University of California San Francisco, UC Berkeley and the Carter Center had a few years earlier carried out a first trial in Niger and some other African countries, called MORDOR 1, to confirm whether mass administration of the antibiotic azithromycin to children under five, twice a year, reduced overall mortality.

The antibiotic is effective against several bacteria, including *E. coli* and trachoma, a serious infectious disease that blinds around two million people a year, according to the World Health Organization.

The WHO runs a huge program which has distributed tens of millions of azithromycin doses to the worst affected countries.

In the MORDOR 1 trial, which was financed by the Bill and Melinda Gates Foundation, the researchers found that childhood mortality fell 18 percent across villages in Niger that received the treatment compared with those which did not or with children who received placebos.

But the scientists still had a lot of questions: would continuing to give out the medicines year after year see even more gains? Or, could it have the reverse effect of strengthening bacterial resistance?

For the next phase of the trial, MORDOR II, which began in its third year, all children under five in 594 communities received the antibiotic, in an oral suspension, twice in the year.

The results were clear, according to the paper published in the *New England Journal of Medicine*: though the impact did not grow, there was no evidence of a waning effect.

Resistance was observed in laboratories but did not impact on-the-ground mortality rates.

And the results were almost immediate: whether the villages received the antibiotic for the first time, or whether they were treated for the third consecutive year, [mortality](#) was reduced in similar proportions.

It remains to be seen whether resistance could develop in the longer term. The researchers will continue the experiment for another three years, says lead author Tom Lietman of the University of California San Francisco. "We'll find that out in about a year," he told AFP.

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