

Routine antibiotics should be reconsidered for malnourished children

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A new study suggests that the current recommendation to treat severely malnourished children with routine antibiotics does not increase the likelihood of nutritional recovery in uncomplicated cases. Given this finding, the study's authors say that routinely using antibiotics may not be necessary or beneficial for severely malnourished children being treated at home when there is adequate local health infrastructure.

Reducing routine antibiotic use would be prudent given global concern over the problem of antibiotic resistance, say the researchers.

The study will appear in the February 4, 2016 issue of the *New England Journal of Medicine (NEJM)*.

The new findings challenge the World Health Organization's (WHO) current guidelines that [children](#) with uncomplicated severe acute malnutrition (SAM) always be given [antibiotics](#), whether or not they need them.

"Our results from Niger were surprising, as they challenge the current WHO recommendations and a recent well-conducted trial from Malawi. It's an exciting step forward though, as we hope that this new evidence will motivate a deeper review of current recommendations and the evidence on which they are based," said Sheila Isanaka, assistant professor of nutrition at Harvard T.H. Chan School of Public Health and lead author of the study.

SAM contributes to high child mortality in many places throughout the world, affecting about 34 million children under age 5. Bacterial infection can complicate advanced cases, so WHO recommended in 1999 that all children with SAM—all treated in hospitals at the time—be given antibiotics to reduce the risk of death. But recent developments in how SAM is treated have resulted in greater numbers of children diagnosed with SAM and more children treated at home before they're seriously ill, instead of in the hospital. These changes have raised the question of whether it's still necessary to routinely use antibiotics in all SAM cases treated at home.

For the new study, Isanaka—along with colleagues from Epicentre, Médecins sans Frontières (Doctors Without Borders), UNICEF, and the Ministry of Health of Niger, among others—looked at 2,399 children in rural Niger from ages 6-59 months who had uncomplicated SAM. They randomly assigned the children to receive either amoxicillin or a placebo for seven days.

They found that, among the children who received amoxicillin, 65.9% recovered, while 62.7% recovered in the placebo group—meaning that there was no significant difference in the likelihood of recovery between the groups.

The authors noted that forgoing routine use of antibiotics in settings with adequate medical infrastructure could simplify treatment protocols by eliminating the need for a health professional to prescribe the drugs. Instead, community [health](#) workers could oversee treatment—which would make it easier for more severely [malnourished children](#) to receive care, even in remote villages.

Harvard Chan School's Nan Li, research scientist, also participated in the study.

More information: "Routine Amoxicillin for Uncomplicated Severe Acute Malnutrition in Children," Sheila Isanaka, Céline Langendorf, Fatou Berthé, Smaila Gnegne, Nan Li, Nassirou Ousmane, Souley Harouna, Hamidine Hassane, Myrto Schaefer, Eric Adehossi, and Rebecca F. Grais, *NEJM*, online February 3, 2016, [DOI: 10.1056/NEJMoa1507024](https://doi.org/10.1056/NEJMoa1507024)

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