

# Common antibiotic reduces low birth weight and prematurity

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A common antibiotic has been found to reduce low birth weight and premature births, if taken during pregnancy, in countries where malaria is endemic, according to a research review. Credit: Atharva Whaval

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The [systematic review](#), led by the Murdoch Children's Research Institute (MCRI) and published in *The Lancet EClinicalMedicine*, found that the antibiotic, azithromycin, reduced [low birth weight](#) and prematurity in Africa and Asia but didn't lower [infant deaths](#), infections and hospital admissions.

The researchers reviewed 14 studies undertaken in African and Asian countries, involving 17,594 participants.

Azithromycin is an inexpensive antibiotic widely used to treat chest and ear infections. In pregnancy it has been specifically used in the past to treat STIs and, alongside other antimalarial drugs, to prevent adverse consequences of malaria on maternal and fetal outcomes and cesarean wound infections.

MCRI researcher Dr. Maeve Hume-Nixon said it was unclear whether azithromycin would improve perinatal and neonatal outcomes in non-malaria endemic settings, and the potential harm on stillbirth rates needed further investigation.

Dr. Hume-Nixon said these findings emphasized the importance of similar MCRI-led research currently being done in Fiji.

"This review found that there was uncertainty about the potential benefits of this intervention on neonatal deaths, admissions and infections, and potential harmful effects on stillbirth despite biological reasons why this intervention may have benefits for these outcomes," she said.

"Therefore, results from studies like ours underway in Fiji will help to better understand the effect of this intervention on these outcomes."

The Bulabula MaPei study is a randomized controlled clinical trial testing if azithromycin given to women in labor, prevents maternal and infant infections.

Globally, infections cause about 21 per cent of 2.4 million neonatal deaths each year and 52 per cent of all under five deaths, with a disproportionate amount occurring in low- and middle-income countries.

Infections are also common in mothers with about five million cases of pregnancy-related infections occurring each year, resulting in 75,000 [maternal deaths](#).

MCRI Professor Fiona Russell said the large clinical trials in Africa and Asia, along with the MCRI-led trial in Fiji, were likely to inform global policy related to maternal child health and hopefully benefit infants and mothers around the world.

"Administration of [azithromycin](#) during labor may be a cheap and simple intervention that could be used to improve neonatal [death](#) rates in low and-middle-income countries, alongside strengthening of maternal child health services," she said. "This study, together with other large clinical trials, will add to evidence for the consideration of new international maternal and child health guidelines. "Researchers from the University of Melbourne and The Royal Children's Hospital also contributed to the review.

**More information:** Maeve Hume-Nixon et al, A Systematic Review and meta-analysis of the effect of administration of azithromycin during pregnancy on perinatal and neonatal outcomes, *EClinicalMedicine* (2021). [DOI: 10.1016/j.eclinm.2021.101123](https://doi.org/10.1016/j.eclinm.2021.101123)

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