

# Common antibiotic is a cost-saving treatment for reducing maternal sepsis, death or infection in developing countries

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Sepsis, a severe infection that can lead to tissue damage, organ failure, and death, is one of the top three causes of maternal deaths worldwide, according to the World Health Organization. The life-threatening emergency is largely preventable with early diagnosis and treatment and

disproportionately affects pregnant people in low- and middle-income countries (LMICs).

In a new study to be presented today at the Society for Maternal-Fetal Medicine's (SMFM) [annual meeting](#), [The Pregnancy Meeting](#), researchers will unveil findings that suggest that giving an oral dose of [azithromycin](#) to pregnant people who deliver vaginally is a cost-saving treatment for reducing maternal sepsis, death or infection in developing countries.

The abstract was [published](#) in the January 2024 supplement of the *American Journal of Obstetrics and Gynecology*.

[Previous research](#) has found that administering a single oral dose of azithromycin to everyone in labor significantly reduced the risk of maternal sepsis or death in seven low- and [middle-income countries](#). This latest study builds on that research by examining the costs versus benefits of using this intervention in these countries: Bangladesh, the Democratic Republic of the Congo, Guatemala, India, Kenya, Pakistan, and Zambia.

Using data from the Azithromycin Prevention in Labor Use (A-Plus) trial, researchers looked at the cost of giving the antibiotic to everyone in labor compared to the [health care costs](#) associated with treatment for people with sepsis and/or infection.

Results demonstrated that azithromycin is a low-cost intervention for preventing sepsis and the reduction in health care use, such as fewer hospital admissions and clinic visits, results in cost savings. For every 100,000 pregnancies, an oral dose of azithromycin prevented 1,592 cases of maternal sepsis, death or infection and 249 maternal hospitalizations. The cost of administering the antibiotic was 91 cents per pregnancy. The overall analysis demonstrated a cost-savings of \$32,661 per 100,000

pregnancies.

"Sepsis remains a leading cause of maternal death globally, and the burden is greatest in [low-resource settings](#)," says the study's lead author Jackie Patterson, MD, associate professor of neonatal-perinatal medicine at the University of North Carolina's School of Medicine in Chapel Hill. "Ministries of health have to weigh the various interventions at their disposal and decide how to best allocate the limited resources they have. It's a big deal to have an effective therapy for maternal sepsis that is also cost-saving to implement in a low-resource setting."

Presenting the research on behalf of Patterson was Alan Thevenet N. Tita, MD, Ph.D., a maternal-fetal medicine subspecialist at the University of Alabama at Birmingham Marnix E. Heersink School of Medicine, who was one of the study's authors. Tita was also the lead author on [the initial study](#) that found that administering azithromycin to pregnant people who were delivering vaginally reduced the risk of maternal [sepsis](#) or death. That research was presented at the 2023 SMFM Annual Meeting and published in the *New England Journal of Medicine*.

**More information:** Jackie Patterson et al, 4 Cost-effectiveness of Azithromycin for the Prevention of Maternal Sepsis or Death in Planned Vaginal Births, *American Journal of Obstetrics and Gynecology* (2024). DOI: [10.1016/j.ajog.2023.11.018](https://doi.org/10.1016/j.ajog.2023.11.018)

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