New Study Finds Commonly Used Antibiotic is a Cost-Saving Treatment for Reducing Maternal Sepsis, Death or Infection in Developing Countries

National Harbor, Md. — 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.

Previous research 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 healthcare 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 healthcare 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, PhD, 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.

The abstract was published in the January 2024 supplement of the American Journal of Obstetrics and Gynecology.

Additional news releases about select SMFM research being presented are posted on AAAS’s EurekAlert (subscription needed) approximately one week in advance of embargo lifting. Embargoes lift on the date and start time of the abstract presentation.

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About the Society for Maternal-Fetal Medicine

The Society for Maternal-Fetal Medicine (SMFM), founded in 1977, is the medical professional society for maternal-fetal medicine subspecialists, who are obstetricians with additional training in high-risk pregnancies. SMFM represents more than 6,000 members who care for high-risk pregnant people and provides education, promotes research, and engages in advocacy to advance optimal and equitable perinatal outcomes for all people who desire and experience pregnancy. For more information, visit SMFM.org and connect with the organization on Facebook, Twitter, and Instagram. For the latest 2024 Annual Meeting news and updates, follow the hashtag #SMFM24.