

Study shows antibiotic unsuccessful in preventing preterm labor

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The antibiotic, called azithromycin, is effective in treating infections such as syphilis, *Chlamydia* and *Ureaplasma urealyticum* - a bacterial infection thought to play a significant role in causing preterm labour. Recent studies have also shown that the drug is effective in reducing the risk of miscarriage following amniocentesis, a medical test for infection and foetal abnormalities.

The drug is currently used to treat infection in patients all over the world, but has not been previously tested on pregnant women at high risk of preterm labour. Scientists at Liverpool investigated how effective the antibiotic could be in women in Southern Malawi, where one in five babies are born prematurely. Women living in this region are also at high risk of sexually transmitted infections and other diseases, which may have a significant impact on labour and the long-term development of a [foetus](#).

In a study of 2,000 pregnant women, half were treated with the oral antibiotic and half were treated with placebo drugs. They found that the antibiotic made no significant difference to the outcome of the pregnancies between the two groups of women. The drug was effective in treating infection, but a high number of women still went on to experience preterm labour. The findings suggest that infection may not be the primary cause of preterm birth and other treatments should be investigated. A high number of women with infection still went on to experience preterm labour. The study suggests that it is important to investigate other factors, beside infection, to determine the cause of

preterm labour.

Professor Jim Neilson, from the University's School of Reproductive and Developmental Medicine, explains: "Labour that occurs before 37 weeks is defined as a preterm birth and is a major cause of infant death and illness. Currently there is no effective way to prevent premature births, but it is thought that infection could be a significant trigger. Although preterm labour is a problem all over the world, women in developing countries are at higher risk, perhaps because of the increased levels of infection, such as HIV and malaria.

"Infection can occur early in pregnancy and remain undetected, so one way of reducing incidences of preterm labour may be to administer antibiotics before patients display any signs of infection. Our study showed, however, that treating infection with [azithromycin](#), had no impact on reducing incidences of preterm labour.

"The results suggest that infection may not be the primary cause of preterm labour and other factors must be investigated further. We recommend that routine antibiotics should not be given to pregnant women to prevent early births."

Dr Nynke van den Broek, from the Liverpool School of Tropical Medicine, added: "The data collected as part of the trial will be further analysed to determine which factors during pregnancy were associated with the occurrence of [preterm birth](#) in this group of women. The field site in Malawi is highly representative of other sub Saharan African settings and the information on risk factors as well as pregnancy outcome will be very valuable to inform future studies."

"The results suggest that infection may not be the primary cause of preterm labour as previously thought. We recommend that routine antibiotics should not be given to [pregnant women](#) to prevent early

births."

The research will support work being conducted at a new centre dedicated to improving experiences in [pregnancy](#) and childbirth for women across the world. The Centre for Better Births will bring together researchers and clinicians to improve understanding in areas such as premature labour, recurrent miscarriage and prolonged labour.

The study is published in *PLoS Medicine*.

Source: University of Liverpool ([news](#) : [web](#))

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