Prophylactic antibiotics for inhibiting preterm labour with intact membranes

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Prophylactic antibiotic treatment for preterm labour with intact membranes has no overall benefit for in terms of neonatal outcomes. On the contrary, it increases the risk of neonatal mortality. This treatment is not recommended for routine practice.

RHL Commentary by Adewole IF

1. EVIDENCE SUMMARY

Subclinical and clinical infection have been implicated in the aetiology of preterm labour. This has led to the suggestion that women with preterm labour should be treated with antibiotics in order to reduce the incidence of preterm birth. The Cochrane review found that antibiotic treatment in women with preterm labour with intact membranes reduces maternal infection defined as chorioamnionitis or endometritis (Relative risk [RR]: 0.74; 95% Confidence interval [CI]: 0.64 to 0.87) but has no effect on reduction of preterm birth or adverse neonatal outcomes.

All identifiable, well-controlled trials have been included and analysed satisfactorily.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

Preterm birth is a major problem in developing countries contributing significantly to perinatal mortality (1). Furthermore, care of the preterm neonate in neonatal intensive care units is a major financial burden for health services as well as families. The problem is compounded in developing countries by poor resource allocation to health and low and late antenatal care attendance. The role of subclinical and clinical genital tract infection in preterm labour is now widely accepted. In most parts of Subsaharan Africa reproductive tract infections are highly prevalent and therefore the contribution of infection to preterm birth is likely to be higher than other parts of the world.

2.2. Feasibility of the intervention
Currently, available evidence does not justify the use of antibiotics in preterm labour with intact membranes. Many of our patients are illiterate and poor, and they book late for antenatal care and come to health centres with advanced labour when feasibility of a successful intervention may be low. Even if the intervention was effective, the cost of a week's supply of antibiotics, especially a macrolide or beta-lactam may approach 20 US Dollars (more than a month's wages of an average worker in Nigeria) and certainly beyond reach of the average citizen. It is therefore not recommended in situations where its value is not clearly established.

2.3. Applicability of the results of the Cochrane Review

Although most trials included in the review were conducted in developed countries, the largest trial including more than 7000 women included many centres in developing countries. The results are therefore generalizable to developing countries.

2.4. Implementation of the intervention

Not applicable.

2.5. Research

1. Despite the negative results of the review there is room for conducting, especially in developing countries, more randomized controlled trials with appropriate clinical end-points. 2. Research should also be conducted on ways of promoting early booking and regular attendance at antenatal clinics. Efforts should be directed at evaluating simple information packages that could be useful in establishing early diagnosis of preterm labour. 3. Researchers should also endeavour to determine the pattern of genital tract infections in pregnancy in their local settings and establish local antibiotic policy.

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