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Antibiotics for the prevention of infection related preterm birth

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Stock and Ismail discuss reducing the risk of preterm birth, which is an important cause of neonatal mortality and morbidity. But they omit the use of antibiotics to prevent infection related preterm birth. The aetiology of preterm birth is multifactorial, but overwhelming evidence implicates infection or inflammation in up to 40% of cases—more so at early gestations.

Bacterial vaginosis detected at 13-16 weeks’ gestation was associated with a five to sevenfold higher risk of preterm birth before 34 weeks and late miscarriage (the aetiology of which is on a continuum with early preterm birth). Individual prophylaxis studies have found benefits of antibiotics for the prevention of preterm birth, but meta-analyses have not, owing to the inclusion of large methodologically flawed studies with negative results that failed to tackle the optimal antibiotic (in my view, clindamycin), in the optimal patient (women with objective evidence of bacterial vaginosis), at the optimal time in pregnancy (earlier than 22 weeks’ gestation, before inflammatory damage can occur). In a more focused systematic review and meta-analysis clindamycin given to women with bacterial vaginosis before 22 weeks’ gestation significantly reduced the rate of preterm birth by 40% and late miscarriage by 80%.

Stock and Ismail also fail to take into account the finding that screening at 10-16 weeks’ gestation and treating vulvovaginal candidiasis, trichomoniasis, or bacterial vaginosis reduced the rate of preterm birth and low birth weight from 22.3% and 20% in controls to 9.7% and 8.4% (P=0.001), respectively, in those screened and treated.

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