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## Article Details

**Title:** Use of antibiotics during pregnancy and risk of spontaneous abortion.

**Authors:**

**Source:** CMAJ. 2017 May 1;189(17):E625-E633. doi: 10.1503/cmaj.161020.

**Relevance Rating:** 5.00

**Newsworthiness Rating:** 5.00

**Abstract:**

**BACKGROUND:** Although antibiotics are widely used during pregnancy, evidence regarding their fetal safety remains limited. Our aim was to quantify the association between antibiotic exposure during pregnancy and risk of spontaneous abortion. **METHODS:** We conducted a nested case-control study within the Quebec Pregnancy Cohort (1998-2009). We excluded planned abortions and pregnancies exposed to fetotoxic drugs. Spontaneous abortion was defined as having a diagnosis or procedure related to spontaneous abortion before the 20th week of pregnancy. The index date was defined as the calendar date of the spontaneous abortion. Ten controls per case were randomly selected and matched by gestational age and year of pregnancy. Use of antibiotics was defined by filled prescriptions between the first day of gestation and the index date and was compared with (a) non-exposure and (b) exposure to penicillins or cephalosporins. We studied type of antibiotics separately using the same comparator groups. **RESULTS:** After adjustment for potential confounders, use of azithromycin (adjusted odds ratio [OR] 1.65, 95% confidence interval [CI] 1.34-2.02; 110 exposed cases), clarithromycin (adjusted OR 2.35, 95% CI 1.90-2.91; 111 exposed cases), metronidazole (adjusted OR 1.70, 95% CI 1.27-2.26; 53 exposed cases), sulfonamides (adjusted OR 2.01, 95% CI 1.36-2.97; 30 exposed cases), tetracyclines (adjusted OR 2.59, 95% CI 1.97-3.41; 67 exposed cases) and quinolones (adjusted OR 2.72, 95% CI 2.27-3.27; 160 exposed cases) was associated with an increased risk of spontaneous abortion. Similar results were found when we used penicillins or cephalosporins as the comparator group. **INTERPRETATION:** After adjustment for potential confounders, use of macro-lides (excluding erythromycin), quinolones, tetracyclines, sulfonamides and metronidazole during early pregnancy was associated with an increased risk of spontaneous abortion. Our findings may be of use to policy-makers to update guidelines for the treatment of infections during pregnancy.

The full text may be available from [PubMed](#).