

## LETTERS

### Maternal infection can cause spontaneous abortion

In their *CMAJ* article, Muanda and colleagues<sup>1</sup> found that exposure to antibiotics during pregnancy was associated with an increased risk of spontaneous abortion. A key question is whether this association is causal or not. We believe the study findings are suggestive of confounding by indication.

Maternal infections can cause spontaneous abortion in early pregnancy.<sup>2</sup> Comparing women who received antibiotics to those who did not is therefore problematic. This is not extinguished by the authors' secondary analysis in which the comparator was women exposed to penicillin or cephalexin, because those exposed to other antibiotics, such as fluoroquinolones, may simply have had different infections.

The possibility of confounding by indication is further suggested by the supplementary analysis in which no association was seen between antibiotics given for respiratory tract infections. If antibiotics

were independently associated with spontaneous abortion, an association should have been apparent in this analysis.

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#### **References**

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2. Goldenberg RL, McClure EM, Saleem S, et al. Infection-related stillbirths. *Lancet* 2010;375:1482-90.

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