

LETTERS

The authors respond to “Underlying maternal infection likely cause of study findings”

We thank Dr. Elwood and Dr. Money¹ for their letter to the editor on our *CMAJ* article on the risk of spontaneous abortion associated with use of antibiotics during pregnancy.² We agree that maternal infection may pose a risk to the developing fetus and the mother as stated in our introduction. Therefore, the use of appropriate antibiotics during pregnancy is warranted.

However, we strongly disagree that we underemphasized the potential limitations of our study. We clearly stated that confounding by infection severity was a potential limitation, and thus had performed multiple sensitivity analyses to quantify the extent of this bias if present. Indeed, we did several analyses to disentangle the effect of antibiotics from those of the underlying infection.

First, we used two comparator groups that included penicillins or cephalosporin users as reference categories, which had overlapping indications with other antibiotics users.^{3,4} Second, we conducted sensitivity analyses using an active comparator group (penicillins) within a subpopulation of pregnancies having the same type of infection (urinary tract infection and respiratory tract infection). Third, we adjusted for several

documented proxies of infection severity such as prior exposure to antibiotics (which is a strong predictor of antibiotic resistance that may result in complicated infections), comorbidities (diabetes is also a well-known risk factor of complicated infection), hospital-based diagnosis of maternal infections and prior admissions to hospital.⁵⁻⁷

These secondary analyses provided results that were consistent with the main analysis, which was reassuring. Nevertheless, we still acknowledged that residual confounding by indication could not be ruled out completely.

Our findings and interpretations are in line with the comments by Dr. Money and Dr. Elwood, given that they highlight the importance of treating bacterial infections during pregnancy with the safest antibiotics for both mother and fetus, when possible.

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Competing interests: Anick Bérard is a consultant for plaintiffs in litigations involving antidepressants and birth defects. No other competing interests were declared.