

LETTERS

Response to “It’s not just the snow; it’s also the cold”

We respond to the recent letter to *CMAJ* from Liu and colleagues.¹ Similar to our results, Liu and colleagues found an association between snowfall and admission to hospital for myocardial infarction (MI) with ST-segment elevation.² However, they also found that cold temperature was associated with admission for MI, whereas we did not. In detailed sensitivity analyses adjusting for snowfall, we found no evidence of an association between temperature and MI (Appendix 5).³ Although comparability of diagnostic categories and possibly climate may explain the results, a difference in study design seems a strong possibility. Liu and colleagues analyzed count data using an ecologic method. As outlined in our paper,³ the results from such approaches should be interpreted with caution because of the risk of ecologic bias owing to an inability to account for temporal trends.⁴ Consider the possibility that both temperature and incidence of MI hospital admission changed over time for unrelated reasons.^{5,6} Negative binomial regression — an ecologic method — would suggest an association, and be unable to

distinguish between unrelated temporal trends and a true association. For this reason, we would be very interested to see a reanalysis of the St. Boniface data² that capitalizes on individual rather than aggregate data, and better adjusts for temporal trends in weather or incidence of MI over time. We agree with Liu and colleagues that increased public awareness and possibly reorganization of health services for predictable seasonal changes in MI events are worthy of consideration.

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