

LETTER

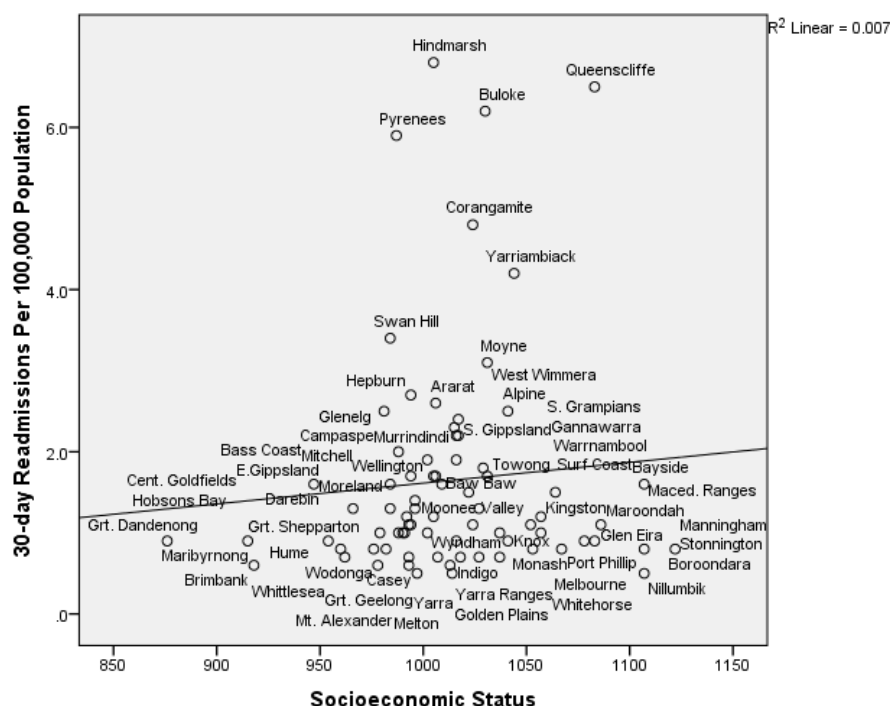
Is delirium sensitive to socioeconomic inequality?

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TO THE EDITOR: We would like to report that, in contrast to many other causes of morbidity and mortality, delirium does not appear to be associated with socioeconomic status. Delirium is a disturbance of consciousness and a change in cognition that develops over a short time.¹ Patients in intensive care units are at high risk of developing delirium, with incidence rates of 40%.²

In Victoria, Australia there were 6609 hospital admissions for delirium and 1059 readmissions between 1 July 2010 and 30 June 2013. Over the 3-year period, neither delirium admission rates ($r=0.044$) nor delirium 30-day readmission rates ($r=0.081$) correlated with socioeconomic status, as measured by the Australian Bureau of Statistics' *Relative Index of Socioeconomic Disadvantage* (see Figure 1).

Figure 1. Relationship between delirium readmission rates and socioeconomic status in the state of Victoria, by local government area



Lower socioeconomic status groups did not particularly have higher rates of delirium. The interquartile range, a measure of dispersion of a variable, was 4.70 for admissions and 1.05 for readmissions. Admission rates correlated significantly with readmission rates ($r=0.856$, $p<0.001$). The effect of hospital size on readmission rates was not apparent from a funnel plot test for asymmetry.

The Victorian data shows that the elderly had a significantly elevated risk for delirium. Men aged 75 years and over had an admission rate per 100,000 persons 2.4 times that of men in age group 65–74 years and approximately 19 times that of men in age group 15–64 years. Women had a similar risk profile by age. The risk differences were more pronounced in terms of 30-day readmission rates. Men

aged 75 years and over were 3.5 times and 31 times more likely to be re-admitted than men in age group 64–74 years and 15–64 years, respectively. Again, women had a similar profile.

Delirium has significant costs as death rates are increased, functional abilities reduced, admission to long term care increased and length of stay increased.³ Evidence exists for effective non-pharmacological⁴ and pharmacological⁵ interventions for this preventable condition. The Agency for Healthcare Research and Quality, United States Department of Health and Human Services, considers the occurrence of delirium a marker of the quality of care and patient safety.

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