Reviewer’s report

Title: Effectiveness of confidential reports to physicians on their prescribing of antipsychotic medications in nursing homes

Version: 0 Date: 29 Sep 2019

Reviewer: Luke Wolfenden

Reviewer's report:

This study population-level, retrospective cohort study examined the impact of quarterly audit and feedback on nursing home physician antipsychotic prescribing. The study addresses an important public health issue. The study used linked administrative databases to track prescribing practices across pre, post and follow-up periods to examine changes in prescribing behaviour. The characteristics of physicians who did and did not engage with the intervention was also assessed.

This is a very well written paper, that clearly sets out the research aims and methods. The authors appear well aware of the inherent limitations of retrospective cohort study designs, and have sought to mitigate threats to internal validity through the use of large administrative data-sets, the assessment and adjustment in analyses of a comprehensive range of potential confounders, and the use of other prescribing behaviour (Benzodiazepine and statin) as balance and tracer measures. Design limitations are also well acknowledged, and discussed in detail in the discussion of the manuscript.

In light of this, I have relatively few, suggestions for improvement for the authors to consider.
1. The routinely collected data-sets that the authors draw on seems fit for purpose. The mandatory collection of much of this data is a considerable strength. Administrative data, however, is often complicated and incomplete. Can the authors talk to the completeness of the data used on this study.
2. As previously suggested the study makes good use of the data available to adjust for potential confounding. What other important factors were not assessed that may confound the associations reported in this study.
3. Were participants (physicians) clustered within nursing homes? How was this managed/considered in analyses
4. I did think the presentation of manuscript could be improved with more subheadings, particularly in the methods description of measures. Furthermore I found the number of acronyms a little distracting at times, having to go back to and find where it was first described. The discussion is a thoughtful interpretation of the research findings and limitations. Congratulations on an interesting and important paper.

Level of interest
Please indicate how interesting you found the manuscript:

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Quality of written English
Please indicate the quality of language in the manuscript:

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Noah Ivers is a co-author on a paper I am currently leading (draft)

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