Reviewer's report

Title: Development and use of a computer program to detect inappropriate prescribing in older adults residing in Canadian long term care facilities

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Reviewer: Dr David Hogan

Level of interest: A paper of limited interest

Advice on publication: Reject

The authors report on the validity/ reliability of a computer program designed to identify potentially inappropriate drug prescriptions in a long-term care facility.

Compulsory revisions:
1. Abstract: Remove "decrease" from the last line in their abstract - they haven't shown that their tool can decrease the risk of potentially inappropriate drug combinations.
2. Objective (page 5): I don't believe they truly comment on the "validity" of their computer program. They don't, for example, provide any outcomes data (was there harm from the inappropriate prescribing as they defined it?). I see this more as a comment on the reliability of the computer assessment as compared to a chart review.
3. Methods: How was the facility/ pharmacy selected? Volunteer? Please provide additional data on the facility. How "typical" is it? (This is relevant when you look at the generalizability of their results.)
4. Methods: They must provide specifics on how they modified the McLeod criteria. In particular how they dealt with the drug-disease interactions. An example is given but they should provide a Table outlining what the original criteria were and how they operationalized them using drug prescriptions as surrogates.

Discretionary revisions:
1. Page 1/ first line: qualify that the institutionalization rate they quote is for the US. The rates differ between countries.
2. I’d ask them to make a stronger case how this study makes a significant contribution. Computerized tools to identify potentially "risky" prescribing have been used elsewhere such as in acute care - why is this study unique? How does it make a substantive contribution to the field?
3. Please provide additional information on the manual search. Did each assistant review each chart independently? How were they trained? Did they undergo an evaluation of their reliability before the study? Was an abstraction form used?

Competing interests:
None declared.