Reviewer's report

Title: Assessing Accuracy of an Electronic Provincial Medication Repository

Version: 1 Date: 20 December 2011

Reviewer: Lars Henning Pedersen

Reviewer's report:

Peer review:

“Assessing Accuracy of an Electronic Provincial Medication Repository”, Price et al.

The study compares the information in a specific electronic registry of medical dispensing (PharmaNet) with the actual use measure by a “gold standard”. The data are interesting and the authors use an intelligent approach. Overall, studies of this sort are much needed but the authors need to present and discuss the scientific value of the results. Do the results change anything from “Information on PharmaNet is not exhaustive and cannot be relied upon as complete”?

Abstract

The subheadings are confusing:

Is “Pharmacists collected 1215 sequential BPMHs during this study as part of routine care at two hospitals” the main result? Importantly, the sentences of the conclusion would be more appropriate under a results section. What is the main scientific conclusion of this paper?

Introduction

Pharmanet is mentioned in the first section but is described in the next section (minor issue).

Overall, the aim of the study is of a relatively simple nature and the introduction may benefit from some editing. Why are these results important and how do the authors justify the research questions (see below)?

Methods

The research questions seem pretty specific for Pharmanet. Please justify the why the results are of interest to a non-Canadian researcher. Is it because of the earlier studies, because of the results are generalizable to other linked datasets etc? These research questions seem more appropriate in a background section.

Did the authors have a prior idea of which level of errors that constituted an error? E.g. do inevitable changes in insulin dosage constitute an error?

Discussion

Could the quote “PharmaNet is not intended as a substitute for professional judgment. Information on PharmaNet is not exhaustive and cannot be relied upon
as complete” constitute the overall conclusion of this study?

Limitations
Would randomization in itself make the results representative of the entire population? What degree of selection and loss to follow-up do the authors estimate randomization would comprise? For a non-BC reader, the greatest limitation is not whether it is representative for the BC population but what to make of the results scientifically.

Major Compulsory Revisions
The research question and the value for non-Canadian scientists need to be much better explained.
The abstract includes no overall conclusion.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
I declare that I have no competing interests