Reviewer's report

Title: Adoption of computerized provider order entry systems: An organization-wide study based on diffusion of innovations theory

Version: 4 Date: 25 September 2009

Reviewer: Andrew Georgiou

Reviewer's report:

Major compulsory revisions:

The authors have generally performed a good job at revising their paper in the light of the reviewers’ comments. There are however two areas which I am concerned about:

a. The authors report that non-responders did not differ from responders with regard to age, sex and occupation. This is a key point in survey analysis, because it is important to be confident that the results were not a consequence of one or other characteristic (eg, age) of the study sample which was not prevalent in the study population. I believe the point is important enough to require the authors to provide the figures to confirm.

b. My other major worry regards workplace locations, time of CPOE use and number of orders in a day. The authors say that they have examined these factors, which is good, but their examination of these factors is not reflected in the paper. For instance, when I look at the figures and the table of characteristics, I am still left with the concern that the significant difference in the number of primary care physicians to primary care nurses may have influenced the results. If the authors have examined these factors and are reasonably confident that this did not have a major influence on the results or their interpretation of the results then they should report it in the paper. Otherwise they should consider this as a potential (or actual) limitation of their study.

Minor essential revisions:

i) In the paragraph under Conclusions, the sentence which talks about the “the limitations of ‘traditional’ means” is unclear.

ii) The opening sentence on page 4 defines CPOE systems by addressing their role in automating medication ordering. But CPOE can involve more than just medication, eg pathology, imaging, transport, diet etc.

iii) The sentence that currently appears on the top of page 9 regarding “drug of choice” is not clear.

iv) I am not sure what “physicians were more agreed” is supposed to mean.

v) I am also unclear about the meaning of the sentence which appears on the top
of page 23, “CPOE systems are introduced as an expansion for the present limitations in ‘traditional’ practice.”

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests.