Reviewer's report

Title: Evidence-Based Medicine among Internal Medicine Residents in a Community Hospital Program Using Wireless Mobile Devices.

Version: 1 Date: 30 October 2006

Reviewer: Saverio Maviglia

Reviewer's report:

General
This manuscript reports the results of two different surveys about PDA usage, one before and one following an intervention which provided physicians at a community teaching hospital with hybrid PDA-phones with wireless internet access.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1) The authors should attempt to reconcile the discrepancy between reported use and actual use. For example, Table 7 indicates that there were a total of 546 accesses to the NLM server in 7 months. During this time, there were 3 PDAs available during business hours and days, a total of 420 PDA-days. This suggests that the average wireless-usage of the NLM resources was 1.3 times per unit per day. Yet 80% of users reporting accessing the Internet from the devices between 1 and 5 times a day, and 6% more than 10 times a day. The entire breakdown of responses to this question should be reported, and the possible discrepancy attributed to retrospective reporting bias, to use of other wireless resources, or to some other (even if unknown) reason.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1) The authors should provide more details about the survey process, including a copy of the questions (even if just as an appendix, or available on request). For example, how were the surveys distributed (paper phone, email, internet, etc.), were there any incentives offered for survey completion, were non-responders contacted more than once, etc.
2) Prince George's County Hospital made significant contributions to implement the intervention, both financial (hardware costs, wireless service contracts) and human resources (workshops, training sessions, and special lectures). Can this be quantified? How does this significant investment compare with how other institutions have supported PDAs in the hospital. How might this affect the generalizability of there findings?
3) The paragraph on limitations should also include that bias may be introduced by small sample sizes and by the retrospective post-intervention survey model - for example, users may tend to answer the questions with the last experience they had in mind, or the best, or the worst experience.

Discretionary Revisions (which the author can choose to ignore)
1) A question that was not addressed but which the authors may have some data that would be novel is a comparative evaluation of wireless and non-wireless access to medical literature at the point of care. What is the added-value of wireless connection, especially given the cost of dealing with the small form factor of the PDA? How ubiquitous were internet-connected desktop workstations? What was the non-wireless utilization during the same period of askMedicine, DiseaseAssociations, PICO, and Medline? Were there any questions in the survey about when they found the wireless-PDA access more useful than sitting in front of a desktop? Were there particular types of queries related to being mobile, or which a mobile-solution would be particularly convenient?
2) The list of Evidence-Based Medicine resources is not entirely accurate - notably UpToDate and MDConsult. Though articles in these resources often cite medical literature, they do not systematically evaluate/rank/grade all the evidence about a topic, and are primarily meta-syntheses or reviews.
3) Requesting teaching about medical use of the Internet is an extremely small part of "medical informatics" (last sentence in "Results:Pre-study Internet use survey" section).

What next?: Reject because too small an advance to publish

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

Statistical review: No

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