Reviewer's report

Title: Handheld Computers and the 21st Century Surgical Team: A Pilot Study

Version: 1 Date: 22 March 2005

Reviewer: Elske Ammenwerth

Reviewer's report:

General

The paper presents an evaluation study on the use of PDAs with mobile phone and access to reference text books in a clinical (surgical) setting. The presentation is clear and well structured, the chosen interrupted time series design adequate.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

There are three major points that should be addressed by the authors:

1. It seems that the first part of the study (that is to assess improvements in communication by PDA) does not, as the authors state, compare Pager vs. PDA, but only pager vs. mobile phone. Here, it is not very surprising that the mobile phone as bi-directional communication device is answered more quickly (as the authors state, with a page, the doctors first have to search for a phone). This should be made more clear both in the methods as well as in the discussion section.

2. The interpretation of the second part of the study (that is to assess the perceptions of the 9 users to PDA) is difficult to judge for the reader, as the offered functionality is only described very shortly - was it really only two textbooks? Isn't this rather little functionality for a PDA? Did they e.g. not use other functions built-in in PDAs such as address books? Aren't there any logfiles that could describe in detail which PDA functionality was used how often during the study?

3. The results of the study are not strongly put into context of other comparable research. There are so many evaluation of mobile computers (see also http://evaldb.umit.at). How do the results of this study differ from other studies, what could be the reason? What does this study bring as new insight to the reader? What can a doctor, what can a researcher learn from this study?

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Please add the following information to the methods section:
- when did the study took place? (exact date)
- how were the physicians/the unit be selected? Were they perhaps rather enthusiastic PDA users, or more IT critical?
- the significance of the last point for the interpretation of the results should be discussed in the discussion section.
Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

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