Author's response to reviews

Title: Uptake of a web-based oncology protocol system: How do cancer clinicians use eviQ Cancer Treatments Online?

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Author's response to reviews: see over
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Version: 2 Date: 18 January 2013
Author’s response to reviewers: see over
Reviewer's report
Title: Uptake of a web-based oncology protocol system: How do cancer clinicians use eviQ Cancer Treatments Online?
Version: 1 Date: 17 December 2012
Reviewer: Morgan Sellers
Reviewer's report:
Minor essential revisions:
1. In your discussion section, you state that pharmacists comprise the "smallest individual clinician group". Based on your table 1, they are in fact the second smallest, with radiation having the smallest number of total registrants.

We thank the reviewer for pointing this out and have amended the text accordingly (p. 11):

“Pharmacists comprised one of the smallest individual clinician groups”

2. In your discussion section, you state that clinicians with 5-10 years' oncology experience had the highest rates of eviQ use. Your data only supports the statement that they have the highest rates of eviQ registration, not use.

We agree that clinicians with 5-10 years’ experience were the largest group of registrants but they also had the highest rates of use. The specific data supporting this claim were not presented in tables or figures (as with clinical role data) but are described in the text (p.9). Specifically, we report that:

“irrespective of professional group, clinicians with 5-10 years’ experience had 1.5 times the webhit rate of clinicians with less than 5 years’ experience (1817 versus 1184 hits/100 site registrations) and 1.4 times that of clinicians with more than 10 years of experience (1817 versus 1284 hits/100 site registrations)".

The data supporting this claim were derived using the same methodology as rates of use for clinical roles i.e., webhits/100 website registrants.

Discretionary revisions:
3. You have determined your selection of October 2011 as a "typical" month based only on a comparison of the rate of total webhits with two other months. Do you have any plans to conduct a more detailed comparison with previous months (e.g. looking at the Google Analytics data) to examine changes in usage patterns?

We thank the reviewer for this question and agree it would be interesting to examine changes in use over time. We have examined similar patterns of use over longer periods of time (6 month period), with no major variations except for reductions in use during holiday periods (e.g., December, January). Therefore, we have not reported on this further in the current manuscript.

4. Can you explain the discrepancy between the webhits captured in the eviQ logfile (169,647) and the page views captured by Google analytics (184,812)? As you point out, the addition of the Google Analytics data adds another dimension
to your research. The discrepancy in the two numbers is not large, but may reveal an interesting difference in how the two systems track usage.

As we have mentioned in the methods section (p. 5-6), our eviQ logfile analysis focused on unit registrations and the 4 largest individual clinician groups registered in Australia whereas Google analytics page views reflect ALL eviQ registrants (including consumers, researchers, and other health professionals located outside of Australia). We believe that this is the primary reason for the difference in webhits/page views across the two platforms. We have reinforced this in our results section (p.9):

“This figure, based on Google Analytics page views, reflects data from all registrants which is why it is marginally higher than the total eviQ webhits quoted previously. The latter includes data from medical, nursing, pharmacy, radiation therapy and unit webhits only.”

Additionally, the Cancer Institute NSW are in the process of further developing their Google Analytics platform such that future analyses have the capability to examine use by specific clinician groups (as with the eviQ platform). We agree it would be interesting to further examine differences in how the two systems track the nature and extent of use and will commence this work once the Google analytics platform has been enhanced.

Level of interest: An article whose findings are important to those with closely related research interests  
Quality of written English: Acceptable  
Statistical review: No, the manuscript does not need to be seen by a statistician.  
Declaration of competing interests:  
I declare that I have no competing interests
Reviewer's report

Title: Uptake of a web-based oncology protocol system: How do cancer clinicians use eviQ Cancer Treatments Online?

Version: 1 Date: 7 December 2012

Reviewer: Karen Sherman

Reviewer's report:

The authors present an observational study evaluating the use of an oncology reference website among medical professionals and others. The authors report that website users are typically healthcare professionals and the site is used most often during the day. They also report that users spend more time viewing clinical pages within the site than registration or transition pages.

Major compulsory revisions

1. Perhaps a more interesting question to ask than who is using the site or when they are using it is how physicians are using the site. What question are they looking to answer on the site? Are they finding the information they are looking for? Are they referencing treatment protocols at the time of care? The format of this data does not appear to offer the kind of granularity necessary to answer these more relevant questions.

We agree that questions about which content is accessed by various clinicians and whether protocols are referenced at the point of care are important. The reviewer is correct in her assertion that the logfile data presented in our manuscript are not capable of providing the granularity required to answer these questions. eviQ is evolving and is currently being integrated into hospital computer systems which will allow us to examine these questions in the near future.

We would like to point out that despite the existence of several systems similar to eviQ, our manuscript is the first to report comprehensively on user characteristics and user sessions. We believe this is an important step in understanding the key users of computer support systems and how systems can be better targeted to busy clinicians. Our paper highlights the challenges of monitoring the nature and extent of use of computer decision support systems. We have added the following text in the discussion section to further elucidate the points made by this reviewer (p.11-12):

"However, logfile analyses are necessarily limited and should not be interpreted in isolation. Our program of work has made best use of other methodologies to address important questions relating to the use of computer support systems in oncology including system quality and clinicians perceptions about the utility of these systems [5, 11-12, 15]."

As mentioned above, this study forms part of a larger body of work (see references below). Taken together, our program of work addresses the importance of the issues highlighted by this reviewer.


2. Did you consider that nurses or other health care associates may be logging for physicians to reference in an ambulatory setting. How do you account for misclassification bias?

We considered this issue and agree with the reviewer. A limitation of the data is that there is no way to monitor whether a nurse has logged in using a doctors account for instance. However, our data however suggest that unit registrations may be used for this purpose as opposed to individual registrations (given units have 3 times the webhit rate of individual clinician registrants). We have added a sentence to the discussion on this important issue (p.11):

“We found higher rates of use for oncology units compared with individual clinicians. This reflects real world clinical practice where numerous clinicians access the same computer and use a sole unit login during oncology clinics and the delivery of cancer treatment.”

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

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