Reviewer's report

Title: Automated inter-rater reliability assessment and electronic data collection in a multi-center breast cancer study

Version: Date: 21 March 2007

Reviewer: Elizabeth Staton

Reviewer's report:

General
The authors present a readable paper on an interesting and timely topic.

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

1. The authors should revisit their claim that few published reports have compared electronic data collection with paper data collection. A quick search provided these references (which may not be right on, but which illustrate that the topic has been discussed in the literature):
   Ann Epidemiol. 2000 Oct 1;10(7):457
   Occupational Medicine 1999;49:556-558
   Literature outside the biomedical field may also be good sources.

2. The authors should refer to other studies in the discussion section. Although there may be little research in this area, it is difficult to determine how this study advances the field when there is no comment in the discussion on how it compares with previous work.

3. References are needed for some statements in the intro ("some of the documented advantages of EDS," and "The disadvantages are" - p.1)

4. The results section appears to have methods-type information in it (such as data cleaning). Please separate results from methods.

5. The guidelines for designing an EDC for research (p.9) are good ideas, but the authors need to provide support for these statements, either from the results reported here or by referring back to other literature.

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

6. Some mention of HIPAA agreements/arrangements seems appropriate.

7. Please clarify the differences between "automated EDC" and "EDC."

Discretionary Revisions (which the author can choose to ignore)

8. It would be great to see more details on how data were preloaded in to the EDC. What were the electronic data sources? Any roadblocks you faced? Were the data sources different for each site?

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

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.