Reviewer's report

Title: Development of a Real-Time Clinical Decision Support System upon the Web MVC-based Architecture for Prostate Cancer Treatment

Version: 1 Date: 12 October 2010

Reviewer: Alexandra Floares

Reviewer's report:

1. Is the question posed by the authors well defined?
   Yes, the questions posed by the authors are well defined.

2. Are the methods appropriate and well described?
   Generally, the methods are appropriate and well described, but it is not clear how the interactive guidelines are integrated in the proposed system. Since this is one of the strong points of the study, clearly explaining it is a Major Compulsory Revision.

3. Are the data sound?
   Yes. The involvement of medical doctors and patients is a strong point of the study.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   The discussion (and also the introduction) should carefully integrate the authors' contribution in a larger context. For example, the greatest expectations in medical decisions support systems, in general and in prostate cancer too, are from the so called „intelligent clinical decision support systems“, developed via a knowledge discovery in data approach, using artificial/computational intelligence, and combining various „omics“ data. On a lower level, there are a lot of nomograms available on the Internet, also using “classical” features and largely used by the medical community. From these perspectives, the strong point of the study is the fact that the systems are real-time and integrate guidelines (how?), but they are limited (at least now) to the „classical“ clinico-pathological features, and very simple modeling formula. Nevertheless, the authors realized that these are the ingredients of nowadays decision making in prostate cancer and developed systems facilitating their use in daily clinical practice.
   The conclusions are well balanced and adequately supported by the data.

6. Are limitations of the work clearly stated?
   Yes.
7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes.

8. Do the title and abstract accurately convey what has been found?
Yes.

9. Is the writing acceptable?
Generally yes, but the paper could be improved by using mainly short and clear sentences, especially on the introductory part.

A. Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore):
The paper could be improved by using mainly short and clear sentences, especially on the introductory part.

B. Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct):
In Abstract, Methods section, last phrase – the abbreviation PCRs is used without being previously defined.

C. Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached):
Generally, the methods are appropriate and well described, but it is not clear how the interactive guidelines are integrated in the proposed system. Since this is one of the strong points of the study, clearly explaining it is a Major Compulsory Revision.

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**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