Reviewer's report

Title: Software for Interpreting Cardiopulmonary Exercise Tests

Version: 1 Date: 7 August 2007

Reviewer: James E Sharman

Reviewer's report:

General

1. Does the software address a novel task? Alternatively, if there is already software available that performs this task, does the software outperform it in terms of speed, reliability, efficiency, or breadth of application?

Comment 1: To my knowledge there is no other software available for this specific purpose. The program is definitely an advancement on the default software available as part of the standard CPET computer equipment. The advantage of the new software is the consolidation and interpretation of data, which appears to work well.

2. Is it easy to use?

Comment 2: Generally intuitive and user friendly. Some minor improvements would be helpful (see specific comments below).

3. Does it satisfactorily address the task or application the authors intend?

Comment 3: Yes.

4. Is the software freely available for non-commercial use (note that this is a condition of publication)? And is the availability of the software and any restrictions on use clearly stated in the manuscript?

Comment 4: Freely available and easily accessible. All points above are clearly stated in the manuscript.

5. Does the manuscript clearly describe the problem the software is designed to address

Comment 5: Yes.

6. Does the manuscript clearly describe how the software is implemented?

Comment 6: Yes.

7. Does the manuscript clearly describe how the software performs and its advantages / limitations over existing applications?

Comment 7: Software performance is described. Description on the advantages of the application has been made in comparison to the current clinical situation, rather than in comparison to existing applications - most likely because there is no comparable existing software.
The major limitation relating to optimal reference values and cut points has been discussed. However, it would be useful to include a subheading in the Discussion section entitled “Limitations.” Further description on how the authors have arrived at “clinically meaningful” cut points would be useful if possible.

8. Does the manuscript state the software’s operating requirements
   Comment 8: Yes.

9. Are the discussion and conclusions of the manuscript well balanced and adequately supported by the data?
   Comment 9: An appropriate and balanced summary of the data has been presented. Please see comment 7 re: inclusion and expansion of “Limitations” subheading.

10. Do the title and abstract of the manuscript accurately convey what has been found?
    Comment 10: Title is appropriate. No abstract was supplied with this review.

11. Is the writing acceptable?
    Comment 11: Generally well written, however, paragraph construction could be improved. At present there are lots of lone sentences.

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

None.

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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)

1. The function of the “Save” button on the “demographic” section of the program could be improved or at least more dummy proofing installed. Intuitively, it would seem that pressing this button will result in the prompt to save the data to a specific location, but instead the data is lost to the ether with no way of retrieving all the information that was inputted.

2. Cut off values for a hypertensive response to exercise could be amended. At present the default appears to be systolic blood pressure #235 mmHg. Data from the Framingham Study suggests that more appropriate cut points are gender specific (#210/105 mmHg for men and #190/105 mmHg for women).

References


3. For those users living in countries utilizing the metric system it would be appreciated if height could also be inputted in “cm” (or “m”) and weight in “kg.”

4. As with comment 2 in the “discretionary revisions” section, Table 1 in the manuscript does not list the required or discretionary fields, even though this is mentioned in the body text.

5. Table 2 is not currently in a table format.

6. Table 3 does not stand alone and a clearer explanation of the link to the examples in the ATS/ACCP document is required. Suggest expanding in a “NOTE” section below the table.

Discretionary Revisions (which the author can choose to ignore)

Delineation of “required fields” could be better displayed. The tiny asterix is not defined anywhere and is easily missed. Likewise, when a required field is not inputted, it would be useful if the reminder pop up box told the user exactly where the missing variable should be inputted (i.e. which field; demographic, spirometry, oxygen, cardiovascular etc.). While this can be located without too much trouble anyway, it would streamline the data entry process, particularly for new users.

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

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.