Reviewer’s report

Title: A computer decision aid for medical prevention: a pilot qualitative study of the Personalized Estimate of Risks (EsPeR) system.

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Reviewer: JON EMERY

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General
This paper describes a qualitative evaluation of a French computer decision support system called EsPeR. This is aimed for use in primary care settings to support discussions about chronic disease prevention such as ischaemic heart disease, various common cancers, alcohol abuse and depression. The software is openly available on the internet and, despite my limited French, I found the software relatively easy to use and a very interesting extension of other similar types of risk assessment software. The authors make a good case for using qualitative methods to evaluate prototype software prior to conducting clinical trials, an approach which has been used previously to evaluate risk assessment software (see http://bmj.com/cgi/reprint/319/7201/32.pdf).

Discretionary Revisions (which the author can choose to ignore)
1. I expect that not many readers will visit the website to see the software in action. To get a better understanding of how the software functions, I think a few more screenshots would be helpful.

Minor Compulsory Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
1. The cardiovascular disease risk model seems to be based on the Framingham data. I do not know reference 7 but I think it would help to clarify to readers that it is this risk model that is implemented.
2. The term ‘uterine cancer’ is used in places to describe cervical cancer. The latter term should be used to avoid confusion with endometrial cancer.
3. There are several areas where the authors talk about doctors ‘lack of knowledge’. This needs to be clarified further. I presume the authors mean lack of specific clinical knowledge that is pertinent to the guidelines implemented in the system.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)
1. The discussion would be strengthened if the authors commented on the choice of risk models applied in the software. Specifically, it would be helpful to know how well the Framingham risk equations operate in a French population. Secondly, the Gail model is a US breast cancer risk model validated in white US women attending regular mammography that incorporates a number of other risk factors as well as family history. I was unable to find out if these other risk factors are incorporated in the software.
2. The discussion should also comment on the method by which the preventable fraction of all cause mortality is calculated, as shown in Fig 1.
3. Although this is described as a qualitative study, many of the specific approaches to increase the rigour of such methods have not been deployed or adequately described. The sampling procedures require further clarification. Is this really a volunteer sample of computer literate male GPs, or did the authors attempt to purposively sample? How many GPs were approached to obtain the sample of 36? It is a shame that none of the group discussions were recorded and transcribed. Most of the
data collection is based on notes/interpretation of discussions conducted by two of the investigators and observations of all investigators, which will inevitably have introduced some bias. The methods of analysis are very opaque and need to be described in more detail if one is to believe the results. It would be useful to present more of the original data to support the results section, particularly the sections on Problems of Understanding and Acceptance of EsPeR content.

4. The first two groups appear to have had access to a more limited version of the software which did not include risk assessment or guideline implementation. I wonder how much these two groups could have contributed to the findings beyond issues of software ergonomics. This requires clarification. Furthermore, it should be made clear if all groups contained the same number of participants.

5. Several sentences in the text are unclear, which I think relates either to problems with translation or the difficulty of describing technical elements about the software. For example:

   P2 `The data form is dynamically created according to the risks selected by the physicians.´
   P3 `.. a list of elementary messages .. and ‘the successive elementary messages which pertains to his characteristics.’
   P4 `participants asked for more direct incentives in the system to choose risks ..´
   P4 `..can induce negative behaviour of physicians.´
   P4 `a qualitative study helps to explain the negative of poor results of a randomised controlled trial.´
   P5 `reinforces the importance of education to its content.´

6. In the discussion it is unclear what has been fed back to ANAES. Do they expect this to increase the acceptability of the recommendations rather than the ‘readability’? It seems from their data that, as has been shown in general for guidelines implementation, many of the problems relate to acceptability/credibility of the expert recommendations.

**Advice on publication:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** A paper of considerable merit and interest in its field

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

**Declaration of competing interests:**

Non-financial: I am currently conducting a randomised controlled trial of a similar risk assessment decision support program for use in primary care.