Reviewer’s report

Title: Health Care Professionals' Attitudes towards Population-Based Genetic Testing and Risk-Stratification for Ovarian Cancer: A Cross-sectional Survey

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Reviewer: Alison Hall

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This paper is a useful addition to the debate about the utility of population based genetic testing for ovarian cancer. In surveying the attitudes of health care professionals for the first time, and capturing attitudes towards population based genetic testing and risk stratification, the authors have been able to illustrate a number of dimensions to this issue:

- the lack of utility of screening in ovarian cancer to decrease mortality through early detection. As is pointed out early in this paper, definitive evidence on this point still needs to be demonstrated

- the knowledge and expertise of a range of health care professionals as to what constitutes low, medium and high risk groups when applied to ovarian cancer - i.e. whether the various professionals involved have the tools to implement stratification in an ovarian cancer population

- the willingness (and beliefs of self-efficacy) of the various professionals involved.

Given the (admitted) limitations of the study such as small sample size, and potential unrepresentativeness of the sample since respondents to the survey are likely to be those who felt some degree of confidence about their abilities to respond - the survey results are a useful pointer as to the potential gaps that will need to be addressed if population based genetic testing is to be implemented.

I found it interesting that genetics clinicians were the least likely to agree with the statement 'I would be willing to offer all my adult female patients genetic testing for ovarian cancer risk' - as it might be thought that this group of professionals might have the most expertise to make an informed judgement. I wondered whether the genetics professionals might have more reservations about testing given the current debate about classification of pathogenic variants, and the possibility that screening tests may generate variants of unknown significance, or (depending on the markers involved) the possibility of incidental findings being generated. Genetics professionals also might have more experience of dealing with the negative impacts associated with testing (including fatalism or psychological effects). Some further exploration of these issues might be appropriate given that only a few specific harms are mentioned (e.g. at page 13 - discrimination by insurers and lack of cost-effectiveness, although other issues are mentioned later in the discussion).
The authors suggest at various points in the paper that much of the utility of genetic testing in ovarian cancer is predicated on the fact that 50% of individuals with pathogenic BRCA variants may not report a strong family history, but these represent only 7% of ovarian cancer cases (as mentioned at the start of the paper) and even if a BRCA variant is detected, given the lack of family history, the penetrance associated with these variants may need more evaluation. So I was pleased that in their discussions of the PROMISE study, the authors refer to the inclusion of more risk factors including lifestyle risks which might be important if stratification tools are to be applied across the whole population of at-risk women.

In the concluding discussion, the authors were right to emphasise that it may well fall to GP's to manage those women who are classified at lower risk. The paper is right to emphasise the challenges associated with managing this group. On the topic of insurance, the Concordat and Moratorium on Genetic Testing is currently being revised, and it was good that the authors flagged up the fact that knowledge of this policy might be variable amongst different professional groups.

It would have been helpful if the term 'self-efficacy' - mentioned in the abstract and main text, could have been defined earlier in the paper.

In summary an informative, well-written paper with no major flaws or gaps.

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If not, please specify what is required in your comments to the authors.

Yes

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