Reviewer’s report

Title: Evaluation of a 27-gene inherited cancer panel across 630 consecutive patients referred for testing in a clinical diagnostic laboratory

Version: 0 Date: 24 Sep 2017

Reviewer: Katherine Agre

Reviewer’s report:

I applaud the work of the authors of this paper who have written an excellent analysis of the findings of hereditary cancer testing using a 27-gene panel. The writing was clear and the analysis understandable. However, I have a few comments to consider for revision.

1) In the paper you group participants by personal and family history of either Lynch Syndrome or HBOC. Considering ovarian cancer is a common clinical feature of both, how did you group the patients that have that personal and/or family history? It seems, based on Table 2, that these participants were counted twice (as both HBOC and Lynch Syndrome). It may be helpful to expand further on the personal and family history features of these participants or to perhaps leave room for a third category of those who have personal and/or family history of both HBOC and Lynch Syndrome.

2) Your paper highlighted the fact that the patient group was not enriched for adherence to the National Comprehensive Cancer Network (NCCN) criteria for either HBOC or Lynch Syndrome and rather they constitute a referral laboratory cohort. I question whether patients would have adequate insurance coverage for genetic testing if they do not meet NCCN criteria. This could be a bias in the participant group just based on the fact that many individuals who do not meet this criteria do not have insurance coverage for testing and choose not to pursue testing. I wonder if you could retrospectively look at the patient information that was collected to determine what percentage actually meet criteria for testing.

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