Reviewer’s report

Title: Outcomes of screening and surveillance in people with two parents affected by colorectal cancers: experiences from the Familial Bowel Cancer Service

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Reviewer: Andy Latchford

Reviewer's report:

An interesting manuscript. Good data in an individual with both parents affected by CRC are few and so new data in this area have potentially significant impact on screening recommendations.

Generally well written.

Major concern:

I have major concerns regarding the study groups. The group representing those with both parents affected by CRC actually includes a number of individuals whose inclusion I think skews the data. This includes siblings with CRC (ie changing an individuals FHx from 2 first degree relatives with CRC, to 3 first degree relatives with CRC (including 2 in first degree kinship). This equates to a different risk group. Also included are those with advanced adenomas (although age not clear)….if these are sibs with very young onset advanced adenomas, this also probably skews the risk too. I think to make the data clean and to allow for meaningful conclusions to be drawn, the authors need to limit the FHx to those with both parents affected by CRC ONLY - if there is additional FHx, then these to be excluded from the study group.

More minor concerns:

1. The description of "high risk" is difficult to follow. I assume that both parents equated to "high risk" in their surveillance protocol?

2. "Average" is used as a statistical description....mean, median, mode? Also mean is often quoted - unless the data are normally distributed, this should be median.

3. Should an SSL of 10mm or more be included as advanced neoplasia? If dysplastic then maybe but if non-dysplastic perhaps more difficult to justify. This is particularly relevant as the authors compare risks to screening populations in their discussion and say they have found a higher risk of "advanced neoplasia" and use this as a justification for surveillance in this patient group. However the studies to which they make comparison generally report adenomas (Corley et al,
Heitman et al); only the Bretthauer paper reports SSLs. Would the authors like to comment on FOBT being used as a means of detecting SSLs? Are there really robust data regarding this or just good data for adenomas/cancer. The protocol includes FOBT screening but perhaps shouldn't be if they are looking to detect SSLs. Perhaps removing SSLs would provide better data for comparison with the literature OR separately describing advanced adenomas and advanced serrated lesions (SSLs >10mm or any size and containing dysplasia).

5. At what age were the advanced lesions found - it is not clear. This will be an important determinant of age of onset of surveillance. The "mean" age at first neoplasia (not necessarily advanced) was 54 years. Can the authors provide justification for screening at the ages they recommend.

6. The data presented seem to indicate that the prevalence of CRC was the same as the average risk - is there therefore justification for treating this patient group differently from average risk? Furthermore, looking at their proposed surveillance for this group, can it be justified when the 2 cases of CRC were at ages 59 and 70 years??

7. Table 1 batches together colonoscopy and flexible sigmoidoscopy - clearly very different when it comes to surveillance! In addition there is no indication if any patients had CTC and if so what the results were.

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An article of importance in its field

**Quality of written English**
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