Positive Faecal Occult Blood (FOBt) following Low risk Colonoscopy for Neoplasia (LRNC) in the Bowel Screening Program (BCSP); Should further colonoscopy be offered?

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Introduction
Current British Society of Gastroenterology guidelines suggest that patients who are deemed low risk after adenoma removal at colonoscopy should either have no further surveillance or be offered colonoscopy at an interval of 5 years (1). However patients undergoing colonoscopy in the BCSP who are found to have no abnormality or who have adenomas deemed low risk (according to BSG guidelines), are enrolled for subsequent faecal occult blood testing (FOBt) every 2 years. If FOBt positive, they are then offered a further colonoscopy.

Thus, it is possible that a BCSP patient who has LRNC can have up to 2 additional colonoscopies within the BCSP before the surveillance colonoscopy of a similar patient with LRNC but not in the BCSP who chose 5 year interval surveillance colonoscopy.

Aim
The North of Tyne Bowel Cancer Screening Centre is a Collaboration between Newcastle upon Tyne and Northumbria Healthcare Foundation Trusts. It serves a population of over 860,000. There is rising demand for endoscopy services. Therefore we continuously review our practice to reduce ‘unnecessary’ procedures.

Here, we aimed to determine if or not surveillance colonoscopy <5 years from index LRNC led to intermediate or high risk neoplasia findings

Method
We identified all patients in the BCSP with previous LRNC (episode 1) in the North of Tyne screening centre who underwent their first colonoscopy from 2008 – 2010, and who had attended for subsequent colonoscopy (defined as episodes 2 & 3) because they had further FOBt positive stool in the BCSP.

EC and HD reviewed all endoscopy and histology reports. They obtained all patient demographic details and identified the presence of neoplasia and other pathologies. Colon neoplasia was deemed as low, intermediate or high risk according to BSG surveillance guidelines.

For the purpose of this study DN analysed only the presence and absence of neoplasia as this is what determines the need for and interval of further surveillance procedures

Results
81 patients had colonoscopy (episode 2) for positive FOBt after previous LRNC. A full dataset was obtained for 78. 58% were male.

10 of these patients had a further colonoscopy (episode 3) as they submitted stool which was FOBt positive after their second LRNC.

Interval between episodes 1 and 2 was 2yrs in 86% and 4yrs in 12%. Interval between episodes 2 & 3 was 2yrs in 78%, 3yrs in 11% & 4 years in 11%

Table 1 below shows colonoscopy findings

<table>
<thead>
<tr>
<th>Episode Number</th>
<th>No neoplasia</th>
<th>Low Risk Neoplasia</th>
<th>Intermediate risk Neoplasia</th>
<th>High risk Neoplasia</th>
<th>Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>57</td>
<td>13</td>
<td>6</td>
<td>1</td>
<td>1**</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

** T3 (Dukes C) rectosigmoid cancer

Conclusions
1. The majority (90%) of patients with positive FOBt after initial LRNC will not require further surveillance colonoscopy (ie after episode 2).
2. 9% of patients who have 2nd colonoscopy as FOBt pos. after LRNC (ie episode 2) will have neoplasia requiring further surveillance (i.e. become intermediate or high risk)
3. In our cohort, colonoscopy in 1 patient with positive FOBt after previous LRNC identified a cancer

Our data would therefore suggest that if patients have had 2 colonoscopies in the BCSP with no or low risk neoplasia, then they should not be offered further colonoscopy within 5 years of their second procedure, bringing them back into line with the national guidelines. Although the number of such patients is relatively small, it will reduce the demands on a valuable resource with no negative impact on patient outcomes.

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Table 1: These presenters have the following declarations of relationship with industry:

Personal payments/honoraria/fees
Research grants
Educational grants
Travel grant or fellowship
Equipment grant
Sponsorship of fellow within department

NONE

(1) GUT 2010; 59: 666 - 690