Symptomatic FIT
Quantitative FIT (QFIT) for Use in Symptomatic Patients

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    NHS Lanarkshire - Clinical Lead (Biochemistry)
  • Lead Clinician - Scottish Clinical Biochemistry Managed Diagnostic Network

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  • Chief of Medical Services, WGH
Faecal Immunochemical Testing

- Detects human Hb and degradation products
- Polyclonal Abs
- F-Hb correlates to disease severity
  - Increasing level through progression from LRA to HRA to cancer
- High NPV for cancer—excellent rule out test
- Role in primary care
- Role in Secondary Care
Faecal Immunochemical Testing

• NHS Lanarkshire Study
• NHS Tayside Pilot
  – Funded through DCE
• NHS Lanarkshire Pilot
• ? National roll out
• Optimum balance between sensitivity and specificity achieved at 8.8ugHb/g stool
# Lanarkshire Pilot

## Results

### Table 1: Number of participants in different colonoscopy finding groups with overall median age (range).

<table>
<thead>
<tr>
<th>Colonoscopy findings</th>
<th>n, %</th>
<th>Men</th>
<th>Women</th>
<th>Median age – years, range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer (CRC)</td>
<td>11 (2.2)</td>
<td>7</td>
<td>4</td>
<td>71 (36–88)</td>
</tr>
<tr>
<td>Higher risk adenoma (HRA)</td>
<td>19 (3.8)</td>
<td>9</td>
<td>10</td>
<td>62 (47–80)</td>
</tr>
<tr>
<td>Inflammatory bowel disease (IBD)</td>
<td>15 (3.0)</td>
<td>7</td>
<td>8</td>
<td>60 (26–72)</td>
</tr>
<tr>
<td>(3) + colitis (12)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low risk adenoma (LRA)</td>
<td>31 (6.1)</td>
<td>18</td>
<td>13</td>
<td>66 (41–89)</td>
</tr>
<tr>
<td>Hyperplastic polyps (HP)</td>
<td>31 (6.1)</td>
<td>15</td>
<td>16</td>
<td>62 (36–80)</td>
</tr>
<tr>
<td>Diverticular disease (DD)</td>
<td>96 (18.9)</td>
<td>38</td>
<td>58</td>
<td>69 (33–83)</td>
</tr>
<tr>
<td>Haemorrhoids (H)</td>
<td>30 (5.9)</td>
<td>16</td>
<td>14</td>
<td>55 (37–76)</td>
</tr>
<tr>
<td>Other (O)</td>
<td>8 (1.6)</td>
<td>5</td>
<td>3</td>
<td>52 (23–77)</td>
</tr>
<tr>
<td>Normal (N)</td>
<td>243 (47.9)</td>
<td>89</td>
<td>154</td>
<td>57 (16–86)</td>
</tr>
<tr>
<td>Failed (F)</td>
<td>23 (4.5)</td>
<td>12</td>
<td>11</td>
<td>59 (39–77)</td>
</tr>
<tr>
<td>DGS CRC + HRA + IBD + colitis</td>
<td>45</td>
<td>23</td>
<td>22</td>
<td>65 (25–88)</td>
</tr>
<tr>
<td>NDG: LRA + HP + DD + H + O + N</td>
<td>439</td>
<td>181</td>
<td>258</td>
<td>60 (16–89)</td>
</tr>
<tr>
<td>Total with colonoscopy data: DG=NDG</td>
<td>484</td>
<td>204</td>
<td>280</td>
<td>60 (16–89)</td>
</tr>
</tbody>
</table>

### Table 2: Median faecal haemoglobin concentration (μg Hb/g faeces) with 95% CI in different colonoscopy findings groups.

<table>
<thead>
<tr>
<th>Colonoscopy findings</th>
<th>n, %</th>
<th>Median faecal haemoglobin – μg Hb/g faeces, 95% CI</th>
<th>Interquartile range faecal haemoglobin – μg Hb/g faeces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer (CRC)</td>
<td>11 (2.2)</td>
<td>612 (352–807)</td>
<td>432–804</td>
</tr>
<tr>
<td>Higher risk adenoma (HRA)</td>
<td>19 (3.8)</td>
<td>10 (1–50)</td>
<td>1–67</td>
</tr>
<tr>
<td>IBD (3) + colitis (12)</td>
<td>15 (3.0)</td>
<td>628 (67–696)</td>
<td>65–697</td>
</tr>
<tr>
<td>Low-risk adenoma (LRA)</td>
<td>31 (6.1)</td>
<td>3 (1–7)</td>
<td>1–8</td>
</tr>
<tr>
<td>Hyperplastic polyps (HP)</td>
<td>31 (6.1)</td>
<td>3 (2–5)</td>
<td>2–7</td>
</tr>
<tr>
<td>Diverticular disease (DD)</td>
<td>96 (18.9)</td>
<td>3 (2–4)</td>
<td>1–7</td>
</tr>
<tr>
<td>Haemorrhoids (H)</td>
<td>30 (5.9)</td>
<td>3 (1–8)</td>
<td>1–25</td>
</tr>
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<td>Other (O)</td>
<td>8 (1.6)</td>
<td>2 (1–45)</td>
<td>1–23</td>
</tr>
<tr>
<td>Normal (N)</td>
<td>243 (47.9)</td>
<td>2 (1–3)</td>
<td>1–5</td>
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<td>113 (30–534)</td>
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<td>3 (2–3)</td>
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</tr>
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</table>
Faecal Immunochemical Testing

• NHS Tayside Pilot
  – 9% reduction in referrals to the colorectal pathway
  – 25% reduction in referrals to GI services
  – Overall reduction in referrals of 15%
  – 21% of qFITs returned were positive
### SurveyMonkey

#### Q1: In which area is your practice based?

- [ ] Colorectal Bundle on ICE
- [ ] Colorectal Bundle on ICE since it

#### Q2: Have you requested a FIT test within the Colorectal Bundle on ICE since it

- [ ] Yes
- [ ] No

#### Q3: When I see a patient with new bowel symptoms, I request a FIT test

- [ ] Every time
- [ ] Only if I plan to refer
- [ ] Only if I am concerned by...

#### Q4: FIT tests are available in my practice

- [ ] Yes
- [ ] No

#### Q5: There is a clear process in my surgery to facilitate FIT test requesting

- [ ] Yes
- [ ] No

#### Q6: I am happy with the turnaround time for FIT test results

- [ ] Yes
- [ ] No

#### Q7: I have read the FIT Newsletters distributed by email over the past year and

- [ ] Yes
- [ ] No

#### Q8: I find that patients are willing/motivated to complete a FIT test

- [ ] Yes
- [ ] No

#### Q9: Using a FIT test – as an adjunct to history, examination and blood tests

- [ ] Yes
- [ ] No

#### Q10: I think the FIT test service could

- [ ] Improve
- [ ] Decline

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**FIT test in Primary care: feedback survey - let us know your thoughts!**

**Q3 When I see a patient with new bowel symptoms, I request a FIT test**

<table>
<thead>
<tr>
<th></th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>28.8%</td>
</tr>
<tr>
<td>Only if I plan to refer</td>
<td>7.4%</td>
</tr>
<tr>
<td>Only if I am concerned by...</td>
<td>64.8%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Q9 Using a FIT test – as an adjunct to history, examination and blood tests – helps me assess the risk of significant pathology when deciding on appropriate investigation of patients with new bowel symptoms.

Answer Choice: 174  Respondents

- Always: 20.86%
- Most of the time: 65.43%
- Occasionally: 4.87%
- Never: 9.86%

Total: 575
Fit test in primary care: feedback survey - let us know your thoughts!

Q8: I find that patients are willing/motivated to complete a FIT test

Answered: 176 Skipped: 3

<table>
<thead>
<tr>
<th>Answer Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>55</td>
</tr>
<tr>
<td>Most of time</td>
<td>110</td>
</tr>
<tr>
<td>Occasionally</td>
<td>4</td>
</tr>
<tr>
<td>Never</td>
<td>0</td>
</tr>
</tbody>
</table>

SurveyMonkey
Dundee Pilot

5,660 FIT kits returned to laboratory

No referral n = 2,680

Referred to secondary care n = 2,765

Triaged to colonoscopy n = 1,392

Test not done n = 205

Total with completed colonoscopy n = 1,379

(1,187 referred straight to colonoscopy, not done n = 21

Referred to GI clinic n = 648

Triaged to other assessment (sigmoidoscopy, OGD, CT etc.) n = 725

No colonoscopy required n = 435

Referred to colonoscopy, not done n = 21
NHS Lanarkshire Rollout

• All USOC
• Primary Care initiated
• Secondary Care triage
• About 25% of referrals have qFIT
• Potential Confusion with Screening FIT

November 2017
FIT Flowchart

All Colorectal Referrals

FIT test

Vetting

FIT result

Wishaw Surgical Out Patient clinic

Colonoscopy

CTC

Outcome

Treatment

Discharge

Further Ix

>75YRS or UNFIT

1st failsafe at 7 days

NO RESULT

FIT result available?

<10µgHb/g

>10µgHb/g

Liz Dolan flags up not vetted at 1 week

Vetting Nurse Phones

<10µgHb/g

NO RESULT
NHS Lanarkshire Rollout

• Data analysed to date
• Total qFIT 1285 tests
• qFIT negatives 727 (56.6%)
• qFIT positives 551 (42.0%)
• Vetting period 1 week
  – 50.3% to clinic v 46.9% to investigation
• Vetting period 2 weeks
  – 72.7% to clinic v 20.8% to investigation
NHS Lanarkshire Rollout

• qFIT result reviewed in clinic
  – 27.5%

• Of those qFIT negative patients seen in clinic
  – 53% colonoscopy
  – 3.9% CT AP
  – 6.8% CTC
  – 14.4% discharged
NHS Lanarkshire Rollout

- Of all qFIT negatives
  - N = 554
  - Investigated n = 418
    - Via STT n = 211
    - Via clinic n = 207
  - Cancers n=3
    - 2 right colon cancers in females
    - 1 polyp cancer
      - All with IDA, 2 with diarrhoea
  - NPV = 99.3%
NHS Lanarkshire - Vision

- National rollout to primary care
- Powerful triage tool
- Need to maximise use
- Increase staff awareness
- Revamping of colorectal pathway
  - USOC referrals
  - Routine referrals
  - qFIT initiated by secondary care
  - Informs vetting process