

## 4. Bowel Screening Centre

### 4.1 Call-recall

#### **Background:**

The Scottish Bowel Screening Centre, consisting of the call-recall office, helpline and laboratory has been established in Kings Cross Hospital in NHS Tayside in Dundee.

#### **Process:**

- The Chief Executives of all NHS Boards in Scotland agreed a national plan for roll out (see Appendix 2).
- All NHS Boards participating in the Programme by December 2009
- The Community Health Index (CHI) is the key patient identifier throughout the screening episode.
- Prior Notification Lists (PNLs) will not be issued to GPs (based on previous work available from NSD).
- Individuals are invited to participate in bowel screening at some point over the two-year round of screening. In most instances this call date is an individual's birthday either in Year 1 or Year 2. Their recall date is calculated 2 years from initial invitation date.
- Anyone turning 50 will be called immediately.
- The number of invitations to each NHS Board area will be pre-determined by the number in the target population requiring invitation over a 2 year period.
- The Centre will provide a helpline facility for individuals to contact with enquiries about the screening programme and process. The helpline (Freephone 0800 0121 833) is available Monday – Friday 8 a.m. – 6 p.m.
- The helpline is staffed by trained staff with good communication skills. They are not health care professionals.
- Helpline advice is restricted to relevant screening information. Individuals with enquiries about symptoms or with other health related enquiries are referred back to their General Practitioner.
- Individuals returning a screening test are sent a result within two weeks of receipt of the test by the Centre<sup>1</sup>. The Centre refers

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<sup>1</sup> NHS Quality Improvement Scotland Bowel Screening Programme Clinical Standards – Standard 3c.1

positive screening test results via the Bowel Screening System (BoSS) directly onto SCI Gateway to the relevant local colorectal service for further investigations.

- The Centre will send screening test positive result information to Primary Care at the same time.
- Data will be provided to Information Services Division (ISD) by the Centre and NHS Boards.

## **4.2 Centre Procedures and Protocols**

There are Standing Operating Procedures (SOPs) and Protocols in place to administer the programme within the Centre and these are quality assured.

An effective system of document control for operational procedures has been identified and is central to the quality management system of the Centre. This ensures that each document is:

1. approved for use by authorising personnel prior to use,
2. uniquely identified with the identification to include the date of issue, the revision version, the total number of pages and the authorising signatories,
3. legible, readily identifiable and retrievable,
4. regularly reviewed and updated as required, and
5. contained in a readily accessible master list that identifies its current revision status and distribution, the purpose of which is to prevent the use of an invalid or obsolete document.

These SOPs are reviewed annually or when new procedures or changes are introduced. All staff will be involved in creating and reviewing the SOPs to give ownership and improve adherence.

Daily audit checks will be carried out by staff within the Centre to ensure the quality of all correspondence and issue of results.

## **4.3 Overview of Bowel Screening System (BoSS)**

An IT System for the National Bowel Screening Centre has been developed and is made up of two main components – call-recall and laboratory.

BoSS tracks the participant journey from invitation through to the point at which they receive a result. No subsequent clinical information is held within BoSS.

### **Call-recall**

BoSS calls all eligible participants from CHI based on the following selection criteria:-

- must be aged between 50 and 74,
- CHI record must have an Area of Residence
- Eligible participants are downloaded from CHI and allocated a call-recall date within the next 2 years (see section 4.1).

BoSS also ensures that participants are called before their 75<sup>th</sup> birthday.

For those who meet the eligibility criteria, new CHI registrations prompt an immediate bowel screening invitation.

When a participant is called, they will be sent an invitation letter along with a FOBt kit. If they do not reply within 6 weeks, BoSS issues a reminder letter.

A participant is considered to be a non responder if no response is received within 6 months of invitation.

Recall date will always be reset to 2 years from first invitation.

### **Call-recall User Interface**

This module allows users in the Centre to view a participant's screening details and can also carry out the following functions:-

- add an Exclusion Status to halt a participant's screening cycle,
- issue a replacement kit, and
- change a recall date (e.g. where compliance has expired).

### **Laboratory Core**

This module allows nominated laboratory users to book-in and sort kits received in the laboratory. This module also enables certain laboratory users to enter kit results for both kit types (Faecal Occult Blood Test (FOBT) and the Faecal Immunochemical Test (FIT)).

### **Security Management**

This module allows the Atos Help Desk to add/remove/edit users of BoSS.

### **Organisation Management**

This module holds information on all institutions and referral organisations.

### **Login/Logoff Launch pad**

This module allows the user to log on to BoSS and shows the applications to which they have access.

### **Materials Management**

This module allows both call-recall and laboratory users to record lot numbers for both kits and reagents.

### **System Administration**

This module allows the senior laboratory staff to deal with all queries and view interactive reports.

### **QA/QC Management**

This module allows laboratory staff to create Quality Control (QC) batches and record test results for QC kits. Quality Assessment kits can also be created in batches of 1 and results input.

## **Screen on Demand**

This module allows call-recall staff to call participants and tie them to an institution for the duration of a screening cycle.

## **Call-recall & Laboratory Reports**

A range of core reports are available on a daily basis for both the call-recall and laboratory modules.

## **BoSS Rule Book**

This module details all business rules related to BoSS. This information will be available in an electronic format.

## **SCI Gateway**

When a person has a positive screening test result, a referral is automatically sent to their NHS Board via SCI Gateway.

## **How will BoSS report positive referrals to SCI Gateway?**

The Bowel Screening System (BoSS) refers participants with a positive bowel screening result to their local NHS Board via SCI Gateway.

See SCI gateway flowchart at Annex A.

Each record in BoSS holds details of the participant's NHS Board of residence.

When a positive screening test result is recorded for a participant, BoSS sends out a "positive" letter to both the participant and their GP (if they have one).

It is the NHS Board's responsibility to provide an appropriate contact telephone number. Any changes to this number must be alerted to the Bowel Screening Centre to ensure participants are provided with a valid contact telephone number and can be supported through the screening pathway.

These letters are sent out in the post.

BoSS also sends a pre-populated message to the participant's local NHS Board via SCI Gateway.

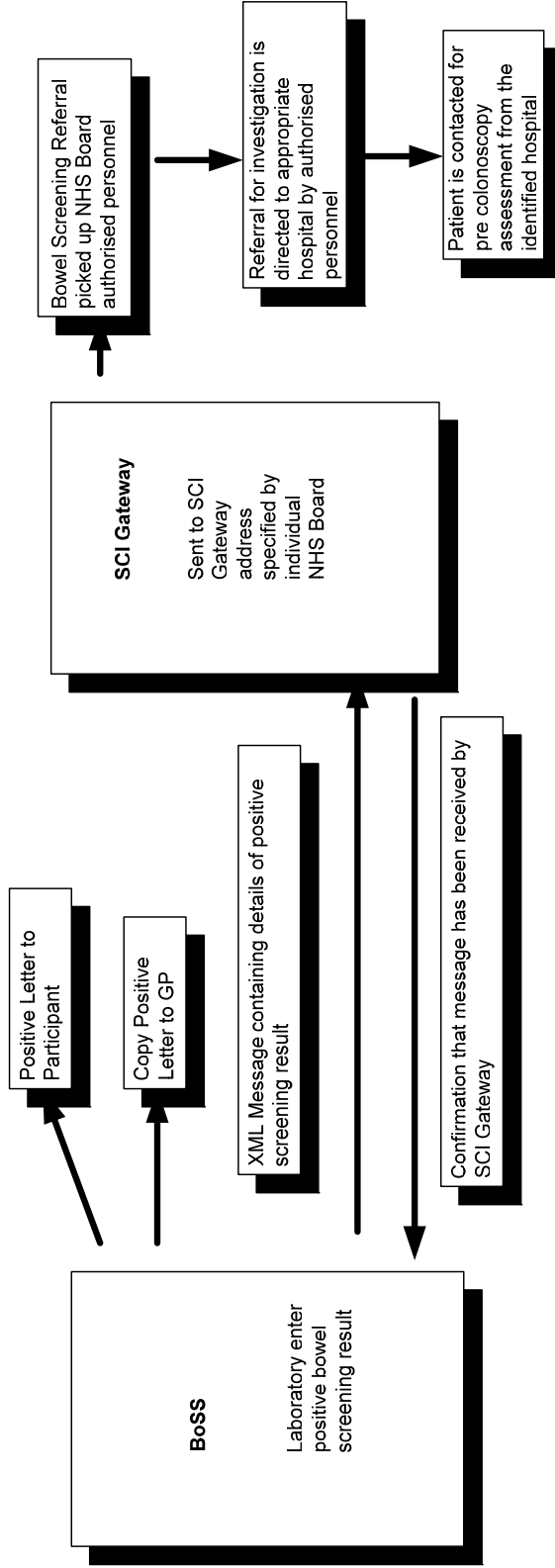
A copy of the SCI Gateway referral is at Annex B.

Each NHS Board has provided a “receiving” address in SCI Gateway which is included in the BoSS application. BoSS therefore automatically knows which NHS Board should receive the SCI Gateway message.

Each NHS Boards has arranged for authorised personnel to have access to the SCI Gateway address specified. These staff are responsible for checking SCI Gateway daily to check if any referrals have been received from BoSS.

The authorised personnel pick up the BoSS messages and make appointments for the participants accordingly. If a referral is received and it needs to be forwarded to another NHS Board, this can be done using SCI Gateway (see SCI Gateway flowchart). It is the responsibility of each NHS Board to action received referrals promptly.

**How BoSS will report positive referrals to SCI Gateway**



**Process**

- 1 NHS Boards all inform NSD of the address that they wish to use to receive referrals from BoSS
- 2 BoSS application records an address for each NHS Board
- 3 When a positive result is input, BoSS automatically sends out a result letter to the participant and their GP (if they have one)
- 4 BoSS then automatically sends a pre-populated message to the designated address in SCI Gateway
- 5 Message can be viewed by Health Board staff with appropriate user permissions
- 6 Referral can then be directed to the appropriate hospital/ health care professional by authorised personnel
- 7 Contact is then made with the patient by the appropriate hospital/ health care professional

## **4.4 Escalation Procedures for the Scottish Bowel Screening Centre**

### **Introduction**

Any screening programme has the potential for significant adverse incidents. It is important to audit incidents with the aim of minimising risk. In this way improvements in practice can be identified and disseminated to a wider group. There is also potential for an incident to occur at any stage in the screening process and for complaints/issues about the service to become high profile.

NHS Quality Improvement Scotland (NHS QIS) has developed Bowel Screening standards covering six key areas:-

- general
- call-recall
- the screening process
- the laboratory process
- pre-colonoscopy assessment
- colonoscopy and histopathology

As the bowel screening programme is the responsibility of both the local NHS Boards and the Scottish Bowel Screening Centre (SBoSC) based in Dundee separate escalation procedures have been developed for the SBoSC and for NHS Boards. NHS Tayside is responsible for delivery of efficient call-recall, screening and laboratory processes within the SBoSC.

A Scottish Bowel Screening Programme Governance Strategy has been developed setting out the key roles, responsibilities and relationships for the programme and providing a strategic framework for the development of clinical governance over the next five years. It is essential that management of the risks relating to the Bowel Screening Programme are set within the context of this Governance Strategy and the organisations' (SBoSC/NHS Tayside) system of governance and risk management.

The methodology for ascribing levels of risk should be consistent with local proactive risk assessment, risk management and

incident reporting processes already in place. Identifying the likelihood of most events occurring can be subjective and based upon the knowledge and expertise of those involved. Evidence and statistics may however be available regarding the recurrence of certain events and this information can help anticipate and plan.

- **Annex A** sets out the escalation framework for the Scottish Bowel Screening Centre.
- Scottish Bowel Screening Centre Escalation Flowchart attached at **Annex B**
- Categorisation of Risks - Example - **Annex C**

## **NATIONAL SERVICES DIVISION**

June 2009

## ANNEX A

### SCOTTISH BOWEL SCREENING PROGRAMME Escalation Procedures for the Scottish Bowel Screening Centre

1. Any member of staff in the Scottish Bowel Screening Centre who becomes aware of a suspected problem should follow the agreed escalation procedures.
2. The Scottish Bowel Screening Centre Manager and Clinical Services Manager should be advised of all suspected problems. The Bowel Screening Lead Clinician should also be advised of problems where appropriate (see below)

#### GREEN

3. If local investigation concludes that the problem will only have minimal impact and the risk assessment is **Green**, the Bowel Screening Centre Manager and the Clinical Services Manager should be advised and effective countermeasures should be put in place to resolve the issue satisfactorily.

#### AMBER

4. If a fairly significant problem is identified (and the risk assessment is **Amber**) but there is no cessation in service provision then the SBoSC Manager and the Clinical Services Manager should be advised and planned action initiated to resolve the problem. The Bowel Screening Lead Clinician should be advised of the problem and the action taken and outcome.
  - 4.1 If the action successfully resolves the problem a report should be provided to National Services Division (NSD). The SBoSC and NSD should continue to monitor for recurrence. Formal feedback should be provided to NSD and reported as part of the six monthly NSD/NHS Tayside performance reviews.
  - 4.2 If the action does not resolve the problem then it should be treated as having a significant impact and the risk assessment should be escalated to Red.

## **RED**

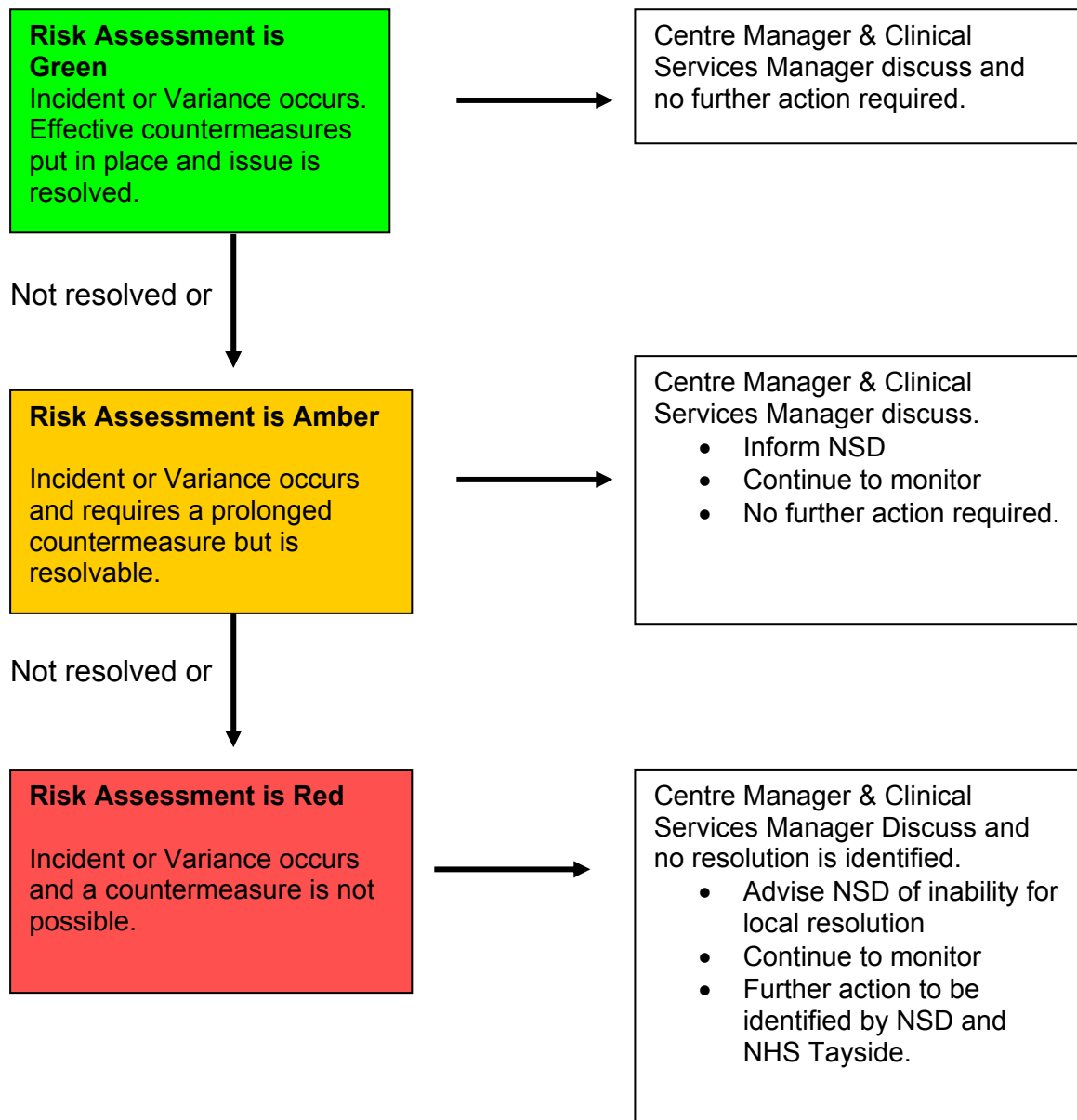
5. A major/catastrophic problem is defined as the Scottish Bowel Screening Centre being unable to meet service provision and/or mandatory NHS Quality Improvement Scotland Bowel Screening standards to such an extent that cessation of the service for an extended period of time is likely or necessary. In these circumstances the Clinical Services Manager, on behalf of NHS Tayside, should provide a detailed report to NSD immediately on the extent of the problem and including potential solutions.
  - 5.1 NSD and the Bowel Screening Governance Committee will consider the detailed report and agree actions to be taken. NSD will also inform the Scottish Government Health Directorates of the problem and the agreed action plan.
  - 5.2 The agreed action plan is implemented by the Scottish Bowel Screening Centre and NSD will monitor and report to the Scottish Government Health Directorates and the Bowel Screening Governance Group.
  - 5.3 If the action plan resolves the problem a report should be provided to National Services Division (NSD). The SBoSC and NSD should continue to monitor for recurrence. Formal feedback should be provided to NSD and also reported as part of the six monthly NSD/NHS Tayside performance management reviews.
  - 5.4 If the Action Plan does not resolve the problem then NSD and the Scottish Government Health Directorates will consider further action and whether a full independent external investigation/peer review is instigated.

## **NATIONAL SERVICES DIVISION**

June 2009

## SCOTTISH BOWEL SCREENING PROGRAMME Escalation Procedures for the Scottish Bowel Screening Centre

Resolved



## **SCOTTISH BOWEL SCREENING PROGRAMME**

### **Escalation Procedures for the Scottish Bowel Screening Centre**

#### **Categorisation of Risks - Example**

<b>Description</b>	<b>Strategic</b>	<b>People</b>	<b>Financial</b>	<b>Operational</b>	<b>Clinical</b>	<b>IM &amp; T</b>	<b>External</b>
<b>GREEN</b>	Minimal impact on the Programme Scope	Minimal disruption to staff/very minor delay in recruiting staff. Minor H & S incident/minor staff complaint/short-term vacancy.	No Financial impact	Minimal impact – no service disruption/no adverse publicity.	No obvious clinical harm or injury to participant.	IT unavailable or slow response for a few minutes.	Minimal impact on services or operations.
<b>AMBER</b>	Minor/ Moderate impact/change to Programme scope.	H & S incident with some harm/staff unrest/key post vacant/ unable to recruit skilled staff to key roles for extended period.	Damage/loss of equipment or supplies and/or increase in costs of staffing, supplies or services >£1000 - <£2500	Minor impact on service provision/some public embarrassment/some objectives partially achievable/local adverse publicity	Extensive injury/harm/ medical intervention required.	IT down or slow for between 2 hours – 5 days/poor information impacting on decision making, causing wrong decision to be taken impacting on the operation/ loss of data.	Impact requiring change to services to comply with new legislation or directions. SBoSC not in line with some SEHD policies/national protocol or direction.
<b>RED</b>	Major/ Complete change impacting on the original fundamental programme scope	Severe H & S incident/industrial action/sustained loss of key groups of staff/death causing termination of operations.	Damage/loss of equipment or supplies and/or increase in costs of staffing, supplies or services >£2500	Significant impact on service provision/unable to function or carry out programme obligations/ highly damaging national or international publicity.	Major harm/death	IT down or slow for 1 working week/huge loss of data causing termination of services/decision based on corrupted information threaten Programme future.	Significant and costly change to comply with legislation and directions. Programme unable to continue operations

## 4.5 Laboratory

### **Background:**

The single Scottish Laboratory is based within the Scottish Bowel Screening Centre at Kings Cross, Dundee. The Laboratory aspects for roll out of the Scottish Bowel Screening Programme were well established during the three pilot screening rounds [2000-2007]. Faecal Immunochemical Test (FIT) kits are used as second line testing in the Programme if equivocal results are found with the initial guaiac-based Faecal Occult Blood Test (FOBT)<sup>1</sup>. Potential improvements to the screening algorithm continue to be actively investigated.

### **Accreditation & Quality Assurance:**

- Accreditation of the consultant-led Laboratory was achieved after assessment by Clinical Pathology Accreditation (UK) Ltd under ISO 15189 based standards in February 2002 and in October 2006. Re-accreditation is applied for annually and is granted subject to maintaining standards: a surveillance visit is conducted every two years between major assessments and this was done in November 2008. The Laboratory continues to have no non-compliances.
- Laboratory procedures comply with Health and Safety Codes of Practice and the Quality Policy of the Department of Biochemical Medicine, NHS Tayside.
- Comprehensive quality assurance techniques are conducted as described in the relevant standard operating procedures.
- Internal Quality Control is performed at a rate of 2.00% per Screener [+/- 0.10%]. The quality control challenges are designed to be indistinguishable from the kits submitted by participants.
- The Laboratory participates in the Yorkshire EQAS, an external quality assessment scheme registered with CPA (UK) Ltd.
- The overall outcome performance of the Programme and the work of each individual Screener are monitored using the percentages of positive, weak positive and negative FOBT, and positive and negative FIT.

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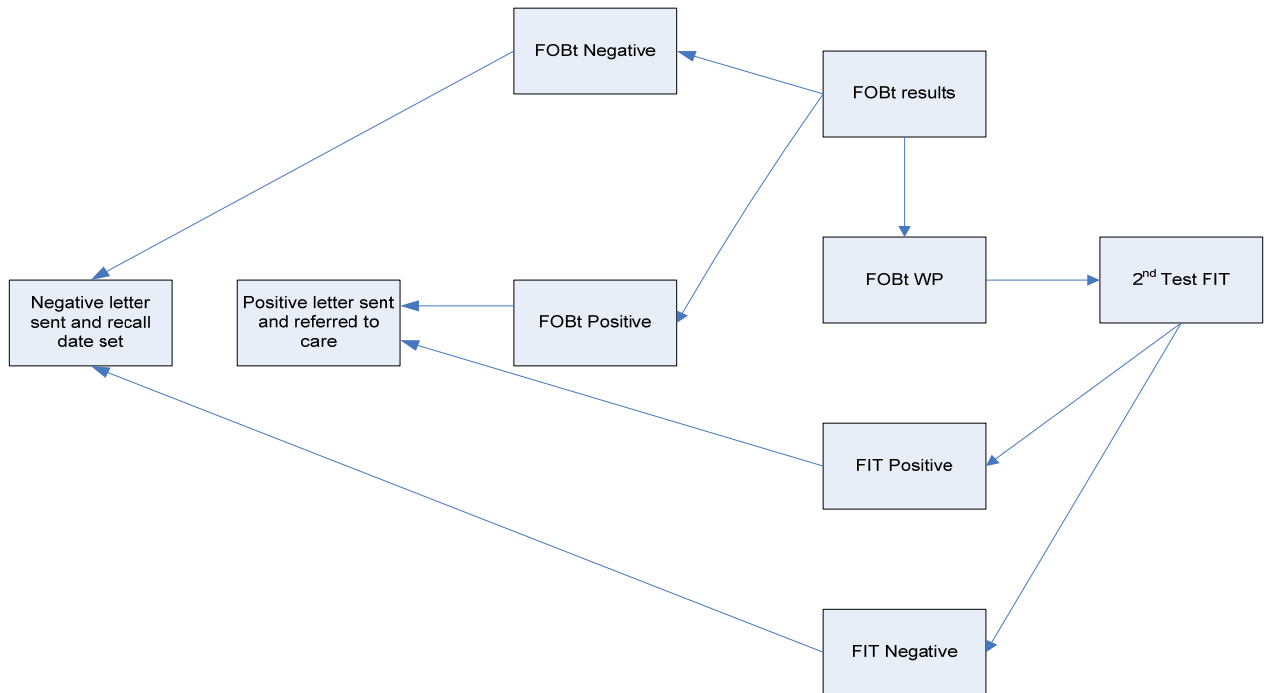
<sup>1</sup>Bowel Screening Programme – Proposal to Programme Board – Introduction of Faecal Immunochemical Tests

- The Quality Manager for Biochemical Medicine, NHS Tayside, annually conducts all audit activities required for compliance with the standards laid down by CPA (UK) Ltd.
- The Laboratory is measured against the Standards for the Bowel Screening Programme published by NHS Quality Improvement Scotland (QIS) and meets all of these.

**Process:**

- Test kits are received each morning, then booked-in and sorted by date order: the number of unlabelled kits is documented.
- All problems are passed to senior Laboratory staff for immediate resolution.
- Testing of FOBT, FIT and alternate tests is done following standard operating procedures by trained Screeners supervised at all times by senior staff.
- 95% of all tests are completed within 5 working days of receipt.
- Following testing, the result entered into the BoSS system automatically generates a result letter for issue the following working day.

The following flowchart shows the two-tier reflex FOBT/FIT screening algorithm.



**Note:** FOBT – guaiac-based faecal occult blood test  
FOBT positive – 5 or 6 windows positive  
WP – FOBT weak positive – 1-4 windows positive  
FIT – faecal immunochemical test

Print Save

Hospital use only	Clinic	Day Date	Time	Hospital No.
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REFERRAL LETTER  
MEDICAL IN CONFIDENCE

<b>REFERRAL TO</b>	
Scottish Bowel Screening Programme Local Coordinator	— <b>Consultant / receiving practitioner and/or specialty clinic</b>
Argyll and Clyde Referral Location Argyll and Clyde, AC Address 2, AC Address 3, UN1 0WN	— <b>Hospital and hospital address</b>
	Hospital unit no. 187663
	Email address -
<b>Urgency of referral</b>	<b>Urgent</b> High Risk of Bowel Cancer

<b>PATIENT DETAILS</b>	
<b>Surname</b>	<input type="text"/>
<b>Forename(s)</b>	<input type="text"/>
Title	<input type="text"/>
Sex	<input type="text"/>
<b>Date of birth</b>	<input type="text"/>
CHI no.	<input type="text"/>
	<b>Patient's address</b>
	<input type="text"/>
	Contact number(s)
	<input type="text"/>

<b>REGISTERED GP DETAILS</b>	<b>Practice address</b>
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<b>REFERRING HCP DETAILS</b>		
<b>Organisation Name</b>	<b>Organisation address</b>	<b>Contact No.</b>
Scottish Bowel Screening Programme	Scottish Bowel Screening Centre, Kings Cross, Clepington Road, Dundee, DD3 8AE	01382 425677

<b>CLINICAL INFORMATION</b>
POSITIVE BOWEL SCREENING TEST RESULT
Requires urgent assessment for a screening colonoscopy