

5. NHS National Services

5.1 Commissioning Arrangements

Background:

National Services Division (NSD), NHS National Services Scotland, commissions the central elements of the programme. Funding is provided to NSD under the top-slicing arrangements (for most recent top-slicing estimates please contact NSD).

Process:

The central elements include:

- Scottish Bowel Screening Centre,
- centre staff,
- bowel screening call-recall system (development & maintenance),
- test kits, and
- equipment.

A Service Agreement (SA) between NSD and NHS Tayside is in place for the overall management of the Centre.

The SA details what is required of NHS Tayside and the reporting structure to NSD.

Meetings will be held twice a year to discuss funding and management issues.

5.2 Information Services (ISD), NHS National Services Scotland

ISD will have responsibility for producing agreed Scottish Bowel Screening reports against the Key Performance Indicators (KPIs) for the bowel screening programme both at national and NHS Board level.

Please refer to National Minimum Dataset for definitions and indication on what data are collected and collated (nationally or locally) as part of the programme.

5.3 Monitoring and Evaluation

National Services Division (NSD), NHS National Services Scotland (NSS) is responsible for implementing the national rollout in conjunction with NHS Boards. On completion of rollout, NSD will continue to monitor the effectiveness of the programme.

The role of Information Services (ISD) is to collate and analyse data and produce statistics for use in monitoring and evaluation of the programme. ISD also has a role in reporting and publishing national data and will analyse the data from the Centre, NHS Board data returns and the colorectal cancer minimum dataset on a regular basis to produce the KPIs for the programme. There will also be the ongoing monitoring of the NHS Quality Improvement Scotland (NHS QIS) standards for the screening programme.

NHS Boards will collate additional data on their screened patients which will be generated, collated and analysed locally to assist the NHS Board coordinators in their role of local performance monitoring.

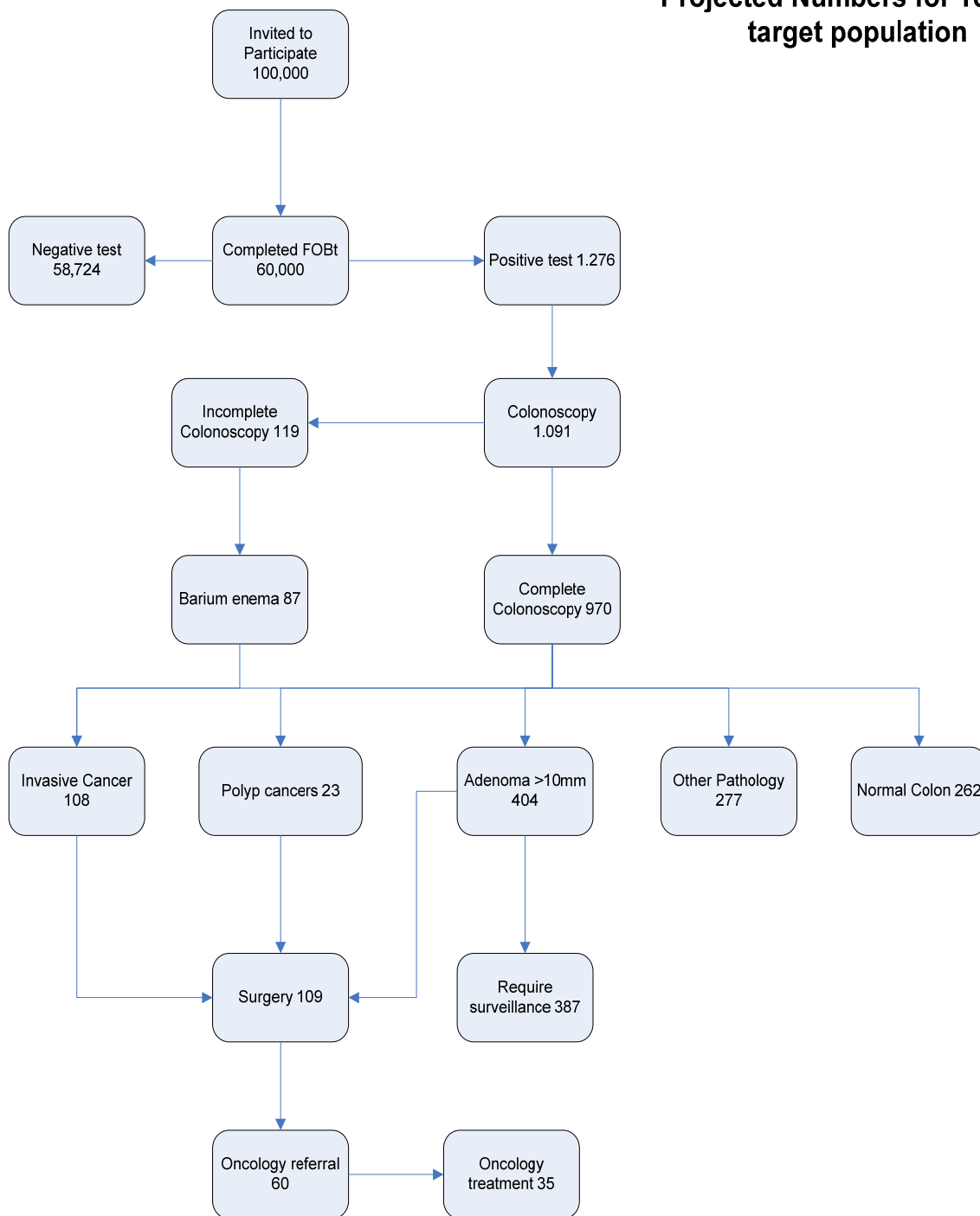
See Chapter 6 – Collection of minimum dataset and download of data to ISD.

Reports

The new Bowel Screening IT system (BoSS) produces reports relating to both call-recall and laboratory statistics. These reports will be viewable via Mobius, which is an external system that allows users to view reports online. There are 3 main viewers of BoSS reports

- Screening Centre
- ISD (restricted to certain reports)
- Practitioner Services Division (PSD) – only undelivered mail reports.

Projected Numbers for 100,000 target population



Notes:

1. Figures extrapolated from first round pilot data
2. 100,000 target population = all males and females 50-74 years
3. Figures based on 60% uptake and 2.1% positivity
4. Not all individuals who have a positive FOBT test progress to colonoscopy as it may be inappropriate or may be refused
5. Colonoscopy and Barium Enema – small number of patients who were not referred. DNAs etc
6. No neoplasia includes Diverticular Disease, IBD, etc
7. BSG guidelines used for follow up of adenomas
8. Surgery includes invasive cancers and surgery for adenomas/benign disease

5.4 National Minimum Dataset

Minimum Dataset – HEALTH BOARD SPECIFICATION

| Column Name | Standard / KPI | Definition | Response | Format | Field Length | Codes and Expected Values | Validation |
|-------------|----------------|--|-----------|------------|--------------|--|--|
| HBIDENT | | Health Board identifier/code | Character | Character | 1 | See appendix (iii). | Must be completed. |
| CHINUM | | Unique Community Health Index number | CHI | Characters | 10 | All 10 digits must be entered even if this includes a leading zero | Must be completed. Check against DOB and SEX. |
| PATSNM | | Patient's surname | Name | Characters | 35 | e.g. Smith | Free text, NO COMMAS. |
| PATFNM | | Patient's forename | Name | Characters | 35 | e.g. John | Free text, NO COMMAS. |
| DOB | | Person Birth Date | Date | CCYY-MM-DD | 10 | e.g. 1952-04-07 | Date validation (DD 1-31, MM 1-12, CCYY 19**) and must be prior to all other dates. Check against CHINUM. |
| PATPCODE | | Full postcode | Postcode | LL(N)N NLL | 8 | e.g. FK13 6JR, G2 1AF | |
| SEX | | Person Sex (at birth) | M/F | Characters | 1 | 0 - Not Known, 1 - Male, 2 - Female, 9 - Not specified | Must be completed and checked against CHINUM. 2nd last digit should be odd if male and even (including 0) if female. |
| SCRERESDAT | QIS 6a.1 | Date of notification of a screening result. This is the referral date for the investigation of a positive screening test, located at the top left hand corner of the SCI Gateway referral. | Date | CCYY-MM-DD | 10 | e.g. 2008-08-12 | Must be completed, date validation (DD 1-31, MM 1-12, CCYY 20**) and must be prior to, or equal to, first available colonoscopy date offered. N/A or Not known are not accepted. |
| PRECOLAS | QIS 5 | Pre-colonoscopy assessment offered? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 02- Refused, 99 - Not known | If left blank all subsequent entries must be blank. N/A is not accepted. |
| DATEPRECOL | KPI 4 | Date of pre-colonoscopy assessment | Date | CCYY-MM-DD | 10 | e.g. 2008-08-13 | Date validation (DD 1-31, MM 1-12, CCYY 20**) and must equal to or after SCRERESDAT and equal to or prior to DATECOLOFF. PRECOLAS must be 01(Yes). |
| FURTHASS | QIS 5a.2 | Further opportunity for pre-colonoscopy assessment offered? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 - Not known | N/A is not accepted. |

| | | | | | | | |
|-------------|-----------------|--|------|------------|----|---|---|
| COLOFFERED | QIS 5b.5, 5b.6 | Has a date for colonoscopy been offered at pre-assessment? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 02 – Refused, 99 - Not known | If PRECOLAS = 01 (Yes) then this must be completed. If PRECOLAS = 00 (No) then this must be blank. N/A is not accepted. |
| DATECOLOFF | KPI 4, QIS 6a.1 | First available colonoscopy date offered | Date | CCYY-MM-DD | 10 | e.g. 2008-08-14 | Date validation(DD 1-31, MM 1-12, CCYY 20**) If COLOFFERED = 01(Yes) then this must be completed. Must be after or equal to DATEPRECOL and/or after SCRERESDAT. |
| COLPERF | KPI 4, 16 | Colonoscopy performed? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 - Not known | N/A is not accepted. |
| DATECOLPERF | | Date colonoscopy performed | Date | CCYY-MM-DD | 10 | e.g 2008-08-15 | Date validation(DD 1-31, MM 1-12, CCYY 20**) If COLPERF = 01(Yes) then this must be completed If COLPERF = 00(No), 99(Not known) then this must be left blank Must be equal to or after DATECOLOFF, DATEPRECOL and SCRERESDAT. |
| COLREASON | New KPI | Reason for not having a colonoscopy <i>TO BE COLLECTED FROM 01 JULY 2010</i> | Code | Characters | 2 | 01- Under surveillance, 02- Clinical decision, 03- Declined, 04-Patient died, 05 – DNA, 00-No reason given, | If COLPERF = 00(No) then this must be completed. |
| COLCOMP | QIS 6 | Colonoscopy completed? Examination is complete when the colonoscopist considers that the entire length of the bowel has been visualised | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 – Not known | If COLPERF = 01(Yes) then this must be completed. If COLPERF = 00(No) or 99 (Not known) then this must be left blank. N/A is not accepted. |
| BARENCTC | QIS 6c.5 | Has a Barium enema, computed tomography (CT) colonography, other radiological examination or a second colonoscopy completed (when the first was incomplete)? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 – Not known | If COLCOMP = 00(No) then this must be completed. N/A is not accepted. |
| BARECTALT | QIS 6c.1 | If BARENCTC = 00(No) then was an alternative date for any of these procedures offered? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 – Not known | If BARENCTC = 00(No) then this must be completed. N/A is not accepted. |

| | | | | | | | |
|----------|-------------------|--|----------|----------------------|----|---|---|
| BARCTDAT | QIS 6c.1 | If barium enema, computed tomography colonography or other radiological examination completed, date performed? | Date | CCYY-MM-DD | 10 | e.g. 2008-08-16 | Date validation (DD 1-31, MM 1-12, CCYY 20**). If BARENCTC = 01(Yes) then this must be completed. Must be equal to or after DATECOLPERF, DATECOLOFF, DATEPRECOL and SCRERESDAT. |
| CANCER | KPI 6, 20, 22, 23 | Invasive Cancer detected?*(defined as invasive cancer arising from the colon and rectum including polyp cancers which should normally be coded T1NxMx) | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 – Not known | If COLPERF = 01(Yes) or BARENCTC = 01(Yes) then this must be completed. N/A is not accepted. |
| ICD-10 | | ICD-10 classification of neoplasm | Code | Characters | 5 | C18, C18.0, C18.1, C18.2, C18.3, C18.4, C18.5, C18.6, C18.7, C18.8, C18.9, C19, C20 | If CANCER = 01(Yes) then this must be completed. If CANCER = 00(No) then this must be left blank. |
| TNM-T | KPI 7 - 12 | Tumour classification (after surgery) | T | Characters | 3 | pTX, pT0, pT1, pT2, pT3, pT4, TX, T0, T1, T2, T3, T4, 99 - Not known | CANCER must = 01(Yes) and must be a valid value from National Data Definitions ¹ (if pathology). |
| TNM-N | | Nodal classification (after surgery) | N | Characters | 3 | pNX, pN0, pN1, pN2, NX, N0, N1, N2, 99 - Not known | CANCER must = 01(Yes) and must be a valid value from National Data Definitions ¹ (if pathology). |
| TNM-M | | Metastases classification (after surgery). If there is enough clinical information then record as M0 or M1 | M | Characters | 3 | pMX, MX, M0, M1, 99 - Not known | CANCER must = 01(Yes) and must be a valid value from National Data Definitions ¹ . |
| DUKES | KPI 7 - 12 | TNM derived Dukes' stage | Stage | Characters | 3 | 01=A, 02=B, 03A=C1, 03B=C2, 04=D, 96=Not applicable, 99=Not known | CANCER must = 01(Yes) and must be a valid code from National Data Definitions ¹ . 03 is not accepted. |
| POLYP | KPI 13 - 14, 23 | Polyps detected? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 - Not known | If COLPERF = 01(Yes) or BARENCTC = 01(Yes) then this must be completed. N/A is not accepted. |
| ADENOMA | KPI 13 - 14, 23 | Adenoma detected? (must have histological diagnosis) | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 - Not known | If COLPERF = 01(Yes) or BARENCTC = 01(Yes) then this must be completed. N/A is not accepted. |
| ADENNO | KPI 15, 21-22 | This is a count for the number of adenomas submitted for pathological examination | Number/X | Numeric or Character | 3 | Numerical value X - Not assessable 99 - Not known | If ADENOMA = 01(Yes) then this must be completed. N/A is not accepted. |

| | | | | | | | |
|----------|-----------------|---|------------------|----------------------|---|---|---|
| ADENSIZE | | The maximum dimension in mm of the largest adenoma submitted for pathological examination | Max size (mm) /X | Numeric or Character | 3 | Numerical value X - Not assessable 99 - Not known | If ADENNO is a number then this must be completed. |
| POLYPCA | KPI 18 - 20, 22 | Polyp cancer detected? (If adenoma with cancer) | Y/N | Characters | 2 | 00 - No, 01 – Yes 99 - Not known | If COLPERF = 01(Yes) or BARENCTC = 01(Yes) then this must be completed. N/A is not accepted. |
| POLYPECT | QIS 6c.5 | Polypectomy performed at colonoscopy? | Y/N | Characters | 2 | 00 - No, 01 – Yes, 99 - Not known | If COLPERF = 01(Yes) then this must be completed. |
| COMPLICP | KPI 17 | The most serious complication arising directly from the colonoscopy requiring admission | Description | Characters | 3 | 00 - None, 01 - Perforation:- A Pneumatic B Mechanical C Therapeutic, 02 - Bleeding, 03 - Pain, 04 – Sedation related 05 – Post polypectomy, 06 - Death, 96 - Not applicable, 98 - Other, 99 - Not known | Must be a valid code from National Data Definitions ² |
| MORT | | Has the patient died? (not necessarily of colorectal cancer) | Y/N | Characters | 2 | 00 - No, 01 - Yes, 99 - Not known | |

* must have histological confirmation

¹ NCDDP Colorectal Cancer Pathology Data Standards August 2007

² NCDDP Colorectal Cancer Clinical Data Standards August 2007

5.5 Key Performance Indicators

- 1 Overall uptake of screening
- 1a Overall uptake of screening by SIMD
- 2 Positive screening test result rate
- 3 Time from screening test result date to date colonoscopy performed
- 3a Time from screening test result date to date of appointment with specialist nurse
- 3b. Time between appointment with specialist nurse and first being offered a colonoscopy
- 3c. Time between appointment with specialist nurse and a colonoscopy being performed
- 4 Percentage of people with a positive screening test result going on to have a colonoscopy performed
- 4a Percentage of people with a positive screening test result going on to have a colonoscopy offered
- 4b Percentage of colonoscopic complications
- 4c Colonoscopy completion rate
- 5 Crude cancer detection rate
- 6 Percentage of people with screen detected cancers that are Dukes' stage A
- 6a Percentage of people with screen detected cancers that are Dukes' stage B
- 6b Percentage of people with screen detected cancers that are Dukes' stage C1
- 6c Percentage of people with screen detected cancers that are Dukes' stage C2
- 6d Percentage of people with screen detected cancers that are Dukes' stage D
- 6e Percentage of people with screen detected cancers that are staged
- 6f Polyp cancer detection rate
- 6g Percentage of polyp cancers
- 7 Overall adenoma detection rate
- 7a High risk adenoma detection rate
- 8a Positive Predictive Value of current screening test to cancer
- 8b Positive Predictive Value of all adenomas where adenoma is the most serious diagnosis
- 8c Positive Predictive Value of current screening test to high risk adenoma

- 8d Positive Predictive Value of current screening test to high risk adenoma or cancer
- 8e Positive Predictive Value of current screening test to any adenoma or cancer diagnosis
- 9 Percentage of people with screen detected cancers that are malignant neoplasms of the colon (ICD-10 C18)
- 10 Percentage of people with screen detected cancers that are malignant neoplasms of the rectosigmoid junction (ICD-10 C19)
- 11 Percentage of people with screen detected cancers that are malignant neoplasms of the rectum (ICD-10 C20)

Proposed KPI

- 12 Percentage of people categorised as having an interval cancer

KPIs from Rounds 1, 2 and 3 of the pilot are attached at Appendix 3.