NHS

The Information Centre for health and social care

National Bowel Cancer Audit

Public and Executive Summary of 2007 Annual Report

Key findings about the quality of care for people with bowel cancer in England and Wales

Report for the audit period 2004 – 2005 / 2005 – 2006

Prepared in association with:

Key findings about the quality of care for people with bowel cancer in England and Wales

Report for the audit period 2004 – 2005 / 2005 – 2006

The National Bowel Cancer Audit covers all patients in England and Wales with a diagnosis of bowel cancer. The aim of the audit is to better understand the quality of care given to patients with bowel cancer and thereby help services to improve. This will be achieved by evaluating trust's processes of care and outcomes of treatment and measuring these outcomes against national standards.

This second Public and Executive Summary of the annual report from the National Bowel Cancer Audit presents findings on data submitted to the National Bowel Cancer Audit for the periods 2004-2005 and 2005-2006.

70 (45 per cent) trusts participated in England and 11 (92 per cent) in Wales.

The National Bowel Cancer Audit Annual Report is available as a PDF download from the improving patient care section of our website. Printed copies can be ordered through our Contact Centre, quoting document reference 28010108.

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1.0 Acknowledgements

The National Bowel Cancer Audit is managed by the National Clinical Audit Support Programme (NCASP). It is commissioned and sponsored by the Healthcare Commission. It was developed in partnership with the Association of Coloproctology of Great Britain and Ireland (ACPGBI).

NHS Connecting for Health provided support and technical infrastructure.

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2.0 Foreword

Paul Finan
President 2006-2007

It gives me great pleasure to introduce the Public and Executive Summary of the 2007 Report of the National Audit of Bowel Cancer and to acknowledge immediately the huge effort by many people in bringing this to you in early 2008. This is the second Public and Executive Summary which reflects an enormous amount of work by many people over several years who have kept faith with what is now one of the more mature audits within the United Kingdom and Ireland. The audit is commissioned and sponsored by the Healthcare Commission, managed by the National Clinical Audit Support Programme and developed in partnership with the professional body most involved with the delivery of care to patients with bowel cancer, The Association of Coloproctology of Great Britain and Ireland. Our thanks must go to all those responsible for the production of the report and executive summary, in particular Jason Smith, Mike Thompson and Kimberley Greenaway.

It would be too easy to note the report and summary and assume a self-satisfied approach to a "job well done"! Whilst anyone who reads the report will agree that it is something of which to be proud, there are major challenges to all of us charged with the delivery of high quality care. Even with the data as it stands, consisting of records of outcome from over 60,000 patients, it is encouraging to note reductions in length of stay and peri-operative mortality. However, audits must move forward and it is an ambitious and yet achievable aim for a participation rate of over 80 per cent for eligible trusts and a similar target for completeness of the submitted data. Good quality data from national audits is vital and was specifically mentioned in the Cancer Reform Strategy. Participation in the audit features in the self-assessment against the Department of Health's Core Standards conducted by the Healthcare Commission's Annual Health Check. This should be taken by all responsible for delivery of care to patients with bowel cancer as an opportunity rather than a threat.

It is the aim of the audit to move towards open reporting of risk-adjusted outcome data in the 2009 report and I would urge all who read this summary and the associated report to note, at the very least, the forty or so essential data items that need to be collected on all cases. There will be many ways that such data is collected within trusts but direct submission via the web or uploads from individual cancer management systems should not be beyond any IT department!

Participating trusts in 2005/2006 are recorded in this summary and I would urge all Chief Executives to note what can be achieved within a national audit and ensure that the necessary support is in place for participation in future years. It is clear we now have the opportunity and support to develop a true national audit for patients with bowel cancer. That opportunity should not ignored.

P. Finan

Paul Finan
President 2006-2007
The Association of Coloproctology of Great Britain and Ireland

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3.0 Executive Summary

The primary aims of the National Bowel Cancer Audit are to investigate whether the care received by people with bowel cancer is consistent with national and professional body guidelines and to identify areas where improvements can be made. In England, data on participation in the audit is supplied to the Healthcare Commission and used in the 'Annual Health Check'. Participating and non participating trusts are shown in Appendix 1.

Participation:

- Almost 50 per cent of trusts are participating in the National Bowel Cancer Audit.
- Nearly 20 per cent of those trusts participating submit high quality data.

The audit shows:

- A 5 per cent postoperative mortality rate continues the downward trend of previous years; 7.5 per cent in 2001 and 5 per cent in 2006.
- The postoperative length of stay continues to decrease; 12 days in 2004 and 10 days in 2006. This is probably one of the most reliable measurements made in the audit and a reduction is a surrogate marker of an overall improvement in the quality of care.
- A reduction in the proportion of patients having surgery; 70 per cent of patients had surgery in 2006 compared to 80 per cent in 2001.
- 4 – 6 per cent of patients were recorded as having laparoscopic completed surgery. NICE guidance suggests that laparoscopic surgery should be available to all patients.
- An increase in the number of trusts meeting NICE guidance on the number of lymph nodes examined in a surgical specimen.
- More men than women are getting colorectal cancer (1.2:1) and men continue to have proportionately more rectal than colon cancer (1.5:1) and at a younger age. The male to female ratio has not changed during the 6 years of the audit.
- 28 per cent of bowel cancer patients are of working age (<65), 12 per cent over 85 and 4 per cent over 95.

During the 6 years of the audit 64,700 patient records have been submitted by participating trusts. However, not all eligible trusts participate in the audit and those that do are not always submitting complete data on all of their bowel cancer patients. In 2009 the audit aims to report trust identifiable data on casemix-adjusted clinical outcomes: a high level of trust participation, case ascertainment and data completeness is vital to allow meaningful and robust conclusions to be made. The audit is aiming to achieve a participation rate of over 80 per cent of eligible trusts and a level of 80 per cent of data completeness of the essential data items. The data items can be found on the cancer audit section of our website.

www.ic.nhs.uk/canceraudits

3.1 Main Recommendations

It is recommended that:

- All trusts who contribute to the care of bowel cancer patients should participate in the National Bowel Cancer Audit and submit data on all of their bowel cancer patients ensuring that the data submitted is as complete as possible.
- All clinical units should aim to reduce the overall length of stay by introducing enhanced recovery programmes and laparoscopic surgery.
- All trusts should aim to submit data on lymph node retrieval and meet the NICE guidelines of removing and examining a minimum of 12 lymph nodes for each surgical specimen.
- All trusts should record and submit the ASA grade to the audit for all patients.
- All trusts should accurately record the Dukes' staging for all their patients.
- All trusts should offer a pre-operative MR scan to all rectal cancer patients having elective surgery and this data should be recorded and submitted to the audit.
- All trusts should record all of their case-mix factors – age, ASA grade, Dukes' stage and the nature of surgery and submit these to the audit to enable risk adjusted postoperative mortality to be calculated.

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4.0 The National Context

The National Clinical Audit Support Programme (NCASP) manages a number of national clinical audit projects in heart disease, cancer and diabetes. Each audit aims to improve the care and treatment of patients by measuring care provided against national and professional guidelines. The results from the audits are monitored to confirm that improvements are being sustained.

Bowel cancer services have greatly changed over the 6 years of the audit and these improvements are supported by national initiatives such as the Cancer Peer Review process, that reviews the infrastructure and processes available at trust and network level, NICE guidance, that sets national standards which trusts should aim to achieve, and clinical guidance, that recommends appropriate treatment and care of bowel cancer patients.

Data from the National Bowel Cancer Audit can be used to measure national standards, set future guidance and monitor outcomes. In the Cancer Reform Strategy, published December 2007, the vital role that good clinical outcomes data, provided by national audits, could play in the development and commissioning of high quality services has been explicitly recognised. The importance of the National Cancer Audits has been acknowledged and consideration given to how data from these can be best integrated with that from other sources.

In Wales, the importance of clinical information was highlighted in the Cameron report and the approach in Wales has been to adopt a single national cancer information system, CANISC, the primary function of which is a summary electronic case record for patient care. Secondary uses of the information include audit, commissioning, standards monitoring and other cancer service information requirements.

The production of good quality clinical outcomes data is one of the main aims of the National Bowel Cancer Audit. The ability to feed the results of the analyses back to providers of care should stimulate questions as to why certain aspects of their services may be less effective than others and lead to voluntary changes in the care provided.

As well as providing feedback so that local healthcare professionals and managers can identify where services need improvement there are multiple reasons for participation in the National Bowel Cancer Audit:

- since 2005-2006 information about participation in audits is being used to cross check provider trusts self-assessments against the Department of Health's Core Standards as part of the Healthcare Commission's Annual Health Check
- participation in national audit is a requirement of the Peer Review process
- national reports summarise the key messages, often receiving considerable media attention when published
- the peer pressure that is generated by such comparative data
- service commissioners utilise national audit data
- the long-term objective for the Healthcare Commission is to ensure that all levels within the NHS and the public have access to accurate and complete casemix adjusted comparative clinical audit data
- in Wales, the Healthcare Strategy set out in 'Designed to Tackle Cancer in Wales' requires that all cancer teams participate in National Clinical Audits by March 2008.

In England, the national audits already supply participation data to the Healthcare Commission.

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5.0 National Bowel Cancer Audit

The National Bowel Cancer Audit has been collecting data since 2000. Initially the audit was run by the professional body, the Association of Coloproctology of Great Britain and Ireland but in 2004 the Healthcare Commission commissioned the National Clinical Audit Support Programme to manage the audit as one of its programme of cancer audits.

The Open Exeter data collection system for the audit was rolled out in July 2006 and since then all eligible trusts have been encouraged to submit their data via this route. Data can be submitted via direct data entry or the csv file upload facility. The csv file upload facility has been incorporated into a number of third party clinical systems. The data collection system is fully supported by the Open Exeter Helpdesk and full user documentation. Any trust still wishing to register to participate in the audit will need to complete a Data User Certificate.

All user documentation can be found on the NCASP cancer audits section of our website.

www.ic.nhs.uk/canceraudits

5.1 Trust Identifiable Data Reporting Period

The audit will publish comparative data by trust in the 2008 and 2009 annual reports, a list of the trust identifiable data items and the year in which they will be reported can be found in Appendix 2.

5.2 Casemix Adjustment

Clinical outcomes are 'case-mix' adjusted to enable comparisons between trusts. The key casemix factors collected in the National Bowel Cancer Audit are:

- age at diagnosis
- ASA grade (patient frailty)
- operative urgency
- stage of cancer
- cancer resection

5.3 Essential Data Items

The audit project team have identified an essential dataset of 43 data items, this is a subset of the main audit dataset and are the minimum number of data items that need to be submitted in order to make a valid contribution to the audit. All units are strongly encouraged to submit all these data items. The essential dataset can be found on the cancer audit section of our website.

www.ic.nhs.uk/canceraudits

5.4 Data Submission Deadline

The data submission deadline for the 2009 Annual Report will be early December 2008.

5.5 Participation

45 per cent of trusts in England and 92 per cent in Wales submitted data for this 2007 Annual Report. All organisations managing patients with bowel cancer should submit data to the National Bowel Cancer Audit or ensure that another organisation is submitting data on their behalf. A national picture cannot be obtained while organisations fail to submit data. It is frustrating for trusts who do submit data to find that their patient records are incomplete because another trust involved in the patient pathway does not participate. In England data on audit participation is sent to the Healthcare Commission as part of their Annual Health Check. The audit aims to achieve 80 per cent trust participation in the 2009 Annual Report.

5.6 Case ascertainment

Case ascertainment has been calculated using the Cancer Wait Times submission numbers for England. Case ascertainment for trusts has been divided into three categories, using a 'traffic light' system:

Good	> 80% Case Ascertainment
Fair	50% – 80% Case Ascertainment
Poor	< 50% Ascertainment

The 2007 Public and Executive Summary report includes cases diagnosed from 31 March 2004 to 1 April 2006; case ascertainment and data completeness has been based on the 2005-2006 data only.

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In England 32 per cent of participating trusts achieved good or fair case ascertainment. In Wales all participating trusts achieved good or fair case ascertainment. The audit believes that trusts should be submitting at least 80 per cent of their cases for risk adjusted outcomes to be calculated reliably. Risk adjustment is less reliable in the 50 per cent to 80 per cent range and the audit does not risk adjust data from trusts with less than 50 per cent case ascertainment.

5.7 Data Completeness

Data completeness has been calculated by looking at the amount of missing data from the five variables comprising the Association of Coloproctology's mortality model, which adjusts for case-mix, and expressing this as a percentage of missing data. The same system used to grade case ascertainment has been used for data completeness.

Trusts that achieved good or fair case ascertainment generally submitted complete datasets. However, only 17 per cent of all trusts in England and Wales submitted sufficient case ascertainment (>80 per cent case ascertainment) and completeness (80 per cent of the five essential data items required for the mortality model) to measure risk adjusted clinical outcomes.

The 17 per cent of trusts submitting complete data shows it is possible, in spite of all difficulties to accomplish all the aims of a National Bowel Cancer Audit with the establishment of fair and therefore achievable National Standards. The current audit will enable the participating trusts to monitor improvements in the care they are providing over the years against their own 'baseline'. Although it will be possible to compare themselves against those other trusts also submitting high quality data, until there are over 80 per cent of clinical units in England and Wales providing similar quality data it will not be possible to determine whether their practice is above or below average.

These results should be used to persuade none or poorly participating trusts that it is possible to submit high quality data.

The National Bowel Cancer Audit have identified an essential dataset of 43 data items, this is the minimum number of data items that need to be completed in order to make a valid contribution to the audit.

Key Recommendation

- It is recommended that all trusts participating in the audit should submit all of their bowel cancer patients and all the essential data fields.

Directly age-standardised using the European Standard Population.

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6.0 Findings

6.1 Age/sex distribution

More men than women have colorectal cancer and men continue to have more rectal than colon cancer at an earlier age.

During the 6 years of the audit there has been no change in the ratio of male to female patients. The median age also remains the same with women having a median age 2 years higher than men in each year of the audit.

Figure 1:
Effect of Age and Gender on the Distribution of Cases

Age Groups	Male		Female		Male		Female	
	n	%	n	%	n	%	n	%
<65	2029	16.5	1432	11.6	1849	16.4	1366	12.1
65-74	1970	16.0	1387	11.3	1724	15.3	1154	10.2
75-84	2145	17.4	1992	16.2	1865	16.5	1605	14.2
85-95	469	3.8	673	5.5	500	4.4	583	5.2
>95	103	0.8	119	1.0	347	3.1	294	2.6
Total	6716		5603		6285		5002	

Figure 2:
Effect of Cancer Site on the Distribution of Cases

	Male			Female			Total		
Cancer Site	n cases	%	median age	n cases	%	median age	n cases	%	median age
proximal	4048	17.1	73	4233	17.9	75	8281	35.1	74
distal	7826	33.2	71	5378	22.8	72	13204	55.9	41
missing	1127	4.8	71	994	4.2	74	2121	9.0	72
Total	13001	55.1	72	10605	44.9	74	23606	100	73

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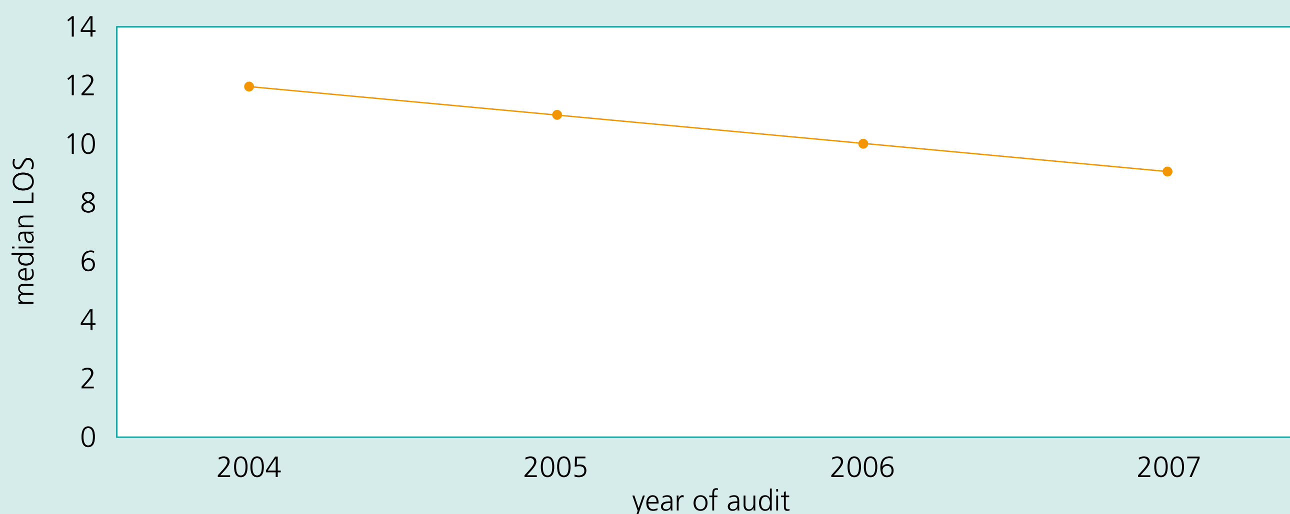
6.2 Length of stay

The audit is able to demonstrate that there has been an encouraging reduction in the length of stay. The median length of stay was 12 days in 2004, 11 days in 2005 and 10 days in 2006.

Age, Dukes' stage, ASA grade and operative urgency will all contribute to a longer length of postoperative stay. Avoidance of operating on patients who will not benefit from surgery, stenting of patients with large bowel obstruction, laparoscopic resections and the introduction of "Enhanced Recovery Programmes" will all be reflected in a reduction in the length of hospital stay after surgery.

A shorter length of stay is, therefore, a surrogate marker of higher quality care; length of stay is potentially the most accurate way of monitoring quality of care.

Figure 3:
Median Length of Stay 2004 - 2007



Key Recommendation

- It is recommended that all clinical units aim to reduce the overall length of stay by introducing enhanced recovery programmes and laparoscopic surgery.

6.3 Dukes' Stage

Dukes' staging is an important case-mix factor in adjusting for post-operative mortality but it is inaccurately recorded in some cases particularly Dukes' stage D.

Increased pre-operative CT staging will result in the identification of more patients with disseminated disease that would not be apparent at the time of operation. Accurate pre-operative recording of Dukes' D will allow greater accuracy in the calculation of a trust's risk-adjusted post-operative mortality. This means that trusts achieving good pre-operative staging will falsely appear to be better than those not achieving this.

Key Recommendation

- It is recommended that all trusts accurately record the Dukes' staging for all their patients.

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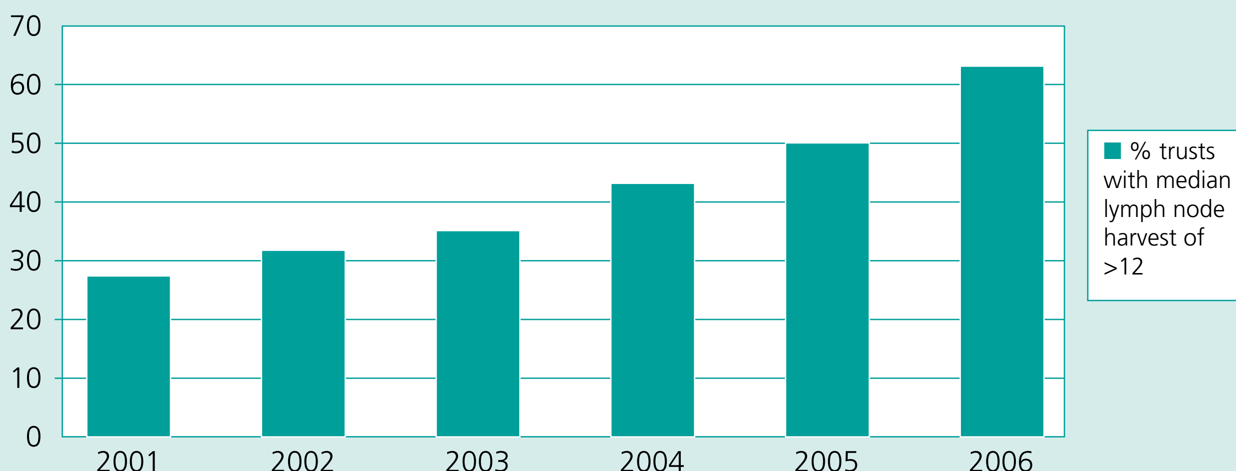
6.4 Lymph node harvest

NICE guidance states that there should be a median of 12 lymph nodes removed and examined from each surgical specimen. The numbers of lymph nodes will vary from case to case depending on the site and mode of surgery and whether or not the patient has had radiotherapy. Adjustments for case mix will need to be made for these factors before comparing clinical units. Patients having less than 12 lymph nodes examined are at an increased risk of having their staging incorrectly diagnosed which leads to under treatment with chemotherapy and falsely high estimates of predicted survival.

Nearly 50 per cent of trusts submitted data on lymph node retrieval. Of those that did, in 2006, 65 per cent of trusts harvested 12 or more lymph nodes compared to 50 per cent of trusts in 2005. However, 35 per cent of trusts submitting data to the audit are still not meeting the NICE guidelines.

Figure 4:
Percentage of Trusts meeting NICE Guidelines for lymph node harvest 2001-2006.



The audit shows that in trusts submitting this data increasing numbers are meeting NICE Guidelines. This will be openly reported after risk adjustment by named trusts in the 2009 Annual Report.

Key Recommendation

- It is recommended that all trusts should aim to submit data on lymph node retrieval and meet the NICE guidelines of removing and examining a median of 12 lymph nodes for each surgical specimen.

6.5 ASA Grade

Co-morbidity (frailty of the patient) in the audit is determined by ASA (American Society of Anaesthesiologists) grade at the time of surgery. Although this is routinely collected information and should be available for all patients who undergo an operation it is poorly reported in the audit. ASA grade was missing in 38 per cent of all operated cases submitted for 2005 and in 49 per cent for 2006. As the audit moves to open reporting of trusts it is especially important that this information is submitted as failure to submit this can result in inaccurately risk-adjusted clinical outcomes.

Key Recommendation

- It is recommended that trusts should record and submit the ASA grade to the audit for all patients.

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6.6 Operative Urgency

Patients who require emergency surgery have been shown to have a mortality rate almost four times higher than those patients who undergo elective surgery. Emergency surgery presents the highest risk to a patient as it is an immediate, life saving procedure, where there may be less information available about the patient who will be less well than those having an elective or scheduled operation.

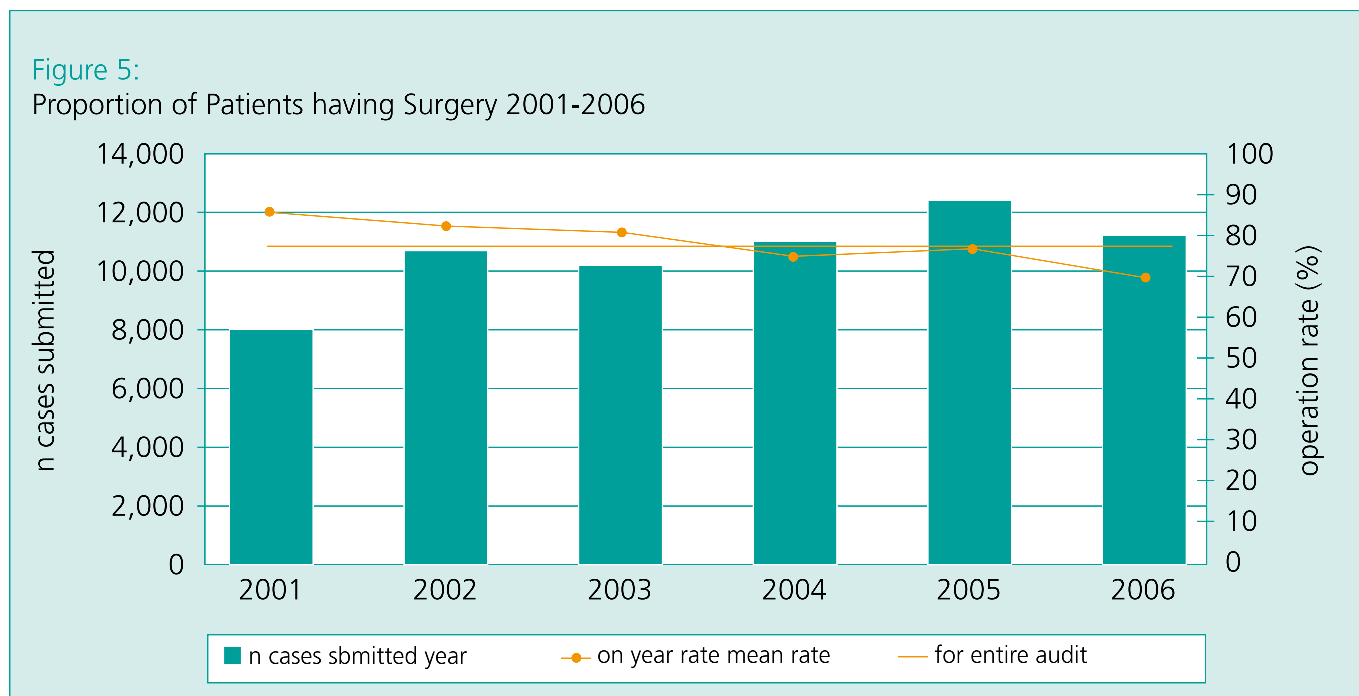
The Cancer Reform Strategy vision for bowel cancer 2012 states that emergency surgery at night will have reduced considerably and has suggested that colonic stenting will become routine practice as a bridge to surgery. Colonic stenting (a thin metal tube which is placed through a narrowed or blocked section of colon) can be used to ease a bowel obstruction and may avoid the high risk of emergency surgery and reduce the need for permanent colostomies.

6.7 Proportion of patients having surgery and the nature of operative procedures

The ACPGBI guidelines originally suggested that over 90 per cent of patients with bowel cancer should have surgery. However, with improved pre-operative imaging and identification of early and advanced disease, stenting large bowel obstruction and the national bowel screening programme it is likely that the number of patients having major surgery will decrease. This decrease will be a surrogate marker of higher quality care.

The data submitted to the audit since 2001 shows that the percentage of patients undergoing an operative procedure has decreased from 85 per cent in 2001 to around 70 per cent in 2006.

Figure 5:
Proportion of Patients having Surgery 2001-2006



Colonic stenting is seen as a potentially safer procedure in high-risk cases. However, the audit shows there is an 11.1 per cent post procedure mortality rate, which is much higher than the 1 to 2 per cent mortality in reported series and may represent a more realistic figure. If this is correct this must be taken into account when offering patients this procedure rather than open surgery. Colonic stenting will be looked at in more depth for the 2008 Annual Report.

The NICE and ACPGBI Guidelines have endorsed the move to laparoscopic surgery for bowel cancer patients and it is recommended that these cases should be entered into the National Audit to monitor the introduction of the technique so that there will be an early warning system to identify problems that may occur. The audit shows only six per cent of patients had the benefit of this procedure in 2006.

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NICE guidelines recommend that an abdominoperineal excision of rectum (APER), an operative procedure that results in a permanent 'bag', should be kept to a minimum.

The audit shows a 15 to 25 per cent permanent colostomy rate following elective rectal cancer surgery depending on the method of calculation. This is difficult to measure accurately and needs to be risk adjusted.

Figure 6:
Common operations in the National Bowel Cancer Audit

Operation	Cases (n/%)
Right Hemicolectomy	5196 (29.3%)
Anterior Resection	4922 (27.2%)
Sigmoid Colectomy	1351 (7.6%)
APER	1213 (6.8%)
Hartmann's procedure	1036 (5.8%)
Left Hemicolectomy	956 (5.4%)

6.8 Circumferential resection margin involvement

NICE and ACPGBI guidelines recommend that all rectal cancer cases should have a pre-operative MR scan to determine the circumferential resection margin status, to ensure that there is a cancer-free zone between the cancer and the edge of the section of bowel being removed. This will determine whether the patient would benefit from pre-operative radiotherapy and predicts local recurrence and survival.

The Cancer Reform Strategy vision for bowel cancer 2012 states that "short course pre-operative radiotherapy will be delivered to selected groups of patients based on a level of risk of local recurrence assessed by the MDT…"

This is poorly reported in the audit, which makes conclusions about current rates of pre-operative circumferential involvement unreliable.

Key Recommendation

- It is recommended that all trusts offer a pre-operative MR scan to all of their rectal cancer patients and this data be recorded and submitted to the audit.

6.9 Post-operative mortality

The audit shows a decrease in post-operative mortality from 7.5 per cent in 2001 to 5 per cent in 2006. The audit aims to openly report post-operative mortality adjusted for case-mix in the 2009 Annual Report. It is essential that trusts submit high quality data for this to be achieved.

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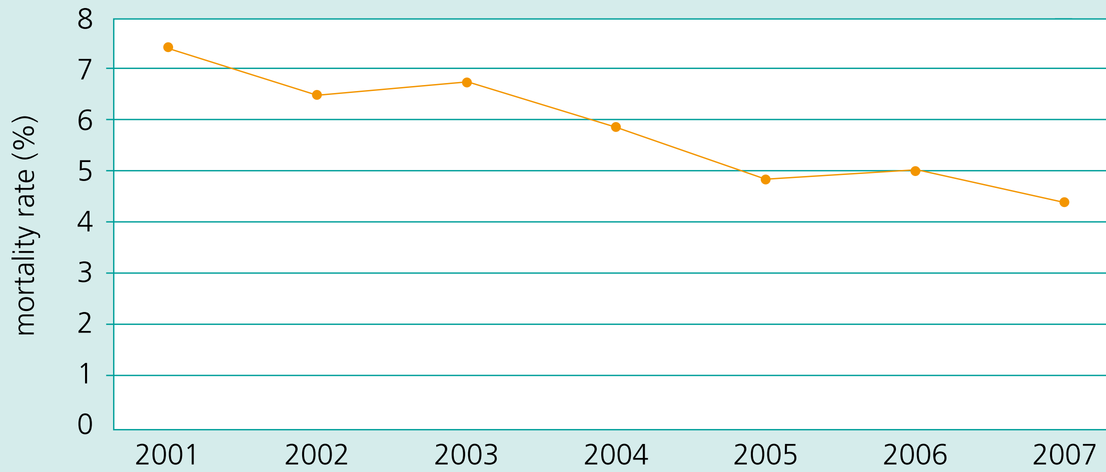
Figure 7:
Post-operative mortality 2001 – 2006



Key Recommendation

- It is recommended that all trusts record all of the case-mix factors – age, ASA grade, Dukes' stage and the nature and mode of surgery and submit these to the audit to enable risk adjusted post-operative mortality to be calculated.

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7.0 Conclusions and Recommendations

Issues	Recommendations	Principle action by:
1. Median length of stay greater than the report median of 11 days	It is recommended that all clinical units should introduce enhanced recovery programmes and laparoscopic colorectal surgery. Where appropriate trusts should ensure that surgeons are trained and able to perform laparoscopic procedures.	Healthcare Professionals Clinical Leads Trust/hospital Management
2. Failure to meet NICE guidelines for lymph node retrieval (median of 12 per patient)	It is recommended that all trusts not meeting this target should encourage pathologists and surgeons to review their procedures.	Clinical Leads Healthcare Professionals
3. Non participation of trusts	It is recommended all trusts who contribute to the care of bowel cancer patients should participate in the National Bowel Cancer Audit.	Clinical Leads Trust/hospital Management Data Managers
4. Low case ascertainment	It is recommended that all eligible trusts should submit all of their bowel cancer patients to the National Bowel Cancer Audit. Networks should encourage the systematic flow of data between trusts to collect treatment data along the whole care pathway.	Clinical Leads Trust/hospital Management Data Managers Cancer Networks Healthcare Professionals
5. Poor data completeness means that casemix adjustment of clinical outcomes is not possible	It is recommended that all participating trusts should ensure that their data is as complete as possible and aim to have 100 per cent data completeness for all of the essential data items. Health care professionals and users should support the process of data collection.	Cancer Networks Healthcare Professionals Clinical Leads Trust/hospital Management Data Managers Users

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Appendix

Appendix 1:

Participation ascertainment and Quality of Data

Trust Name	2005	2006	DC-2006	DQ-2006
BARKING, HAVERING AND REDBRIDGE HOSPITALS NHS TRUST	Y	Y		
BASILDON AND THURROCK UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	Y	Y		
BRADFORD TEACHING HOSPITALS NHS FOUNDATION TRUST	Y	Y		
BRIGHTON AND SUSSEX UNIVERSITY HOSPITALS NHS TRUST	x	Y		
COUNTESS OF CHESTER HOSPITAL NHS FOUNDATION TRUST	Y	Y		
COUNTY DURHAM AND DARLINGTON NHS FOUNDATION TRUST	Y	Y		
EAST SOMERSET NHS TRUST	Y	Y		
GATESHEAD HEALTH NHS FOUNDATION TRUST	Y	Y		
HARROGATE AND DISTRICT NHS FOUNDATION TRUST	Y	Y		
HEATHERWOOD AND WEXHAM PARK HOSPITALS NHS TRUST	Y	Y		
HEREFORD HOSPITALS NHS TRUST	Y	Y		
HOMERTON UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	Y	Y		
MAYDAY HEALTHCARE NHS TRUST	Y	Y		
NEWHAM UNIVERSITY HOSPITAL NHS TRUST	Y	Y		
NORTH BRISTOL NHS TRUST	Y	Y		
NORTH CHESHIRE HOSPITALS NHS TRUST	Y	Y		
NORTH TEES AND HARTLEPOOL NHS TRUST	Y	Y		
NORTHUMBRIA HEALTHCARE NHS FOUNDATION TRUST	Y	Y		
PETERBOROUGH AND STAMFORD HOSPITALS NHS FOUNDATION TRUST	Y	Y		
POOLE HOSPITAL NHS TRUST	Y	Y		
PORTSMOUTH HOSPITALS NHS TRUST	Y	Y		
QUEEN ELIZABETH HOSPITAL NHS TRUST	Y	Y		
ROYAL UNITED HOSPITAL BATH NHS TRUST	Y	Y		
ROYAL WEST SUSSEX NHS TRUST	Y	Y		
SALISBURY NHS FOUNDATION TRUST	x	Y		
SHREWSBURY AND TELFORD HOSPITAL NHS TRUST	Y	Y		
SOUTH WARWICKSHIRE GENERAL HOSPITALS NHS TRUST	Y	Y		
SOUTHAMPTON UNIVERSITY HOSPITALS NHS TRUST	Y	Y		
ST HELENS AND KNOWSLEY HOSPITALS NHS TRUST	Y	Y		
THE ROYAL BOURNEMOUTH AND CHRISTCHURCH HOSPITALS NHS FOUNDATION TRUST	Y	Y		
UNITED BRISTOL HEALTHCARE NHS TRUST	Y	Y		
UNIVERSITY COLLEGE LONDON HOSPITALS NHS FOUNDATION TRUST	Y	Y		
UNIVERSITY HOSPITAL OF SOUTH MANCHESTER NHS FOUNDATION TRUST	Y	Y		
UNIVERSITY HOSPITALS COVENTRY AND WARWICKSHIRE NHS TRUST	Y	Y		
UNIVERSITY HOSPITALS OF LEICESTER NHS TRUST	Y	Y		
WEST MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST	Y	Y		
WEST SUFFOLK HOSPITALS NHS TRUST	Y	Y		
WINCHESTER AND EASTLEIGH HEALTHCARE NHS TRUST	Y	Y		
WORTHING AND SOUTHLANDS HOSPITALS NHS TRUST	Y	Y		
YORK HOSPITALS NHS FOUNDATION TRUST	Y	Y		
CALDERDALE AND HUDDERSFIELD NHS FOUNDATION TRUST	Y	Y		
CAMBRIDGE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	Y	Y		
LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST	Y	Y		

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Trust Name	2005	2006	DC-2006	DQ-2006
LEEDS TEACHING HOSPITALS NHS TRUST	Y	Y		
NORFOLK AND NORWICH UNIVERSITY HOSPITAL NHS TRUST	Y	Y		
NORTHAMPTON GENERAL HOSPITAL NHS TRUST	Y	Y		
ROYAL DEVON AND EXETER NHS FOUNDATION TRUST	Y	Y		
SANDWELL AND WEST BIRMINGHAM HOSPITALS NHS TRUST	Y	Y		
SOUTH DEVON HEALTHCARE NHS FOUNDATION TRUST	Y	Y		
SOUTHPORT AND ORMSKIRK HOSPITAL NHS TRUST	Y	Y		
WEST DORSET GENERAL HOSPITALS NHS TRUST	Y	Y		
AINTREE UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	x	x		
AIREDALE NHS TRUST	x	x		
ASHFORD AND ST PETER'S HOSPITALS NHS TRUST	x	x		
BARNET AND CHASE FARM HOSPITALS NHS TRUST	x	Y		
BARNSLEY HOSPITAL NHS FOUNDATION TRUST	x	x		
BARTS AND THE LONDON NHS TRUST	Y	x		
BASINGSTOKE AND NORTH HAMPSHIRE NHS FOUNDATION TRUST	x	x		
BEDFORD HOSPITAL NHS TRUST	x	x		
BLACKPOOL, FYLDE AND WYRE HOSPITALS NHS TRUST	x	x		
BOLTON HOSPITALS NHS TRUST	x	x		
BROMLEY HOSPITALS NHS TRUST	x	x		
BUCKINGHAMSHIRE HOSPITALS NHS TRUST	x	x		
BURTON HOSPITALS NHS TRUST	x	x		
CENTRAL MANCHESTER AND MANCHESTER CHILDREN'S UNIVERSITY HOSPITALS NHS TRUST	x	x		
CHELSEA AND WESTMINSTER HOSPITAL NHS FOUNDATION TRUST	Y	x		
CHESTERFIELD ROYAL HOSPITAL NHS FOUNDATION TRUST	x	x		
CHRISTIE HOSPITAL NHS FOUNDATION TRUST	Y	Y		
CITY HOSPITALS SUNDERLAND NHS FOUNDATION TRUST	x	x		
CLATTERBRIDGE CENTRE FOR ONCOLOGY NHS FOUNDATION TRUST	x	Y		
DARTFORD AND GRAVESHAM NHS TRUST	Y	x		
DERBY HOSPITALS NHS FOUNDATION TRUST	Y	Y		
DONCASTER AND BASSETLAW HOSPITALS NHS FOUNDATION TRUST	x	x		
DUDLEY GROUP OF HOSPITALS NHS TRUST	x	x		
EALING HOSPITAL NHS TRUST	x	x		
EAST AND NORTH HERTFORDSHIRE NHS TRUST	Y	Y		
EAST CHESHIRE NHS TRUST	x	x		
EAST KENT HOSPITALS NHS TRUST	x	x		
EAST LANCASHIRE HOSPITALS NHS TRUST	Y	Y		
EAST SUSSEX HOSPITALS NHS TRUST	Y	x		
EPSOM AND ST HELIER UNIVERSITY HOSPITALS NHS TRUST	x	x		
ESSEX RIVERS HEALTHCARE NHS TRUST	Y	x		
FRIMLEY PARK HOSPITAL NHS FOUNDATION TRUST	x	x		
GEORGE ELIOT HOSPITAL NHS TRUST	Y	Y		
GLOUCESTERSHIRE HOSPITALS NHS FOUNDATION TRUST	x	x		
GOOD HOPE HOSPITAL NHS TRUST	Y	x		

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Trust Name	2005	2006	DC-2006	DQ-2006
GUY'S AND ST THOMAS' NHS FOUNDATION TRUST	x	x		
HAMMERSMITH HOSPITALS NHS TRUST	Y	x		
HEART OF ENGLAND NHS FOUNDATION TRUST	x	Y		
HINCHINGBROOKE HEALTH CARE NHS TRUST	x	x		
HULL AND EAST YORKSHIRE HOSPITALS NHS TRUST	x	x		
IPSWICH HOSPITAL NHS TRUST	x	Y		
ISLE OF WIGHT HEALTHCARE NHS TRUST	x	Y		
JAMES PAGET UNIVERSITY HOSPITALS NHS FOUNDATION TRUST	x	Y		
KETTERING GENERAL HOSPITAL NHS TRUST	Y	x		
KING'S COLLEGE HOSPITAL NHS FOUNDATION TRUST	x	x		
KINGSTON HOSPITAL NHS TRUST	Y	x		
LUTON AND DUNSTABLE HOSPITAL NHS FOUNDATION TRUST	Y	x		
MAIDSTONE AND TUNBRIDGE WELLS NHS TRUST	x	x		
MEDWAY NHS TRUST	x	x		
MID ESSEX HOSPITAL SERVICES NHS TRUST	Y	x		
MID STAFFORDSHIRE GENERAL HOSPITALS NHS TRUST	x	x		
MID YORKSHIRE HOSPITALS NHS TRUST	x	x		
MILTON KEYNES GENERAL HOSPITAL NHS TRUST	x	x		
NORTH CUMBRIA ACUTE HOSPITALS NHS TRUST	Y	Y		
NORTH MIDDLESEX UNIVERSITY HOSPITAL NHS TRUST	x	x		
NORTH WEST LONDON HOSPITALS NHS TRUST	x	x		
NORTHERN DEVON HEALTHCARE NHS TRUST	x	x		
NORTHERN LINCOLNSHIRE AND GOOLE HOSPITALS NHS TRUST	x	x		
NOTTINGHAM UNIVERSITY HOSPITALS NHS TRUST	Y	x		
NUFFIELD ORTHOPAEDIC CENTRE NHS TRUST	x	x		
OXFORD RADCLIFFE HOSPITALS NHS TRUST	Y	x		
PENNINE ACUTE HOSPITALS NHS TRUST	x	x		
PLYMOUTH HOSPITALS NHS TRUST	x	x		
QUEEN MARY'S SIDCUP NHS TRUST	x	x		
ROYAL BERKSHIRE HOSPITAL NHS FOUNDATION TRUST	x	x		
ROYAL CORNWALL HOSPITALS NHS TRUST	x	x		
ROYAL FREE HAMPSTEAD NHS TRUST	x	x		
ROYAL LIVERPOOL AND BROADGREEN UNIVERSITY HOSPITALS NHS TRUST	x	x		
ROYAL SURREY COUNTY HOSPITAL NHS TRUST	x	x		
SALFORD ROYAL NHS FOUNDATION TRUST	x	x		
SCARBOROUGH AND NORTH EAST YORKSHIRE HEALTH CARE NHS TRUST	x	x		
SHEFFIELD CHILDREN'S NHS TRUST	x	x		
SHEFFIELD TEACHING HOSPITALS NHS FOUNDATION TRUST	x	x		
SHERWOOD FOREST HOSPITALS NHS FOUNDATION TRUST	x	x		
SOUTH TEES HOSPITALS NHS TRUST	Y	Y		
SOUTH TYNESIDE NHS FOUNDATION TRUST	x	x		
SOUTHEND UNIVERSITY HOSPITAL NHS FOUNDATION TRUST	Y	x		
ST GEORGE'S HEALTHCARE NHS TRUST	x	x		
ST MARY'S NHS TRUST	x	x		

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Trust Name	2005	2006	DC-2006	DQ-2006
STOCKPORT NHS FOUNDATION TRUST	x	x		
SURREY AND SUSSEX HEALTHCARE NHS TRUST	x	x		
SWINDON AND MARLBOROUGH NHS TRUST	Y	Y		
TAMESIDE AND GLOSSOP ACUTE SERVICES NHS TRUST	x	x		
TAUNTON AND SOMERSET NHS TRUST	Y	x		
THE HILLINGDON HOSPITAL NHS TRUST	x	x		
THE LEWISHAM HOSPITAL NHS TRUST	x	Y		
THE MID CHESHIRE HOSPITALS NHS TRUST	x	x		
THE NEWCASTLE UPON TYNE HOSPITALS NHS FOUNDATION TRUST	Y	Y		
THE PRINCESS ALEXANDRA HOSPITAL NHS TRUST	x	x		
THE QUEEN ELIZABETH HOSPITAL KING'S LYNN NHS TRUST	x	x		
THE QUEEN VICTORIA HOSPITAL NHS TRUST	x	x		
THE ROTHERHAM NHS FOUNDATION TRUST	x	x		
THE ROYAL MARSDEN NHS FOUNDATION TRUST	x	x		
THE ROYAL WOLVERHAMPTON HOSPITALS NHS TRUST	Y	Y		
THE WHITTINGTON HOSPITAL NHS TRUST	Y	x		
TRAFFORD HEALTHCARE NHS TRUST	x	x		
UNITED LINCOLNSHIRE HOSPITALS NHS TRUST	x	x		
UNIVERSITY HOSPITAL BIRMINGHAM NHS FOUNDATION TRUST	x	x		
UNIVERSITY HOSPITAL OF NORTH STAFFORDSHIRE NHS TRUST	x	x		
UNIVERSITY HOSPITALS OF MORECAMBE BAY NHS TRUST	x	Y		
WALSALL HOSPITALS NHS TRUST	x	x		
WALTON CENTRE FOR NEUROLOGY AND NEUROSURGERY NHS TRUST	x	x		
WEST HERTFORDSHIRE HOSPITALS NHS TRUST	Y	x		
WESTON AREA HEALTH NHS TRUST	x	x		
WHIPPS CROSS UNIVERSITY HOSPITAL NHS TRUST	Y	x		
WIRRAL HOSPITAL NHS TRUST	Y	Y		
WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST	Y	x		
WRIGHTINGTON, WIGAN AND LEIGH NHS TRUST	x	x		
YEOVIL DISTRICT HOSPITAL NHS FOUNDATION TRUST	x	x		
	2005	2006	DC-2006	DQ-2006

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Contribution and Completeness of Data – Wales

Trust Name	2005	2006	DC-2006	DQ-2006
BRO MORGANNWJ NHS TRUST	x	Y		
CARDIFF AND VALE NHS TRUST	x	Y		
CEREDIGION AND MID WALES NHS TRUST	Y	Y		
GWENT HEALTHCARE NHS TRUST	Y	Y		
NORTH GLAMORGAN NHS TRUST	x	Y		
NORTH WEST WALES NHS TRUST	Y	Y		
PEMBROKESHIRE AND DERWEN NHS TRUST	x	Y		
PONTYPRIDD AND RHONDDA NHS TRUST	x	Y		
SWANSEA NHS TRUST	Y	Y		
CARMARTHENSHIRE NHS TRUST	Y	Y		
NORTH EAST WALES NHS TRUST	Y	Y		
CONWY AND DENBIGHSHIRE NHS TRUST	x	x		

Contribution and Completeness of Data – Scotland

Trust Name	2005	2006	DC-2006	DQ-2006
BORDERS GENERAL HOSPITAL NHS TRUST	x	x	nda	
FORTH VALLEY ACUTE HOSPITALS NHS TRUST	Y	x	nda	
LANARKSHIRE NHS TRUST	Y	Y	nda	
TAYSIDE UNIVERSITY HOSPITALS NHS TRUST	x	x	nda	

nda = no data available

Contribution and Completeness of Data – Northern Ireland

Trust Name	2005	2006	DC-2006	DQ-2006
ROYAL GROUP OF HOSPITALS AND DENTAL HOSPITAL HSS TRUST	x	x	nda	
SOUTH EASTERN HEALTH AND SOCIAL CARE TRUST	Y	Y	nda	
SOUTHERN HEALTH AND SOCIAL CARE TRUST	Y	Y	nda	

nda = no data available

Contribution and Completeness of Data – Republic of Ireland

Trust Name	2005	2006	DC-2006	DQ-2006
ADELAIDE AND MEATH HOSPITAL, DUBLIN	Y	Y	nda	
ST JAMES'S HOSPITAL, DUBLIN	Y	Y	nda	

nda = no data available

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Appendix 2:

Trust Identifiable Reporting Period

	2007	2008	2009
Participation	✓	✓	✓
Case ascertainment	✓	✓	✓
Data quality / completeness	✓	✓	✓
Unadjusted measures of process of care		✓	✓
Risk-adjusted clinical outcomes			✓

Measures of process of care and clinical outcomes	**Year Reported**		
	2007	**2008**	**2009**
Discussion at the MDT meeting		✓	✓
Percentage of patients seeing a colorectal specialist or stoma therapist nurse		✓	✓
Percentage of elective surgical patients having pre-operative imaging for distant metastases by CT scan		✓	✓
Percentage of rectal cancer patients have pre-operative MRI scanning		✓	✓
Percentage of rectal cancer cases where a comment is made by the pathologist about the circumferential margin		✓	✓
Percentage of patients with rectal cancer receiving pre-operative radiotherapy		✓	✓
Proportion of cases presenting as an emergency		✓	✓
Risk adjusted 30- day postoperative mortality			✓
Risk adjusted postoperative length of stay			✓
* Risk adjusted number of lymph nodes examined			✓
* Risk adjusted abdomino-perineal excision rates in potentially curative rectal cancer surgery			✓

** The project team are seeking confirmation from the ACPGBI Executive and Research and Audit Committee that they would support these measures for open reporting if there is sufficient time and resources to develop the risk models and do the analyses.*

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Electronic copies of the National Bowel Cancer Audit report can be downloaded from the improving patient care section of our website.

Printed copies of this report can be ordered through our Contact Centre, quoting document reference 28010108.

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