

## Surgeon Specific Outcome Reporting

### Delay in Publication to Autumn 2013

### **Explanatory Notes**

### Introduction:

The eventual publication of individual surgeons' outcomes by ACPGBI is part of the NHS Commissioning Board project to see publication of surgical outcome data as set out in Offer 2 of the publication Everyone Counts: Planning for Patients 2013/4. The data relates only to surgeons practicing in England. This is the first time such an exercise has been undertaken for colorectal cancer surgery in the UK. This has been a challenging project and publication of outcome data has been delayed beyond the target release date of the 30th of June, 2013, to allow more time to check the outcomes are an accurate reflection of each surgeon's results.

The outcome measure assessed is 90 day mortality rate following planned removal of a bowel cancer – that is the proportion of patients who undergo surgery who die from whatever cause within 90 days of their operation. It is based on data submitted to the National Bowel Cancer Audit (NBOCA) on patients diagnosed between April 2010 and March 2012. There is wide variation in the reported mortality rate across England, with an average 90 day mortality of 3.2% (this means that about 1 of every 30 patients undergoing surgery did not survive beyond 90 days from the time of the operation). ACPGBI is committed to the project, but has not been able to produce accurate data for all surgeons operating on elective cases of bowel cancer in the limited time available. It is confident that results will be produced by the autumn after further work checking the data. The main difficulty we have encountered has concerned allocation of each bowel cancer operation to the correct consultant surgeon responsible for that patient's care. Furthermore, we have not been able to contact each surgeon involved to confirm that are prepared to have their outcome data published in this manner.

Eventual publication of this data should be seen as a prototype of what is hoped will become a powerful resource for patients and surgeons. Whilst ACPGBI is committed to the project, it urges great caution when interpreting this first round of data for the reasons set out below.

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### The Audit:

This data was extracted from the National Bowel Cancer Audit (NBOCA). This audit has been in place for a number of years and has collected data related to bowel cancer treatment from Trusts around the UK. It collates cancer administrative data, primarily designed to monitor waiting times. There are real and widely acknowledged problems in how routine NHS administrative data collection reflects actual patient outcomes. A recent analysis of nationally submitted health care data (NHS England First National Data Quality Review: Executive Summary Quality Information Committee <u>www.england.nhs.uk/wp-content/uploads/2013/04/Indqr-exec-sum.pdf</u>) highlighted these shortcomings. Data accrual has increased year on year, but the Audit was designed to look at cancer management and outcomes of Trusts and Cancer Networks, not at individual surgeons, mainly because the treatment of colorectal cancer involves a large team of health care professionals working together. For this reason it has proved difficult to allocate correctly each patient to an individual surgeon and ensure that all that surgeon's cases are included in the analysis (hence the delay in publication). The accuracy of this process was patchy and for many surgeons data are being re-analysed to improve the reliability of the outcome data. We have established that for some surgeons, not all operations to remove a colorectal cancer have been included in the outcome calculations, making their survival figures inaccurate. Using the Audit in this way is seen as a start and this will improve in future years as the audit is modified to perform this role reliably.

### The nature of the data:

90 day mortality is a readily measurable but very crude measure of performance of a surgeon and does not give any information on aspects of that surgeon's care, such as success at completely removing the tumour, how well the surgeon interacts with the patient and the frequency of complications after surgery. The outcomes reported are for a specific 2 year time period (April 2010 – March 2012). This represents only a snap-shot of a surgeon's overall activity and some surgeons could have had a "bad" run during this time and others may have had a "good run". Caution should be exercised when using this data to predict future surgical performance (just like the warning that comes with any financial investment).

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#### The Data:

Most colorectal surgeons will perform between 20 and 40 planned operations to remove a colorectal cancer per year. They will also operate on a number of patients who present for the first time as an emergency with a complication of their bowel cancer. In addition they operate on many other patients with non-cancerous conditions of their bowel. Thus the 20-40 patients included in the analysis are only a proportion of the bowel operations that colorectal surgeons perform. By comparison, Cardiac Surgeons have a more limited range of operations they undertake and consequently perform a much larger number of those operations, making outcome calculations more robust. For this reason it is unlikely that an individual colorectal surgeon will perform enough cases to make any comparison of outcome statistically valid. It has been calculated that a colorectal surgeon would need outcome data on over 150 patients before there is an 8 out of 10 chance of spotting genuine poor performance. For this reason, although there is a wide range of mortality between different surgeons, for the vast majority, their outcome falls within an accepted range and the differences arise as a result of chance alone. With low numbers, a surgeon could have a high death rate simply by chance and be wrongly labelled as performing poorly. Similarly, low numbers could mask a poorly performing surgeon and engender complacency.

#### The Surgeon:

Most elective colorectal cancer surgery in the UK is performed by surgeons who are members of a multidisciplinary team treating colorectal cancer. Some colorectal surgeons may not be included in the data presented in this publication. There are a number of possible reasons for this: They do not work in England. This data is confined to surgeons working in England. Surgeons from

Scotland, Wales and Northern Ireland have been excluded.

- The surgeon does not treat colorectal cancer. Some colorectal surgeons deal with other conditions of the lower intestine.
- The surgeon may not have performed sufficient elective colorectal cancer resections to make a calculation of outcome.
- The data for that surgeon may still be inaccurate, despite revision and the surgeon has withdrawn consent for their data to be included.
- The surgeon may have no confidence in open publication of Audit data and has not granted consent to publish their data.

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### **Colorectal Cancer Treatment:**

Treatment of colorectal cancer involves complex pathways because patients suffering this condition present in a variety of ways and will require different treatments depending on the site of the cancer within their bowel and the stage of the tumour at presentation. Treatment of colorectal cancer involves a large team of medical, nursing and other health care professionals. Whilst the surgeon is a key part of this team, performance and outcome are also influenced by other factors, including the quality of anaesthetic care and availability of critical care facilities. In addition, consultant surgeons increasingly operate in pairs, particularly on more complex cases. Thus focussing on an individual surgeon's outcome in colorectal cancer treatment is analogous to awarding the FA cup to the striker, rather than the whole team. A patient seeking information on outcome in colorectal cancer should be advised to look at the outcome for the whole unit, rather than an individual surgeon.

### The patient and their cancer:

Patients suffering with colorectal cancer tend to be elderly and as well as having the cancer to contend with, they often suffer a number of other medical conditions such as heart and lung disease that put them at a high risk of developing non-surgical complications following major abdominal surgery. Indeed it has been estimated that 2/3rd of patients who die in the postoperative period following bowel cancer resection succumb from medical complications of their associated medical conditions (such as heart and lung problems), rather than as a result of surgical complications. Colorectal cancer can affect different parts of the large intestine; tumours in the lower part (rectum) are more difficult to remove and surgery takes longer because of the relative inaccessibility of this part of the bowel. Complications are more common for rectal cancer surgery than for surgery to remove tumours in the colon. Some surgeons may have developed a special interest and skill in dealing with particular types of bowel cancer and therefore treat higher risk patients than other colleagues. Thus the case mix is likely to vary from surgeon to surgeon and with it the outcome of the surgery.

### Summary:

The data to be presented will have a number of flaws, despite a lot of work involved in revision of the information extracted from the National Bowel Cancer Audit. This will make drawing firm conclusions impossible. This should be regarded as the foundation for future years, where more accurate data will be analysed and with larger numbers, more meaningful and varied outcome data will be produced