Using Outcomes Information for Revalidation in General Surgery

December 2013

The Colleges and Surgical Specialty Associations believe that data on surgical outcomes is an important element of demonstrating that a surgeon meets the required standards of professionalism and practice. This framework provides guidance to surgeons working in general surgery to help them produce relevant outcomes data for appraisal and revalidation.

Any queries relating to this framework should be addressed to revalidation@rcseng.ac.uk.

Section 1: Introduction and Explanation

Background

Revalidation is the new approach to the regulation of doctors, it commenced in December 2012. The process is centred on local annual appraisal. All doctors will need to be revalidated every 5 years in order to retain their licence to practise.

The Surgical Specialty Associations and Surgical Royal Colleges have developed the standards for surgical revalidation and specified the supporting information that general surgeons will need to provide to their appraiser to facilitate a positive assurance of their fitness to practice and, at the end of the 5 year cycle, a recommendation for revalidation to the GMC. An important component of the supporting information required for revalidation is that relating to outcomes.

An important landmark in relation to transparency and openness in the NHS was achieved in 2013 with the publication of surgeon-level data from nine surgical audits. We see national clinical audit as the "gold standard" in relation to collection of data and measurement of outcome. We fully support the continuation and expansion of NHS England's programme of data transparency.

The Association of Surgeons of Great Britain and Ireland (ASBGI) has defined the following measures for surgeons working within the specialty. Surgeons will only need to demonstrate their outcomes in their area(s) of practice. There is no requirement for general surgeons to undertake common 'index procedures'.

You should note the following points:

National Clinical Audit

- Where there are identified national clinical audit(s) that cover your area(s) of practice, it is essential that you participate. This will be mandatory for revalidation.
- If there is a national clinical audit that falls within NHS England's programme of consultant-level outcomes publication, your results will be made available publically.
- Your employer will need to facilitate the submission of data to the audit(s).
- It will be your responsibility to gather the relevant information from the audit (eg. reports/downloads) to present at appraisal.

Routinely Collected Data (HES, PEDW, HIS, ISD)

- These data are already collected by your NHS organisation and brought together on a national basis.
- We have identified key procedures in each sub-specialty area which should cover the majority of surgeons' practice.
- We have identified what should be measured and how.
- We expect that analyses of these data will be provided by your employer.
- Wherever possible your individual outcomes should be presented alongside all other surgeons in the country performing that procedure(s) (eg. in a funnel plot).
- We have identified the process of further investigation if it appears from these analyses that your outcomes are outside accepted norms (see below).

Local Audit

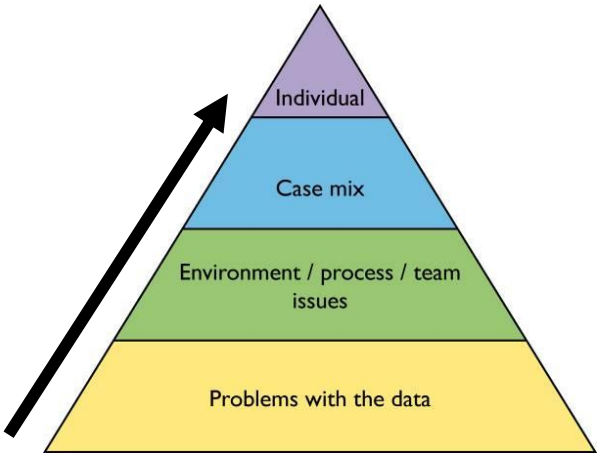
- Where your area of practice is not appropriately covered by a national audit or where routinely collected data will not assist in measuring outcomes, we recommend some form of local audit.
- This may be conducted by you personally, or form part of a wider unit/region-based audit.
- It will be your responsibility to conduct/participate in the audit and present the results at appraisal.
- Where you are obliged to undertake local audit, you are advised to audit a practice or procedure that is representative of your practice both in the NHS and in the private sector. The subject should be something that you undertake on a routine basis.

Structured Peer Review (of outcomes)

- For some highly specialised/low volume areas of practice which cannot be appropriately measured using the above methods, it may be necessary to have some form of structured peer review. Where this is identified as necessary, we will work with the relevant specialties to identify the methodology required so that the peer review process is fit for purpose for revalidation.

Managing Outliers

- Analysis of your outcomes provides one piece of the supporting information required for revalidation.
- If it appears that your outcomes are outside of the accepted norm, this should trigger a local investigation that closely examines the data for anomalies, looks at the environment and structure of the team/unit and your case mix before considering you as an individual (see diagram 1).
- We will be able to assist in the early stages of such an investigation.


Individual
Case mix
Environment / process / team issues
Problems with the data
Diagram 1

Section 2 Measuring Outcomes

2.1 General Surgery
- 2.1.1 Elective General Surgery
- 2.1.2 Emergency General Surgery

2.2 Sub-specialist General Surgical Practice:

- 2.2.1 Transplant (abdominal)
- 2.2.2 Endocrine
- 2.2.3 General Upper Gastrointestinal
- 2.2.4 Specialist Oesophagus and Gastric
- 2.2.5 Bariatric Surgery
- 2.2.6 Specialist HPB
- 2.2.7 Breast Surgery
- 2.2.8 Colorectal

Notes:

For measuring outcomes via routinely collected data (HES, PEDW, ISD, HIS), most sub-specialties have selected the following common measures:

- Length of Stay (to be measured as day case and the median length of stay)
- 28 day Unplanned readmission
- 30 day mortality
- 28 day reoperation/ reintervention

It is recognised that the results from anlaysing length of stay will vary according to the type of treatment and other factors including the availability of intermediate care facilities for patients. These local variations must be taken into account when discussing the results of analysis at appraisal.

Similarly, 28-day unplanned readmissions will need to be examined carefully. Readmissions can occur for a number of reasons (possibly unrelated to the surgical intervention) or may be recorded as unplanned activity when in fact a 2-stage elective procedure has occurred. These variations will need to be taken into account during the appraisal discussion.

2.1 General Surgery

2.1.1 Elective General Surgery

There are few true "elective general surgery" procedures that are sufficiently common among most general surgeons. We have therefore selected inguinal hernia as a starting point. It may be that the Association adds further procedures if it appears that meaningful comparisons could be made across the specialty.

1. The primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Inguinal Hernia	T20	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention

2. There is a national patient reported outcome measures (PROM) programme on inguinal hernia. Surgeons may wish to use PROMS data as supporting information for revalidation.

3. You may also wish to conduct a local audit of your outcomes.

2.1.2 Emergency General Surgery

As with elective general surgery, there is a limited number of emergency procedures sufficiently consistent in both presentation and treatment, making it difficult to select procedures that might enable comparison and benchmarking across the specialty. We may add to this list as the process develops.

1. For all surgeons undertaking emergency general surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Appendicectomy	H01	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Emergency colonic resection	H09+H11+H15	

2. You may also wish to conduct a local audit of your outcomes.

2.2 Sub-specialist General Surgical Practice

2.2.1 Transplant (Abdominal)

1. For all general surgeons undertaking transplant operations, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Liver	J01	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Kidney	M01	
Pancreas	J54	
Vascular Access	L74	
Live donor nephrectomy	M02	
Live donor partial hepatectomy	J02	
Multi-organ retrieval	M02 J16 J55 G69.8/9	

2. In addition, units will need to submit data to national audit, as follows:
   - Transplant NHS Blood and Transplant (ODT) Audit
   - National Commissioning Group Audits (Liver, cardiothoracic and pancreas transplants)

Although these audits do not measure outcomes to the level of the individual surgeon, information from them may be used to support your revalidation.

3. You may also wish to conduct a local audit of your outcomes (eg. looking at graft survival, patency, etc)

2.2.2 Endocrine

1. For all surgeons undertaking endocrine operations, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Thyroid	B08.1	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Para-thyroid	B14.2 B14.4	
Adrenal	B22.3	
Endocrine pancreas	J65.2, J57.5	

2. In addition, units will need to submit data to the BAETS audit. This will be mandatory for recertification. Evidence from the audit relating to your individual practice will need to be presented to your appraiser for discussion as follows:-

    - Total thyroidectomy – number of cases:
        - Hypocalcaemia – no of cases requiring calcium / vitamin D for Rx of low serum calcium
        - Vocal cord palsy rate

    - Parathyroidectomy – number of cases and number normocalcaemic after first time surgery for primary HPT

    - Unilateral adrenalectomy - number of cases and conversion rate from laparoscopic to open procedure

3. Where relevant to you as an individual surgeon, evidence from the cancer peer review process (demonstrating that thyroid cancer standards were achieved) may be used as supporting information for revalidation.

2.2.3 General Upper Gastrointestinal

1. For all surgeons undertaking general upper gastrointestinal surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Anti-reflux operations	G24	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Cholecystectomy	J18	• As above **PLUS** • Bile duct injury (J32)

2.2.4 Specialist Oesophagus and Gastric Surgery

1. For all surgeons undertaking specialist oesophagus and gastric surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Oesophagectomy	G01-G03	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Total Gastrectomy	G27	

2. Units will need to submit data to the national **Oesophageal Gastric Cancer Audit**. Audit reports may be used to support your recertification.

3. In addition, you may wish to undertake a local audit of your practice or that of your team, looking, for example at anastomotic leak rates.

2.2.5 Bariatric Surgery

1. For all surgeons undertaking bariatric surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	HRG Codes	Measurement Criteria
Gastric band Gastric Bypass Sleeve gastrectomy Biliopancreatic interventions Revisional procedures	FZ04A FZ04B FZ05A FZ05B FZ05C FZ27A FZ27B FZ27C FZ27D WA12V WA12X WA12Y WA18V WA18X WA18Y WA19W WA19Y WA21W WA21Y	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention

2. All surgeons undertaking bariatric surgery will need to participate in the **National Bariatric Surgery Registry** available via the BOMSS and AUGIS websites and present results at appraisal.

3. In addition, you may wish to undertake a local audit of your practice or that of your team.

2.2.6 Specialist HPB

1. For all surgeons undertaking specialist HPB work, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Proximal pancreatectomy	J56	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Liver resection	J02 J03	

2. All surgeons conducting cancer resections will need to participate in the **HPB cancer resection audit** and present their individual results at appraisal.

3. In addition, you may wish to undertake a local audit of your practice or that of your team, looking, for example at anastomotic leak rates.

2.2.7 Breast

1. For all surgeons undertaking breast surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Mastectomy	B27	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Wide excision	B28	
Benign biopsy	B32	
Axillary clearance	T85	
Breast reconstruction	B36-39	
Other plastic procedures	B31	
Sentinel Node Biopsy	T91	

2. In addition, all breast surgeons will need to submit data to the **BCCOM audit** and the **NHSBSP audit** and present results/findings at appraisal.

3. Surgeons may wish to use historical data from the **National Mastectomy and Breast Reconstruction Audit** as supporting information for revalidation (the audit is now closed).

4. If the unit participates in the **Sloane Audit**, information from the audit can be presented at appraisal as a source of supporting information.

2.2.8 Colorectal

1. For all surgeons undertaking colorectal surgery, the primary method of measuring outcomes will be via routinely collected data (HES, PEDW, ISD, HIS). At appraisal we would expect that a surgeon's outcomes would be presented in a funnel plot showing comparison of their practice to all other surgeons in the country performing the same procedure(s) against the following criteria.

Key Procedures	OPCS Codes	Measurement Criteria
Abdominal colectomy (excluding IBD)	H04,H05, H06,H07,H08,H09 H10,H11 +/- Y75.1	• Length of Stay (day case rate and median) • 28 day unplanned readmission • 30 day mortality • 28 day reoperation/ reintervention
Surgery for IBD	G58,G69,G70,G74 G78.2,H04,H05, H06,H07,H08,H09 H10,H11 +/- Y75.1	
Surgery of functional bowel disorders	H05, H35, H41.1, H42,H50, G74, H15	
Ano-rectal surgery	H48, H49, H51, H55, H56, H58, H59, H60	• Length of Stay (day case rate and median) • 28 day unplanned readmission
Colonoscopy	H22	• See (4) below.
Surgery for rectal cancer	H33	• As above • Permanent stoma rate [G74, H15]

2. In addition, all colorectal surgeons will need to submit data (as appropriate) to the following audits and present results at appraisal:

    - National Bowel Cancer Audit;
    - Ileo-anal pouch audit;
    - TEMS audit;
    - STARR/TranSTARR

3. Surgeons will also need to register colonic stents with the International Colonic Stent Registry

4. Surgeons undertaking colonoscopy may undertake a local audit, looking, for example at, completion rates, sedation dose, polyp detection rate, perforation and readmission rates. It is likely that there will be a national audit of colonoscopy activity and surgeons will be expected to contribute their data.

5. Colorectal surgeons may also undertake local audits examining areas such as quality of life improvements, functional scores, etc.