



# **Outcomes after Elective Repair of Infra-renal Abdominal Aortic Aneurysm**

**A report from  
The Vascular Society**

**March 2012**

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## **Foreword**

Any surgeon or surgical team should be able to describe what they do, define how well they do it and share that information openly. This is an essential step in continuous quality improvement and the essence of professionalism.

This report which demonstrates a dramatic reduction in mortality for Abdominal Aortic Aneurysm Surgery over a relatively short period of time is a tribute to the Vascular Society, contributing Surgeons and their quality improvement programme.

It demonstrates how collecting, analysing and reflecting on clinical outcomes can result in significant improvements. Equally, it raises difficult questions related to volume and outcome, which cannot be avoided once the relationship has been confirmed.

The Society has campaigned for a national screening programme to reduce deaths from a condition that kills many older people each year. The evidence that Abdominal Aneurysms can be repaired safely provides reassurance that those patients found to have AAA will benefit from the service that the NHS provides.

**Bruce E. Keogh**

**Medical Director of the National Health Service in England**

## Preface

It is a pleasure to preface the first report prepared by the Vascular Society on outcomes following elective infra-renal abdominal aortic aneurysm (AAA) surgery in the United Kingdom. In the past, more than 50% of AAA operations were emergencies, usually because the aneurysm had ruptured. Overall; 85-90% of patients with ruptured AAA died and until recently, AAA was responsible for about 10,000 deaths each year in the UK. Accordingly, there has been a concerted drive towards identifying and treating as many patients as possible through elective interventions (initially by open surgery and latterly by endovascular or 'keyhole' techniques).

However, elective surgery is not without risk. In the 2008 VASCUNET report, the UK was reported to have the highest mortality rate following elective AAA repair (7.5%), when compared with European/Australasian countries. This was the catalyst for the Vascular Society to implement a Quality Improvement Programme (QIP) in 2009, whose aim was to halve the elective surgical mortality rate to 3.5% by 2014. This aspiration became even more important following the introduction of the NHS Abdominal Aortic Aneurysm Screening Programme (NAAASP). The screening programme established clear standards of practice regarding procedural mortality rates which had to be audited and open to external scrutiny. In January 2012, the Healthcare Quality Improvement Partnership published its policy on reporting for the National Clinical Audit and Patient Outcomes Programme and asked for greater accessibility to national clinical audit data. Today's report on mortality rates after elective AAA repair complies fully with this request and enables colleagues, patients, commissioners and managers to compare practices around the country.

This report is based on data submitted by Vascular Society Members to the National Vascular Database (NVD) for the two year period 1<sup>st</sup> October 2008 to 30<sup>th</sup> September 2010. Before publication, each Vascular Unit and Hospital Information Governance Officer was invited (on three occasions) to verify its data before the database closed in January 2012. Data are presented for open/endovascular aneurysm repair (and overall mortality) for each UK Unit with a 'traffic light' system based on mortality standards set down by NAAASP (<6% mortality rate = green; 6.1-10% = amber and >10% = red). Some hospitals have no data for endovascular repair. This may be because that particular Unit only offers open surgery to all its patients (now increasingly rare), or because it either refers or performs endovascular surgery in an adjacent larger volume centre.

In addition, information is provided regarding the completeness of data submission to the NVD. This was determined by comparing the number of aortic procedures submitted to the NVD against national statistics submitted to the Department of Health through hospital coding. If the percentage submission is less than 100%, this means that not all aortic cases are being submitted to the NVD. If the percentage is >100%, this means that procedures are being missed by Hospital coders. Accordingly, the reader can match published mortality rates against the quality of data submission; i.e. Units with apparently excellent mortality

rates (but poor data submission) will inevitably attract more questions regarding reliability than those Units with low mortality and excellent rates of data submission.

Happily, the headline news is generally good. The mortality rate following 8380 elective infra-renal aortic procedures is 2.4%. This is well within the 3.5% target set down by our QIP and is compelling evidence of the commitment of UK Vascular Units to optimise patient safety. Interestingly, despite the significant reduction in overall mortality, there is still strong evidence that case volume influences outcome. The 31 highest volume hospitals (which perform 57% of all elective AAA procedures in the UK) have mortality rates that are under half those seen in the 32 hospitals with the lowest volume of AAA procedures. These data lend support to the current move towards performing major arterial surgery in larger volume units in order to further optimise outcomes.

There are, however, areas for concern regarding data submission quality and coding. It is a condition for treating NAAASP screened patients that data are submitted to the NVD. In the near future, it is also likely that this will be a condition for reimbursement from Commissioners. It is therefore essential that appropriate time is built into the consultant job plan to enable data to be submitted in a timely fashion to the NVD. In addition, there are major variations in quality regarding hospital coding, with some units having almost twice as many cases registered on the NVD as submitted nationally. Not only does this compromise reporting standards based on nationally collected data, but it must represent a huge loss of income to individual hospitals. Hopefully, this report will encourage Hospital Chief Executives to review coding standards in their own institutions in order to improve the quality of data submission.

In closing, I would like to thank all members of the Vascular Society for contributing to this report and it is our intention to repeat this audit every two years in order to monitor practice. It is also an appropriate moment to thank David Mitchell for his sterling work in leading and completing this challenging project in his role as Chairman of the VS Audit Committee.

Professor A Ross Naylor MD, FRCS

President of the Vascular Society of Great Britain and Ireland

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## **Glossary**

AAA	Abdominal Aortic Aneurysm. This is an abnormal expansion of the aorta. If left untreated it may enlarge and rupture causing fatal internal bleeding
EVAR	Endovascular Aneurysm Repair. A method of repair AAA by placing a graft within the aneurysm from a small cut in the groin.
NAAASP	National Abdominal Aortic Aneurysm Screening Programme. A programme funded by the Department of Health to screen men over the age of 65 years for AAA
NHS	The National Health Service
NVD	National Vascular Database. An on-line database funded by The Vascular Society to collect data on major vascular procedures. Surgeons can enter data about procedures and outcomes.
OPCS	Office of Population and Censuses Surveys. A procedural classification list for describing procedures undertaken during episodes of care in the NHS
SUS	Secondary User Services. This is an extract of the national Hospital Episode Statistics data. It has had all patient identifiable information removed and describes, dates of admission and discharge, the name of the hospital, surgeon and the procedure codes for the episode of care. It does not provide information about mode of admission, so it is not possible to distinguish elective and emergency EVAR as they have the same OPCS code.



## About this report

- This is the first Vascular Society public outcome report for elective Abdominal Aortic Aneurysm (AAA) surgery in the United Kingdom
- The report contains information about unit outcomes for elective AAA repair between October 2008 and September 2010. The report is organised in the same way for each unit (see explanation chart at the beginning of the report section)
- Data on outcomes is derived from surgeon collected data held on the Vascular Society's National Vascular Database (NVD)
- We are reporting raw data, **unadjusted for case-mix**. This should be borne in mind when comparing outcomes between units.
- We report data between 1/10/2008 and 30/09/2010. Cases included are those discharged from hospital or who died after AAA repair between these two dates.

## Executive summary

- More AAA were repaired by EVAR than open surgery
- The overall elective mortality in this report is 2.4%. Mortality is 4.3% in 3584 open repairs and 0.9% in 4796 EVAR
- This report confirms the previously described volume:outcome relationship with lower mortality in higher volume units
- There is no evidence that any unit is a significant outlier for mortality
- We cannot report outcomes for a small number of units because they failed to provide any data
- Most units with data entry achieve the NAAASP standard (less than 6%) for operative mortality
- Surgeon contributed data entry to the NVD remains variable
- The validation exercise in 2011 uncovered evidence of mis-coding of SUS data by NHS Trusts

## Recommendations

- NHS Trusts and their clinical teams are encouraged to undertake regular reviews of coding and clinical audit data.
- Where data are less than 100% clinicians and NHS Trusts should focus on improving data entry
- Where data exceed 100%, clinicians and NHS Trusts should undertake coding reviews with their clinical teams
- The Department of Health has stated that measuring outcomes through clinical audit is at the heart of high quality care. Surgeons (and hospital management) need to recognise this and allow time for collecting audit data within job plans.
- NHS Trusts are encouraged to adopt the care pathway and standards outlined in the Vascular Society's quality improvement programme. This can be accessed at [www.aaajip.com](http://www.aaajip.com). Information about the Vascular Society is available at [www.vascularsociety.org.uk](http://www.vascularsociety.org.uk)
- All team members should be involved in implementation of the pathway. A clinical lead should be nominated to monitor and report on the adoption of the pathway

## Regional Data Maps

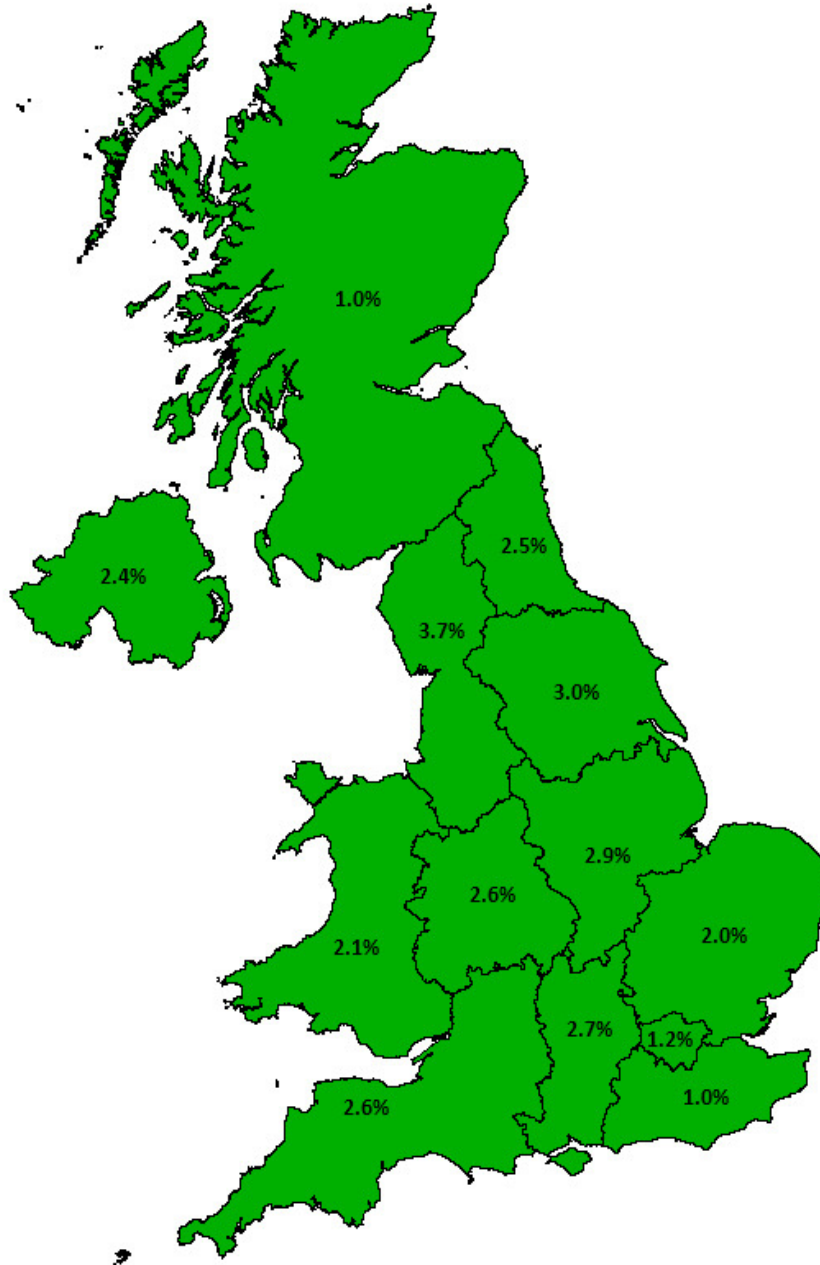


Fig 1. Map of UK showing elective infra-renal AAA mortality by region for England and for the Celtic Nations.

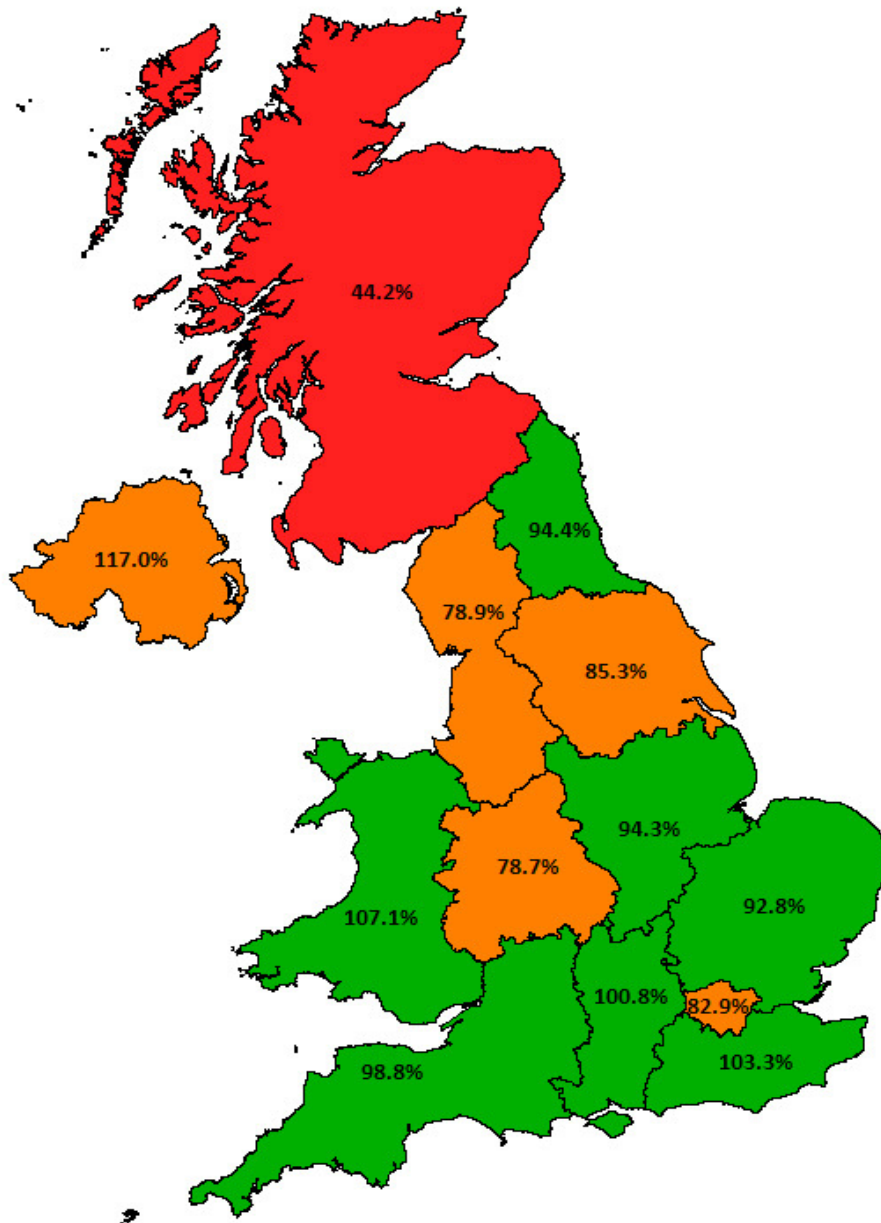


Fig 2. Map showing data contribution rates for elective infra-renal AAA data to the National Vascular Database, compared to administrative data for the regions of England and for the Celtic Nations.

### Variation in mortality by volume of surgery undertaken in units

This chart shows the variation in outcome for the volume of cases undertaken in a two year period. This chart is constructed using the data presented in this report. There is clear evidence of a volume: outcome relationship.

The dotted line is plotted at 2 standard deviations. There is no statistical evidence that any unit in this report is an outlier for mortality following elective infra-renal AAA repair (*see the section on data governance at the end of the report*)

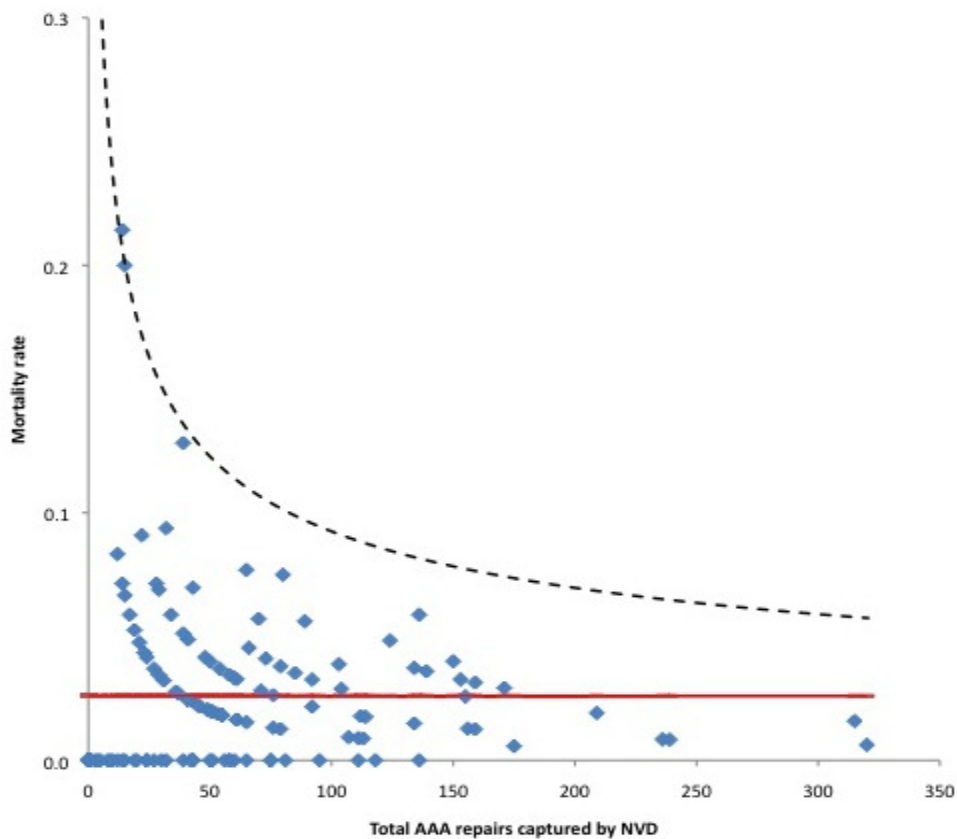


Fig 3. Chart plotting number of cases of elective AAA repairs in the NVD against mortality rate for the UK. The dotted line represents 2 standard deviations from the data norm and is the alert line for governance purposes

Overall 8380 patients are included in this report. Of these, 197 died giving a national elective hospital mortality rate of 2.4%. There is evidence that larger volume hospitals have better outcomes than smaller volume hospitals. There is no evidence of differing data submission quality, or outcomes comparing the northern part of the UK with the south.

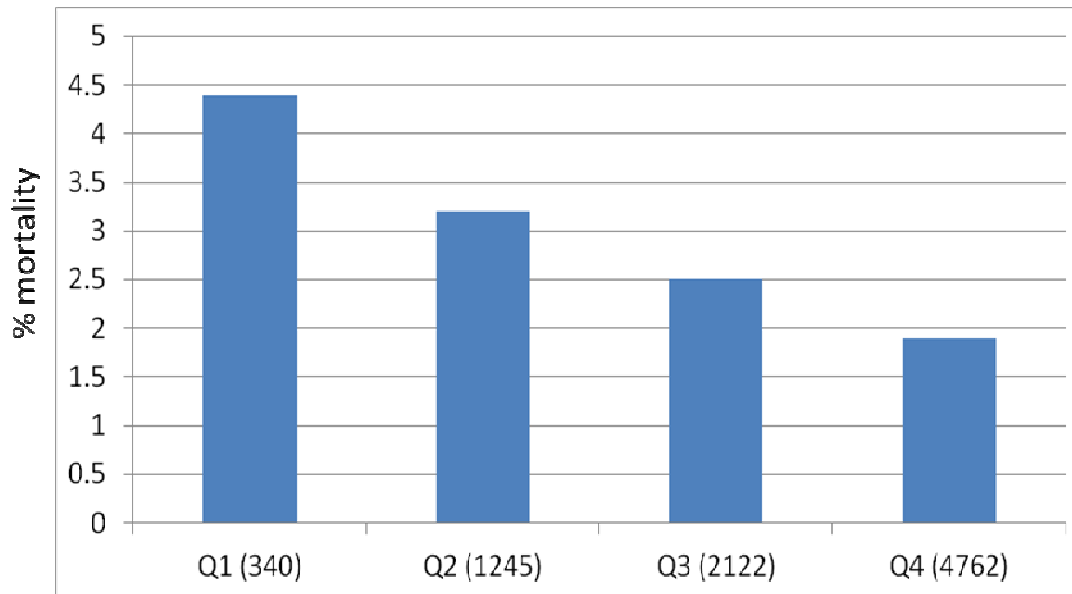


Fig 4. Bar chart showing mortality rate for hospital quartiles

This chart shows mortality rates for each quartile of hospital numbers providing care. Hospitals were ranked in order of the number of patients treated from lowest to highest. 32 consecutive hospitals make up each quartile, except Q4 which contains 31 hospitals. The numbers in brackets are the total number of patients treated by the hospitals in each quartile, for example in Q1 each hospital treated an average of 10.6 patients. Q2 has an average of 38.9, Q3 66.3 and Q4 153.65 patients.

## Specimen report

### Regional data

Data are reported regionally. The first page of each regional report is a chart displaying a comparison between the NVD data contribution and the SUS data for each hospital. This is derived by comparing OPCS codes for infra-renal AAA repair between the two datasets. The NVD column of data is coloured according to The VSGBI standards for data contribution quality in comparison to the number of cases recorded in the SUS data. These are:

- No contribution Black
- Poor contribution (less than 76%) Red
- Average contribution (76 to 90%, or >110%) Amber
- Good contribution (91 to 110%) Green

The second bar in dark red is the total number of cases in the SUS data for the hospital. This data is also given in each hospital table (see below).

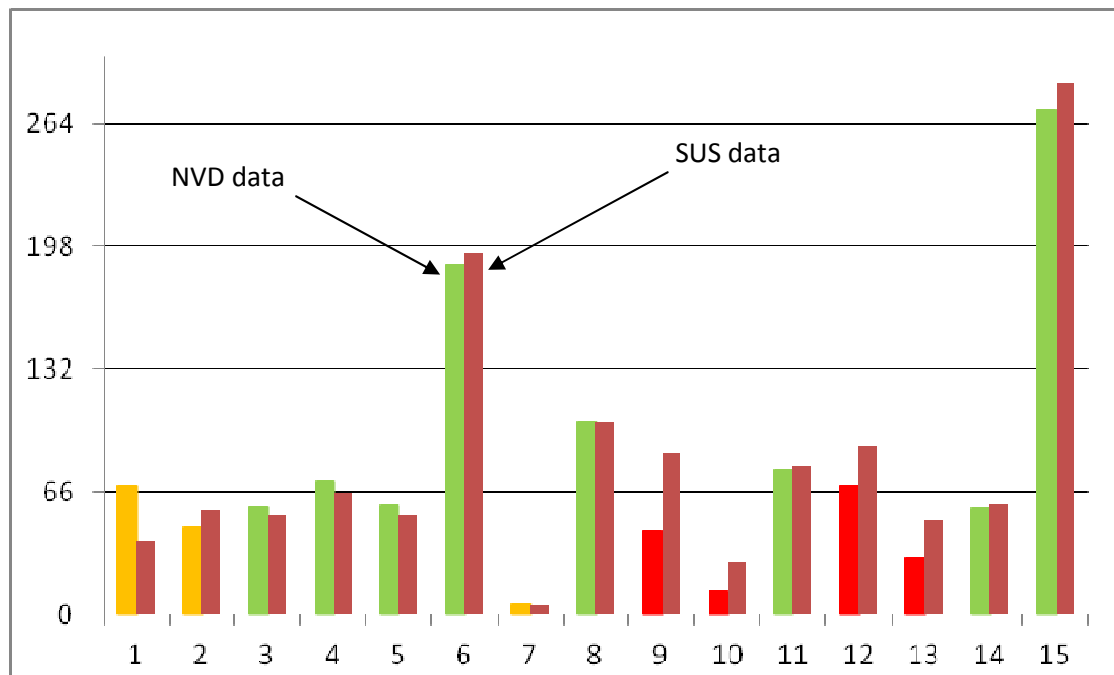


Fig 5. Illustrative regional bar chart showing NVD data and SUS data (or national equivalent for Celtic Nations) for each unit

## Unit data

Data are also presented for each hospital in table format as shown below. The data contribution field is the numerical proportion of NVD data compared to SUS as shown in the bar chart above.

Hospitals: *This will describe the hospital(s) providing the service*

Region: *The region of the UK in which the unit is situated*

Data contribution: *Described as “good” (green), “average” (amber), “poor” (red) or “nil” (black)*

Mortality: *Data are given as number of patients treated by open and endovascular (EVAR) repair. The number of patients who died in hospital during the period of the audit is given. The death rate is expressed as a percentage for open repair and EVAR with an overall rate given for the unit. This last rate is colour coded according to NAAASP standard, <6% is green, 6.1 to 10% is amber and >10% is coded red. Where no data is submitted, the overall mortality field is coloured black.*

NVD – elective mortality									Data contribution
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	

Table 1. Showing table layout for reporting both unit mortality data and data contribution

Units with data shown in pale grey have reported to us that their service is no longer provided within the Trust, but has been transferred to an adjacent higher volume centre.

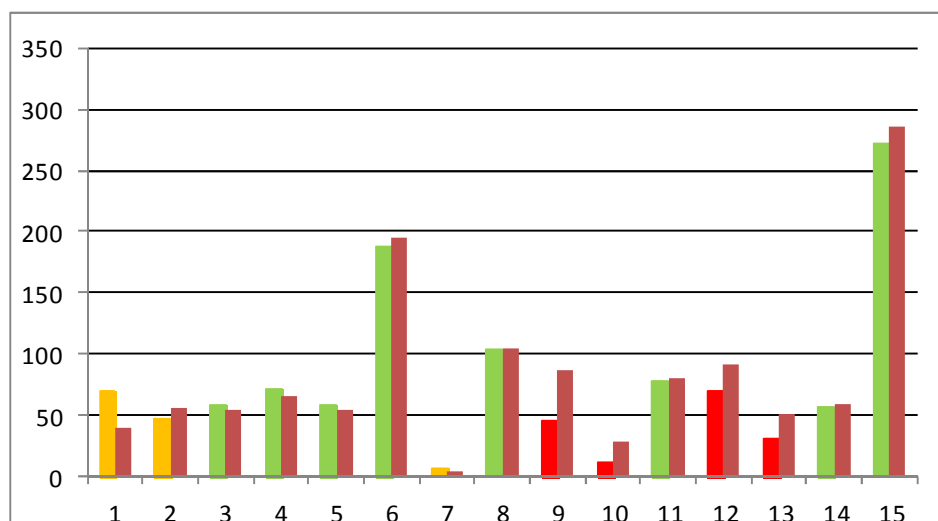


## Guidance for patients using this report

- The data in this report is **not adjusted for individual patient risk (case mix)**. Bigger units tend to take on more complex (higher risk) cases and might be expected to have slightly worse outcomes. Larger units in this report have better outcomes than smaller units
- This report is not able to comment on the rate at which patients are turned down for AAA repair. A national snapshot audit in the autumn of 2011 showed that about 24% of patients assessed for AAA repair are turned down, mostly due to a lack of fitness to withstand surgery.
- Mortality data are likely to be most reliable when data are good. Units with poor data may have different outcomes when they report their data more fully
- This report describes elective infra-renal AAA death rates only, it does not comment on other aspects of care quality.
- Vascular services are being re-configured throughout the UK and the hospitals in each unit may change with time.
- Patients should expect to be able to request individualised mortality risk and information about unit outcomes.

## East Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Units with no contribution are coded black. Users of this report should use this information together with the mortality data when deciding on the quality of service offered.



### Key

1	East and North Hertfordshire NHS Trust
2	Basildon and Thurrock University NHS Trust
3	Southend University Hospital NHS Foundation Trust
4	The Princess Alexandra Hospital NHS Trust
5	Ipswich Hospital NHS Trust
6	Norfolk and Norwich University Hospitals NHS Foundation Trust
7	Queen Elizabeth NHS Trust
8	Colchester Hospital University NHS Foundation Trust
9	Barking, Havering and Redbridge University Hospitals NHS Trust
10	Peterborough and Stamford Hospitals NHS Foundation Trust
11	Mid Essex Hospital Services NHS Trust
12	West Hertfordshire Hospitals NHS Trust
13	Barnet and Chase Farm Hospitals NHS Trust
14	Bedford Hospital NHS Trust
15	Cambridge University Hospitals NHS Foundation Trust

**East and North Hertfordshire NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Queen Elizabeth II Hospital, Lister Hospital  
 Region: East

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 173% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
61	5	8.2	4	0	0.0	65	5	7.7	

**Basildon & Thurrock NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Basildon & Thurrock University Hospital  
 Region: East

Data contribution: average

NVD – elective mortality									Case contribution to National Audit is 84% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
27	1	3.7	18	0	0.0	45	1	2.2	

**Southend University Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Southend University Hospital  
 Region: East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 107% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
19	0	0.0	32	1	3.1	51	1	2.0	

**Princess Alexandra NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Princess Alexandra Hospital

Region: East

Data contribution: good

NVD – elective mortality									Case contribution to National Audit is 109% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
18	1	5.6	43	0	0.0	61	1	1.6	

**Ipswich Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ipswich Hospital

Region: East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 109% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
28	0	0.0	28	0	0.0	56	0	0.0	

**Norfolk & Norwich University Hospital Foundation NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Norfolk & Norwich Hospital

Region: East

Data contribution: good

NVD – elective mortality									Case contribution to National Audit is 96% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
90	4	4.4	81	1	1.2	171	5	2.9	

**Queen Elizabeth Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Kings Lynn

Region: East

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 120% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
5	0	0.0	0	0	0.0	5	0	0.0	

**Colchester Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Colchester General Hospital

Region: East

Data contribution: good

NVD – elective mortality									Case contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
38	1	2.6	54	1	1.9	92	2	2.2	

**Barking, Havering and Redbridge University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: King George Hospital, Queens Hospital

Region: East

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 51.7% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
11	0	0	30	1	3.3	41	1	2.4	

**Peterborough and Stamford Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Peterborough District Hospital  
Region: East

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 41.4% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
12	1	8.3	0	0	0	12	1	8.3	

**Mid Essex Hospital Services NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Broomfield Hospital  
Region: East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 97.5% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
28	0	0	47	0	0	75	0	0	

**West Hertfordshire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Watford General Hospital  
Region: East

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 75.8% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	0	0	51	0	0	65	0	0	

**Barnet and Chase Farm Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Barnet Hospital, Chase Farm Hospital  
 Region: East

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 60.8% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
9	1	11.1	20	0	0	29	1	3.4	

**Bedford Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Bedford Hospital  
 Region: East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96.6% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
20	1	5.0	30	0	0	50	1	2.0	

**Cambridge University Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

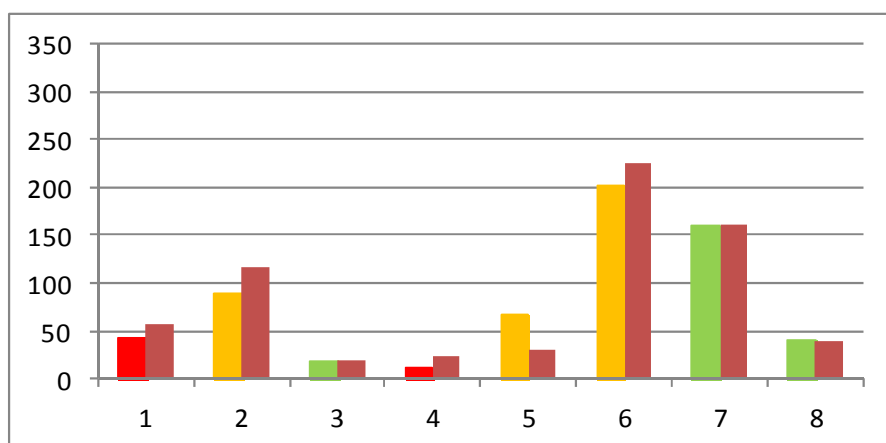
Hospitals: Addenbrookes Hospital  
 Region: East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 95.1% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
51	1	2.0	185	1	0.5	236	2	0.8	

## East Midlands Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



### Key

1	United Lincolnshire Hospitals NHS Trust
2	Derby Hospitals NHS Foundation Trust
3	Sherwood Forest Hospitals NHS Foundation Trust
4	Chesterfield NHS Trust Foundation
5	Kettering General Hospital NHS Foundation Trust
6	University Hospitals Of Leicester NHS Trust
7	Nottingham University Hospitals NHS Trust
8	Northampton General Hospital NHS Trust



**United Lincolnshire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Lincoln County Hospital, Pilgrim Hospital

Region: East Midlands

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 75.4% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
39	5	12.8	0	0	0.0	39	5	12.8	

**Derby Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Derby Hospital

Region: East Midlands

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 77.6% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
33	2	6.1	46	1	2.2	79	3	3.8	

**Sherwood Forest Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: King's Mill Hospital, Newark Hospital

Region: East Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
15	3	20	0	0	0	15	3	20	

**Chesterfield NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Chesterfield Royal Hospital

Region: East Midlands

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 47.8% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
10	0	0	0	0	0	10	0	0	

**Kettering Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Kettering General Hospital

Region: East Midlands

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 212.9% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
46	0	0	4	0	0	50	0	0	

**University Hospitals of Leicester NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Leicester Royal Infirmary, Leicester General Hospital, Glenfield Hospital

Region: East Midlands

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 89.8% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
49	1	2.0	126	0	0.0	175	1	0.6	

**Nottingham University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Nottingham City Hospital  
 Region: East Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100.6% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
20	2	10	94	0	0	114	2	1.8	

**Northampton General Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

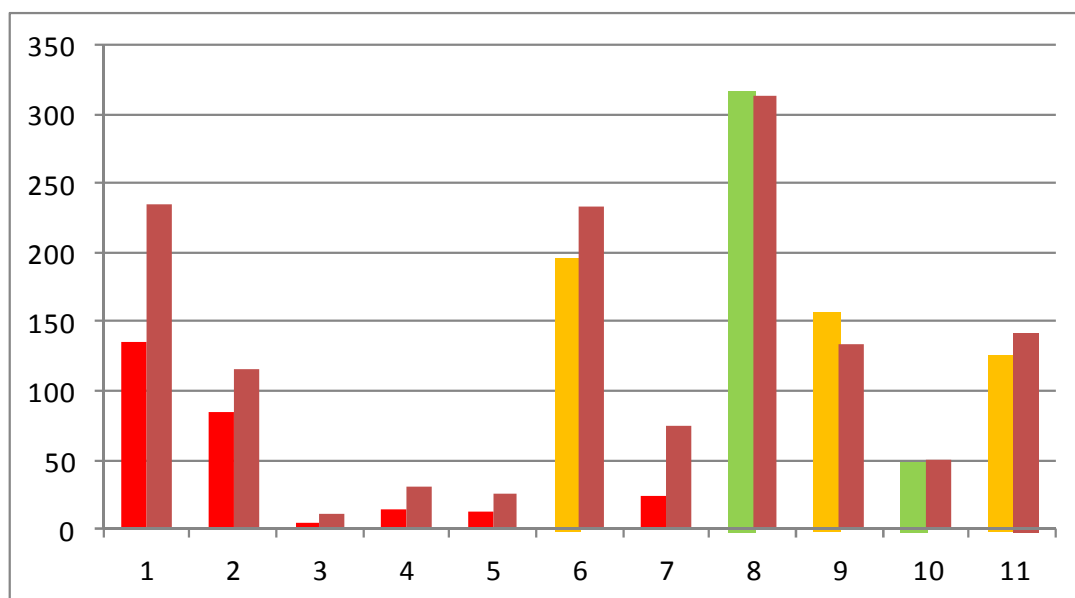
Hospitals: Northampton General Hospital  
 Region: East Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 102.5% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	1	7.1	23	0	0.0	37	1	2.7	

## London Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Units with no contribution are coded black. Users of this report should use this information together with the mortality data when deciding on the quality of service offered.



### Key

1	Imperial College Healthcare NHS Trust
2	University College London Hospitals NHS Foundation Trust
3	Ealing Hospital NHS Trust
4	Whipps Cross University Hospital NHS Trust
5	The Hillingdon Hospital NHS Trust
6	Guy's and St Thomas' NHS Foundation Trust
7	Barts and the London NHS Trust
8	St George's Healthcare NHS Trust
9	Royal Free Hampstead NHS Trust
10	North West London Hospitals NHS Trust
11	King's College Hospital NHS Foundation Trust

**Imperial College Healthcare NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: St Mary's Hospital, Charing Cross Hospital  
 Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 57.4% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
23	0	0	95	0	0	118	0	0	

**University College London Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: University College Hospital  
 Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 73% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
8	1	12.5	63	1	1.6	71	2	2.8	

**Ealing Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ealing Hospital  
 Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 40% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
1	0	0	3	0	0	4	0	0	

**Whipps Cross University Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Whipps Cross University Hospital  
Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 45.2% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
7	0	0	7	0	0	14	0	0	

This unit has since merged with Barts and the London NHS Trust

**The Hillingdon Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Hillingdon Hospital  
Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 48% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
12	0	0	0	0	0	12	0	0	

**Guy's and St Thomas' NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Guy's Hospital, St Thomas Hospital  
Region: London

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 83.7% of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
8	0	0	187	1	0.5	195	1	0.5	

**Barts and the London NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal London Hospital, St Bartholomew's Hospital  
 Region: London

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 32.4% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
4	0	0	11	0	0	15	0	0	

**St George's Healthcare NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: St Georges Hospital  
 Region: London

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 101% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
165	2	1.2	74	0	0	239	2	0.8	

AAA patients from Epsom and St Helier requiring intervention are also treated here

**Royal Free Hampstead NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Free Hospital  
 Region: London

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 117.2% of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
7	1	14.3	127	4	3.1	134	5	3.7	

**North West London Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Northwick Park Hospital  
 Region: London

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96% of HES data  Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
2	0	0	39	1	2.6	41	1	2.4	

**Kings College Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Kings College Hospital  
 Region: London

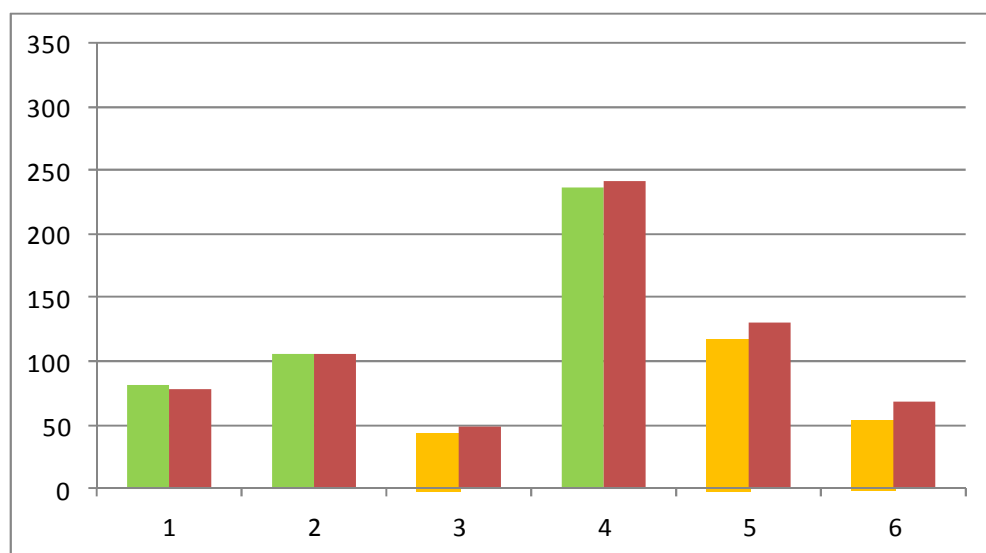
Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 88% of HES data  Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
8	0	0	117	1	0.9	125	1	0.8	



## North East Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



### Key

1	County Durham and Darlington NHS Foundation Trust
2	City Hospitals Sunderland NHS Foundation Trust
3	Gateshead Health NHS Foundation Trust
4	The Newcastle Upon Tyne Hospitals NHS Foundation Trust
5	South Tees Hospitals NHS Foundation Trust
6	North Cumbria University Hospitals NHS Trust

**County Durham and Darlington NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: University Hospital of North Durham, Darlington Memorial Hospital  
Region: North East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 103.8% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
48	3	6.3	25	0	0	73	3	4.1	

**City Hospitals Sunderland NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Sunderland Royal Hospital  
Region: North East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 99.1% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
15	1	6.7	70	2	2.9	85	3	3.5	

**Gateshead Health NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Queen Elizabeth Hospital  
Region: North East

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 89.6% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
9	0	0	30	2	6.7	39	2	5.1	

**The Newcastle Upon Tyne Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Freeman Hospital, Royal Victoria Hospital  
 Region: North East

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 97.5% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
56	4	7.1	153	0	0	209	4	1.9	

**South Tees Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: James Cook University Hospital,  
 Region: North East

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 89.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
19	1	5.3	88	0	0	107	1	0.9	

**North Cumbria University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

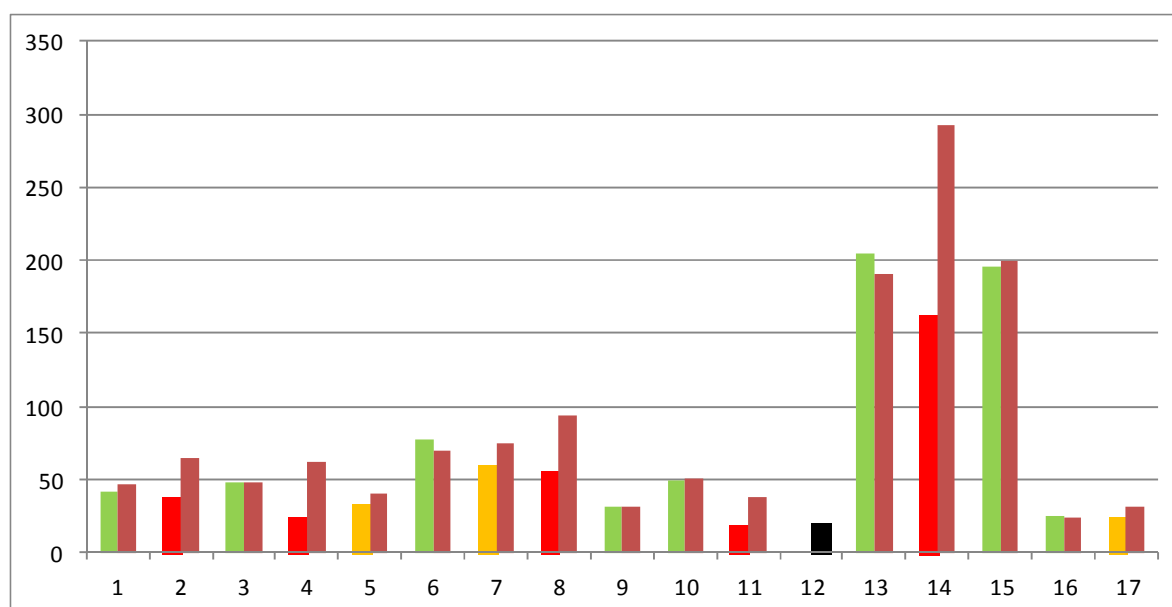
Hospitals: West Cumberland Hospital, Cumberland Infirmary  
 Region: North East

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 77.9% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
20	1	5.0	29	0	0	49	1	2.0	

## North West Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



## Key

1	Tameside Hospital NHS Foundation Trust
2	Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust
3	Royal Bolton Hospital NHS Foundation Trust
4	East Lancashire Hospitals NHS Trust
5	Wrightington, Wigan and Leigh NHS Foundation Trust
6	Pennine Acute Hospitals NHS Trust
7	University Hospitals Of Morecambe Bay NHS Trust
8	Lancashire Teaching Hospitals NHS Foundation Trust
9	Warrington and Halton Hospitals NHS Foundation Trust/North Cheshire NHS Trust
10	Wirral University Teaching Hospital NHS Foundation Trust

11	Aintree University Hospitals NHS Foundation Trust
12	Mid Cheshire Hospitals NHS Foundation Trust
13	Central Manchester University Hospitals NHS Foundation Trust
14	Royal Liverpool and Broadgreen University Hospitals NHS Trust
15	University Hospital Of South Manchester NHS Foundation Trust
16	Southport and Ormskirk Hospital NHS Trust
17	Countess Of Chester Hospital NHS Foundation Trust

**Tameside Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Tameside General Hospital  
Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 91.3% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
24	0	0	15	0	0	39	0	0	

This unit has since merged with Pennine Acute Hospitals NHS Trust

**Blackpool, Fylde and Wyre Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Blackpool Victoria Hospital  
Region: North West

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 59.4% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
13	1	7.7	23	0	0	36	1	2.8	

**Royal Bolton Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Bolton Hospital,  
Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
24	2	8.3	19	1	5.3	43	3	7.0	

**East Lancashire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Burnley General Hospital, Royal Blackburn Hospital  
 Region: North West

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 38.7% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
4	0	0	20	0	0	24	0	0	

**Wrightington, Wigan and Leigh NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Albert Edward Infirmary, Wrightington Hospital  
 Region: North West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 82.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
16	2	12.5	16	1	6.3	32	3	9.4	

**Pennine Acute Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Oldham Hospital  
 Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 110% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
20	1	5.0	46	2	4.3	66	3	4.5	

**University Hospitals of Morecambe Bay NHS Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Royal Lancaster Infirmary, Queen Victoria Hospital  
Region: North West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 78.7% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
15	1	6.7	39	1	2.6	54	2	3.7	

**Lancashire Teaching Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Royal Preston Hospital  
Region: North West

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 58.5% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
2	1	50.0	48	1	2.1	50	2	4.0	

**Warrington and Halton Hospitals NHS Foundation Trust/North Cheshire NHS Trust: Elective  
Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Warrington Hospital, Halton Hospital  
Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
26	2	7.7	2	0	0	28	2	7.1	



**Wirral University Teaching Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Arrowe Park Hospital, Clatterbridge Hospital  
Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 98% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
45	2	4.4	3	0	0	48	2	4.2	

**Aintree University Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: University Hospital Aintree, Walton Hospital  
Region: North West

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 50% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
11	0	0	8	1	12.5	19	1	5.3	

**Mid Cheshire Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Victoria Hospital (Northwich), Leighton Hospital  
Region: North West

Data contribution: nil

NVD – elective mortality									Data contribution to National Audit is 0% of HES data. Standard: nil
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0			0			0			

**Central Manchester University Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Manchester Royal Infirmary, St Mary's Hospital  
 Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 107.4% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
26	3	11.5	127	2	1.6	153	5	3.3	

**Royal Liverpool and Broadgreen University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: The Royal Liverpool University Hospital, Broadgreen Hospital  
 Region: North West

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 55.3% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
27	1	3.7	129	1	0.8	156	2	1.3	

**University Hospital Of South Manchester NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Wythenshawe Hospital  
 Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 97.5% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
71	4	5.6	79	2	2.5	150	6	4.0	

**Southport and Ormskirk Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ormskirk and District General Hospital  
 Region: North West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 104.2% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
22	2	9.1	0	0	0	22	2	9.1	

**Countess of Chester Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

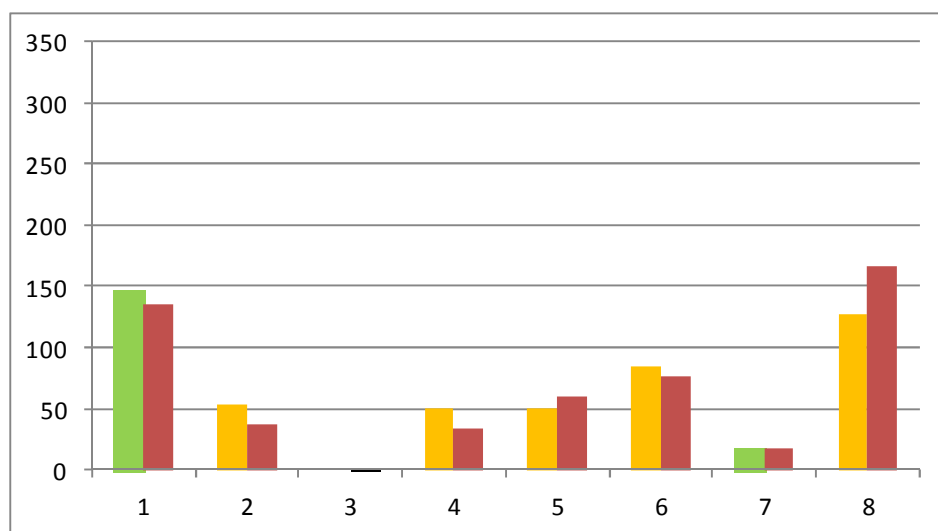
Hospitals: Countess of Chester Hospital  
 Region: North West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 77.4% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
10	0	0	13	1	7.7	23	1	4.3	

## South Central Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



## Key

1	Southampton University Hospitals NHS Trust
2	Buckinghamshire Hospitals NHS Trust
3	Basingstoke and North Hampshire NHS Foundation Trust
4	Royal Berkshire NHS Foundation Trust
5	Heatherwood and Wexham Park Hospitals NHS Foundation Trust
6	Portsmouth Hospitals NHS Trust
7	Milton Keynes Hospital NHS Foundation Trust
8	Oxford Radcliffe Hospitals NHS Trust

**Southampton University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Southampton General Hospital  
 Region: South Central

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 108.9% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
87	2	2.3	47	0	0	134	2	1.5	

**Buckinghamshire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Wycombe Hospital, Stoke Mandeville Hospital  
 Region: South Central

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 145.9% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
33	1	3.0	20	0	0	53	1	1.9	

**Basingstoke and North Hampshire NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Basingstoke and North Hampshire Hospital  
 Region: South Central

Data contribution: nil

NVD – elective mortality									Data contribution to National Audit is 0% of HES data. Standard: nil
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0			0			0			

This unit has since stopped performing AAA procedures and transfers their patients to Frimley Park Hospital

**Royal Berkshire NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Berkshire Hospital  
Region: South Central

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 151.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
15	1	6.7	34	0	0	49	1	2.0	

**Heatherwood and Wexham Park Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Heatherwood Hospital, Wexham Park Hospital  
Region: South Central

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 83.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
13	0	0	33	1	3.0	46	1	2.2	

**Portsmouth Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Queen Alexandra Hospital, St Mary's Hospital  
Region: South Central

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 111.8% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
45	5	11.1	35	1	2.9	80	6	7.5	

**Milton Keynes Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Milton Keynes Hospital  
 Region: South Central

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 94.4% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	1	7.1	1	0	0	15	1	6.7	

**Oxford Radcliffe Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

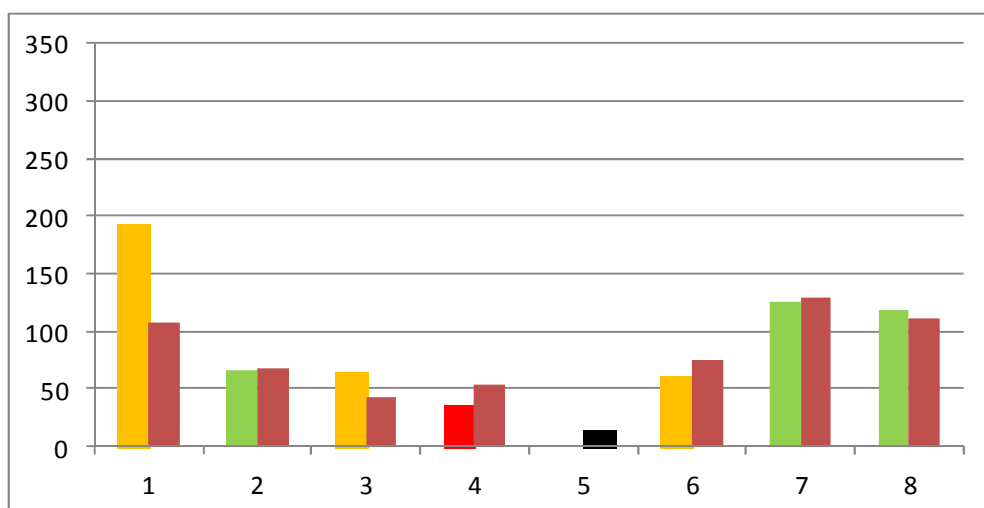
Hospitals: John Radcliffe Hospital  
 Region: South Central

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 76.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
52	0	0	59	1	1.7	111	1	0.9	

## South East Coast Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



### Key

1	East Kent Hospitals University NHS Foundation Trust
2	Western Sussex Hospitals NHS Trust
3	Medway NHS Foundation Trust
4	Ashford and St Peter's Hospitals NHS Trust
5	Surrey and Sussex Healthcare NHS Trust
6	East Sussex Hospitals NHS Trust
7	Frimley Park Hospital NHS Foundation Trust
8	Brighton and Sussex University Hospitals NHS Trust



**East Kent Hospitals University NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Kent and Canterbury Hospital  
Region: South East Coast

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 179.4% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
29	2	6.9	130	0	0	159	2	1.3	

**Western Sussex Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: St Richards Hospital (Chichester), Worthing Hospital  
Region: South East Coast

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 97.1% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
55	1	1.8	0	0	0	55	1	1.8	

**Medway NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Medway Maritime Hospital, Maidstone Hospital  
Region: South East Coast

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 148.8% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
41	0	0	17	0	0	58	0	0	

**Ashford and St Peter's Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ashford Hospital, St Peters Hospital Chertsey  
 Region: South East Coast

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 67.9% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
9	0	0	23	0	0	32	0	0	

**Surrey and Sussex Healthcare NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: East Surrey Hospital  
 Region: South East Coast

Data contribution: nil

NVD – elective mortality									Data contribution to National Audit is 0% of HES data Standard: nil
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0			0			0			

**East Sussex Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Eastbourne General Hospital  
 Region: South East Coast

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 80.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
23	1	4.3	38	1	2.6	61	2	3.3	

**Frimley Park Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Frimley Park Hospital  
 Region: South East Coast

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96.9% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
50	1	2.0	63	0	0	113	1	0.9	

**Brighton and Sussex University Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

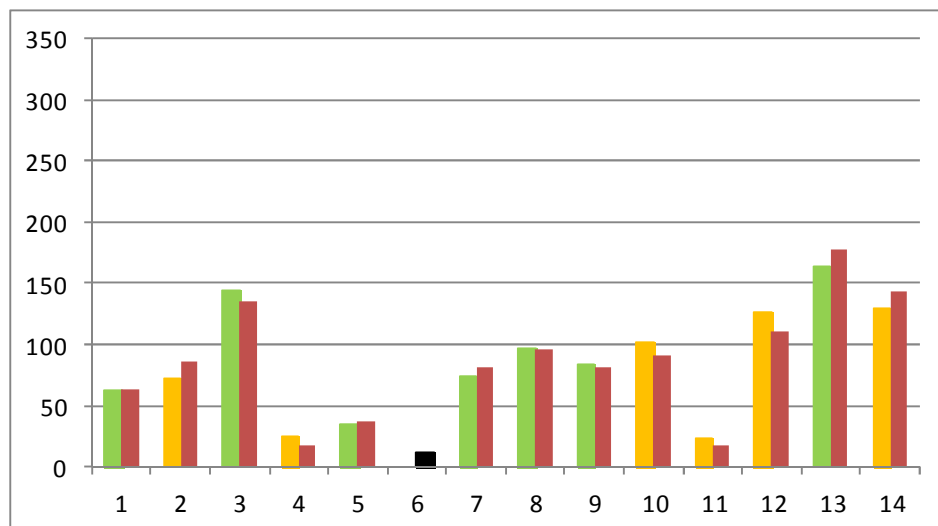
Hospitals: Royal Sussex County Hospital, Brighton General Hospital  
 Region: South East Coast

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 106.3% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
26	0	0	69	0	0	95	0	0	

## South West Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



### Key

1	Royal Devon and Exeter NHS Foundation Trust
2	Plymouth Hospitals NHS Trust
3	Gloucestershire Hospitals NHS Foundation Trust
4	Northern Devon Healthcare NHS Trust
5	Dorset County Hospital NHS Foundation Trust
6	Great Western NHS Foundation Trusts
7	University Hospitals Bristol NHS Foundation Trust
8	Royal Cornwall Hospitals NHS Trust
9	South Devon Healthcare NHS Foundation Trust
10	North Bristol NHS Trust
11	Salisbury NHS Foundation Trust
12	Taunton and Somerset NHS Foundation Trust
13	The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
14	Royal United Hospital Bath NHS Trust

**Royal Devon and Exeter NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Devon & Exeter Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96.9% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
24	2	8.3	34	0	0.0	58	2	3.4	

**Plymouth Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Derriford Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 83.7% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
32	1	3.1	29	0	0.0	61	1	1.6	

**Gloucestershire Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Gloucester Royal Hospital, Cheltenham General Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 106.6% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
83	0	0.0	53	0	0.0	136	0	0.0	

**Northern Devon Healthcare NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: North Devon District Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 141.2% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
21	1	4.8	0	0	0.0	21	1	4.8	

This unit has since stopped performing AAA procedures and transfers their patients to Taunton and Somerset NHS Foundation Trust

**Dorset County Hospital NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Dorset County Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 94.6% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
34	2	5.9	0	0	0.0	34	2	5.9	

**Great Western NHS Foundation Trusts: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Great Western Hospital, Fairford Hospital  
 Region: South West

Data contribution: nil

NVD – elective mortality									Data contribution to National Audit is 0% of HES data. Standard: nil
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0			0			0			

**University Hospitals Bristol NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Bristol Royal Infirmary, Weston Super Mare General Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 91.4% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
40	4	10.0	30	0	0.0	70	4	5.7	

**Royal Cornwall Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Cornwall Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
18	1	5.6	58	0	0.0	76	1	1.3	

**South Devon Healthcare NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Torbay Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 103.7% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
16	0	0.0	59	0	0.0	75	0	0.0	

**North Bristol NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Southmead Hospital, Frenchay Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 111% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
48	3	6.3	41	2	4.9	89	5	5.6	

**Salisbury NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Salisbury District Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 127.8% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
17	1	5.9	0	0	0.0	17	1	5.9	

**Taunton and Somerset NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Musgrove Park Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 115.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
37	0	0.0	74	0	0.0	111	0	0.0	



**The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Bournemouth General Hospital, Poole Hospital  
 Region: South West

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 92.1% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
59	4	6.8	96	0	0.0	155	4	2.6	

**Royal United Hospital Bath NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

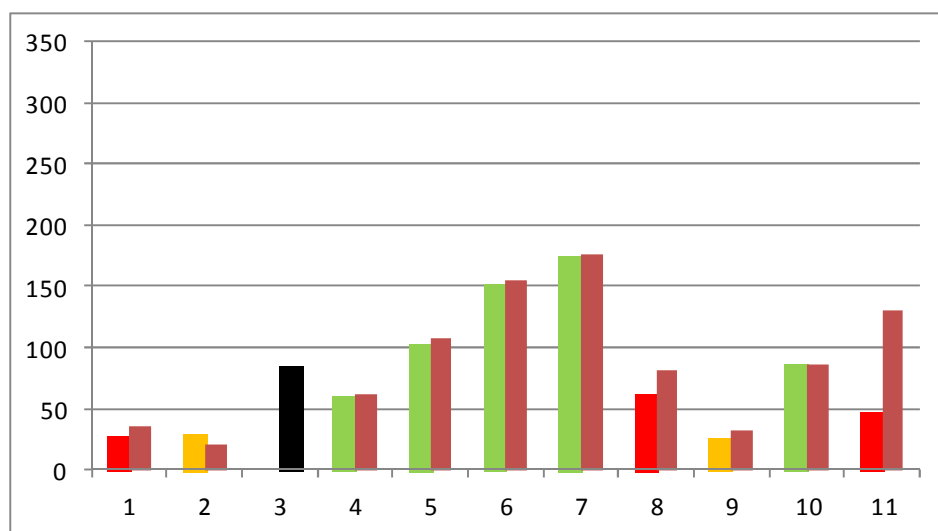
Hospitals: Royal United Hospital  
 Region: South West

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 90.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
31	4	12.9	93	2	2.2	124	6	4.8	

## West Midlands Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



### Key

1	Walsall Hospitals NHS Trust
2	Mid Staffordshire NHS Foundation Trust
3	University Hospital Birmingham NHS Foundation Trust
4	The Dudley Group Of Hospitals NHS Foundation Trust
5	Shrewsbury and Telford Hospital NHS Trust
6	Heart Of England NHS Foundation Trust
7	Worcestershire Acute Hospitals NHS Trust
8	University Hospitals Coventry and Warwickshire NHS Trust
9	Sandwell and West Birmingham Hospitals NHS Trust
10	The Royal Wolverhampton Hospitals NHS Trust
11	University Hospital Of North Staffordshire NHS Trust

**Walsall Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Manor Hospital

Region: West Midlands

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 75% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
1	0	0	23	0	0	24	0	0	

**Mid Staffordshire NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Stafford Hospital

Region: West Midlands

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 133.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
22	1	4.5	5	0	0	27	1	3.7	

**University Hospital Birmingham NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Queen Elizabeth Hospital

Region: West Midlands

Data contribution: nil

NVD – elective mortality									Data contribution to National Audit is 0% of HES data. Standard: nil
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0			0			0			

**The Dudley Group of Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Russell's Hall Hospital, Corbett Hospital, Guest Hospital  
Region: West Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96.8% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
13	0	0	45	0	0	58	0	0	

**Shrewsbury and Telford Hospital NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Royal Shrewsbury Hospital, The Princess Royal Hospital  
Region: West Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 96.3% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
47	3	6.4	45	0	0	92	3	3.3	

**Heart of England NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Good hope hospital, Solihull Hospital, Heartlands  
Region: West Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 98.1% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
38	4	10.5	101	1	1.0	139	5	3.6	

**Worcestershire Acute Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Worcester Royal Hospital, Alexandra Hospital, Kidderminster Hospital  
 Region: West Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 98.9% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
121	5	4.1	38	0	0	159	5	3.1	

**University Hospitals Coventry and Warwickshire NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: University Hospital Coventry  
 Region: West Midlands

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 75.3% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
32	1	3.1	23	0	0	55	1	1.8	

**Sandwell and West Birmingham Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: City Hospital, Birmingham & Sandwell Hospital  
 Region: West Midlands

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 81.3% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
15	1	6.7	9	0	0	24	1	4.2	

**The Royal Wolverhampton Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: New Cross Hospital  
 Region: West Midlands

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 100% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
42	2	4.8	34	0	0	76	2	2.6	

**University Hospital Of North Staffordshire NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

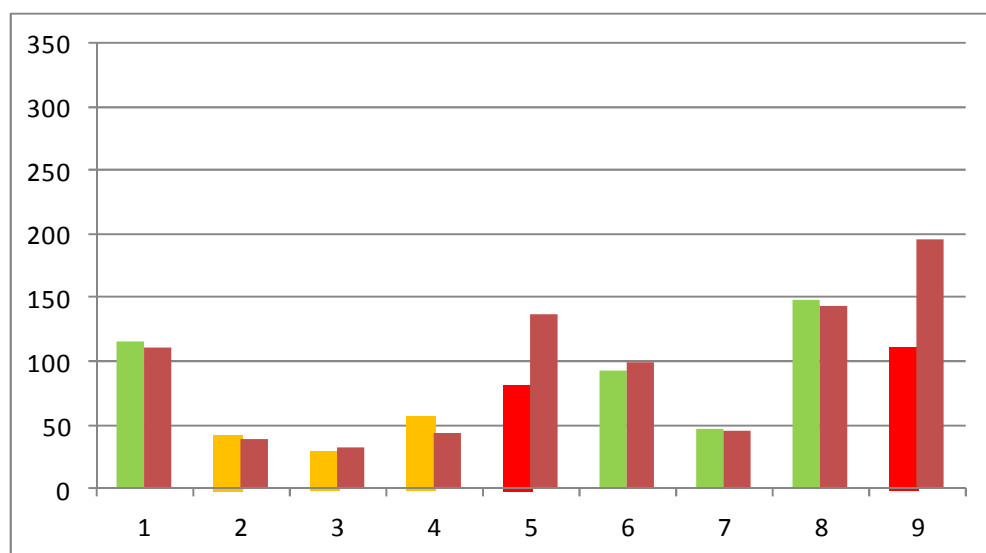
Hospitals: University Hospital of North Staffordshire, City General Hospital  
 Region: West Midlands

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 36.2% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
9	0	0	34	0	0	43	0	0	

## Yorkshire Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Hospitals with data marked in black made no contribution for the duration of this audit. Users of this report should use this information together with the mortality report for units when deciding on the quality of service offered.



## Key

1	Doncaster and Bassetlaw Hospitals NHS Foundation Trust
2	Mid Yorkshire Hospitals NHS Trust
3	Northern Lincolnshire and Goole Hospitals NHS Foundation Trust
4	Bradford Teaching Hospitals NHS Foundation Trust
5	Leeds Teaching Hospitals NHS Trust
6	York Hospitals NHS Foundation Trust
7	Calderdale and Huddersfield NHS Foundation Trust
8	Hull and East Yorkshire Hospitals NHS Trust
9	Sheffield Teaching Hospitals NHS Foundation Trust

**Doncaster and Bassetlaw Hospitals NHS Foundation Trust: Elective Abdominal Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Doncaster Royal Infirmary, Bassetlaw Hospital  
Region: Yorkshire

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 103.6% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
47	3	6.4	56	1	1.8	103	4	3.9	

**Mid Yorkshire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Pindersfield General Hospital  
Region: Yorkshire

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 110.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
18	0	0	24	0	0	42	0	0	

**Northern Lincolnshire and Goole Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Goole and District Hospital  
Region: Yorkshire

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 90.6% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
27	0	0	0	0	0	27	0	0	



**Bradford Teaching Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Bradford Royal Infirmary  
Region: Yorkshire

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 129.5% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
31	0	0	20	0	0	51	0	0	

**Leeds Teaching Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Leeds General Infirmary  
Region: Yorkshire

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 59.1% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
18	1	5.6	33	0	0	51	1	2.0	

**York Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: York Hospital  
Region: Yorkshire

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 92.9% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
36	1	2.8	43	0	0	79	1	1.3	

**Calderdale and Huddersfield NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Calderdale Royal Hospital, Huddersfield Royal infirmary  
Region: Yorkshire

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 104.4% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
29	2	6.9	12	0	0	41	2	4.9	

**Hull and East Yorkshire Hospitals NHS Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Hull Royal Infirmary  
Region: Yorkshire

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 104.2% of HES data. Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
95	7	7.4	41	1	2.4	136	8	5.9	

**Sheffield Teaching Hospitals NHS Foundation Trust: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

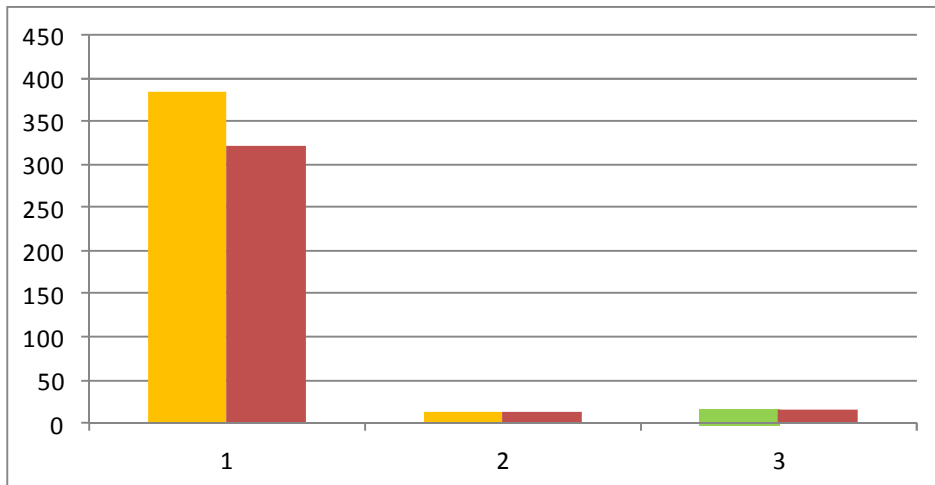
Hospitals: Northern General Hospital  
Region: Yorkshire

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 56.6% of HES data. Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
91	3	3.3	13	0	0	104	3	2.9	

## Northern Ireland Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Units with no contribution are coded black. Users of this report should use this information together with the mortality data when deciding on the quality of service offered.



### Key

1	Belfast Health and Social Care Trust
2	Southern Health and Social Care Trust
3	Western Health and Social Care Trust

**Belfast Health and Social Care Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Belfast City Hospital, Royal Victoria Hospital  
 Region: Northern Ireland

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 119.6% of HES data. Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
137	5	3.6	178	0	0	315	5	1.6	

**Southern Health and Social Care Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Craigavon Area Hospital  
 Region: Northern Ireland

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 85.7% of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
9	0	0	0	0	0	9	0	0	

**Western Health and Social Care Trust: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Altnagelvin Area Hospital  
 Region: Northern Ireland

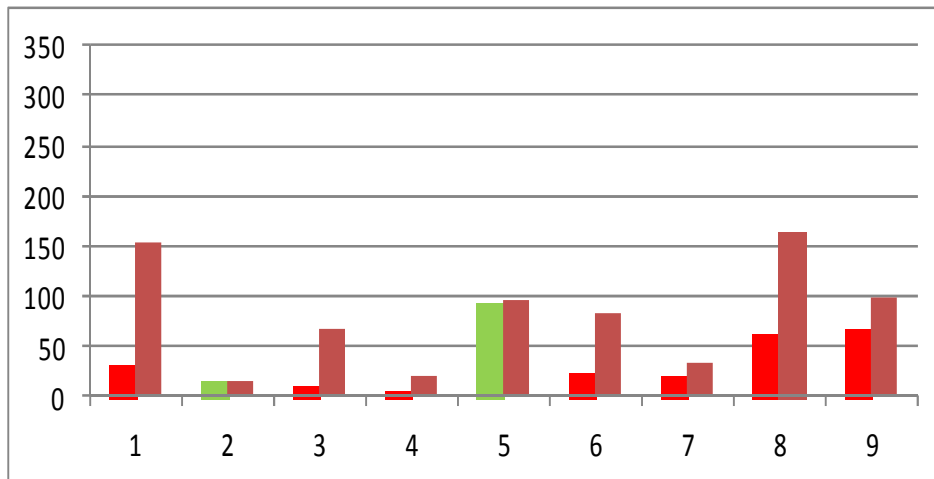
Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 93.8% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	3	21.4	0	0	0	14	3	21.4	

This unit has since stopped performing AAA procedures and transfers their patients to Belfast

## Scotland Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Units with no contribution are coded black. Users of this report should use this information together with the mortality data when deciding on the quality of service offered.



### Key

1	NHS Greater Glasgow & Clyde
2	NHS Dumfries and Galloway
3	NHS Lanarkshire
4	NHS Ayrshire & Arran
5	NHS Grampian
6	NHS Highland
7	NHS Forth Valley
8	NHS Lothian
9	NHS Tayside + NHS Fife

### NHS Greater Glasgow & Clyde: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010

Hospitals: Southern General Hospital, Western Infirmary, Glasgow Royal Infirmary  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 20.4% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
16	0	0.0	14	0	0.0	30	0	0.0	

### NHS Dumfries and Galloway: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010

Hospitals: Dumfries & Galloway Royal Infirmary  
 Region: Scotland

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 107.1% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	1	7.1	0	0	0.0	14	1	7.1	

### NHS Lanarkshire: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010

Hospitals: Wishaw General Hospital, Hairmyres Hospital  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 13.2% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0	0	0.0	8	0	0.0	8	0	0.0	

**NHS Ayrshire & Arran: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ayr Hospital  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 14.3% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
1	0	0.0	0	0	0.0	1	0	0.0	

**NHS Grampian: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Aberdeen Royal Infirmary  
 Region: Scotland

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 97.9% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
17	0	0.0	64	0	0.0	81	0	0.0	

**NHS Highland: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Raigmore Hospital  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 26.8% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
14	0	0.0	5	0	0.0	19	0	0.0	

**NHS Forth Valley: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Stirling Royal Infirmary  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 63.6% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
20	0	0.0	0	0	0.0	20	0	0.0	

**NHS Lothian: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Edinburgh Royal Infirmary, Royal Victoria Hospital  
 Region: Scotland

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 37.2% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
44	2	4.5	16	0	0.0	60	2	3.3	

**NHS Tayside + NHS Fife: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Ninewells Hospital, Queen Margaret Hospital  
 Region: Scotland

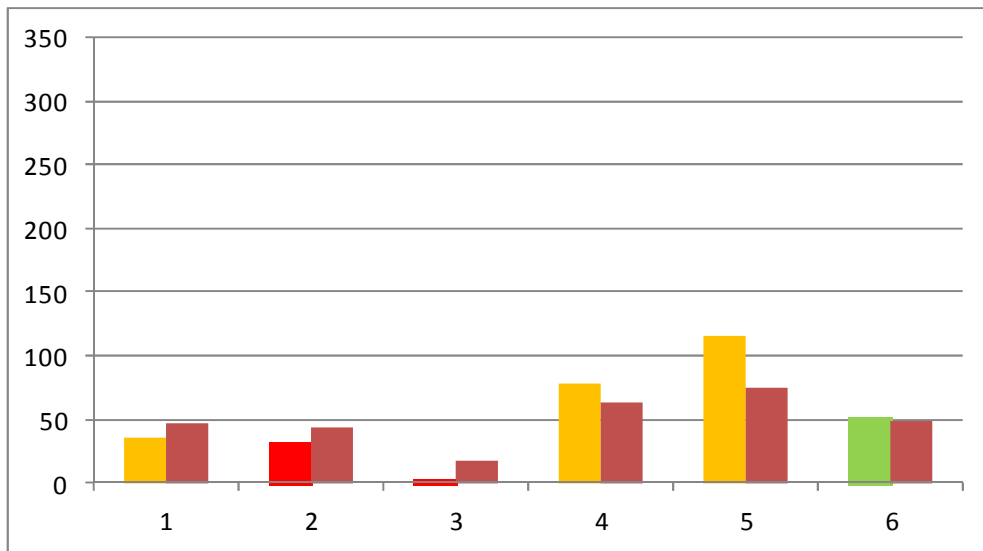
Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 67.7% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
28	0	0.0	32	0	0.0	60	0	0.0	



## Wales Region Data quality

Data entry for national clinical audit is shown in coloured bars to the left of the corresponding Trust data (in pink). Data contribution is colour coded as: Green = good, Amber = average, Red = poor. Units with no contribution are coded black. Users of this report should use this information together with the mortality data when deciding on the quality of service offered.



### Key

1	Cardiff and Vale University Health Board
2	Cwm Taf University Health Board
3	Hywel Dda Health Board
4	Abertawe Bro Morgannwg University Health Board
5	Betsi Cadwaladr University Health Board
6	Aneurin Bevan Health Board

**Cardiff and Vale University Health Board: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: University Hospital of Wales  
 Region: Wales

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 76.6 of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
13	0	0	18	1	5.6	31	1	3.2	

**Cwm Taf University Health Board: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Glamorgan Hospital  
 Region: Wales

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 72.7% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
17	2	11.8	12	0	0	29	2	6.9	

**Hywel Dda Health Board: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Prince Philip Hospital  
 Region: Wales

Data contribution: poor

NVD – elective mortality									Data contribution to National Audit is 17.6% of HES data Standard: poor
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
0	0	0	3	0	0	3	0	0	

**Abertawe Bro Morgannwg University Health Board: Elective Abdominal Aortic Aneurysm  
1/10/2008 to 30/09/2010**

Hospitals: Princess of Wales Hospital, Bridgend Morryston Hospital, Swansea  
Region: Wales

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 123.8% of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
44	1	2.3	21	0	0	65	1	1.5	

**Betsi Cadwaladr University Health Board: Elective Abdominal Aortic Aneurysm 1/10/2008 to  
30/09/2010**

Hospitals: Glan Clwyd Hospital, Wrexham Maelor Hospital, Ysbyty Gwynedd  
Hospital  
Region: Wales

Data contribution: average

NVD – elective mortality									Data contribution to National Audit is 154.7% of HES data Standard: average
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
73	2	2.7	39	0	0.0	112	2	1.8	

**Aneurin Bevan Health Board: Elective Abdominal Aortic Aneurysm 1/10/2008 to 30/09/2010**

Hospitals: Royal Gwent Hospital  
Region: Wales

Data contribution: good

NVD – elective mortality									Data contribution to National Audit is 104.1% of HES data Standard: good
Open			EVAR			Overall			
No	Died	Mortality	No	Died	Mortality	No	Died	Mortality	
13	0	0.0	30	0	0.0	43	0	0.0	

## Data validation and analysis

- Data were sent to surgical leads in each vascular unit in the spring of 2011. A request was made to share this data within each vascular team and for teams/trusts to validate their data. The same request for data validation was sent to the Information Governance lead for each NHS Trust undertaking AAA surgery.
- A second request was sent out in the summer of 2011 asking each vascular unit to check that the data submitted to the NVD and via SUS were correct.
- We provided each vascular unit and the information governance leads for the unit's hospital with a summary of the data submitted to the NVD as well as a summary of the SUS (or Celtic nation equivalent) data for the same unit and same time period.
- Data were based on OPCS codes: L19.4, L19.5, L19.6, L19.8, L27.1, L27.5, L27.6, L27.8, L27.9, L28.1, L28.5, L28.6, L28.8, L28.9
- Units were told that the operative mortality data would be published in early 2012.
- Units were encouraged to update the data they held on the national vascular database
- SUS data was obtained for the two year period for England. Patient Episode Data for Wales, Scotland and N Ireland was initially only available for the first year. We received the second year of data in the autumn of 2011. This was sent out to units in early December.
- All units throughout the UK were then contacted for a third time, following which final amendments to the data were allowed.
- The database was closed for analysis on 16<sup>th</sup> January 2012. The dataset on that day forms the basis of this report.
- We report outcomes for patients undergoing elective infra-renal AAA surgery after elective admission (using these fields in the NVD to define the cases included in the audit). The data exclude all supra-renal and thoracic aortic aneurysms.
- Outcome data are reported by actual number of cases treated and percentage mortality.
- The overall mortality for each unit is graded according to the standards set out by the National Abdominal Aortic Screening Programme (NAAASP)
- In order to assess data quality we also report the number of cases submitted to the NVD compared to the number of NHS Trust submitted cases in the SUS (or Celtic nation equivalent) data. This figure is derived by comparing OPCS codes given above for elective open surgical repair and EVAR between the two datasets.
- As a number of units were undertaking emergency infra-renal EVAR during this audit, we were unable to use the SUS data to describe the outcome of elective infra-renal AAA repair. This was due to mixing of emergency cases (that have a much higher risk) within the SUS dataset.

- Data quality is colour coded using the approved Vascular Society standard

#### **Data governance**

- Data is regularly reviewed by the Audit committee chair. Any outlying performance is reported to the Vascular Society professional standards committee for further evaluation.
- The committee has a clear governance procedure to be followed in the event of outlying data. The first step is to request a formal data review. Outlying performance, or non-contribution of data is notified to the Medical director of the unit concerned with a recommendation to review practice and procedures. This is accompanied by a recommendation not to undertake the procedure of concern until this process is complete. The analysis standard is the same as that used by the Society of Cardiovascular and Thoracic Surgeons. Outlying performance reviews are triggered at 2 standard deviations from the mean.
- The Medical Directors of units that have failed to contribute, and those with mortality rates over 10% (coloured red) have been contacted.