NBOCA | National Bowel Cancer Audit

NBOCA Annual Report 2019 – Provider results

University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital

East Midlands A02

The University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital incorporates Royal Derby Hospital
https://www.uhdb.nhs.uk/ <https://www.uhdb.nhs.uk/>

Patient inclusion and data sources

The majority of these results are for patients in England and Wales diagnosed with bowel cancer 1 Apr 2017 – 31 Mar 2018. The exceptions are for adjuvant chemotherapy and the four trust outcomes: 30-day unplanned readmission, 90-day mortality, 2-year mortality and 18-month stoma rate. 30-day unplanned readmission and 90-day mortality are further restricted to patients undergoing surgery up to 31 October 2018 for patients treated in England, and up to 28 February 2018 for patients treated in Wales. Two-year mortality estimates include patients undergoing a major resection between 1 April 2015 and 31 March 2016. 18-month stoma rates include rectal cancer patients undergoing a major resection between 1 April 2014 and 31 March 2017. Adjuvant chemotherapy estimates include patients undergoing major resection for pathological stage III colon cancer between 01 June 2014 and 31 August 2017 in England only.

The Audit dataset is linked to Hospital Episode Statistics (HES) and Patient Episode Database for Wales (PEDW) at the patient level to obtain further information on patient care and follow-up such as stoma reversal and emergency readmissions in England/Wales. The dataset also links to Office of National Statistics records. These provide information about date, place and cause of death.

NBOCA also links to the National Radiotherapy Dataset (RTDS) for information on radiotherapy treatment in England, and the Systemic Anti-Cancer Therapy database (SACT) for information on chemotherapy treatment in England.

Data Quality

Case ascertainment

Number of patients reported to the Audit as a percentage of the number of patients admitted for the first time to the trust/network with a diagnosis of bowel cancer within the audit period according to HES. This can be larger than 100 if more patients are reported to the Audit than identified in HES.

Data completeness

% of relevant patient group with useable value of data item.

ASA grade

% of patients recorded as having a major resection who have a particular ASA grade recorded, or no ASA recorded.

Management of all patients

Potentially curative patients

Patients electively diagnosed with colon cancer with pre-treatment staging of T2-T4 and no evidence of metastatic disease.

Management of patients having major resection

At least 12 lymph nodes excised (%)

% of colon cancer patients undergoing major resection with a recorded number of lymph nodes, who had at least 12 lymph nodes examined.

Adjuvant chemotherapy

% of adjuvant chemotherapy in patients undergoing major resection for pathological stage III colon cancer between 01 June 2014 and 31 August 2017 in England only. These are unadjusted chemotherapy rates.

Rectal cancer patients

Neo-adjuvant therapy (%)

% of rectal cancer patients having short- or long-course radiotherapy prior to major resection.

Circumferential resection margin: Negative (%)

% of rectal cancer patients undergoing major resection whose CRM is reported to be negative.

Circumferential resection margin: Recorded (%)

% of rectal cancer patients undergoing a major resection who have a recorded CRM.

APER rate (%)

% of patients with rectal cancer undergoing abdominoperineal excision of the rectum and therefore having a permanent stoma.

Compare trust outcomes

Funnel plots display trust risk-adjusted outcomes for 90-day mortality, 30-day unplanned readmission, 2-year mortality and, for rectal cancer patients, 18-month stoma rate. The funnel regions represent the 95 per cent limit and the 99.8 per cent limit for trusts compared to the national average. Those trusts with results outside the outer (99.8 per cent) limit are considered potential outliers.

Risk adjustment is performed using the seven items listed under Data Quality as well as mode of admission (elective/emergency) and number of co-morbidities according to HES/PEDW, and an interaction between age and distant metastases. Missing values are imputed using Multiple Imputation. The model for two-year mortality additionally includes interactions between follow-up time (0-3 months after surgery vs. 3-24 months after surgery) and all of the risk factors.

A stoma is considered to be reversed if a HES/PEDW record with relevant code is identified within 18 months of the initial surgical procedure.

See FAQs <https://www.nboca.org.uk/about/faq/> for more details.

Data Quality

All Patients:	**Trust**	**Network**	**National**
Number of patients in Audit	344	2189	31676
Case ascertainment (%)	101	98	95
Data completeness of:			
– Pre-treatment TNM (%)	69	66	80

All Patients:	Trust	Network	National
– Performance status (%)	58	74	86

Patients having major resection:	Trust	Network	National
Number of patients in Audit	185	1282	19218
ASA grade 1 (%)	15	7	11
ASA grade 2 (%)	47	53	53
ASA grade 3 (%)	16	29	28
ASA grade 4+ (%)	N/A	3	3
ASA grade not recorded (%)	22	8	5
Data completeness of:			
7 Audit items for risk-adjustment (%)	78	87	86

Key:

> 80%
50 - 80%
< 50%

Management of all patients

All Patients:	Trust	Network	National
Number of patients in Audit	344	2189	31676
Seen by Clinical Nurse Specialist (%)	60	80	87

All patients deemed potentially curative	Trust	Network	National
Number of potentially curative patients	60	405	7416
Undergoing major resection (%)	82	84	86

Management of patients having major resection

Patients having major resection:	Trust	Network	National
Number of patients in Audit	185	1282	19218
Distant metastases (%)	6	8	8
Urgent or emergency surgery (%)	16	15	15
At least 12 lymph nodes excised (%)	93	88	84
Laparoscopic surgery attempted (%)	45	61	69

Patients having major resection:	Trust	Network	National
Risk-adjusted length of stay > 5 days (%)	71	59	62

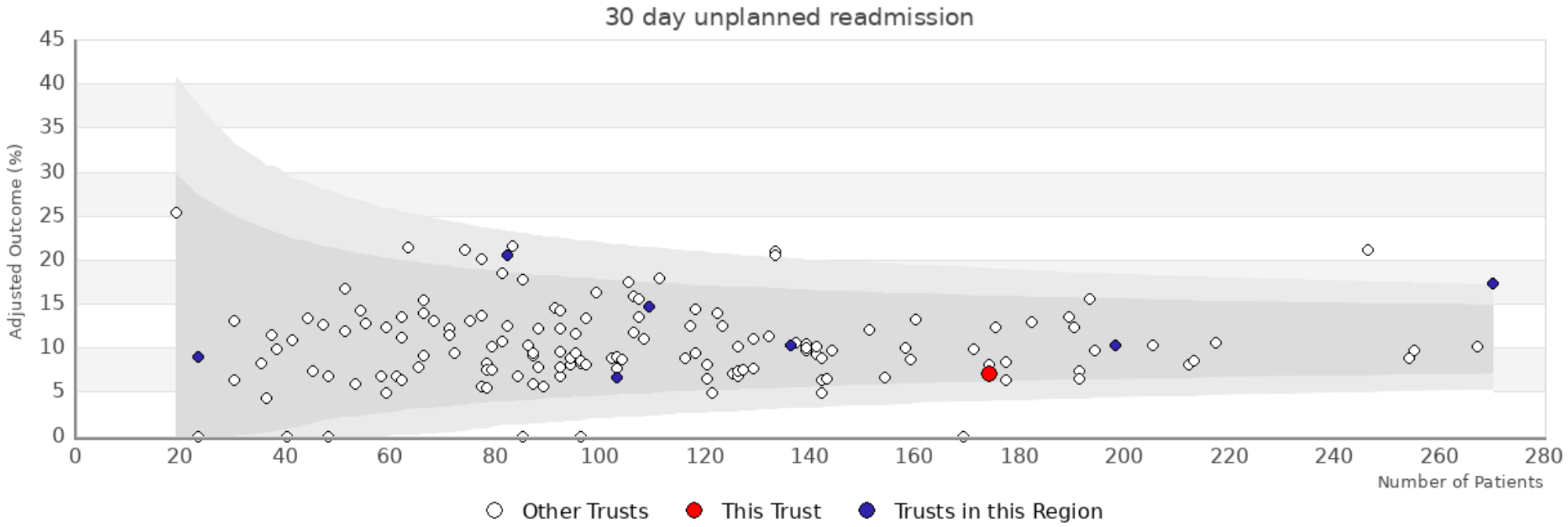
Patients having major resection for stage III colon cancer:	Trust	Network	National
Number of patients in audit	144	817	11837
Adjuvant chemotherapy (%)	68	67	62

Rectal cancer patients

Patients having major resection:	Trust	Network	National
Number of patients in Audit	36	313	4588
Neoadjuvant therapy (%)	25	38	33
Circumferential resection margin: Recorded (%)	100	96	90
Circumferential resection margin: Negative (%)	97	90	80
Rectal volume	N/A	N/A	N/A

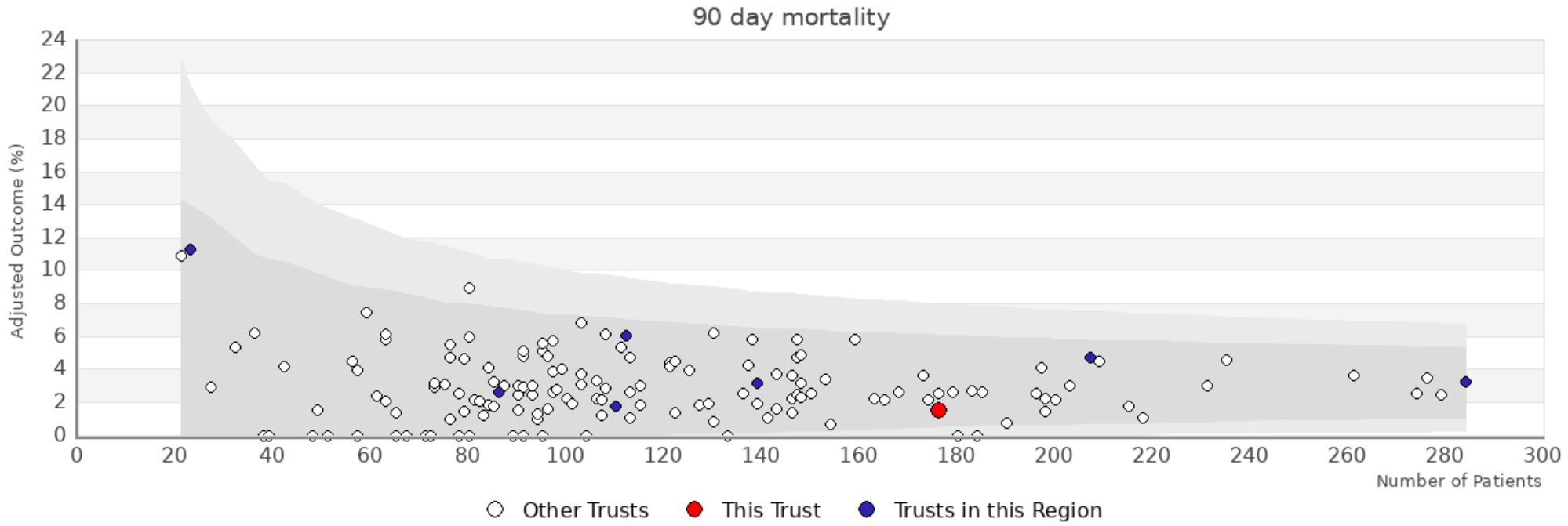
Patients in APER/Hartmanns estimate:	Trust	Network	National
Number of patients in APER/Hartmanns estimate	N/A	N/A	N/A

Patients in APER/Hartmanns estimate:	Trust	Network	National
APER/Hartmanns (%)	N/A	N/A	N/A



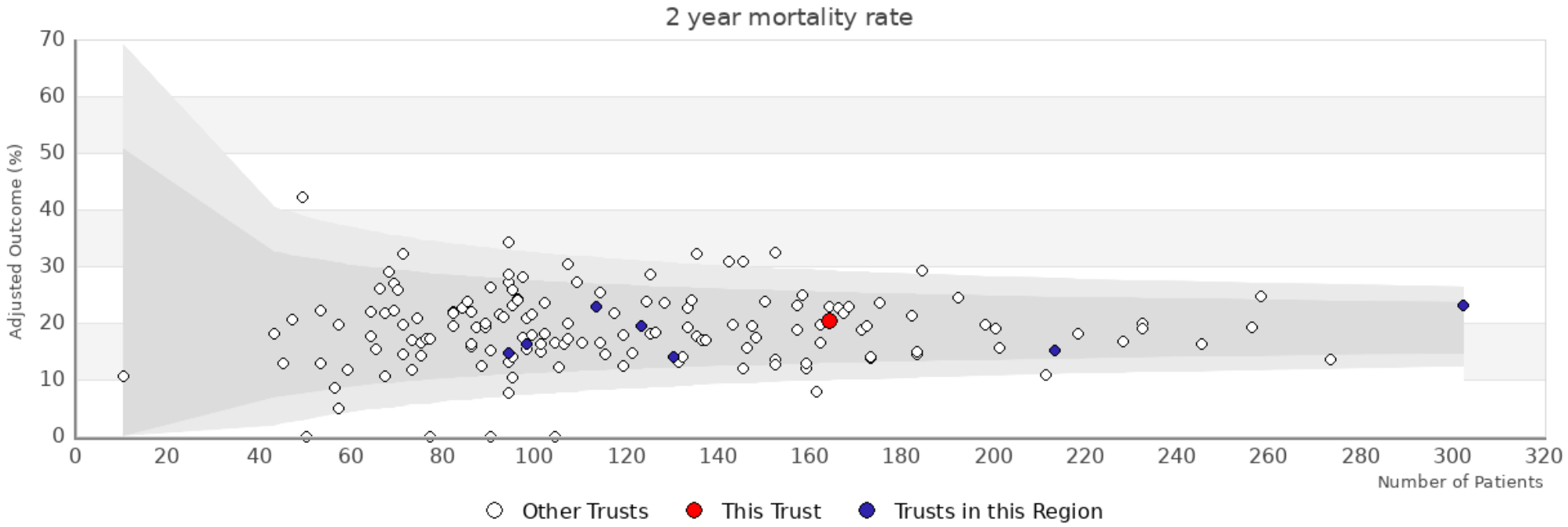
Trust	Number	Adjusted	Observed
University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital	174	7.1%	6.9%
Other trusts within the region: East Midlands			
Kettering General Hospital NHS Foundation Trust	103	6.6%	6.8%

Trust	Number	Adjusted	Observed
Northampton General Hospital NHS Trust	136	10.3%	10.3%
Nottingham University Hospitals NHS Trust	198	10.3%	10.6%
Sherwood Forest Hospitals NHS Foundation Trust	109	14.7%	14.7%
University Hospitals of Leicester NHS Trust	270	17.4%	17.8%
United Lincolnshire Hospitals NHS Trust - Lincoln and Grantham	23	9%	8.7%
United Lincolnshire Hospitals NHS Trust - Pligrim Hospital Boston	82	20.6%	19.5%



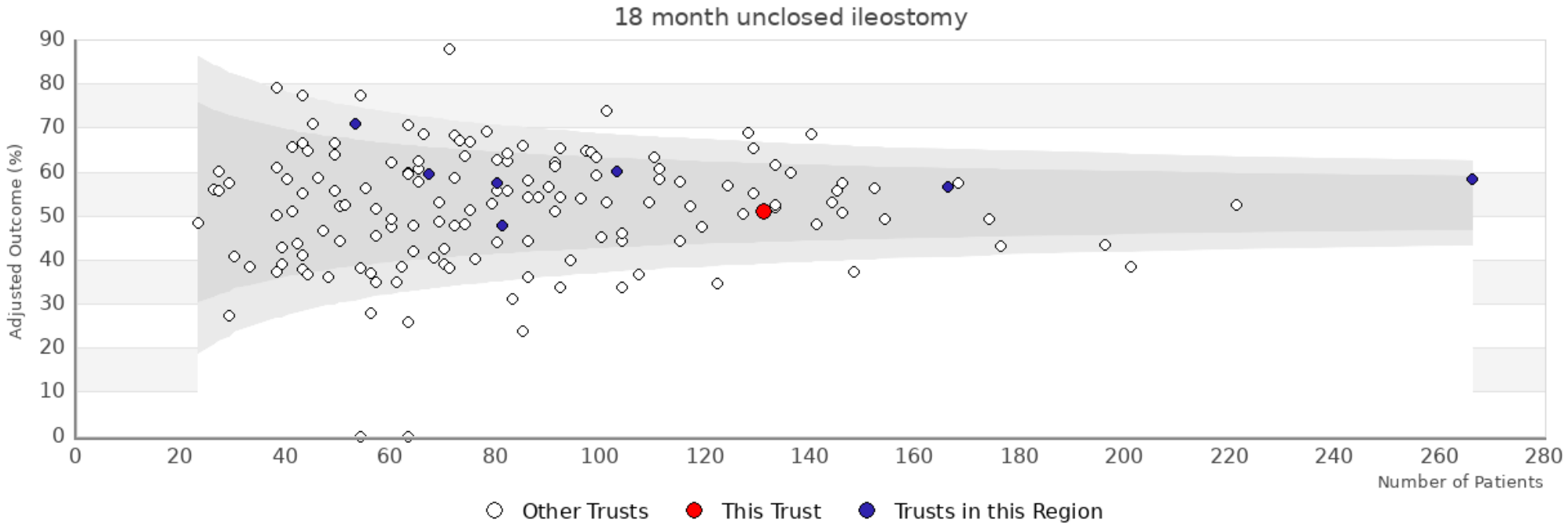
Trust	Number	Adjusted	Observed
University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital	176	1.5%	1.1%
Other trusts within the region: East Midlands			
Kettering General Hospital NHS Foundation Trust	110	1.8%	1.8%

Trust	Number	Adjusted	Observed
Northampton General Hospital NHS Trust	139	3.2%	3.6%
Nottingham University Hospitals NHS Trust	207	4.7%	4.4%
Sherwood Forest Hospitals NHS Foundation Trust	112	6.1%	5.4%
University Hospitals of Leicester NHS Trust	284	3.2%	3.9%
United Lincolnshire Hospitals NHS Trust - Lincoln and Grantham	23	11.3%	4.4%
United Lincolnshire Hospitals NHS Trust - Pligrim Hospital Boston	86	2.6%	3.5%



Trust	Number	Adjusted	Observed
University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital	164	20.4%	17.9%
Other trusts within the region: East Midlands			
Kettering General Hospital NHS Foundation Trust	130	14%	10.5%

Trust	Number	Adjusted	Observed
Northampton General Hospital NHS Trust	98	16.3%	12%
Nottingham University Hospitals NHS Trust	213	15.2%	13.6%
Sherwood Forest Hospitals NHS Foundation Trust	123	19.6%	18.6%
University Hospitals of Leicester NHS Trust	302	23.1%	23.1%
United Lincolnshire Hospitals NHS Trust - Lincoln and Grantham	113	22.9%	25.4%
United Lincolnshire Hospitals NHS Trust - Pligrim Hospital Boston	94	14.7%	15.9%



Trust	Number	Adjusted	Observed
University Hospitals of Derby and Burton NHS Foundation Trust - Royal Derby Hospital	131	51%	51.2%
Other trusts within the region: East Midlands			
Kettering General Hospital NHS Foundation Trust	103	60.2%	57.3%

Trust	Number	Adjusted	Observed
Northampton General Hospital NHS Trust	81	48%	46.9%
Nottingham University Hospitals NHS Trust	166	56.8%	56%
Sherwood Forest Hospitals NHS Foundation Trust	80	57.4%	56.3%
University Hospitals of Leicester NHS Trust	266	58.4%	62%
United Lincolnshire Hospitals NHS Trust - Lincoln and Grantham	53	71%	69.8%
United Lincolnshire Hospitals NHS Trust - Pligrim Hospital Boston	67	59.7%	62.7%