

## West Suffolk NHS Foundation Trust

East of England A03

The West Suffolk NHS Foundation Trust incorporates West Suffolk Hospital in Bury St Edmunds <http://www.wsh.nhs.uk/>  
<<http://www.wsh.nhs.uk/>>

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## Patient inclusion and data sources

The majority of these results are for patients in England and Wales diagnosed with bowel cancer 1 Apr 2015 – 31 Mar 2016. The exceptions are for 2-year mortality and 18-month stoma rate. Two-year mortality estimates include patients undergoing a major resection between 1 April 2013 and 31 March 2014. 18-month stoma rates include rectal cancer patients undergoing a major resection between 1 April 2012 and 31 March 2015.

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, and to the National Radiotherapy Dataset (RTDS) for information on radiotherapy treatment in England.

## Data Quality

### Data completeness

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

### 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/PEDW. This can be larger than 100 if more patients are reported to the Audit than identified in HES/PEDW.

### 7 audit items for risk-adjustment

The per cent of patients with complete data items on all of age, sex, ASA grade, pathological T-stage, pathological N-stage, distant metastases and site of cancer.

## Management of all patients

### No major resection: too little cancer

Those undergoing a local resection of polypectomy.

### No major resection: too much cancer

No excision and reason for no treatment includes advanced stage cancer OR no excision and non-curative intent and metastatic disease.

### No major resection: too frail

not in too much cancer group AND no excision and reason for no treatment includes significant co-morbidity OR no excision and performance status 3 or 4.

### No major resection: unknown/other reason:

no excision and does not meet any of the above criteria.

## 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 with 18 months of the initial surgical procedure.

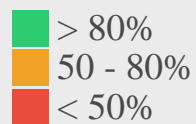
See [FAQs <https://www.nboca.org.uk/about/faq/>](https://www.nboca.org.uk/about/faq/) for more details.

## Data Quality

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<b>All Patients:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	159	3629	30710
Case ascertainment (%)	95	101	95
Data completeness of:			
– Pre-treatment TNM (%)	40	81	76
– Performance status (%)	99	86	83

<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	108	2094	19231
ASA grade 1 (%)	2	9	12
ASA grade 2 (%)	60	52	53
ASA grade 3 (%)	33	30	27
ASA grade 4+ (%)	5	3	3
ASA grade not recorded (%)	N/A	7	6
Data completeness of:			
7 Audit items for risk-adjustment (%)	94	74	81

**Key:**

## Management of all patients

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<b>All Patients:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	159	3629	30710
Seen by Clinical Nurse Specialist (%)	97	89	91

## Management of patients having major resection

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<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	108	2094	19231
Distant metastases (%)	3	8	9
Urgent or emergency surgery (%)	21	17	16
At least 12 lymph nodes excised (%)	91	85	84
Laparoscopic surgery attempted (%)	69	64	63

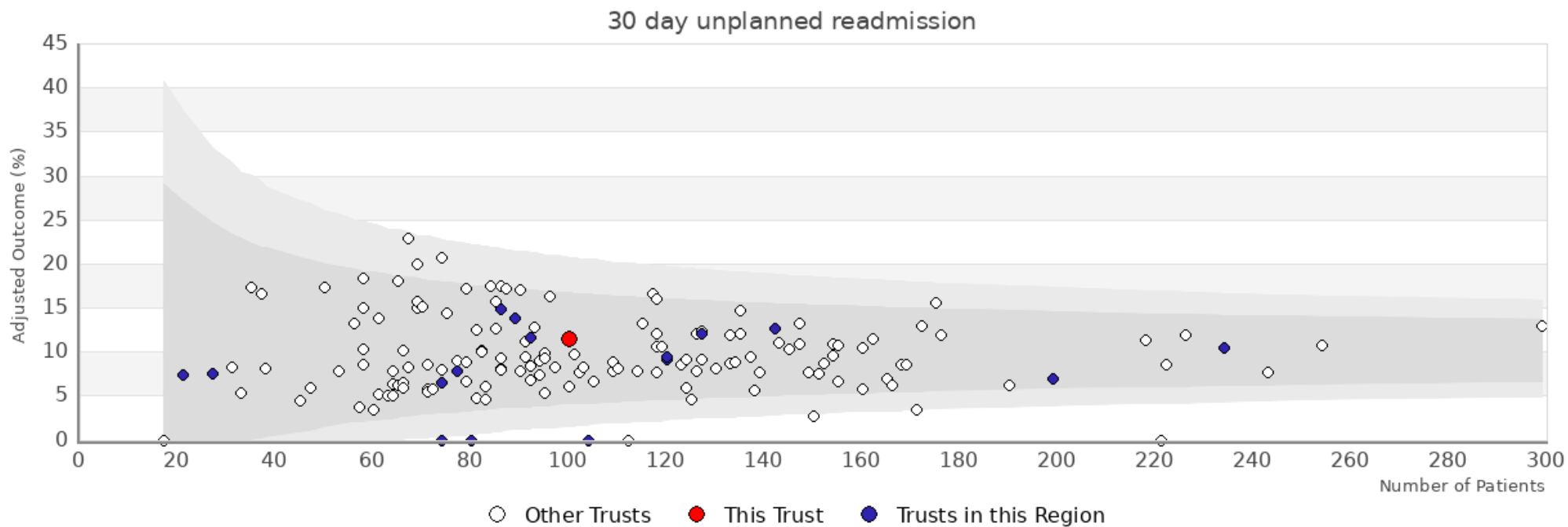
<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Risk-adjusted length of stay > 5 days (%)	56	67	69

## Rectal cancer patients

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<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	21	468	4468
Neoadjuvant therapy (%)	40	33	35
Circumferential resection margin: Recorded (%)	N/A	23	26
Circumferential resection margin: Positive (%)	N/A	5	7
Rectal volume	N/A	N/A	N/A

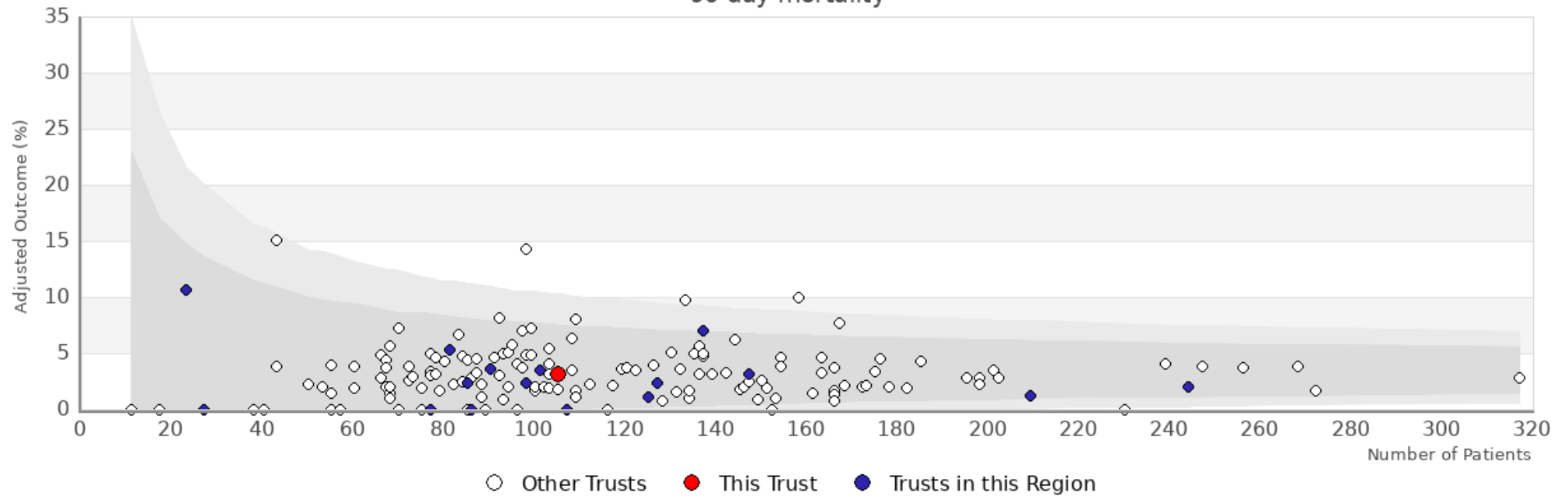
<b>Patients in APER/Hartmanns estimate:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in APER/Hartmanns estimate	N/A	N/A	N/A
APER/Hartmanns (%)	N/A	N/A	N/A



Trust	Number	Adjusted	Observed
West Suffolk NHS Foundation Trust	100	11.5%	11%
Other trusts within the region: East of England			
Basildon and Thurrock University Hospitals NHS Foundation Trust	92	11.6%	12%
Bedford Hospital NHS Trust	21	7.4%	9.5%

Trust	Number	Adjusted	Observed
Cambridge University Hospitals NHS Foundation Trust	199	7%	7%
East Suffolk and North Essex NHS Foundation Trust - Colchester Hospital	120	9.1%	9.2%
East Suffolk and North Essex NHS Foundation Trust - Ipswich Hospital	127	12%	11.8%
James Paget University Hospitals NHS Foundation Trust	77	7.9%	7.8%
Luton and Dunstable University Hospital NHS Foundation Trust	86	14.8%	15.1%
Milton Keynes Hospital NHS Foundation Trust	74	6.5%	6.8%
Norfolk and Norwich University Hospitals NHS Foundation Trust	234	10.4%	10.3%
North West Anglia NHS Foundation Trust	142	12.7%	12.7%
Southend University Hospital NHS Foundation Trust	89	13.8%	13.5%
The Princess Alexandra Hospital NHS Trust	27	7.5%	7.4%
West Hertfordshire Hospitals NHS Trust	120	9.4%	9.2%

90 day mortality

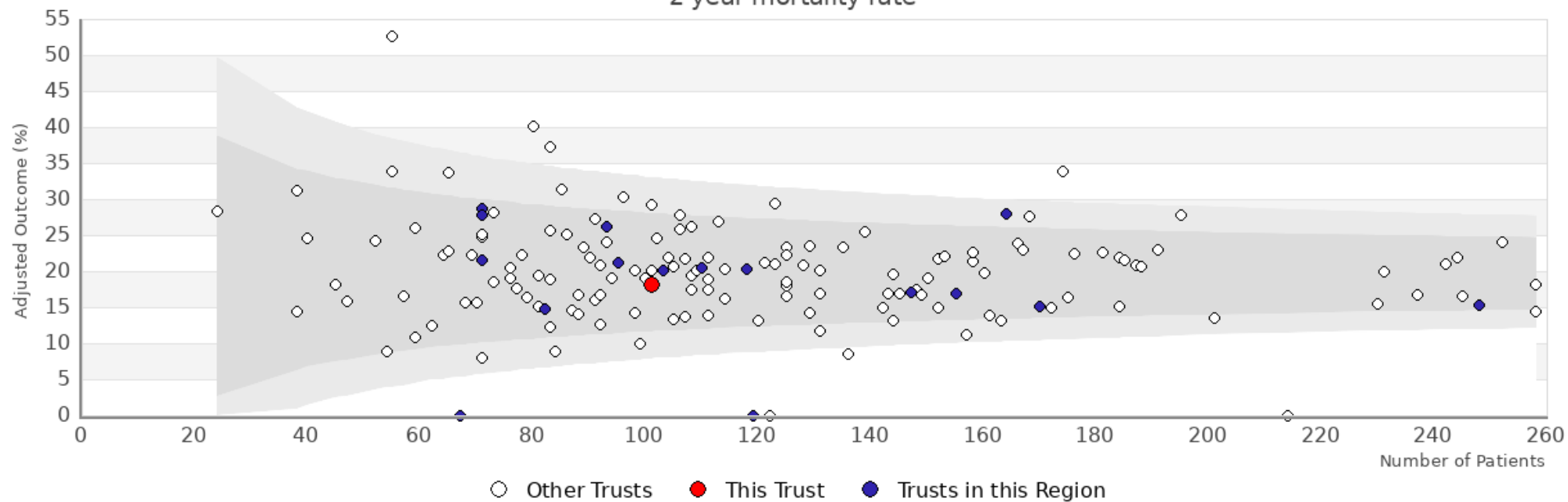


Trust	Number	Adjusted	Observed
West Suffolk NHS Foundation Trust	105	3.2%	3.8%
Other trusts within the region: East of England			
Basildon and Thurrock University Hospitals NHS Foundation Trust	101	3.5%	4%
Bedford Hospital NHS Trust	23	10.6%	4.4%



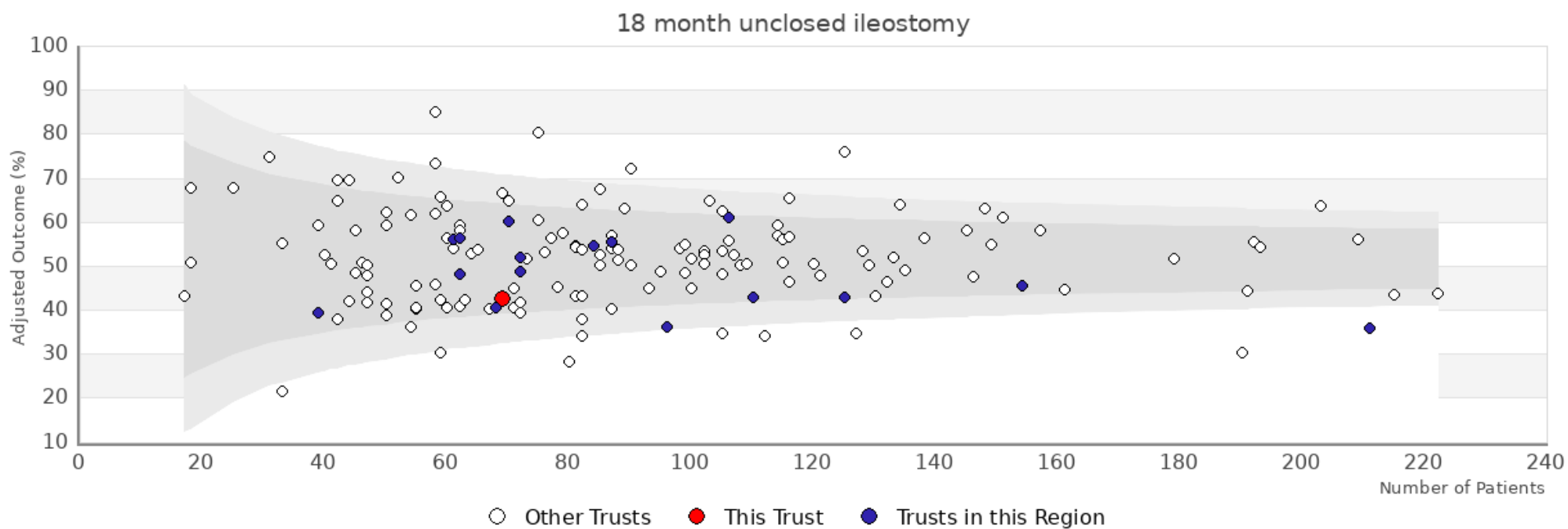
Trust	Number	Adjusted	Observed
Cambridge University Hospitals NHS Foundation Trust	209	1.2%	1.4%
East Suffolk and North Essex NHS Foundation Trust - Colchester Hospital	125	1.1%	0.8%
East Suffolk and North Essex NHS Foundation Trust - Ipswich Hospital	137	7%	8%
James Paget University Hospitals NHS Foundation Trust	85	2.3%	2.4%
Luton and Dunstable University Hospital NHS Foundation Trust	90	3.6%	3.3%
Milton Keynes Hospital NHS Foundation Trust	81	5.3%	4.9%
Norfolk and Norwich University Hospitals NHS Foundation Trust	244	2%	1.6%
North West Anglia NHS Foundation Trust	147	3.1%	4.1%
Southend University Hospital NHS Foundation Trust	98	2.4%	2%
West Hertfordshire Hospitals NHS Trust	127	2.3%	2.4%

2 year mortality rate



Trust	Number	Adjusted	Observed
West Suffolk NHS Foundation Trust	101	18.2%	21.3%
Other trusts within the region: East of England			
Basildon and Thurrock University Hospitals NHS Foundation Trust	118	20.3%	18.7%
Bedford Hospital NHS Trust	71	21.6%	21.9%

Trust	Number	Adjusted	Observed
Cambridge University Hospitals NHS Foundation Trust	170	15.1%	17.2%
East and North Hertfordshire NHS Trust	110	20.5%	20%
East Suffolk and North Essex NHS Foundation Trust - Ipswich Hospital	164	27.9%	26.8%
James Paget University Hospitals NHS Foundation Trust	95	21.2%	23.7%
Mid Essex Hospital Services NHS Trust	93	26.2%	24.1%
Milton Keynes Hospital NHS Foundation Trust	71	28.7%	24.4%
Norfolk and Norwich University Hospitals NHS Foundation Trust	248	15.2%	15.7%
North West Anglia NHS Foundation Trust	155	17%	14.7%
Southend University Hospital NHS Foundation Trust	103	20%	18.7%
The Princess Alexandra Hospital NHS Trust	71	27.8%	33.4%
The Queen Elizabeth Hospital, King's Lynn, NHS Foundation Trust	82	14.7%	23.2%
West Hertfordshire Hospitals NHS Trust	147	17.1%	22.2%



Trust	Number	Adjusted	Observed
West Suffolk NHS Foundation Trust	69	42.5%	44.9%
Other trusts within the region: East of England			
Basildon and Thurrock University Hospitals NHS Foundation Trust	87	55.5%	57.5%
Bedford Hospital NHS Trust	72	52%	51.4%

Trust	Number	Adjusted	Observed
Cambridge University Hospitals NHS Foundation Trust	154	45.4%	46.8%
East Suffolk and North Essex NHS Foundation Trust - Colchester Hospital	110	42.9%	41.8%
East and North Hertfordshire NHS Trust	70	60.1%	61.4%
East Suffolk and North Essex NHS Foundation Trust - Ipswich Hospital	96	36.2%	37.5%
James Paget University Hospitals NHS Foundation Trust	62	48.1%	53.2%
Luton and Dunstable University Hospital NHS Foundation Trust	61	56.2%	60.7%
Mid Essex Hospital Services NHS Trust	68	40.7%	38.2%
Milton Keynes Hospital NHS Foundation Trust	72	48.7%	50%
Norfolk and Norwich University Hospitals NHS Foundation Trust	211	35.9%	35.1%
North West Anglia NHS Foundation Trust	106	61%	62.3%
Southend University Hospital NHS Foundation Trust	84	54.5%	53.6%
The Princess Alexandra Hospital NHS Trust	39	39.5%	41%
The Queen Elizabeth Hospital, King's Lynn, NHS Foundation Trust	62	56.4%	61.3%
West Hertfordshire Hospitals NHS Trust	125	42.9%	44%