

Imperial College Healthcare NHS Trust

LONDON CANCER ALLIANCE N40

The Imperial College Healthcare NHS Trust incorporates Charing Cross Hospital, St Mary's Hospital Paddington, and Hammersmith Hospital in London <https://www.imperial.nhs.uk/> <<https://www.imperial.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 2014 – 31 Mar 2015. 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 2012 and 31 March 2013. 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) at the patient level to obtain further information on patient care and follow-up such as stoma reversal and emergency readmissions in England, 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. This can be larger than 100 if more patients are reported to the Audit than identified in HES.

### 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, 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 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	218	1968	28013
Case ascertainment (%)	100	76	93
Data completeness of:			
– Pre-treatment TNM (%)	100	79	71
– Performance status (%)	100	84	77

<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	142	1310	18809
ASA grade 1 (%)	11	14	14
ASA grade 2 (%)	52	50	53
ASA grade 3 (%)	30	23	25
ASA grade 4+ (%)	8	4	3
ASA grade not recorded (%)	N/A	10	5
Data completeness of:			
7 Audit items for risk-adjustment (%)	98	78	82

**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	218	1968	30122
Seen by Clinical Nurse Specialist (%)	100	95	92

## 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	142	1310	18809
Distant metastases (%)	11	11	9
Urgent or emergency surgery (%)	3	14	16
Median number of lymph nodes excised	24	18	17
Laparoscopic surgery attempted (%)	80	56	61

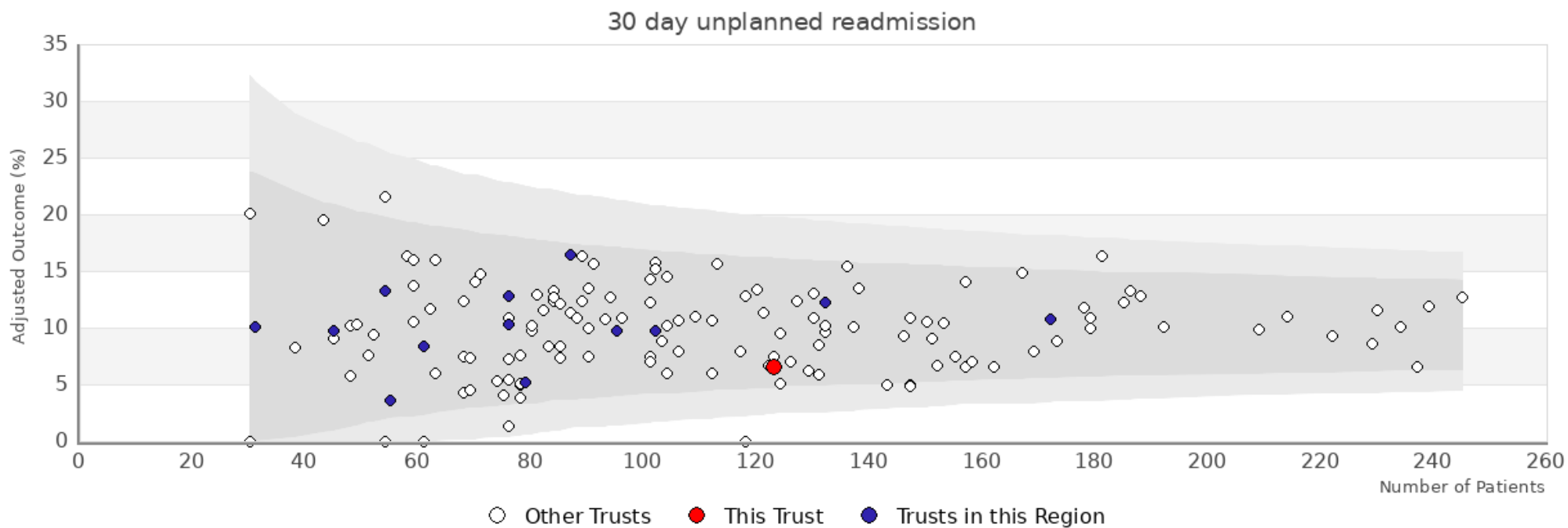
<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Length of stay > 5 days (%)	69	72	69

## 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	28	314	4769
Neoadjuvant therapy (%)	26	39	37
Circumferential resection margin: Recorded (%)	14	10	25
Circumferential resection margin: Positive (%)	14	11	7
Rectal volume	N/A	N/A	N/A

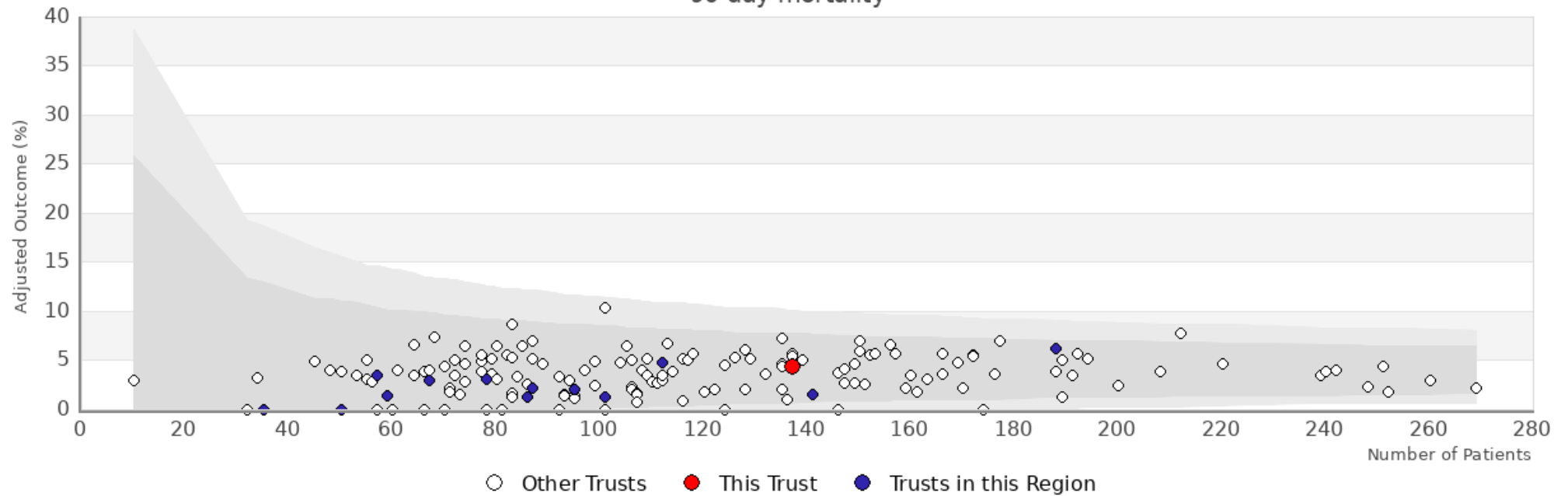
<b>Patients in APER/Hartmanns estimate:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in APER/Hartmanns estimate	N/A	N/A	N/A
APER/Hartmanns (%)	N/A	N/A	N/A



Trust	Number	Adjusted	Observed
Imperial College Healthcare NHS Trust	123	6.6%	6.5%
Other trusts within the region: LONDON CANCER ALLIANCE			
Chelsea and Westminster Hospital NHS Foundation Trust	31	10.1%	9.7%
Croydon Health Services NHS Trust	61	8.4%	8.2%

Trust	Number	Adjusted	Observed
Epsom and St Helier University Hospitals NHS Trust	76	10.3%	9.2%
Guy's and St Thomas' NHS Foundation Trust	102	9.7%	10.8%
King's College Hospital NHS Foundation Trust - King's College Hospital	79	5.2%	5.1%
Kingston Hospital NHS Foundation Trust	76	12.8%	11.8%
Lewisham and Greenwich NHS Trust	132	12.2%	12.1%
London North West Hospitals NHS Trust	172	10.8%	11%
King's College Hospital NHS Foundation Trust - Princess Royal University Hospital	87	16.4%	16.1%
St George's Healthcare NHS Trust	95	9.7%	9.5%
The Hillingdon Hospitals NHS Foundation Trust	55	3.6%	3.6%
The Royal Marsden NHS Foundation Trust	45	9.7%	11.1%
West Middlesex University Hospital NHS Trust	54	13.3%	13%

90 day mortality

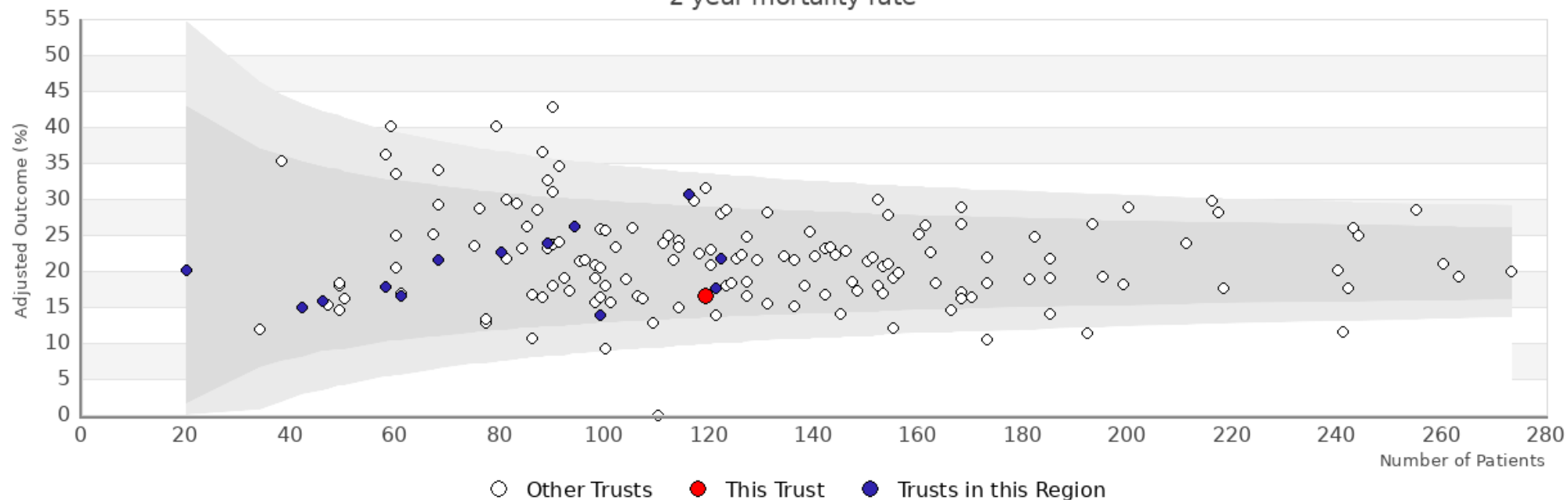


Trust	Number	Adjusted	Observed
Imperial College Healthcare NHS Trust	137	4.3%	5.1%
Other trusts within the region: LONDON CANCER ALLIANCE			
Croydon Health Services NHS Trust	67	2.9%	3%
Epsom and St Helier University Hospitals NHS Trust	78	3%	3.8%



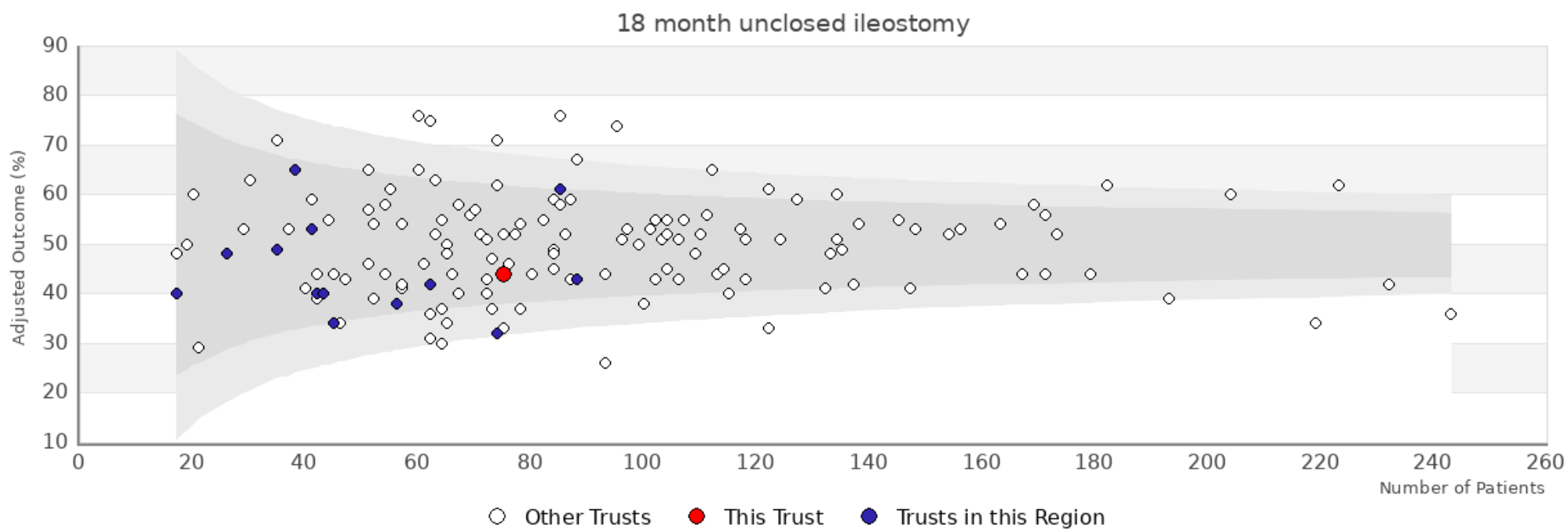
Trust	Number	Adjusted	Observed
Guy's and St Thomas' NHS Foundation Trust	112	4.8%	5.4%
King's College Hospital NHS Foundation Trust - King's College Hospital	86	1.3%	1.2%
Kingston Hospital NHS Foundation Trust	87	2.1%	2.3%
Lewisham and Greenwich NHS Trust	141	1.5%	1.4%
London North West Hospitals NHS Trust	188	6.2%	5.9%
King's College Hospital NHS Foundation Trust - Princess Royal University Hospital	95	2%	3.2%
St George's Healthcare NHS Trust	101	1.3%	1%
The Hillingdon Hospitals NHS Foundation Trust	59	1.4%	1.7%
West Middlesex University Hospital NHS Trust	57	3.4%	3.5%

2 year mortality rate



Trust	Number	Adjusted	Observed
Imperial College Healthcare NHS Trust	119	16.5%	23%
Other trusts within the region: LONDON CANCER ALLIANCE			
Chelsea and Westminster Hospital NHS Foundation Trust	46	15.8%	19.8%
Croydon Health Services NHS Trust	80	22.6%	19.6%

Trust	Number	Adjusted	Observed
Epsom and St Helier University Hospitals NHS Trust	121	17.6%	17.5%
Guy's and St Thomas' NHS Foundation Trust	122	21.7%	23%
King's College Hospital NHS Foundation Trust - King's College Hospital	68	21.6%	25.3%
Kingston Hospital NHS Foundation Trust	89	23.9%	23.1%
Lewisham and Greenwich NHS Trust	99	13.8%	12.9%
London North West Hospitals NHS Trust	116	30.7%	22.2%
King's College Hospital NHS Foundation Trust - Princess Royal University Hospital	42	14.9%	15.3%
St George's Healthcare NHS Trust	94	26.2%	23.7%
The Hillingdon Hospitals NHS Foundation Trust	58	17.8%	28.4%
The Royal Marsden NHS Foundation Trust	20	20.2%	15.7%
West Middlesex University Hospital NHS Trust	61	16.6%	26.7%



Trust	Number	Adjusted	Observed
Imperial College Healthcare NHS Trust	75	44%	45%
Other trusts within the region: LONDON CANCER ALLIANCE			
Chelsea and Westminster Hospital NHS Foundation Trust	17	40%	41%
Croydon Health Services NHS Trust	43	40%	40%

Trust	Number	Adjusted	Observed
Epsom and St Helier University Hospitals NHS Trust	56	38%	38%
Guy's and St Thomas' NHS Foundation Trust	85	61%	61%
King's College Hospital NHS Foundation Trust - King's College Hospital	35	49%	51%
Kingston Hospital NHS Foundation Trust	42	40%	38%
Lewisham and Greenwich NHS Trust	62	42%	42%
London North West Hospitals NHS Trust	88	43%	42%
King's College Hospital NHS Foundation Trust - Princess Royal University Hospital	26	48%	46%
St George's Healthcare NHS Trust	74	32%	32%
The Hillingdon Hospitals NHS Foundation Trust	41	53%	54%
The Royal Marsden NHS Foundation Trust	38	65%	58%
West Middlesex University Hospital NHS Trust	45	34%	38%