

Mid Yorkshire Hospitals NHS Trust

West Yorkshire and Harrogate A19

The Mid Yorkshire Hospitals NHS Trust incorporates Pinderfields General Hospital in Wakefield, Pontefract General Infirmary, and Dewsbury & District Hospital
<https://www.midyorks.nhs.uk/> <<https://www.midyorks.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 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

All Patients:	Trust	Network	National
Number of patients in Audit	281	1364	30710
Case ascertainment (%)	99	102	95

Data completeness of:			
– Pre-treatment TNM (%)	66	83	76
– Performance status (%)	89	64	83

Patients having major resection:	Trust	Network	National
Number of patients in Audit	172	865	19231
ASA grade 1 (%)	34	25	12
ASA grade 2 (%)	24	40	53
ASA grade 3 (%)	6	22	27
ASA grade 4+ (%)	2	2	3
ASA grade not recorded (%)	34	11	6

Data completeness of:			
7 Audit items for risk-adjustment (%)	56	62	81

Key:

 > 80%



Management of all patients

All Patients:	Trust	Network	National
Number of patients in Audit	281	1364	30710
Seen by Clinical Nurse Specialist (%)	90	78	91

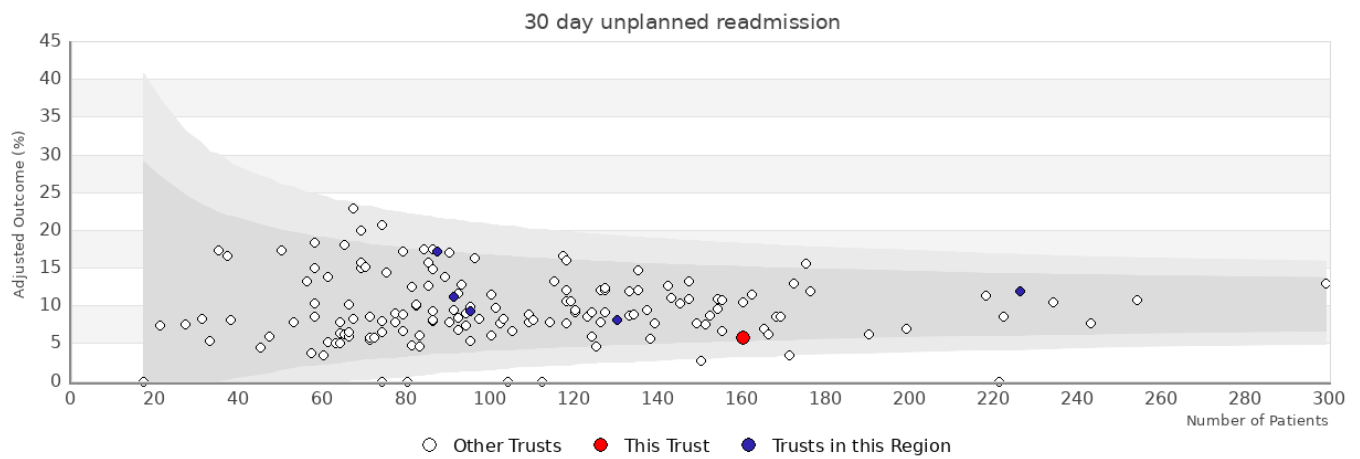
Management of patients having major resection

Patients having major resection:	Trust	Network	National
Number of patients in Audit	172	865	19231
Distant metastases (%)	10	12	9
Urgent or emergency surgery (%)	13	11	16
At least 12 lymph nodes excised (%)	82	84	84
Laparoscopic surgery attempted (%)	57	72	63
Risk-adjusted length of stay > 5 days (%)	78	76	69

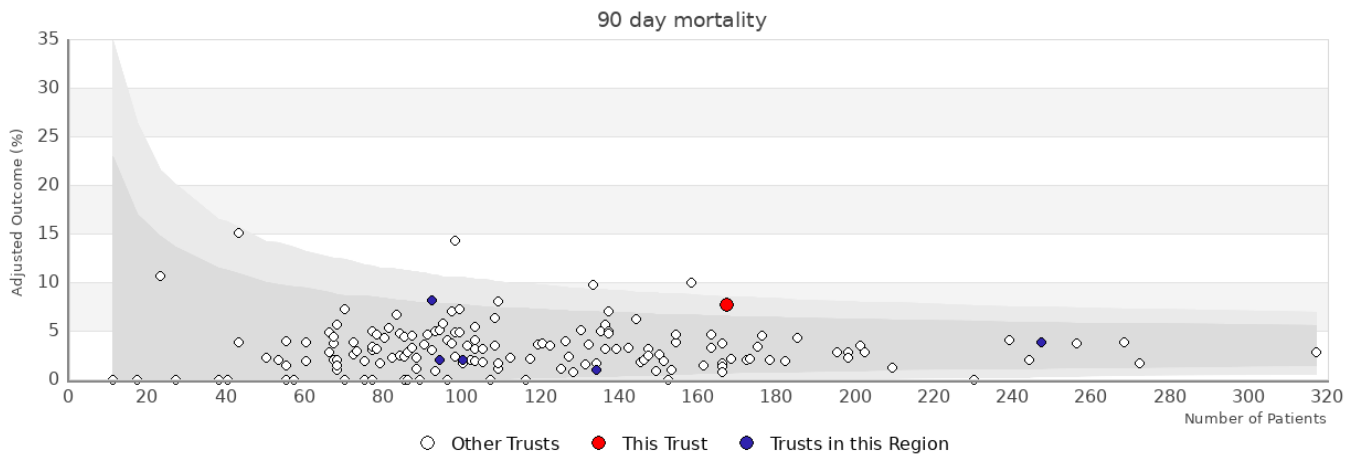
Rectal cancer patients

Patients having major resection:	Trust	Network	National
Number of patients in Audit	41	215	4468
Neoadjuvant therapy (%)	56	55	35
Circumferential resection margin: Recorded (%)	2	10	26
Circumferential resection margin: Positive (%)	5	10	7
Rectal volume	N/A	N/A	N/A

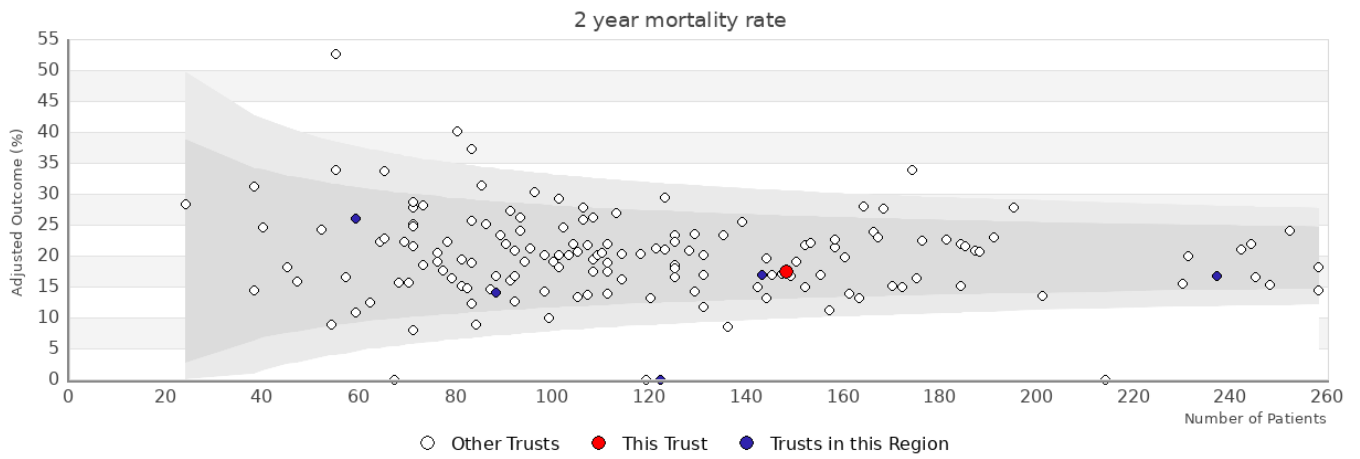
Patients in APER/Hartmanns estimate:	Trust	Network	National
Number of patients in APER/Hartmanns estimate	N/A	N/A	N/A
APER/Hartmanns (%)	N/A	N/A	N/A



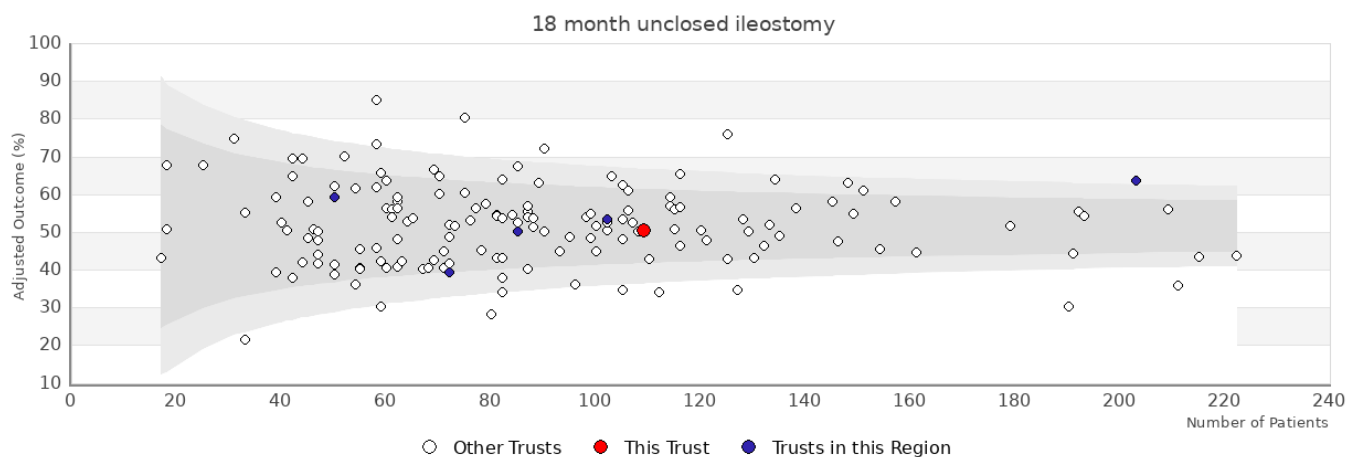
Trust	Number	Adjusted	Observed
Mid Yorkshire Hospitals NHS Trust	160	5.8%	5.6%
Other trusts within the region: West Yorkshire and Harrogate			
Airedale NHS Foundation Trust	87	17.1%	16.1%
Bradford Teaching Hospitals NHS Foundation Trust	95	9.4%	9.5%
Calderdale and Huddersfield NHS Foundation Trust	130	8.2%	8.5%
Harrogate and District NHS Foundation Trust	91	11.1%	11%
Leeds Teaching Hospitals NHS Trust	226	12%	12%



Trust	Number	Adjusted	Observed
Mid Yorkshire Hospitals NHS Trust	167	7.7%	6%
Other trusts within the region: West Yorkshire and Harrogate			
Airedale NHS Foundation Trust	92	8.2%	4.4%
Bradford Teaching Hospitals NHS Foundation Trust	100	2%	2%
Calderdale and Huddersfield NHS Foundation Trust	134	0.9%	0.8%
Harrogate and District NHS Foundation Trust	94	2%	2.1%
Leeds Teaching Hospitals NHS Trust	247	3.8%	4.1%



Trust	Number	Adjusted	Observed
Mid Yorkshire Hospitals NHS Trust	148	17.4%	18.7%
Other trusts within the region: West Yorkshire and Harrogate			
Airedale NHS Foundation Trust	59	26.1%	29.3%
Bradford Teaching Hospitals NHS Foundation Trust	122	0%	23%
Calderdale and Huddersfield NHS Foundation Trust	143	17%	13.8%
Harrogate and District NHS Foundation Trust	88	14.1%	12.1%
Leeds Teaching Hospitals NHS Trust	237	16.8%	19%



Trust	Number	Adjusted	Observed
Mid Yorkshire Hospitals NHS Trust	109	50.4%	46.8%
Other trusts within the region: West Yorkshire and Harrogate			
Airedale NHS Foundation Trust	50	59.2%	58%
Bradford Teaching Hospitals NHS Foundation Trust	85	50.3%	54.1%
Calderdale and Huddersfield NHS Foundation Trust	102	53.4%	50%
Harrogate and District NHS Foundation Trust	72	39.5%	37.5%
Leeds Teaching Hospitals NHS Trust	203	63.7%	66.5%