

## Cardiff MDT

Wales A20

The Cardiff MDT incorporates University Hospital of Wales in Cardiff

<http://www.cardiffandvaleuhb.wales.nhs.uk/home>

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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 2019 – 31 Mar 2020. The exceptions are for adjuvant chemotherapy, APER/Hartmann's and the five trust outcomes: 30-day unplanned readmission, 30-day unplanned return-to-theatre, 90-day mortality 2-year mortality and unclosed ileostomy.

30-day unplanned readmission, 30-day unplanned return to theatre and 90-day mortality are further restricted to patients undergoing surgery up to 31 March 2020. Two-year mortality estimates include patients undergoing a major resection between 1 April 2017 and 31 March 2018. Adjuvant chemotherapy estimates include patients undergoing major resection for pathological stage III colon cancer between 01 December 2016 and 31 August 2019.

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 NCRAS in England and PEDW in Wales. This can be larger than 100 if more patients are reported to the Audit than identified in NCRAS/PEDW.

### 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 2016 and 31 August 2019. These are unadjusted chemotherapy rates. SACT and HES data re used for patients treated in England and PEDW data are used for patients treated in Wales.

## 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 this audit year.

### APER/Hartmann's (%)

% of patients whose rectal cancer resection is an abdomino-perineal excision of rectum (APER)/pelvic exenteration/Hartmann's 1 April 2014 to 30 September 2018.

## Compare trust outcomes

Funnel plots display trust risk-adjusted outcomes for 30-day unplanned readmission, 30-day unplanned return to theatre, 90-day mortality, 2-year mortality and 18-month unclosed ileostomy. 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.

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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All Patients:	Trust	Network	National
Number of patients in Audit	292	2234	32641
Case ascertainment (%)	Good	Good	Good

<b>All Patients:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Data completeness of:			
– Pre-treatment TNM (%)	63	94	85
– Performance status (%)	18	83	86

<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	89	1170	18552
ASA grade 1 (%)	3	6	9
ASA grade 2 (%)	46	53	53
ASA grade 3 (%)	12	35	30
ASA grade 4+ (%)	1	3	2
ASA grade not recorded (%)	37	3	6
Data completeness of:			
7 Audit items for risk-adjustment (%)	51	89	89

### Key:

- > 80%
- 50 - 80%
- < 50%

## Management of all patients

<b>All Patients:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	292	2234	29766
Seen by Clinical Nurse Specialist (%)	38	82	86

<b>All patients deemed potentially curative</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of potentially curative patients	39	469	8157
Undergoing major resection (%)	67	85	83

## Management of patients having major resection

<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	89	1170	18515
Distant metastases (%)	9	8	6
Urgent or emergency surgery (%)	99	100	21
At least 12 lymph nodes excised (%)	73	84	86
Laparoscopic surgery attempted (%)	78	53	71
Risk-adjusted length of stay > 5 days (%)	N/A	N/A	58

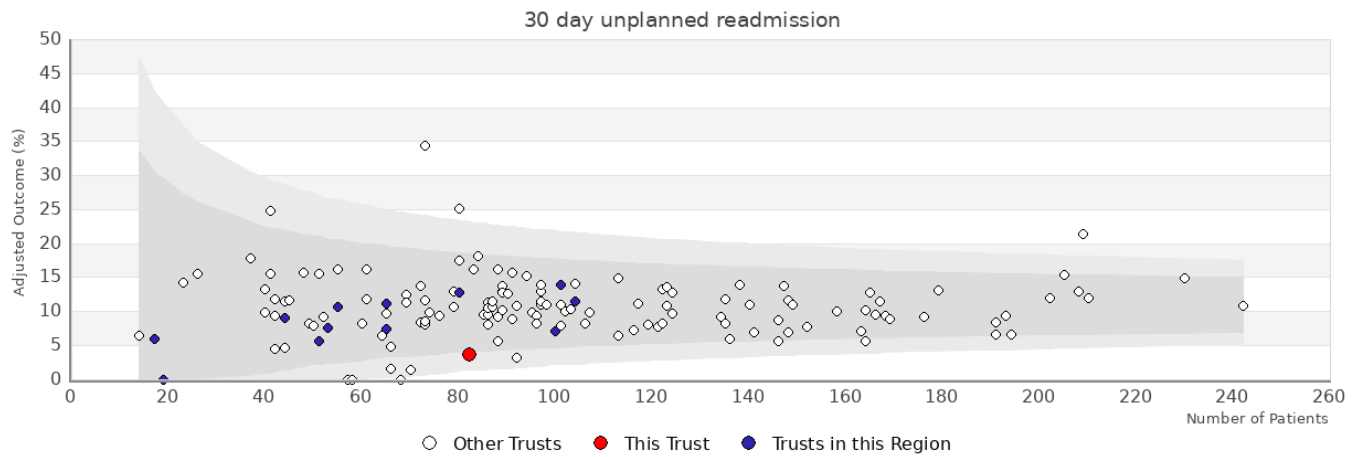
<b>Patients having major resection for stage III colon cancer:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in audit	42	578	10335
Adjuvant chemotherapy (%)	76	62	63

## Rectal cancer patients

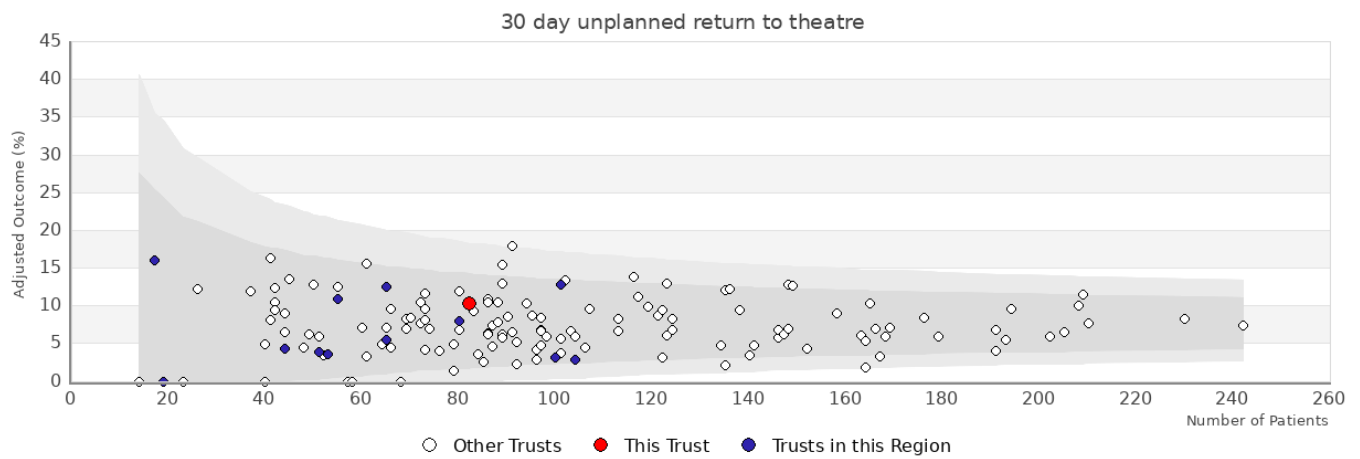
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<b>Patients having major resection:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in Audit	18	273	4137
Neoadjuvant therapy (%)	N/A	N/A	34
Circumferential resection margin: Recorded (%)	89	87	90
Circumferential resection margin: Negative (%)	89	82	84
Rectal volume	N/A	N/A	N/A

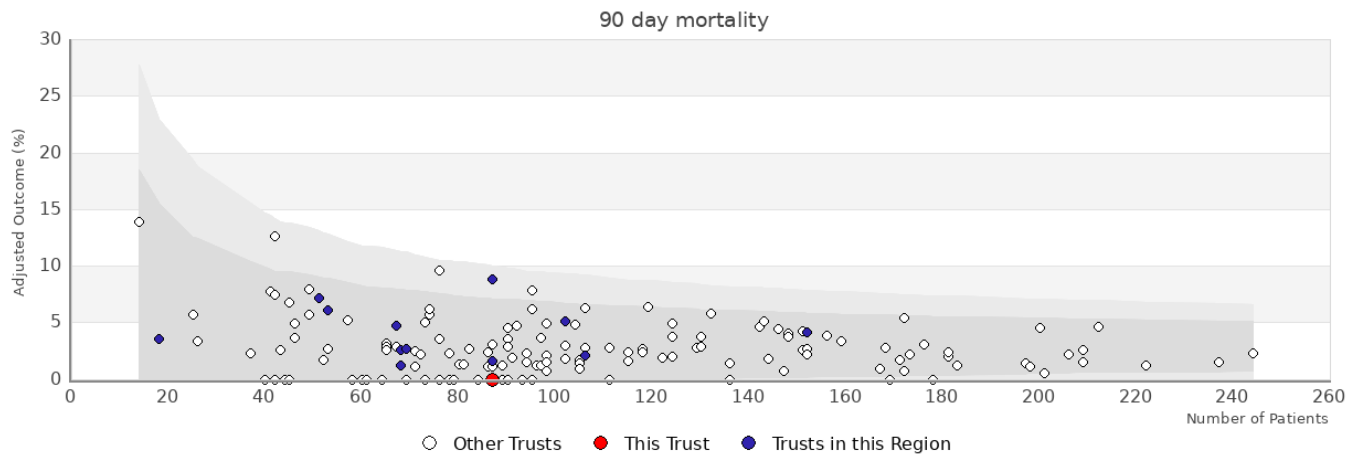
<b>Patients in APER/Hartmanns estimate:</b>	<b>Trust</b>	<b>Network</b>	<b>National</b>
Number of patients in APER/Hartmanns estimate	91	1138	17956
APER/Hartmanns (%)	25	45	37



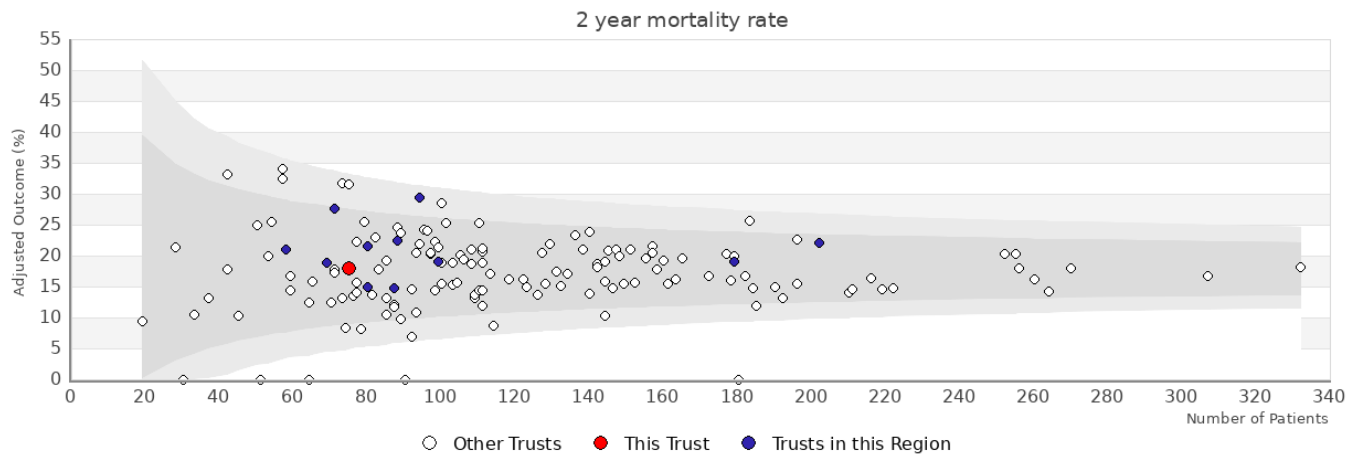
Trust	Number	Adjusted	Observed
Cardiff MDT	82	3.7%	3.7%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	44	9.1%	9.1%
Prince Charles Hospital MDT	55	10.6%	10.9%
Princess of Wales MDT	65	7.4%	7.7%
Royal Glamorgan Hospital MDT	53	7.5%	7.6%
Royal Gwent Hospital MDT	101	14%	13.9%
Swansea MDT	104	11.5%	11.5%
West Wales General & Prince Phillip MDT	17	6%	5.9%
Withybush General MDT	51	5.7%	5.9%
Ysbyty Glan Clwydd MDT	65	11.1%	10.8%
Ysbyty Gwynedd MDT	100	7.1%	7%
Ysbyty Maelor MDT	80	12.8%	12.5%



Trust	Number	Adjusted	Observed
Cardiff MDT	82	10.4%	9.8%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	44	4.3%	4.6%
Prince Charles Hospital MDT	55	10.9%	10.9%
Princess of Wales MDT	65	5.5%	6.2%
Royal Glamorgan Hospital MDT	53	3.6%	3.8%
Royal Gwent Hospital MDT	101	12.8%	12.9%
Swansea MDT	104	2.8%	2.9%
West Wales General & Prince Phillip MDT	17	16%	17.7%
Withybush General MDT	51	3.8%	3.9%
Ysbyty Glan Clwydd MDT	65	12.5%	12.3%
Ysbyty Gwynedd MDT	100	3.2%	3%
Ysbyty Maelor MDT	80	8%	7.5%

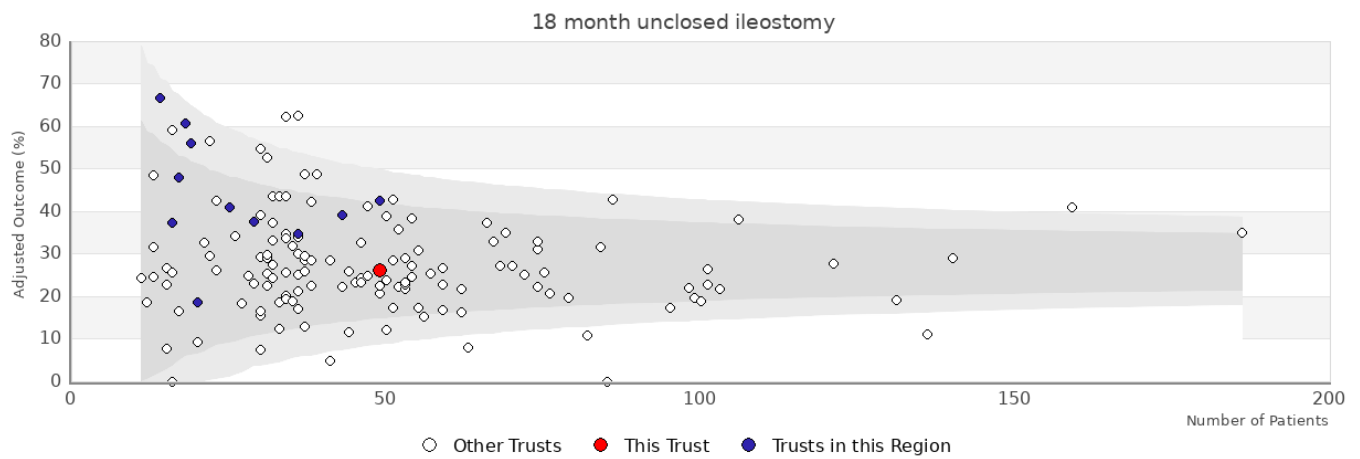


Trust	Number	Adjusted	Observed
Cardiff MDT	87	-	-
Other trusts within the region: Wales			
Bronglais MDT	18	3.6%	16.7%
Nevill Hall Hospital MDT	68	1.2%	1.5%
Prince Charles Hospital MDT	67	4.7%	4.5%
Princess of Wales MDT	68	2.6%	4.4%
Royal Glamorgan Hospital MDT	87	1.6%	2.3%
Royal Gwent Hospital MDT	152	4.1%	4%
Swansea MDT	106	2.1%	2.8%
West Wales General & Prince Phillip MDT	51	7.2%	9.8%
Withybush General MDT	53	6.1%	5.7%
Ysbyty Glan Clwydd MDT	69	2.7%	4.4%
Ysbyty Gwynedd MDT	102	5.2%	6.9%
Ysbyty Maelor MDT	87	8.8%	6.9%



Trust	Number	Adjusted	Observed
Cardiff MDT	75	18%	14.2%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	71	27.7%	31.8%
Prince Charles Hospital MDT	69	18.9%	17.4%
Princess of Wales MDT	80	15%	15%
Royal Glamorgan Hospital MDT	80	21.5%	26.2%
Royal Gwent Hospital MDT	202	22.1%	27.4%
Swansea MDT	179	19%	26.7%
West Wales General & Prince Phillip MDT	99	19%	17.7%
Withybush General MDT	58	21%	15.3%
Ysbyty Glan Clwydd MDT	94	29.4%	36.4%
Ysbyty Gwynedd MDT	87	14.7%	12.1%
Ysbyty Maelor MDT	88	22.5%	20.1%





Trust	Number	Adjusted	Observed
Cardiff MDT	49	26%	26.5%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	19	56.1%	57.9%
Prince Charles Hospital MDT	29	37.5%	34.5%
Princess of Wales MDT	43	39.1%	39.5%
Royal Glamorgan Hospital MDT	20	18.6%	20%
Royal Gwent Hospital MDT	25	40.9%	40%
Swansea MDT	49	42.6%	46.9%
West Wales General & Prince Phillip MDT	16	37.4%	31.3%
Withybush General MDT	14	66.7%	57.1%
Ysbyty Glan Clwydd MDT	18	60.8%	55.6%
Ysbyty Gwynedd MDT	17	48.1%	47.1%
Ysbyty Maelor MDT	36	34.9%	33.3%