

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

Data Quality

All Patients:	Trust	Network	National
Number of patients in Audit	225	1933	31676
Case ascertainment (%)	91	110	95
Data completeness of:			
– Pre-treatment TNM (%)	74	89	80

All Patients:	Trust	Network	National
– Performance status (%)	42	82	86

Patients having major resection:	Trust	Network	National
Number of patients in Audit	78	1220	19218
ASA grade 1 (%)	17	9	11
ASA grade 2 (%)	64	59	53
ASA grade 3 (%)	17	30	28
ASA grade 4+ (%)	3	3	3
ASA grade not recorded (%)	N/A	N/A	5
Data completeness of:			
7 Audit items for risk-adjustment (%)	72	92	86

Key:

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

Management of all patients

All Patients:	Trust	Network	National
Number of patients in Audit	225	1933	31676
Seen by Clinical Nurse Specialist (%)	40	80	87

All patients deemed potentially curative	Trust	Network	National
Number of potentially curative patients	39	434	7416
Undergoing major resection (%)	87	91	86

Management of patients having major resection

Patients having major resection:	Trust	Network	National
Number of patients in Audit	78	1220	19218
Distant metastases (%)	8	10	8
Urgent or emergency surgery (%)	9	19	15
At least 12 lymph nodes excised (%)	87	85	84
Laparoscopic surgery attempted (%)	82	52	69

Patients having major resection:	Trust	Network	National
Risk-adjusted length of stay > 5 days (%)	47	68	62

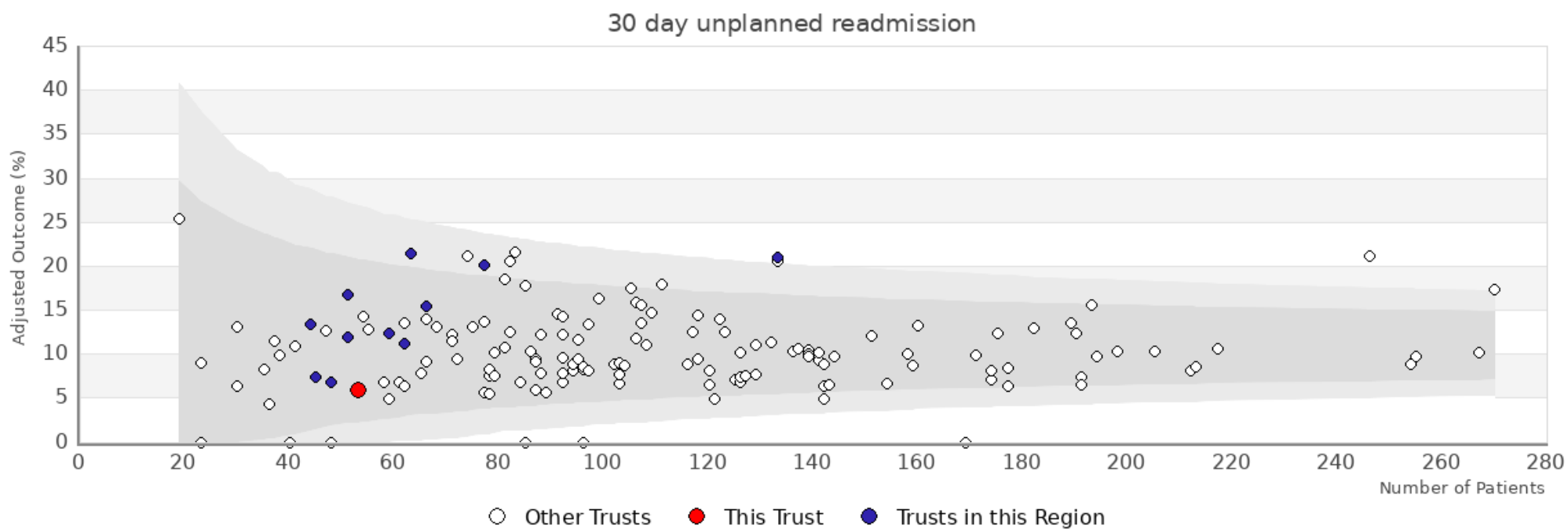
Patients having major resection for stage III colon cancer:	Trust	Network	National
Number of patients in audit	N/A	N/A	11837
Adjuvant chemotherapy (%)	N/A	N/A	62

Rectal cancer patients

Patients having major resection:	Trust	Network	National
Number of patients in Audit	11	291	4588
Neoadjuvant therapy (%)	13	30	33
Circumferential resection margin: Recorded (%)	100	91	90
Circumferential resection margin: Negative (%)	100	86	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

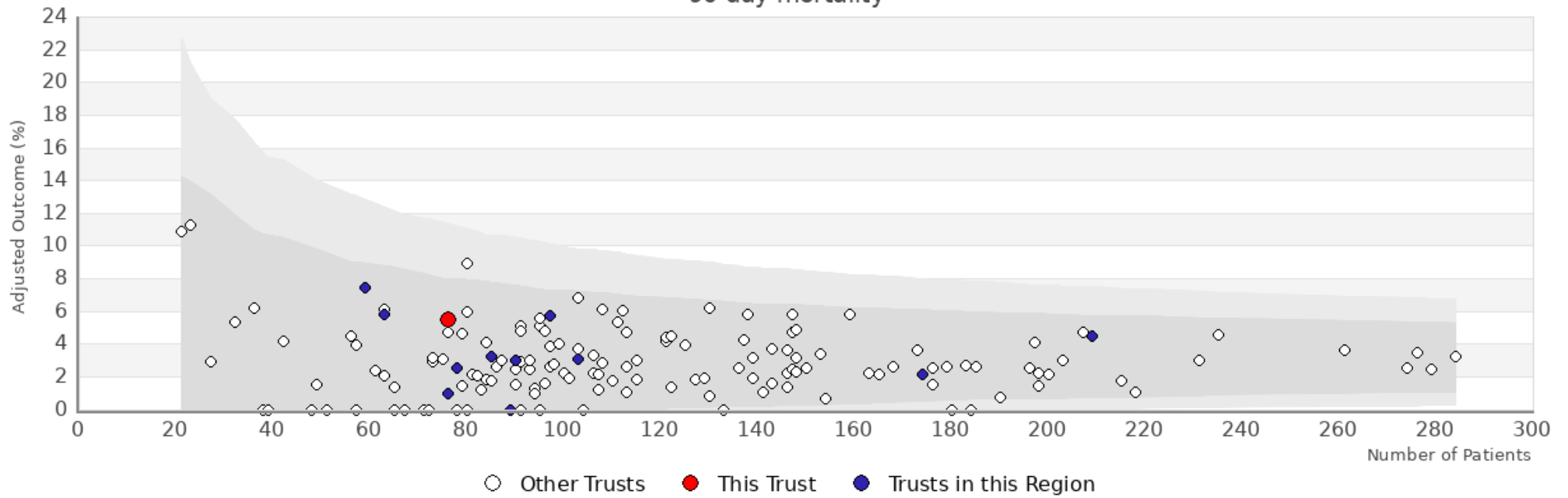
Patients in APER/Hartmanns estimate:	Trust	Network	National
APER/Hartmanns (%)	N/A	N/A	N/A



Trust	Number	Adjusted	Observed
Cardiff MDT	53	6%	5.7%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	51	11.9%	11.8%
Prince Charles Hospital MDT	51	16.8%	17.7%

Trust	Number	Adjusted	Observed
Princess of Wales MDT	62	11.2%	11.3%
Royal Glamorgan Hospital MDT	63	21.5%	22.2%
Royal Gwent Hospital MDT	77	20.1%	19.5%
Swansea MDT	133	21%	21.1%
West Wales General & Prince Phillip MDT	44	13.5%	13.6%
Withybush General MDT	45	7.4%	6.7%
Ysbyty Glan Clwydd MDT	66	15.5%	15.2%
Ysbyty Gwynedd MDT	48	6.8%	6.3%
Ysbyty Maelor MDT	59	12.3%	11.9%

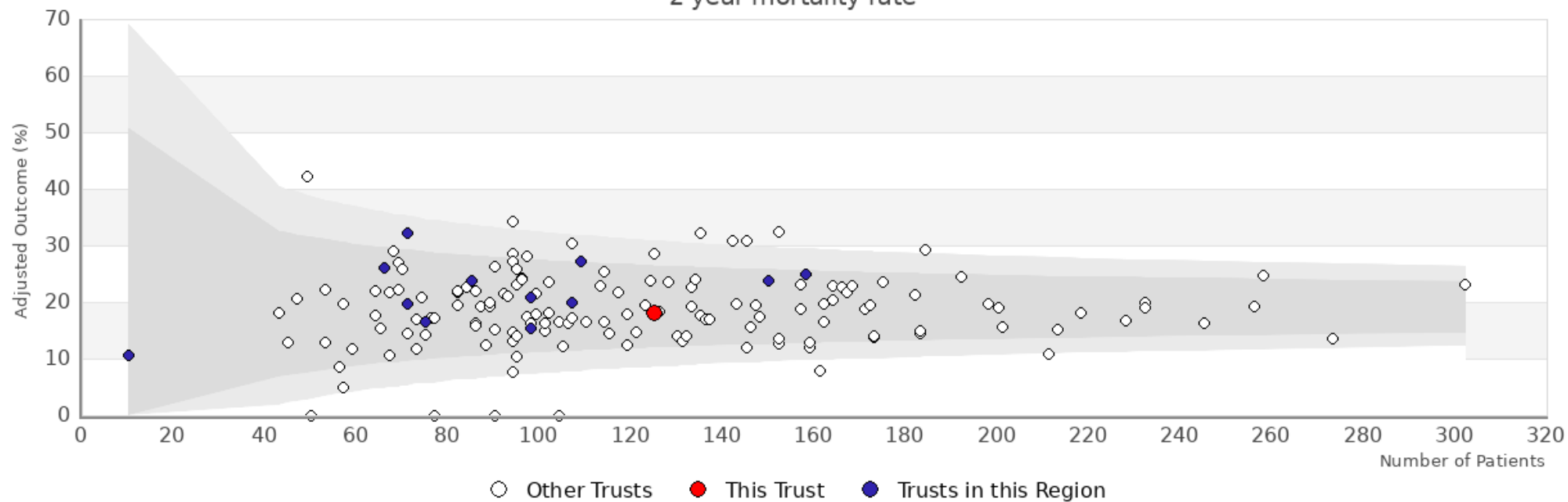
90 day mortality



Trust	Number	Adjusted	Observed
Cardiff MDT	76	5.5%	4%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	63	5.8%	9.5%
Prince Charles Hospital MDT	78	2.5%	2.6%

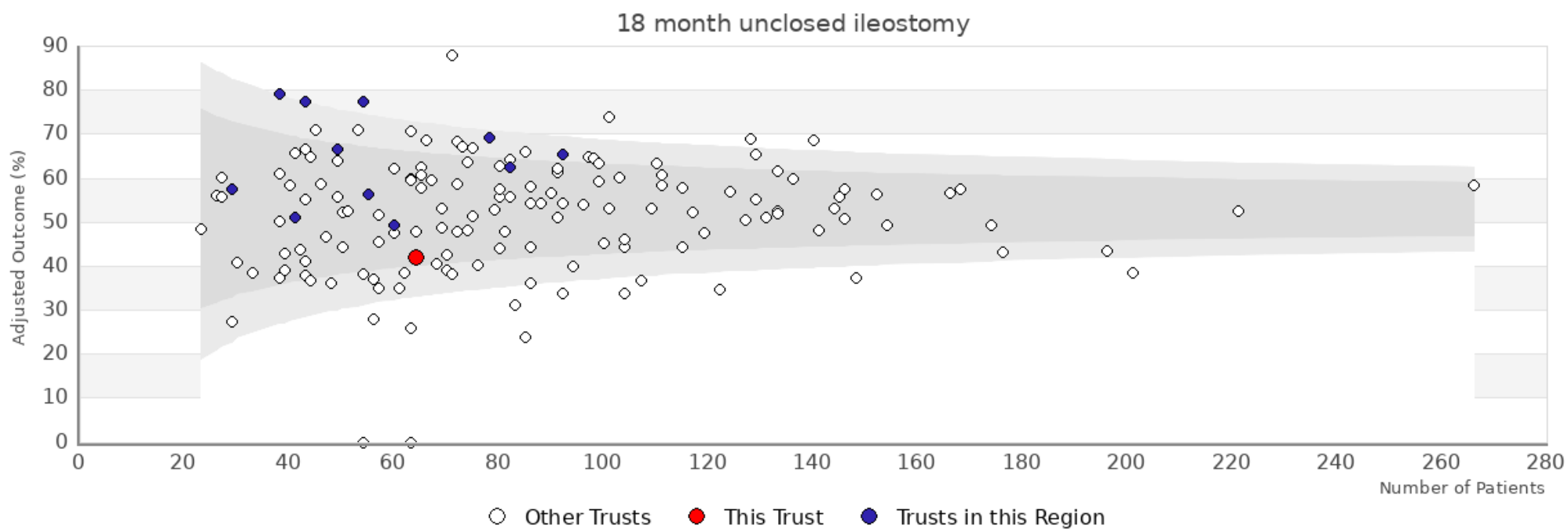
Trust	Number	Adjusted	Observed
Princess of Wales MDT	85	3.2%	3.5%
Royal Glamorgan Hospital MDT	76	1%	1.3%
Royal Gwent Hospital MDT	209	4.5%	6.7%
Swansea MDT	174	2.1%	2.9%
West Wales General & Prince Phillip MDT	103	3.1%	2.9%
Withybush General MDT	59	7.5%	5.1%
Ysbyty Glan Clwydd MDT	97	5.8%	9.3%
Ysbyty Maelor MDT	90	3%	3.3%

2 year mortality rate



Trust	Number	Adjusted	Observed
Cardiff MDT	125	18.1%	19.8%
Other trusts within the region: Wales			
Bronglais MDT	10	10.5%	48.9%
Nevill Hall Hospital MDT	66	26.2%	35.9%

Trust	Number	Adjusted	Observed
Prince Charles Hospital MDT	71	19.7%	20.9%
Princess of Wales MDT	85	23.9%	18%
Royal Glamorgan Hospital MDT	75	16.5%	25.8%
Royal Gwent Hospital MDT	150	23.8%	26.4%
Swansea MDT	158	24.9%	34.7%
West Wales General & Prince Phillip MDT	98	15.4%	20.7%
Withybush General MDT	71	32.3%	23.1%
Ysbyty Glan Clwydd MDT	98	20.8%	30.5%
Ysbyty Gwynedd MDT	107	20%	20.7%
Ysbyty Maelor MDT	109	27.2%	26.6%



Trust	Number	Adjusted	Observed
Cardiff MDT	64	42.1%	40.6%
Other trusts within the region: Wales			
Nevill Hall Hospital MDT	38	79.2%	84.2%
Prince Charles Hospital MDT	60	49.5%	51.7%

Trust	Number	Adjusted	Observed
Princess of Wales MDT	78	69.1%	70.5%
Royal Glamorgan Hospital MDT	29	57.4%	62.1%
Royal Gwent Hospital MDT	82	62.6%	65.9%
Swansea MDT	92	65.4%	68.5%
West Wales General & Prince Phillip MDT	54	77.5%	77.8%
Withybush General MDT	43	77.3%	72.1%
Ysbyty Glan Clwydd MDT	49	66.6%	71.4%
Ysbyty Gwynedd MDT	41	50.9%	51.2%
Ysbyty Maelor MDT	55	56.5%	58.2%