



All Wales Therapeutics & Toxicology Centre  
Canolfan Therapiwteg a Thocsicoleg Cymru Gyfan

# National Prescribing Indicators 2022–2023

Analysis of Prescribing Data to March 2023

04 December 2023: 'Best value biological medicines' has been updated to include data for Trastuzumab (pages 45-49).



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Data presented within this report are also accessible via the Server for Prescribing Information Reporting and Analysis (SPIRA) at [spira.uk/info](https://spira.uk/info).

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## Executive summary

The All Wales Medicines Strategy Group (AWMSG) has endorsed the National Prescribing Indicators (NPIs) as a means of promoting safe and cost-effective prescribing since 2003. The *National Prescribing Indicators 2022-2023: Supporting Safe and Optimised Prescribing* focus on four priority areas, supported by additional safety and efficiency domains.

Background information supporting the choice of NPIs is detailed in the document [National Prescribing Indicators 2022–2023](#). The [National Prescribing Indicators 2022–2023 Specifications](#) document details thresholds and targets for 2022–2023.

This report contains data relating to the NPIs for the fourth quarter of 2022–2023. Unit of measure and targets for each NPI are included in Appendix 1 and primary care NPI prescribing data for GP clusters is presented in Appendix 2.

The potential impact of COVID-19 on prescribing and Yellow Card reporting should be considered when reviewing the data contained within this report.

## Priority areas

For 2022–2023 there are four priority areas, covering a total of ten indicators.

### Analgesics in primary care

- Opioid burden (ADQs per 1,000 patients) increased by 0.46% across Wales, compared with the equivalent quarter of the previous year, despite the aim of the indicator being to reduce opioid prescribing.
- High strength opioid prescribing (ADQs per 1,000 patients) decreased by 5.12% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- Tramadol (DDD per 1,000 patients) reduced by 6.19% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- Gabapentin and pregabalin (DDD per 1,000 patients) demonstrated an increase of 2.35% across Wales, compared with the equivalent quarter of the previous year, despite the aim of the indicator being to reduce prescribing.

### Anticoagulants in atrial fibrillation (AF)

- The percentage of patients with AF, a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more and were prescribed an anticoagulant increased by 2.48% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- Across Wales, the number of patients diagnosed with AF who are prescribed an anticoagulant and have received an anticoagulant review within the last 12 months (as a percentage of all patients diagnosed with AF who are prescribed an anticoagulant) increased by 3.82% in the month of March 2023, compared with the equivalent month of the previous year, in line with the aim of the indicator.

- Across Wales, the number of patients diagnosed with AF who are prescribed antiplatelet monotherapy (as a percentage of all patients diagnosed with AF) decreased by 13.3% in the month of March 2023, compared with the equivalent month of the previous year, in line with the aim of the indicator.

#### **Antimicrobial stewardship**

- Total antibacterial items per 1,000 STAR-PUs increased across Wales by 3.78% compared with the baseline of quarter 4 2019-2020, despite the aim of the indicator being to reduce prescribing.
- 4C (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients decreased across Wales by 15.5%, compared with the baseline of quarter 4 2019–2020, in line with the aim of the indicator.

#### **Decarbonisation of inhalers**

- The proportion of DPI and SMI prescribing (as a percentage of all inhalers prescribed) increased by 10.5% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- A Good Practice Spotlight (p26) from Cardiff and Vale UHB highlights a range of actions which have been implemented to encourage the use of lower Global Warming Potential (GWP) inhalers.

### **Supporting domain – Safety**

#### **Prescribing Safety Indicators**

- The aim of these indicators is to identify patients at high risk of adverse drug reactions and medicines related harm in primary care. There are no targets associated with these indicators.
- Good Practice Spotlights from Hywel Dda UHB (p31) and Aneurin Bevan UHB (p32) highlight actions taken to address two of the prescribing safety indicators.

#### **Hypnotics and anxiolytics**

- Prescribing of hypnotics and anxiolytics (ADQs per 1,000 STAR-PUs) in primary care reduced by 4.78% across Wales, compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.

#### **Yellow Cards**

- Annual targets have been set for these indicators, with the aim of increasing the number of Yellow Card reports submitted. Quarter 4 data demonstrates:
  - A 24% increase in reporting by GP practices across Wales, compared with the equivalent quarter of the previous year.
  - A 27% increase in secondary care reporting across Wales, compared with the equivalent quarter of the previous year.
  - A 41% increase in reporting by health boards / NHS Trusts across Wales, compared with the equivalent quarter of the previous year.
  - A 101% increase in reporting by members of the public across Wales, compared with the equivalent quarter of the previous year.
- The figures for Yellow Cards submitted by community pharmacy are also included in the report; however, targets have not been set.

## Supporting domain – Efficiency

### Best value biological medicines

- There was an increase in the overall use adalimumab biosimilar compared with the equivalent quarter of the previous year, in line with the aim of the NPI.
- Five health boards reported usage of ranibizumab biosimilar.

### Low value for prescribing

- Overall spend on the low value for prescribing UDG (per 1,000 patients) decreased by 3.80% across Wales, compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.

The 2023–2024 NPI report for quarter ending June 2023 will be available on October 20<sup>th</sup> 2023.



[Find out more](#)

### Server for Prescribing Information Reporting and Analysis (SPIRA)

The SPIRA dashboard for the NPIs can be accessed by anyone on the NHS Wales network.

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## Health boards/practices achieving indicator targets/thresholds

The table below shows the extent to which practices in each health board met the target or indicator thresholds:

- The figure in the cell is the number of practices in each health board meeting the target or indicator threshold.
- The percentage figure and cell colour represent the proportion of practices in each health board meeting the target or indicator threshold.

The targets for antibacterial items per 1,000 STAR-PU and 4C antibacterial items per 1,000 patients are by health board, therefore a tick demonstrates achievement.

### Health boards/practices achieving the indicator targets/thresholds – Quarter ending March 2023

Indicator Description	Aneurin Bevan	Betsi Cadwaladr	Cardiff And Vale	Cwm Taf Morgannwg	Hywel Dda	Powys	Swansea Bay
Opioid burden (UDG) ADQs per 1,000 patients	12 17%	20 21%	43 75%	5 11%	9 19%	6 38%	10 20%
High strength opioids (UDG) ADQs per 1,000 patients	23 32%	21 22%	30 53%	7 15%	6 13%	4 25%	18 37%
Tramadol DDDs per 1,000 patients	21 30%	21 22%	31 54%	8 17%	12 25%	7 44%	14 29%
Gabapentin and pregabalin DDDs per 1,000 patients	12 17%	24 25%	37 65%	3 7%	15 31%	4 25%	7 14%
Antibacterial items per 1,000 STAR-PU	✗	✗	✗	✗	✗	✗	✗
4C antibacterial items per 1,000 patients	✗	✓	✗	✓	✓	✗	✓
DPIs and SMLs as a percentage of all inhalers	44 62%	18 19%	41 72%	29 63%	34 71%	4 25%	8 16%
Hypnotics and anxiolytics ADQs per 1,000 STAR-PU	20 28%	22 23%	38 67%	8 17%	9 19%	7 44%	15 31%
Low Value for Prescribing (UDG) spend (£) per 1,000 patients	6 8%	43 45%	24 42%	4 9%	8 17%	8 50%	15 31%

Percentage of practices meeting threshold:



## Health boards/practices achieving the Yellow Card indicator targets – Full year 2022–2023

The targets for secondary care, health board and members of the public are by health board, therefore a tick demonstrates achievement.

Yellow Card Indicator	Aneurin Bevan	Betsi Cadwaladr	Cardiff And Vale	Cwm Taf Morgannwg	Hywel Dda	Powys	Swansea Bay	Velindre
GP practices	3 4%	74 74%	1 2%	11 23%	45 94%	2 13%	0 0%	—
Health boards	✓	✓	✓	✓	✓	✓	✓	—
Health boards: members of public	✓	✓	✓	✓	✓	✓	✓	—
Secondary care	✓	✗	✓	✓	✗	✓	✓	✗

Percentage of practices meeting threshold:





## 1.0 Priority areas

### 1.1 Analgesics

There are three NPIs monitoring the usage of medicines used for the treatment of pain for 2022–2023:

1. Opioid burden
2. Tramadol
3. Gabapentin and pregabalin

#### 1.1.1 Opioid burden

**Purpose:** To encourage the appropriate use and review of opioids in primary care, minimising the potential for dependence, diversion, misuse and adverse drug reactions (ADRs).

**Units of measure:**

- Opioid burden UDG ADQs per 1,000 patients
- High strength opioids UDG ADQs per 1,000 patients

**Aim:** To reduce prescribing

There is a lack of consistent good quality evidence to support strong clinical recommendation for the long-term use of opioid analgesics for patients with chronic non-cancer pain. Opioid analgesics have well established side effects and repeated administration may cause tolerance and dependence. Despite the lack of evidence for use in chronic non-cancer pain, research in the UK has found an escalation of strong opioid prescribing in primary care, predominantly for non-cancer patients. This NPI promotes a prudent approach to prescribing opioid analgesics, taking into account the indication, risks and benefits, and encouraging timely review of patients prescribed opioids for chronic pain.

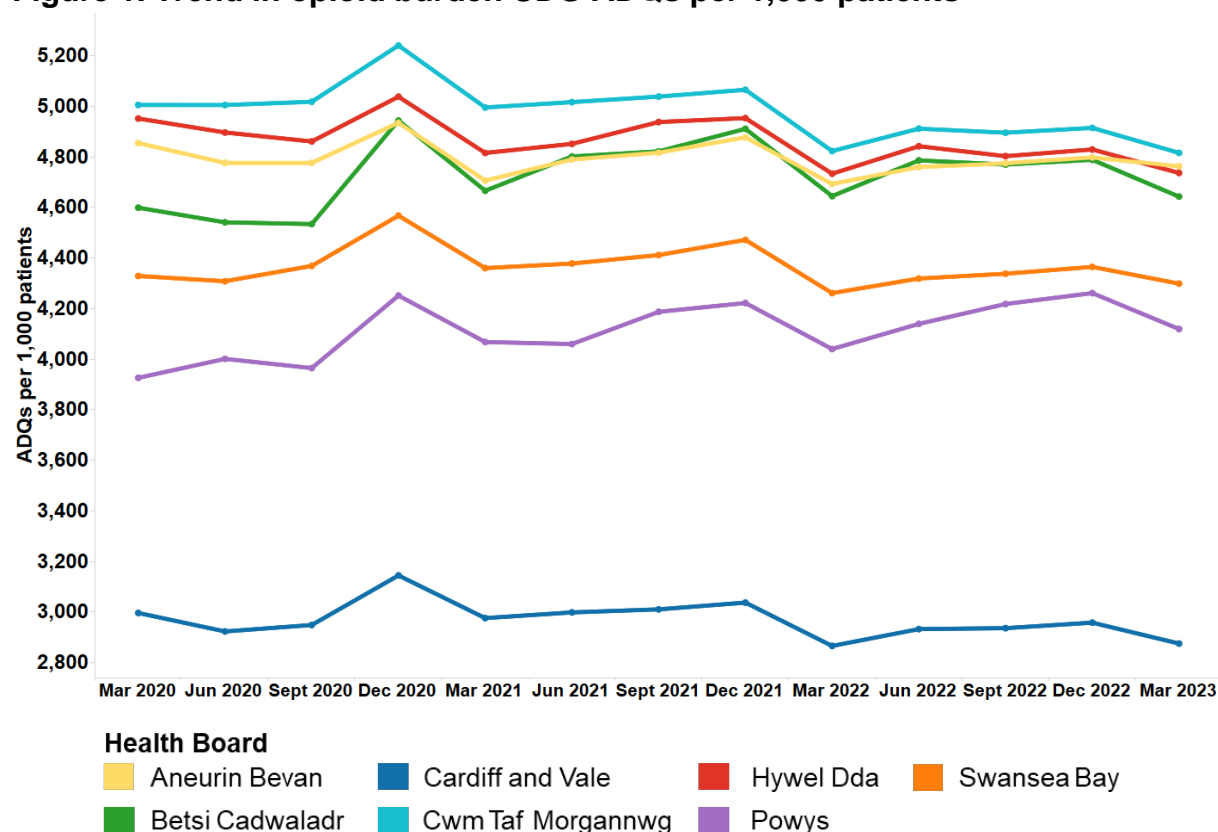
#### Opioid burden

- Across Wales, opioid burden increased by 0.46% in the quarter ending March 2023 compared with the equivalent quarter of the previous year. This is contrary to the aim of the indicator.
- For the quarter ending March 2023, opioid burden prescribing ranged from 2,875 to 4,816 ADQs per 1,000 patients across the health boards.
- The health board with the lowest opioid burden was Cardiff and Vale UHB, whilst the highest opioid burden was seen in Cwm Taf Morgannwg UHB.
- Cwm Taf Morgannwg UHB demonstrated the largest percentage decrease, compared with the equivalent quarter of the previous year.
- Powys Teaching HB demonstrated the largest percentage increase, compared with the equivalent quarter of the previous year.

Table 1. Opioid burden UDG ADQs per 1,000 patients

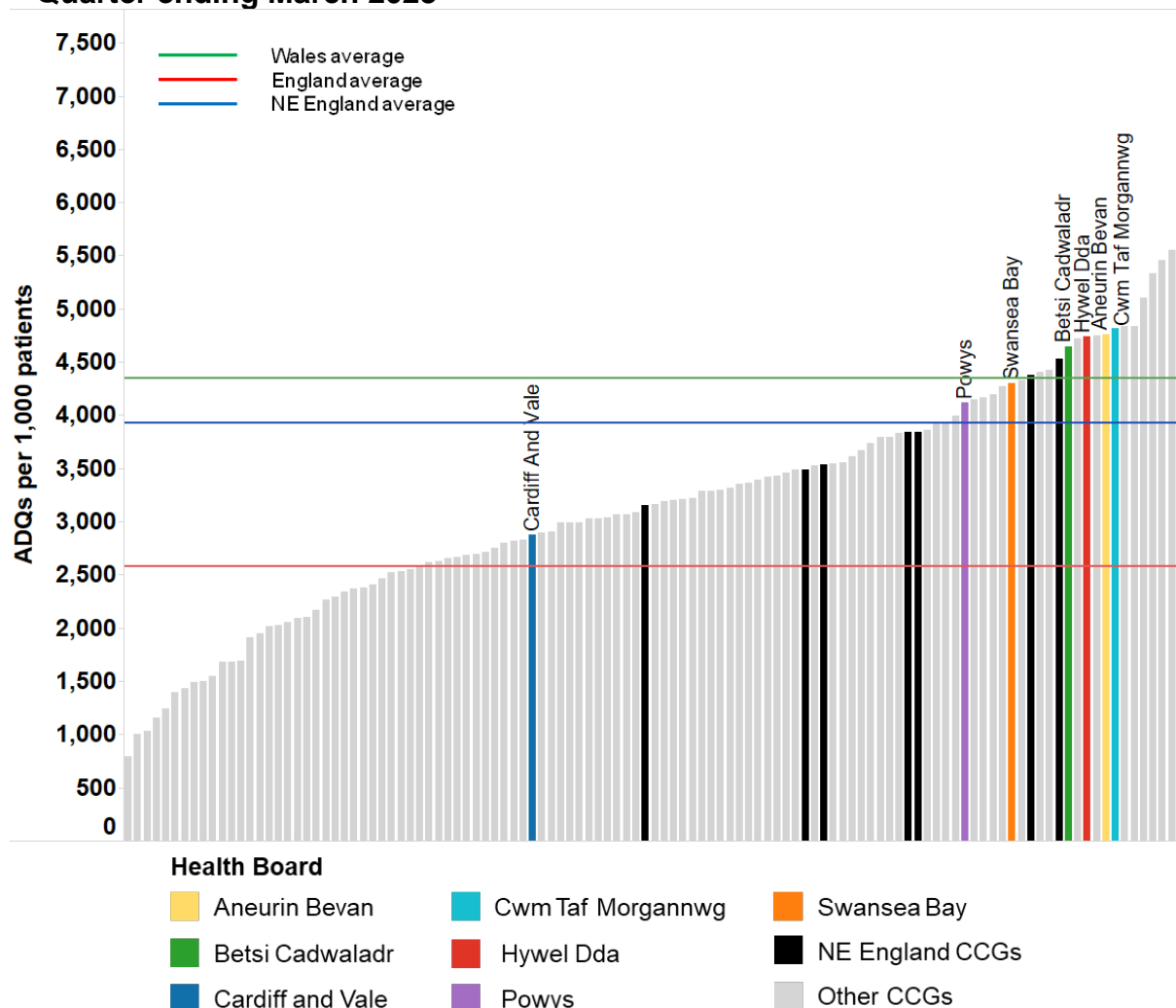
	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Cwm Taf Morgannwg	4,823	4,816	-0.15%
Betsi Cadwaladr	4,645	4,643	-0.04%
Hywel Dda	4,733	4,736	0.06%
Cardiff And Vale	2,866	2,875	0.33%
Swansea Bay	4,261	4,299	0.88%
Aneurin Bevan	4,693	4,763	1.49%
Powys	4,040	4,119	1.96%
<b>Wales</b>	<b>4,329</b>	<b>4,349</b>	<b>0.46%</b>

Figure 1. Trend in opioid burden UDG ADQs per 1,000 patients\*



\*Please note: The NHS Business Services Authority move to a One Drug Database resulted in the removal of the ADQ value for co-codamol 15/500 from January 2020 – September 2020, therefore data during this time period do not include co-codamol 15/500.

**Figure 2. Opioid burden prescribing in Welsh health boards and English CCGs – Quarter ending March 2023**



### High strength opioids

- Across Wales, high strength opioid prescribing decreased by 5.12% in the quarter ending March 2023 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2023, high strength opioid prescribing ranged from 101 to 211 ADQs per 1,000 patients across the health boards.
- The health board with the lowest prescribing was Cardiff And Vale UHB, whilst the highest prescribing was seen in Hywel Dda UHB.
- Hywel Dda UHB demonstrated the largest percentage decrease in high strength opioid prescribing, compared with the equivalent quarter of the previous year.
- Swansea Bay UHB demonstrated the largest percentage increase in high strength opioid prescribing, compared with the equivalent quarter of the previous year.

Table 2. High strength opioid UDG ADQs per 1,000 patients

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Hywel Dda	236	211	-10.4%
Powys	155	140	-9.74%
Betsi Cadwaladr	186	172	-7.89%
Cardiff And Vale	107	101	-5.54%
Aneurin Bevan	125	120	-3.35%
Cwm Taf Morgannwg	153	155	1.27%
Swansea Bay	100	106	5.59%
Wales	151	143	-5.12%

Figure 3. Trend in high strength opioid UDG ADQs per 1,000 patients

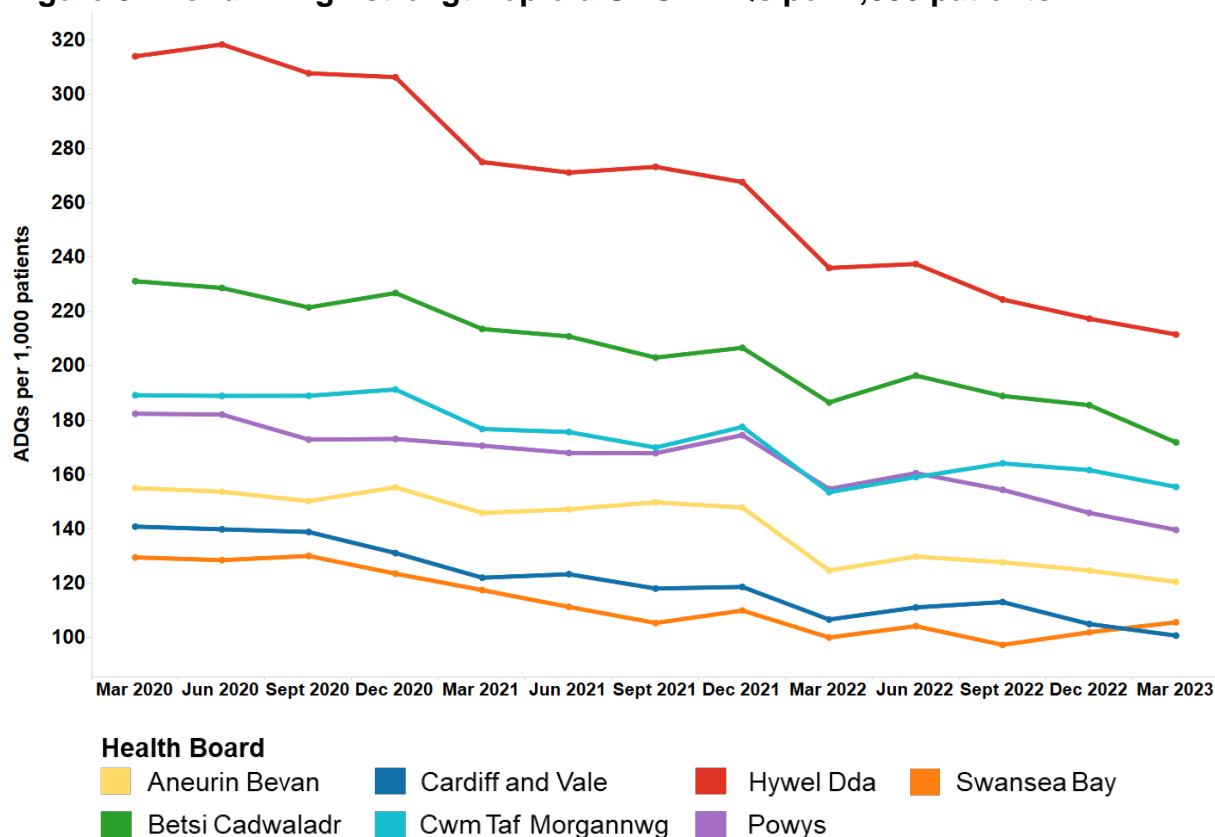
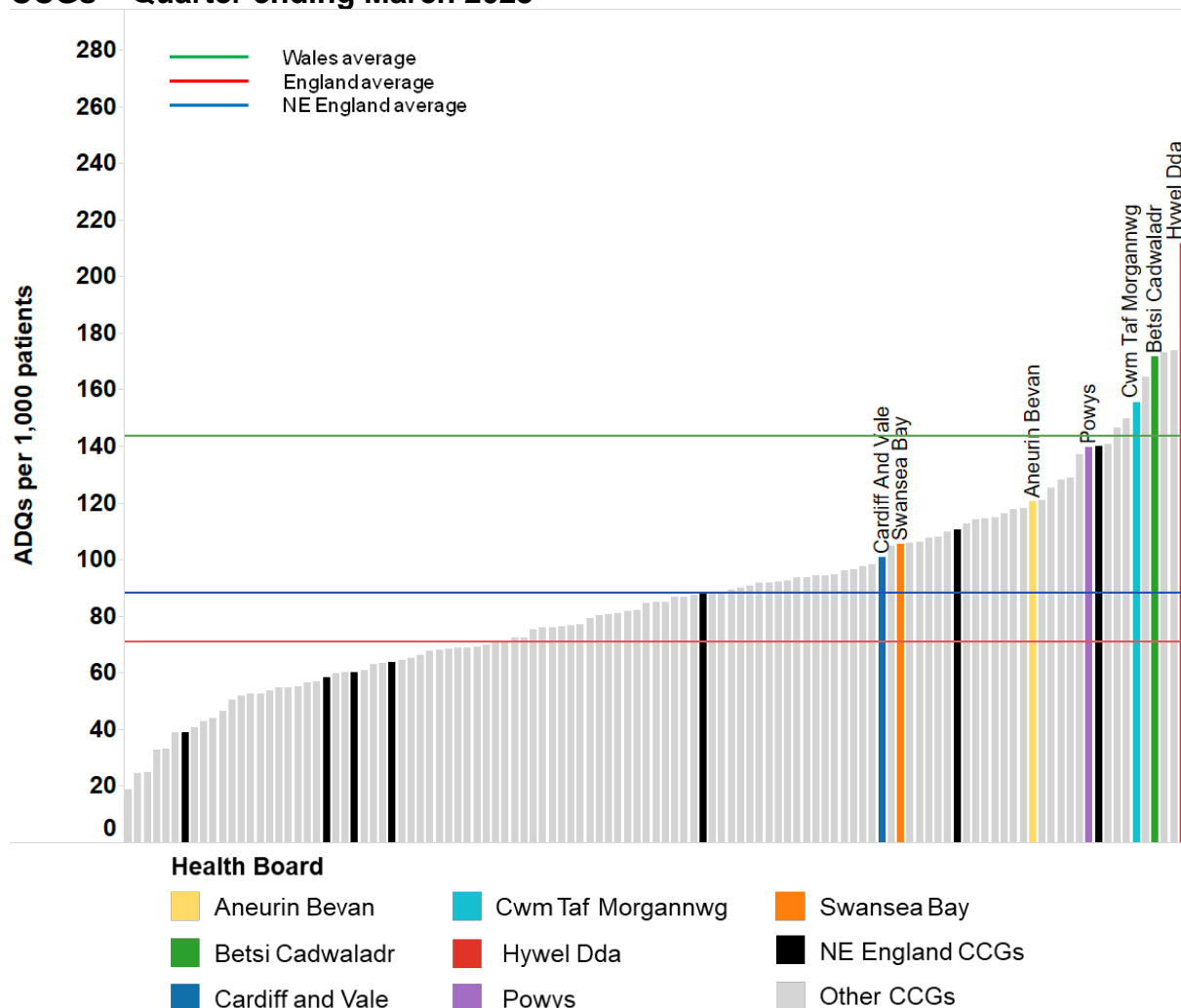


Figure 4. High strength opioid prescribing in Welsh health boards and English CCGs – Quarter ending March 2023



### 1.1.2 Tramadol

**Purpose:** To encourage the appropriate use and review of tramadol in primary care, minimising the potential dependence, diversion, misuse and ADRs.

**Unit of measure:** Tramadol DDDs per 1,000 patients.

**Aim:** To reduce prescribing

While there is a recognised place in pain management for tramadol, there are concerns regarding the risks associated with dependence, diversion, misuse and ADRs. This NPI promotes a prudent approach to prescribing tramadol, taking into account the risks and benefits, and encouraging timely review.

- Across Wales, prescribing of tramadol was 6.19% lower in the quarter ending March 2023 than in the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2023, tramadol prescribing ranged from 311 to 461 DDDs per 1,000 patients across the health boards.

- The health board with the lowest prescribing was Powys Teaching HB, whilst the highest prescribing was seen in Betsi Cadwaladr UHB.
- Tramadol prescribing decreased, compared with the equivalent quarter of the previous year, in all health boards.
- The largest percentage decrease was seen in Swansea Bay UHB and the smallest percentage decrease was seen in Aneurin Bevan UHB, compared with the equivalent quarter of the previous year.

Table 3. Tramadol DDDs per 1,000 patients

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Swansea Bay	429	395	-8.04%
Cwm Taf Morgannwg	492	457	-7.04%
Betsi Cadwaladr	495	461	-6.90%
Hywel Dda	439	410	-6.76%
Powys	328	311	-5.17%
Cardiff And Vale	329	314	-4.47%
Aneurin Bevan	401	385	-3.94%
Wales	428	401	-6.19%

Figure 5. Trend in tramadol prescribing DDDs per 1,000 patients

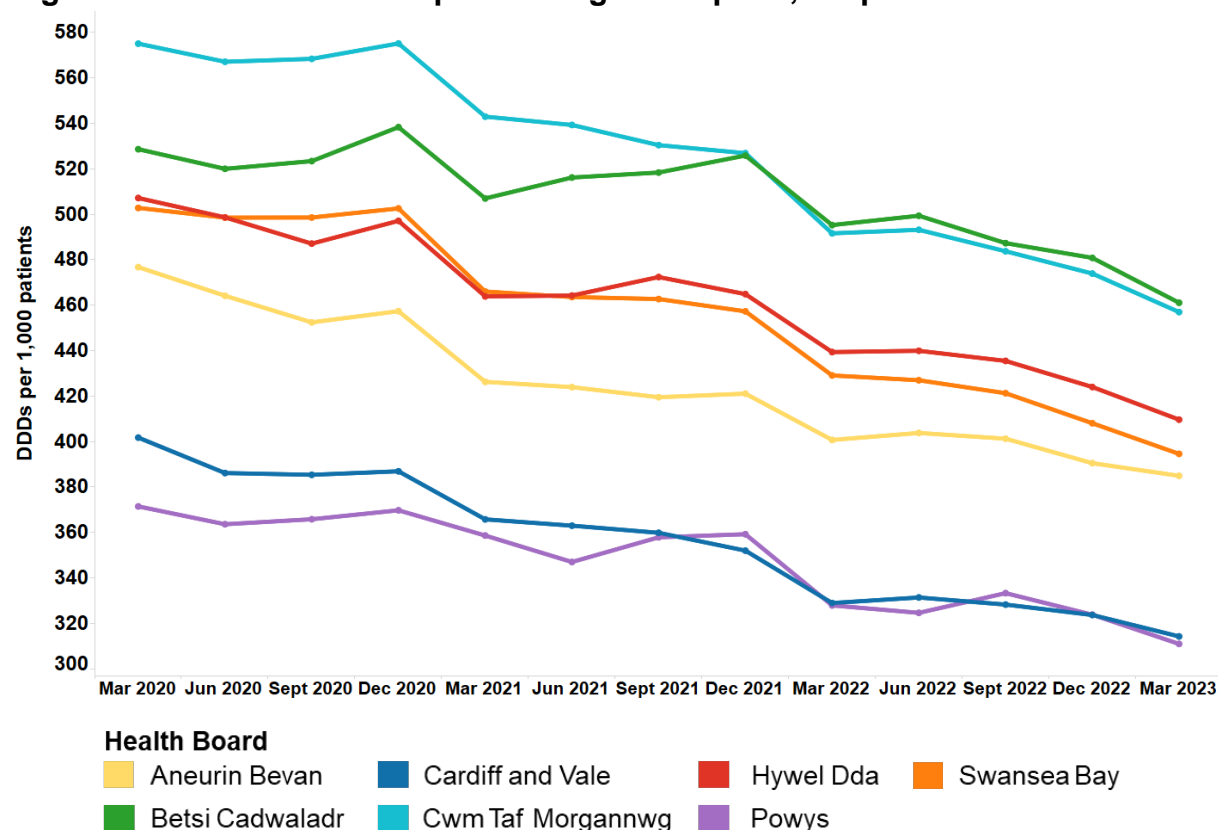
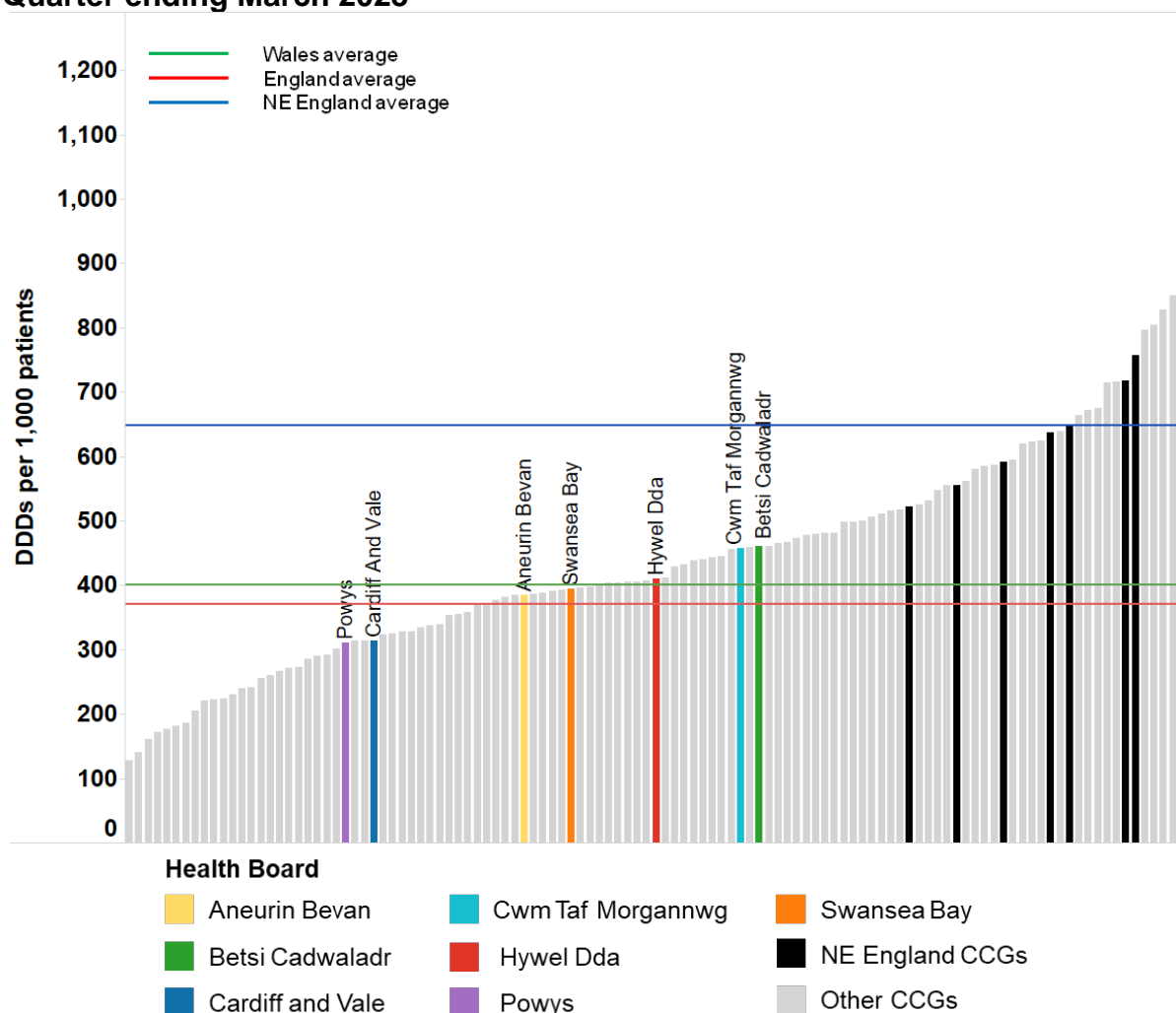


Figure 6. Tramadol prescribing in Welsh health boards and English CCGs – Quarter ending March 2023



### 1.1.3 Gabapentin and pregabalin

**Purpose:** To encourage the appropriate use and review of gabapentin and pregabalin in primary care, minimising the potential for dependence, diversion, misuse and ADRs.

**Unit of measure:** Gabapentin and pregabalin DDDs per 1,000 patients.

**Aim:** To reduce prescribing

Gabapentin and pregabalin have a well-defined role in the management of a number of conditions including epilepsy and neuropathic pain, and pregabalin also has a role in the treatment of generalised anxiety disorder. Both gabapentin and pregabalin have known psychiatric side effects and there is a potential risk of dependence, diversion, misuse and ADRs. Prescribers should make evidence-based, informed decisions on whether to prescribe, taking into account the risks and benefits of these medicines.

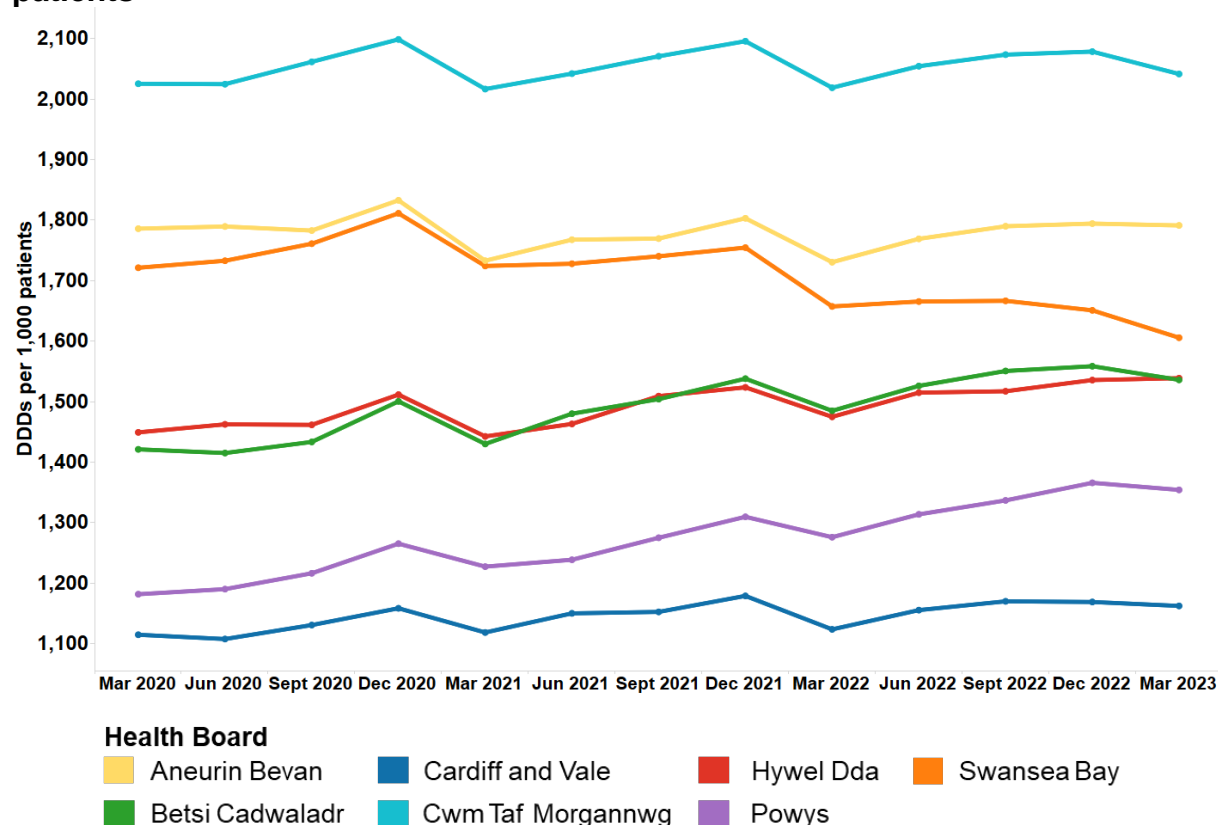
- Across Wales, for the quarter ending March 2023, prescribing of gabapentin and pregabalin increased by 2.35% compared with the same quarter of the previous year. This is contrary to the aim of the indicator.

- For the quarter ending March 2023, gabapentin and pregabalin prescribing ranged from 1,162 to 2,041 DDDs per 1,000 patients across the health boards.
- The health board with the lowest prescribing was Cardiff and Vale UHB, whilst the highest prescribing was seen in Cwm Taf Morgannwg UHB.
- Swansea Bay UHB demonstrated a decrease in prescribing compared with the same quarter of the previous year.
- Powys Teaching HB demonstrated the largest percentage increase in prescribing, compared with the equivalent quarter of the previous year.

**Table 4. Gabapentin and pregabalin DDDs per 1,000 patients**

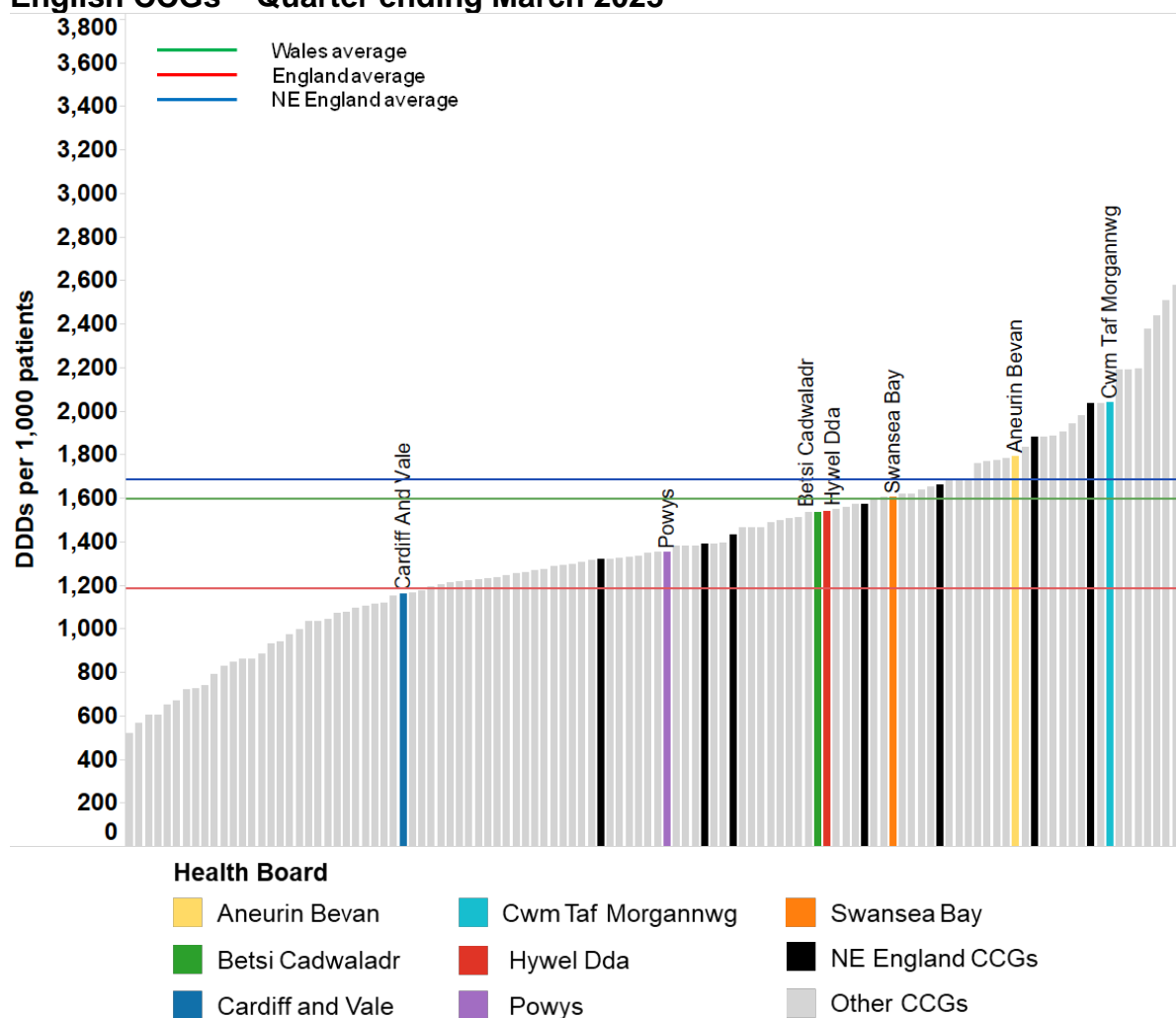
	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Swansea Bay	1,657	1,606	-3.12%
Cwm Taf Morgannwg	2,019	2,041	1.13%
Betsi Cadwaladr	1,485	1,536	3.45%
Cardiff And Vale	1,123	1,162	3.45%
Aneurin Bevan	1,730	1,791	3.51%
Hywel Dda	1,475	1,539	4.33%
Powys	1,276	1,354	6.13%
Wales	1,560	1,597	2.35%

**Figure 7. Trend in gabapentin and pregabalin prescribing DDDs per 1,000 patients**





**Figure 8. Gabapentin and pregabalin prescribing in Welsh health boards and English CCGs – Quarter ending March 2023**



## 1.2 Anticoagulants in atrial fibrillation

There are three NPIs monitoring anticoagulants in atrial fibrillation (AF) for 2022-2023:

1. Number of patients who have a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who are currently prescribed an anticoagulant as a percentage of all patients diagnosed with AF.
2. Number of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months, as a percentage of all patients diagnosed with AF who are prescribed an anticoagulant.
3. Number of patients who are prescribed antiplatelet monotherapy, as a percentage of all patients diagnosed with AF.

### 1.2.1 Anticoagulants in patients with AF

**Purpose:** To encourage the appropriate use of anticoagulants in patients with atrial fibrillation (AF).

**Unit of measure:** Number of patients with AF who have a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who are currently prescribed an anticoagulant as a percentage of all patients diagnosed with AF.

**Aim:** To increase the number of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc of 2 or more prescribed an anticoagulant.

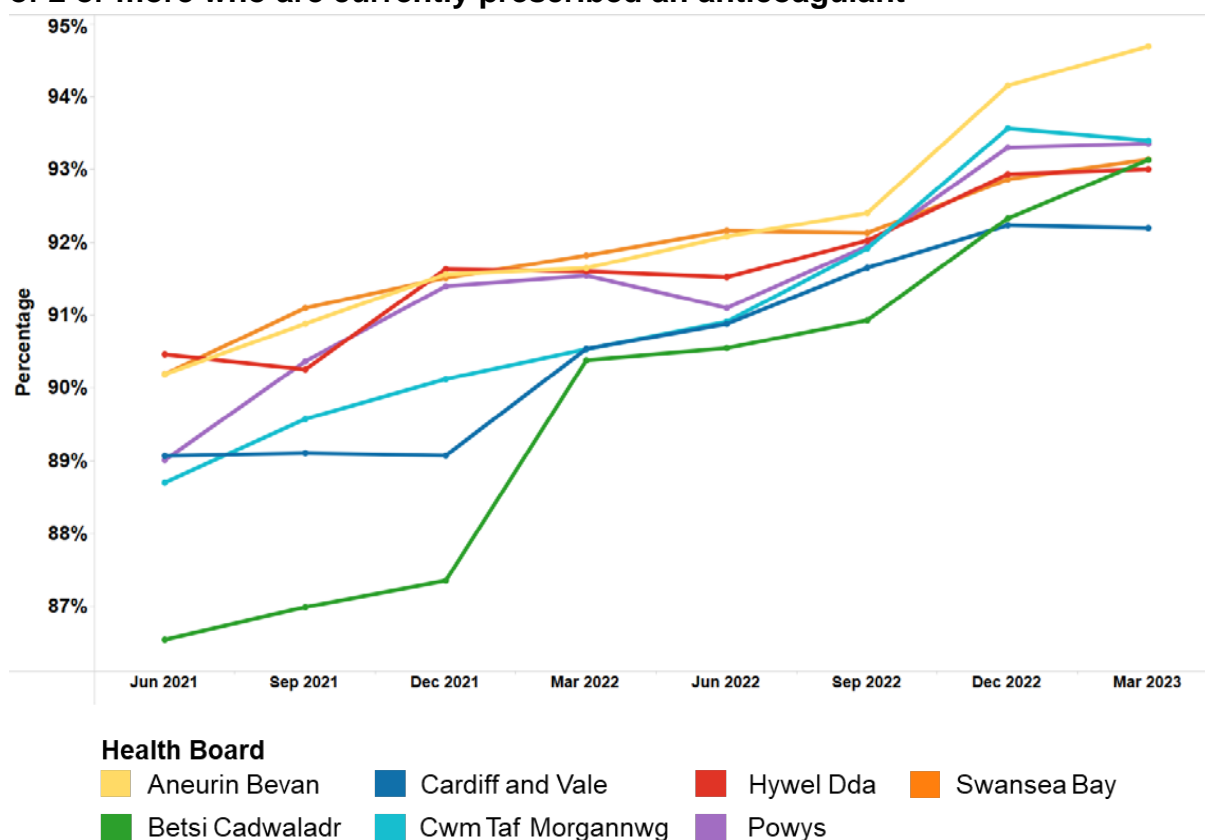
The CHA<sub>2</sub>DS<sub>2</sub>-VASc risk stratification score calculates stroke risk of patients with AF. Adults with non-valvular AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or above are at a much higher risk of having a stroke than the general population, however anticoagulation therapy can help to prevent strokes by reducing the likelihood of a blood clot forming. AF causes around 20% of strokes, however this can be reduced by about two thirds if people are anticoagulated.

- Across Wales, for the quarter ending March 2023, the percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who were prescribed an anticoagulant increased by 2.48 %. This is in line with the aim of the indicator.
- For the quarter ending March 2023, the percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more and were prescribed an anticoagulant ranged from 94.7% to 92.2% across the health boards.
- The health board with the highest percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc of 2 or more who were prescribed an anticoagulant was Aneurin Bevan UHB. The health board with the lowest percentage was Cardiff and Vale UHB.
- The percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who were prescribed an anticoagulant increased, compared with the equivalent quarter of the previous year, in all health boards.
- The largest percentage increase was seen in Aneurin Bevan UHB and the smallest percentage increase was seen in Cardiff and Vale UHB, compared with the equivalent quarter of the previous year.

Table 5. Percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who are currently prescribed an anticoagulant\*

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Aneurin Bevan	91.6%	94.7%	3.32%
Cwm Taf Morgannwg	90.5%	93.4%	3.16%
Betsi Cadwaladr	90.4%	93.1%	3.04%
Powys	91.5%	93.4%	1.98%
Cardiff And Vale	90.5%	92.2%	1.83%
Hywel Dda	91.6%	93.0%	1.53%
Swansea Bay	91.8%	93.1%	1.44%
Wales	91.1%	93.3%	2.48%

Figure 9. Trend in percentage of patients with AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more who are currently prescribed an anticoagulant



### 1.2.2 Anticoagulant review

**Purpose:** To encourage the appropriate review of patients currently prescribed anticoagulants.

**Unit of measure:** Number of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months, as a percentage of all patients diagnosed with AF who are prescribed an anticoagulant.

**Aim:** To increase the number of patients with AF who are prescribed an anticoagulant and have received an anticoagulant review within the last 12 months.

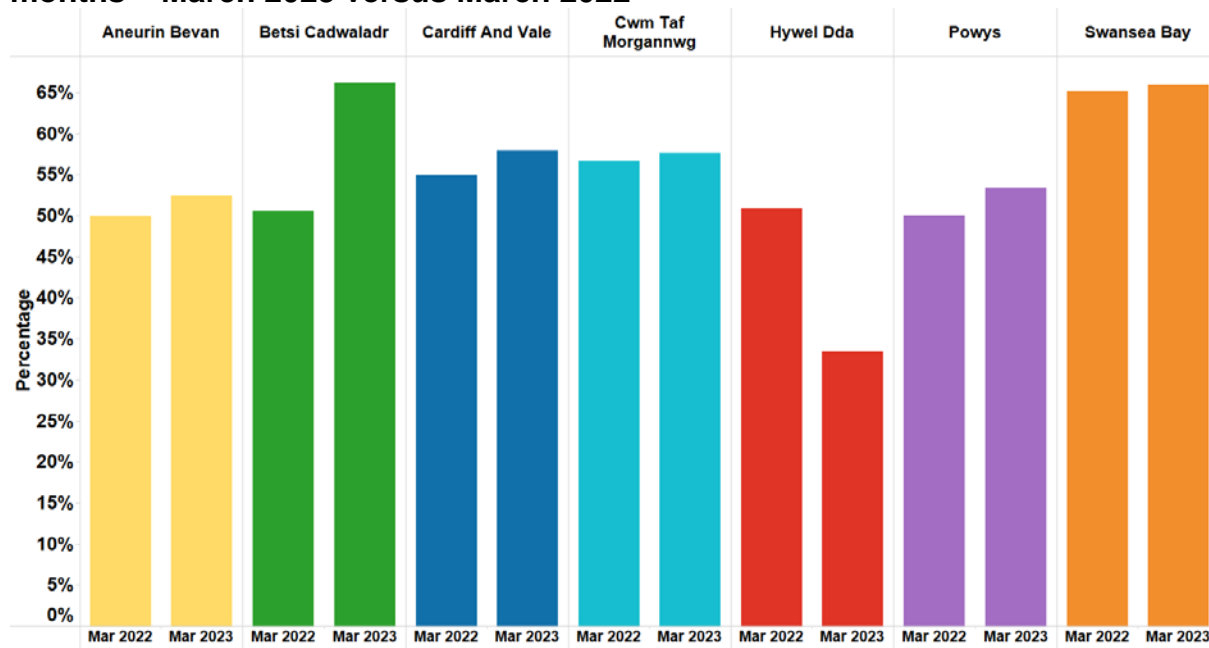
Patients with AF who are prescribed an anticoagulant should have a review of their treatment annually. Anticoagulants are associated with drug-drug and drug-food interactions that may increase the risk of serious bleeding or diminish stroke prevention. A review of treatment will reinforce the importance of adherence and enable patients to be reminded of potential interactions.

- Across Wales, the number of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months (as a percentage of all patients diagnosed with AF who are prescribed an anticoagulant) increased by 3.82% compared with the equivalent month of the previous year. This is in line with the aim of the indicator.
- For the month of March 2023, the percentage patients who had received an anticoagulant review in the last 12 months ranged from 33.5% to 66.1% across the health boards.
- The health board with the highest percentage of reviews was Betsi Cadwaladr UHB. The health board with the lowest percentage of reviews was Hywel Dda UHB.
- The largest percentage increase was seen in Betsi Cadwaladr UHB. Hywel Dda HB demonstrated a decrease compared with the same month of the previous year.

**Table 6. Percentage of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months**

	2021–2022 March 2022	2022–2023 March 2023	% Change
<b>Betsi Cadwaladr</b>	50.5%	66.1%	30.9%
<b>Powys</b>	50.0%	53.4%	6.89%
<b>Cardiff And Vale</b>	54.9%	57.9%	5.44%
<b>Aneurin Bevan</b>	50.0%	52.4%	4.91%
<b>Cwm Taf Morgannwg</b>	56.7%	57.7%	1.76%
<b>Swansea Bay</b>	65.2%	66.0%	1.26%
<b>Hywel Dda</b>	50.9%	33.5%	-34.3%
<b>Wales</b>	<b>53.7%</b>	<b>55.7%</b>	<b>3.82%</b>

**Figure 10. Percentage of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months – March 2023 versus March 2022**



### 1.2.3 Patients who are prescribed antiplatelet monotherapy

**Purpose:** To discourage the inappropriate use of antiplatelet monotherapy in patients with atrial fibrillation (AF).

**Unit of measure:** Number of patients who are prescribed antiplatelet monotherapy, as a percentage of all patients diagnosed with AF.

**Aim:** To reduce the number of patients with AF prescribed antiplatelet monotherapy.

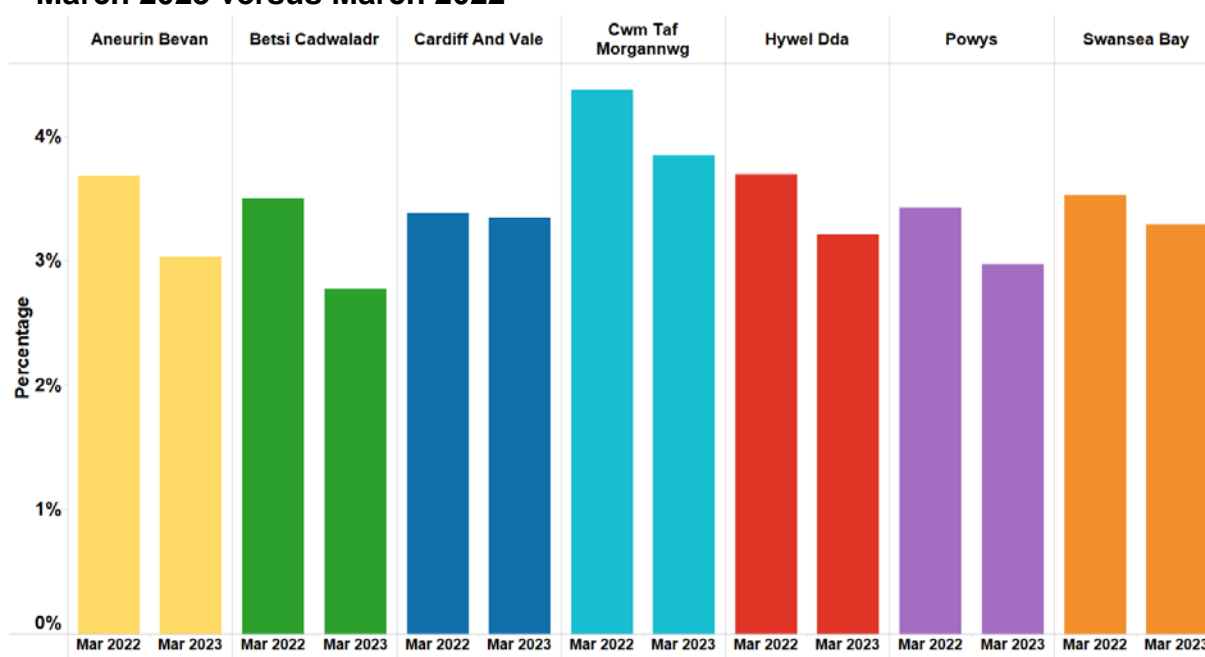
Antiplatelet medication, i.e. aspirin or clopidogrel, is no longer recommended in patients with AF. Quality Statement 2 within the NICE Quality Standard for Atrial fibrillation states that adults with AF should not be prescribed aspirin monotherapy, as the risks of taking aspirin outweigh any benefits. However, prescribers should be aware that adults with AF may need to take aspirin for other indications.

- Across Wales, the number of patients who are prescribed antiplatelet monotherapy (as a percentage of all patients diagnosed with AF) decreased by 13.3% compared with the equivalent month of the previous year. This is in line with the aim of the indicator.
- For the month of March 2023, the percentage of patients receiving antiplatelet monotherapy ranged from 2.77% to 3.85% across the health boards.
- The health board with the lowest percentage of antiplatelet monotherapy was Betsi Cadwaladr UHB. The health board with the highest percentage of antiplatelet monotherapy was Cwm Taf Morgannwg UHB.
- The largest percentage decrease was seen in Betsi Cadwaladr UHB. The smallest percentage decrease was seen in Cardiff and Vale UHB.

Table 7. Percentage of patients who are prescribed antiplatelet monotherapy

	2021–2022 March 2022	2022–2023 March 2023	% Change
Betsi Cadwaladr	3.50%	2.77%	-20.9%
Aneurin Bevan	3.68%	3.03%	-17.7%
Powys	3.42%	2.97%	-13.2%
Hywel Dda	3.69%	3.21%	-13.1%
Cwm Taf Morgannwg	4.37%	3.85%	-11.9%
Swansea Bay	3.53%	3.29%	-6.68%
Cardiff And Vale	3.38%	3.35%	-0.83%
Wales	3.67%	3.18%	-13.3%

Figure 11. Percentage of patients who are prescribed antiplatelet monotherapy – March 2023 versus March 2022



### 1.3 Antimicrobial stewardship

There are two antimicrobial NPIs for 2022–2023:

1. Total antibacterial items per 1,000 STAR-PU
2. 4C antimicrobials (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients

#### 1.3.1 Total antibacterial items

**Purpose:** To encourage the appropriate prescribing of all antibiotics in primary care.

**Unit of measure:** Total antibacterial items per 1,000 STAR-PU.

**Aim:** To reduce prescribing

- Across Wales, for the quarter ending March 2023, total antibacterial items per 1,000 STAR-PU increased by 3.8%, compared with the quarter ending March 2020. This is contrary to the aim of the indicator.
- For the quarter ending March 2023, the total number of antibacterial items per 1,000 STAR-PU ranged from 284 to 344 across the health boards.
- The health board with the lowest prescribing was Cardiff and Vale UHB, whilst the highest prescribing was seen in Cwm Taf Morgannwg UHB.
- For the quarter ending March 2023, none of the health boards achieved the target of a 5%, or greater, reduction against the baseline of quarter 4 2019–2020.
- Cwm Taf Morgannwg UHB demonstrated a reduction in prescribing, compared with the quarter ending March 2020.
- Powys Teaching HB demonstrated the greatest increase in prescribing, compared with the quarter ending March 2020.

**Table 8. Total antibacterial items per 1,000 STAR-PU**

	2019–2020 Qtr 4	2022–2023 Qtr 4	% Change
Cwm Taf Morgannwg	348	344	-1.26%
Cardiff And Vale	279	284	1.60%
Swansea Bay	324	333	2.77%
Hywel Dda	310	325	4.72%
Aneurin Bevan	315	334	5.77%
Betsi Cadwaladr	293	311	5.96%
Powys	261	291	11.5%
Wales	307	319	3.78%

Figure 12. Trend in antibacterial prescribing items per 1,000 STAR-PUs

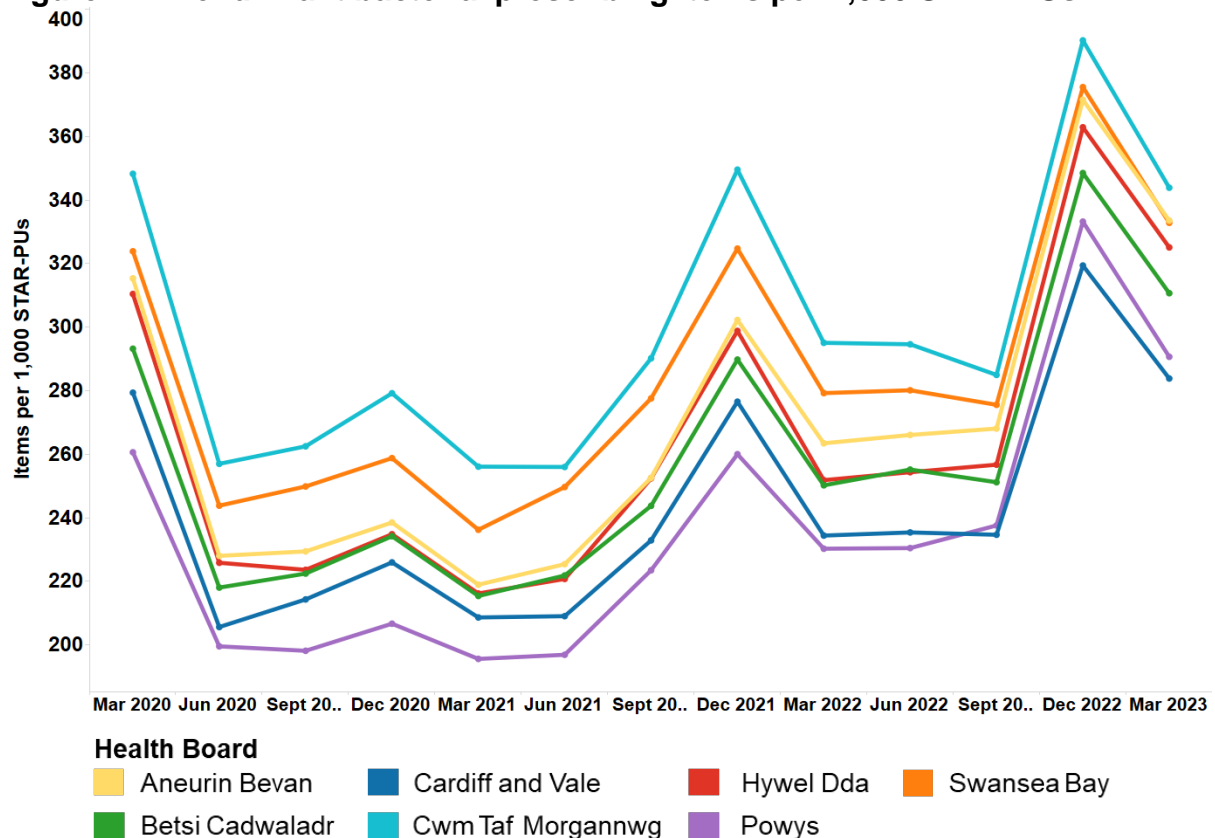
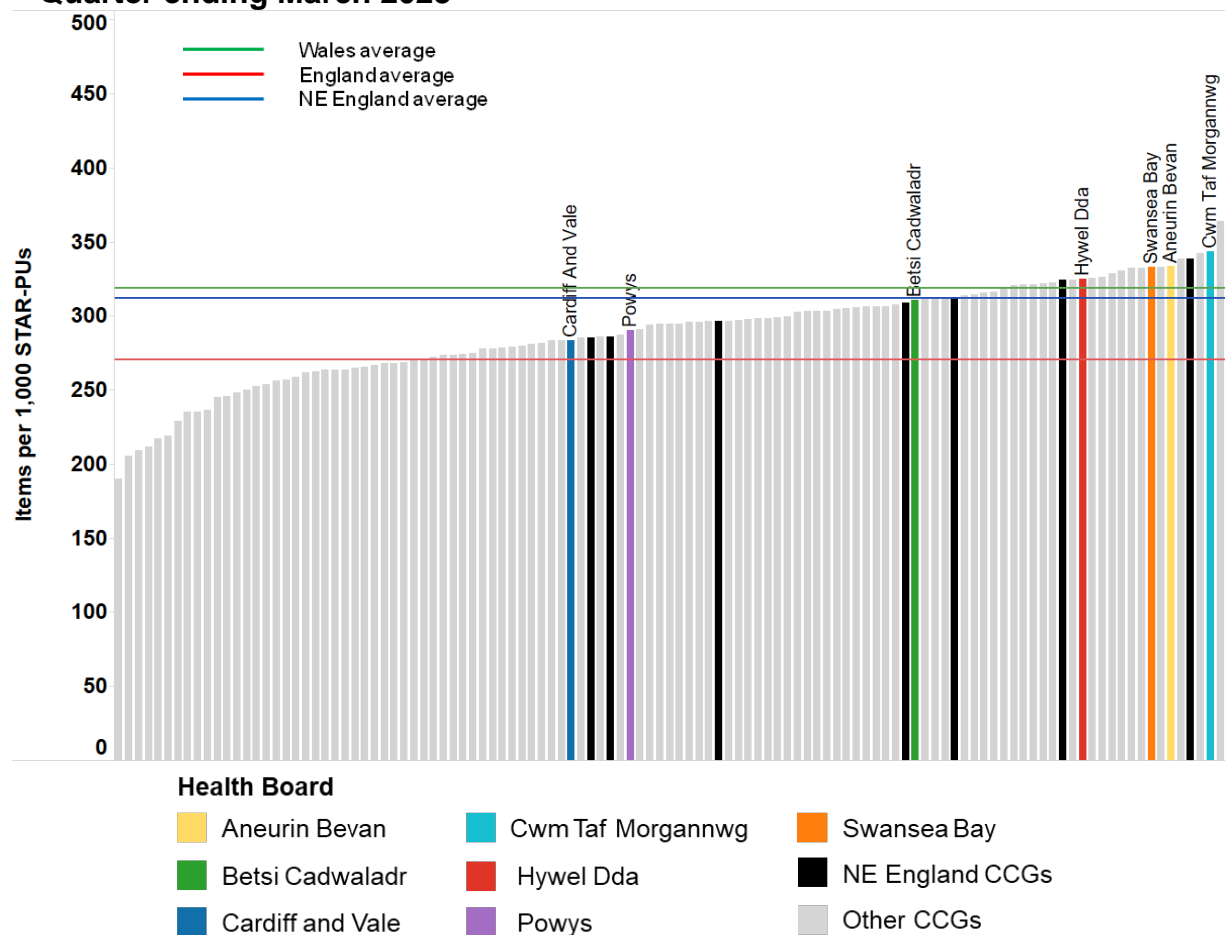


Figure 13. Antibacterial prescribing in Welsh health boards and English CCGs – Quarter ending March 2023





### 1.3.2 4C antimicrobials

**Purpose:** To encourage a reduction in variation and reduce overall prescribing of the 4C antimicrobials (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) in primary care.

**Unit of measure:** 4C items per 1,000 patients

**Aim:** To reduce prescribing

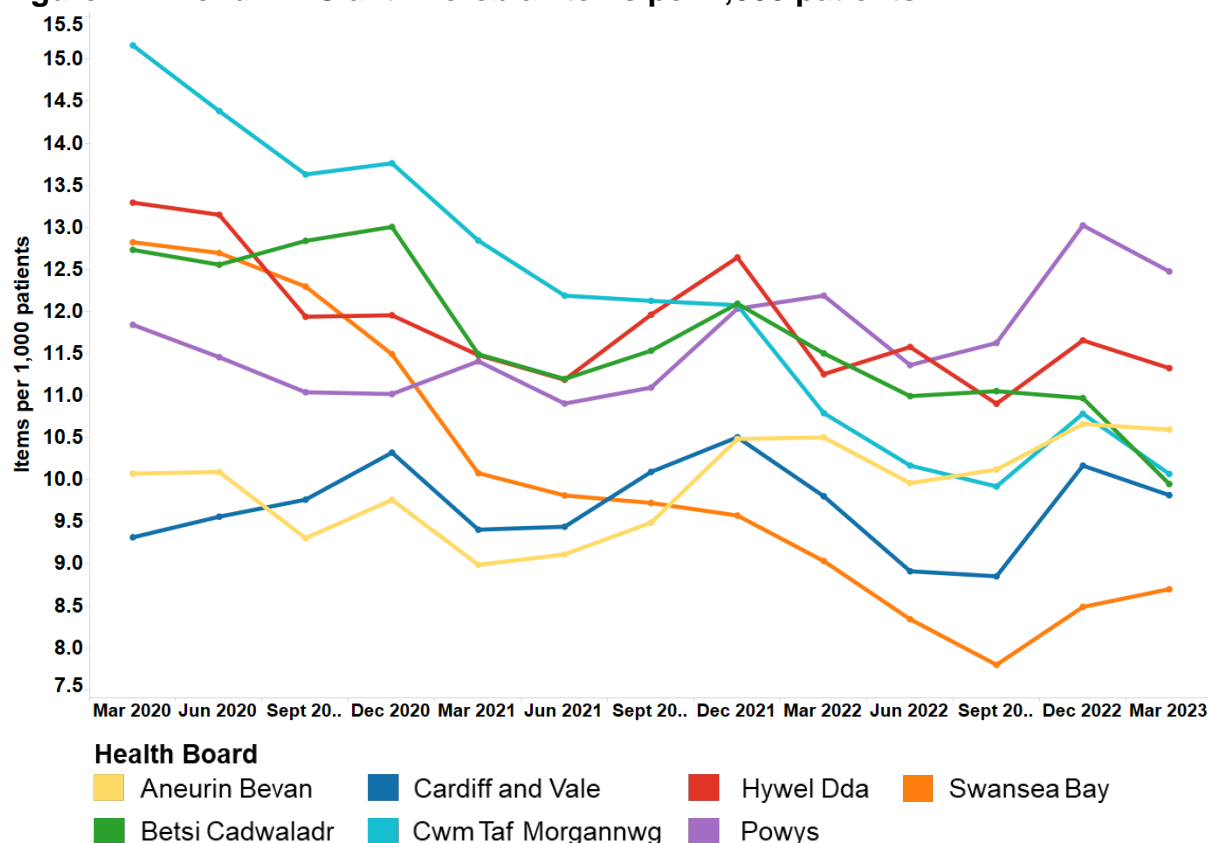
The use of simple generic antibiotics and the avoidance of these broad-spectrum antibiotics preserve them from resistance and reduce the risk of *C. difficile*, MRSA and resistant urinary tract infections.

- Across Wales, for the quarter ending March 2023, the number of 4C antimicrobial items per 1,000 patients decreased by 15.5%, compared with the quarter ending March 2020, in line with the aim of the indicator.
- For the quarter ending March 2023, 4C prescribing ranged from 8.70 to 12.5 items per 1,000 patients across the health boards.
- The health board with the lowest prescribing was Swansea Bay UHB, whilst the highest prescribing was seen in Powys Teaching HB.
- The largest percentage decrease was seen in Cwm Taf Morgannwg UHB.
- The largest percentage increase was seen in Cardiff and Vale UHB.

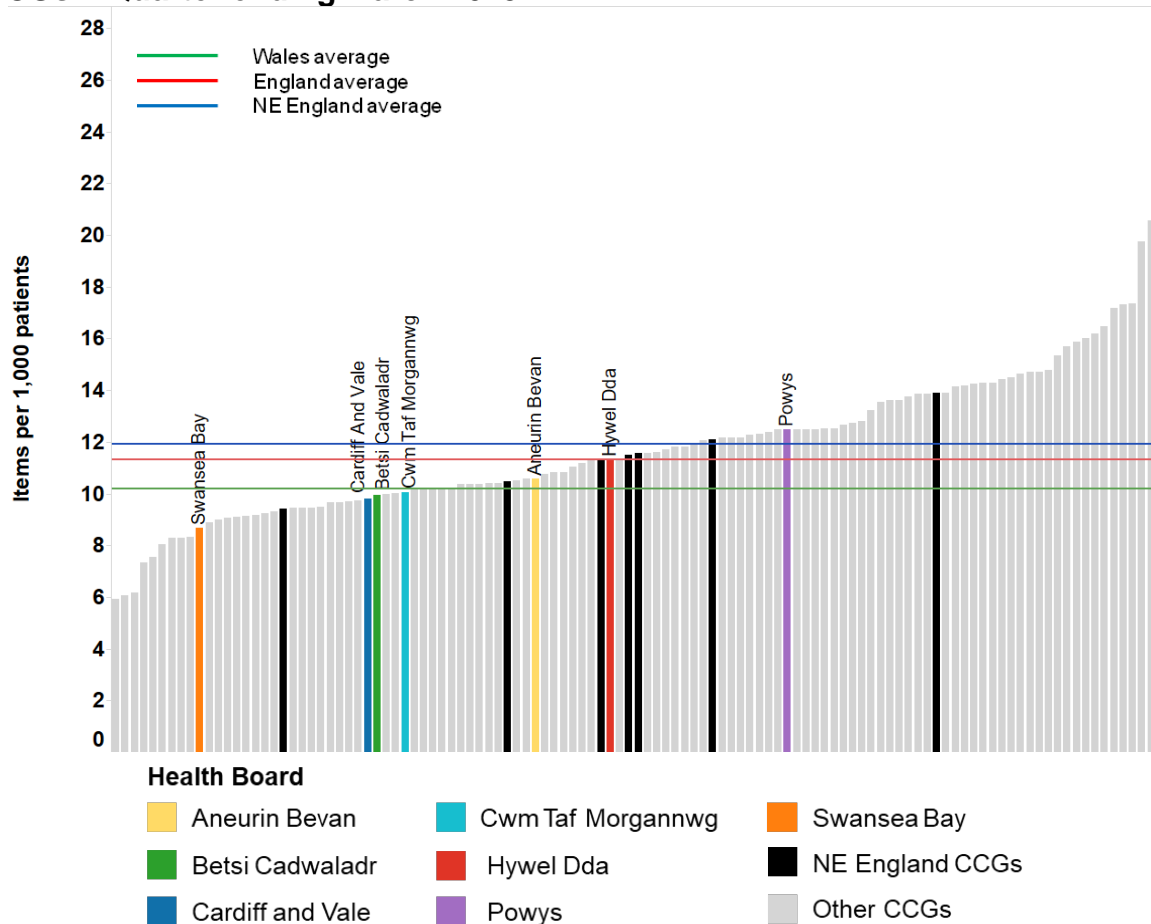
**Table 9. 4C antimicrobial items per 1,000 patients**

	2019–2020 Qtr 4	2022–2023 Qtr 4	% Change
Cwm Taf Morgannwg	15.2	10.1	-33.6%
Swansea Bay	12.8	8.70	-32.2%
Betsi Cadwaladr	12.7	9.95	-21.9%
Hywel Dda	13.3	11.3	-14.8%
Aneurin Bevan	10.1	10.6	5.20%
Powys	11.8	12.5	5.36%
Cardiff And Vale	9.31	9.81	5.39%
Wales	12.1	10.2	-15.5%

**Figure 14. Trend in 4C antimicrobial items per 1,000 patients**



**Figure 15. 4C antimicrobial prescribing in Welsh health boards and English CCGs – Quarter ending March 2023**



## 1.4 Decarbonisation of inhalers

**Purpose:** To encourage an increase in the use of low Global Warming Potential (GWP) inhalers (dry powder inhalers (DPI) and soft mist inhalers (SMI)), to reduce the carbon footprint of inhaler prescribing in Wales.

**Units of measure:** The number of DPIs and SMIs as a percentage of all inhalers prescribed.

**Aim:** To increase the proportion of DPI and SMI prescribing.

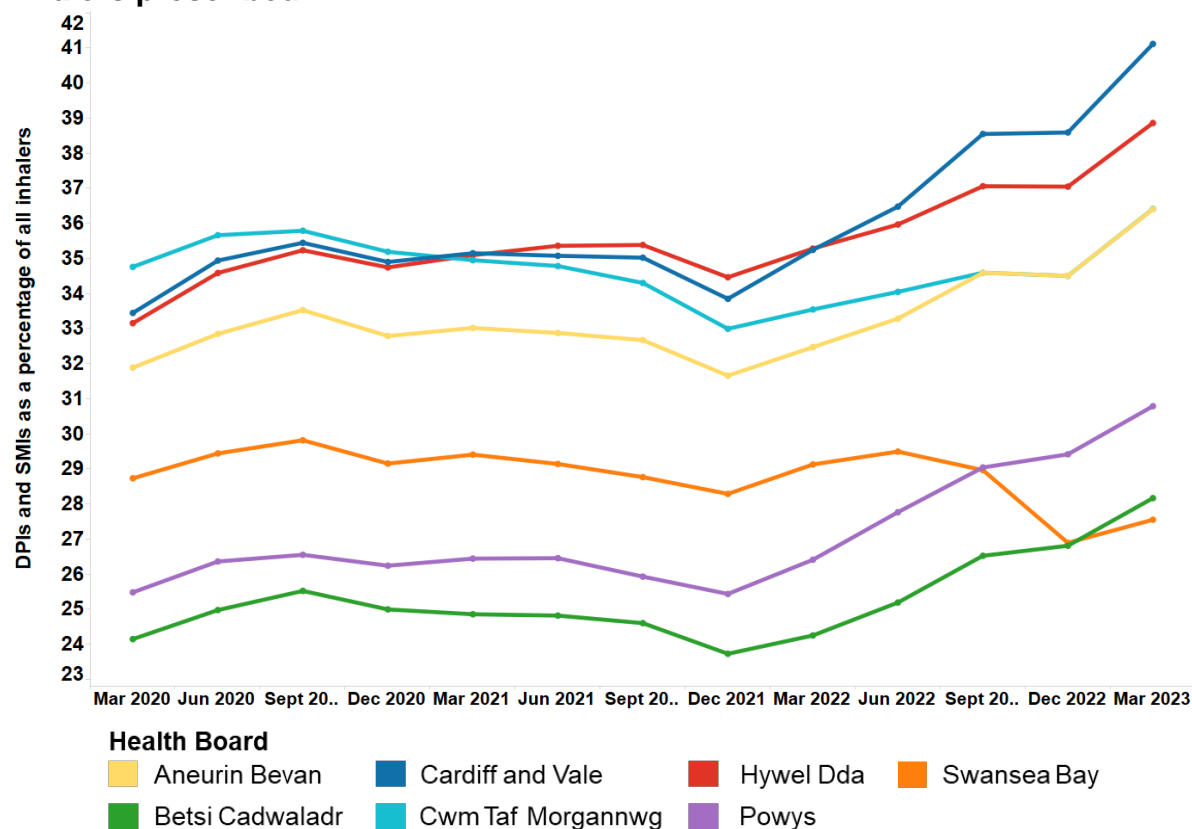
Metered dose inhalers (MDIs) are estimated to be responsible for 4% of the NHS's entire carbon footprint. One of the key actions within the NHS Wales Decarbonisation Strategic Delivery Plan is to transition patients on MDIs to inhalers with a lower carbon footprint, but only where patient care will not be impacted. The target is a shift to 80% of inhalers being low GWP alternatives (for example, DPIs or SMIs) by 2025. It is crucial that while efforts are made to reduce the emissions associated with inhalers, patient choice is maintained and that changes are only made where clinically appropriate.

- Across Wales, the proportion of DPI and SMI prescribing (as a percentage of all inhalers prescribed) increased by 10.5% in the quarter ending March 2023 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2023, the proportion of DPI and SMI prescribing ranged from 41.1% to 27.5% across the health boards.
- The health board with the highest proportion of DPI and SMI prescribing was Cardiff and Vale UHB, whilst the lowest proportion of DPI and SMI prescribing was seen in Swansea Bay UHB.
- Cardiff and Vale UHB demonstrated the largest percentage increase, compared with the equivalent quarter of the previous year.
- Swansea Bay UHB demonstrated a decrease, compared with the equivalent quarter of the previous year.

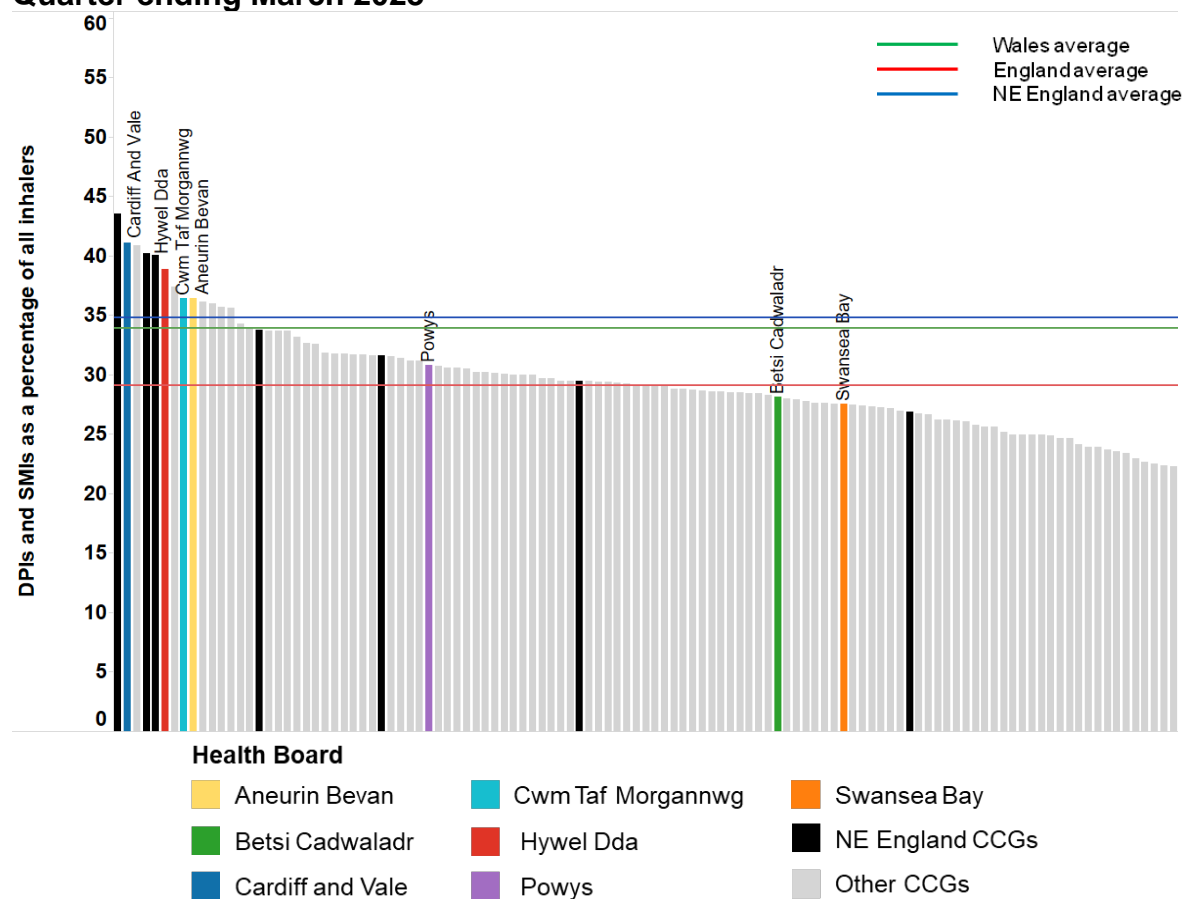
**Table 10. DPIs and SMIs as a percentage of all inhalers prescribed**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Cardiff And Vale	35.2	41.1	16.7%
Powys	26.4	30.8	16.6%
Betsi Cadwaladr	24.2	28.2	16.1%
Aneurin Bevan	32.5	36.4	12.1%
Hywel Dda	35.3	38.9	10.1%
Cwm Taf Morgannwg	33.5	36.4	8.54%
Swansea Bay	29.1	27.5	-5.41%
Wales	30.7	33.9	10.5%

**Figure 16. Trend in the percentage of DPIs and SMIs as a percentage of all inhalers prescribed**



**Figure 17. DPI and SMI prescribing in Welsh health boards and English CCGs – Quarter ending March 2023**



### Good practice spotlight

**Cardiff and Vale UHB** have implemented a range of actions to encourage the use of lower Global Warming Potential (GWP) inhalers when appropriate for patients.

In September 2021, the Medicines Management Team implemented messages on ScriptSwitch (prescribing decision support software) encouraging prescribers to choose DPI and SMI alternatives over MDIs where possible. The messages were updated in line with All Wales messages provided by AWTTC in 2022.

As part of the 2022-23 Medicines Management Incentive Scheme, GP practices reviewed patients with COPD currently prescribed two treatment inhalers which could be optimised to a single combination inhaler. They were asked to choose a DPI combination inhaler where appropriate. Practices were also asked to report 5 different interventions made to reduce the carbon footprint of asthma treatment.

In addition, the Medicines Management Team have held education sessions for GP practice teams to highlight the decarbonisation agenda, including ways in which the prescribing of MDIs can be reduced.

For further information regarding this initiative, please contact [awttc@wales.nhs.uk](mailto:awttc@wales.nhs.uk)

## 2.0 Supporting domains

### 2.1 Safety

#### 2.1.1 Prescribing Safety Indicators

**Purpose:** To identify patients at high risk of adverse drug reactions (ADRs) and medicines-related harm in primary care.

**Units of measure:**

**Prescribing Safety Indicators related to acute kidney injury (AKI)**

- Number of patients on the CKD register (CKD stage 3–5) who have received a repeat prescription for an NSAID within the last 3 months.
- Number of patients who are not on the CKD register but have an eGFR of < 59 ml/min and have received a repeat prescription for an NSAID within the last 3 months.
- Number of patients with concurrent prescriptions of an NSAID, renin-angiotensin system (RAS) drug and a diuretic.
- Number of patients aged 75 years and over with a current prescription for an ACE Inhibitor or loop diuretic without a check of renal function and electrolytes in the previous 15 months.

**Prescribing Safety Indicators related to bleeds**

- Number of patients with a peptic ulcer who have been prescribed NSAIDs without a PPI.
- Number of patients with concurrent prescriptions of warfarin and an oral NSAID.
- Number of patients with concurrent prescriptions for a DOAC and an oral NSAID.
- Number of patients aged 65 years or over who are prescribed an NSAID plus aspirin and/or clopidogrel but without gastroprotection (PPI or H<sub>2</sub>-receptor antagonist).
- Number of patients with concurrent prescriptions of an oral anticoagulant (warfarin or DOAC) and an SSRI.

**Prescribing Safety Indicators related to cognition**

- Number of patients aged 65 years or over prescribed an antipsychotic.
- Number of patients aged 75 years and over with an Anticholinergic Effect on Cognition (AEC) score of three or more for items on active repeat.

**Prescribing Safety Indicators specific to females**

- Number of female patients with a current prescription of oestrogen-only hormone replacement therapy (HRT) without any hysterectomy READ/SNOMED codes.
- Number of female patients with a past medical history of venous or arterial thrombosis who have been prescribed combined hormonal contraceptives.
- Number of female patients aged 14–55 years with a prescription for sodium valproate.
- Number of female patients aged 14–55 years with a prescription for oral retinoids.

**Prescribing Safety Indicators related to ‘other’**

- Number of patients under 16 years with a current prescription of aspirin.
- Number of patients with asthma who have been prescribed a beta-blocker.
- Number of patients with concurrent prescriptions of verapamil and a beta-blocker.

**Aim:** To review patients identified as being at high risk of ADRs and reduce inappropriate prescribing.

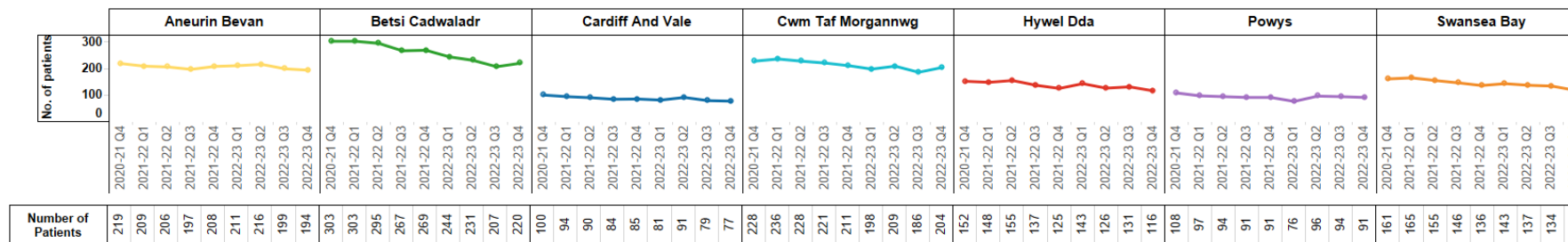
In the UK, it is estimated that around 6.5% of hospital admissions are related to adverse drug reactions (ADRs). ADRs can often be predictable making it possible to identify potential causes and address them before actual patient harm occurs. This NPI provides a process of identifying patients electronically, enabling intervention and helping to avoid patient harm.

No target has been set for this NPI and it is not intended that comparisons are made between health boards. However, data can provide a baseline for future quarters to enable monitoring within health boards.

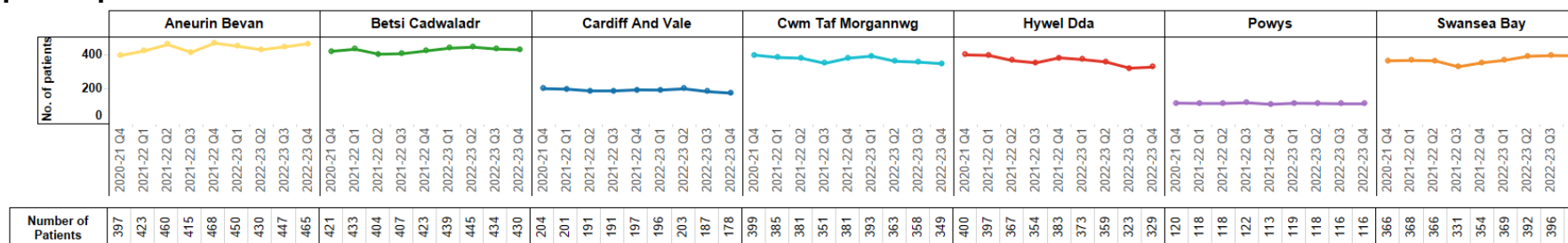
Figure 18. Prescribing Safety Indicators

Prescribing Safety Indicators related to acute kidney injury (AKI)

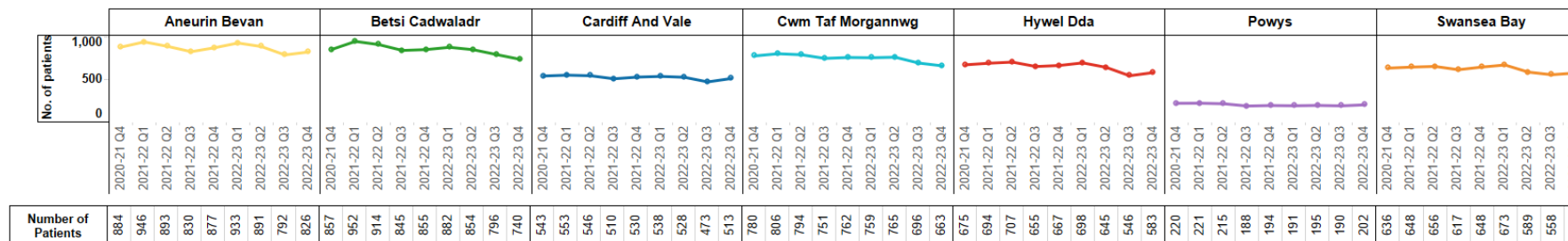
01. Number of patients on the CKD register (CKD stage 3–5) who have received a repeat prescription for an NSAID within the last 3 months.



02. Number of patients who are not on the CKD register but have an eGFR of < 59 ml/min and have received a repeat prescription for an NSAID within the last 3 months.

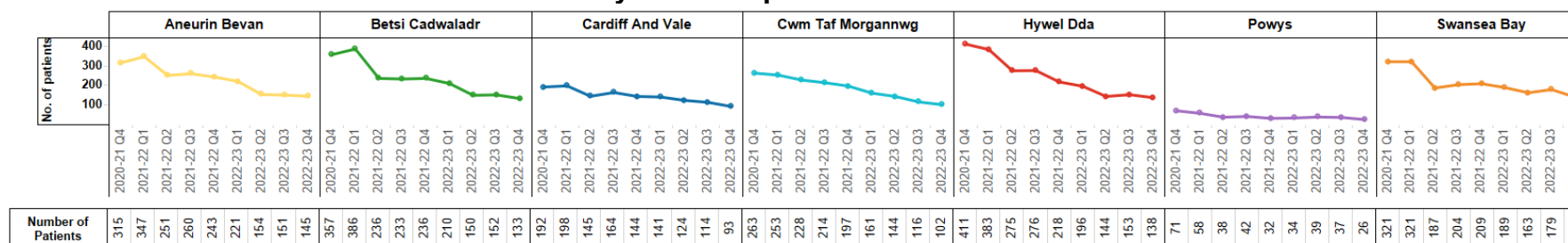


03. Number of patients with concurrent prescriptions of an NSAID, renin-angiotensin system (RAS) drug and a diuretic.





**04. Number of patients aged 75 years and over with a current prescription for an ACE Inhibitor or loop diuretic without a check of renal function and electrolytes in the previous 15 months.**



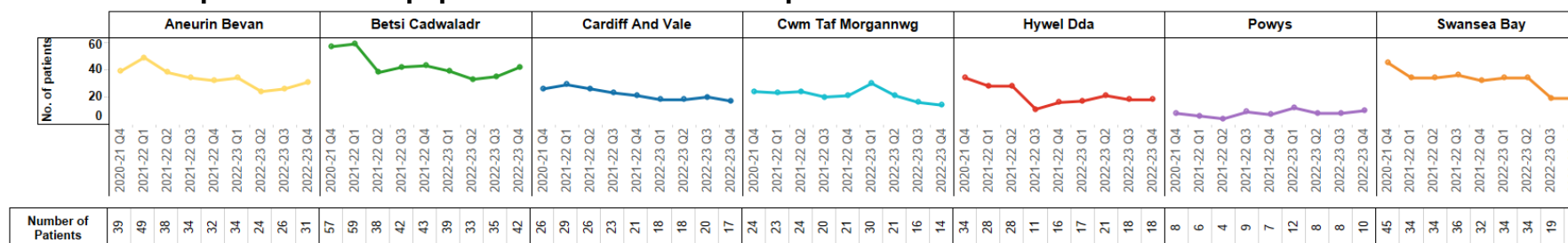
**Good practice spotlight**

**Hywel Dda UHB** have regularly shared information with clusters on the prescribing safety indicators. This included individual graphs and a tracker and data collection form to support practices with their QAIF submissions. In addition, work has been undertaken locally to increase the provision of secondary care phlebotomy and better availability of blood bottles to catch up on routine monitoring.

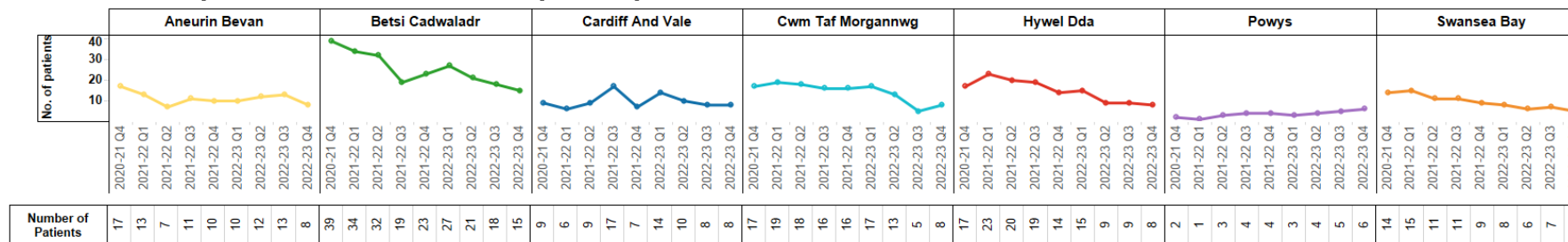
For further information on this initiative, please contact [awttc@wales.nhs.uk](mailto:awttc@wales.nhs.uk)

**Prescribing Safety Indicators related to bleeds**

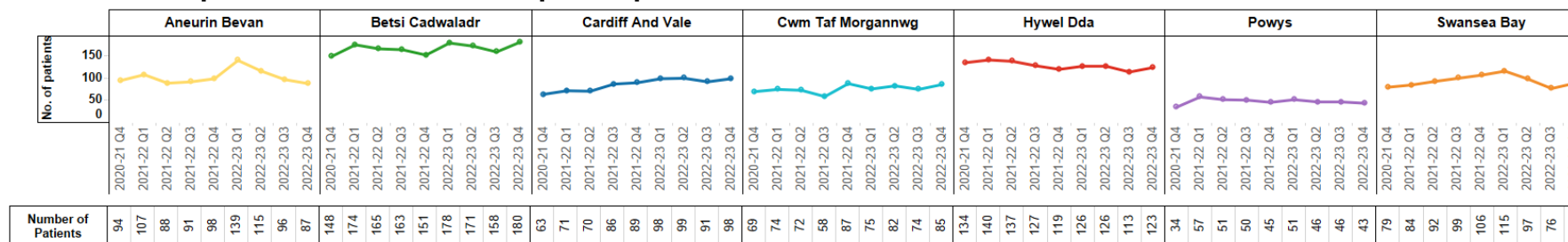
**05. Number of patients with a peptic ulcer who have been prescribed NSAIDs without a PPI.**



06. Number of patients with concurrent prescriptions of warfarin and an oral NSAID.



07. Number of patients with concurrent prescriptions for a DOAC and an oral NSAID.

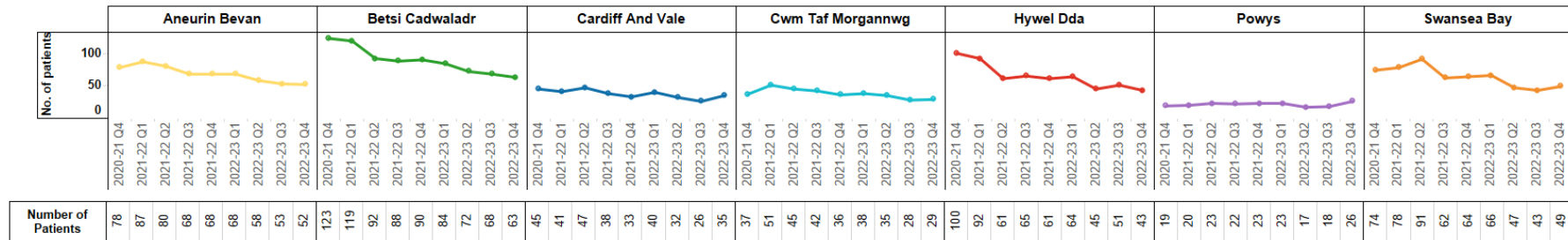


Good practice spotlight

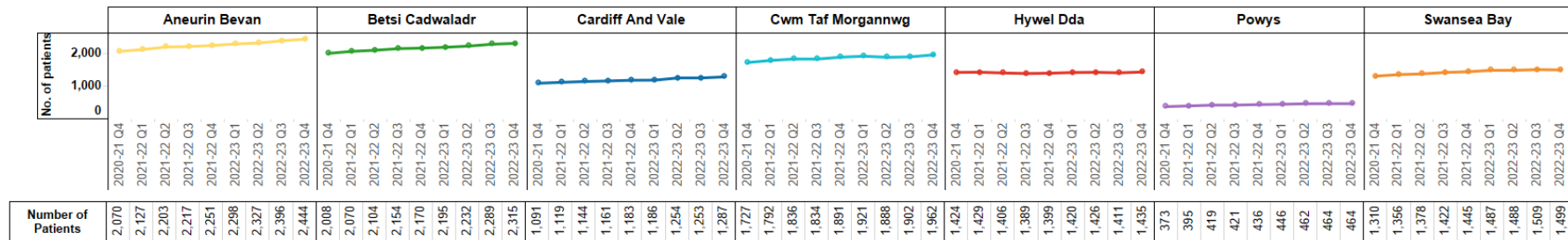
**Aneurin Bevan UHB** practice pharmacists have primarily undertaken the DOAC and anticoagulant reviews within the health board. Where patients on a DOAC and an oral NSAID are identified, the NSAID is stopped where appropriate.

For further information on this initiative, please contact [awttc@wales.nhs.uk](mailto:awttc@wales.nhs.uk)

**08. Number of patients aged 65 years or over prescribed an NSAID plus aspirin and/or clopidogrel but without gastroprotection (PPI or H<sub>2</sub> receptor antagonist).**

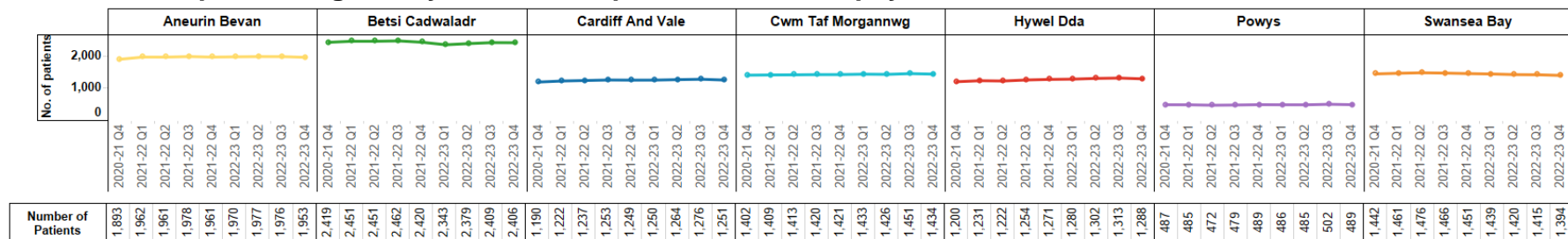


**09. Number of patients with concurrent prescriptions of an oral anticoagulant (warfarin or DOAC) and an SSRI.**

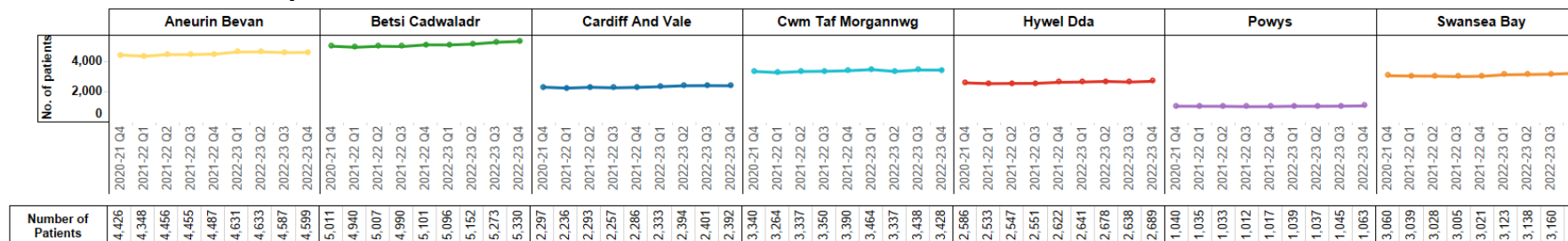


**Prescribing Safety Indicators related to cognition**

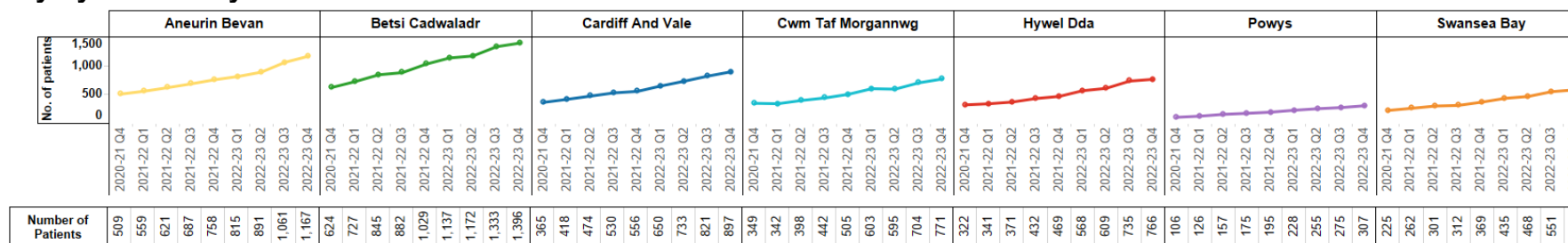
**10. Number of patients aged 65 years or over prescribed an antipsychotic.**



**11. Number of patients aged 75 years and over with an Anticholinergic Effect on Cognition (AEC) score of 3 or more for items on active repeat.**

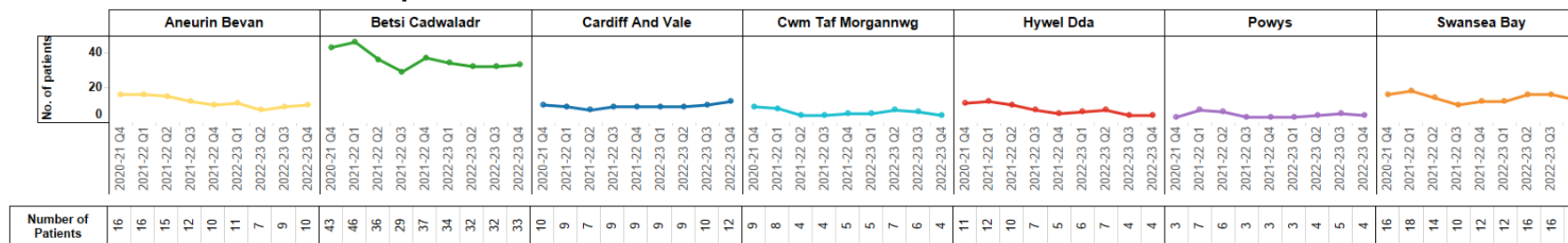


**12. Number of female patients with a current prescription of oestrogen-only hormone replacement therapy without any hysterectomy Read/SNOMED codes.**

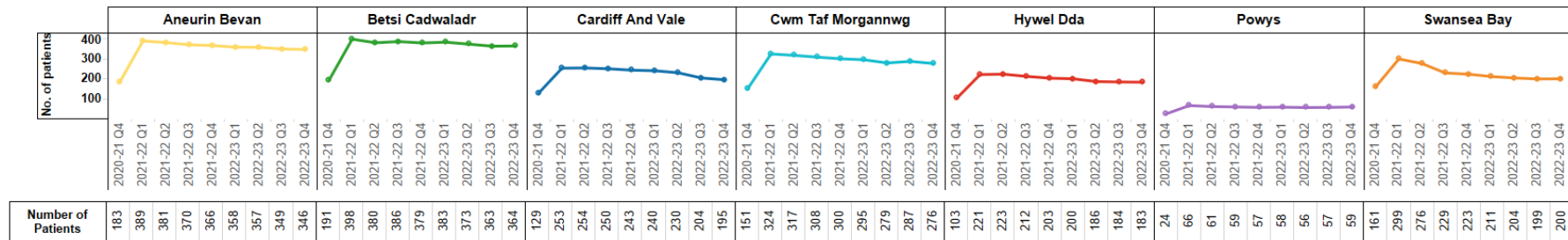


**Prescribing Safety Indicators specific to females**

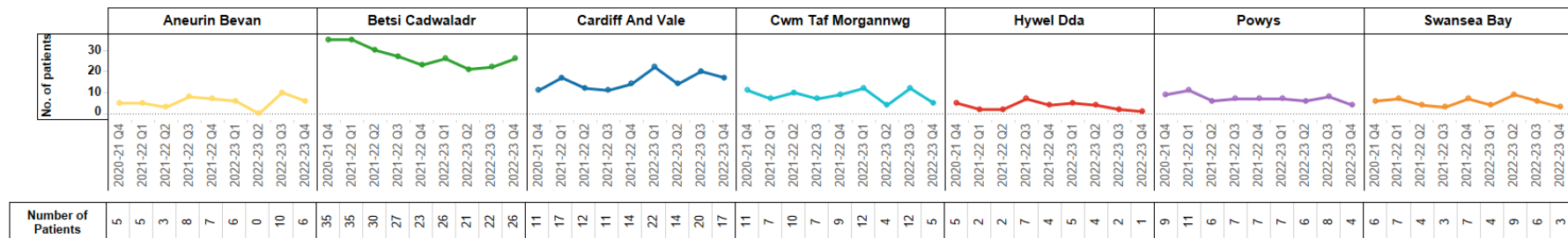
**13. Number of female patients with a past medical history of venous or arterial thrombosis who have been prescribed combined hormonal contraceptives.**



14. Number of female patients aged 14–55 years with a prescription for sodium valproate\*.

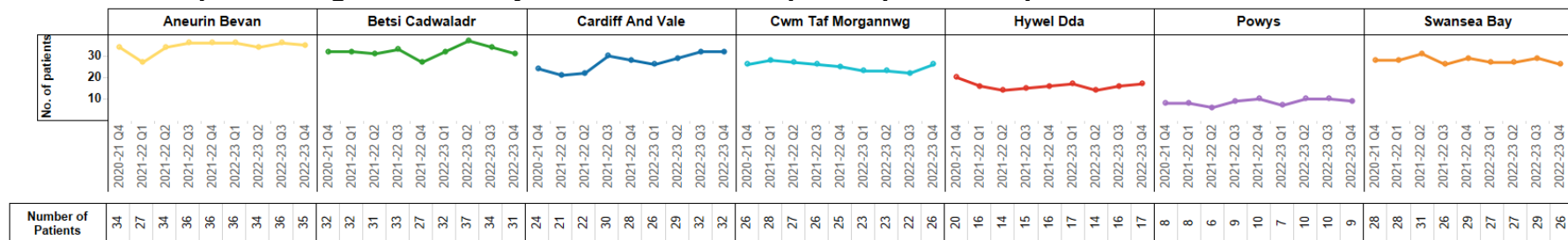


15. Number of female patients aged 14-55 years with a prescription for oral retinoids\*.



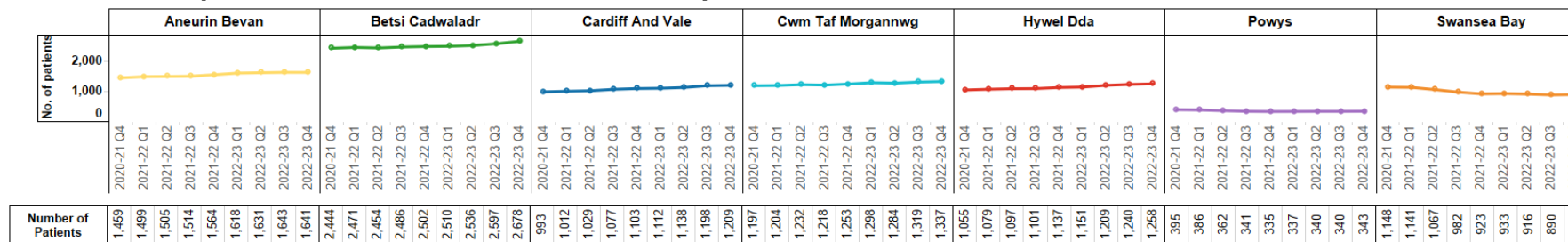
Prescribing Safety Indicators related to ‘other’

16. Number of patients aged under 16 years with a current prescription of aspirin.

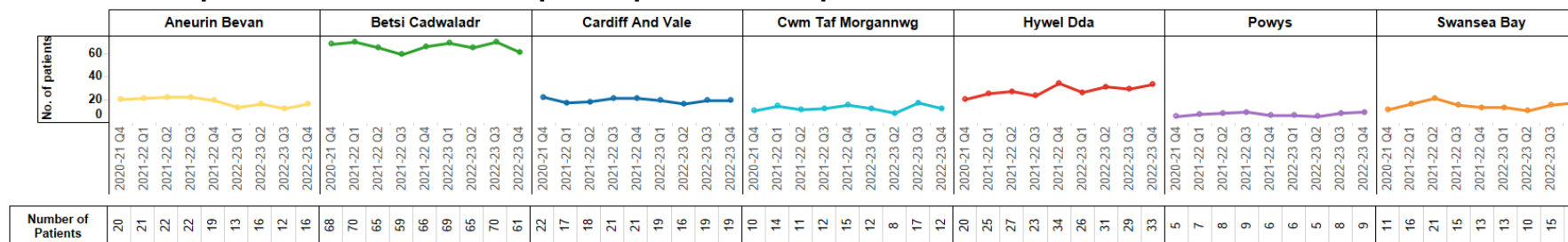


\* The search for this Prescribing Safety Indicator was amended from Q1 2021–2022 to include female patients aged 14–55 years. Data prior to Q1 2021–2022 includes female patients aged 14–45 years only.

17. Number of patients with asthma who have been prescribed a beta-blocker.



18. Number of patients with concurrent prescriptions of verapamil and a beta-blocker.





## 2.1.2 Hypnotics and anxiolytics

**Purpose:** To encourage a reduction in the inappropriate prescribing of hypnotics and anxiolytics in primary care.

**Unit of measure:** Hypnotic and anxiolytic UDG ADQs per 1,000 STAR-PUs.

**Aim:** To reduce prescribing

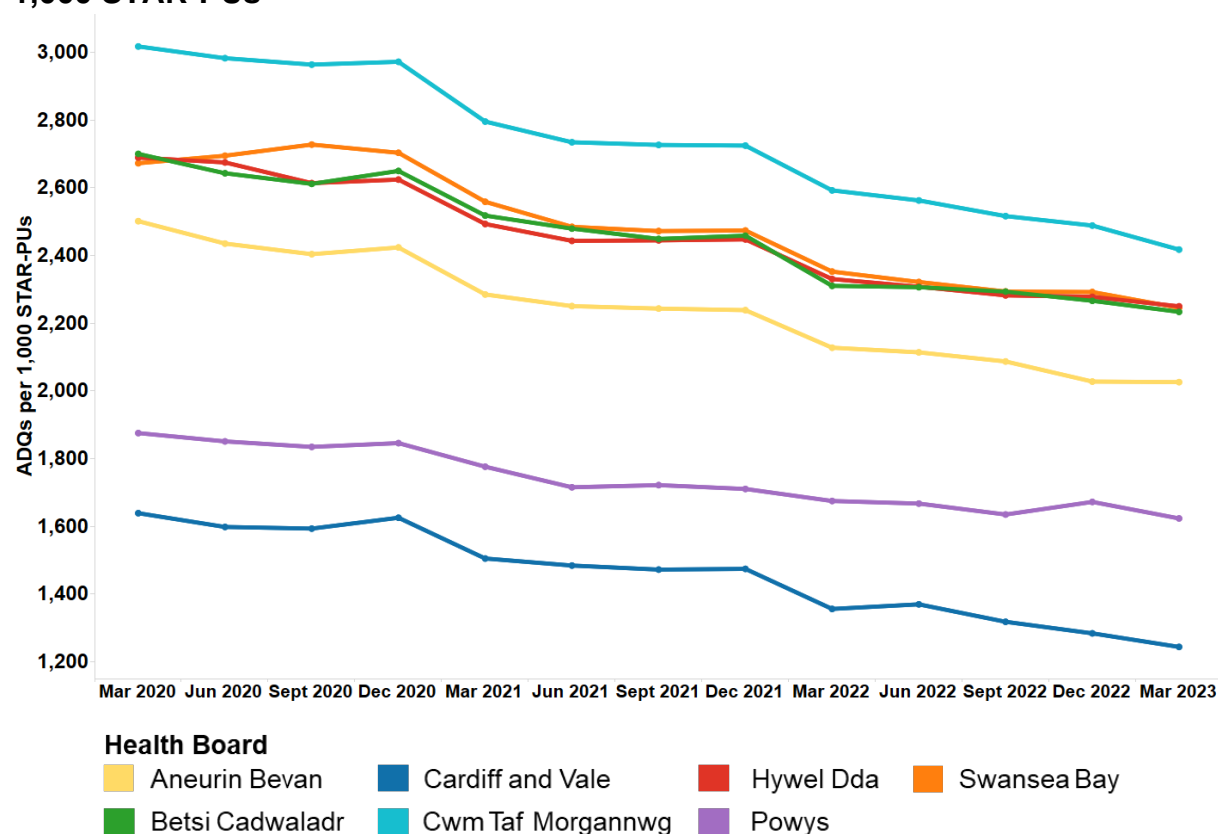
There has been concern with regard to the high level of hypnotic and anxiolytic prescribing in NHS Wales. Some prescribing may be inappropriate and contribute to the problem of physical and psychological dependence, and/or may be responsible for masking underlying depression.

- Across Wales, the prescribing of hypnotics and anxiolytics decreased by 4.78% for the quarter ending March 2023 compared with the equivalent quarter of the previous year, in line with the aim of this indicator.
- For the quarter ending March 2023, hypnotic and anxiolytic prescribing ranged from 1,244 to 2,417 ADQs per 1,000 STAR-PUs across the health boards.
- The health board with the lowest prescribing was Cardiff and Vale UHB, whilst the highest prescribing was seen in Cwm Taf Morgannwg UHB.
- Hypnotic and anxiolytic prescribing decreased, compared with the equivalent quarter of the previous year, in all of the health boards.
- The largest percentage decrease was seen in Cardiff and Vale UHB, and the smallest percentage decrease was seen in Powys Teaching HB.

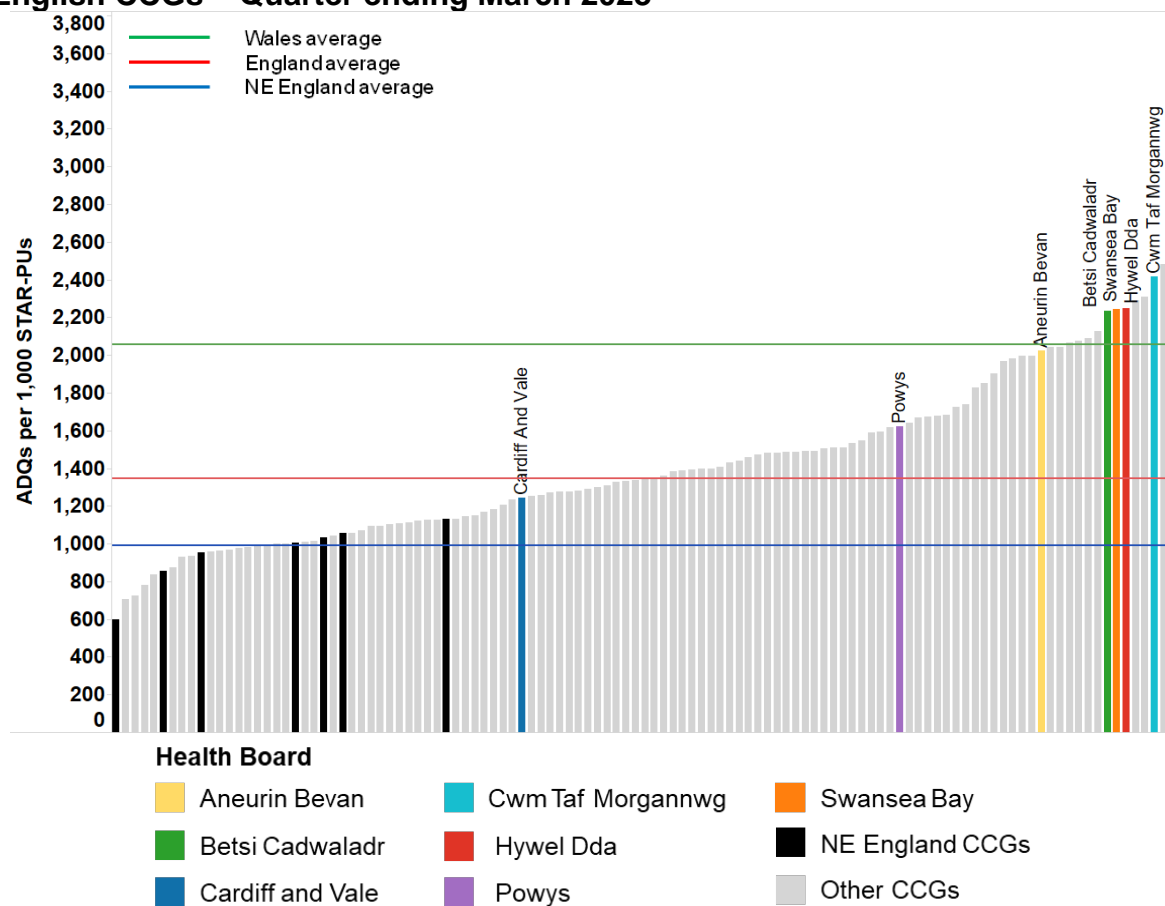
**Table 11. Hypnotic and anxiolytic ADQs per 1,000 STAR-PUs**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Cardiff And Vale	1,356	1,244	-8.28%
Cwm Taf Morgannwg	2,592	2,417	-6.74%
Aneurin Bevan	2,127	2,026	-4.78%
Swansea Bay	2,352	2,245	-4.54%
Hywel Dda	2,330	2,249	-3.46%
Betsi Cadwaladr	2,310	2,233	-3.32%
Powys	1,674	1,623	-3.08%
<b>Wales</b>	<b>2,159</b>	<b>2,056</b>	<b>-4.78%</b>

**Figure 19. Trend in hypnotic and anxiolytic prescribing ADQs per 1,000 STAR-PU**



**Figure 20. Hypnotic and anxiolytic prescribing in Welsh health boards and English CCGs – Quarter ending March 2023**





### 2.1.3 Yellow Cards

**Purpose:** To encourage an increase in the number of Yellow Cards submitted in Wales.

**Unit of measure:** Number of Yellow Cards submitted per GP practice, per hospital, per health board and by members of the public.  
Number of Yellow Cards submitted by community pharmacies, by health board.

**Aim:** To increase reporting

The Yellow Card Scheme is vital in helping the Medicines and Healthcare products Regulatory Agency (MHRA) monitor the safety of medicines and vaccines that are on the market.

Yellow Card reporting supports the identification and collation of ADRs, which might not have been known about before.

A strong safety culture requires good reporting of adverse events and critical incidents from across all professions and healthcare settings, as well as from patients.

Please note: From quarter 2 2022–2023, Yellow Card data now include reports related to COVID-19 vaccines.

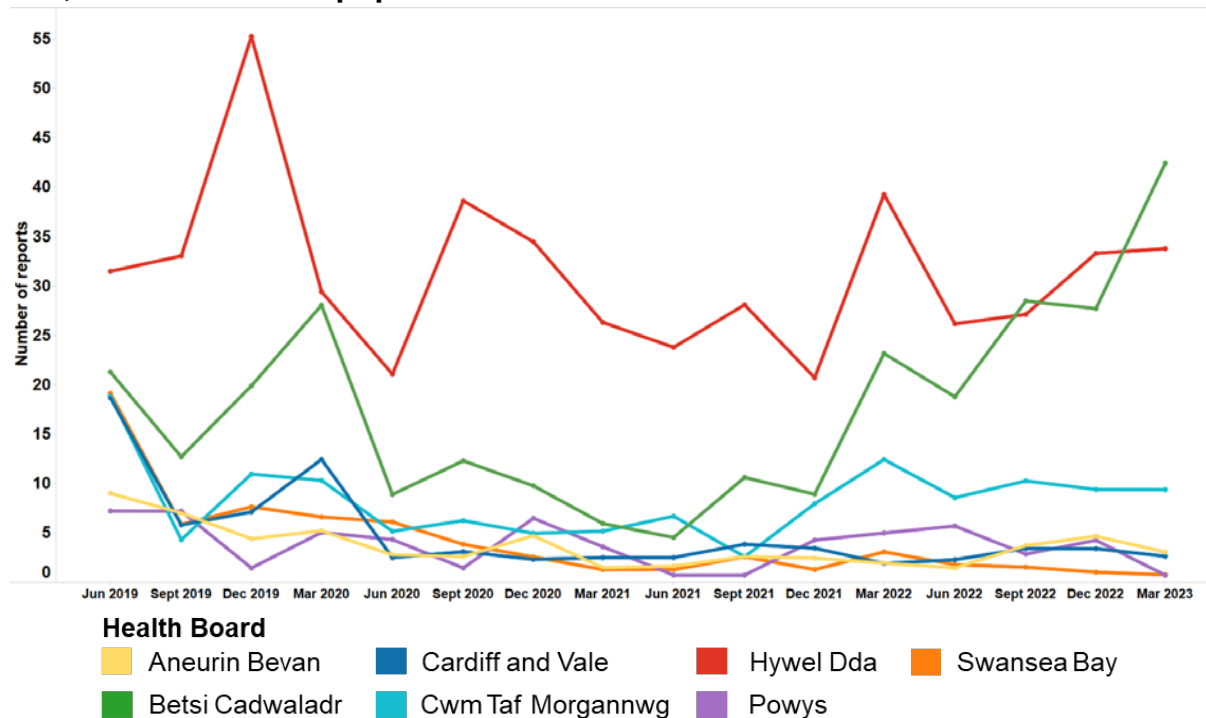
#### GP practices

- The number of Yellow Cards submitted by GP practices across Wales increased by 24% compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- The largest percentage increase in GP practice reporting was seen in Betsi Cadwaladr UHB. The largest percentage decrease was seen in Powys Teaching HB.

**Table 12. Number of Yellow Cards submitted by GP practices**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Betsi Cadwaladr	164	302	84%
Aneurin Bevan	12	19	58%
Cardiff And Vale	10	14	40%
Hywel Dda	156	135	-13%
Cwm Taf Morgannwg	58	44	-24%
Swansea Bay	12	3	-75%
Powys	7	1	-86%
<b>Wales</b>	<b>419</b>	<b>518</b>	<b>24%</b>

**Figure 21. Trend in number of Yellow Cards submitted by GP practices per 100,000 health board population**



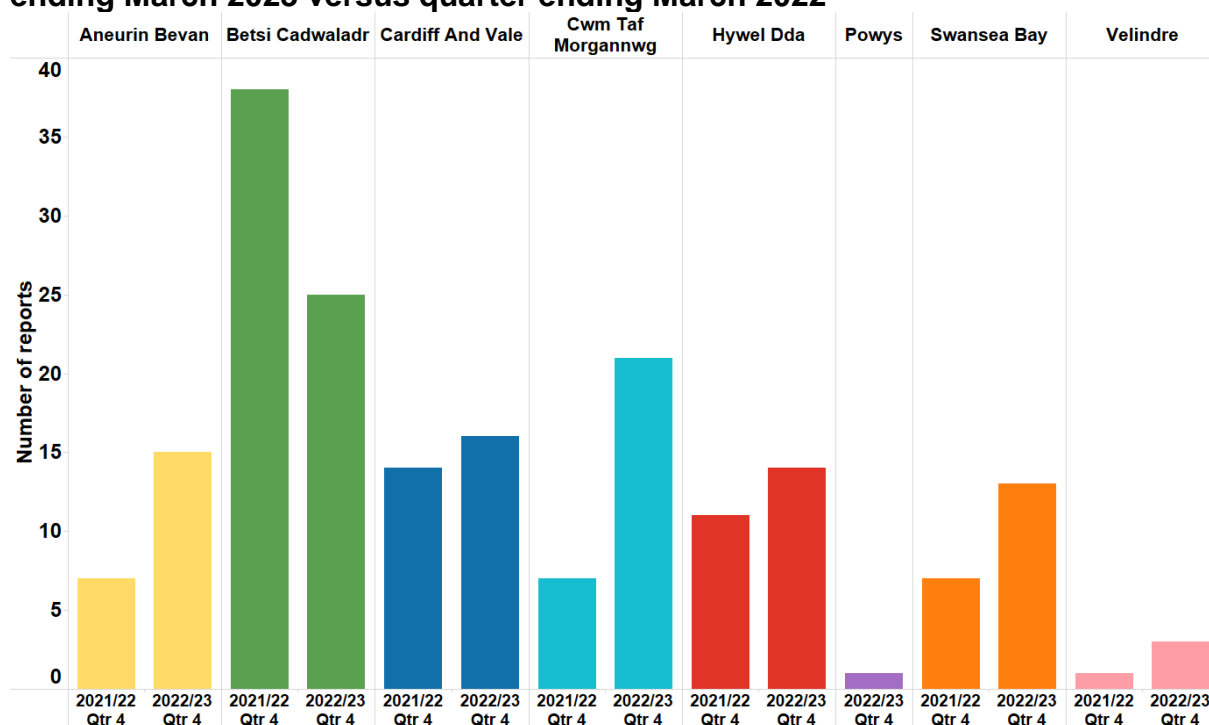
### Secondary care

- The number of Yellow Cards submitted by secondary care increased by 27% compared with the equivalent quarter of the previous year.
- The largest percentage increase in secondary care reporting was seen in Cwm Taf Morgannwg UHB and Velindre NHS Trust. The largest percentage decrease was seen in Betsi Cadwaladr UHB.

**Table 13. Number of Yellow Cards submitted by secondary care**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
<b>Cwm Taf Morgannwg</b>	7	21	200%
<b>Velindre</b>	1	3	200%
<b>Aneurin Bevan</b>	7	15	114%
<b>Powys</b>	0	1	100%
<b>Swansea Bay</b>	7	13	86%
<b>Hywel Dda</b>	11	14	27%
<b>Cardiff And Vale</b>	14	16	14%
<b>Betsi Cadwaladr</b>	38	25	-34%
<b>Wales</b>	<b>85</b>	<b>108</b>	<b>27%</b>

**Figure 22. Number of Yellow Cards submitted by secondary care – Quarter ending March 2023 versus quarter ending March 2022**



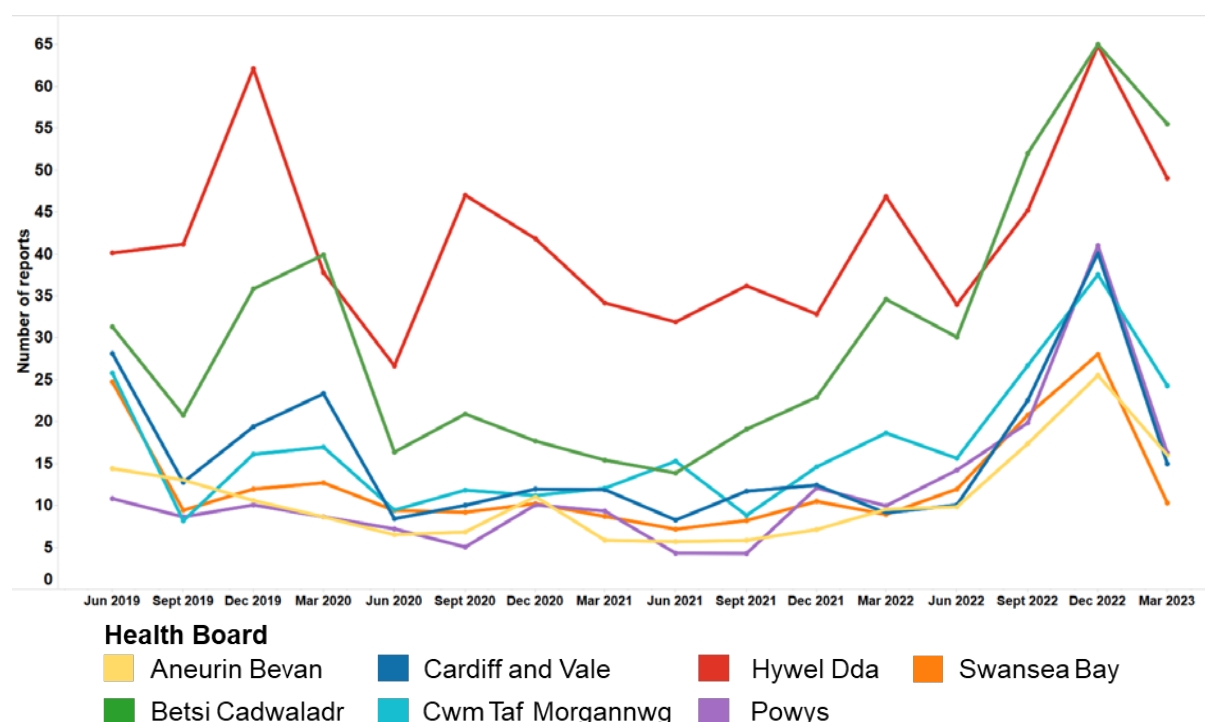
#### Health boards/NHS Trust

- The number of Yellow Cards submitted by health boards increased by 41% compared with the equivalent quarter of the previous year.
- The largest percentage increase was seen in Velindre NHS Trust.
- The smallest percentage increase was seen in Hywel Dda UHB.

**Table 14. Number of Yellow Cards submitted by health board/NHS Trust**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Velindre	1	3	200%
Aneurin Bevan	59	100	69%
Cardiff And Vale	48	80	67%
Powys	14	23	64%
Betsi Cadwaladr	245	395	61%
Cwm Taf Morgannwg	87	114	31%
Swansea Bay	35	41	17%
Hywel Dda	186	196	5%
<b>Wales</b>	<b>675</b>	<b>952</b>	<b>41%</b>

**Figure 23. Trend in number of Yellow Cards submitted by health boards per 100,000 health board population**



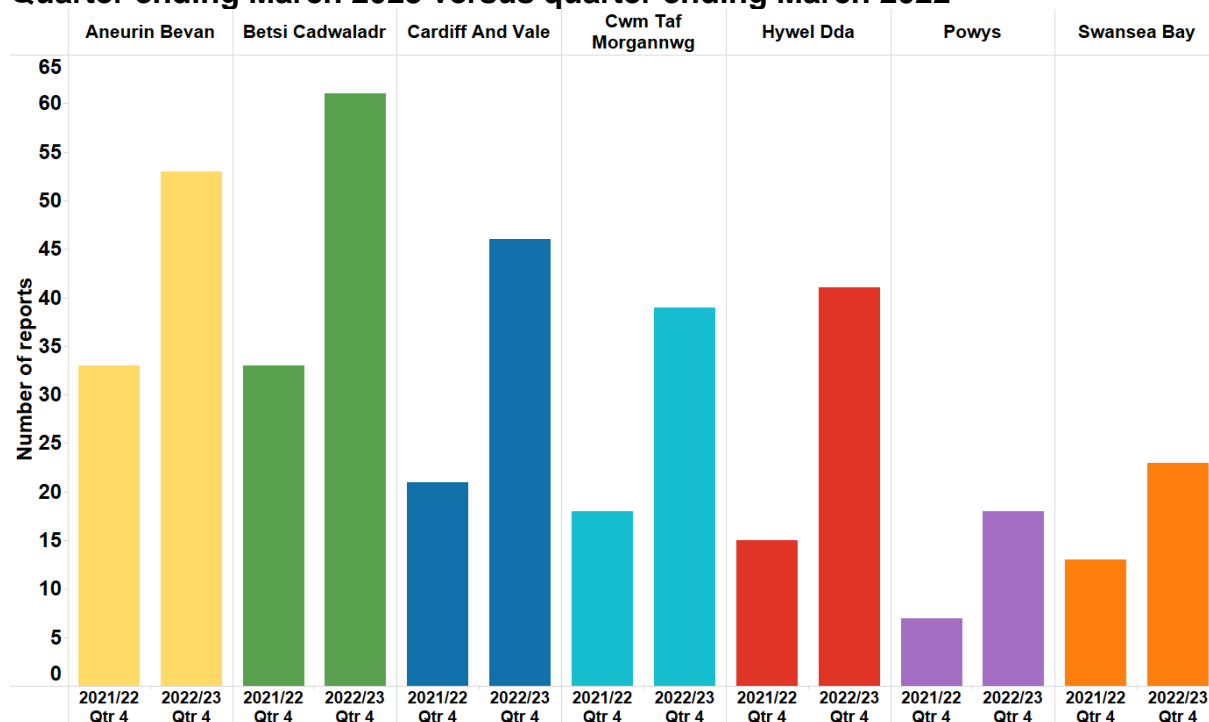
### Members of the public

- The number of Yellow Cards submitted by members of the public across Wales increased by 101% compared with the equivalent quarter of the previous year.
- The largest percentage increase in member of the public reporting was seen in Hywel Dda UHB.

**Table 15. Number of Yellow Cards submitted by members of the public**

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Hywel Dda	15	41	173%
Powys	7	18	157%
Cardiff And Vale	21	46	119%
Cwm Taf Morgannwg	18	39	117%
Betsi Cadwaladr	33	61	85%
Swansea Bay	13	23	77%
Aneurin Bevan	33	53	61%
<b>Wales</b>	<b>140</b>	<b>281</b>	<b>101%</b>

**Figure 24. Number of Yellow Cards submitted by members of the public – Quarter ending March 2023 versus quarter ending March 2022**



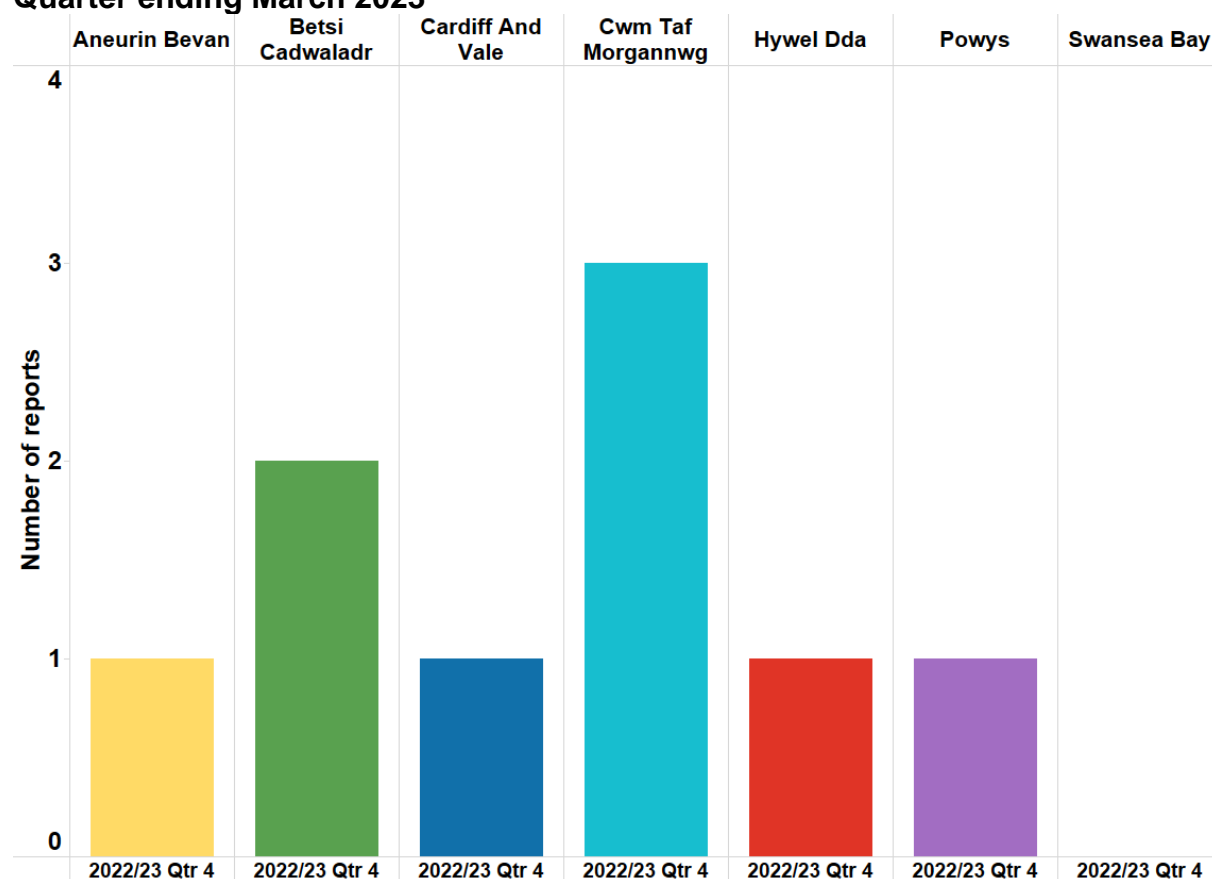
### Community pharmacy

- Across Wales, a total of 9 Yellow Card reports were submitted by community pharmacies during the quarter ending March 2023.
- The number of Yellow Card reports submitted by community pharmacies in health boards across Wales ranged from 0 to 3.

**Table 16. Number of Yellow Cards submitted by community pharmacies**

	2022–2023 Qtr 4
<b>Cwm Taf Morgannwg</b>	3
<b>Betsi Cadwaladr</b>	2
<b>Aneurin Bevan</b>	1
<b>Cardiff And Vale</b>	1
<b>Hywel Dda</b>	1
<b>Powys</b>	1
<b>Swansea Bay</b>	0
<b>Wales</b>	9

**Figure 25. Number of Yellow Cards submitted by community pharmacy – Quarter ending March 2023**



## 2.2 Efficiency indicators

### 2.2.1 Best value biological medicines

**Purpose:** To ensure prescribing of best value biological medicines supports cost-efficient prescribing in primary and secondary care in Wales.

**Unit of measure:** Quantity of best value biological medicines prescribed as a percentage of total 'biosimilar' plus 'reference' product.

**Aim:** Increase the appropriate use of cost-efficient biological medicines, including biosimilar medicines.

Biological medicines are those that are made or derived from a biological source and, as such, are complex, with inherent variability in their structure. A biosimilar medicine is a biological medicine that is developed to be highly similar and clinically equivalent to an existing biological medicine (i.e. 'reference' medicine or 'originator' medicine). Continuing development of biosimilar medicines offers an increased choice for patients and clinicians.

There is an increasing range of biosimilar products becoming available and therefore new products will be monitored and reported on in this section of the NPI report as they begin to be used within NHS Wales.

MHRA guidelines state that biological medicines, including biosimilar medicines, must be prescribed by brand name to prevent automatic substitution taking place without clinician and patient involvement, and to support ongoing pharmacovigilance of the individual products.

The data reported in this section focuses primarily on the biological medicines with the potential to bring the greatest additional value to NHS Wales; i.e. adalimumab and ranibizumab.

In the cases of infliximab, etanercept, rituximab and trastuzumab only data for the latest quarter is reported. This is because the proportional use of the best value biologic options for each has increased to the point that continued reporting of year-on-year percentage changes has become less valuable and potentially misleading.

Please note: Where relevant, data for the primary care usage of the biological medicines have been included within the overall figures.

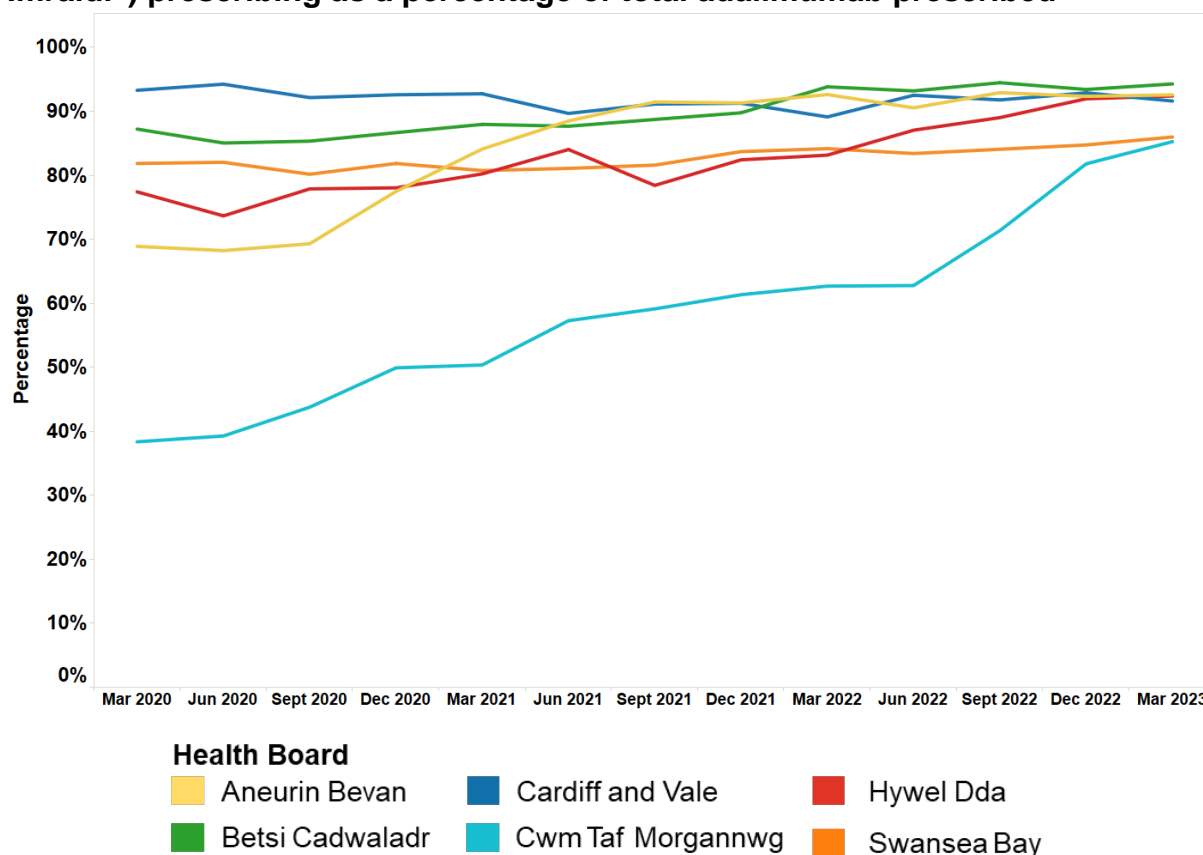
### 2.2.1.1 Adalimumab

- Across Wales, adalimumab biosimilar prescribing increased by 4.41%, for the quarter ending March 2023 compared with the equivalent quarter of the previous year. This is in line with the aim of this indicator.
- For the quarter ending March 2023, adalimumab biosimilar prescribing ranged from 85.2% to 94.3% across the health boards.
- The health board with the highest percentage was Betsi Cadwaladr UHB whilst the lowest percentage was seen in Cwm Taf Morgannwg UHB.
- Cwm Taf Morgannwg UHB demonstrated the largest percentage increase.
- Aneurin Bevan UHB demonstrated a percentage decrease in prescribing.

**Table 17. Adalimumab biosimilar as a percentage of reference and biosimilar prescribed**

	2021-2022 Qtr 4	2022-2023 Qtr 4	% Change
<b>Cwm Taf Morgannwg</b>	62.7%	85.2%	36.0%
<b>Hywel Dda</b>	83.1%	92.4%	11.1%
<b>Cardiff And Vale</b>	89.1%	91.6%	2.79%
<b>Swansea Bay</b>	84.2%	86.0%	2.16%
<b>Betsi Cadwaladr</b>	93.8%	94.3%	0.49%
<b>Aneurin Bevan</b>	92.6%	92.6%	-0.05%
<b>Wales</b>	<b>86.6%</b>	<b>90.4%</b>	<b>4.41%</b>

**Figure 26. Trend in adalimumab biosimilar (Amgevita®, Hulio®, Hyrimoz®, Imraldi®) prescribing as a percentage of total adalimumab prescribed**





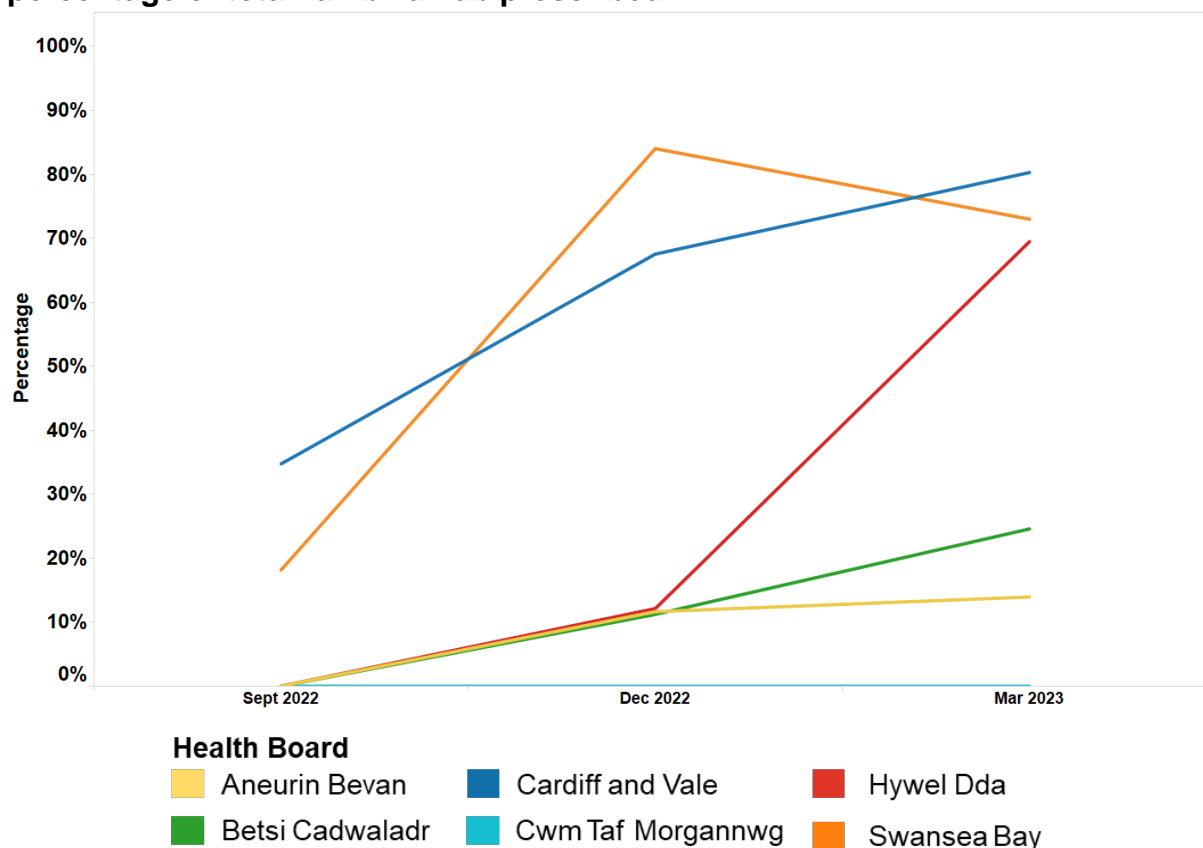
### 2.2.1.2 Ranibizumab

- Prior to the quarter ending September 2022, there was no ranibizumab biosimilar usage.
- For the quarter ending March 2023, ranibizumab biosimilar prescribing ranged from 0.00% to 80.3% across the health boards.
- The health board with the highest percentage of ranibizumab biosimilar usage was Cardiff And Vale UHB.
- Cwm Taf Morgannwg demonstrated no usage of ranibizumab biosimilar.

**Table 18. Ranibizumab biosimilar as a percentage of reference and biosimilar prescribed**

	2021-2022 Qtr 4	2022-2023 Qtr 4	% Change
Aneurin Bevan	N/A	13.9%	N/A
Betsi Cadwaladr	N/A	24.6%	N/A
Cardiff And Vale	N/A	80.3%	N/A
Cwm Taf Morgannwg	N/A	0.0%	N/A
Hywel Dda	N/A	69.5%	N/A
Swansea Bay	N/A	73.0%	N/A
Grand Total	N/A	40.4%	N/A

**Figure 27. Trend in ranibizumab biosimilar (Ongavia®) prescribing as a percentage of total ranibizumab prescribed**



### 2.2.1.3 Infliximab, etanercept, rituximab and trastuzumab

- In the cases of infliximab, etanercept, rituximab and trastuzumab, the proportional use of the best value biologic options for each has increased to the point that continued reporting of year-on-year percentage changes has become less valuable and potentially misleading. The data displayed here summarises the latest quarter's performance only.
- For more in-depth analysis and the option of carrying out year-on-year comparisons, all current and historical data can be analysed as part of the 'Biosimilars efficiencies' dashboard on the Server for Prescribing Information Reporting and Analysis (SPIRA): [spira.uk/info](https://spira.uk/info).

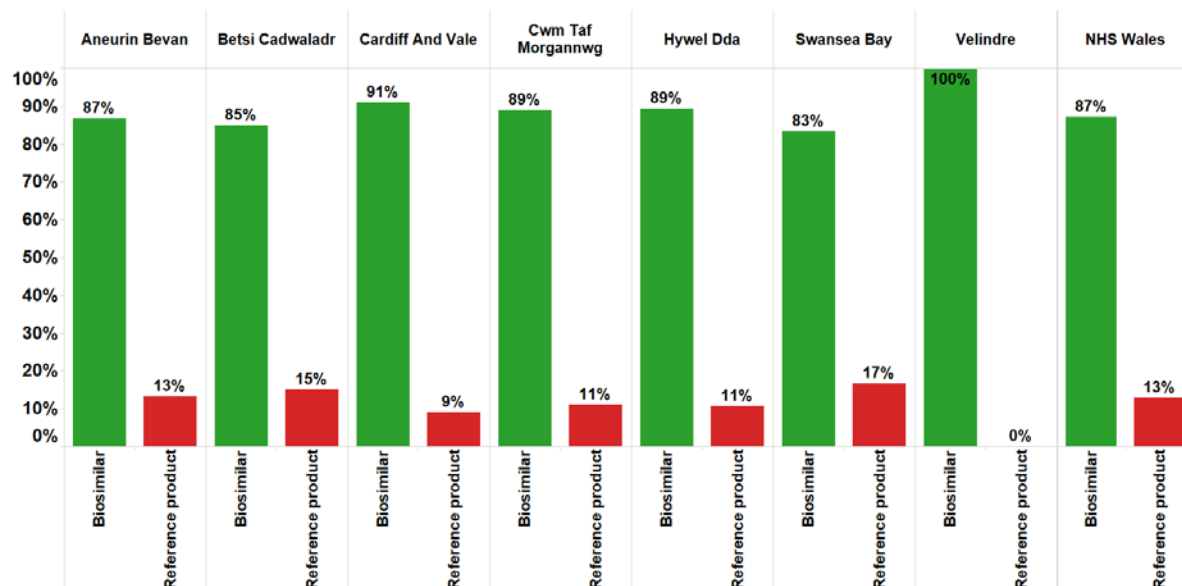
**Table 19. Infliximab, etanercept, rituximab and trastuzumab biosimilar as a percentage of reference and biosimilar prescribed**

	2022-2023 Qtr 4			
	Infliximab	Etanercept	Rituximab	Trastuzumab
Aneurin Bevan	97.6%	89.2%	100%	N/A
Betsi Cadwaladr	99.2%	95.3%	99.6%	96.7%
Cardiff And Vale	98.7%	84.5%	98.4%	N/A
Cwm Taf Morgannwg	97.4%	90.0%	97.9%	100%
Hywel Dda	99.1%	86.0%	96.2%	100%
Swansea Bay	94.3%	74.3%	99.6%	100%
Velindre	100%	N/A	100%	100%
<b>Wales</b>	<b>97.6%</b>	<b>85.6%</b>	<b>99.0%</b>	<b>98.1%</b>

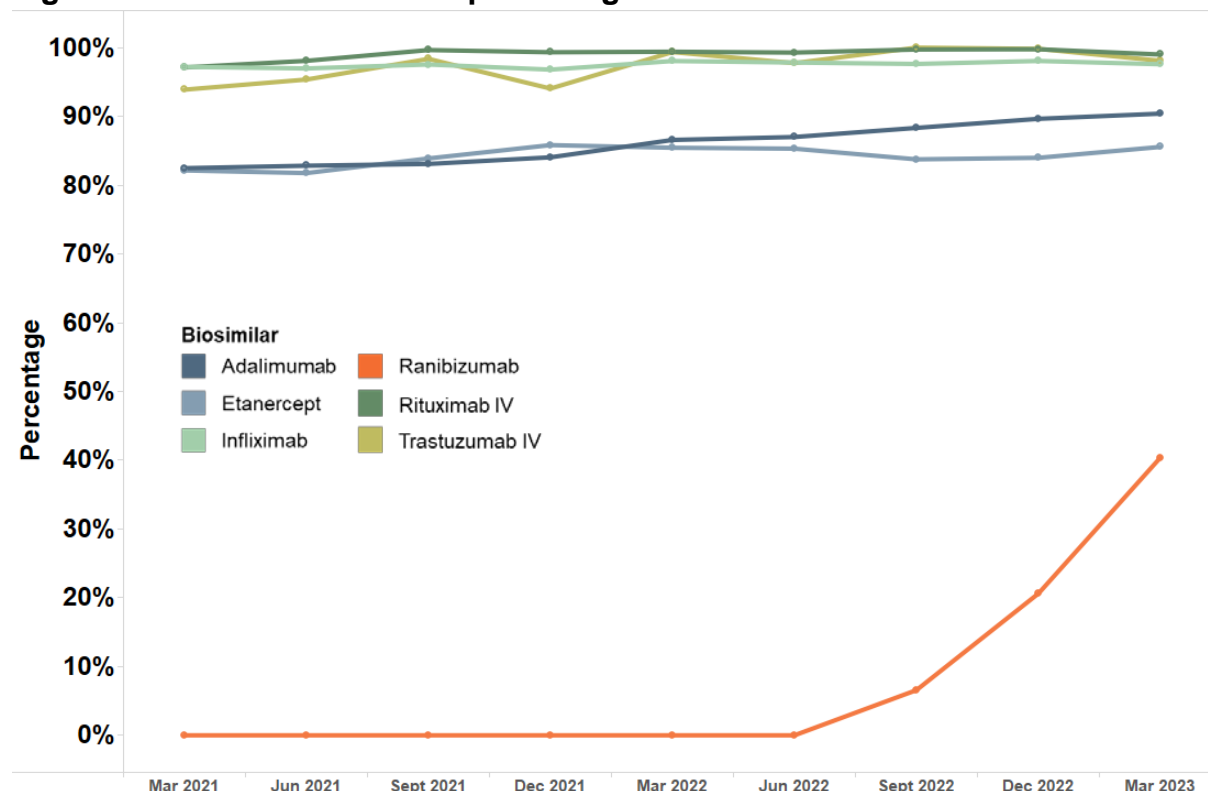
#### 2.2.1.4 Total biosimilar usage

Within Wales there was an increase in the use of the reported biosimilar medicines (specifically adalimumab, etanercept, infliximab, ranibizumab, rituximab and trastuzumab) combined as a percentage of reported 'reference' biological medicines plus biosimilars combined, from 82% to 87% for the quarter ending March 2023 compared with the equivalent quarter of the previous year.

**Figure 28. Biological reference and biosimilar as a proportion of total reference plus biosimilar prescribed – Quarter ending March 2023**



**Figure 29. Trend in biosimilar percentage in Wales**



## 2.2.2 Low value for prescribing

**Purpose:** To drive a reduction in the prescribing of items considered as not suitable for routine prescribing in Wales.

**Unit of measure:** Low value for prescribing UDG spend per 1,000 patients.

**Aim:** To reduce prescribing of items considered as not suitable for prescribing in Wales.

The aim of the *Low Value for Prescribing in NHS Wales* initiative is to minimise the prescribing of items that offer a limited clinical benefit to patients and where more cost-effective treatments may be available.

Five items/item groups were identified for the purposes of the first phase of this initiative:

- co-proxamol
- lidocaine plasters
- tadalafil once-daily preparations
- liothyronine
- doxazosin modified release tablets.

An additional four items/item groups were included in the second phase:

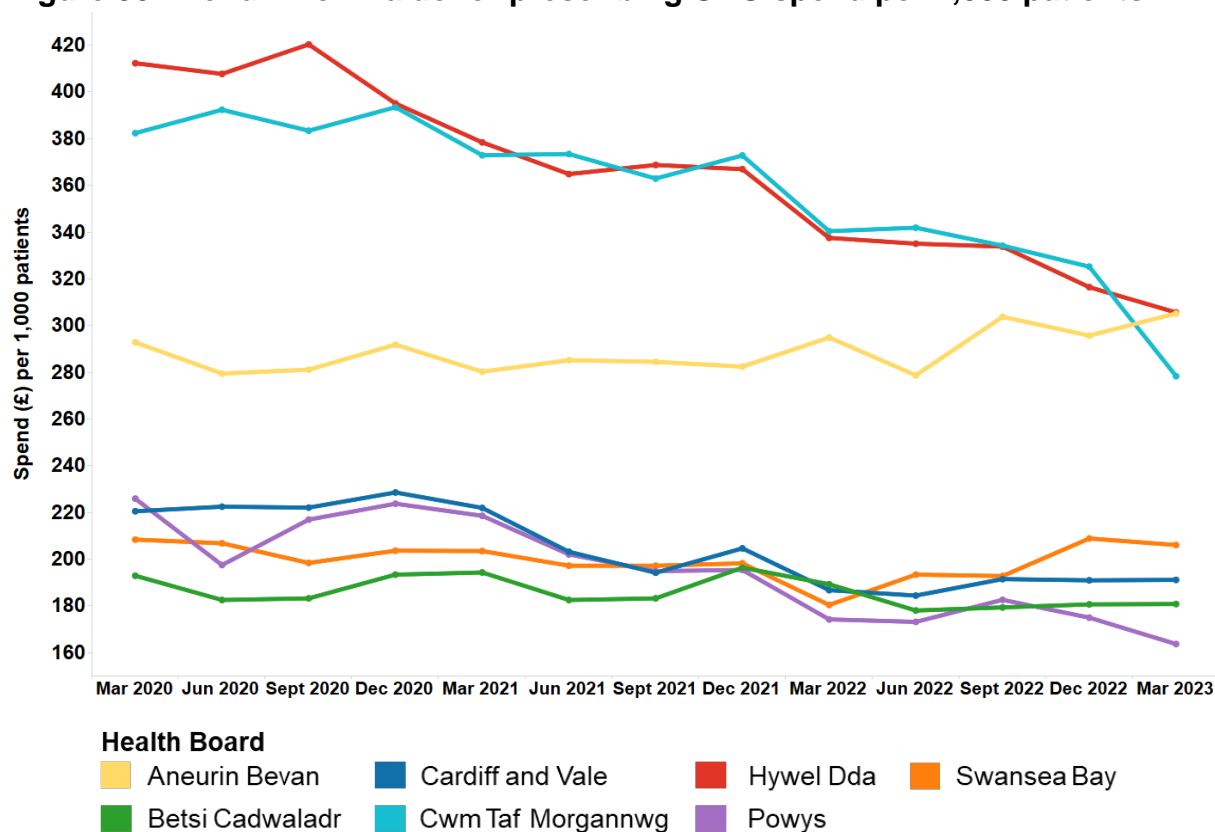
- omega-3 fatty acid compounds
- oxycodone and naloxone combination product
- paracetamol and tramadol combination product
- perindopril arginine.

- Across Wales, low value for prescribing UDG spend per 1,000 patients decreased by 3.80% for the quarter ending March 2023, compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2023, UDG spend per 1,000 patients ranged from £164 to £306 across the health boards.
- The health board with the lowest UDG spend per 1,000 patients was Powys Teaching HB, whilst the highest spend was seen in Hywel Dda UHB.
- UDG spend per 1,000 patients decreased compared with the equivalent quarter of the previous year in four of the seven health boards.
- The health board with the greatest percentage decrease was Cwm Taf Morgannwg UHB.
- Swansea Bay UHB demonstrated the largest percentage increase.

Table 20. Low value for prescribing UDG spend (£) per 1,000 patients

	2021–2022 Qtr 4	2022–2023 Qtr 4	% Change
Cwm Taf Morgannwg	340	278	-18.2%
Hywel Dda	337	306	-9.46%
Powys	174	164	-6.06%
Betsi Cadwaladr	189	181	-4.48%
Cardiff And Vale	187	191	2.35%
Aneurin Bevan	295	305	3.50%
Swansea Bay	180	206	14.2%
Wales	247	238	-3.80%

Figure 30. Trend in low value for prescribing UDG spend per 1,000 patients



### Caution with interpreting NPI monitoring data

Calculations for the percentage difference reported are based on raw data, and values may therefore vary slightly from those calculated from the data tables or graphs, where figures have been rounded up or down.

Data for the Prescribing Safety Indicators have been provided by Audit+, the GP software tool delivered and supported by Digital Health and Care Wales (DHCW).

The Medusa data warehouse is reliant on data input by individual hospital pharmacy departments. If the data on a medicine are inputted under an alternative name to the usual generic or brand name, it may not be identified at extraction.

Medusa records the issue of medicines within the secondary care setting in Wales. Where supplies are issued to named patients, it can be assumed that the difference between number of medicines issued and number administered to patients is not significant. However, when the supplies are issued to wards or clinics, these items are often held as stock and therefore may be administered to patients at a considerably later point in time. However, within this report they are only considered for analysis within the time period they were issued.

The report includes medicines supplied by homecare and recorded through the hospital system; medicines supplied through other homecare providers are not included in this report. Therefore, some medicines use data may currently be incomplete. This issue is being worked on within NHS Wales as a priority.

Medicines supplied through hospitals in England or on FP10HP (issued by hospital clinicians in NHS England) to patients' resident in Wales, which do not get issued via Medusa or recorded through CASPA, are not included in this report.

Combining data obtained from two different software systems provides challenges, particularly as CASPA and Medusa report data via different measurement criteria. Hence, in order to amalgamate data, total cost of medicine usage is reported for all indicators and, where relevant, other measures such as total quantity, items and number are also reported.

## Glossary

**ADQ** – The average daily quantity (ADQ) is a measure of prescribing volume based upon prescribing behaviour in England. It represents the assumed average maintenance dose per day for a medicine used for its main indication in adults. The ADQ is not a recommended dose but an analytical unit to compare prescribing activity.

**DDD** – The defined daily dose (DDD), developed by the World Health Organization, is a unit of measurement whereby each medicine is assigned a value within its recognised dosage range. The value is the assumed average maintenance dose per day for a medicine when used for its main indication in adults. A medicine can have different DDIs depending on the route of administration.

**QAIF** – Quality assurance and improvement framework. QAIF was introduced as part of the General Medical Services (GMS) contract reform in 2019, it replaced the Quality and Outcome Framework (QOF), which was originally introduced as part of the new GMS contract in 2004.

**PU** – Prescribing units (PUs) were adopted to take account of the greater need of elderly patients for medication in reporting prescribing performance at both the practice and primary care organisational level.

**Prescribing** – Although the term ‘prescribing’ is used in this report, the data presented within the primary care section represent prescriptions that have been dispensed and forwarded for pricing. It is assumed that the difference between the number of prescriptions issued and those dispensed is not significant, and that dispensing provides an accurate representation of prescribing. In relation to the secondary care data presented within this report please see information above.

**STAR-PU** – Specific therapeutic group age-sex related prescribing units (STAR-PUs) are designed to measure prescribing weighted for age and sex of patients. There are differences in the age and sex of patients for whom medicines in specific therapeutic groups are usually prescribed. To make such comparisons, STAR-PUs have been developed based on costs of prescribing of items within therapeutic groups.

**UDG** – A user defined group is a specific basket of items developed to monitor a particular NPI.

## Appendix 1. AWMSG National Prescribing Indicators 2022–2023

Table 1 Priority area NPIs for 2022–2023

National Prescribing Indicator	Applicable to:	Unit of measure	Target for 2022–2023	Data source
<b>Priority areas</b>				
<b>Analgesics</b>	Primary care	Opioid burden user defined group (UDG) ADQs per 1,000 patients High strength opioids (UDG) ADQs per 1,000 patients.	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below.	NWSSP
		Tramadol DDDs per 1,000 patients	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below.	NWSSP
		Gabapentin and pregabalin DDDs per 1,000 patients	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below.	NWSSP
<b>Anticoagulants in atrial fibrillation</b>	Primary care	The number of patients with AF and a CHA <sub>2</sub> DS <sub>2</sub> -VAS <sub>C</sub> score of 2 or more who are currently prescribed an anticoagulant, as a percentage of all patients with AF.	To increase the number of patients with AF and a CHA <sub>2</sub> DS <sub>2</sub> -VAS <sub>C</sub> score of 2 or more prescribed an anticoagulant.	DHCW
		The number of patients diagnosed with AF who are prescribed an anticoagulant and have received an anticoagulant review within the last 12 months, as a percentage of all patients diagnosed with AF who are prescribed an anticoagulant.	To increase the number of patients who are prescribed an anticoagulant and have received an anticoagulant review within the last 12 months.	
		The number of patients diagnosed with AF who are prescribed antiplatelet monotherapy, as a percentage of all patients diagnosed with AF.	To reduce the number of patients with AF prescribed antiplatelet monotherapy.	



<b>National Prescribing Indicator</b>	<b>Applicable to:</b>	<b>Unit of measure</b>	<b>Target for 2022–2023</b>	<b>Data source</b>
<b>Antimicrobial stewardship</b>	Primary care	Total antibacterial items per 1,000 STAR-PUs	Health board target: a quarterly reduction of 5% against a baseline of April 2019–March 2020. GP Practice target: Maintain performance levels within the lower quartile, or show a reduction towards the quartile below.	NWSSP
		Number of 4C antimicrobial (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients	Health board target: A quarterly reduction of 10% against a baseline of April 2019–March 2020. GP Practice target: Maintain performance levels within the lower quartile, or show a reduction towards the quartile below.	NWSSP
<b>Decarbonisation of inhalers</b>	Primary care	The number of dry powder inhalers (DPI) and soft mist inhalers (SMI) as a percentage of all inhalers prescribed.	Maintain performance levels within the upper quartile, or show an increase towards the quartile above.	NWSSP
<b>Supporting Domain: Safety</b>				
<b>Prescribing Safety Indicators</b>	Primary care	Number of patients identified	No target set	DHCW
<b>Hypnotics and anxiolytics</b>	Primary care	Hypnotic and anxiolytic UDG ADQs per 1,000 STAR-PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below	NWSSP

National Prescribing Indicator	Applicable to:	Unit of measure	Target for 2022–2023	Data source
Yellow Cards	Primary care	Number of Yellow Cards submitted	One Yellow Card per 2,000 GP practice population	MHRA
	Health board		One Yellow Card per 2,000 health board population	
			10% or greater increase from baseline (2021–2022) for Yellow Cards submitted by secondary care	
			25% or greater increase from baseline (2021–2022) for Yellow Cards submitted by members of the public	
Community pharmacy	No target set. Reported as the number of Yellow Cards submitted by health board			
Supporting Domain: Efficiency				
Best value biological medicines	Primary + secondary care	Quantity of best value biological medicines prescribed as a percentage of total ‘biosimilar’ plus ‘reference’ product.	Increase the appropriate use of cost-efficient biological medicines, including biosimilar medicines	NWSSP DHCW
Low value for prescribing	Primary care	Low value for prescribing UDG spend per 1,000 patients	Maintain performance levels within the lower quartile or show a reduction towards the quartile below	NWSSP

## Appendix 2. Primary care NPI prescribing by GP cluster

Figure 1. Opioid burden prescribing – Quarter ending March 2023 versus quarter ending March 2022

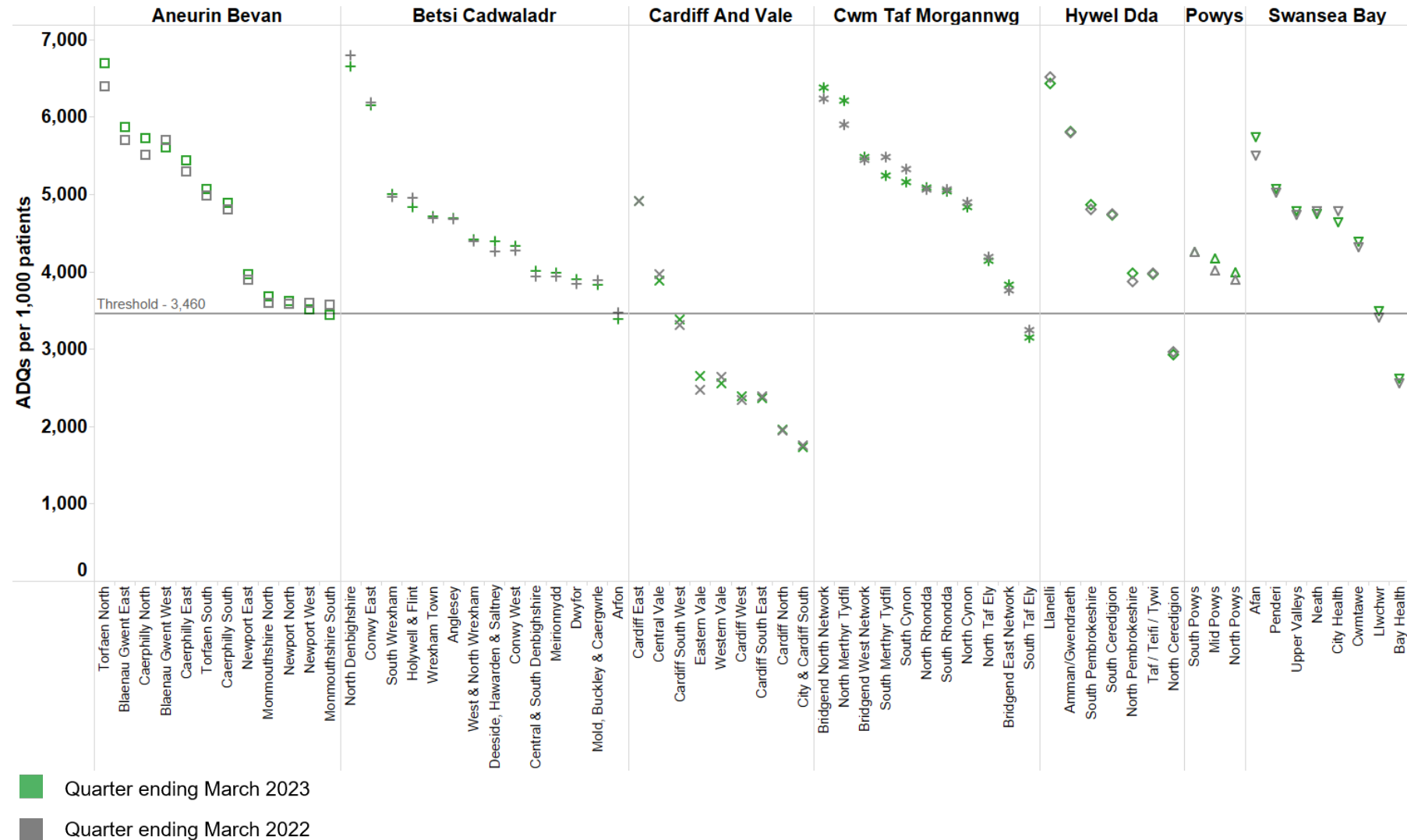


Figure 2. High strength opioid prescribing – Quarter ending March 2023 versus quarter ending March 2022

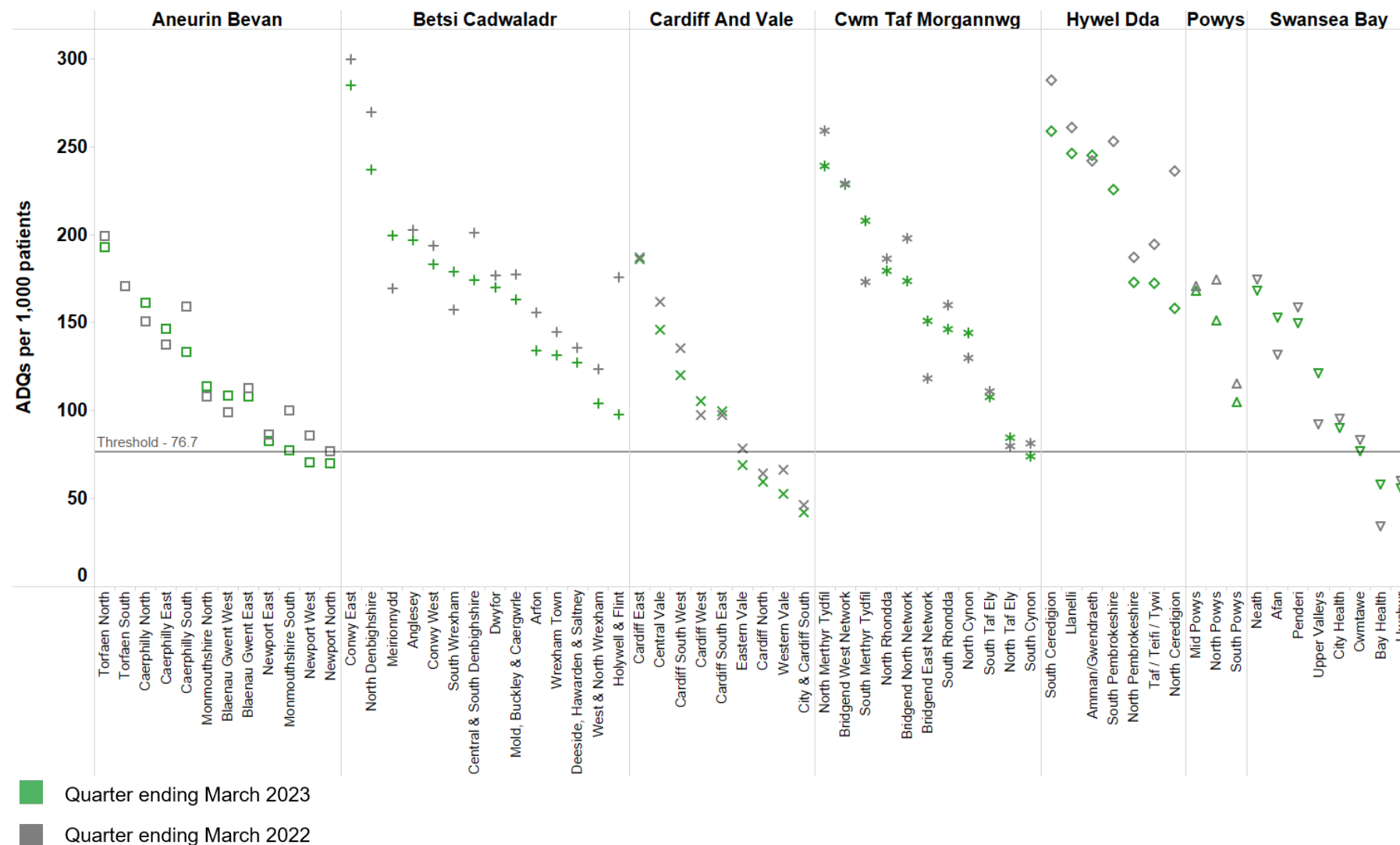


Figure 3. Tramadol prescribing – Quarter ending March 2023 versus quarter ending March 2022

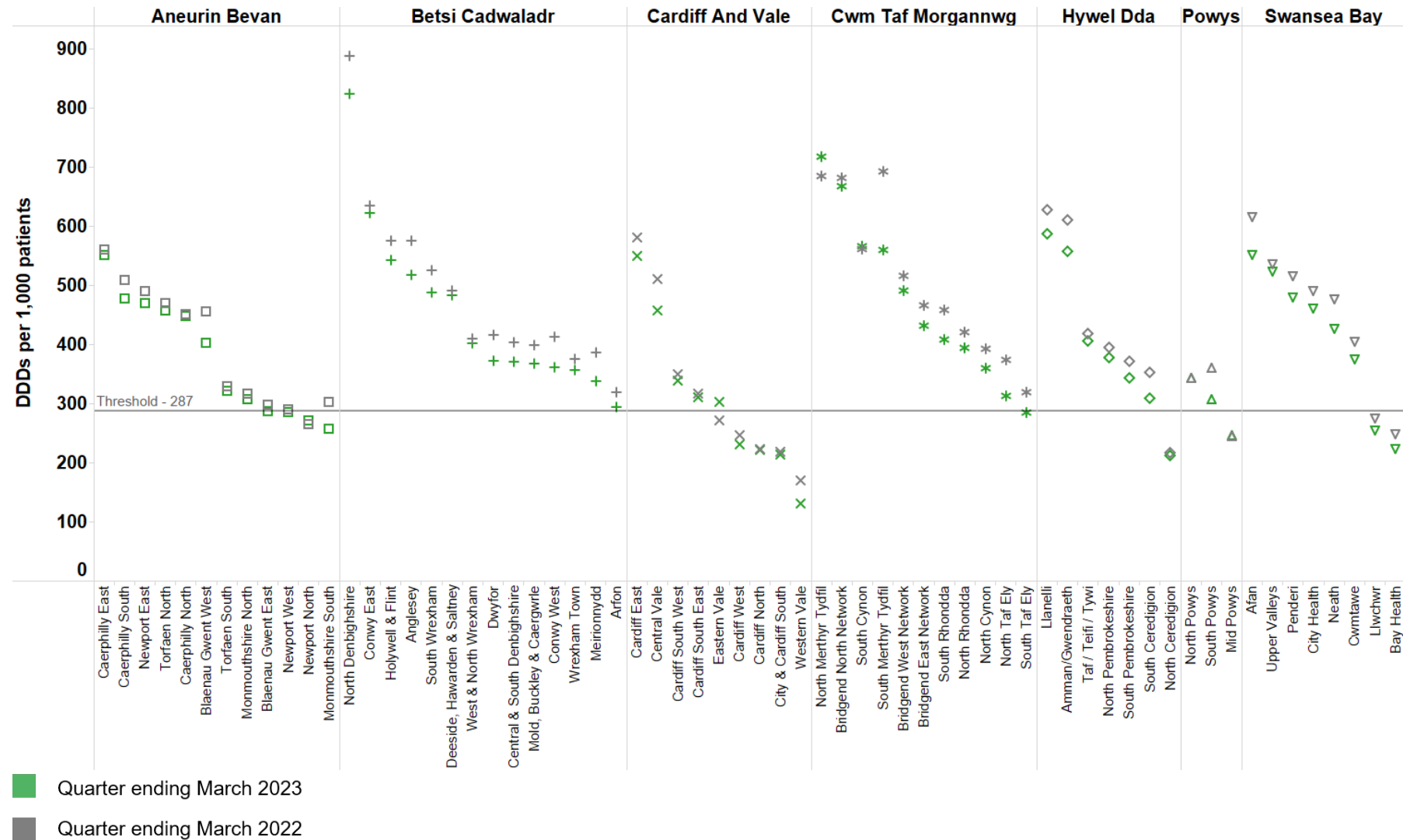


Figure 4. Gabapentin and pregabalin prescribing – Quarter ending March 2023 versus quarter ending March 2022

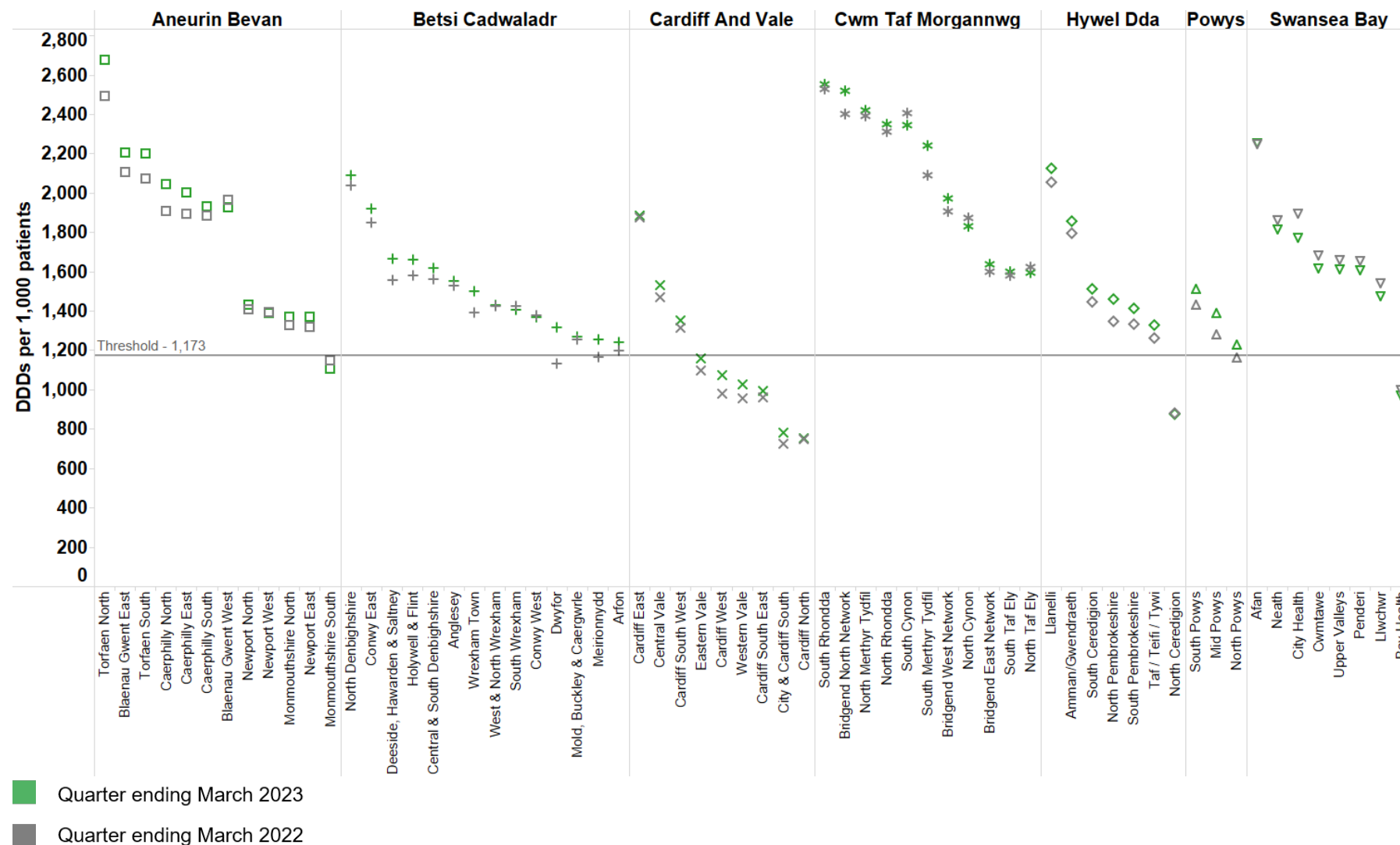


Figure 5. Antimicrobial prescribing – Quarter ending March 2023 versus quarter ending March 2022

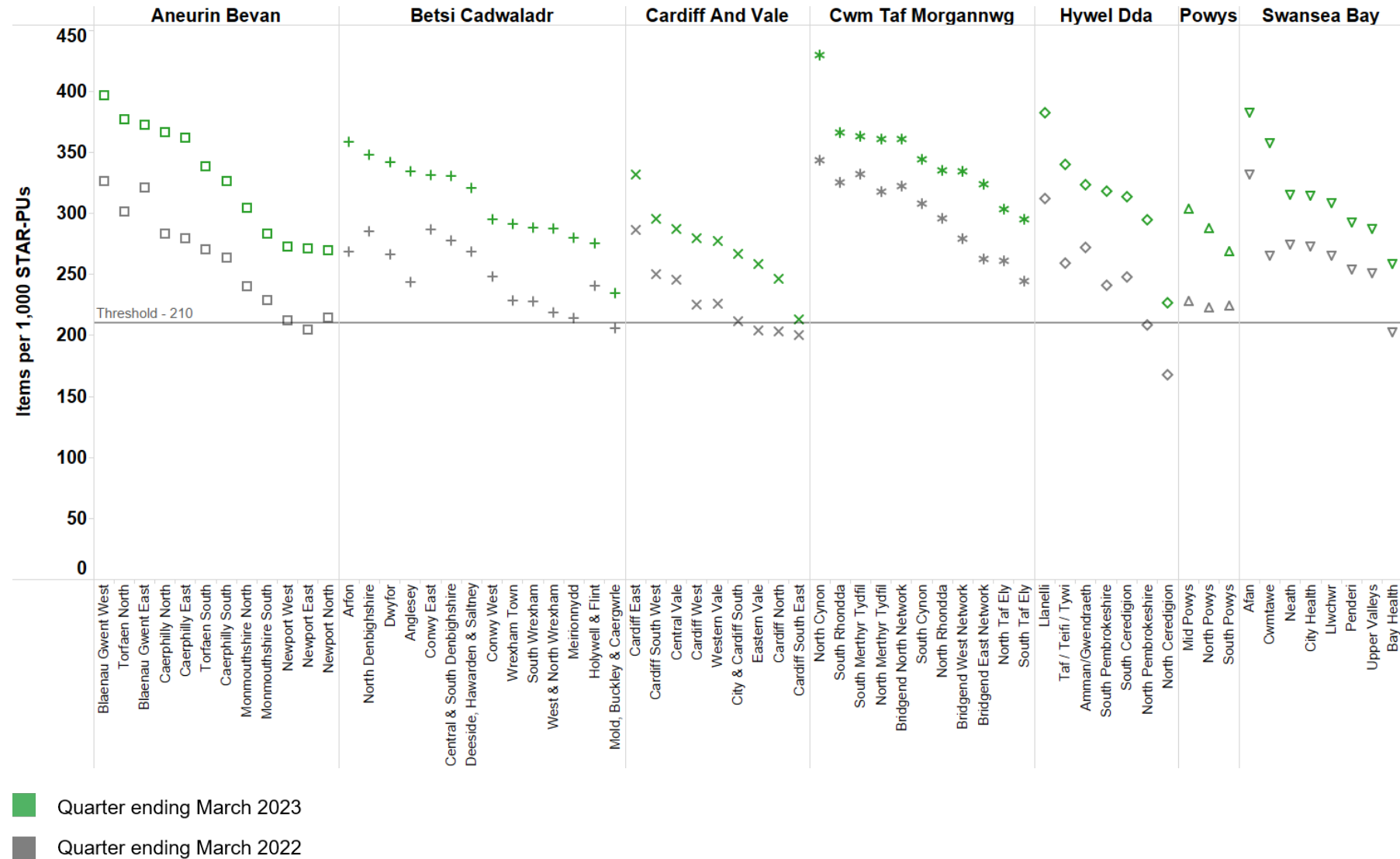


Figure 6. 4C prescribing – Quarter ending March 2023 versus quarter ending March 2022

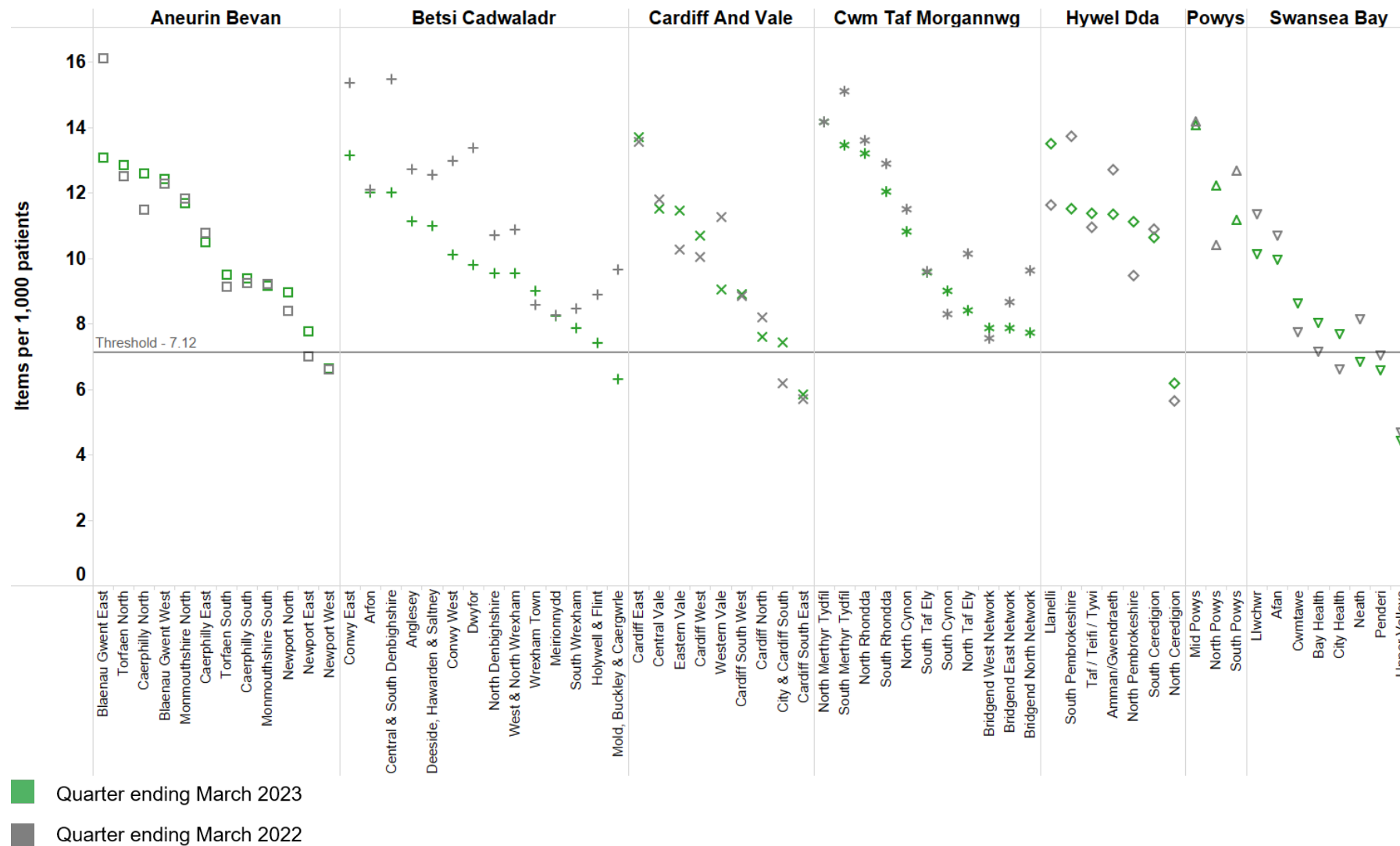




Figure 7. Decarbonisation of inhalers – Quarter ending March 2023 versus quarter ending March 2022

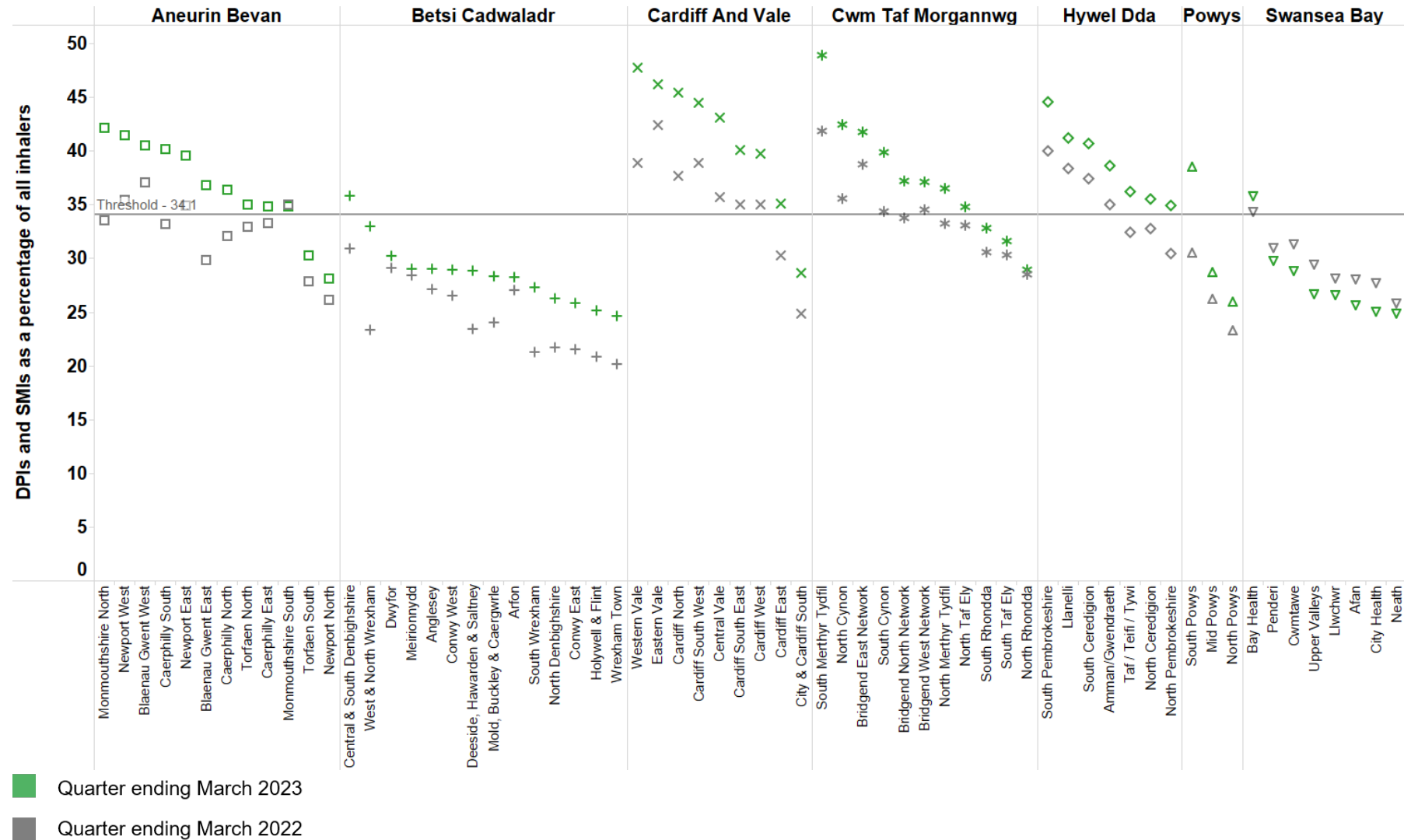


Figure 8. Hypnotic and anxiolytic prescribing – Quarter ending March 2023 versus quarter ending March 2022

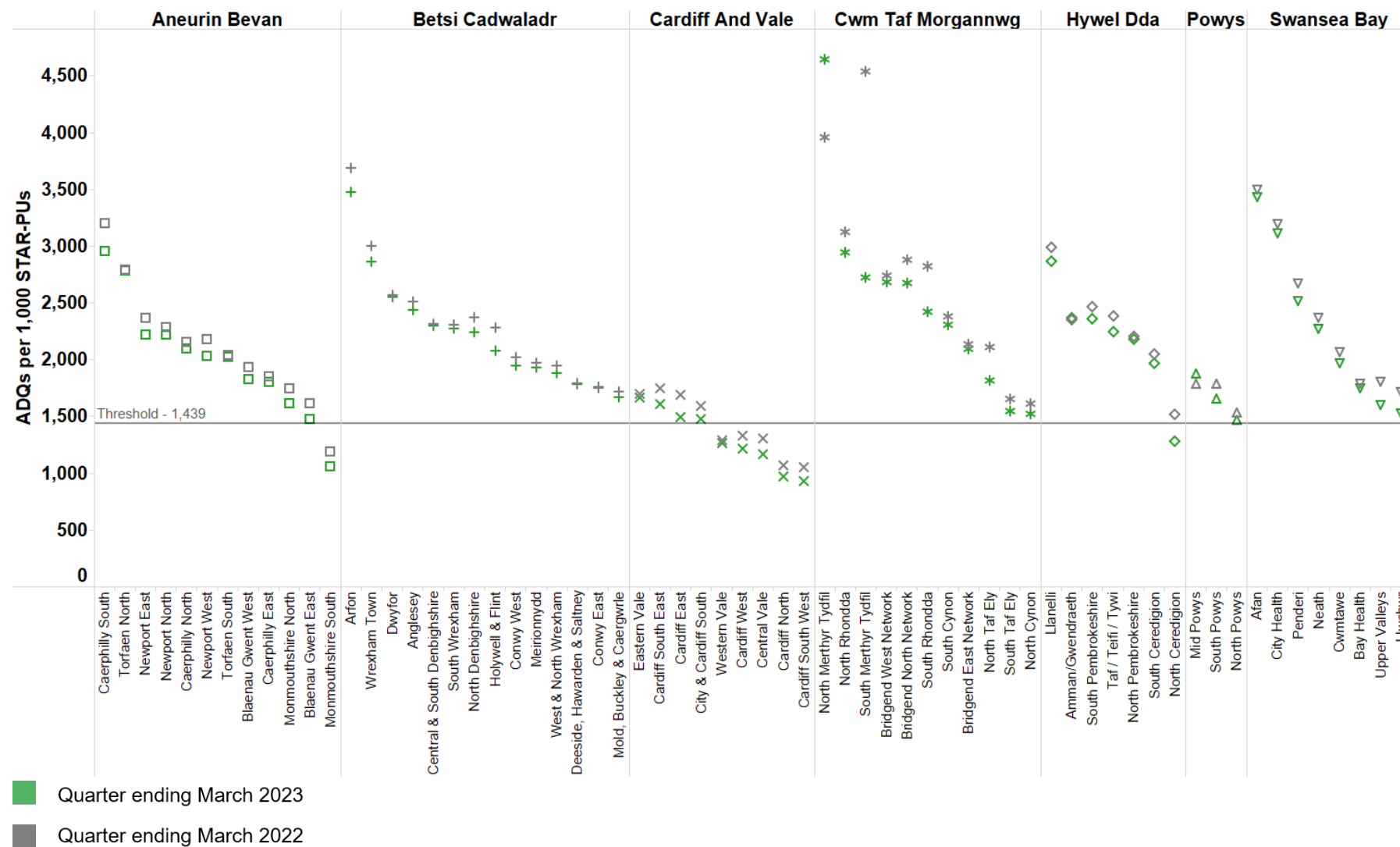


Figure 9. Low value for prescribing UDG spend (£) per 1,000 patients – March 2023 versus quarter ending March 2022

