



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

# National Prescribing Indicators 2022–2023

Analysis of Prescribing Data to December 2022



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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 third 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) decreased by 2.30% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
- High strength opioid prescribing (ADQs per 1,000 patients) decreased by 12.8% 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 8.88% 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 a decrease of 0.64% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.

### 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 3.29% 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 6.62% in the month of December 2022, 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 12.6% in the month of December 2022, 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-PU's increased across Wales by 14.7% compared with the quarter ending December 2019, despite the aim of the indicator being to reduce prescribing, however the higher rate of Group A *Streptococcus* infections seen during the quarter is likely to have had an impact on this.
- 4C (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients decreased across Wales by 12.5%, compared with the baseline of quarter 3 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 7.99% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.

## **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.
- A Good Practice Spotlight (p28) from Swansea Bay UHB highlights a multidisciplinary team approach to reviewing patients with dementia, living in care homes, who are prescribed antipsychotics.

### **Hypnotics and anxiolytics**

- Prescribing of hypnotics and anxiolytics (ADQs per 1,000 STAR-PU's) in primary care reduced by 8.33% 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 3 data demonstrates:
  - A 91% increase in reporting by GP practices across Wales, compared with the equivalent quarter of the previous year.
  - A 38% increase in secondary care reporting across Wales, compared with the equivalent quarter of the previous year.
  - A 167% increase in reporting by health boards / NHS Trusts across Wales, compared with the equivalent quarter of the previous year.
  - A 377% 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.
- A Good Practice Spotlight from Betsi Cadwaladr UHB (p35) highlights how GP practices within the health board are being encouraged to report ADRs via the Yellow Card scheme.

## **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 6.05% across Wales, compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.

The 2022–2023 NPI report for quarter ending March 2023 will be available on July 21<sup>st</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's 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 December 2022

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%	16 16%	40 70%	5 11%	9 19%	6 38%	10 20%
High strength opioids (UDG) ADQs per 1,000 patients	27 38%	15 15%	30 53%	7 15%	5 10%	6 38%	24 49%
Tramadol DDDs per 1,000 patients	19 27%	20 21%	31 54%	7 15%	13 27%	7 44%	14 29%
Gabapentin and pregabalin DDDs per 1,000 patients	11 15%	18 19%	36 63%	2 4%	14 29%	3 19%	8 16%
Antibacterial items per 1,000 STAR-PU's	✗	✗	✗	✗	✗	✗	✗
4C antibacterial items per 1,000 patients	✗	✓	✗	✓	✓	✗	✓
DPIs and SMLs as a percentage of all inhalers	36 51%	14 14%	35 61%	23 50%	30 63%	3 19%	6 12%
Hypnotics and anxiolytics ADQs per 1,000 STAR-PU's	18 25%	21 22%	37 65%	8 17%	9 19%	7 44%	12 24%
Low Value for Prescribing (UDG) spend (£) per 1,000 patients	8 11%	43 44%	19 33%	3 7%	8 17%	6 38%	15 31%

Percentage of practices meeting threshold:  0% 100%

## 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 UDQ ADQs per 1,000 patients
- High strength opioids UDQ 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

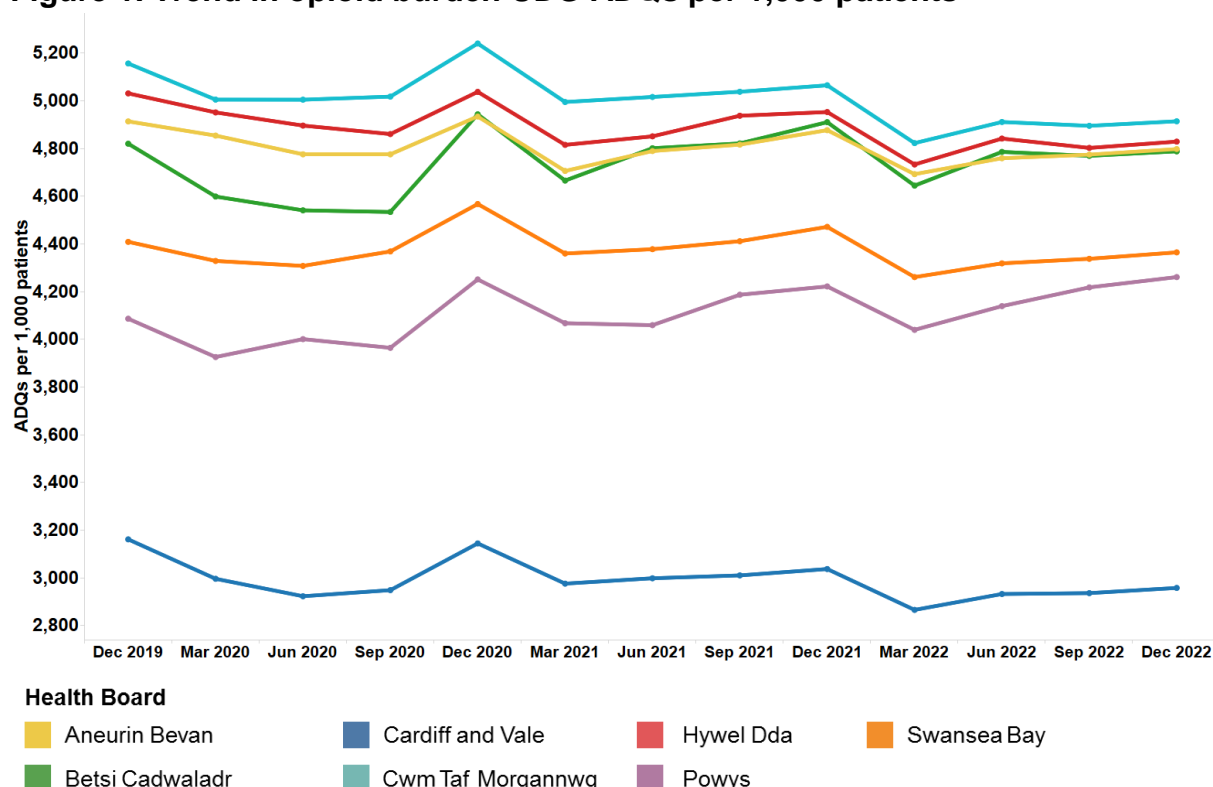
- Across Wales, opioid burden decreased by 2.30% in the quarter ending December 2022 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending December 2022, opioid burden prescribing ranged from 2,958 to 4,915 ADQs per 1,000 patients 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 a percentage increase, compared with the equivalent quarter of the previous year.



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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
<b>Cwm Taf Morgannwg</b>	5,065	4,915	-2.98%
<b>Cardiff And Vale</b>	3,037	2,958	-2.61%
<b>Hywel Dda</b>	4,953	4,829	-2.50%
<b>Betsi Cadwaladr</b>	4,911	4,788	-2.49%
<b>Swansea Bay</b>	4,472	4,365	-2.39%
<b>Aneurin Bevan</b>	4,877	4,798	-1.63%
<b>Powys</b>	4,222	4,261	0.93%
<b>Wales</b>	<b>4,547</b>	<b>4,442</b>	<b>-2.30%</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.

### High strength opioids

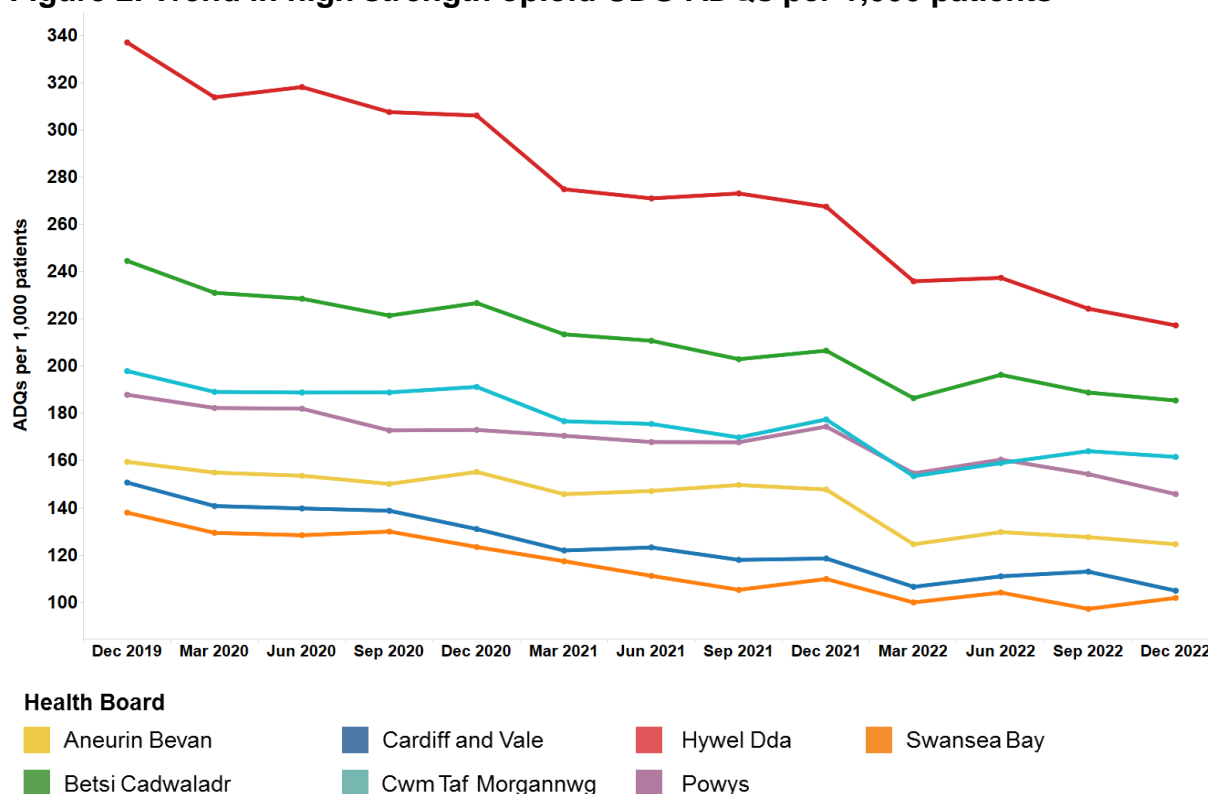
- Across Wales, high strength opioid prescribing decreased by 12.8% in the quarter ending December 2022 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending December 2022, high strength opioid prescribing ranged from 102 to 217 ADQs 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 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 smallest percentage decrease 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 3	2022–2023 Qtr 3	% Change
Hywel Dda	268	217	-18.8%
Powys	174	146	-16.4%
Aneurin Bevan	148	125	-15.7%
Cardiff And Vale	119	105	-11.5%
Betsi Cadwaladr	207	185	-10.2%
Cwm Taf Morgannwg	177	162	-8.95%
Swansea Bay	110	102	-7.29%
Wales	171	149	-12.8%

**Figure 2. Trend in high strength opioid UDG ADQs per 1,000 patients**



### 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

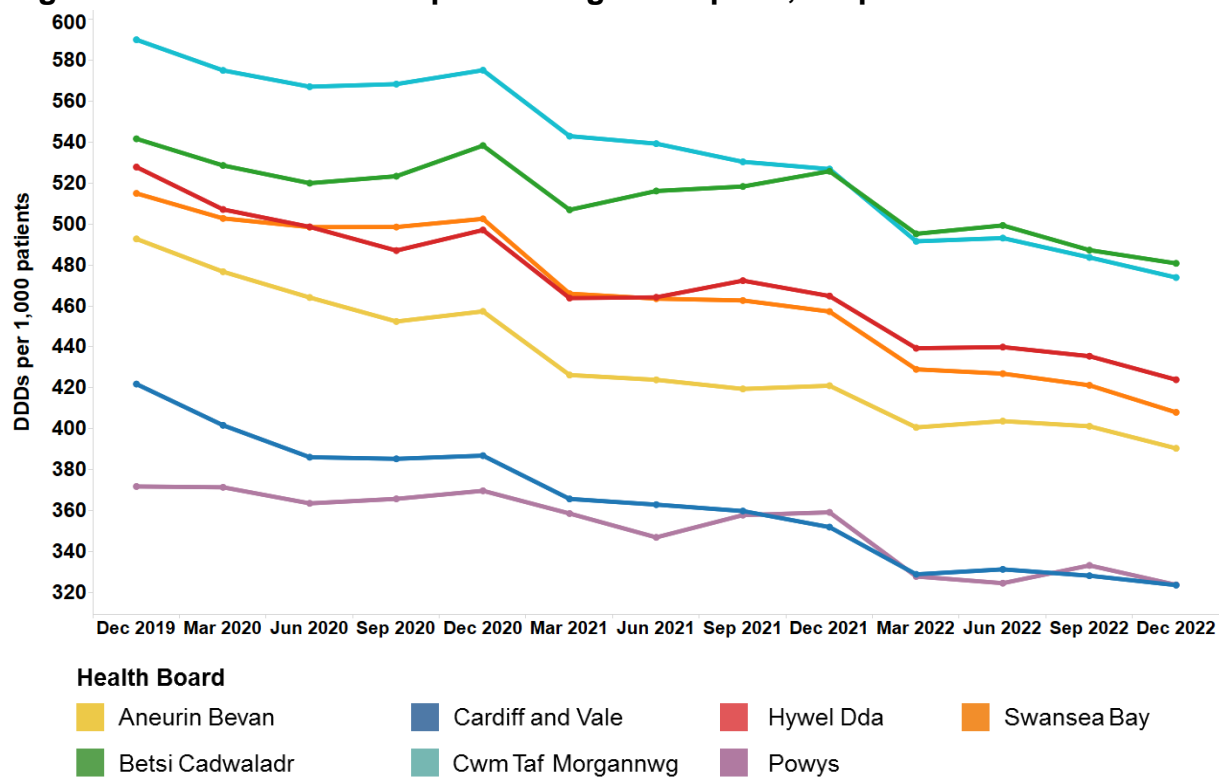
While there is a recognised place in pain management for tramadol, there are concerns regarding the risks associated with dependence, diversion, misuse and ADRs. This NPI promotes a prudent approach to prescribing tramadol, taking into account the risks and benefits, and encouraging timely review.

- Across Wales, prescribing of tramadol was 8.88% lower in the quarter ending December 2022 than in the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending December 2022, tramadol prescribing ranged from 324 to 481 DDDs per 1,000 patients across the health boards.
- The health boards with the lowest prescribing were Cardiff and Vale UHB and 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 3	2022–2023 Qtr 3	% Change
Swansea Bay	457	408	-10.8%
Cwm Taf Morgannwg	527	474	-10.1%
Powys	359	324	-9.86%
Hywel Dda	465	424	-8.79%
Betsi Cadwaladr	526	481	-8.56%
Cardiff And Vale	352	324	-8.04%
Aneurin Bevan	421	390	-7.26%
Wales	455	415	-8.88%

Figure 3. Trend in tramadol prescribing DDDs per 1,000 patients



### 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

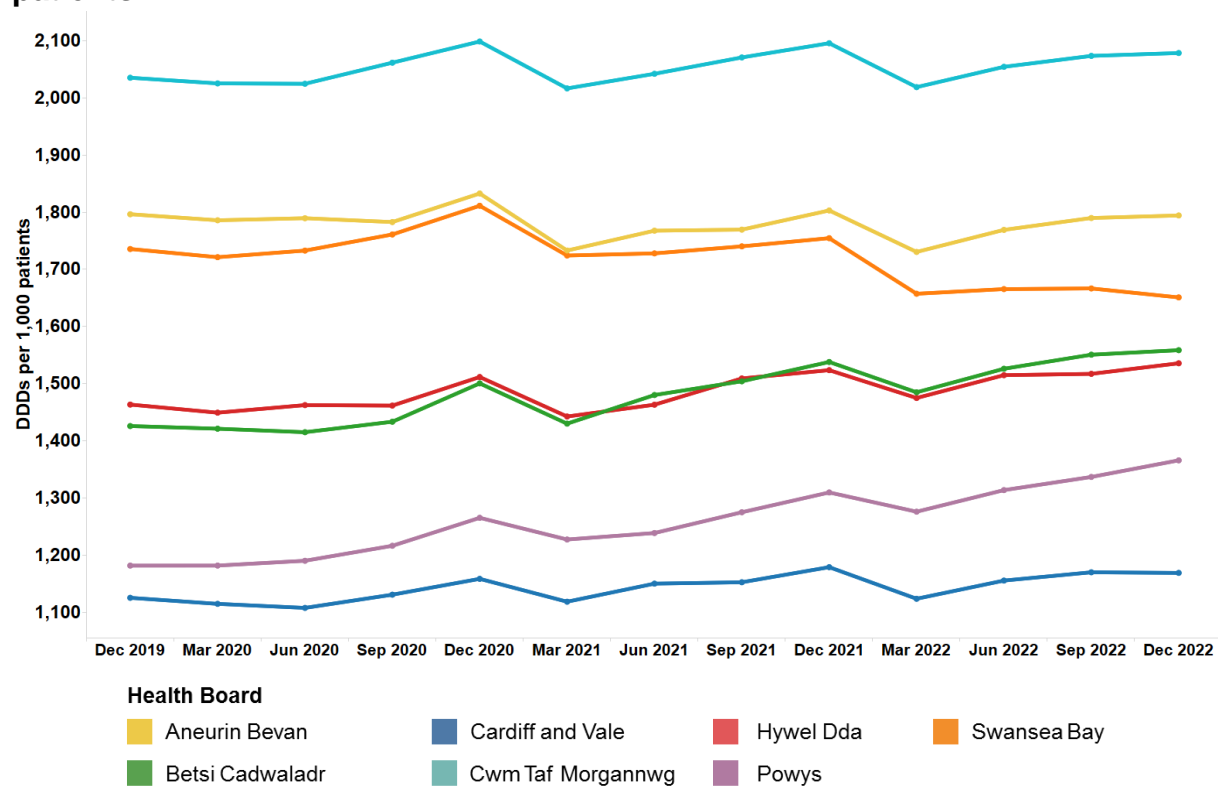
Gabapentin and pregabalin have a well-defined role in the management of a number of conditions including epilepsy and neuropathic pain, and pregabalin also has a role in the treatment of generalised anxiety disorder. Both gabapentin and pregabalin have known psychiatric side effects and there is a potential 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 December 2022, prescribing of gabapentin and pregabalin decreased by 0.64% compared with the same quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending December 2022, gabapentin and pregabalin prescribing ranged from 1,169 to 2,078 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 the largest percentage reduction 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 3	2022–2023 Qtr 3	% Change
Swansea Bay	1,754	1,651	-5.91%
Cardiff And Vale	1,179	1,169	-0.85%
Cwm Taf Morgannwg	2,096	2,078	-0.82%
Aneurin Bevan	1,803	1,794	-0.49%
Hywel Dda	1,523	1,536	0.79%
Betsi Cadwaladr	1,538	1,558	1.34%
Powys	1,309	1,366	4.29%
Wales	1,625	1,615	-0.64%

**Figure 4. Trend in gabapentin and pregabalin prescribing DDDs per 1,000 patients**



## 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 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.

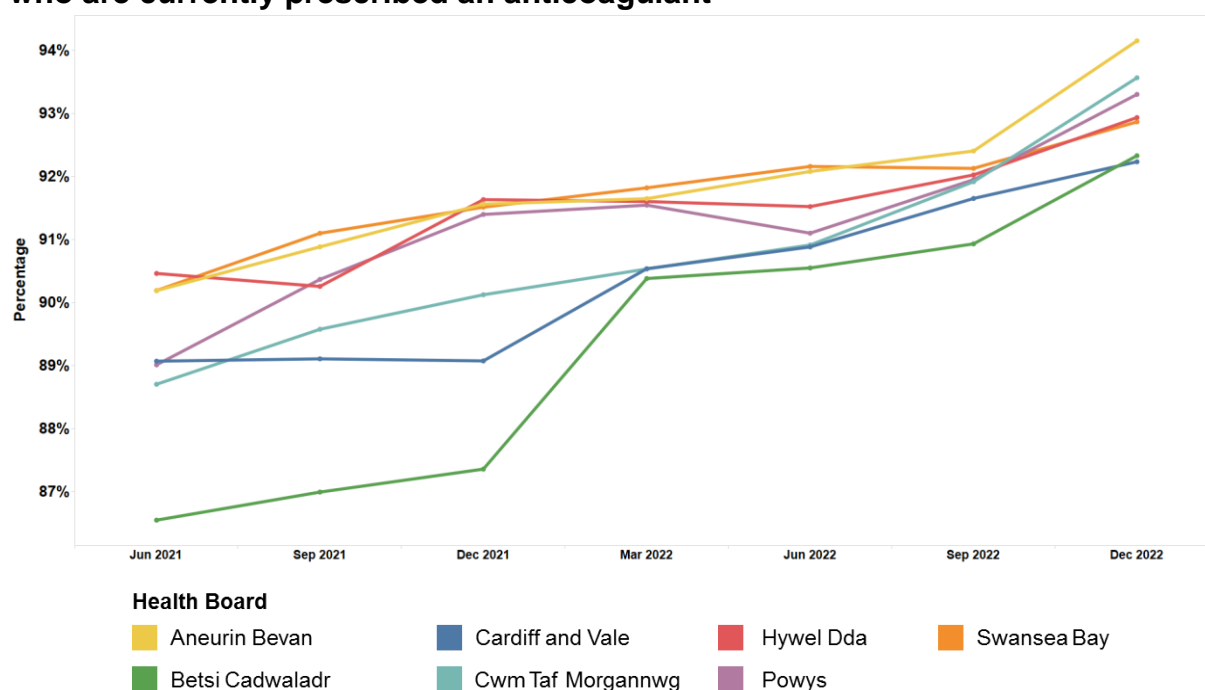
The CHA<sub>2</sub>DS<sub>2</sub>-VASc risk stratification score calculates stroke risk of patients with AF. Adults with non-valvular AF and a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or above are at a much higher risk of having a stroke than the general population, however anticoagulation therapy 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 December 2022, the percentage of patients with AF had a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more and were prescribed an anticoagulant increased by 3.29 %. This is in line with the aim of the indicator.
- For the quarter ending December 2022, the percentage of patients with AF had a CHA<sub>2</sub>DS<sub>2</sub>-VASc score of 2 or more and were prescribed an anticoagulant ranged from 92.2% to 94.2% 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 largest percentage increase was seen in Betsi Cadwaladr UHB and the smallest percentage increase was seen in Hywel Dda UHB, compared with the equivalent quarter of the previous year.

**Table 5. Percentage 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\***

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
Betsi Cadwaladr	87.4%	92.3%	5.69%
Cwm Taf Morgannwg	90.1%	93.6%	3.82%
Cardiff And Vale	89.1%	92.2%	3.55%
Aneurin Bevan	91.6%	94.2%	2.83%
Powys	91.4%	93.3%	2.08%
Swansea Bay	91.5%	92.9%	1.48%
Hywel Dda	91.6%	92.9%	1.42%
<b>Wales</b>	<b>90.1%</b>	<b>93.0%</b>	<b>3.29%</b>

**Figure 5. Percentage 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\***



\* Data for this indicator are only available from 2021–2022 Quarter 1 onwards.



### 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.

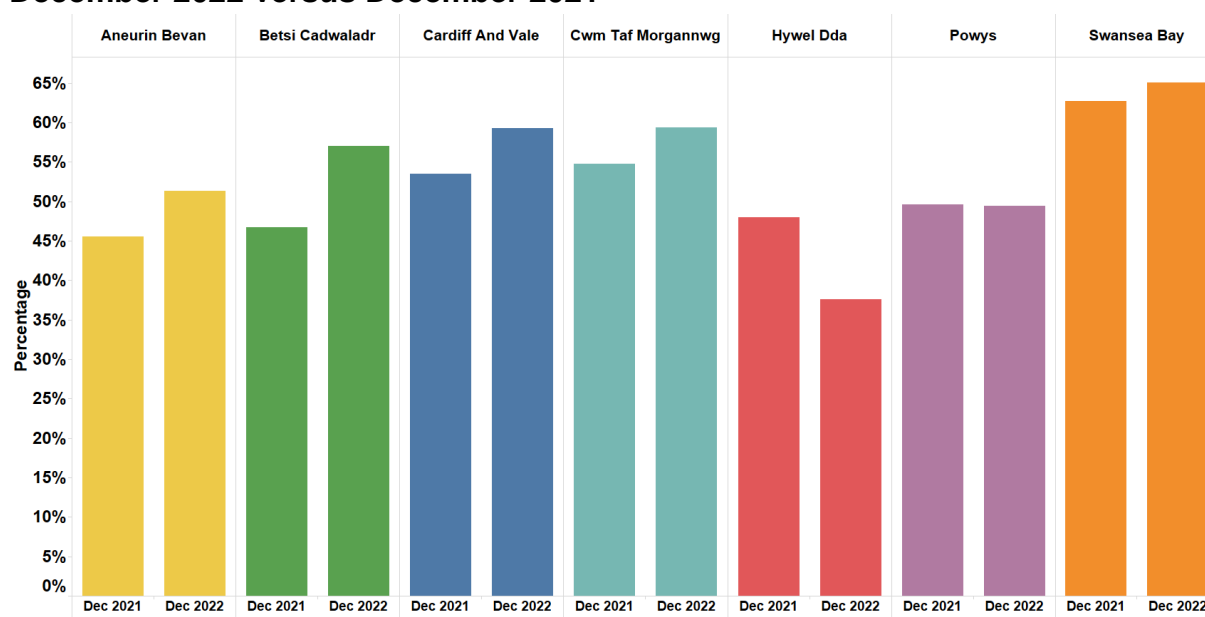
Patients with AF who are prescribed an anticoagulant should have a review of their treatment annually. Anticoagulants are associated with drug-drug and drug-food interactions that may increase the risk of serious bleeding or diminish stroke prevention. A review of treatment will reinforce the importance 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 6.62% compared with the equivalent month of the previous year. This is in line with the aim of the indicator.
- For the month of December 2022, the percentage patients who had received an anticoagulant review in the last 12 months ranged from 37.6% to 65.1% across the health boards.
- The health board with the highest percentage of reviews was Swansea Bay UHB. The health board with the lowest percentage of reviews was Hywel Dda UHB.
- The largest percentage increase was seen in Betsi Cadwaladr UHB. The largest percentage decrease was seen in Hywel Dda HB.

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

	2021–2022 December 2021	2022–2023 December 2022	% Change
<b>Betsi Cadwaladr</b>	46.7%	57.0%	22.0%
<b>Aneurin Bevan</b>	45.6%	51.3%	12.6%
<b>Cardiff And Vale</b>	53.5%	59.3%	10.8%
<b>Cwm Taf Morgannwg</b>	54.8%	59.4%	8.31%
<b>Swansea Bay</b>	62.7%	65.1%	3.75%
<b>Powys</b>	49.6%	49.5%	-0.34%
<b>Hywel Dda</b>	48.0%	37.6%	-21.6%
<b>Wales</b>	<b>50.8%</b>	<b>54.1%</b>	<b>6.62%</b>

**Figure 6. Percentage of patients who are currently prescribed an anticoagulant and have received an anticoagulant review within the last 12 months – December 2022 versus December 2021**



### 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.

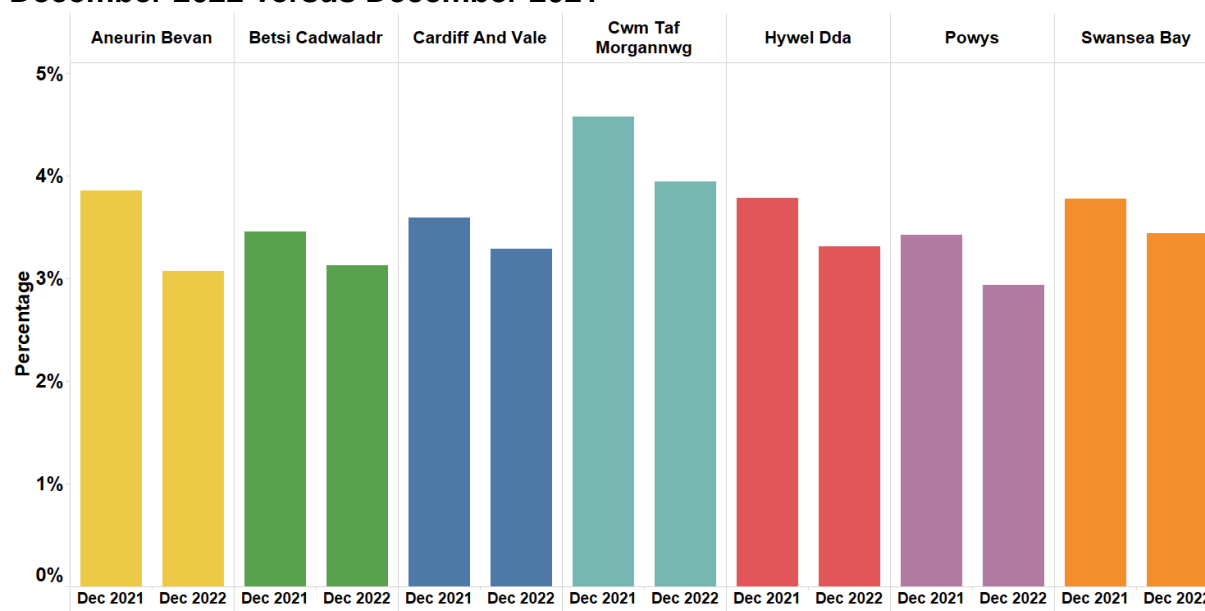
Antiplatelet medication, i.e. aspirin or clopidogrel, is no longer recommended in patients with AF. Quality Statement 2 within the NICE Quality Standard for Atrial fibrillation states that adults with AF should not be prescribed aspirin monotherapy, as the risks of taking aspirin outweigh any benefits. 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 12.6% compared with the equivalent month of the previous year. This is in line with the aim of the indicator.
- For the month of December 2022, the percentage of patients receiving antiplatelet monotherapy ranged from 2.94% to 3.94% across the health boards.
- The health board with the lowest percentage of antiplatelet monotherapy was Powys Teaching HB. The health board with the highest percentage of antiplatelet monotherapy was Cwm Taf Morgannwg UHB.
- The largest percentage decrease was seen in Aneurin Bevan UHB. The smallest percentage decrease was seen in Cardiff and Vale UHB.

**Table 7. Percentage of patients who are prescribed antiplatelet monotherapy**

	2021–2022 December 2021	2022–2023 December 2022	% Change
<b>Aneurin Bevan</b>	3.85%	3.07%	-20.3%
<b>Powys</b>	3.42%	2.94%	-14.1%
<b>Cwm Taf Morgannwg</b>	4.57%	3.94%	-13.8%
<b>Hywel Dda</b>	3.78%	3.31%	-12.5%
<b>Betsi Cadwaladr</b>	3.45%	3.13%	-9.41%
<b>Swansea Bay</b>	3.78%	3.44%	-8.9%
<b>Cardiff And Vale</b>	3.59%	3.29%	-8.4%
<b>Wales</b>	<b>3.79%</b>	<b>3.31%</b>	<b>-12.6%</b>

**Figure 7. Percentage of patients who are prescribed antiplatelet monotherapy – December 2022 versus December 2021**



### 1.3 Antimicrobial stewardship

There are two antimicrobial NPIs for 2022–2023:

1. Total antibacterial items per 1,000 STAR-PU's
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's.

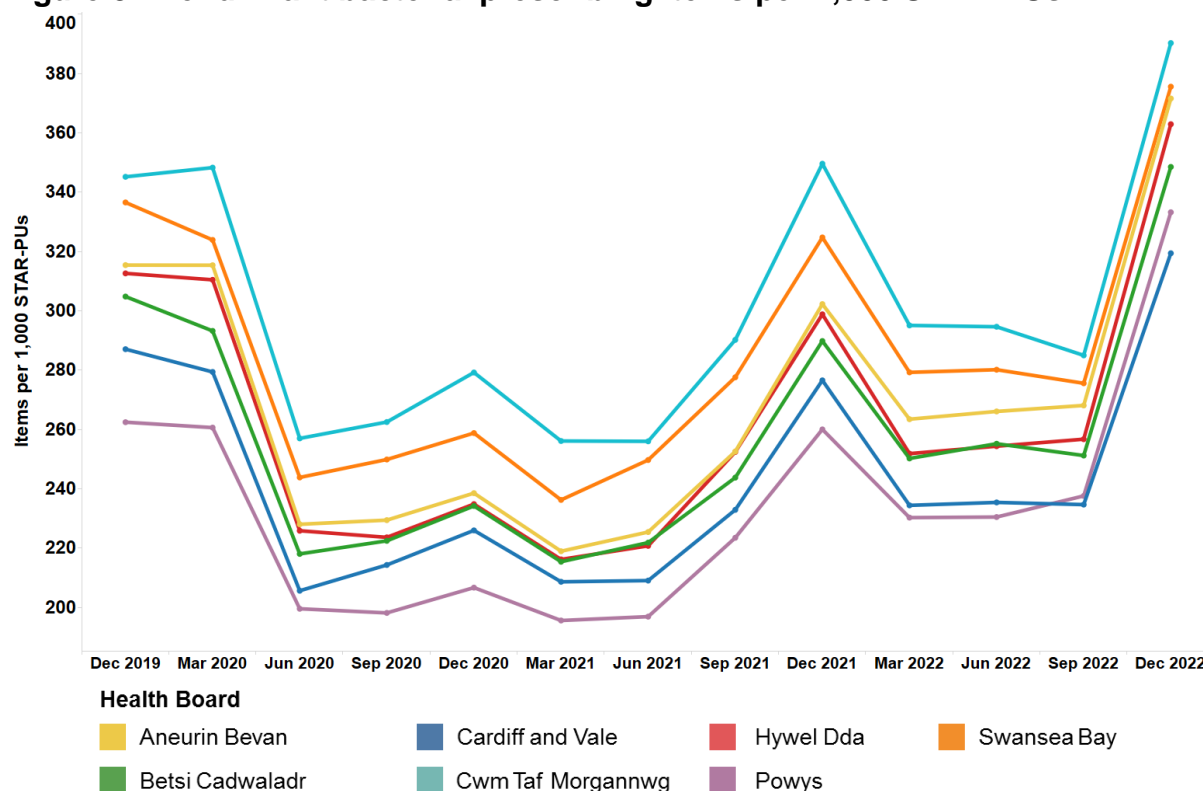
**Aim:** To reduce prescribing

- Across Wales, for the quarter ending December 2022, total antibacterial items per 1,000 STAR-PU's increased by 14.7%, compared with the quarter ending December 2019. This is contrary to the aim of the indicator.
- For the quarter ending December 2022, the total number of antibacterial items per 1,000 STAR-PU's ranged from 319 to 390 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 December 2022, none of the health boards achieved the target of a 5%, or greater, reduction against the baseline of quarter 3 2019–2020.
- Cardiff and Vale UHB demonstrated the smallest percentage increase in prescribing, compared with the quarter ending December 2019.
- Powys Teaching HB demonstrated the greatest increase in prescribing, compared with the quarter ending December 2019.

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

	2019–2020 Qtr 3	2022–2023 Qtr 3	% Change
Cardiff And Vale	287	319	11.3%
Swansea Bay	337	376	11.6%
Cwm Taf Morgannwg	345	390	13.1%
Betsi Cadwaladr	305	348	14.3%
Hywel Dda	313	363	16.1%
Aneurin Bevan	315	372	17.8%
Powys	262	333	27.0%
Wales	313	359	14.7%

Figure 8. Trend in antibacterial prescribing items per 1,000 STAR-PUs



### 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

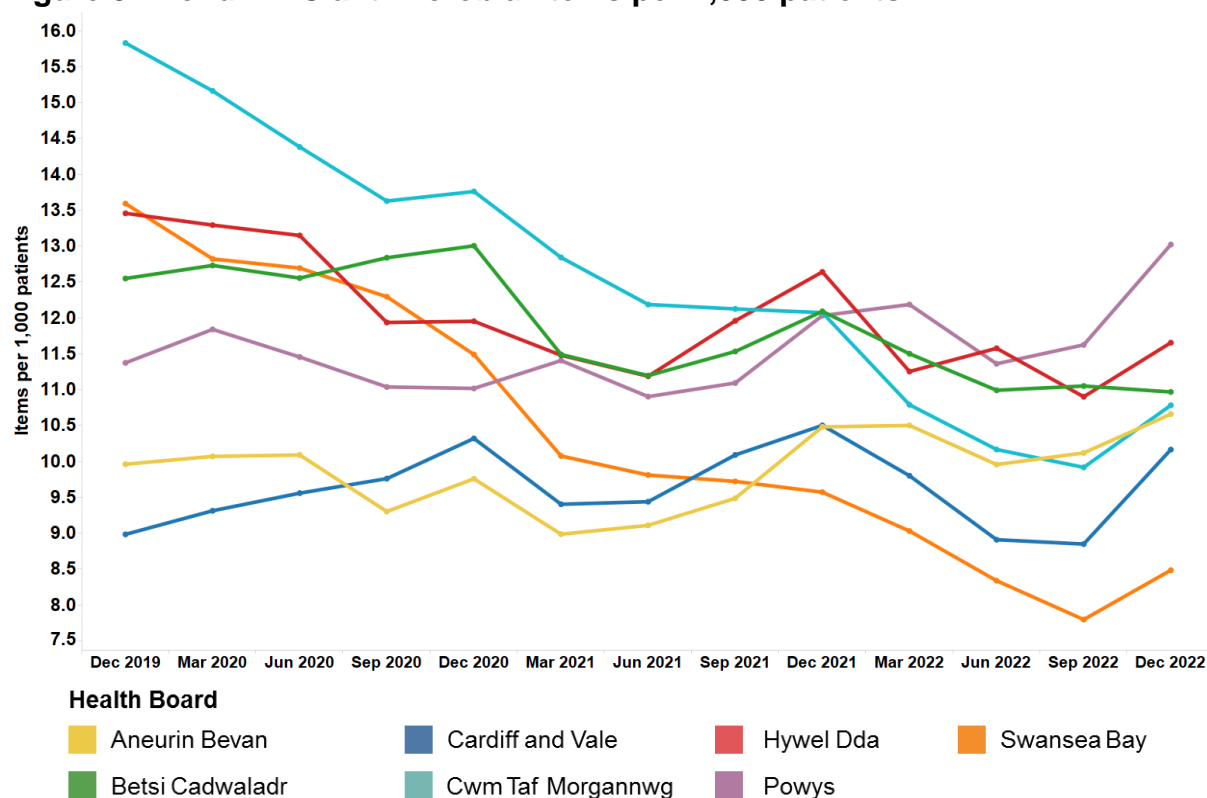
The use of simple generic antibiotics and the avoidance of these broad-spectrum antibiotics preserve them from resistance and reduce the risk of *C. difficile*, MRSA and resistant urinary tract infections.

- Across Wales, for the quarter ending December 2022, the number of 4C antimicrobial items per 1,000 patients decreased by 12.5%, compared with the quarter ending December 2019, in line with the aim of the indicator.
- For the quarter ending December 2022, 4C prescribing ranged from 8.48 to 13.0 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.
- 4C prescribing decreased, compared with the quarter ending December 2019, in four of the seven health boards.
- The largest percentage decrease was seen in Swansea Bay UHB.
- The largest percentage increase was seen in Powys Teaching HB.

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

	2019–2020 Qtr 3	2022–2023 Qtr 3	% Change
Swansea Bay	13.6	8.48	-37.6%
Cwm Taf Morgannwg	15.8	10.8	-31.9%
Hywel Dda	13.5	11.7	-13.4%
Betsi Cadwaladr	12.5	11.0	-12.6%
Aneurin Bevan	9.96	10.7	7.01%
Cardiff And Vale	8.98	10.2	13.1%
Powys	11.4	13.0	14.5%
<b>Wales</b>	<b>12.1</b>	<b>10.6</b>	<b>-12.5%</b>

Figure 9. Trend in 4C antimicrobial items per 1,000 patients



## 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.

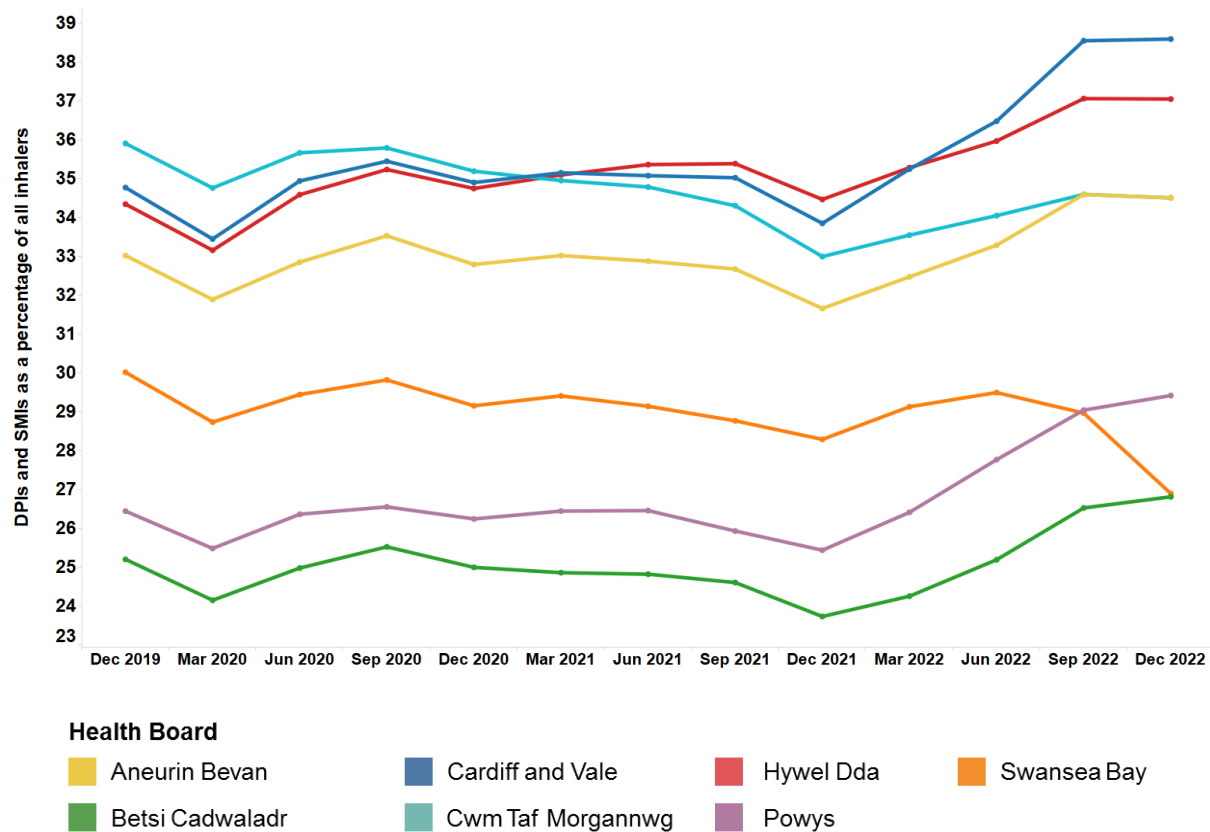
Metered dose inhalers (MDIs) are estimated to be responsible for 4% of the NHS's entire carbon footprint. One of the key actions within the NHS Wales Decarbonisation Strategic Delivery Plan is to transition patients on MDIs to inhalers with a lower carbon footprint, but only where patient care will not 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 7.99% in the quarter ending December 2022 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending December 2022, the proportion of DPI and SMI prescribing ranged from 26.8% to 38.6% 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 Betsi Cadwaladr UHB.
- Powys Teaching HB demonstrated the largest percentage increase, compared with the equivalent quarter of the previous year.
- Swansea Bay UHB demonstrated a percentage 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 3	2022–2023 Qtr 3	% Change
<b>Powys</b>	25.4	29.4	15.7%
<b>Cardiff And Vale</b>	33.8	38.6	14.0%
<b>Betsi Cadwaladr</b>	23.7	26.8	13.0%
<b>Aneurin Bevan</b>	31.7	34.5	9.00%
<b>Hywel Dda</b>	34.5	37.0	7.50%
<b>Cwm Taf Morgannwg</b>	33.0	34.5	4.58%
<b>Swansea Bay</b>	28.3	26.9	-4.93%
<b>Wales</b>	<b>29.9</b>	<b>32.3</b>	<b>7.99%</b>

**Figure 10. Trend in the percentage of DPIs and SMIs as a percentage of all inhalers prescribed**





## 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.

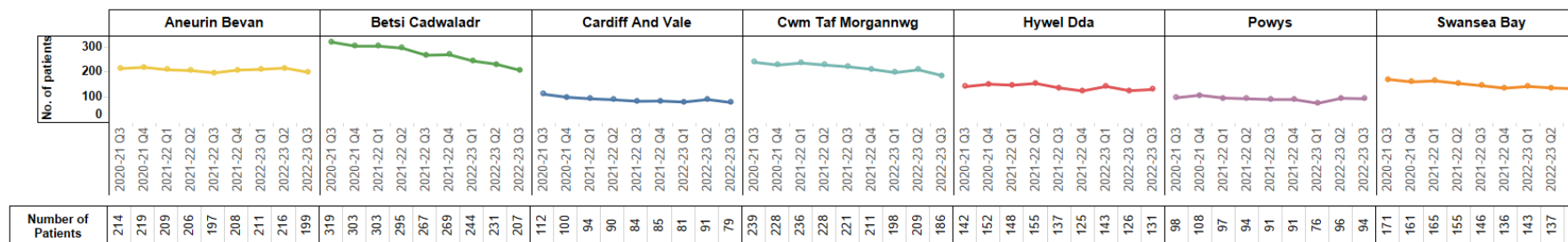
In the UK, it is estimated that around 6.5% of hospital admissions are related to adverse drug reactions (ADRs). ADRs can often be predictable making it possible to identify potential causes and address them before actual patient harm occurs. This NPI provides a process of identifying patients electronically,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

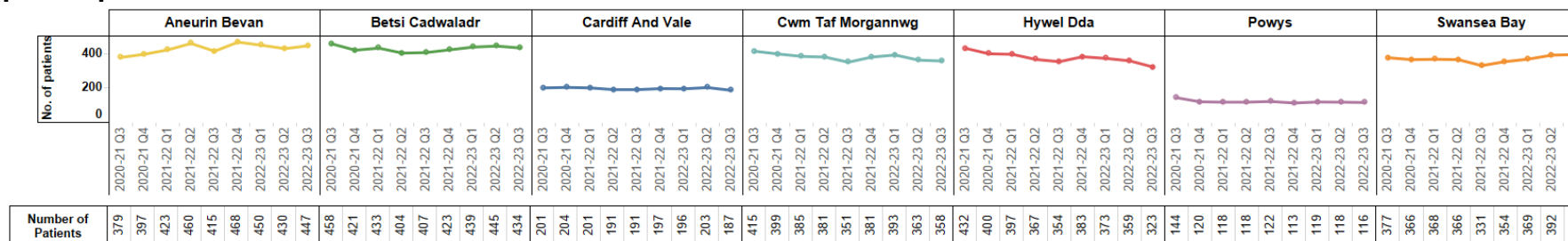
Figure 11. Prescribing Safety Indicators

Prescribing Safety Indicators related to acute kidney injury (AKI)

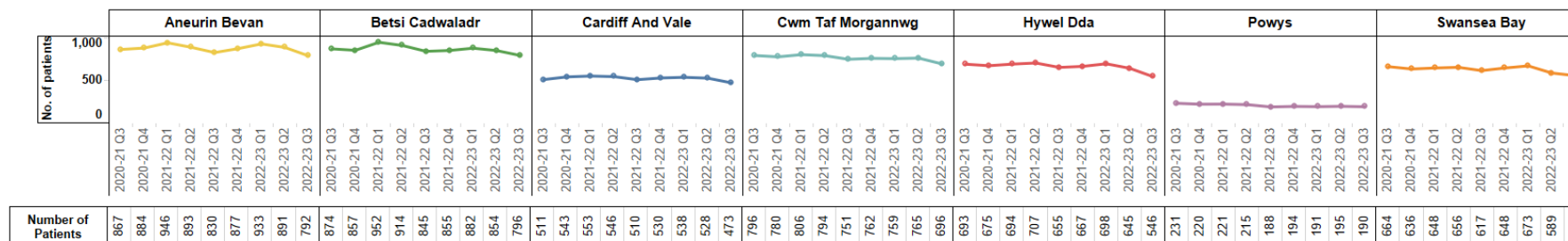
01. Number of patients on the CKD register (CKD stage 3–5) who have received a repeat prescription for an NSAID within the last 3 months.



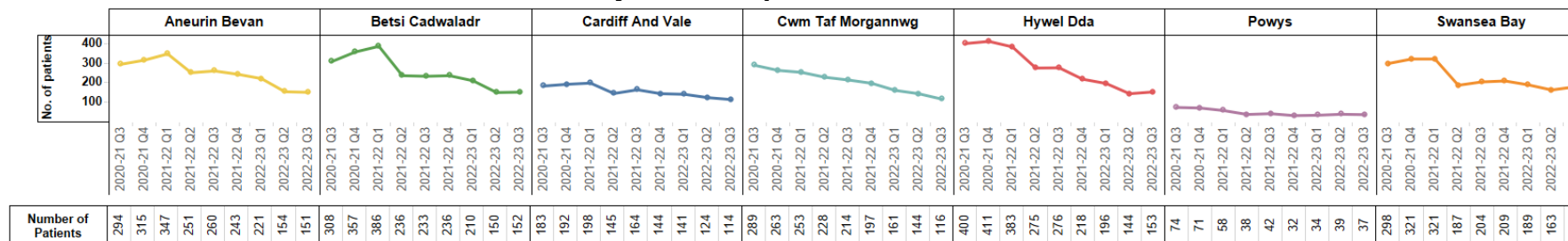
02. Number of patients who are not on the CKD register but have an eGFR of < 59 ml/min and have received a repeat prescription for an NSAID within the last 3 months.



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

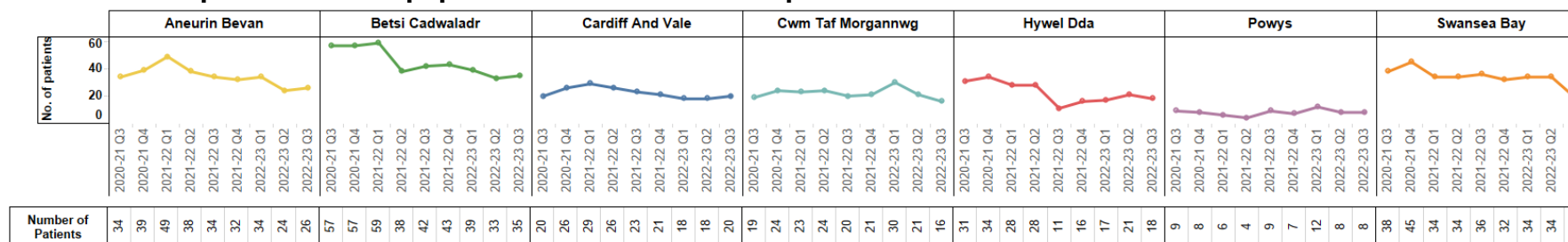


**04. Number of patients aged 75 years and over with a current prescription for an ACE Inhibitor or loop diuretic without a check of renal function and electrolytes in the previous 15 months.**

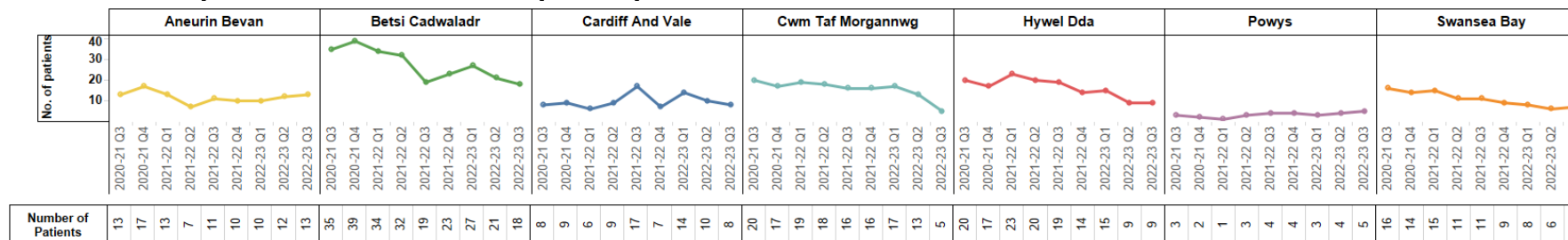


**Prescribing Safety Indicators related to bleeds**

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

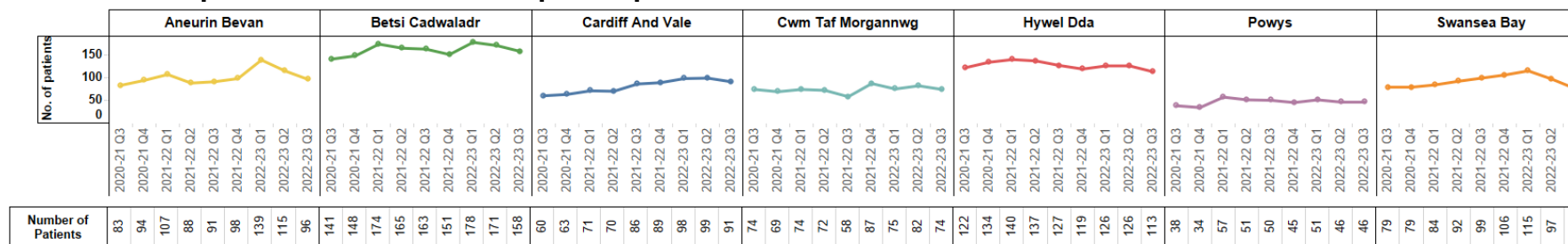


**06. Number of patients with concurrent prescriptions of warfarin and an oral NSAID.**

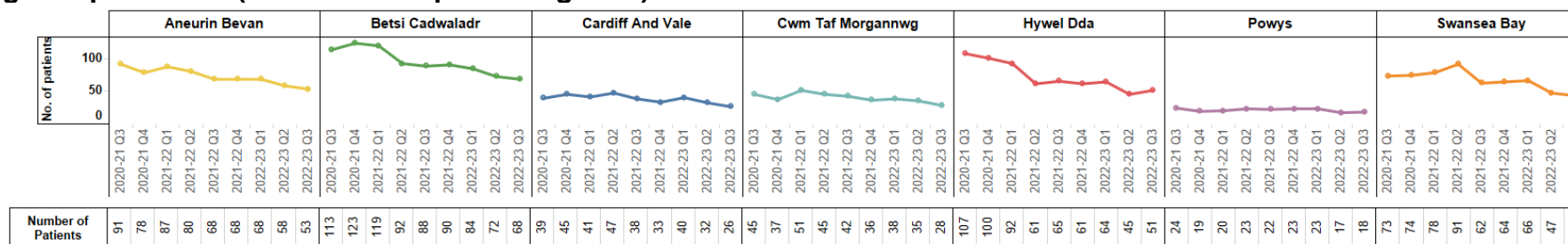


**National Prescribing Indicators 2022–2023:  
Analysis of Prescribing Data to December 2022**

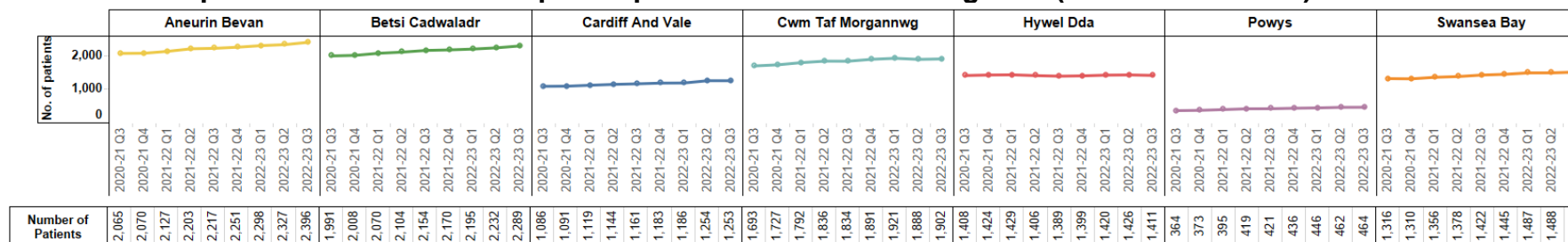
**07. Number of patients with concurrent prescriptions for a DOAC and an oral NSAID.**



**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).**

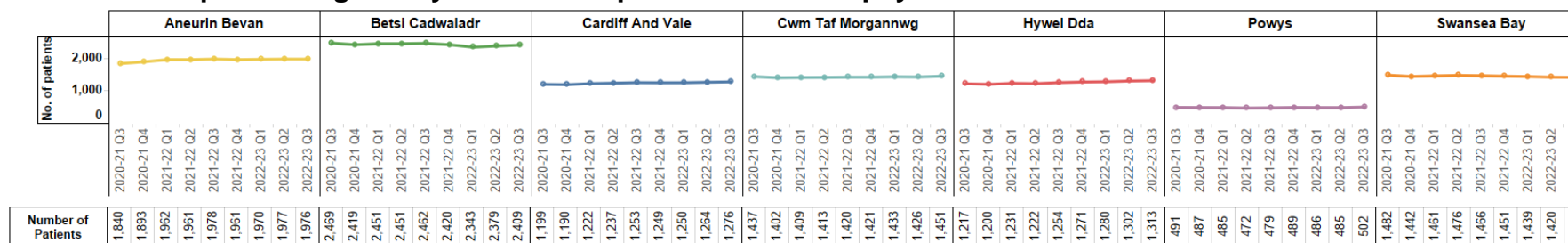


**09. Number of patients with concurrent prescriptions of an oral anticoagulant (warfarin or DOAC) and an SSRI.**



**Prescribing Safety Indicators related to cognition**

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



**Good practice spotlight**

A priority area for **Swansea Bay UHB** is the safe prescribing and management of antipsychotics in people aged 65 years and older. The health board is committed to enhancing patient care in the prescribing of antipsychotics to treat non-cognitive symptoms of dementia for those living in care homes. Working in collaboration with care homes and the wider multidisciplinary team (MDT), specialist pharmacists play a crucial role in maximising care for people living with dementia with a particular emphasis on:

- Conducting medication reviews to optimise patient medication
- Educating care home staff on dementia including:
  - appropriate prescribing of antipsychotic medication in non-cognitive symptoms of dementia
  - the risks associated with the use of antipsychotic medication in non-cognitive symptoms of dementia
  - non-pharmacological interventions
- Educating health care professionals on antipsychotic use in people living with dementia to promote safe prescribing, management and deprescribing of antipsychotics

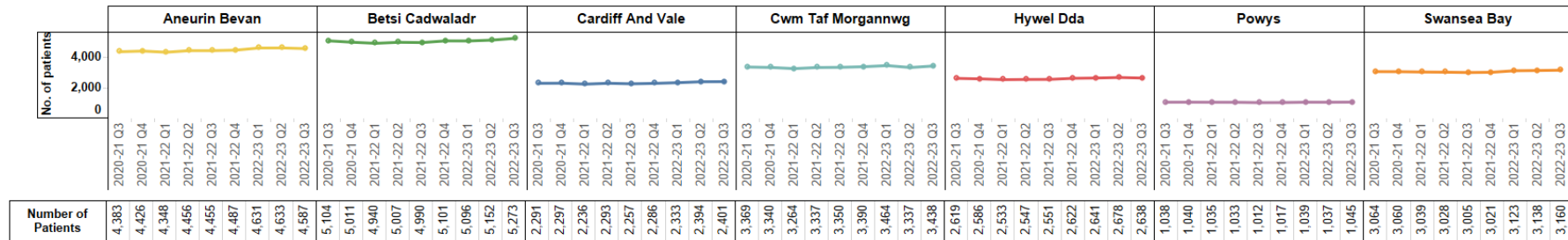
Pharmacists within the health board form an integral part of the Care Home In Reach Team (CHIRT), working with the MDT to optimise antipsychotic medication treatment plans for people living in care homes, and reduce patient harm. A database has been developed to allow the MDT to identify these patients to aid monitoring and improve patient safety. This whole system approach aims to reduce inappropriate prescribing and champion patient safety.

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



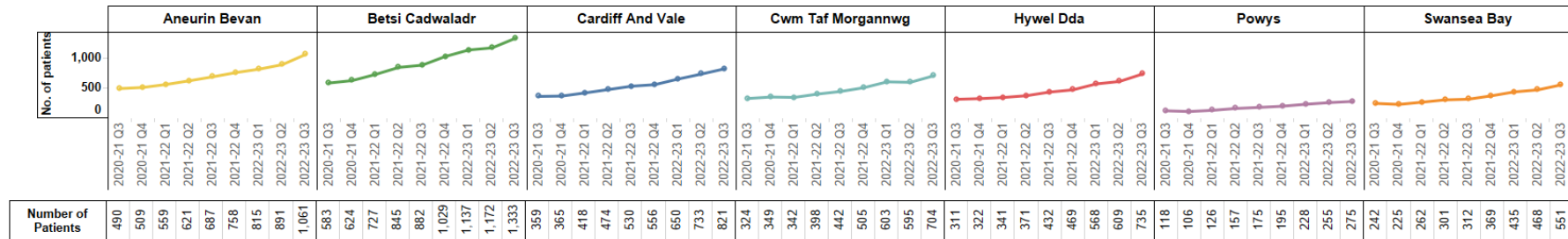
**National Prescribing Indicators 2022–2023:  
Analysis of Prescribing Data to December 2022**

**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.**

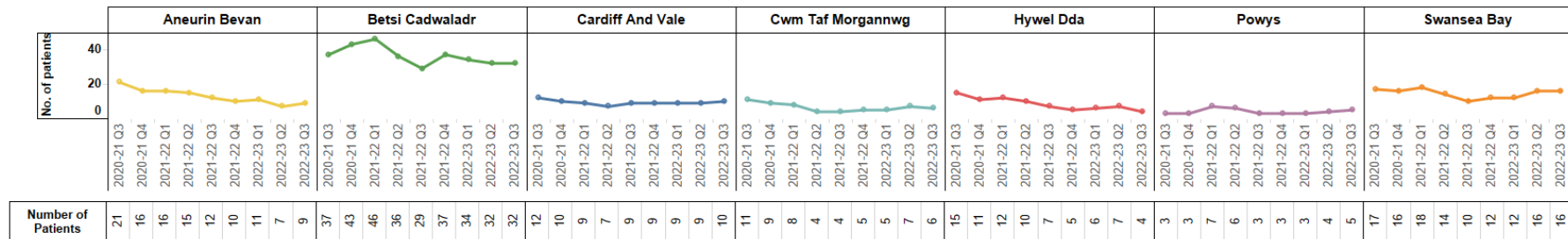


**Prescribing Safety Indicators specific to females**

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

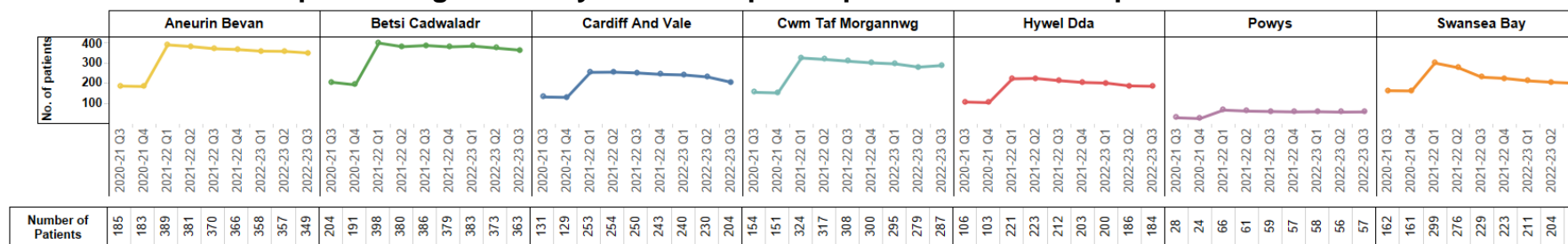


**13. Number of female patients with a past medical history of venous or arterial thrombosis who have been prescribed combined hormonal contraceptives.**

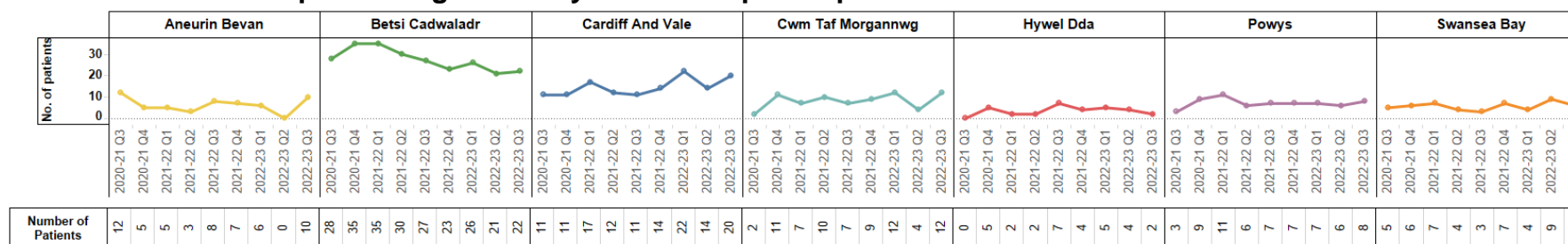


## Welsh Analytical Prescribing Support Unit

### 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\*.

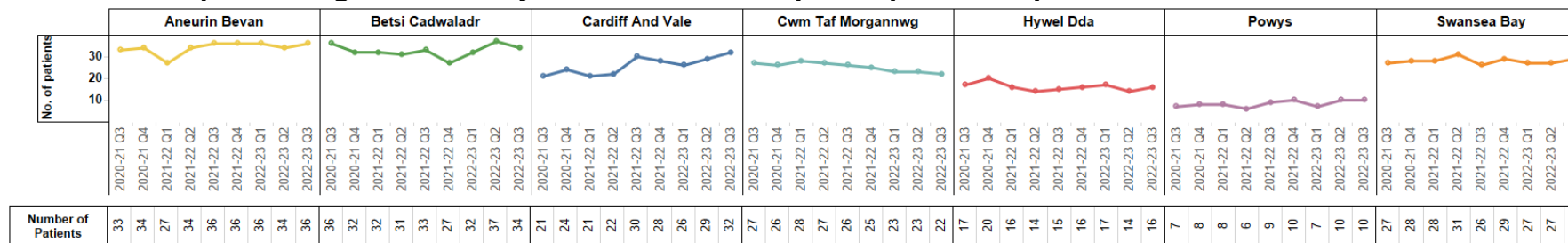


\* The search for this Prescribing Safety Indicator was amended from Q1 2021–2022 to include female patients aged 14–55 years. Data prior to Q1 2021–2022 includes female patients aged 14–45 years only.

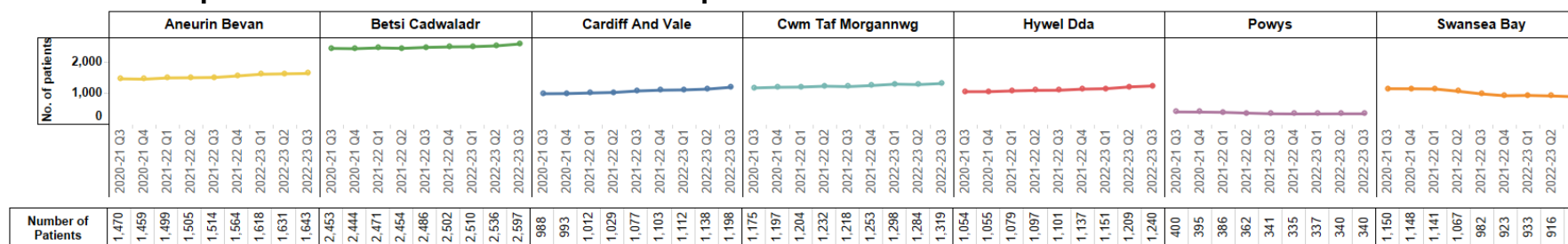


## Prescribing Safety Indicators related to ‘other’

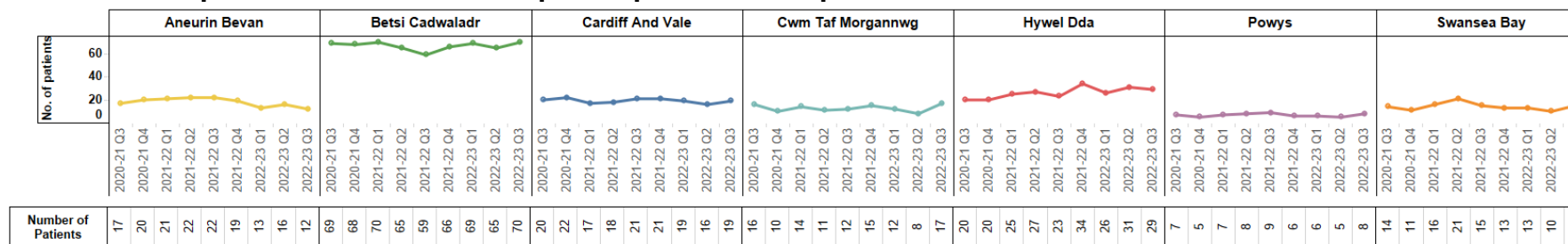
### 16. Number of patients aged under 16 years with a current prescription of aspirin.



### 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

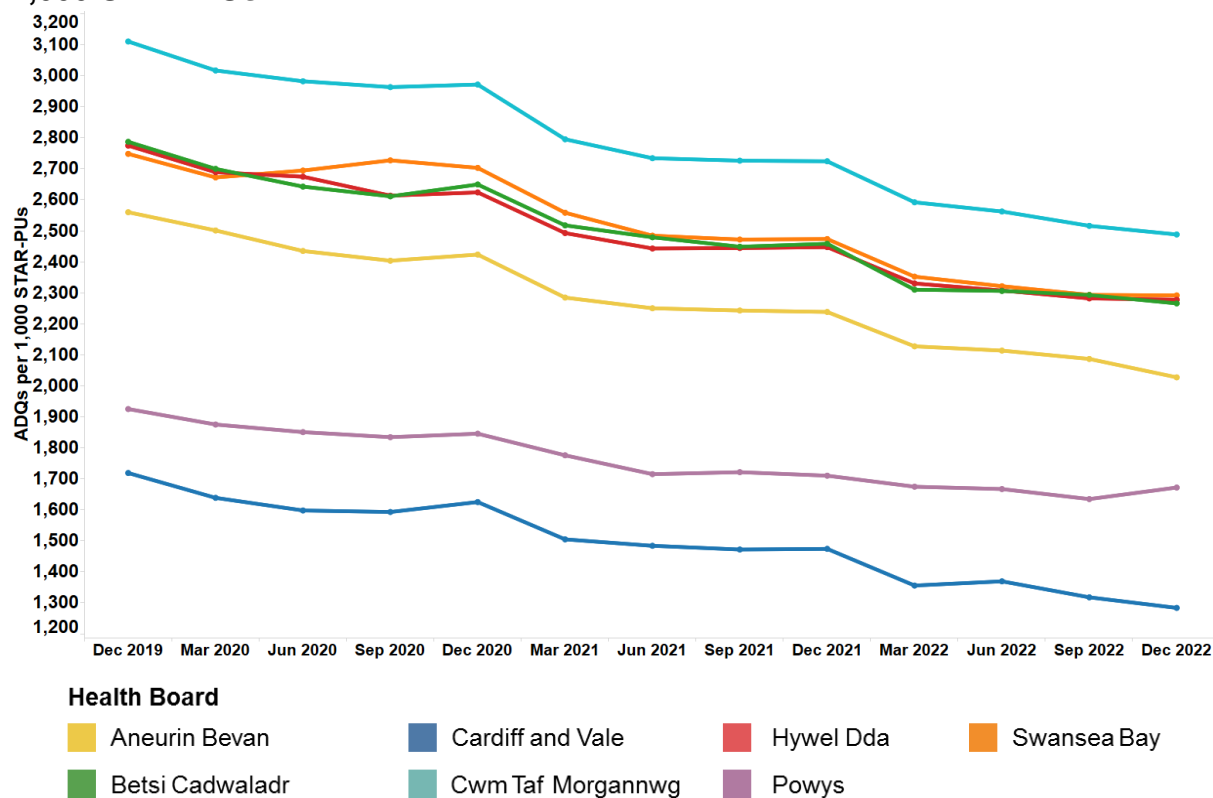
There has been concern with regard to the high level of hypnotic and anxiolytic prescribing in NHS Wales. Some prescribing may be inappropriate and contribute to the problem of physical and psychological dependence, and/or may be responsible for masking underlying depression.

- Across Wales, the prescribing of hypnotics and anxiolytics decreased by 8.33% for the quarter ending December 2022 compared with the equivalent quarter of the previous year, in line with the aim of this indicator.
- For the quarter ending December 2022, hypnotic and anxiolytic prescribing ranged from 1,284 to 2,488 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 3	2022–2023 Qtr 3	% Change
Cardiff And Vale	1,474	1,284	-12.9%
Aneurin Bevan	2,238	2,027	-9.42%
Cwm Taf Morgannwg	2,724	2,488	-8.67%
Betsi Cadwaladr	2,458	2,266	-7.82%
Swansea Bay	2,473	2,292	-7.35%
Hywel Dda	2,447	2,278	-6.93%
Powys	1,710	1,672	-2.24%
Wales	2,281	2,091	-8.33%

Figure 12. Trend in hypnotic and anxiolytic prescribing ADQs per 1,000 STAR-PU



### 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.

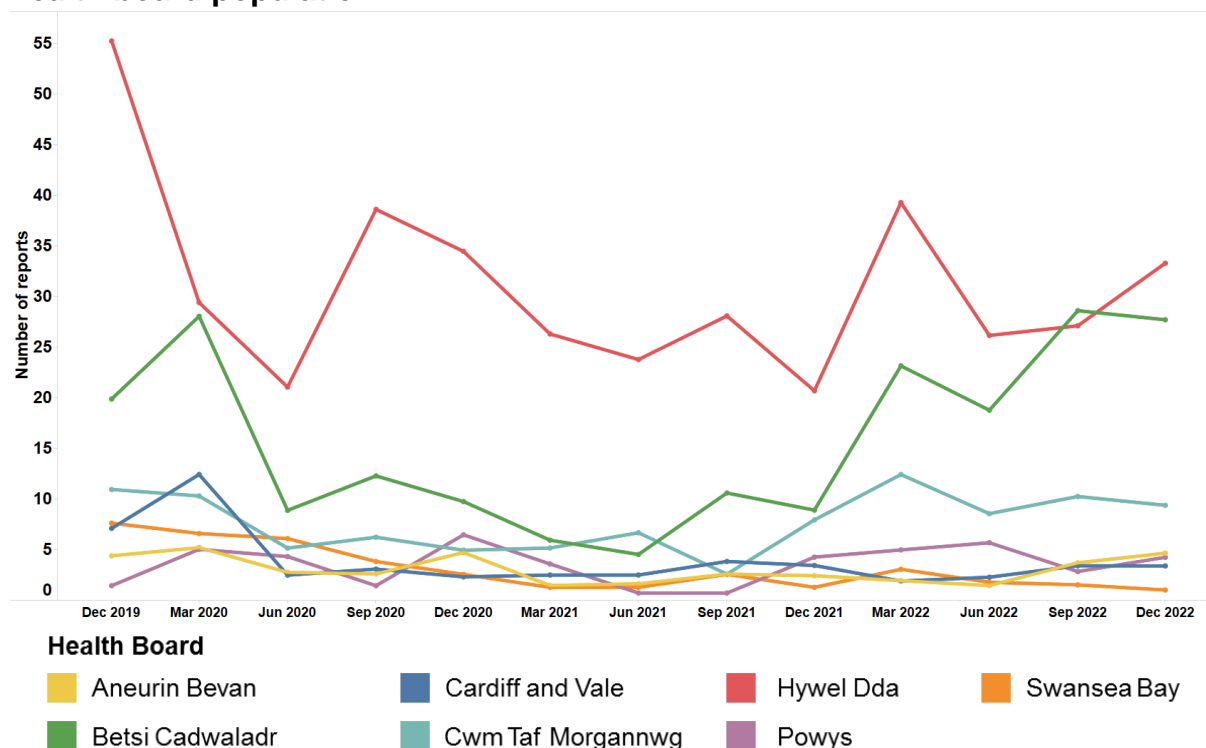
#### GP practices

- The number of Yellow Cards submitted by GP practices across Wales increased by 91% 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 Swansea Bay UHB.

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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
Betsi Cadwaladr	63	197	213%
Aneurin Bevan	15	29	93%
Hywel Dda	82	133	62%
Cwm Taf Morgannwg	37	44	19%
Cardiff And Vale	18	18	0%
Powys	6	6	0%
Swansea Bay	5	4	-20%
<b>Wales</b>	<b>226</b>	<b>431</b>	<b>91%</b>

**Figure 13. Number of Yellow Cards submitted by GP practices per 100,000 health board population**



### Good practice spotlight

**Betsi Cadwaladr UHB** have included Yellow Card reporting for GP practices within their local enhanced service (prescribing incentive scheme) for 2022-2023.

Practices are given various targets and audits to complete as part of the enhanced service, however in order to obtain the full payment, practices must also complete a minimum of one Yellow Card report per 1,000 patients, or part thereof, registered with the practice.

The health board encourages submission of reports relating to 'black triangle' drugs, unusual ADRs or any reactions resulting in hospital admission, however any ADRs may be reported.

By increasing the rate of Yellow Card reports, the MHRA will continue to gain valuable information regarding the safety of medicines prescribed.

For further information regarding this initiative, please contact  
awttc@wales.nhs.uk

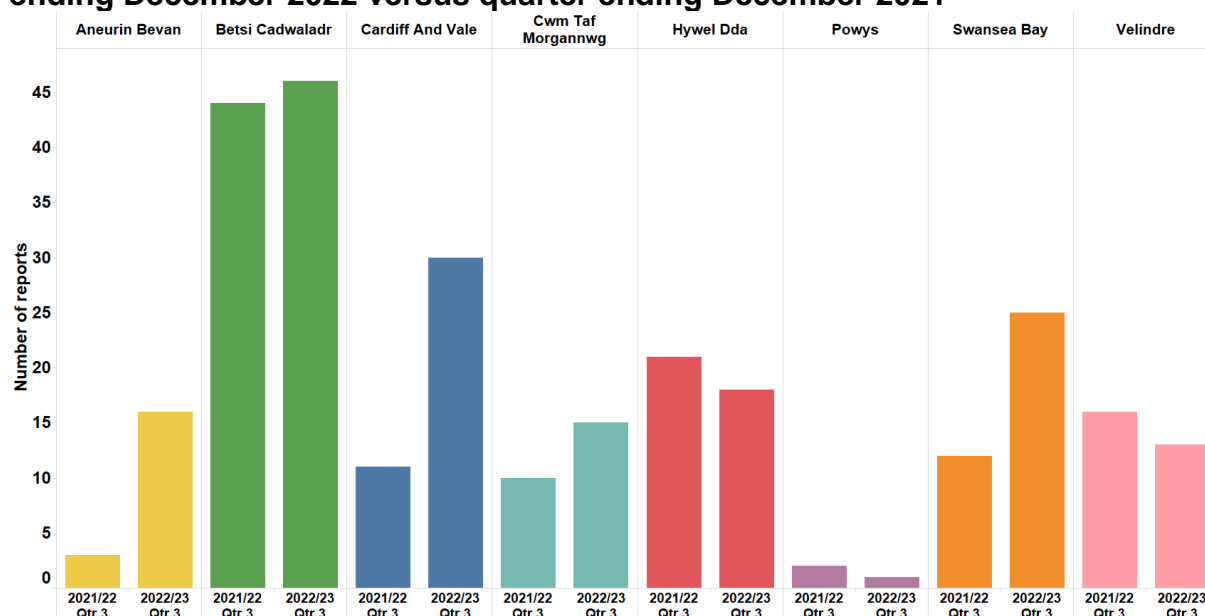
## Secondary care

- The number of Yellow Cards submitted by secondary care increased by 38% compared with the equivalent quarter of the previous year.
- The largest percentage increase in secondary care reporting was seen in Aneurin Bevan UHB. The largest percentage decrease was seen in Powys Teaching HB.

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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
<b>Aneurin Bevan</b>	3	16	433%
<b>Cardiff And Vale</b>	11	30	173%
<b>Swansea Bay</b>	12	25	108%
<b>Cwm Taf Morgannwg</b>	10	15	50%
<b>Betsi Cadwaladr</b>	44	46	5%
<b>Hywel Dda</b>	21	18	-14%
<b>Velindre</b>	16	13	-19%
<b>Powys</b>	2	1	-50%
<b>Wales</b>	<b>119</b>	<b>164</b>	<b>38%</b>

**Figure 14. Number of Yellow Cards submitted by secondary care – Quarter ending December 2022 versus quarter ending December 2021**



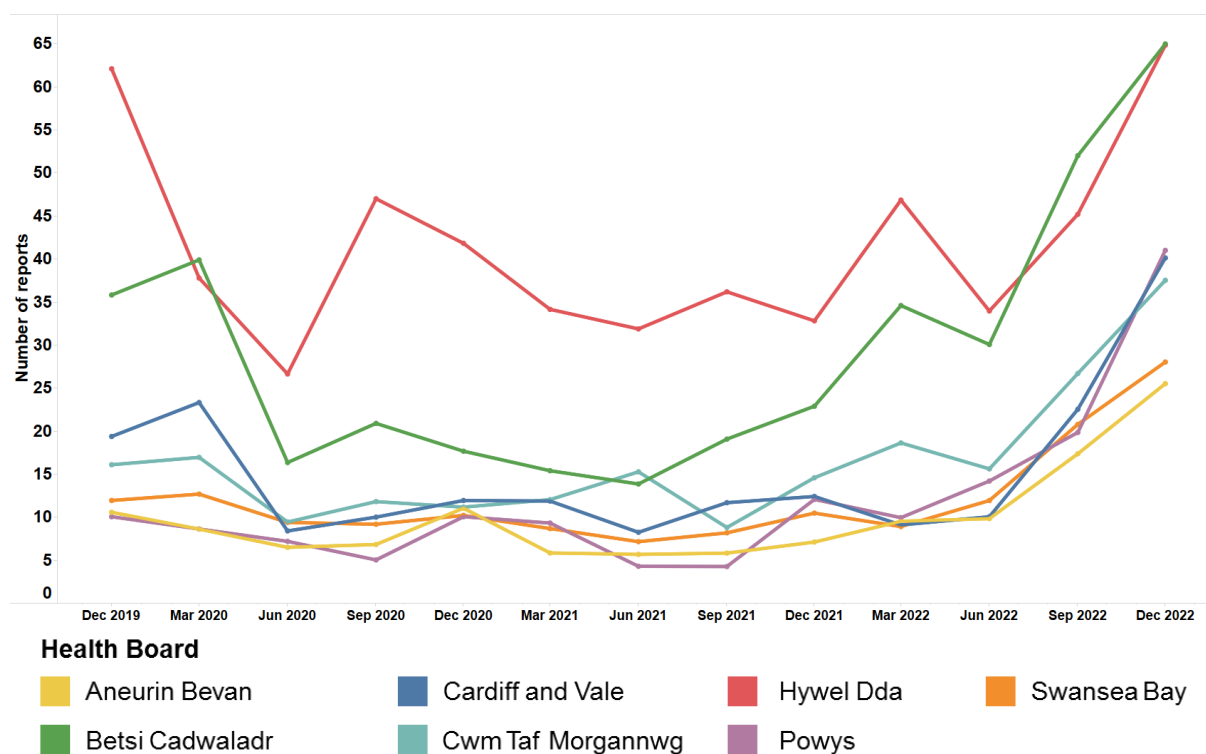
### Health boards/NHS Trust

- The number of Yellow Cards submitted by health boards increased by 167% compared with the equivalent quarter of the previous year.
- The largest percentage increase was seen in Aneurin Bevan UHB.
- Velindre NHS Trust demonstrated a decrease in the number of reports submitted.

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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
<b>Aneurin Bevan</b>	44	159	261%
<b>Powys</b>	17	58	241%
<b>Cardiff And Vale</b>	65	213	228%
<b>Betsi Cadwaladr</b>	162	462	185%
<b>Swansea Bay</b>	41	111	171%
<b>Cwm Taf Morgannwg</b>	68	176	159%
<b>Hywel Dda</b>	130	259	99%
<b>Velindre</b>	16	13	-19%
<b>Wales</b>	<b>543</b>	<b>1451</b>	<b>167%</b>

**Figure 15. Number of Yellow Cards submitted by health boards per 100,000 health board population**



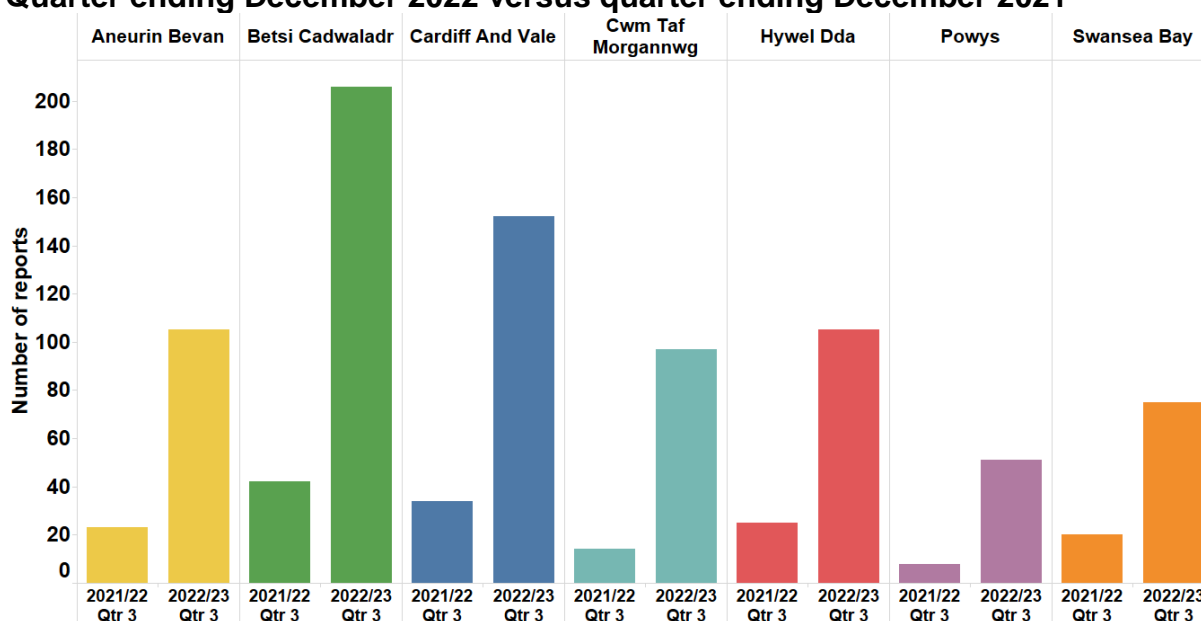
### Members of the public

- The number of Yellow Cards submitted by members of the public across Wales increased by 377% compared with the equivalent quarter of the previous year.
- The largest percentage increase in member of the public reporting was seen in Cwm Taf Morgannwg UHB.

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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
<b>Cwm Taf Morgannwg</b>	14	97	593%
<b>Powys</b>	8	51	538%
<b>Betsi Cadwaladr</b>	42	206	390%
<b>Aneurin Bevan</b>	23	105	357%
<b>Cardiff And Vale</b>	34	152	347%
<b>Hywel Dda</b>	25	105	320%
<b>Swansea Bay</b>	20	75	275%
<b>Wales</b>	<b>166</b>	<b>791</b>	<b>377%</b>

**Figure 16. Number of Yellow Cards submitted by members of the public – Quarter ending December 2022 versus quarter ending December 2021**





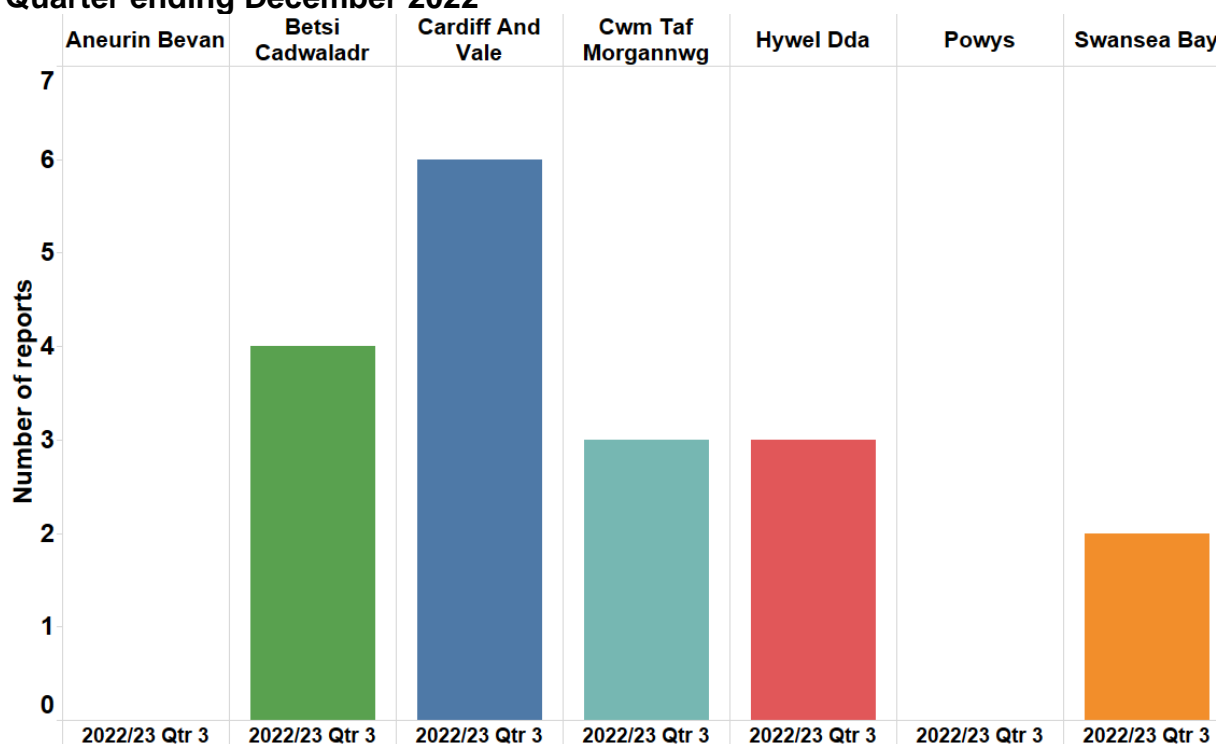
### Community pharmacy

- Across Wales, a total of 18 Yellow Card reports were submitted by community pharmacies during the quarter ending December 2022.
- The number of Yellow Card reports submitted by community pharmacies in health boards across Wales ranged from 0 to 6.

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

	2022–2023 Qtr 3
Cardiff And Vale	6
Betsi Cadwaladr	4
Cwm Taf Morgannwg	3
Hywel Dda	3
Swansea Bay	2
Powys	0
Aneurin Bevan	0
<b>Wales</b>	<b>18</b>

**Figure 17. Number of Yellow Cards submitted by community pharmacy – Quarter ending December 2022**



### 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.

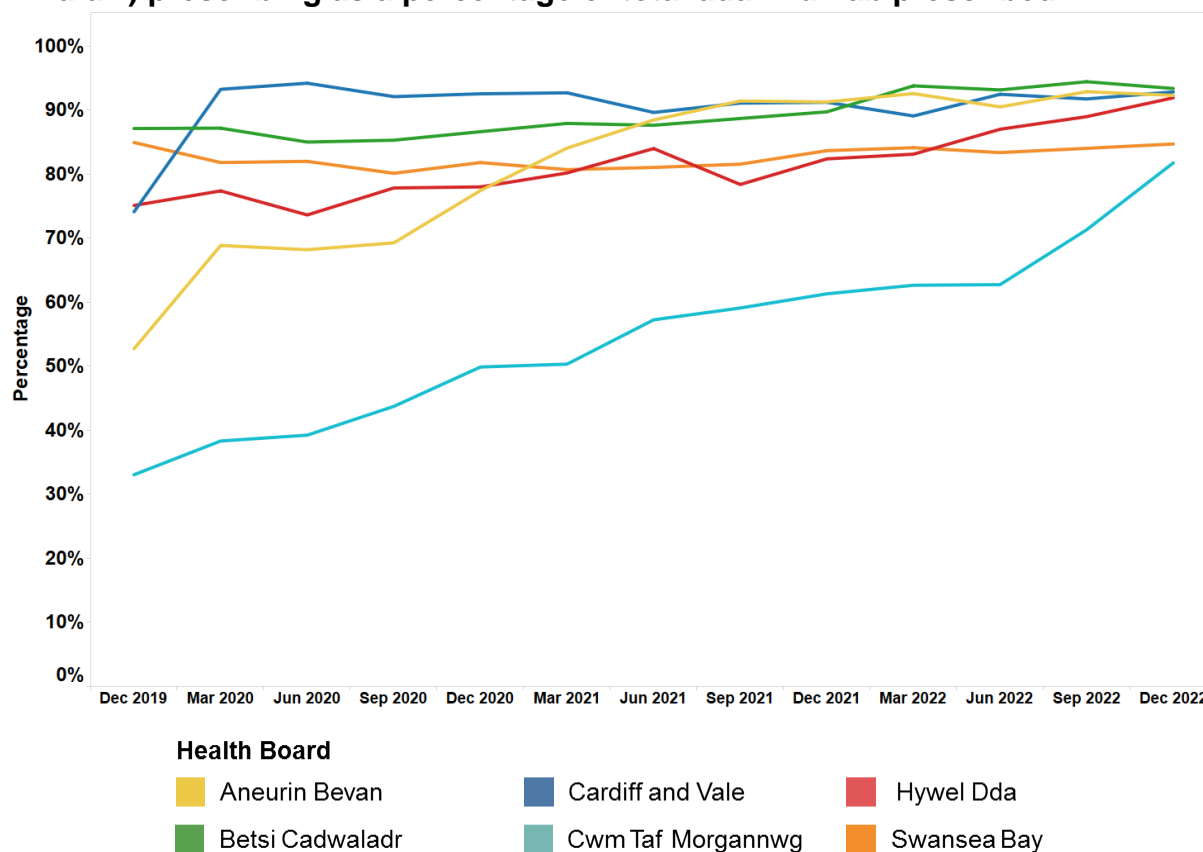
### 2.2.1.1 Adalimumab

- Across Wales, adalimumab biosimilar prescribing increased by 6.65%, for the quarter ending December 2022 compared with the equivalent quarter of the previous year. This is in line with the aim of this indicator.
- For the quarter ending December 2022, adalimumab biosimilar prescribing ranged from 81.8% to 93.4% 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.
- All six health boards demonstrated an increase in percentage, compared with the equivalent quarter of the previous year.
- Cwm Taf Morgannwg UHB demonstrated the largest percentage increase.
- Aneurin Bevan UHB demonstrated the smallest percentage increase.

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

	2021-2022 Qtr 3	2022-2023 Qtr 3	% Change
<b>Cwm Taf Morgannwg</b>	61.3%	81.8%	33.3%
<b>Hywel Dda</b>	82.4%	91.9%	11.6%
<b>Betsi Cadwaladr</b>	89.8%	93.4%	4.06%
<b>Cardiff And Vale</b>	91.2%	92.9%	1.78%
<b>Swansea Bay</b>	83.7%	84.7%	1.24%
<b>Aneurin Bevan</b>	91.3%	92.3%	1.12%
<b>Wales</b>	<b>84.1%</b>	<b>89.6%</b>	<b>6.65%</b>

**Figure 18. Trend in adalimumab biosimilar (Amgevita®, Hulio®, Hyrimoz®, Imraldi®) prescribing as a percentage of total adalimumab prescribed**



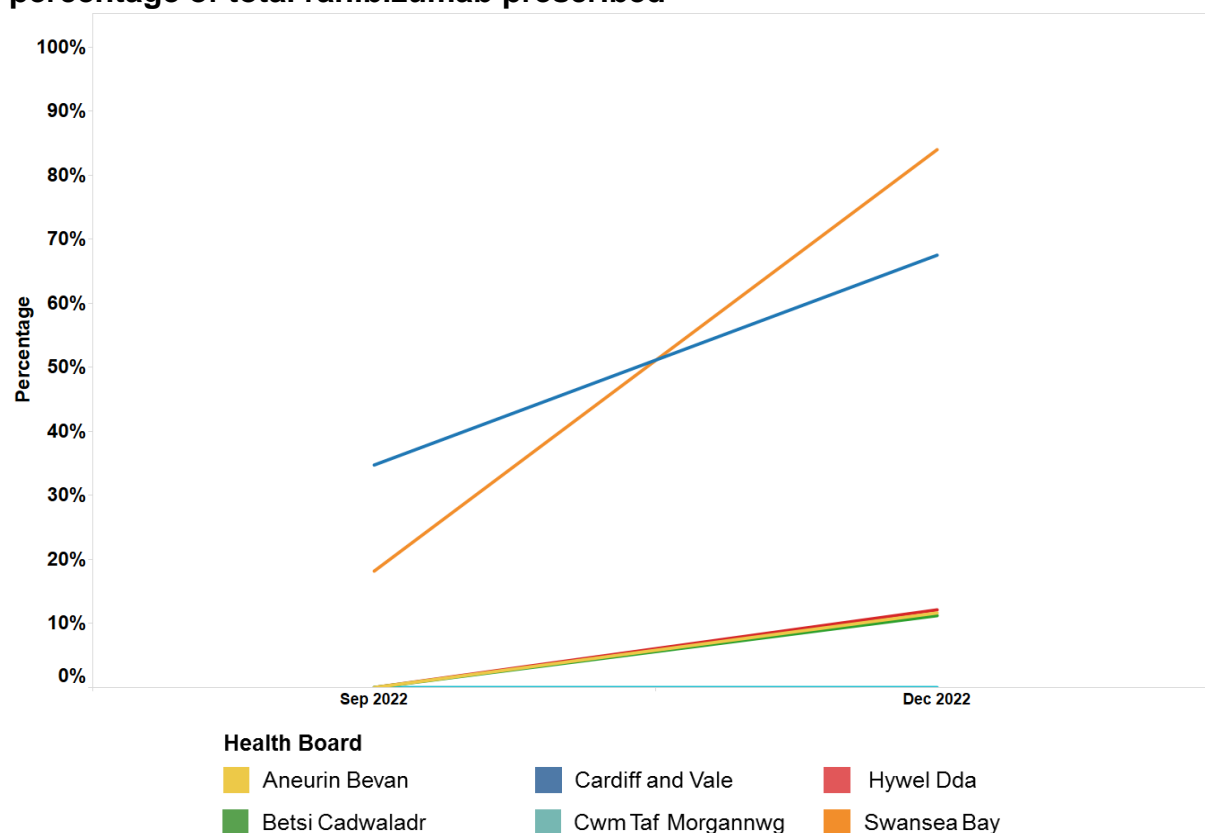
### 2.2.1.2 Ranibizumab

- Prior to the quarter ending September 2022, there was no ranibizumab biosimilar usage.
- For the quarter ending December 2022, ranibizumab biosimilar prescribing ranged from 0.00% to 84.0% across the health boards.
- The health board with the highest percentage was Swansea Bay 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 3	2022-2023 Qtr 3	% Change
<b>Aneurin Bevan</b>	N/A	11.6%	N/A
<b>Betsi Cadwaladr</b>	N/A	11.2%	N/A
<b>Cardiff And Vale</b>	N/A	67.5%	N/A
<b>Cwm Taf Morgannwg</b>	N/A	0.0%	N/A
<b>Hywel Dda</b>	N/A	12.1%	N/A
<b>Swansea Bay</b>	N/A	84.0%	N/A
<b>Grand Total</b>	<b>N/A</b>	<b>20.6%</b>	<b>N/A</b>

**Figure 19. 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).

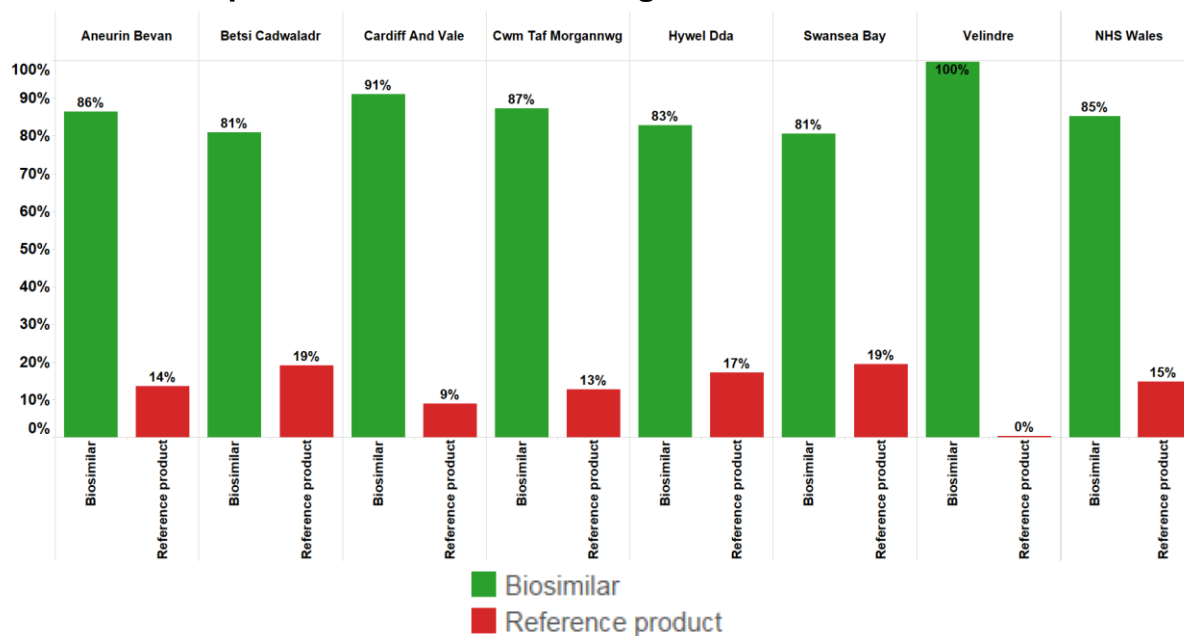
**Table 19. Infliximab, etanercept, rituximab and trastuzumab biosimilar as a percentage of reference and biosimilar prescribed**

	2022-2023 Qtr 3			
	Infliximab	Etanercept	Rituximab	Trastuzumab
Aneurin Bevan	97.7%	87.0%	99.4%	100%
Betsi Cadwaladr	99.5%	95.1%	100%	100%
Cardiff And Vale	99.6%	84.8%	100%	N/A
Cwm Taf Morgannwg	96.8%	89.8%	98.3%	100%
Hywel Dda	98.8%	87.5%	100%	35.1%
Swansea Bay	96.1%	69.6%	99.1%	12.5%
Velindre	100%	N/A%	100%	97.9%
<b>Wales</b>	<b>98.1%</b>	<b>84.0%</b>	<b>99.8%</b>	<b>87.0%</b>

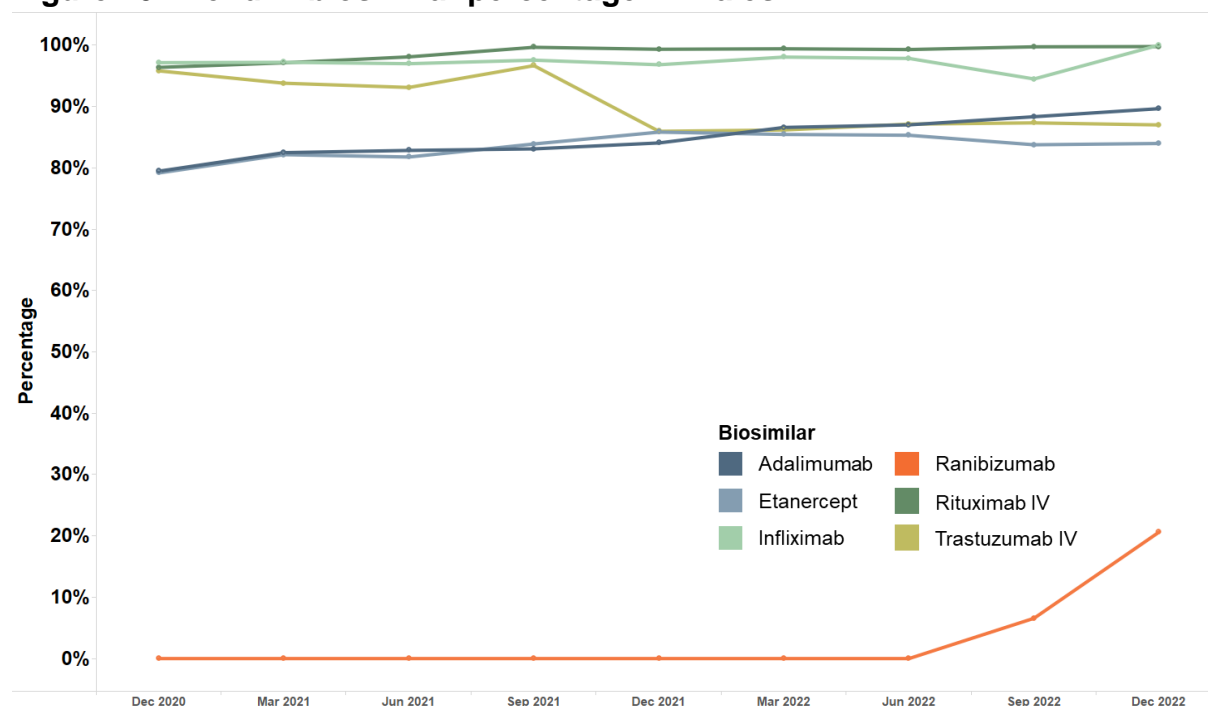
### 2.2.1.4 Total biosimilar usage

Within Wales there was an increase in the use of the reported biosimilar medicines (adalimumab, infliximab, etanercept, ranibizumab, rituximab, trastuzumab,) combined as a percentage of reported 'reference' biological medicines plus biosimilars combined, from 80% to 85% for the quarter ending December 2022 compared with the equivalent quarter of the previous year.

**Figure 19. Biological reference and biosimilar as a proportion of total reference plus biosimilar prescribed – Quarter ending December 2022**



**Figure 20. 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.

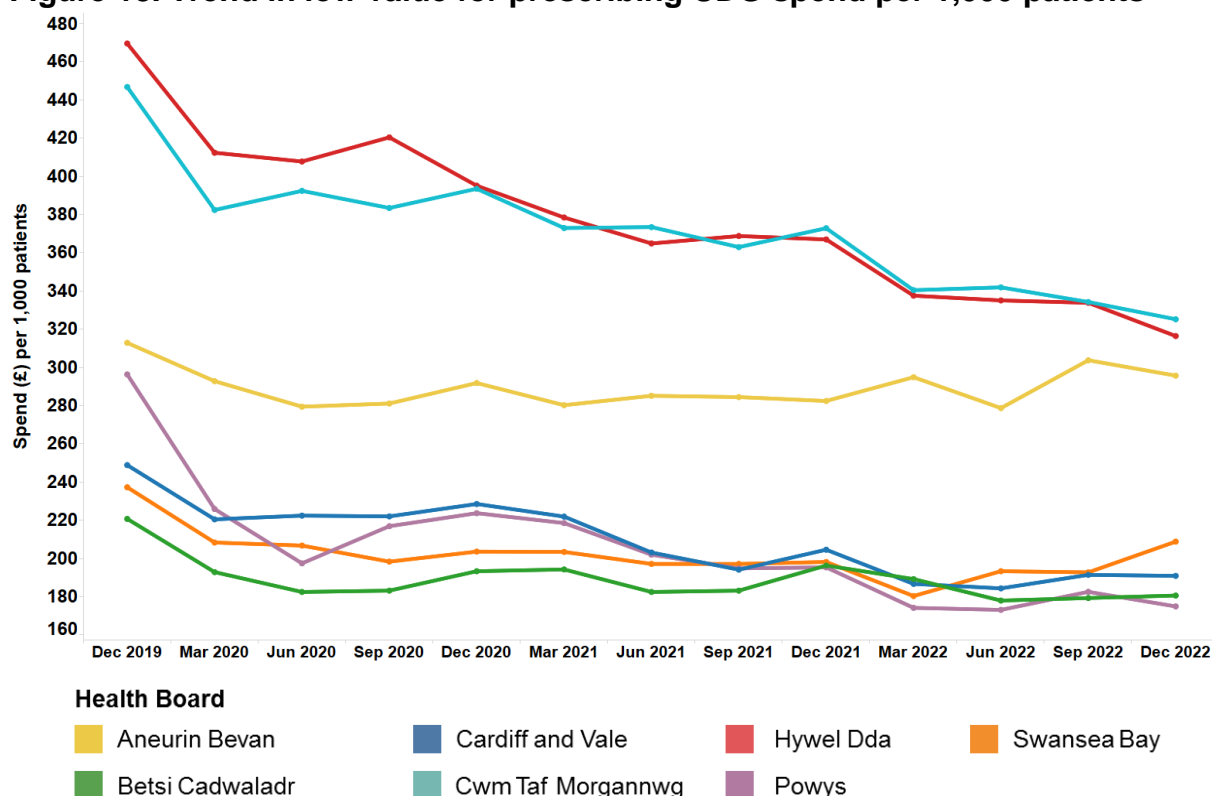
An additional four items/item groups were included in the second phase:

- 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 6.05% for the quarter ending December 2022, compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
  - For the quarter ending December 2022, UDG spend per 1,000 patients ranged from £175 to £325 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 Cwm Taf Morgannwg UHB.
  - UDG spend per 1,000 patients decreased compared with the equivalent quarter of the previous year in five of the seven health boards.
  - The health board with the greatest percentage decrease was Hywel Dda HB.
  - Swansea Bay UHB demonstrated the largest percentage increase.

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

	2021–2022 Qtr 3	2022–2023 Qtr 3	% Change
Hywel Dda	367	316	-13.8%
Cwm Taf Morgannwg	373	325	-12.8%
Powys	195	175	-10.5%
Betsi Cadwaladr	196	181	-8.01%
Cardiff And Vale	205	191	-6.70%
Aneurin Bevan	282	296	4.70%
Swansea Bay	198	209	5.37%
<b>Wales</b>	<b>260</b>	<b>245</b>	<b>-6.05%</b>

Figure 18. 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.

**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**

<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>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> -VASc 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> -VASc 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.	

National Prescribing Indicator	Applicable to:	Unit of measure	Target for 2022–2023	Data source
<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
<b>Yellow Cards</b>	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	
	Health board		10% or greater increase from baseline (2021–2022) for Yellow Cards submitted by secondary care	
	Community pharmacy		25% or greater increase from baseline (2021–2022) for Yellow Cards submitted by members of the public	
			No target set. Reported as the number of Yellow Cards submitted by health board	
<b>Supporting Domain: Efficiency</b>				
<b>Best value biological medicines</b>	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
<b>Low value for prescribing</b>	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 December 2022 versus quarter ending December 2021

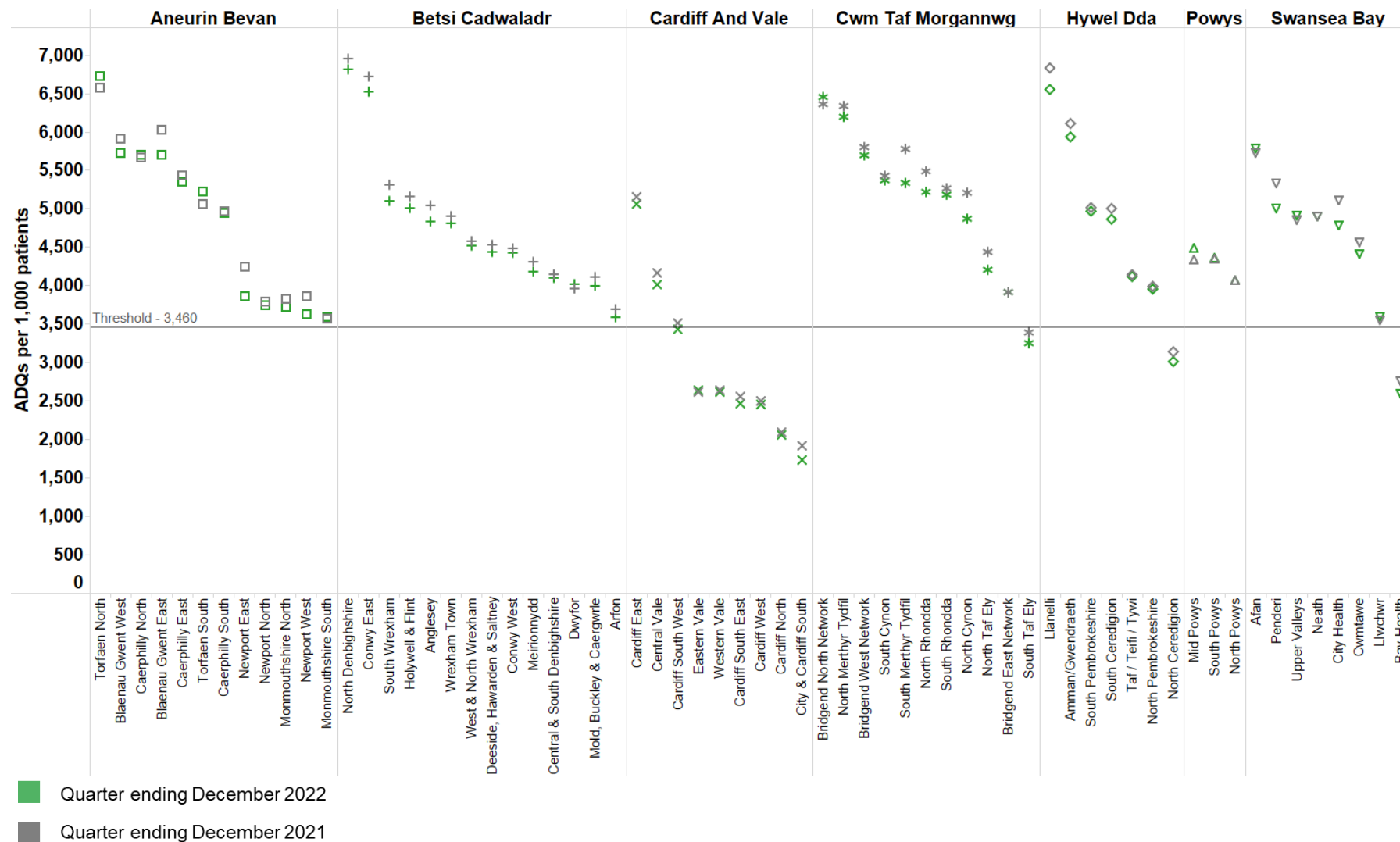


Figure 2. High strength opioid prescribing – Quarter ending December 2022 versus quarter ending December 2021

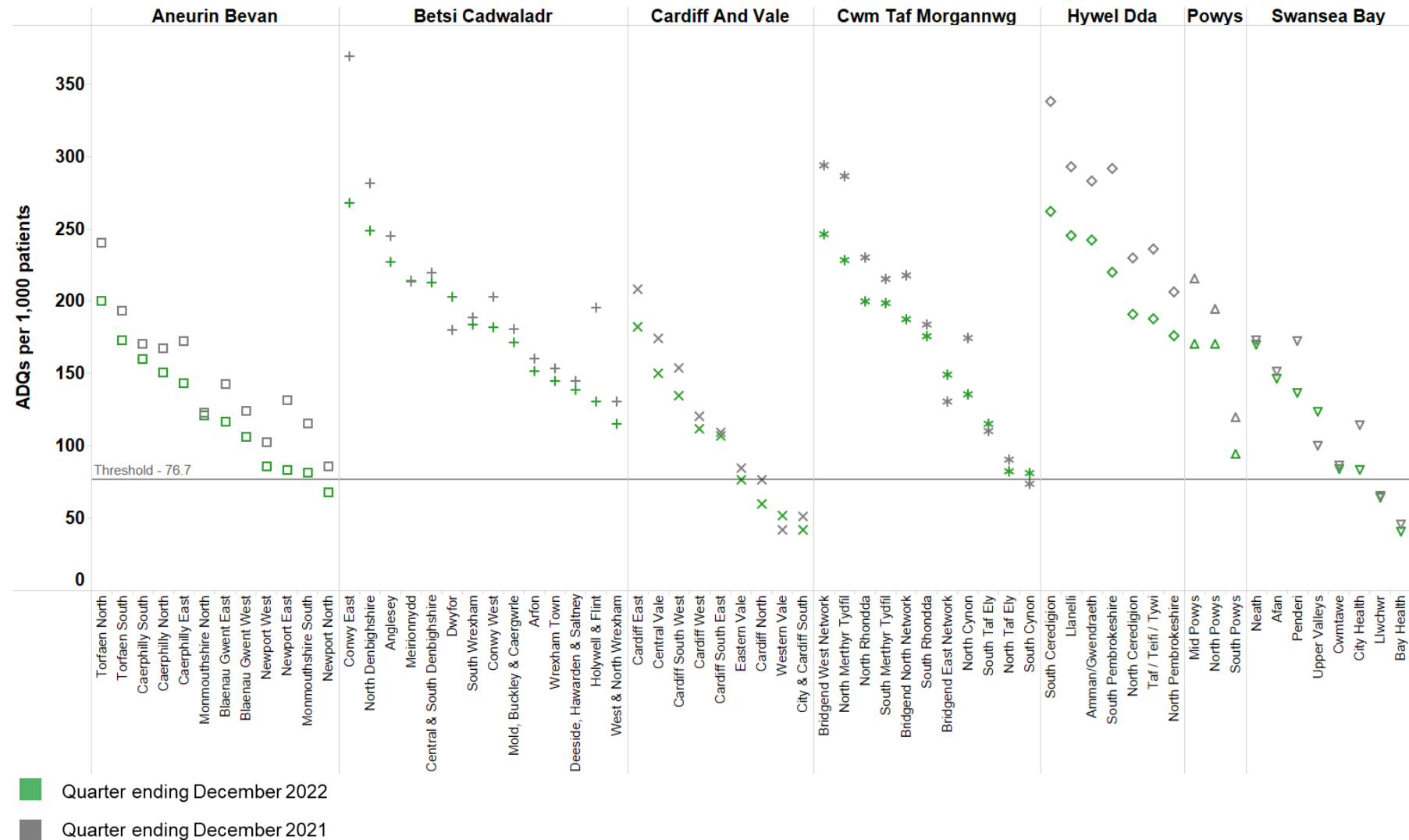


Figure 3. Tramadol prescribing – Quarter ending December 2022 versus quarter ending December 2021

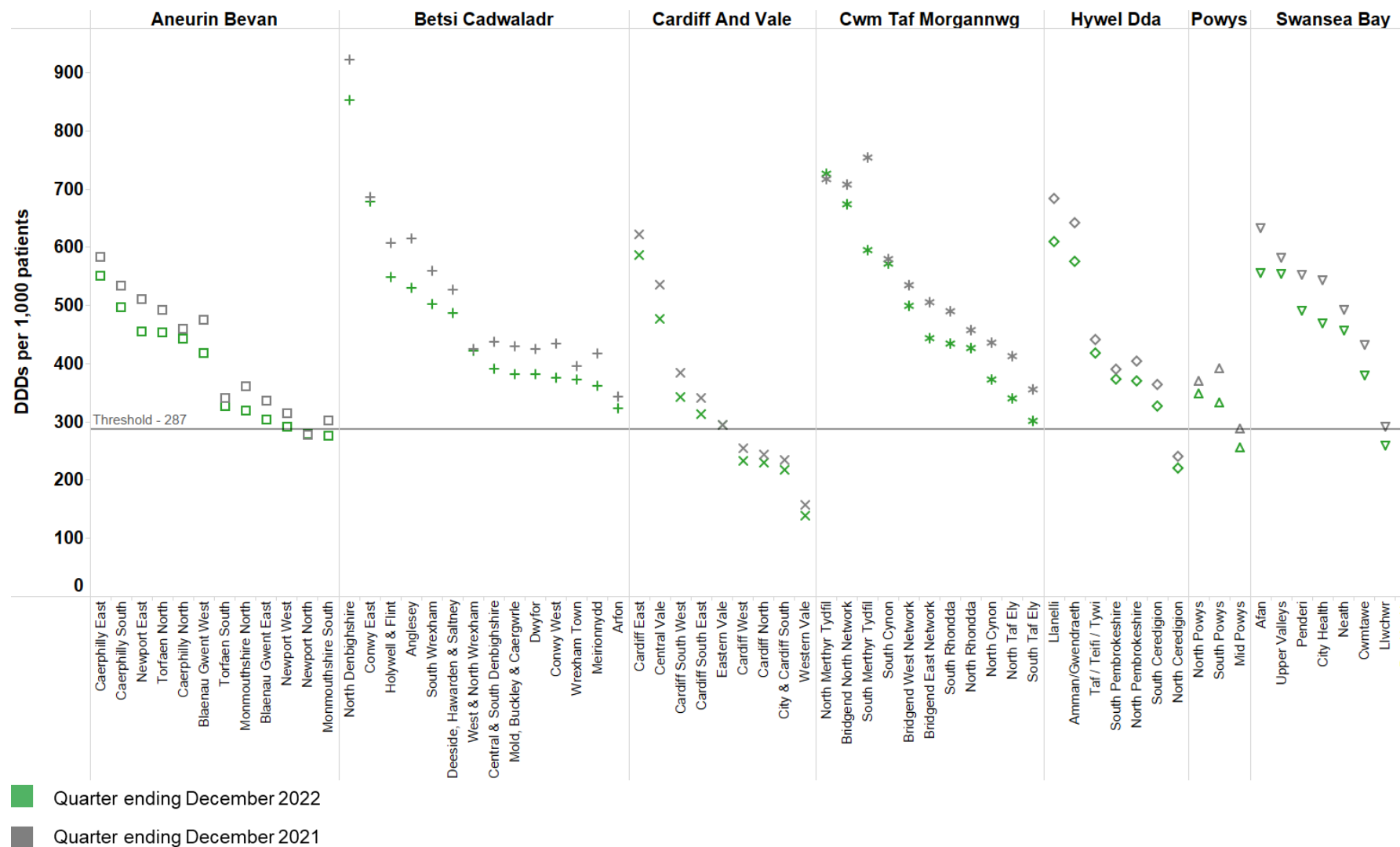




Figure 4. Gabapentin and pregabalin prescribing – Quarter ending December 2022 versus quarter ending December 2021

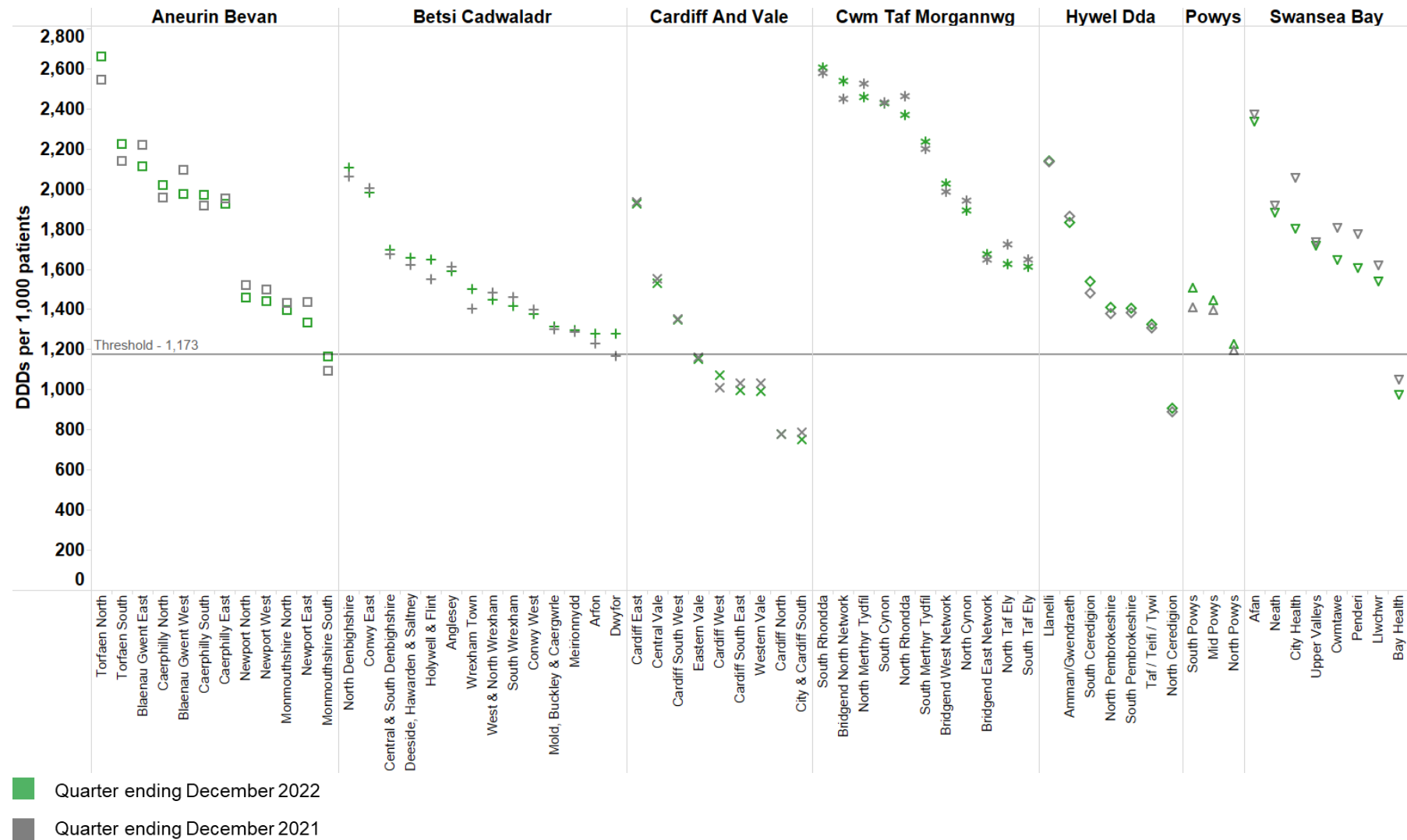


Figure 5. Antimicrobial prescribing – Quarter ending December 2022 versus quarter ending December 2021

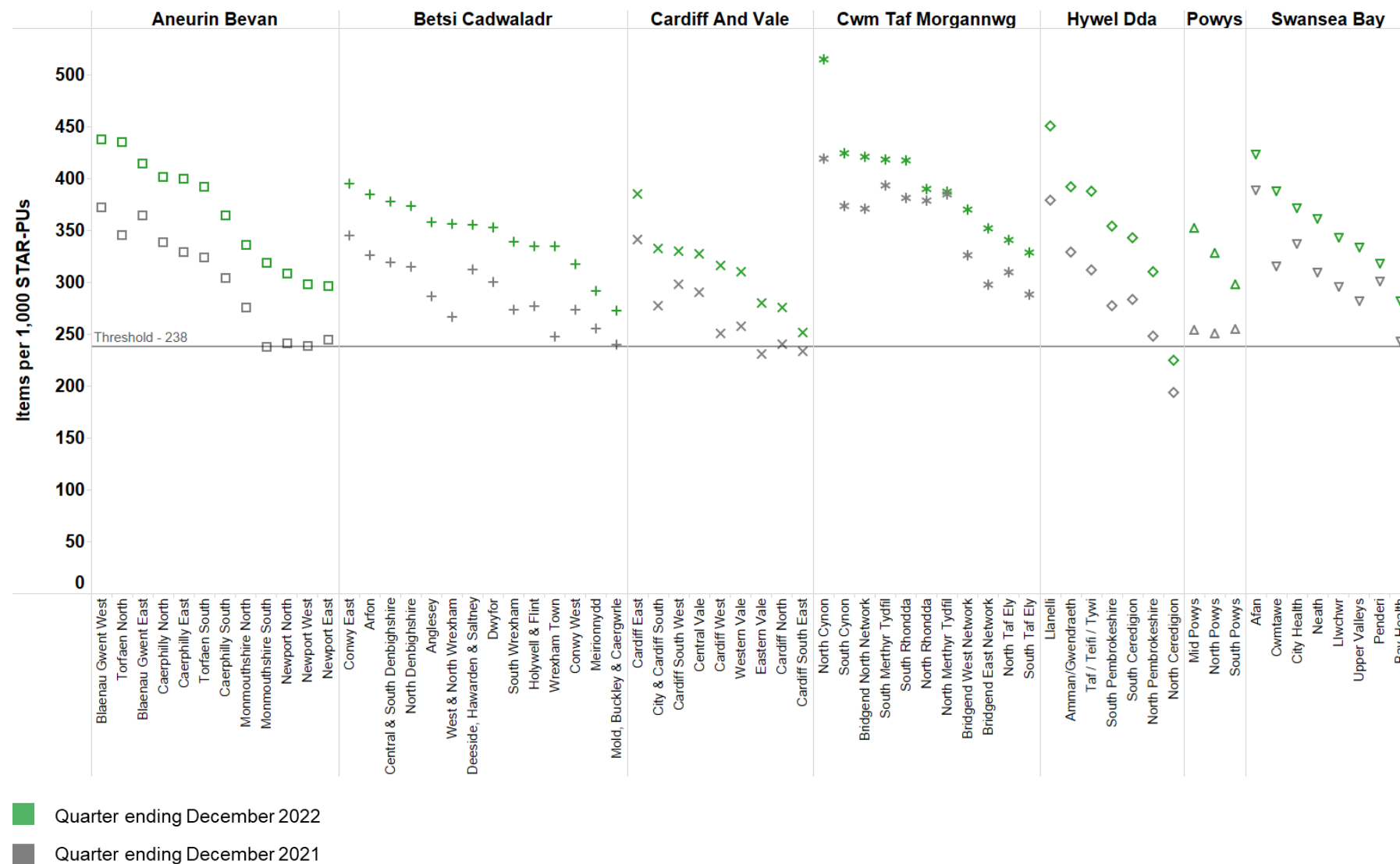


Figure 6. 4C prescribing – Quarter ending December 2022 versus quarter ending December 2021

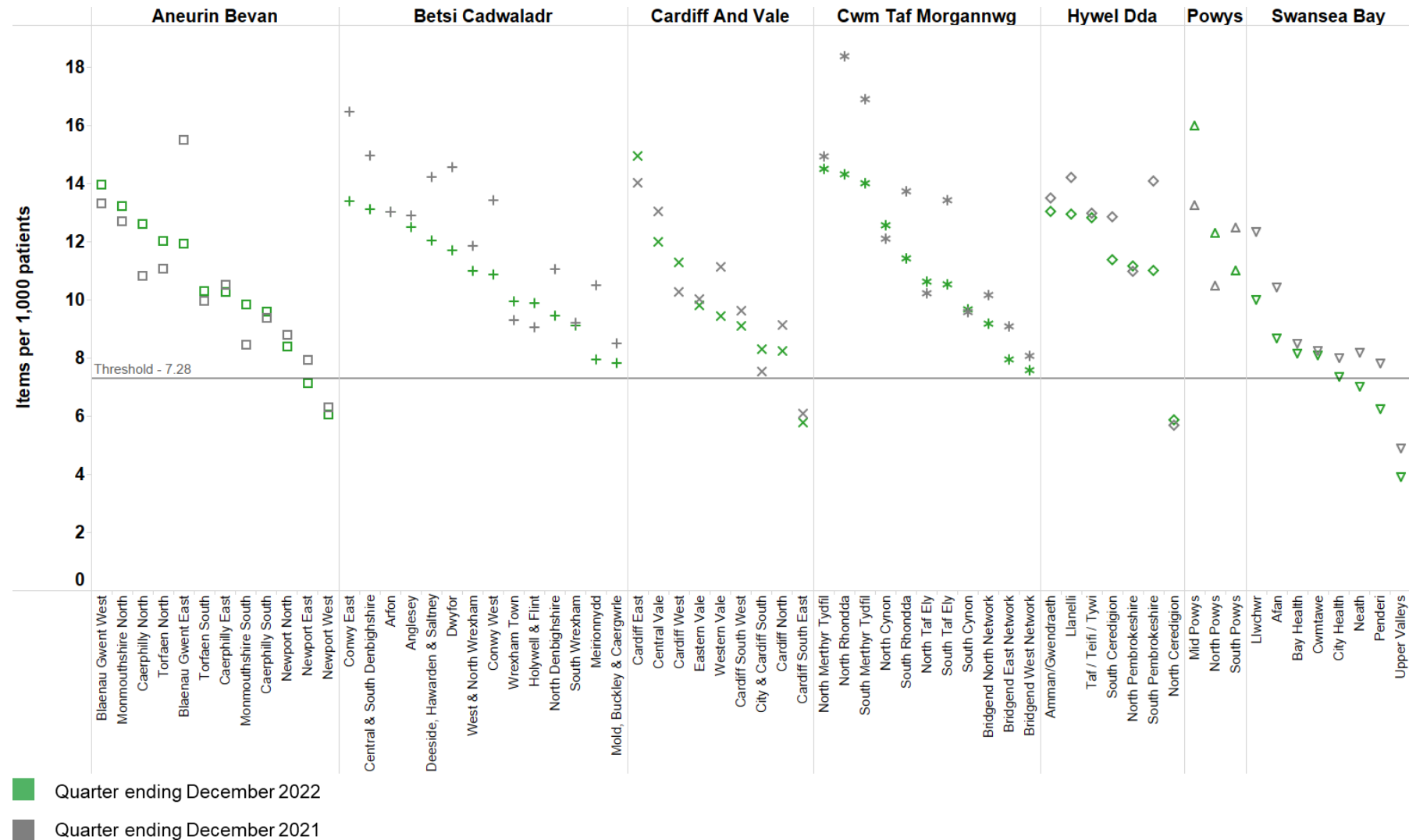


Figure 7. Decarbonisation of inhalers – Quarter ending December 2022 versus quarter ending December 2021

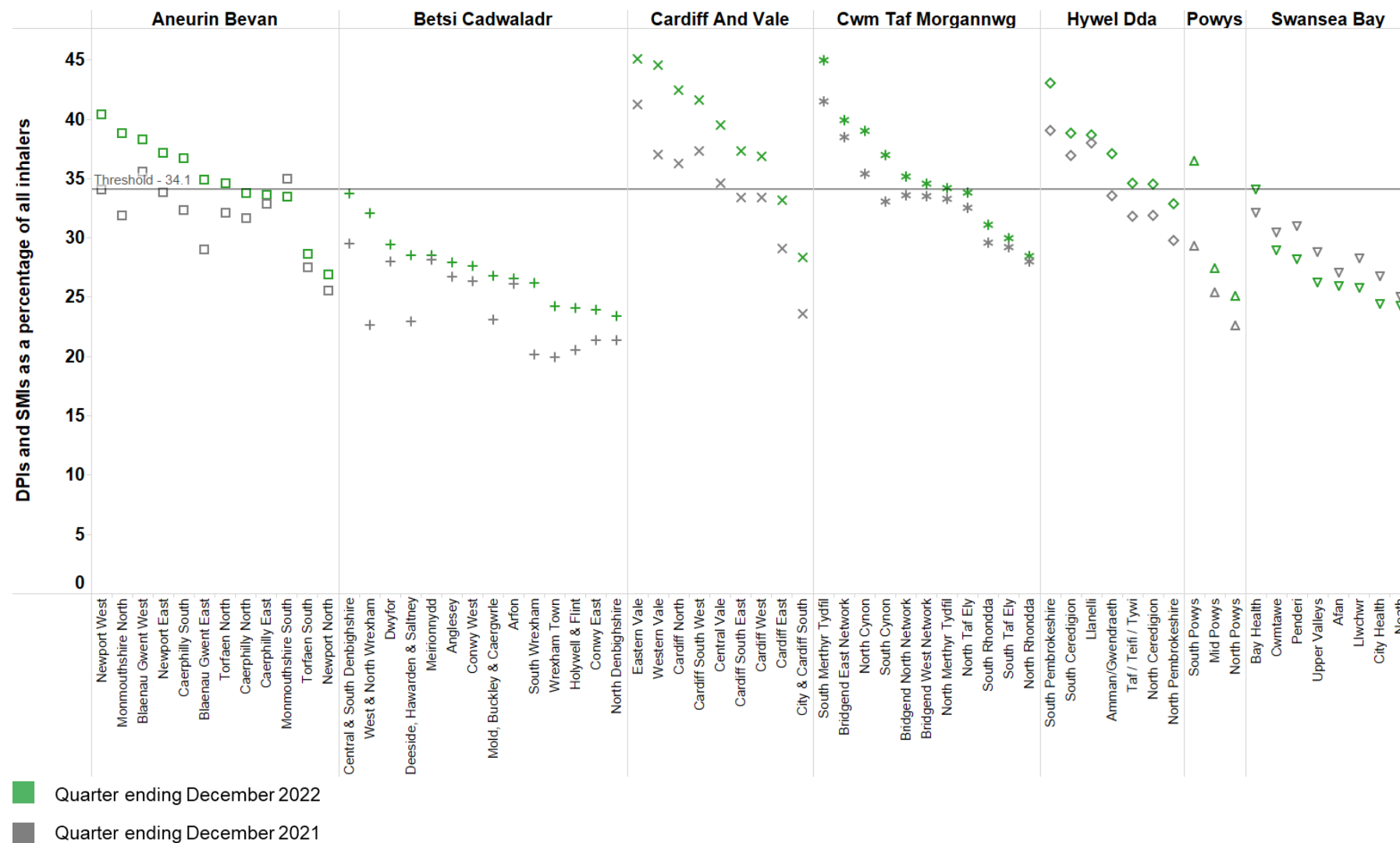


Figure 8. Hypnotic and anxiolytic prescribing – Quarter ending December 2022 versus quarter ending December 2021

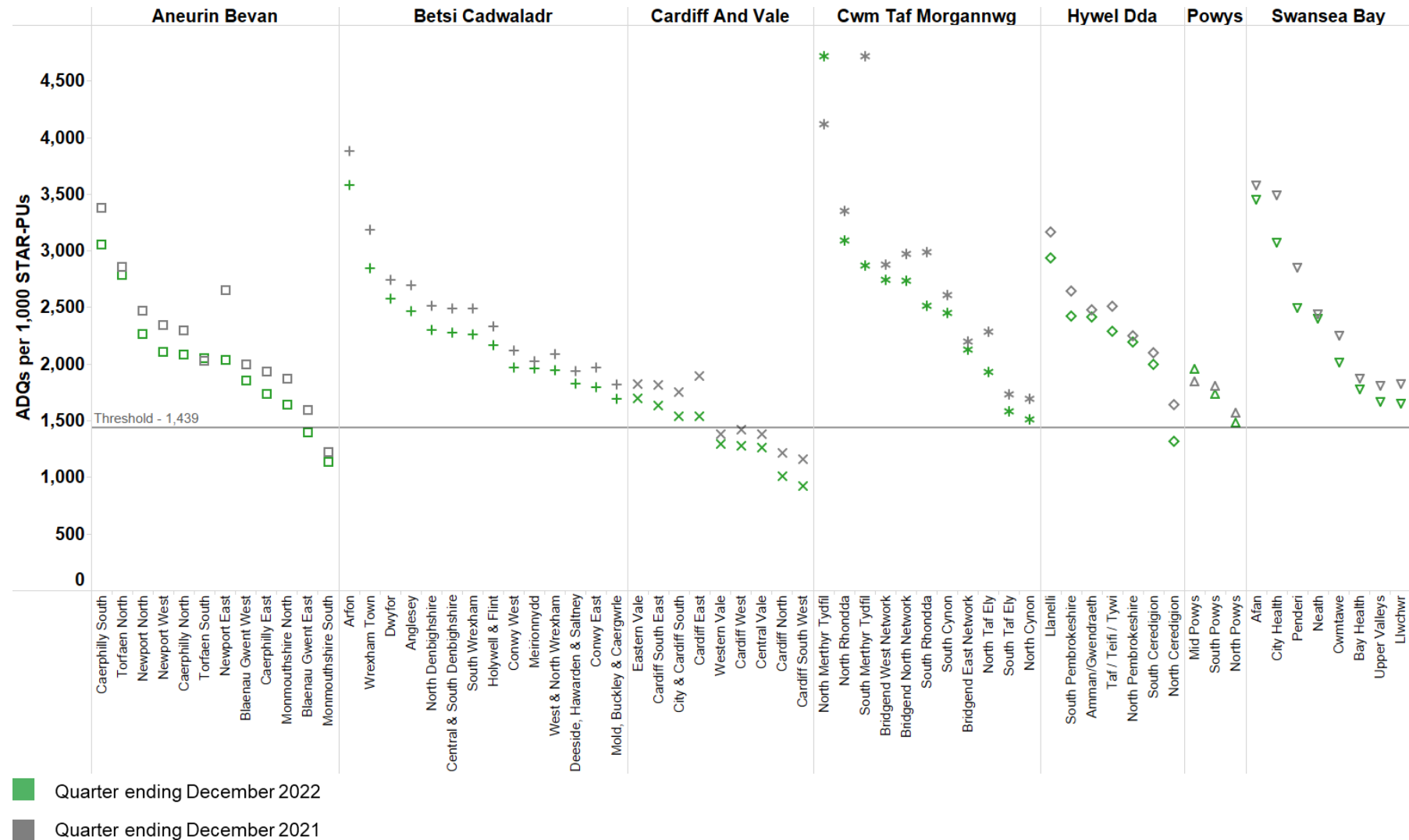


Figure 9. Low value for prescribing UDG spend (£) per 1,000 patients – December 2022 versus quarter ending December 2021

