

# National Prescribing Indicators 2019–2020

Analysis of Prescribing Data to March 2020

21 August 2020: Yellow Card heat map (page 6) was corrected on 21 August 2020

30 October 2020: Data for the Opioid burden NPI has been reinserted with an explanatory note on how data from January 2020 onwards do not include co-codamol 15/500.

#### **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. NPIs for 2019–2020 include indicators for primary and secondary care, and have been categorised as safety, stewardship or efficiency indicators.

Background information supporting the choice of NPIs is detailed in the document National Prescribing Indicators 2019–2020.

This report contains data relating to the NPIs for the fourth quarter of 2019–2020. 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 during the month of March 2020 should be considered when reviewing the data contained within this report.

#### SAFETY INDICATORS

For 2019–2020 there are five safety NPIs:

- The Prescribing Safety Indicators: the aim of which are 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.
- Proton pump inhibitors (DDDs per 1,000 PUs) in primary care increased by 6.58% across Wales, compared with the equivalent quarter of the previous year, despite the aim of the indicator being to decrease prescribing.
- Prescribing of hypnotics and anxiolytics (ADQs per 1,000 STAR-PUs) in primary care reduced by 6.18% across Wales, compared with the equivalent guarter of the previous year. This is in line with the aim of the indicator.
- Analgesics in primary care:
  - Opioid burden (ADQs per 1,000 patients) reduced by 2.46% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator. Please note: The NHS Business Services Authority move to a One Drug Database has resulted in the removal of the ADQ value for co-codamol 15/500 from January 2020, therefore data from this point onwards do not include co-codamol 15/500.
  - Tramadol (DDDs per 1,000 patients) reduced by 5.80% across Wales, compared with the equivalent quarter of the previous year, in line with the aim of the indicator.
  - o Gabapentin and pregabalin (DDDs per 1,000 patients) demonstrated an increase of 2.94% across Wales, compared with the equivalent quarter of the previous year, despite the aim of the indicator being to reduce prescribing.
- Yellow Card reporting. Annual targets have been set for these indicators, with the aim of increasing the number of Yellow Card reports submitted. Quarter four data demonstrates:
  - o A 38.0% decrease in reporting by GP practices across Wales, compared with the equivalent guarter of the previous year.
  - o A 3.55% decrease in secondary care reporting across Wales, compared with the equivalent quarter of the previous year.
  - o A 29.5% decrease in reporting by health boards / NHS Trusts across Wales, compared with the equivalent guarter of the previous year.
  - o A 9.89% decrease in reporting by members of the public across Wales, compared with the equivalent guarter of the previous year.
  - o The figures for Yellow Cards submitted by community pharmacy are also included in the report; however, targets have not been set.

#### STEWARDSHIP INDICATORS

Stewardship indicators for 2019–2020 focus on antimicrobial prescribing in primary care with the aim of reducing inappropriate prescribing and variation. Specific reduction targets have been set for these indicators, either at health board or GP practice level:

- Total antibacterial items per 1,000 STAR-PUs decreased across Wales by 9.53% compared with the quarter ending March 2018. All seven health boards achieved the target of a 5% reduction against the baseline of guarter 4 2017–2018.
- 4C (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients decreased across Wales by 20.9%, compared with the
  baseline of quarter 4 2017–2018.

#### **EFFICIENCY INDICATORS**

There are two efficiency indicators for 2019–2020, covering primary and secondary care:

- Prescribing of long-acting insulin analogues increased in primary care and secondary care compared with the equivalent quarter of the previous year, contrary to the aim of the indicator.
- There was an increase in the overall use of three of the five biosimilar medicines being monitored (adalimumab, infliximab, and trastuzumab) compared with the equivalent quarter of the previous year, in line with the aim of the NPI. There was a decrease in the overall use of two of the five biosimilar medicines being monitored (etanercept and rituximab) compared with the equivalent quarter of the previous year, contrary to the aim of the indicator.

The 2020–2021 NPI report for quarter ending June 2020 will be available on 23<sup>rd</sup> October 2020.

You are welcome to use the data presented within this report. If you wish to reproduce any information in your own outputs, please include the following citation: All Wales Therapeutics and Toxicology Centre. National Prescribing Indicators 2019-2020 – Analysis of Prescribing Data to March 2020. July 2020.

Data presented within this report are also accessible via the Server for Prescribing Information Reporting and Analysis (SPIRA) at <a href="https://www.awttc.org/spira">www.awttc.org/spira</a>.

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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 target for antibacterial items per 1,000 STAR-PUs is by health board, therefore a tick demonstrates achievement.

#### Health boards/practices achieving the indicator targets/thresholds - Quarter ending March 2020\*

Indicator Description	Aneurin Bevan	Betsi Cadwaladr	Cardiff And Vale	Cwm Taf Morgannwg	Hywel Dda	Powys	Swansea Bay
Proton pump inhibitors DDDs per 1,000 PUs	13	19	29	6	6	1	12
	17%	18%	47%	11%	12%	6%	24%
Hypnotics and anxiolytics ADQs per 1,000	24	27	39	12	8	8	14
STAR-PUs	32%	26%	63%	23%	16%	50%	29%
Tramadol DDDs per 1,000 patients	29	34	39	9	17	9	13
	39%	33%	63%	17%	35%	56%	27%
Gabapentin and pregabalin DDDs per 1,000 patients	11	26	38	2	16	6	7
	15%	25%	61%	4%	33%	38%	14%
Antibacterial items per 1,000 STAR-PUs	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>	<b>~</b>
4C antibacterial items per 1,000 patients	34	65	40	42	35	7	43
	45%	63%	65%	79%	71%	44%	88%

Percentage of practices meeting threshold

0% 100%

<sup>\*</sup> Data for the Opioid burden NPI has been removed due to an issue identified with the ADQ value for co-codamol 15/500, affecting Quarter 4 data for 2019-20 only. As soon as this is rectified, the report and heatmap will be updated accordingly.

# Health boards/practices achieving the Yellow Card indicator targets – Full year 2019–2020

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	12 15%	66 63%	15 24%	14 25%	39 76%	1 6%	17 33%	
Secondary care	×	×	×	×	×	×	×	×
Health boards	×	<b>~</b>	<b>~</b>	~	<b>~</b>	×	<b>~</b>	_
Members of public	×	×	×	×	×	×	×	<u></u>

Percentage of practices meeting threshold

# SAFETY INDICATORS

#### 1.0 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:

- Number of patients with a peptic ulcer who have been prescribed NSAIDs without a PPI.
- 2. Number of patients with asthma who have been prescribed a beta-blocker.
- Number of patients with concurrent prescriptions of verapamil and a beta-blocker.
- 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 with a current prescription of oestrogen-only hormone replacement therapy without any hysterectomy READ/SNOMED codes.
- Number of patients with concurrent prescriptions of warfarin and an oral NSAID.
- Number of patients aged under 16 years with a current prescription of aspirin.
- 8. Number of patients aged 65 years or over prescribed an NSAID plus aspirin and/or clopidogrel but without gastroprotection (PPI or  $H_2$  receptor antagonist).
- 9. Number of patients aged 65 years or over prescribed an antipsychotic.
- 10. Number of patients aged 75 and over with an Anticholinergic Effect on Cognition (AEC) score of 3 or more for items on active repeat.
- 11. 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.
- 12. 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.
- 13. Number of female patients aged 14–45 with a prescription for sodium valproate.

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

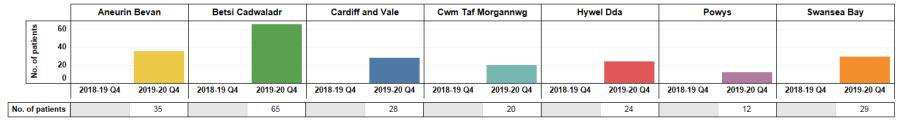
In the UK, it is estimated that around 6.5% of hospital admissions are related to adverse drug reactions (ADRs). ADRs can often be predictable making it possible to identify potential causes and address them before actual patient harm occurs.

This NPI provides a process of identifying patients electronically, enabling intervention and helping to avoid patient harm.

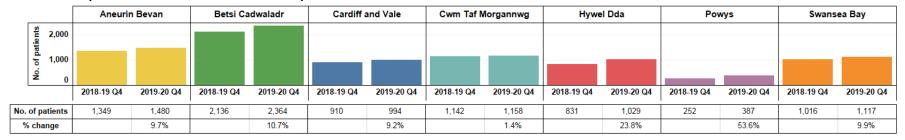
No target has been set for this NPI and it is not intended that comparisons are made between health boards. However, data can provide a baseline for future quarters to enable monitoring within health boards.

Figure 1. Prescribing Safety Indicators – Quarter ending March 2020 compared with quarter ending March 2019

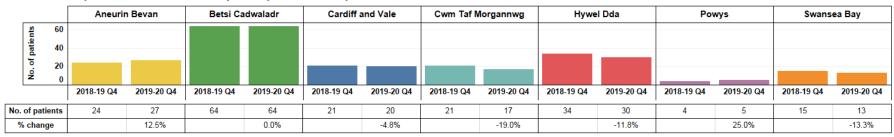
#### 01. Number of patients with a peptic ulcer who have been prescribed NSAIDs without a PPI'.



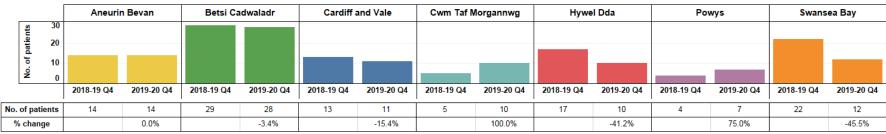
#### 02. Number of patients with asthma who have been prescribed a beta-blocker.



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

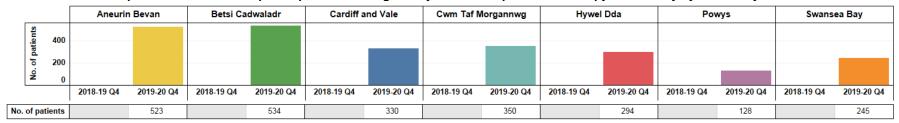


### 04. Number of female patients with a past medical history of venous or arterial thrombosis who have been prescribed combined hormonal contraceptives.

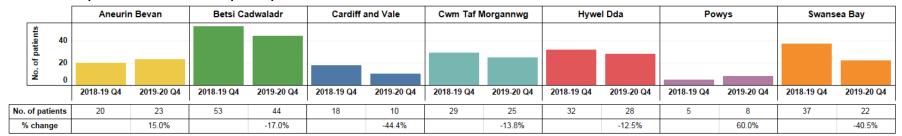


<sup>\*</sup> Audit+ searches for this prescribing safety indicator were amended for the quarter ending March 2020 therefore there are no comparative data for 2018–2019.

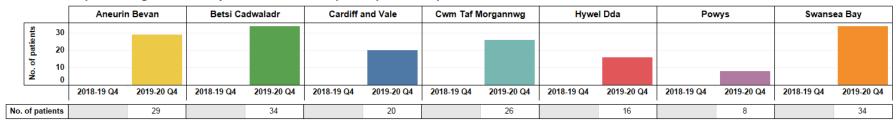
#### 05. Number of female patients with a current prescription of oestrogen-only hormone replacement therapy without any hysterectomy READ/SNOMED codes.



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



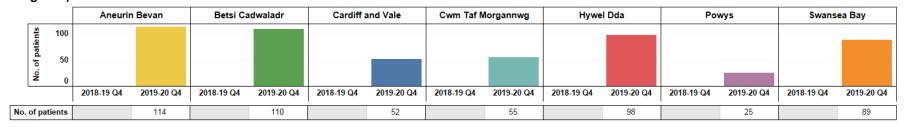
#### 07. Number of patients aged under 16 years with a current prescription of aspirin<sup>†</sup>.



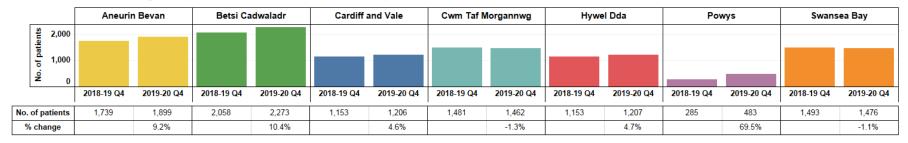
<sup>\*</sup> Audit+ searches for this prescribing safety indicator were amended for the quarter ending March 2020 therefore there are no comparative data for 2018–2019.

<sup>†</sup> This prescribing safety indicator is new for 2019–2020, replacing the previous prescribing safety indicator monitoring the number of patients under the age of 12 years. Therefore, there are no comparative data for 2018–2019.

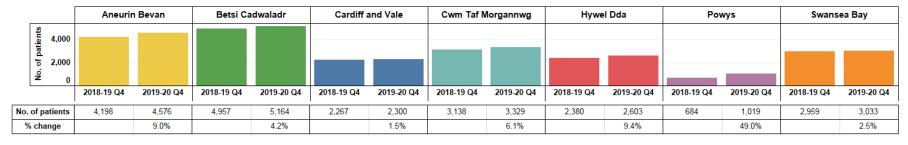
# 08. Number of patients aged 65 years or over prescribed an NSAID plus aspirin and/or clopidogrel but without gastroprotection (PPI or H<sub>2</sub> receptor antagonist)\*.



#### 09. Number of patients aged 65 years or over prescribed an antipsychotic.

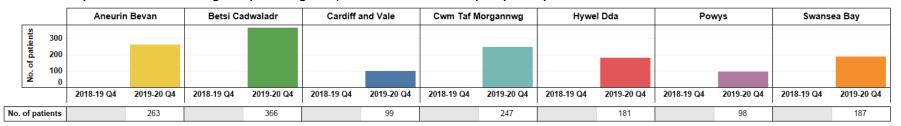


#### 10. Number of patients aged 75 and over with an Anticholinergic Effect on Cognition (AEC) score of 3 or more for items on active repeat.

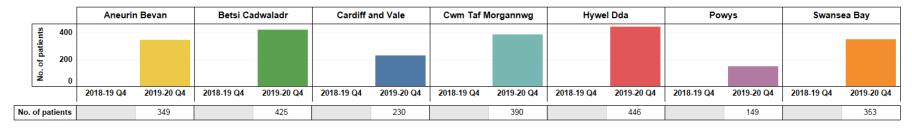


<sup>\*</sup> Audit+ searches for this prescribing safety indicator were amended for the quarter ending March 2020 therefore there are no comparative data for 2018–2019.

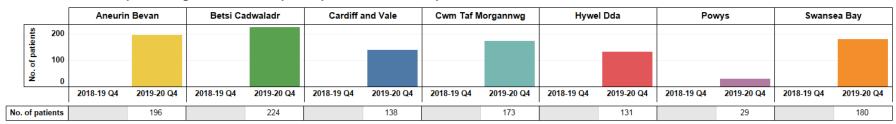
#### 11. Number of patients on the CKD register (CKD stage 3-5) who have received a repeat prescription for an NSAID within the last 3 months.



# 12. 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.



#### 13. Number of female patients aged 14-45 with a prescription for sodium valproate<sup>†</sup>.



<sup>\*</sup> Audit+ searches for this prescribing safety indicator were amended for the quarter ending March 2020, therefore there are no comparative data for 2018–2019.

<sup>†</sup> This prescribing safety indicator is new for 2019–2020. Therefore, there are no comparative data for 2018–2019.

#### 2.0 PROTON PUMP INHIBITORS

**Purpose:** To encourage appropriate use of proton pump inhibitors (PPIs) in primary care.

Unit of measure: PPI DDDs per 1,000 PUs.

Aim: To reduce prescribing

Although PPIs are generally well tolerated, there is emerging evidence that serious adverse effects may be linked with long-term PPI use. These include fractures of the hip, wrist and spine, *Clostridioides difficile* infection, and hypomagnesaemia. Prescribers are therefore encouraged to review and reduce where possible.

- Across Wales, for the quarter ending March 2020, PPI DDDs per 1,000 PUs increased by 6.58%, compared with the quarter ending March 2019, despite the aim of the indicator being to decrease prescribing.
- For the quarter ending March 2020, PPI usage ranged from 6,304 to 7,628 DDDs per 1,000 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.
- All seven health boards demonstrated an increase in DDDs per 1,000 PUs, compared with the equivalent quarter of the previous year.
- The smallest percentage increase was seen in Aneurin Bevan UHB, and the largest percentage increase was seen in Powys Teaching HB.

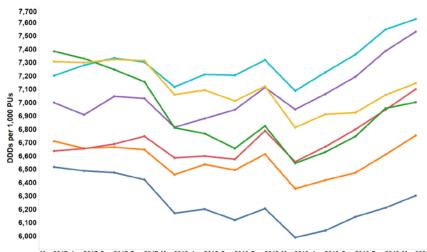
Please note: Consideration should be given to the impact of disruption to the supply of ranitidine from October 2019, and the subsequent recommendation to switch to patients to omeprazole where ongoing treatment is still required, and the patient cannot be stepped down to an alginate or antacid.

Table 1. PPI DDDs per 1,000 PUs

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Aneurin Bevan	6,814	7,147	4.88%
Cardiff And Vale	5,990	6,304	5.24%
Swansea Bay	6,356	6,754	6.27%
Betsi Cadwaladr	6,547	7,004	6.98%
Cwm Taf Morgannwg	7,090	7,628	7.59%
Hywel Dda	6,558	7,102	8.30%
Powys	6,951	7,533	8.38%
Wales	6,588	7,021	6.58%

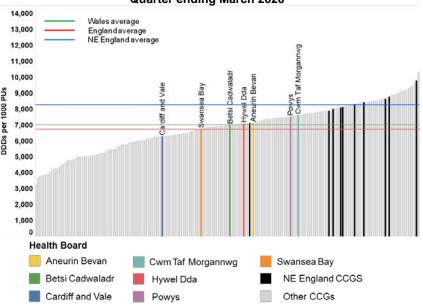
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Figure 2. Trend in PPI prescribing DDDs per 1,000 PUs



Mar 2017 Jun 2017 Sep 2017 Dec 2017 Mar 2018 Jun 2018 Sep 2018 Dec 2018 Mar 2019 Jun 2019 Sep 2019 Dec 2019 Mar 2020

Figure 3. PPI prescribing in Welsh health boards and English CCGs – Quarter ending March 2020



#### 3.0 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 ADQs per 1,000 STAR-PUs.

**Aim:** To reduce prescribing

There has been ongoing 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 6.18% for the quarter ending March 2020 compared with the equivalent quarter of the previous year, in line with the aim of this indicator.
- For the quarter ending March 2020, hypnotic and anxiolytic prescribing ranged from 1,638 to 3,017 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 2. Hypnotic and anxiolytic ADQs per 1,000 STAR-PUs

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cardiff And Vale	1,810	1,638	-9.47%
Swansea Bay	2,880	2,672	-7.22%
Betsi Cadwaladr	2,874	2,699	-6.08%
Aneurin Bevan	2,652	2,501	-5.68%
Cwm Taf Morgannwg	3,193	3,017	-5.53%
Hywel Dda	2,828	2,689	-4.91%
Powys	1,945	1,875	-3.59%
Wales	2,681	2,515	-6.18%

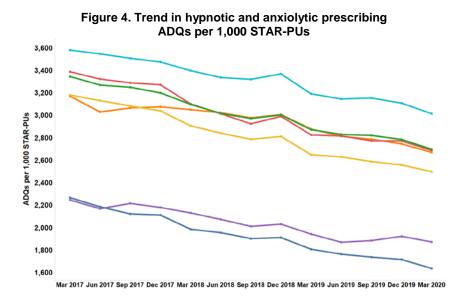
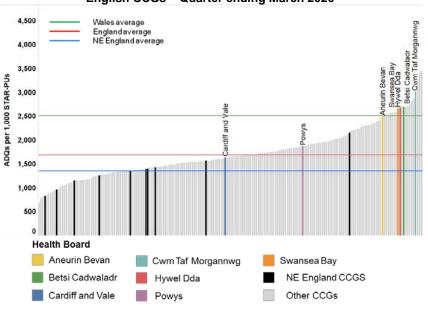


Figure 5. Hypnotic and anxiolytic prescribing in Welsh health boards and English CCGs – Quarter ending March 2020



#### 4.0 ANALGESICS

There are three NPIs monitoring the usage of medicines used for the treatment of pain for 2019–2020:

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

#### 4.1 Opioid burden

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

Unit of measure: Opioid burden UDG ADQs per 1,000 patients

Aim: To reduce prescribing

There is a lack of good quality evidence to support strong clinical recommendation for the long term use of opioid for patients with chronic non-cancer pain. Opioid analgesics have well established side effects and repeated administration may cause tolerance and dependence. This NPI is new for 2019-2020 and 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.

- Across Wales, opioid burden decreased by 2.46% in the quarter ending March 2020 compared with the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2020, opioid burden prescribing ranged from 2,996 to 5,005 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.
- All seven health boards demonstrated a reduction in ADQs per 1,000 patients, compared with the equivalent quarter of the previous year.
- The largest percentage decrease was seen in Cardiff and Vale UHB, and the smallest percentage decrease was seen in Aneurin Bevan UHB.

Table 3. Opioid burden ADQs per 1,000 patients

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cardiff And Vale	3,247	2,996	-7.72%
Betsi Cadwaladr	4,779	4,599	-3.76%
Swansea Bay	4,447	4,329	-2.66%
Powys	4,011	3,926	-2.13%
Cwm Taf Morgannwg	5,076	5,005	-1.40%
Hywel Dda	4,964	4,952	-0.26%
Aneurin Bevan	4,859	4,855	-0.09%
Wales	4,540	4,429	-2.46%

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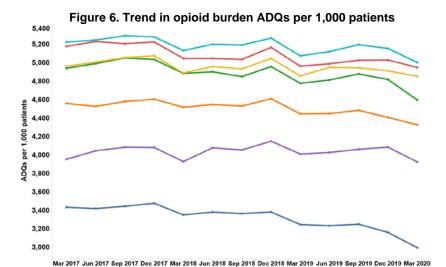
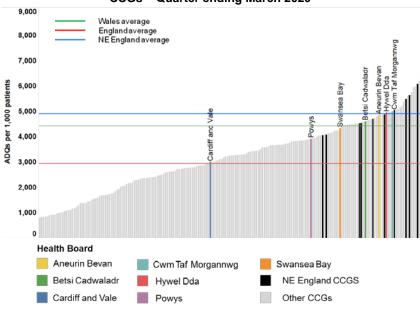


Figure 7. Opioid burden prescribing in Welsh health boards and English CCGs – Quarter ending March 2020



Please note: The NHS Business Services Authority move to a One Drug Database has resulted in the removal of the ADQ value for co-codamol 15/500 from January 2020, therefore data from this point onwards do not include co-codamol 15/500.

#### 4.2 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

Whilst 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 5.80% lower in the quarter ending March 2020, than in the equivalent quarter of the previous year. This is in line with the aim of the indicator.
- For the quarter ending March 2020, tramadol prescribing ranged from 371 to 575 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 Cwm Taf Morgannwg UHB.
- Tramadol 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 4. Tramadol DDDs per 1,000 patients

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cardiff And Vale	451	402	-11.0%
Swansea Bay	539	503	-6.79%
Aneurin Bevan	507	477	-5.93%
Hywel Dda	538	507	-5.66%
Cwm Taf Morgannwg	605	575	-4.96%
Betsi Cadwaladr	545	529	-3.09%
Powys	381	371	-2.46%
Wales	523	492	-5.80%

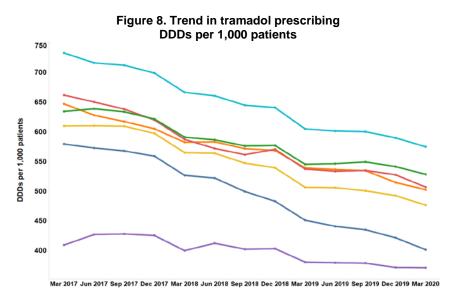
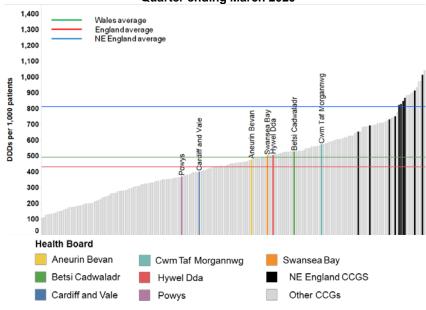


Figure 9. Tramadol prescribing in Welsh health boards and English CCGs

– Quarter ending March 2020



#### 4.3 Gabapentin and pregabalin

**Purpose:** To encourage the appropriate use and review of gabapentin and pregabalin, 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 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 2020, prescribing of gabapentin and pregabalin increased by 2.94% compared with the same quarter of the previous year.
- For the quarter ending March 2020, gabapentin and pregabalin prescribing ranged from 1,115 to 2,025 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.
- Gabapentin and pregabalin prescribing increased compared with the equivalent quarter of the previous year in all of the health boards.
- The smallest percentage increase was seen in Aneurin Bevan UHB and the largest percentage increase was seen in Powys Teaching HB.

Table 5. Gabapentin and pregabalin DDDs per 1,000 patients

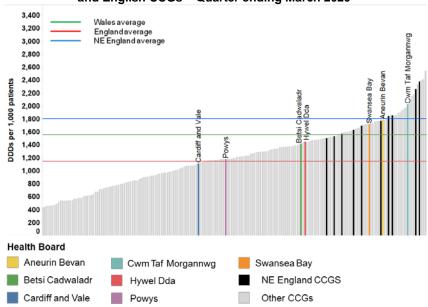
	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Powys	1,124	1,182	5.10%
Betsi Cadwaladr	1,356	1,421	4.82%
Hywel Dda	1,396	1,449	3.82%
Cwm Taf Morgannwg	1,955	2,025	3.62%
Swansea Bay	1,693	1,721	1.65%
Cardiff And Vale	1,097	1,115	1.64%
Aneurin Bevan	1,760	1,786	1.48%
Wales	1,513	1,557	2.94%

Figure 10. Trend in gabapentin and pregabalin prescribing DDDs per 1,000 patients

1,900
1,800
1,800
1,100
1,100
1,000

Figure 11. Gabapentin and pregabalin prescribing in Welsh health boards and English CCGs – Quarter ending March 2020

Mar 2017 Jun 2017 Sep 2017 Dec 2017 Mar 2018 Jun 2018 Sep 2018 Dec 2018 Mar 2019 Jun 2019 Sep 2019 Dec 2019 Mar 2020



#### 4.0 YELLOW CARD REPORTING

**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.

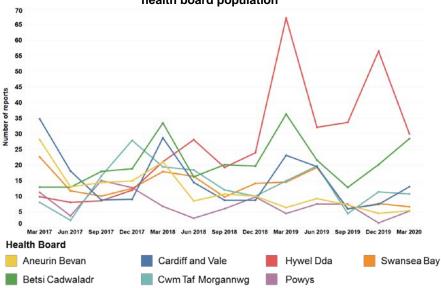
#### **GP** practices

- The number of Yellow Cards submitted by GP practices decreased by 38% compared with the equivalent quarter of the previous year.
- The largest percentage increase in GP practice reporting was seen in Powys Teaching HB. The largest percentage decrease was seen in Swansea Bay UHB.

Table 6. Number of Yellow Cards submitted by GP practices

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Powys	6	7	16.7%
Aneurin Bevan	38	32	-15.8%
Cwm Taf Morgannwg	59	48	-18.6%
Betsi Cadwaladr	254	199	-21.7%
Cardiff And Vale	115	65	-43.5%
Hywel Dda	259	116	-55.2%
Swansea Bay	64	26	-59.4%
Wales	797	493	-38.0%

Figure 12. Number of Yellow Cards submitted by GP practices per 100,000 health board population\*



<sup>\*</sup> Please note: prior to the quarter ending June 2019, data displayed for Cwm Taf Morgannwg and Swansea Bay UHBs relate to the former health boards of Cwm Taf and Abertawe Bro Morgannwg respectively.

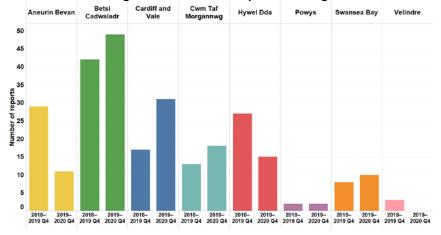
#### Secondary care

- The number of Yellow Cards submitted by secondary care decreased by 3.55% compared with the equivalent quarter of the previous year.
- The largest percentage increase in secondary care reporting was seen in Cardiff and Vale UHB. The largest percentage decrease was seen in Velindre NHS Trust.

Table 7. Number of Yellow Cards submitted by secondary care

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cardiff And Vale	17	31	82.4%
Cwm Taf Morgannwg	13	18	38.5%
Swansea Bay	8	10	25.0%
Betsi Cadwaladr	42	49	16.7%
Powys	2	2	0.00%
Hywel Dda	27	15	-44.4%
Aneurin Bevan	29	11	-62.1%
Velindre	3	0	-100%
Wales	141	136	-3.55%

Figure 13. Number of Yellow Cards submitted by secondary care – Quarter ending March 2020 versus quarter ending March 2019



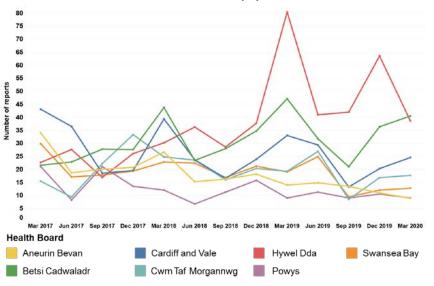
#### Health boards/NHS Trust

- The number of Yellow Cards submitted by health boards decreased by 29.5% compared with the equivalent quarter of the previous year.
- Powys Teaching HB demonstrated no change from the equivalent quarter of the previous year. The largest percentage decrease was seen in Velindre NHS Trust.

Table 8. Number of Yellow Cards submitted by health board/NHS Trust

	2018–2019 Qtr 4	2019-2020 Qtr 4	% Change
Powys	12	12	0.00%
Cwm Taf Morgannwg	82	79	-3.66%
Betsi Cadwaladr	329	283	-14.0%
Cardiff And Vale	164	122	-25.6%
Swansea Bay	78	50	-35.9%
Aneurin Bevan	83	53	-36.1%
Hywel Dda	310	149	-51.9%
Velindre	3	0	-100 %
Wales	1061	748	-29.5%

Figure 14. Number of Yellow Cards submitted by health boards per 100,000 health board population\*



<sup>\*</sup> Please note: prior to the quarter ending June 2019, data displayed for Cwm Taf Morgannwg and Swansea Bay UHBs relate to the former health boards of Cwm Taf and Abertawe Bro Morgannwg respectively.

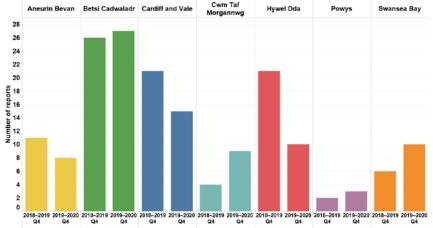
#### Members of the public

- The number of Yellow Cards submitted by members of the public decreased by 9.89% 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. The largest percentage decrease was seen in Hywel Dda UHB.

Table 9. Number of Yellow Cards submitted by members of the public

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cwm Taf Morgannwg	4	9	125%
Swansea Bay	6	10	66.7%
Powys	2	3	50.0%
Betsi Cadwaladr	26	27	3.85%
Aneurin Bevan	11	8	-27.3%
Cardiff And Vale	21	15	-28.6%
Hywel Dda	21	10	-52.4%
Wales	91	82	-9.89%

Figure 15. Number of Yellow Cards submitted by members of the public – Quarter ending March 2020 versus quarter ending March 2019



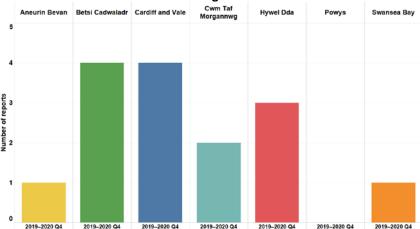
#### **Community pharmacy**

- Across Wales, a total of 15 Yellow Card reports were submitted by community pharmacies during the quarter ending March 2020.
- The number of Yellow Card reports submitted by community pharmacies in health boards across Wales ranged from 0 to 4.

Table 10. Number of Yellow Cards submitted by community pharmacies

	2019–2020 Qtr 4
Betsi Cadwaladr	4
Cardiff And Vale	4
Hywel Dda	3
Cwm Taf Morgannwg	2
Aneurin Bevan	1
Swansea Bay	1
Powys	0
Wales	15

Figure 16. Number of Yellow Cards submitted by community pharmacy – Quarter ending March 2020



## STEWARDSHIP INDICATORS

#### **6.0 ANTIMICROBIAL STEWARDSHIP**

There are two antimicrobial NPIs for 2019–2020:

- 1. Total antibacterial items per 1,000 STAR-PUs
- 4C antimicrobials (co-amoxiclay, cephalosporins, fluoroguinolones and clindamycin) items per 1,000 patients

#### 6.1 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-PUs.

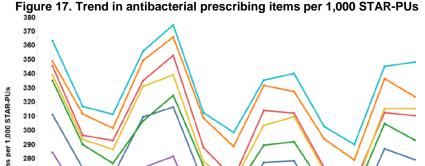
Aim: To reduce prescribing

- Across Wales, for the guarter ending March 2020, total antibacterial items per 1,000 STAR-PUs reduced by 9.53%, compared with the quarter ending March 2018. This is in line with the indicator target.
- For the guarter ending March 2020, the total number of antibacterial items per 1,000 STAR-PUs ranged from 261 to 348 across the health boards.
- The health board with the lowest prescribing was Powys Teaching HB, whilst the highest prescribing was seen in Cwm Taf Morgannwg UHB.
- For the quarter ending March 2020, all seven health boards achieved the target of a 5% reduction against the baseline of quarter 4 2017-2018.
- Hywel Dda UHB demonstrated the greatest percentage reduction in prescribing, compared with the quarter ending March 2018.
- Cwm Taf Morgannwg UHB demonstrated the smallest percentage reduction in prescribing, compared with the quarter ending March 2018.

Table 11. Total antibacterial items per 1.000 STAR-PUs

	2017-2018 Qtr 4	2019-2020 Qtr 4	% Change
Hywel Dda	353	310	-12.0%
Cardiff And Vale	317	279	-11.7%
Swansea Bay	366	324	-11.5%
Betsi Cadwaladr	325	293	-9.70%
Powys	282	261	-7.48%
Aneurin Bevan	339	315	-7.01%
Cwm Taf Morgannwg	374	348	-6.99%
Wales	340	307	-9.53%

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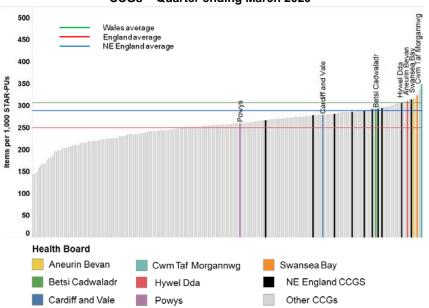
270 260

250

240 230

Mar 2017 Jun 2017 Sep 2017 Dec 2017 Mar 2018 Jun 2018 Sep 2018 Dec 2018 Mar 2019 Jun 2019 Sep 2019 Dec 2019 Mar 2020

Figure 18. Antibacterial prescribing in Welsh health boards and English CCGs - Quarter ending March 2020



#### 6.2 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 2020, the number of 4C antimicrobial items per 1,000 patients decreased by 20.9%, compared with the quarter ending March 2018, in line with the aim of this indicator.
- For the quarter ending March 2020, 4C prescribing ranged from 9.31 to 15.2 items 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.
- 4C prescribing decreased, compared with the quarter ending March 2018, in all seven health boards.
- The largest percentage decrease was seen in Swansea Bay UHB.
- The smallest percentage decrease was seen in Aneurin Bevan UHB.

Table 12. 4C antimicrobial items per 1,000 patients

	2017–2018 Qtr 4	2019–2020 Qtr 4	% Change
Swansea Bay	19.5	12.8	-34.3%
Hywel Dda	18.2	13.3	-27.1%
Cwm Taf Morgannwg	19.1	15.2	-20.5%
Cardiff And Vale	11.2	9.31	-17.1%
Betsi Cadwaladr	15.2	12.7	-16.5%
Powys	13.5	11.8	-12.4%
Aneurin Bevan	11.4	10.1	-11.8%
Wales	15.2	12.1	-20.9%

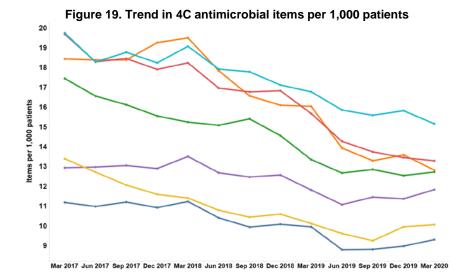
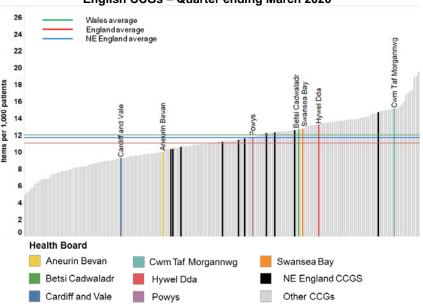


Figure 20. 4C antimicrobial prescribing in Welsh health boards and English CCGs – Quarter ending March 2020



# **EFFICIENCY INDICATORS**

#### 7.0 INSULIN

**Purpose:** To encourage a reduction in the prescribing of long-acting insulin analogues in line with NICE guidance to maximise cost-effectiveness in Wales.

**Unit of measure:** Items/number of long-acting insulin analogues expressed as a percentage of total long- and intermediate-acting insulin prescribed in primary and secondary care.

Aim: To reduce prescribing

NICE guidance recommends human isophane (neutral protamine Hagedorn [NPH]) insulin as the first choice insulin-based treatment when prescribing insulin in type 2 diabetes mellitus. For most people with type 2 diabetes, long-acting insulin analogues offer no significant benefit over human isophane insulin and are more expensive.

This report considers data sets from both secondary and primary care, as prescribing will usually be continued in the primary care setting following secondary care initiation.

As of Quarter 3 2018-2019, the method of calculating secondary care data for the Insulin NPI has changed. Therefore, any comparison to historic data before that point should be made via SPIRA rather than any previously published quarterly reports.

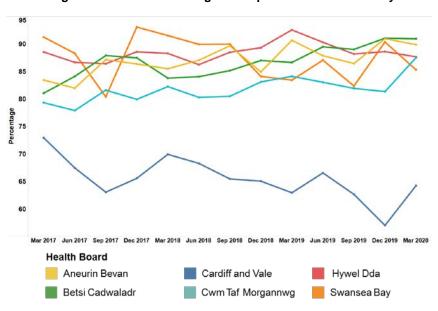
#### Secondary care prescribing

- Across Wales, secondary care use of long-acting insulin as a percentage of all long- and intermediate-acting insulin prescribing was 3.40% higher in the quarter ending March 2020 than in the equivalent quarter of the previous year. This is contrary to the aim of the indicator.
- For the quarter ending March 2020, prescribing of long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin ranged from 64.3% to 91.0%.
- The health board with the lowest prescribing percentage was Cardiff and Vale UHB. The highest prescribing percentage was seen in Betsi Cadwaladr UHB.
- The proportion of long-acting insulin analogue prescribing decreased in two
  of the six health boards, compared with the equivalent quarter of the
  previous year.
- Hywel Dda UHB showed the greatest percentage decrease.
- The health board with the greatest percentage increase was Betsi Cadwaladr UHB.

Table 13. Long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin prescribing in secondary care

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Hywel Dda	92.6	87.7	-5.29%
Aneurin Bevan	90.7	89.9	-0.87%
Cardiff and Vale	63.0	64.3	2.04%
Swansea Bay	83.5	85.4	2.26%
Cwm Taf Morgannwg	84.1	87.5	4.01%
Betsi Cadwaladr	86.7	91.0	4.97%
Wales	81.8	84.6	3.40%

Figure 21. Trend in long-acting analogue prescribing as a percentage of total long- and intermediate-acting insulin prescribed in secondary care



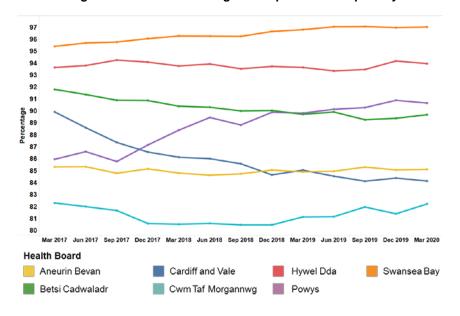
#### Primary care prescribing

- Across Wales, the prescribing of long-acting insulin analogues as a proportion of total long and intermediate-acting insulin prescribing increased by 0.20% for the quarter ending March 2020, compared with the equivalent quarter of the previous year. This is contrary to the aim of the indicator.
- For the quarter ending March 2020, long-acting insulin analogue prescribing ranged from 82.2% to 97.0% across the health boards.
- The health board with the lowest prescribing was Cwm Taf Morgannwg UHB, whilst the highest prescribing was seen in Swansea Bay UHB.
- Across the seven health boards in Wales, prescribing decreased compared with the equivalent quarter of the previous year in two health boards and increased in five health boards.
- The health board with the greatest percentage decrease was Cardiff and Vale UHB.
- The largest percentage increase was seen in Cwm Taf Morgannwg UHB.

Table 14. Long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin prescribing in primary care

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Cardiff and Vale	85.1	84.1	-1.07%
Betsi Cadwaladr	89.7	89.7	-0.04%
Swansea Bay	96.8	97.0	0.22%
Aneurin Bevan	84.9	85.1	0.25%
Hywel Dda	93.7	94.0	0.34%
Powys	89.8	90.7	0.93%
Cwm Taf Morgannwg	81.1	82.2	1.34%
Wales	88.1	88.3	0.20%

Figure 22. Trend in long-acting analogue prescribing as a percentage of total long- and intermediate-acting insulin prescribed in primary care



#### **8.0 BIOSIMILARS**

**Purpose:** To ensure prescribing of biological medicines supports cost-effective prescribing in Wales.

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

**Aim:** Increase the appropriate use of cost-effective 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.

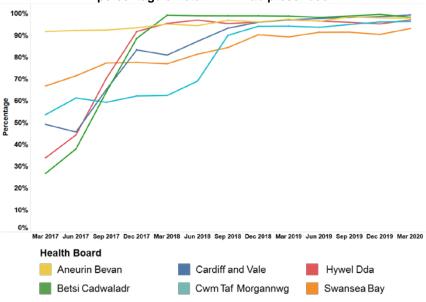
#### 8.1 Infliximab

- Across Wales, for the quarter ending March 2020, infliximab biosimilar prescribing increased by 1.35%, compared with the equivalent quarter of the previous year. This is in line with the aim of this indicator.
- For the quarter ending March 2020, infliximab biosimilar prescribing ranged from 99.4% to 93.2% across the health boards.
- The health board with the highest percentage was Cardiff and Vale UHB whilst the lowest percentage was seen in Swansea Bay UHB.
- Five health boards demonstrated an increase in percentage, compared with the equivalent quarter of the previous year.
- Swansea Bay UHB demonstrated the largest percentage increase.
- Betsi Cadwaladr UHB demonstrated a small percentage decrease.

Table 15. Infliximab biosimilars as a percentage of reference and biosimilar prescribed

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Swansea Bay	89.3%	93.2%	4.29%
Cardiff and Vale	97.2%	99.4%	2.26%
Cwm Taf Morgannwg	94.3%	96.4%	2.25%
Aneurin Bevan	97.5%	98.0%	0.52%
Hywel Dda	97.1%	97.2%	0.04%
Betsi Cadwaladr	98.9%	98.4%	-0.49%
Wales	95.8%	97.1%	1.35%

Figure 23. Trend in infliximab biosimilar (Inflectra®) prescribing as a percentage of total infliximab prescribed



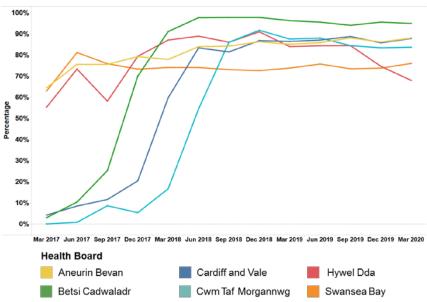
#### 8.2 Etanercept

- Across Wales, for the quarter ending March 2020, etanercept biosimilar prescribing decreased by 4.41%, compared with the equivalent quarter of the previous year. This is contrary to the aim of this indicator.
- For the quarter ending March 2020, etanercept biosimilar prescribing ranged from 68.0% to 95.0% across the health boards.
- The health board with the highest percentage was Betsi Cadwaladr UHB whilst the lowest percentage was seen in Hywel Dda UHB.
- Three health boards demonstrated an increase in percentage, compared with the equivalent quarter of the previous year.
- Swansea Bay UHB demonstrated the largest percentage increase.
- Hywel Dda UHB demonstrated the largest percentage decrease.

Table 16. Etanercept biosimilars as a percentage of reference and biosimilar prescribed

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Swansea Bay	73.8%	76.0%	2.98%
Aneurin Bevan	85.2%	87.0%	2.17%
Cardiff and Vale	86.5%	87.9%	1.61%
Betsi Cadwaladr	96.3%	95.0%	-1.39%
Cwm Taf Morgannwg	87.6%	83.7%	-4.41%
Hywel Dda	84.0%	68.0%	-19.1%
Wales	84.2%	80.5%	-4.41%

Figure 24. Trend in etanercept biosimilar (Benepali®, Erelzi®) prescribing as a percentage of total etanercept prescribed



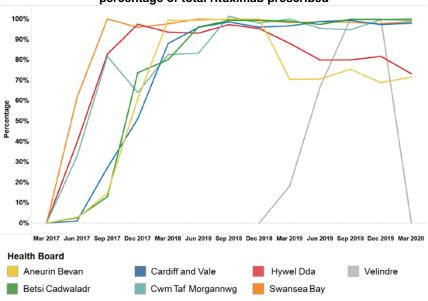
#### 8.3 Rituximab

- Across Wales, for the quarter ending March 2020, rituximab biosimilar prescribing decreased by 0.57%, compared with the equivalent quarter of the previous year. This is contrary to the aim of this indicator.
- For the quarter ending March 2020, rituximab biosimilar prescribing ranged from 0.00% to 100% across the health boards.
- The health board with the highest percentage was Betsi Cadwaladr UHB whilst the lowest percentage was seen in Velindre Trust
- Four health boards demonstrated an increase in percentage, compared with the equivalent quarter of the previous year.
- Aneurin Bevan UHB demonstrated the largest percentage increase.
- Velindre Trust demonstrated the largest percentage decrease.

Table 17. Rituximab biosimilar as a percentage of reference and biosimilar prescribed

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Aneurin Bevan	70.4%	71.5%	1.56%
Cardiff and Vale	96.6%	98.0%	1.40%
Betsi Cadwaladr	98.9%	100%	1.13%
Swansea Bay	98.2%	98.9%	0.67%
Cwm Taf Morgannwg	100%	99.3%	-0.7%
Hywel Dda	88.0%	73.2%	-16.9%
Velindre	18.2%	0.00%	-100%
Wales	93.4%	92.8%	-0.57%

Figure 25. Trend in rituximab biosimilar (Truxima®) prescribing as a percentage of total rituximab prescribed



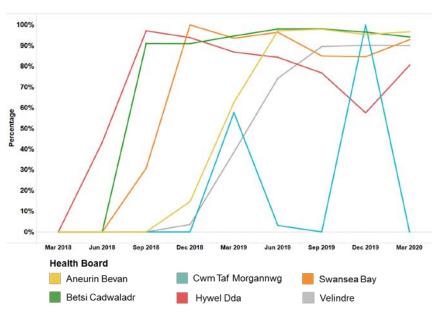
#### 8.4 Trastuzumab

- Across Wales, trastuzumab biosimilar prescribing increased by 30.3%, for the quarter ending March 2020 compared with the equivalent quarter of the previous year. This is in line with the aim of this indicator.
- For the quarter ending March 2020, trastuzumab biosimilar prescribing ranged from 0.00% to 96.67% across the health boards.
- The health board with the highest percentage was Aneurin Bevan UHB whilst the lowest percentage was seen in Cwm Taf Morgannwg UHB.
- Two health boards demonstrated an increase in percentage, compared with the equivalent quarter of the previous year.
- Velindre Trust demonstrated the largest percentage increase.
- Cwm Taf Morgannwg UHB demonstrated the largest percentage decrease.

Table 18. Trastuzumab biosimilar as a percentage of reference and biosimilar prescribed

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Velindre	38.6%	90.0%	133%
Aneurin Bevan	62.6%	96.7%	54.5%
Betsi Cadwaladr	94.6%	94.2%	-0.50%
Swansea Bay	93.5%	92.9%	-0.74%
Hywel Dda	86.9%	80.5%	-7.34%
Cwm Taf Morgannwg	57.6%	0.00%	-100%
Wales	68.9%	89.8%	30.3%

Figure 26. Trend in trastuzumab biosimilar (Ontruzant®) prescribing as a percentage of total trastuzumab prescribed



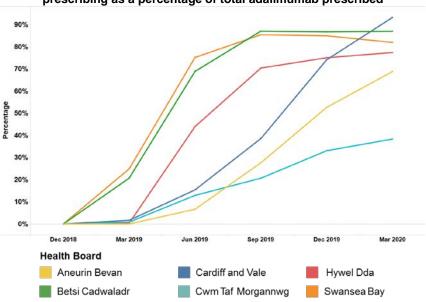
#### 8.5 Adalimumab

- Across Wales, adalimumab biosimilar prescribing increased by 689.5%, for the quarter ending March 2020 compared with the equivalent quarter of the previous year. This is in line with the aim of this indicator
- For the quarter ending March 2020, adalimumab biosimilar prescribing ranged from 38.4% to 93.3% across the health boards.
- The health board with the highest percentage was Cardiff and Vale 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.

Table 19. Adalimumab biosimilar as a percentage of reference and biosimilar prescribed

	2018–2019 Qtr 4	2019–2020 Qtr 4	% Change
Aneurin Bevan	0.00%	59.0%	N/A
Hywel Dda	0.36%	77.4%	21277%
Cardiff and Vale	1.67%	93.3%	5495%
Cwm Taf Morgannwg	0.85%	38.3%	4419%
Betsi Cadwaladr	20.7%	87.0%	320%
Swansea Bay	24.9%	82.0%	229%
Wales	9.74%	76.9%	689%

Figure 27. Trend in adalimumab biosimilar (Amgevita®, Imraldi®) prescribing as a percentage of total adalimumab prescribed



#### 8.6 Total biosimilar usage

Within Wales there was an increase in the use of the reported biosimilar medicines (infliximab, etanercept, rituximab, trastuzumab, adalimumab) combined as a percentage of reported 'reference' biological medicines plus biosimilars combined, from 64% to 83% for the quarter ending March 2020 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 2020

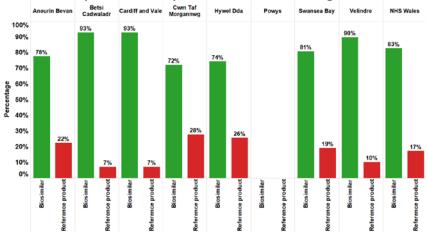
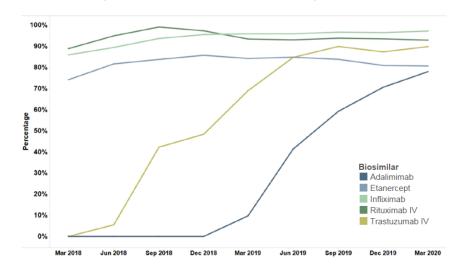




Figure 29. Trend in biosimilar percentage in Wales



#### 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 the NHS Wales Informatics Service (NWIS).

As of Quarter 3 2018-2019, the method of calculating secondary care data for the Insulin NPI has changed. Therefore, any comparison to historic data before that point should be made via SPIRA rather than any previously published quarterly reports.

The Medusa data warehouse is reliant on data input by individual hospital pharmacy departments. If the data on a medicine are input 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 DDDs 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 of the report 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 2019–2020

National Prescribing Indicator	Applicable to:	Unit of measure	Target for 2019–2020	Data source	
Safety	`			,	
Prescribing Safety Indicators	Primary care	Number of patients identified as a percentage of the practice population or sub population	No target set	NWIS	
Proton pump inhibitors	Primary care	PPI DDDs per 1,000 PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below	NWSSP	
Hypnotics and anxiolytics	Primary care	Hypnotic and anxiolytic ADQs per 1,000 STAR-PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below	NWSSP	
		Opioid burden UDG ADQs per 1,000 patients	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below	NWSSP	
Analgesics	Primary care	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	
	Primary care		One Yellow Card per 2,000 GP practice population		
Yellow Card Reporting	Health board Number of Yellow Cards submitted		One Yellow Card per 2,000 health board population  20% or greater increase from baseline (2018-2019) for Yellow Cards submitted by secondary care  50% or greater increase from baseline (2018-2019) for Yellow Cards submitted by members of the public	MHRA	
	Community pharmacy		No target set. Reported as the number of Yellow Cards submitted by health board.		
Stewardship	•				
	Primary care	Total antibacterial items per 1,000 STAR-PUs	Health board target: a reduction of 5% against a baseline of April 2017–March 2018	NWSSP	
Antimicrobial stewardship	Primary care	Number of 4C antimicrobial (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients	A quarterly reduction of 10% against a baseline of April 2017–March 2018	NWSSP	

# National Prescribing Indicators 2019–2020. Analysis of Prescribing Data to March 2020

Efficiency				
Long-acting insulin analogues	Primary + secondary care	Items/number of long-acting insulin analogues expressed as a percentage of total long- and intermediate-acting insulin prescribed	Reduce prescribing of long-acting insulin analogues and achieve prescribing levels below the Welsh average	NWSSP Medusa
Biosimilars	Primary + secondary care	Quantity of biosimilar medicines prescribed as a percentage of total 'reference' product plus biosimilar	Increase the appropriate use of cost-effective biological medicines, including biosimilar medicines.	NWSSP Medusa

## APPENDIX 2. PRIMARY CARE NPI PRESCRIBING BY GP CLUSTER

**Aneurin Bevan** Betsi Cadwaladr **Cardiff And Vale Cwm Taf Morgannwg** Hywel Dda Swansea Bay Powys 10,000 9,000 8,000 0 0 7,000  $\overset{\times}{\times}\overset{\times}{\times}$ 8 0 DDDs per 1,000 PUs - -Threshold - 5,954 6,000  $\Diamond$ 0 5,000 4,000 3,000 2,000 1,000 Taf / Teifi / Tywi South Powys Upper Valleys Bay Health Blaenau Gwent West Caerphilly North Newport East Newport North North Denbighshire Conwy East South Denbighshire Anglesey Conwy West South Wrexham Wrexham Town Deeside, Hawarden & Saltney Mold, Buckley & Caergwrle Cardiff East Central Vale Cardiff South West Cardiff West Eastern Vale City & Cardiff South North Merthyr Tydfil Bridgend North Network South Cynon South Rhondda North Rhondda Bridgend East Network North Taf Ely South Pembrokeshire North Pembrokeshire North Ceredigion Mid Powys North Powys City Health Monmouthshire South Holywell & Flin West & North Wrexhan Cardiff North Cardiff South Eas North Cynor Central & 9

Figure 1. Proton Pump Inhibitor prescribing – Quarter ending March 2020 versus quarter ending March 2019

Quarter ending March 2019

Quarter ending March 2020

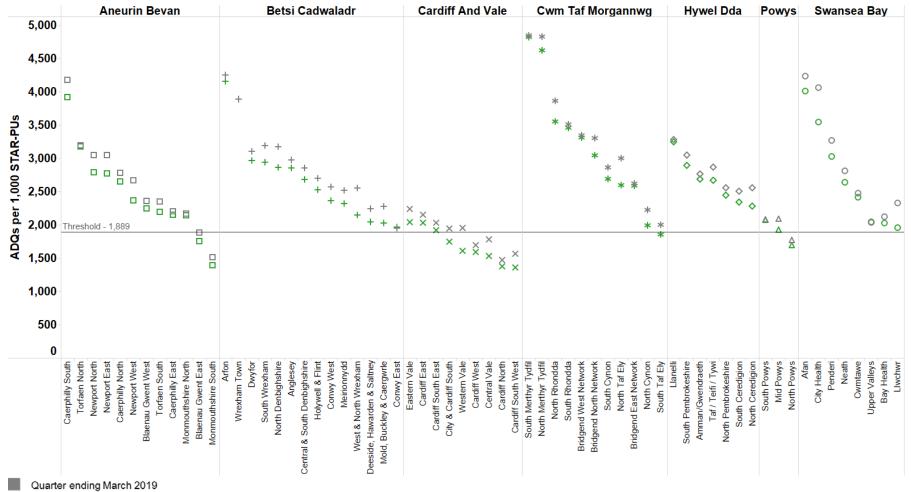


Figure 2. Hypnotic and anxiolytic prescribing – Quarter ending March 2020 versus quarter ending March 2019

Betsi Cadwaladr **Cardiff And Vale Powys** Aneurin Bevan Cwm Taf Morgannwg Hywel Dda Swansea Bay 7,000 **\$** #  $\Diamond$  $\blacksquare$ 6,000 B 000  $\blacksquare$ ▤▤ 8 5,000 ADQs per 1,000 patients В **\$** 4,000 Δ <u></u> ☆ 0 Threshold - 3,669 0 3,000  $\times$ × × × × × 8 2,000 1,000 0 Central Vale Cardiff South West Cardiff South East Western Vale City Health North Cynon Blaenau Gwent East Holywell & Flint Anglesey Conwy West Deeside, Hawarden & Saltney Mold, Buckley & Caergwrle Central & South Denbighshire Cardiff East Eastern Vale North Rhondda South Rhondda North Taf Ely South Taf Ely Taf / Teifi / Tywi North Powys Torfaen North Caerphilly East Newport West North Denbighshire Conwy East Wrexham Town West & North Wrexham North Merthyr Tydfi Bridgend North Network Bridgend West Network South Merthyr Tydfil Bridgend East Network North Pembrokeshire Torfaen South Caerphilly South Monmouthshire North Newport North South Wrexham Cardiff North City & Cardiff Sou Monmouthshire

Figure 3. Opioid burden prescribing – Quarter ending March 2020 versus quarter ending March 2019

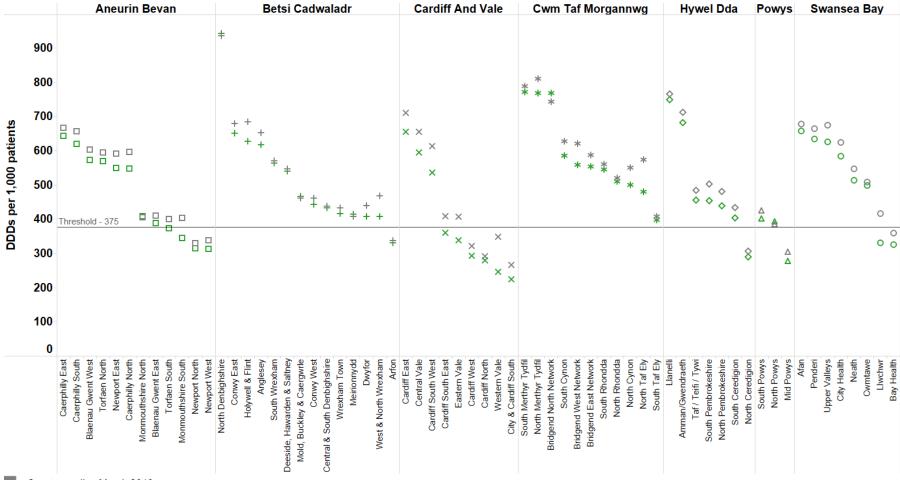


Figure 4. Tramadol prescribing – Quarter ending March 2020 versus quarter ending March 2019

Betsi Cadwaladr **Cardiff And Vale Cwm Taf Morgannwg** Powys Aneurin Bevan Hywel Dda Swansea Bay 2,600 2,400 9 2,200 О 2,000 0 8 8 0 1,800 DDDs per 1,000 patients 00 0 1,600 B 0 1,400 ×× 8 8 ♦ ♦ **1,200** Threshold - 1,125 0  $\overset{\times}{\times}$   $\overset{\times}{\times}$ Δ 1,000 800 × 600 400 200 South Rhondda North Rhondda Newport West Newport North North Taf Ely Cwmtawe Holywell & Flint Cardiff South West Mid Powys City Health Upper Valleys Blaenau Gwent East Caerphilly East North Denbighshire Conwy East South Denbighshire Mold, Buckley & Caergwrle Cardiff East North Merthyr Tydfi South Taf Ely South Pembrokeshire Caerphilly South Newport Eas Monmouthshire North Hawarden & Saltne Wrexham Towr West & North Wrexhan Cardiff North North Cynor South Wrexhan Bridgend North Networ South Cyno Bridgend West Networ Bridgend East Networ City & Cardiff Sou Central &

Figure 5. Gabapentin and pregabalin prescribing - Quarter ending March 2020 versus quarter ending March 2019

Figure 6. Antimicrobial prescribing – Quarter ending March 2020 versus quarter ending March 2018

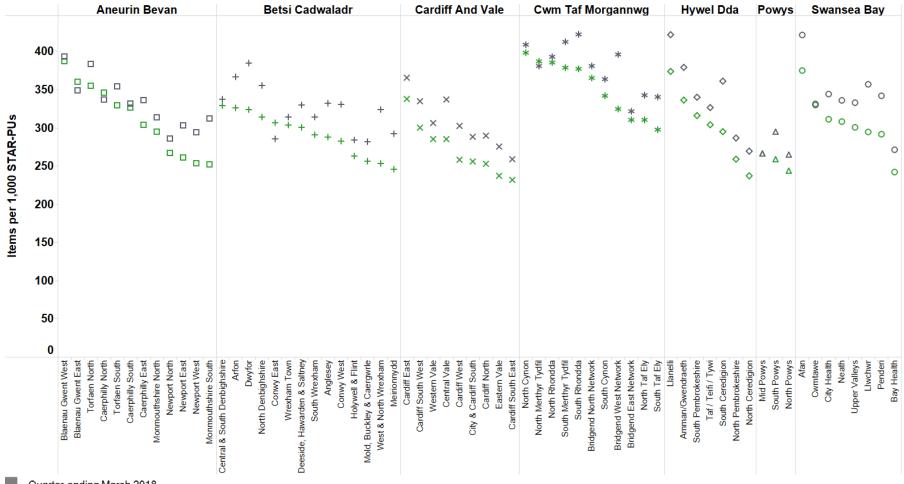
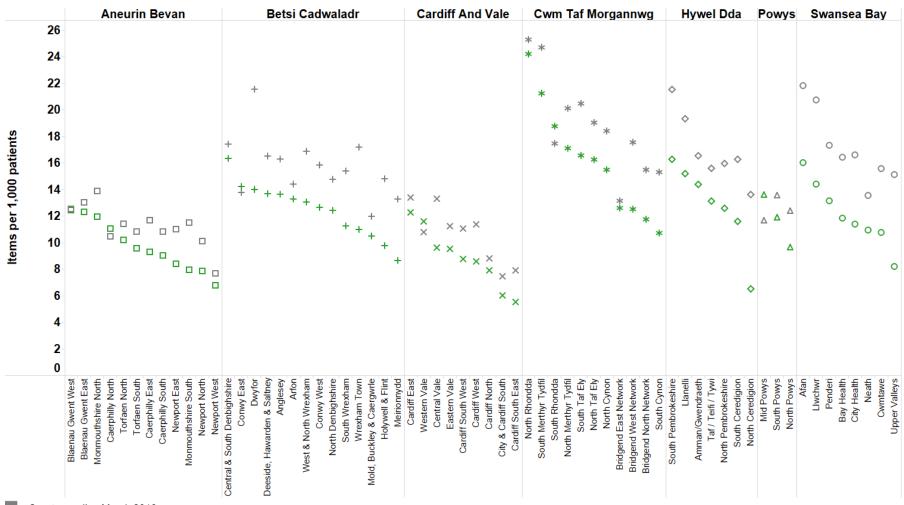


Figure 7. 4C prescribing – Quarter ending March 2020 versus quarter ending March 2018



## APPENDIX 3. POSITION OF WELSH HEALTH BOARDS AGAINST CCGS IN ENGLAND AND NE ENGLAND

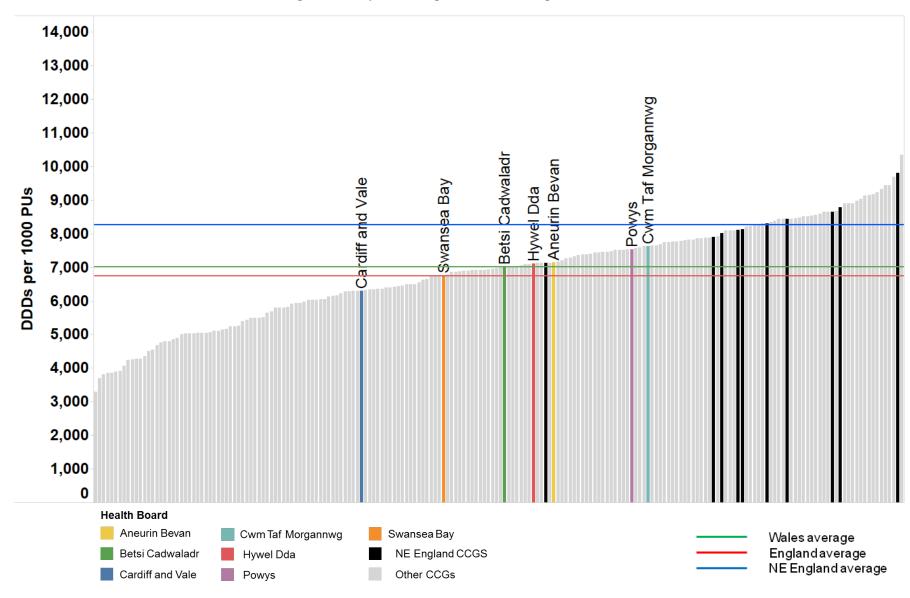
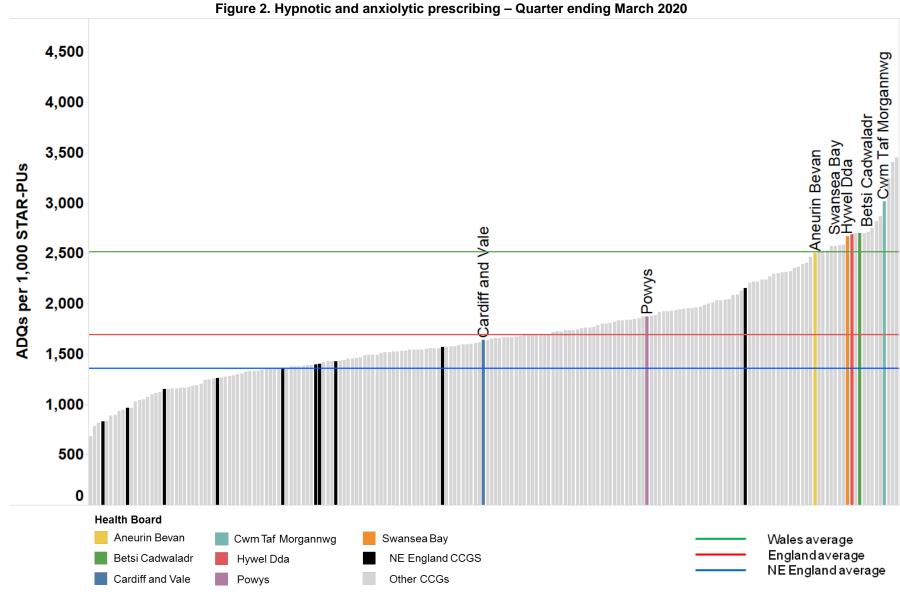
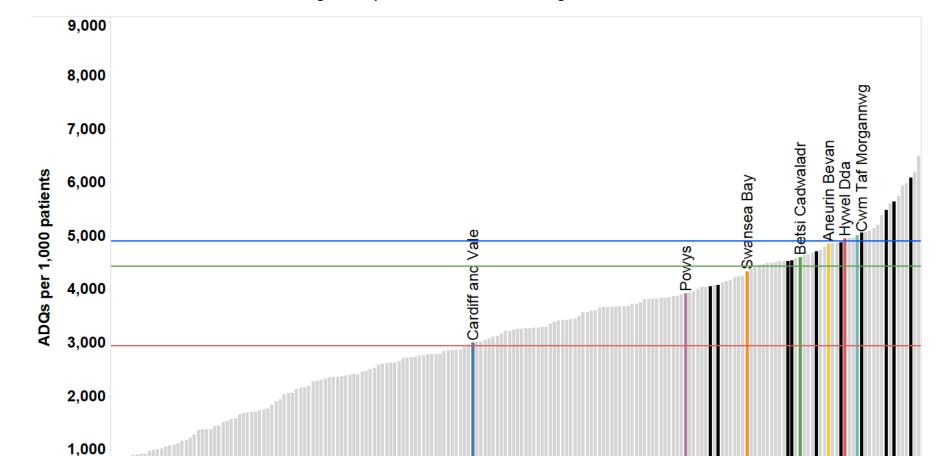


Figure 1. PPI prescribing – Quarter ending March 2020





Swansea Bay

Other CCGs

NE England CCGS

0

Health Board

Aneurin Bevan

Betsi Cadwaladr

Cardiff and Vale

Cwm Taf Morgannwg

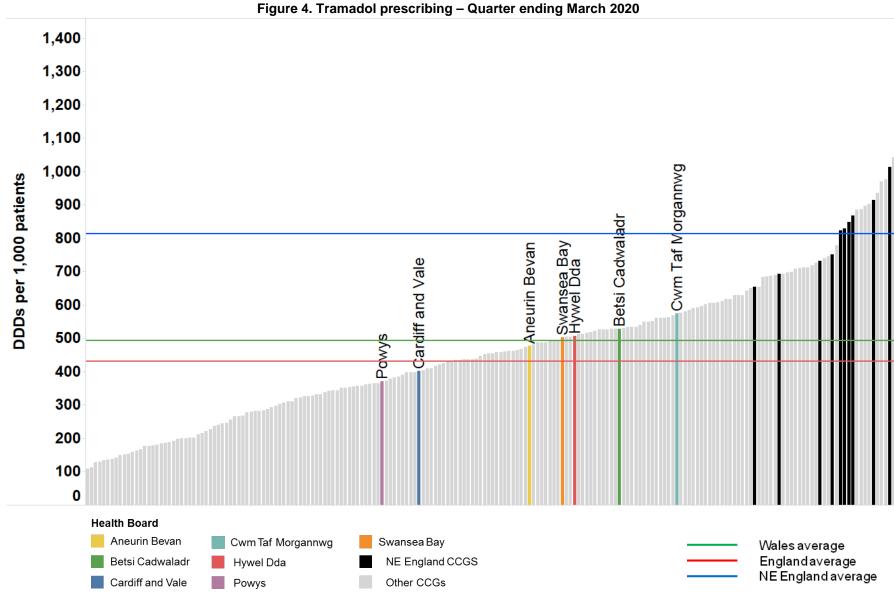
Hywel Dda

Powys

Figure 3. Opioid burden – Quarter ending March 2020

Wales average England average

NE England average



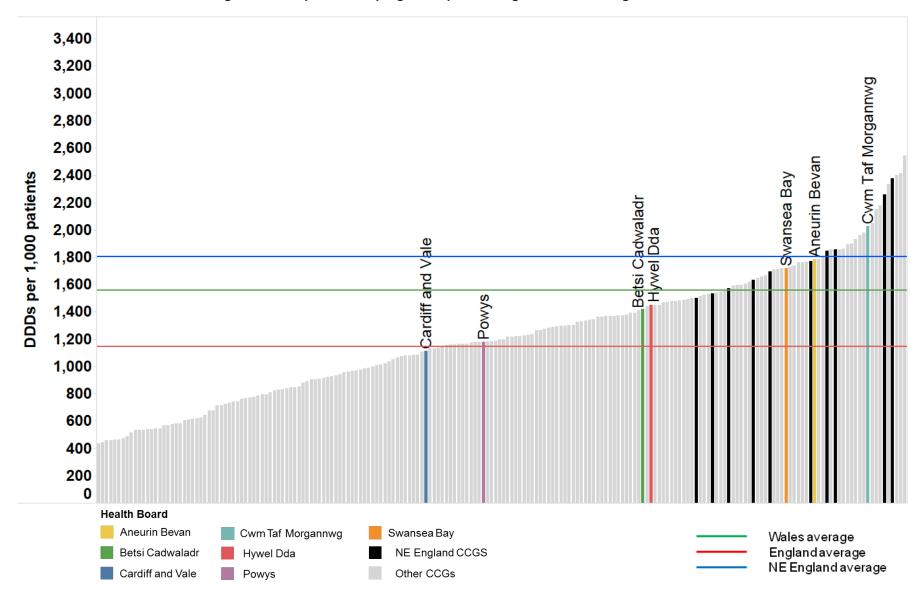


Figure 5. Gabapentin and pregabalin prescribing – Quarter ending March 2020

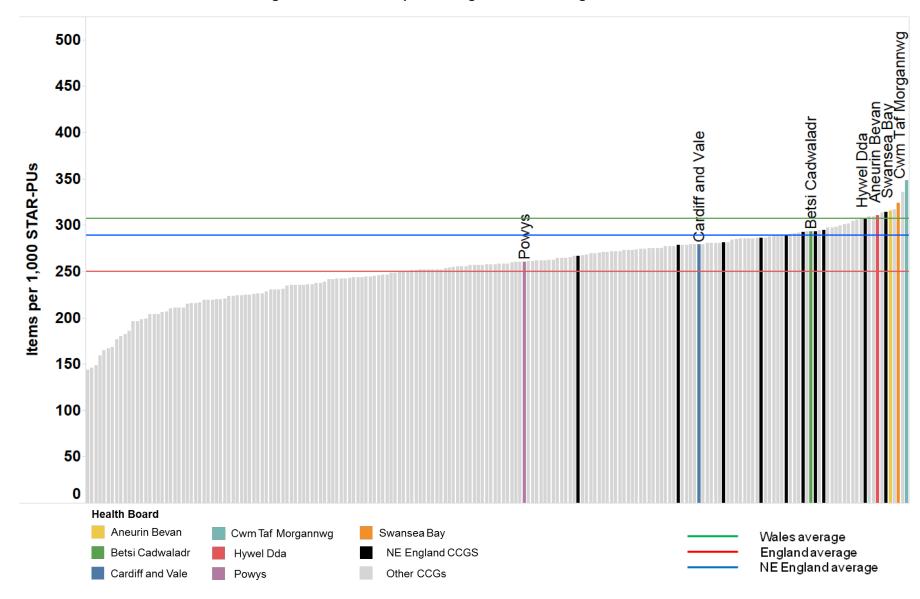


Figure 6. Antibacterial prescribing – Quarter ending March 2020

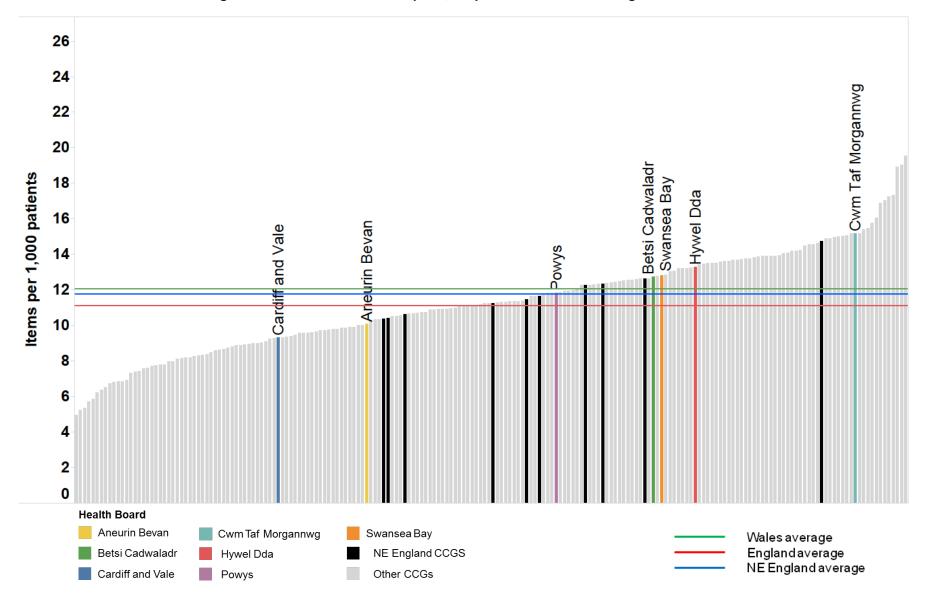


Figure 7. 4C antimicrobial items per 1,000 patients – Quarter ending March 2020