



AWTTC

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

National Prescribing Indicators 2017–2018

Analysis of Prescribing Data to June 2017





All Wales Therapeutics and Toxicology Centre

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This report has been prepared by the Welsh Analytical Prescribing Support Unit (WAPSU), part of the All Wales Therapeutics and Toxicology Centre (AWTTC).

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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. NPIs have historically focused on primary care prescribing; however, in 2015 a set of secondary care NPIs were developed by the All Wales Prescribing Advisory Group (AWPAG) and launched by AWMSG for use in 2016–2017. This report contains data relating to the primary and secondary care NPIs for the first quarter of 2017–2018.

Background information supporting the choice of NPIs is detailed in the document [National Prescribing Indicators 2017–2018](#) available from the AWMSG website.

PRIMARY CARE

- For 2017–2018, there are 14 primary care NPIs focusing on seven areas of prescribing and the reporting of adverse events (Yellow Cards)*. Four of the indicators – high strength inhaled corticosteroids (ICS), opioid patches, anticholinergic burden, and NSAIDs and CKD – are new for 2017–2018.
- A threshold level of prescribing/reporting is set for 11 of the 14 NPIs based upon quarter three data for 2016–2017.*
- Due to the unavailability of historical data, the threshold for the anticholinergic burden and NSAIDs and CKD NPIs will be based upon quarter one data for 2017–2018.
- Of the 11 NPIs that currently have a threshold, there was an overall improvement (in line with the aim of each indicator) across Wales in 10 NPIs, compared to the equivalent quarter of the previous year (quarter ending June 2016). The NPI that did not show an improvement was gabapentin and pregabalin where prescribing increased in all health boards (6.94% national increase).
- At a national level, the NPIs associated with the largest improvements in prescribing compared to the equivalent quarter of the previous year were NSAIDs (ADQs per 1,000 STAR-PUs) (12.3% reduction), co-amoxiclav (items per 1,000 patients) (9.20% reduction), hypnotics and anxiolytics (ADQs per 1,000 STAR-PUs) (9.0% reduction) and tramadol (DDDs per 1,000 patients) (8.07% reduction).
- In line with the aim of the indicator, high strength ICS prescribing decreased in all of the health boards compared to the equivalent quarter of the previous year. The largest decrease was seen in Aneurin Bevan UHB (13.2% reduction).
- Prescribing of tramadol decreased in all of the health boards compared to the equivalent quarter of the previous year (in line with the aim of the NPI). The largest decrease of 10.6% was seen in Cwm Taf UHB.
- Yellow Card reporting by GPs increased 58% compared to the equivalent quarter of the previous year, and Yellow Card reporting for all health board reporters increased by 43%.

* For full details, including unit of measure and threshold for each NPI please see Appendix 1. For primary care NPI prescribing data for GP clusters please see Appendix 2.

SECONDARY CARE

- For 2017–2018, there are three secondary care NPIs focusing on three areas of prescribing*:
 - Insulin prescribing
 - Prescribing of biosimilars
 - Antibiotic surgical prophylaxis
- Baseline data for quarter ending June 2016 are provided to enable comparison with the previous year.
- For two of the NPIs (insulin prescribing and biosimilars), primary care data are also provided to facilitate a more comprehensive analysis.
- Prescribing of long-acting insulin analogues decreased in secondary care compared to the equivalent quarter of the previous year (in line with the aim of the NPI); there was also a decrease in primary care usage.
- In line with the aim of the NPI, the prescribing of biosimilar filgrastim, infliximab, etanercept, rituximab and insulin glargine all increased when compared to the equivalent quarter of the previous year.
- Data for duration of colorectal surgical antibiotic prophylaxis indicate that there has been a 5% decrease in the percentage of patients in Wales receiving prophylaxis for greater than 24 hours (in line with the aim of the NPI) compared to the equivalent quarter of the previous year.

The 2017–2018 NPI report for quarter ending September 2017 will be available on 22nd January 2018.

* For full details, including unit of measure and threshold for each NPI please see Appendix 1.

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PRACTICES ACHIEVING INDICATOR THRESHOLDS FOR PRIMARY CARE NPIS

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

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

Practices achieving the indicator threshold – Quarter ending June 2017

	Abertawe Bro Morgannwg	Aneurin Bevan	Betsi Cadwaladr	Cardiff and Vale	Cwm Taf	Hywel Dda	Powys
Proton pump inhibitor DDDs per 1,000 PUs	19 26%	16 20%	25 23%	35 53%	10 24%	24 45%	4 24%
High-strength ICS items as a % of all ICS	4 5%	27 34%	36 33%	36 55%	4 10%	10 19%	4 24%
Hypnotics and anxiolytics ADQs per 1,000 STAR-PUs	19 26%	21 26%	28 26%	34 52%	9 21%	7 13%	8 47%
Tramadol DDDs per 1,000 patients	15 21%	21 26%	29 27%	26 39%	6 14%	18 34%	10 59%
Opioid patch items as a % of all opioid prescribing	49 67%	13 16%	30 28%	24 36%	5 12%	3 6%	1 6%
Gabapentin and pregabalin DDDs per 1,000 patients	9 12%	8 10%	23 21%	35 53%	1 2%	14 26%	7 41%
Co-amoxiclav items per 1,000 patients	14 19%	21 26%	43 39%	30 45%	6 14%	5 9%	3 18%
Co-amoxiclav items as a % of antibacterial items	7 10%	15 19%	36 33%	14 21%	5 12%	2 4%	2 12%
Cephalosporin items per 1,000 patients	18 25%	32 40%	10 9%	43 65%	3 7%	9 17%	8 47%
Cephalosporin items as a % of antibacterial items	18 25%	27 34%	8 7%	34 52%	2 5%	10 19%	5 29%
Fluoroquinolone items per 1,000 patients	10 14%	38 48%	31 28%	22 33%	12 29%	10 19%	7 41%
Fluoroquinolone items as a % of antibacterial items	2 3%	29 36%	17 16%	15 23%	13 31%	5 9%	4 24%
NSAID ADQs per 1,000 STAR-PUs	19 26%	24 30%	34 31%	35 53%	10 24%	12 23%	6 35%



PRIMARY CARE

1.0 PROTON PUMP INHIBITORS

Purpose: To encourage appropriate use of proton pump inhibitors (PPIs).

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, *Clostridium difficile* infection, and hypomagnesaemia. Prescribers are therefore encouraged to review and reduce where possible.

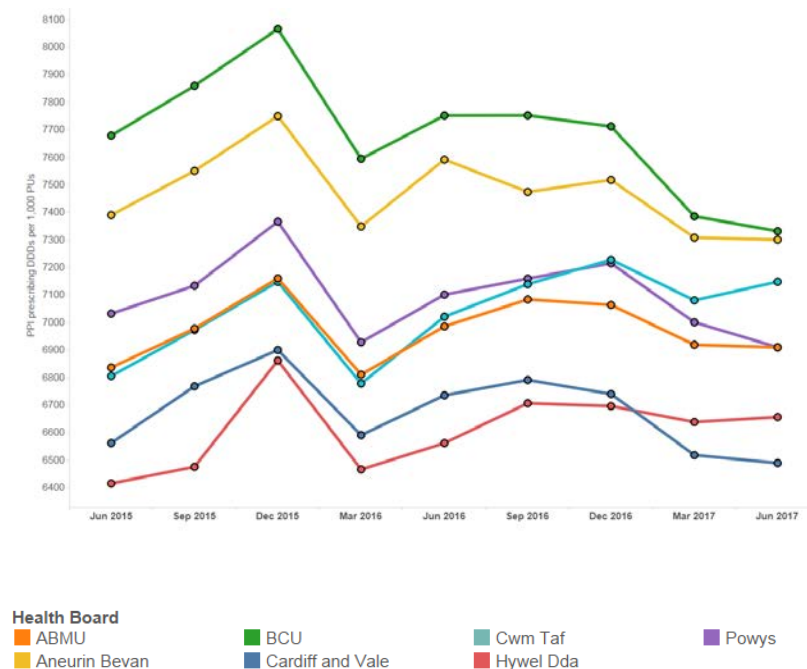
In the quarter to June 2017, PPI prescribing (DDDs per 1,000 PUs) in Wales was almost 13% higher than that seen in England.

- For the quarter ending June 2017, PPI usage ranged from 6,490 to 7,332 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 Betsi Cadwaladr UHB.
- Five out of the seven health boards demonstrated a reduction in DDDs per 1,000 PUs, compared to the equivalent quarter of the previous year. Betsi Cadwaladr UHB demonstrated the largest percentage decrease.
- Cwm Taf UHB and Hywel Dda UHB demonstrated an increase in prescribing.

Table 1. PPI DDDs per 1,000 PUs

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Betsi Cadwaladr	7,752	7,332	-5.42%
Aneurin Bevan	7,592	7,301	-3.83%
Cardiff and Vale	6,736	6,490	-3.65%
Powys	7,102	6,910	-2.69%
ABMU	6,986	6,910	-1.09%
Hywel Dda	6,562	6,657	1.44%
Cwm Taf	7,021	7,148	1.81%
Wales	7,189	7,006	-2.55%

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



2.0 INHALED CORTICOSTEROIDS

Purpose: To encourage the routine review of inhaled corticosteroids (ICS) in people with asthma, particularly those on high strengths, encouraging step down of the strength when clinically appropriate.

Unit of measure: High-strength ICS items as a percentage of all ICS prescribing.

Aim: To reduce prescribing

This indicator is new for 2017–2018 and replaces the low-strength ICS indicator.

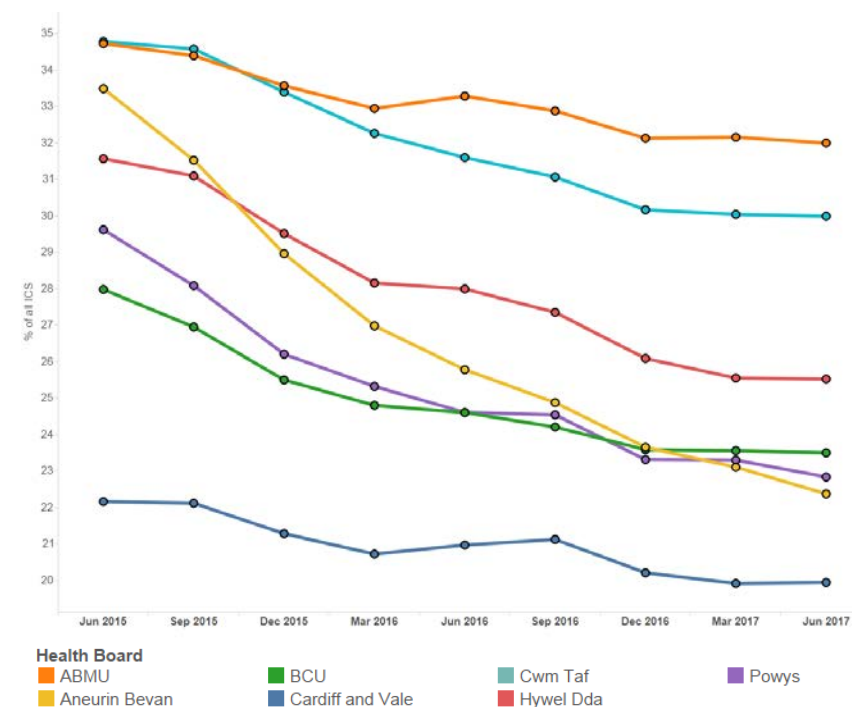
Potentially serious systemic side effects, such as adrenal suppression, growth failure, decrease in bone mineral density, cataracts and glaucoma, may be associated with ICS, particularly at high doses.

- For the quarter ending June 2017, the proportion of high-strength ICS prescribing ranged from 19.9% to 32.0% across the health boards.
- The health board with the lowest percentage was Cardiff and Vale UHB, whilst the highest percentage was seen in Abertawe Bro Morgannwg UHB.
- The proportion of high-strength ICS prescribing decreased across all health boards compared to the equivalent quarter of the previous year.
- The greatest percentage decrease was seen in Aneurin Bevan UHB, and the smallest percentage decrease was seen in Abertawe Bro Morgannwg UHB.

Table 2. High-strength ICS prescribing as a percentage of all ICS prescribing

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	25.8	22.4	-13.2%
Hywel Dda	28.0	25.5	-8.84%
Powys	24.6	22.8	-7.20%
Cwm Taf	31.6	30.0	-5.09%
Cardiff and Vale	21.0	19.9	-4.90%
Betsi Cadwaladr	24.6	23.5	-4.48%
ABMU	33.3	32.0	-3.88%
Wales	27.2	25.3	-6.82%

Figure 2. Trend in high-strength ICS prescribing as a percentage of all ICS prescribing



3.0 HYPNOTICS AND ANXIOLYTICS

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

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 anxiolytic and hypnotic prescribing within 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.

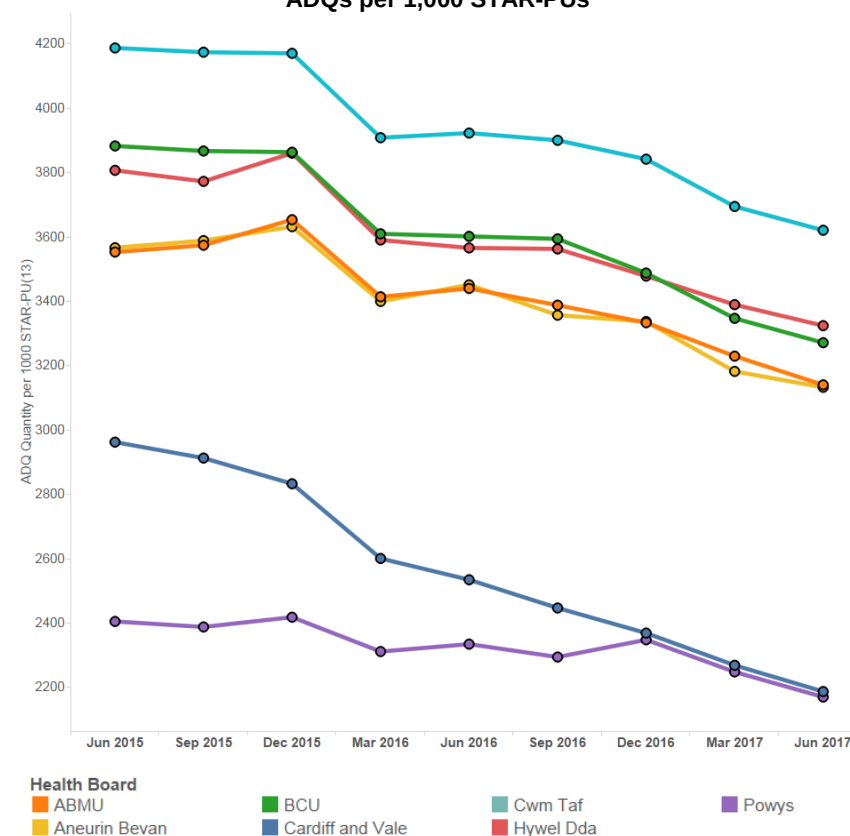
The prescribing of hypnotics and anxiolytics continues to decrease across Wales, in line with the aim of this indicator. However, for the quarter ending June 2017, prescribing in Wales (ADQs per 1,000 STAR-PUs) remained 48% higher than that seen in England.

- For the quarter ending June 2017, hypnotic and anxiolytic prescribing ranged from 2,171 to 3,621 ADQs per 1,000 STAR-PUs across the health boards.
- The health board with the lowest prescribing was Powys Teaching HB, whilst the highest prescribing was seen in Cwm Taf UHB.
- Hypnotic and anxiolytic prescribing decreased compared to 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 Hywel Dda UHB.

Table 3. Hypnotic and anxiolytic ADQs per 1,000 STAR-PUs

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Cardiff and Vale	2,535	2,188	-13.7%
Aneurin Bevan	3,452	3,133	-9.23%
Betsi Cadwaladr	3,602	3,272	-9.17%
ABMU	3,440	3,141	-8.71%
Cwm Taf	3,923	3,621	-7.70%
Powys	2,335	2,171	-7.04%
Hywel Dda	3,566	3,325	-6.77%
Wales	3,361	3,059	-9.00%

Figure 3. Trend in hypnotic and anxiolytic prescribing ADQs per 1,000 STAR-PUs



4.0 ANALGESICS

There are three NPIs monitoring the usage of medicines used for the treatment of pain for 2017–2018:

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

4.1 Tramadol

Purpose: To encourage the appropriate use and review of tramadol, minimising the potential for diversion and misuse.

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 misuse and diversion. This NPI promotes a prudent approach to prescribing tramadol, taking into account the risks and benefits, and encouraging timely review.

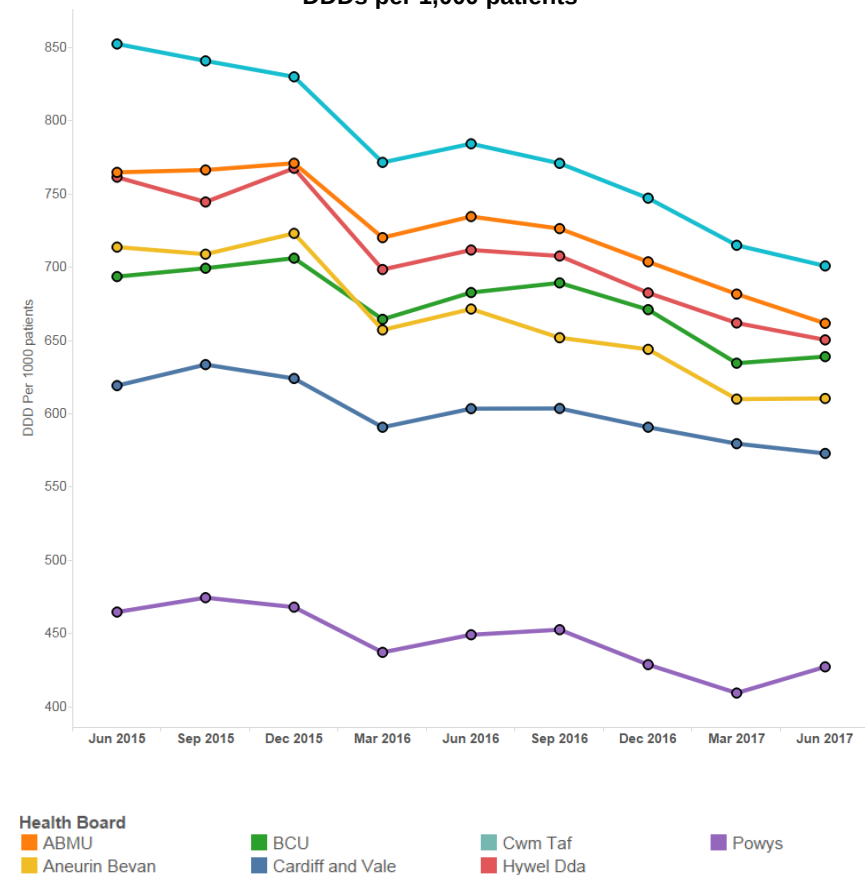
Across Wales, prescribing of tramadol was lower in the quarter ending June 2017, than in the equivalent quarter of the previous year. This is in line with the aim of the indicator.

- For the quarter ending June 2017, tramadol prescribing ranged from 427 to 701 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 UHB.
- Tramadol prescribing decreased compared to the equivalent quarter of the previous year in all of the health boards.
- The largest percentage decrease was seen in Cwm Taf UHB and the smallest percentage decrease was seen in Powys Teaching HB.

Table 4. Tramadol DDDs per 1,000 patients

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Cwm Taf	784	701	-10.6%
ABMU	735	662	-9.91%
Aneurin Bevan	671	610	-9.09%
Hywel Dda	712	650	-8.61%
Betsi Cadwaladr	683	639	-6.40%
Cardiff and Vale	604	573	-5.06%
Powys	449	427	-4.87%
Wales	680	625	-8.07%

Figure 4. Trend in tramadol prescribing DDDs per 1,000 patients



4.2 Opioid patches

Purpose: To encourage the appropriate use and review of opioid patches.

Unit of measure: Opioid patch items as a percentage of all opioid prescribing.

Aim: To reduce prescribing

Opioid patches are recommended as a treatment option only where analgesic requirements are stable and where oral opioids are unsuitable. A number of safety concerns around the use of opioid patches have been highlighted, with anecdotal evidence suggesting that patches are not always prescribed appropriately.

This is a new indicator for 2017–2018, the aim of which is to highlight that prescribers should make evidence-based, informed decisions based on the individual needs of the patient. Prescribers should ensure that when an opioid patch is indicated, the patch with the lowest acquisition cost is initiated.

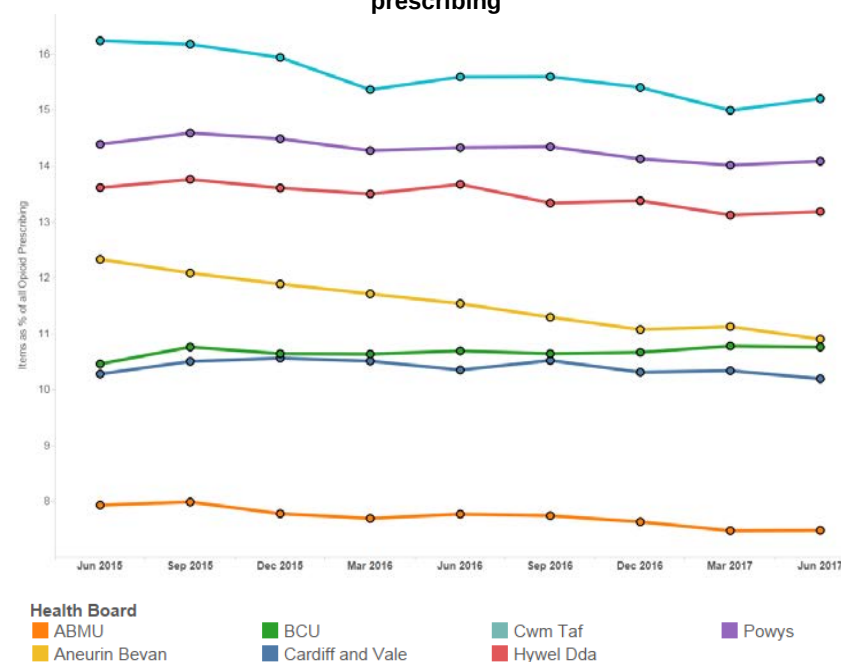
Across Wales, use of opioid patches as a percentage of all opioid prescribing was lower in the quarter ending June 2017 than in the equivalent quarter of the previous year. This is in line with the aim of the indicator.

- For the quarter ending June 2017, the proportion of opioid patch prescribing ranged from 7.49% to 15.2%.
- The health board with the lowest proportion was ABMU UHB, whilst the highest proportion was seen in Cwm Taf UHB.
- The proportion of opioid patches prescribed decreased compared to the equivalent quarter of the previous year in six out of the seven health boards. The largest percentage decrease was seen in Aneurin Bevan UHB.
- Betsi Cadwaladr demonstrated a small increase in prescribing.

Table 5. Opioid patch items as a percentage of all opioid prescribing

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	11.5	10.9	-5.52%
ABMU	7.78	7.49	-3.74%
Hywel Dda	13.7	13.2	-3.57%
Cwm Taf	15.6	15.2	-2.49%
Powys	14.3	14.1	-1.69%
Cardiff and Vale	10.4	10.2	-1.50%
Betsi Cadwaladr	10.7	10.8	0.64%
Wales	11.4	11.1	-2.48%

Figure 5. Trend in opioid patch items as a percentage of all opioid prescribing



4.3 Gabapentin and pregabalin

Purpose: To encourage the appropriate use and review of gabapentin and pregabalin, minimising the potential for diversion and misuse.

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, misuse and diversion. Prescribers should make evidence-based, informed decisions on whether to prescribe, taking into account the risks and benefits of these medicines.

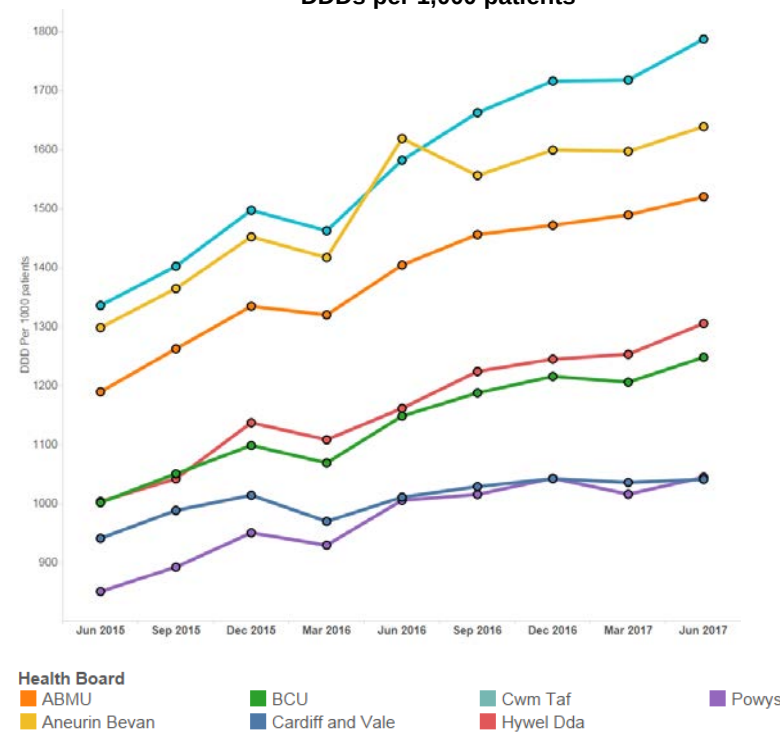
Across Wales, for the quarter ending June 2017, prescribing of gabapentin and pregabalin increased compared to the same quarter of the previous year.

- For the quarter ending June 2017, gabapentin and pregabalin prescribing ranged from 1,041 to 1,787 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 UHB.
- Gabapentin and pregabalin prescribing increased compared to 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 Cwm Taf UHB.

Table 6. Gabapentin and pregabalin DDDs per 1,000 patients

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	1,619	1,639	1.25%
Cardiff and Vale	1,011	1,041	2.98%
Powys	1,006	1,045	3.89%
ABMU	1,404	1,520	8.24%
Betsi Cadwaladr	1,148	1,248	8.67%
Hywel Dda	1,161	1,305	12.4%
Cwm Taf	1,582	1,787	13.0%
Wales	1,295	1,384	6.94%

Figure 6. Trend in gabapentin and pregabalin prescribing DDDs per 1,000 patients



Note: DDDs per 1,000 patients for Aneurin Bevan UHB Q1 2016–2017 should be 1,530 rather than 1,619 as reported.

5.0 ANTIBIOTICS

Purpose: To encourage the appropriate prescribing of antibiotics. The development of NPIs for antibiotic prescribing supports one of the key elements of the Welsh Antimicrobial Resistance Programme: to inform, support and promote the prudent use of antimicrobials.

There are four primary care antibiotic NPIs for 2017–2018:

1. Total antibacterial items
2. Co-amoxiclav
3. Cephalosporins
4. Fluoroquinolones

5.1 Total antibacterial items

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

Aim: To reduce prescribing

No target is set for this indicator due to seasonal variations in prescribing, although a reduction in prescribing year on year is encouraged, with measurement based on data for quarter ending December.

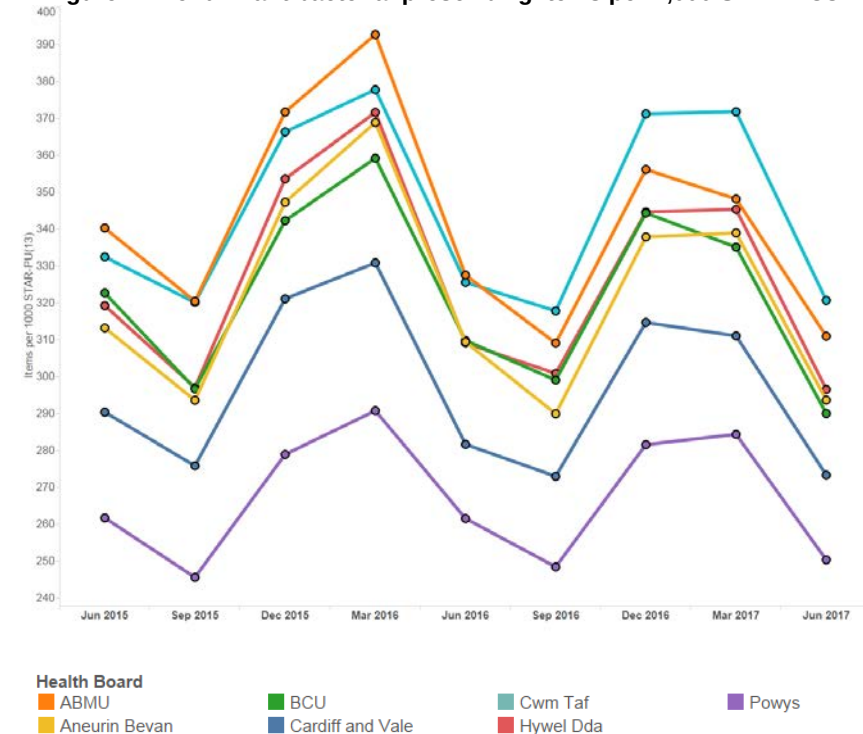
- For the quarter ending June 2017, the total number of antibacterial items per 1,000 STAR-PU ranged from 250 to 321 across the health boards.
- The health board with the lowest prescribing was Powys Teaching HB, whilst the highest prescribing was seen in Cwm Taf UHB.
- For the quarter ending June 2017, antibacterial prescribing decreased in all seven health boards compared to the equivalent quarter of the previous year.
- Betsi Cadwaladr UHB demonstrated the greatest percentage reduction in prescribing compared to the equivalent quarter of the previous year.

- Cwm Taf UHB demonstrated the smallest percentage reduction in prescribing, compared to the equivalent quarter of the previous year.

Table 7. Total antibacterial items per 1,000 STAR-PU

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Betsi Cadwaladr	310	290	-6.39%
Aneurin Bevan	309	294	-5.09%
ABMU	328	311	-5.05%
Powys	262	250	-4.28%
Hywel Dda	309	297	-4.06%
Cardiff and Vale	282	273	-2.96%
Cwm Taf	326	321	-1.49%
Wales	308	294	-4.56%

Figure 7. Trend in antibacterial prescribing items per 1,000 STAR-PU



5.2 Co-amoxiclav, cephalosporins and fluoroquinolones

Unit of measure: Each of these antibacterial indicators is monitored using two measures:

1. Items as a percentage of total antibacterial items
2. Items per 1,000 patients

Aim: To reduce prescribing

Prescribing of co-amoxiclav, cephalosporins and fluoroquinolones are monitored, as these antibacterials are associated with an increased risk of *Clostridium difficile* infection.

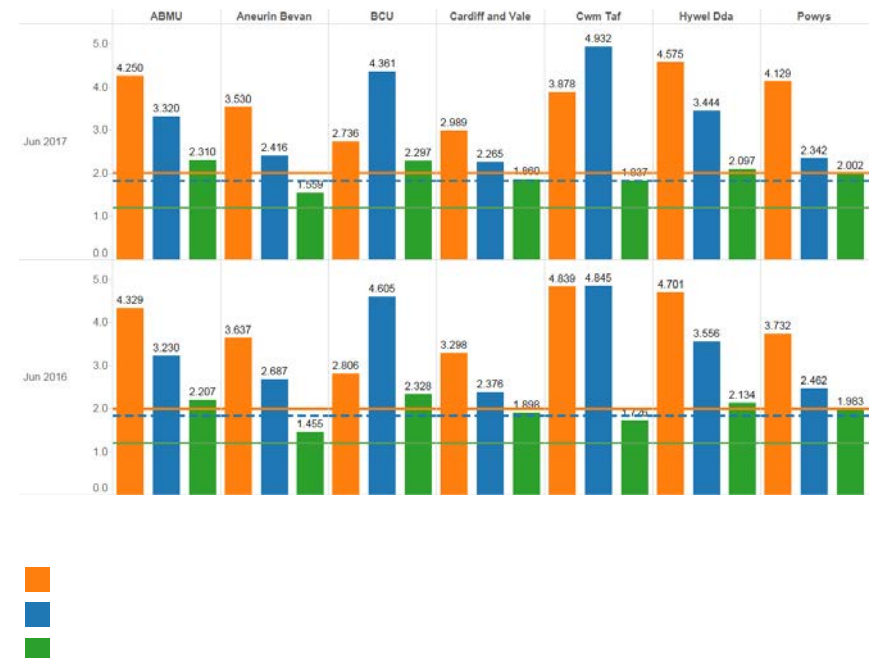
5.2.1 Co-amoxiclav, cephalosporins and fluoroquinolones as a percentage of total antibacterial items

Across Wales, for the quarter ending June 2017, the number of items of co-amoxiclav and cephalosporins as a percentage of all antibacterial prescribing was lower than the equivalent quarter of the previous year. The number of items of fluoroquinolones as a percentage of all antibacterial prescribing was greater for the quarter ending June 2017, compared with the equivalent quarter of the previous year.

- The proportion of co-amoxiclav prescribing decreased, compared to the equivalent quarter of the previous year, in six out of the seven health boards. The largest percentage decrease was seen in Cwm Taf UHB (19.9%). There was an increase of 10.6% in Powys Teaching HB.
- The proportion of cephalosporin prescribing decreased, compared to the equivalent quarter of the previous year, in five out of the seven health boards. The largest percentage decrease was seen in Aneurin Bevan UHB (10.1%). The largest percentage increase was seen in Abertawe Bro Morgannwg UHB (2.78%).
- The proportion of fluoroquinolone prescribing decreased, compared to the equivalent quarter of the previous year, in three out of the seven health boards. The largest

percentage decrease was seen in Cardiff and Vale UHB (2.03%). The largest percentage increase was seen in Aneurin Bevan UHB (7.10%).

Figure 8. Co-amoxiclav, cephalosporins and fluoroquinolones as a percentage of total antibacterial prescribing



5.2.2 Co-amoxiclav items per 1,000 patients

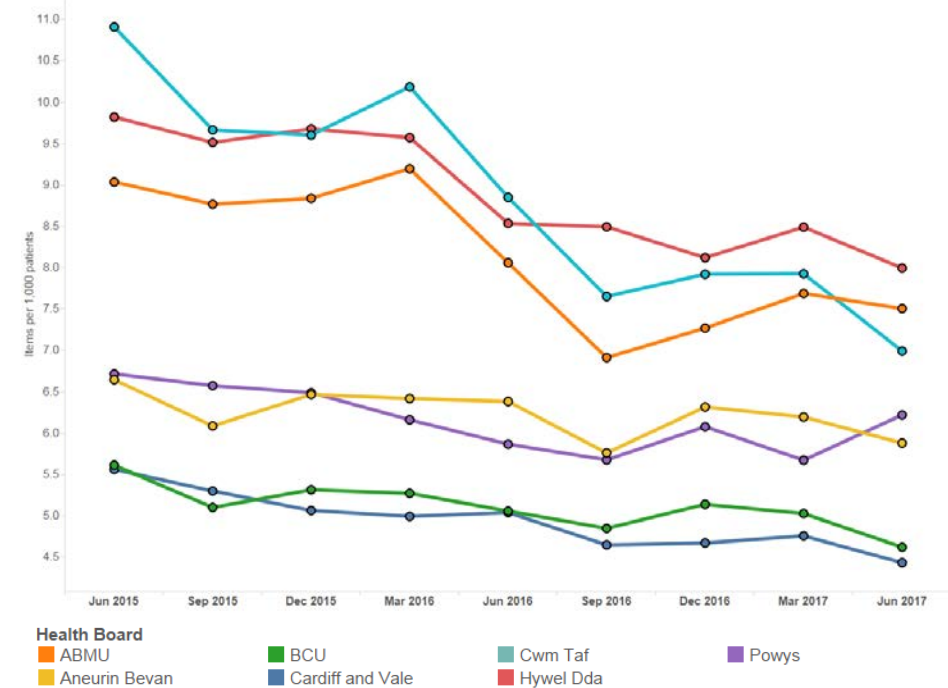
Across Wales, for the quarter ending June 2017, the number of co-amoxiclav items per 1,000 patients decreased by 9.20%, compared with the equivalent quarter of the previous year, in line with the aim of this indicator.

- For the quarter ending June 2017, co-amoxiclav prescribing ranged from 4.43 to 8.00 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 Hywel Dda UHB.
- Co-amoxiclav prescribing decreased compared to the equivalent quarter of the previous year in six out of the seven health boards. The largest percentage decrease was seen in Cwm Taf UHB.
- Powys Teaching HB demonstrated an increase in items per 1,000 patients of 6.04%.

Table 8. Co-amoxiclav items per 1,000 patients

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Cwm Taf	8.85	6.99	-21.0%
Cardiff and Vale	5.04	4.43	-12.0%
Betsi Cadwaladr	5.06	4.62	-8.64%
Aneurin Bevan	6.38	5.88	-7.89%
ABMU	8.06	7.51	-6.86%
Hywel Dda	8.54	8.00	-6.32%
Powys	5.87	6.22	6.04%
Wales	6.64	6.03	-9.20%

Figure 9. Trend in co-amoxiclav prescribing items per 1,000 patients



5.2.3 Cephalosporin items per 1,000 patients

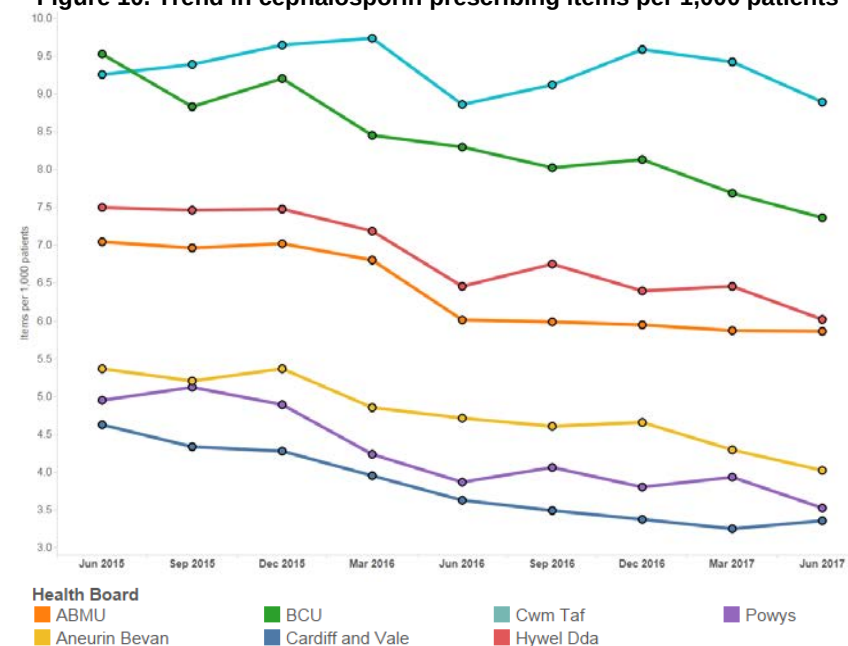
Across Wales, for the quarter ending June 2017, the number of cephalosporin items per 1,000 patients decreased across Wales by 7.75%, compared to the equivalent quarter of the previous year, in line with the aim of this indicator.

- For the quarter ending June 2017, cephalosporin prescribing ranged from 3.36 to 8.89 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 UHB.
- Cephalosporin prescribing decreased compared to the equivalent quarter of the previous year in six out of the seven health boards. The largest percentage decrease was seen in Aneurin Bevan UHB.
- Cwm Taf UHB demonstrated a small percentage increase.

Table 9. Cephalosporins items per 1,000 patients

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	4.71	4.02	-14.7%
Betsi Cadwaladr	8.30	7.36	-11.3%
Powys	3.87	3.53	-8.84%
Cardiff and Vale	3.63	3.36	-7.45%
Hywel Dda	6.46	6.02	-6.77%
ABMU	6.01	5.86	-2.51%
Cwm Taf	8.86	8.89	0.38%
Wales	6.13	5.65	-7.75%

Figure 10. Trend in cephalosporin prescribing items per 1,000 patients



5.2.4 Fluoroquinolone items per 1,000 patients

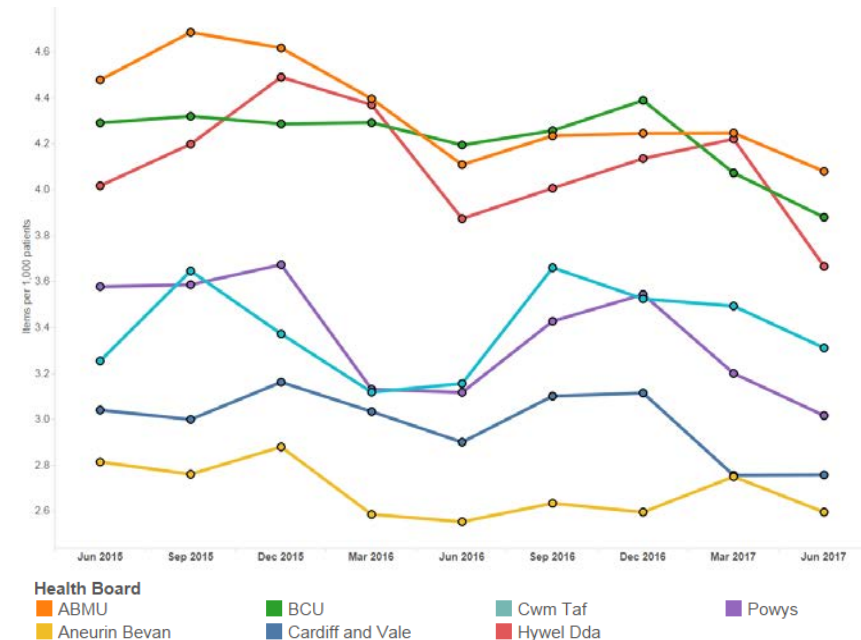
Across Wales, for the quarter ending June 2017, the number of fluoroquinolone items per 1,000 patients decreased by 3.05%, compared to the equivalent quarter of the previous year. This is in line with the aim of the indicator.

- For the quarter ending June 2017, fluoroquinolone prescribing ranged from 2.60 to 4.08 items per 1,000 patients across the health boards.
- The health board with the lowest prescribing was Aneurin Bevan UHB, whilst the highest prescribing was seen in Abertawe Bro Morgannwg UHB.
- Fluoroquinolone prescribing decreased compared to the equivalent quarter of the previous year in five out of the seven health boards. Betsi Cadwaladr UHB demonstrated the greatest percentage reduction in prescribing compared to the equivalent quarter of the previous year.
- Cwm Taf UHB demonstrated the largest percentage increase in prescribing compared to the equivalent quarter of the previous year.

Table 10. Fluoroquinolone items per 1,000 patients

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Betsi Cadwaladr	4.19	3.88	-7.50%
Hywel Dda	3.87	3.67	-5.37%
Cardiff and Vale	2.90	2.76	-4.91%
Powys	3.12	3.02	-3.24%
ABMU	4.11	4.08	-0.71%
Aneurin Bevan	2.55	2.60	1.64%
Cwm Taf	3.16	3.31	4.93%
Wales	3.48	3.37	-3.05%

Figure 11. Trend in fluoroquinolone prescribing items per 1,000 patients



6.0 ANTICHOLINERGIC BURDEN

Purpose: To encourage a review of patients with an Anticholinergic Effect on Cognition (AEC) score of 3 or more, with the aim of reducing anticholinergic use where appropriate.

Unit of measure: Patients aged 75 and over with an AEC score of 3 or more for items on active repeat, as a percentage of all patients aged 75 and over.

Aim: To reduce the prescribing of medicines contributing to the AEC score

An increasing number of studies report that medicines with anticholinergic effects are associated with an increased risk of cognitive impairment, dementia and falls in older people. The cumulative effect of taking one or more medicines with anticholinergic properties is referred to as anticholinergic burden. As risk of adverse clinical outcomes in older people prescribed anticholinergic medication increases with increasing anticholinergic exposure, it is good practice to use medicines with AEC scores of zero.

This is a new indicator for 2017–2018 which aims to encourage timely review to reduce the anticholinergic burden in older people, by avoiding, reducing doses and deprescribing medicines with anticholinergic activity where clinically possible.

Statement from Audit+:

Following deployment of the AEC module in Audit+, it was identified that the data being presented by the Vision Health system and subsequently being used by Audit+ was resulting in acute prescriptions being identified and counted as part of the overall AEC score which was incorrect.

An update to the Audit+ software across the entire Vision Health estate was subsequently required to remedy the situation. This has now taken place along with an update to the Audit+ AEC module itself. NWIS are now undertaking test activities in a Vision Health pilot site to confirm that the calculation of AEC scores within the Audit+ AEC module are correct. Once this work is complete the updated Audit+ module will be rolled out across all Vision Health and EMIS Web practices to ensure consistency of reporting throughout Wales.

At the latest, data will be available to practices at the end of the third quarter.

7.0 NON-STEROIDAL ANTI-INFLAMMATORY DRUGS

Purpose: Ensure that the risks associated with non-steroidal anti-inflammatory drugs (NSAIDs) are minimised by appropriate use.

There are two NSAID NPIs for 2017–2018.

1. All NSAIDs
2. NSAIDs and chronic kidney disease (CKD)

7.1 All NSAIDs

Unit of measure: NSAID ADQs per 1,000 STAR-PUs.

Aim: To reduce prescribing

This indicator aims to encourage a reduction in total NSAID prescribing, which has been consistently higher than that seen in England. NSAIDs are associated with increased risk of serious gastro-intestinal toxicity, cardiovascular adverse events and renal failure, and are contraindicated in many other disease areas.

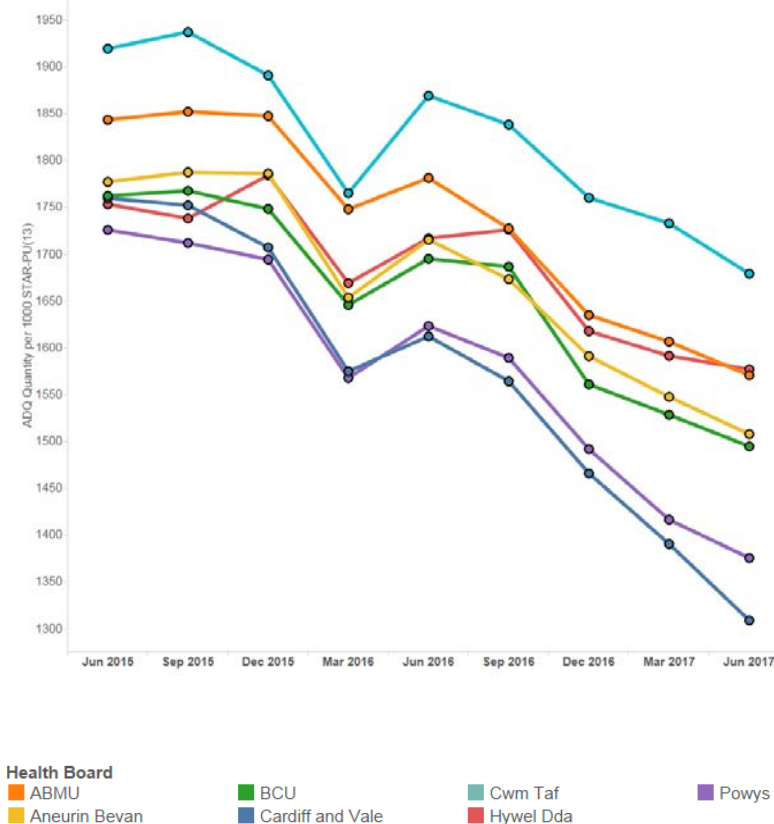
Since the introduction of this indicator, total NSAID prescribing has fallen across Wales, in line with the aim of the indicator.

- For the quarter ending June 2017, total NSAID prescribing ranged from 1,309 to 1,679 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 UHB.
- Total NSAID prescribing decreased compared to 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 Hywel Dda UHB.

Table 11. NSAID ADQs per 1,000 STAR-PUs

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Cardiff and Vale	1,612	1,309	-18.8%
Powys	1,623	1,376	-15.3%
Aneurin Bevan	1,715	1,508	-12.1%
ABMU	1,781	1,571	-11.8%
Betsi Cadwaladr	1,695	1,495	-11.8%
Cwm Taf	1,869	1,679	-10.2%
Hywel Dda	1,717	1,577	-8.15%
Wales	1,717	1,506	-12.3%

Figure 12. Trend in NSAID prescribing ADQs per 1,000 STAR-PUs



7.2 NSAIDs and CKD

Units of measure:

- Number of patients on the CKD register (CKD 3–5) who have received a repeat prescription for an NSAID within the last 3 months, as a percentage of all patients on the CKD register.
- 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, as a percentage of all patients who are not on the CKD register but have an eGFR of < 59 ml/min.

Aim: To reduce prescribing

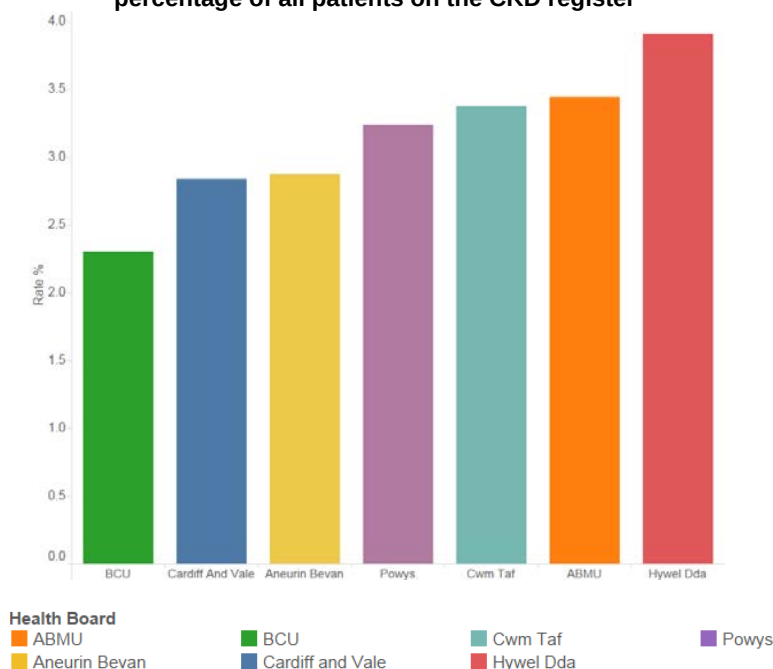
In patients with CKD, the chronic use of NSAIDs may be associated with disease progression. The effects on GFR should be monitored when treating people with CKD with NSAIDs over prolonged periods of time. NSAIDs may precipitate renal failure, and vulnerable patients, such as the elderly, may be at increased risk.

This is a new indicator for 2017–2018 which aims to highlight the requirement for regular review of the ongoing need for an NSAID, and reassessment of the risk versus benefit.

Table 12. Number of patients on the CKD register (CKD 3–5) who have received a repeat prescription for an NSAID within the last 3 months, as a percentage of all patients on the CKD register

	2016–2017 Qtr 1 Numerator	2017–2018 Qtr 1 Denominator	Percentage
Betsi Cadwaladr	626	27,188	2.30
Cardiff and Vale	279	9,833	2.84
Aneurin Bevan	522	18,155	2.88
Powys	186	5,741	3.24
Cwm Taf	331	9,810	3.37
ABMU	634	18,413	3.44
Hywel Dda	503	12,874	3.91
Wales	3,081	102,014	3.02

Figure 13. Number of patients on the CKD register (CKD 3–5) who have received a repeat prescription for an NSAID within the last 3 months, as a percentage of all patients on the CKD register

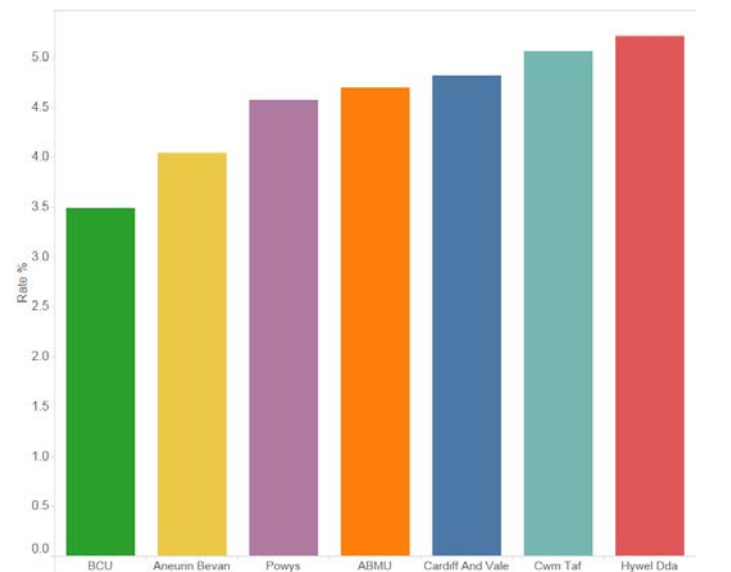


Welsh Analytical Prescribing Support Unit

Table 13. 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, as a percentage of all patients who are not on the CKD register but have an eGFR of < 59 ml/min

	2016–2017 Qtr 1 Numerator	2017–2018 Qtr 1 Denominator	Percentage
Betsi Cadwaladr	521	14,963	3.48
Aneurin Bevan	546	13,499	4.04
Powys	179	3,915	4.57
ABMU	799	17,023	4.69
Cardiff and Vale	462	9,588	4.82
Cwm Taf	402	7,938	5.06
Hywel Dda	783	15,029	5.21
Wales	3,692	81,955	4.50

Figure 14. 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, as a percentage of all patients who are not on the CKD register but have an eGFR of < 59 ml/min



Health Board

ABMU

Aneurin Bevan

BCU

Cardiff and Vale

Cwm Taf

Hywel Dda

Powys

8.0 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 practice and per health board.

Aim: To increase reporting

Adverse drug reactions (ADRs) are a significant clinical problem, increasing morbidity and mortality. Approximately 6.5% of hospital admissions in adults and 2.1% in children are attributed to ADRs.

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.

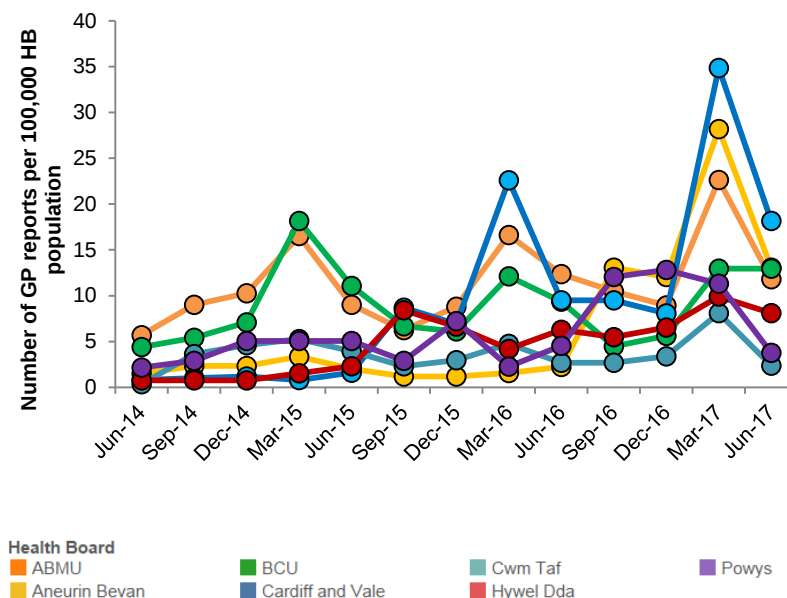
The number of Yellow Cards submitted by GP practices in Wales increased by 58% compared to the equivalent quarter of the previous year.

The largest percentage increase in GP practice Yellow Card reporting was seen in Aneurin Bevan UHB. The largest percentage decrease was seen in Powys Teaching HB.

Table 14. Number of Yellow Cards submitted by GP practices

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	13	76	485%
Cardiff and Vale	46	88	91%
Betsi Cadwaladr	65	90	38%
Hywel Dda	24	31	29%
ABMU	65	62	-5%
Cwm Taf	8	7	-13%
Powys	6	5	-17%
Wales	227	359	58%

Figure 15. Number of GP practice reports per 100,000 health board population



The number of Yellow Cards submitted by health boards in Wales increased by 43% compared to the equivalent quarter of the previous year.

Table 15. Number of Yellow Cards submitted by health boards

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Aneurin Bevan	46	109	137%
Cardiff and Vale	88	177	101%
Hywel Dda	71	106	49%
Powys	9	11	22%
Cwm Taf	23	28	22%
Betsi Cadwaladr	141	159	13%
ABMU	97	90	-7%
Wales	475	680	43%

SECONDARY CARE

1.0 INSULIN

Purpose: Ensure long-acting analogue insulin prescribing in type 2 diabetes mellitus is in line with NICE guidance to maximise cost-effective prescribing within Wales.

Unit of measure: Items/number of long-acting insulin analogues expressed as a percentage of total insulin prescribed within 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.

Secondary care prescribing

- For the quarter ending June 2017, prescribing of long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin ranged from 33.3% to 86.1%.
- The lowest prescribing was seen in Velindre NHS Trust; however, usage in this trust is very low and so percentage changes are likely to show a greater magnitude of fluctuation between comparative periods. Cwm Taf UHB had the next lowest prescribing at 52.3%, a decrease of 19.4% compared to the equivalent quarter of the previous year.

- The health board/trust with the highest prescribing percentage was Abertawe Bro Morgannwg UHB (86.1%). However, this was a decrease of 2.38% from the equivalent quarter of the previous year.
- The proportion of long-acting insulin analogue prescribing decreased in all of the seven health boards/trusts, compared to the equivalent quarter of the previous year.

Table 16. Long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin prescribing in secondary care

	2016–2017 Qtr 1 (%)	2017–2018 Qtr 1 (%)	% Change
Velindre	100	33.3	-66.7
Cwm Taf	64.9	52.3	-19.4
Cardiff and Vale	84.4	71.3	-15.5
Aneurin Bevan	72.9	66.0	-9.47
BCU	80.6	75.0	-6.95
ABMU	88.2	86.1	-2.38
Hywel Dda	83.6	83.4	-0.24
Wales	79.6	72.7	-8.67

Primary care prescribing

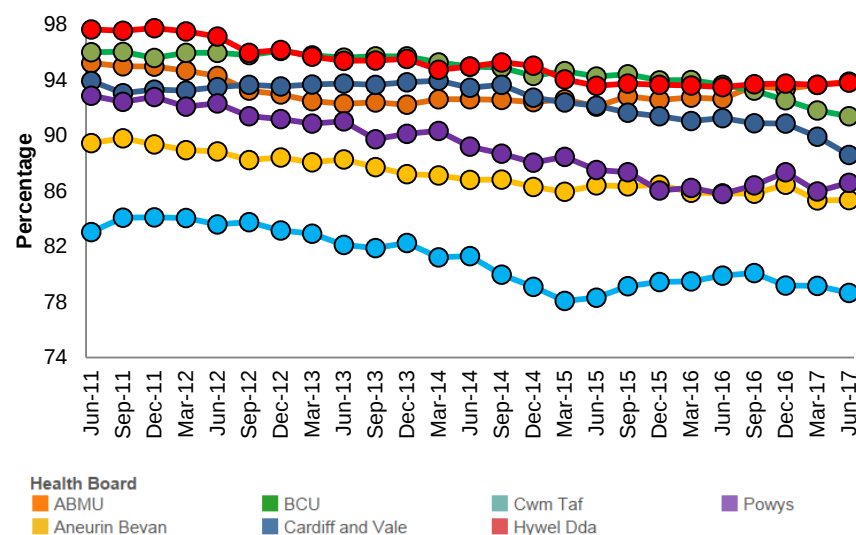
Across Wales, the prescribing of long-acting insulin analogues as a proportion of total long- and intermediate-acting insulin prescribing decreased by approximately 0.89% for the quarter ending in June 2017, compared to the equivalent quarter of the previous year. This is in line with the aim of the indicator.

- For the quarter ending June 2017, long-acting insulin analogue prescribing ranged from 78.7% to 93.9% across the health boards.
- Across the seven health boards in Wales prescribing decreased compared to the equivalent quarter of the previous year in four health boards and increased in three health boards.
- The health board with the lowest prescribing was Cwm Taf UHB, whilst the highest prescribing was seen in Abertawe Bro Morgannwg UHB.
- The largest percentage decrease was seen in Cardiff and Vale UHB and the largest increase was seen in Abertawe Bro Morgannwg UHB.

Table 17. Long-acting insulin analogues as a percentage of total long- and intermediate-acting insulin prescribing in primary care

	2016–2017 Qtr 1 (%)	2017–2018 Qtr 1 (%)	% Change
Cardiff and Vale	91.3	88.6	-2.96
BCU	93.7	91.4	-2.45
Cwm Taf	79.9	78.7	-1.50
Aneurin Bevan	85.8	85.4	-0.47
Hywel Dda	93.5	93.8	0.32
Powys	85.8	86.6	0.93
ABMU	92.7	93.9	1.29
Wales	89.7	88.9	-0.89

Figure 16. Trend in long-acting analogue prescribing as a percentage of total long- and intermediate-acting insulin prescribed in primary care



2.0 BIOSIMILARS

Purpose: Ensure prescribing of biosimilar medicines is in line with AWMSG guidance to support cost-effective prescribing within Wales.

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

Aim: To increase appropriate prescribing in line with guidance and increase commercial competition.

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. This report additionally details both etanercept and rituximab biosimilars.

Data reporting

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. However, Medusa data suggest some generic prescribing. For infliximab the cost per item for these generic items is identical to that of the reference product; these generic items have therefore been included in figures for total quantity of the reference product. For filgrastim the cost per item falls between reference and biosimilar, so these generic items have been presented separately.

2.1 Filgrastim

Across Wales there was an increase in the use of filgrastim biosimilars (Nivestim®, Zarzio® and Ratiograstim®) as a percentage of all filgrastim from 98.8% to 99.3% for the quarter ending June 2017 compared to the quarter ending June 2016.

Table 18. Quantity of filgrastim generic, reference (Neupogen®) and biosimilar (Nivestim®, Zarzio®, Ratiograstim®) prescribed – Quarter ending June 2017

Filgrastim (generic)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	27	10	-63.0
Secondary care	32	20	-37.5
Total	59	30	-49.2
Reference (Neupogen®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	0	0	N/A
Secondary care	13	10	-23.1
Total	13	10	-23.1
Biosimilar (Nivestim®, Zarzio®, Ratiograstim®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	14	22	57.1
Secondary care	5,873	5,712	-2.74
Total	5,887	5,734	-2.60

Table 19. Filgrastim biosimilars as a percentage of reference, generic and biosimilar prescribed – Quarter ending June 2017

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	34.1	68.8	102
Secondary care	99.2	99.5	0.30
Total	98.8	99.3	0.51

2.1.1 Secondary care

Prescribing of filgrastim biosimilars increased as a percentage of all filgrastim from 99.2% to 99.5% in secondary care for the quarter ending June 2017 compared to the quarter ending June 2016.

Figure 17. Proportion of filgrastim prescribing as generic, reference (Neupogen®) and biosimilar (Nivestim®, Ratiograstim® and Zarzio®) in secondary care – Quarter ending June 2017

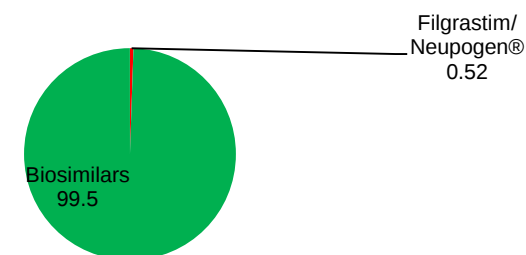
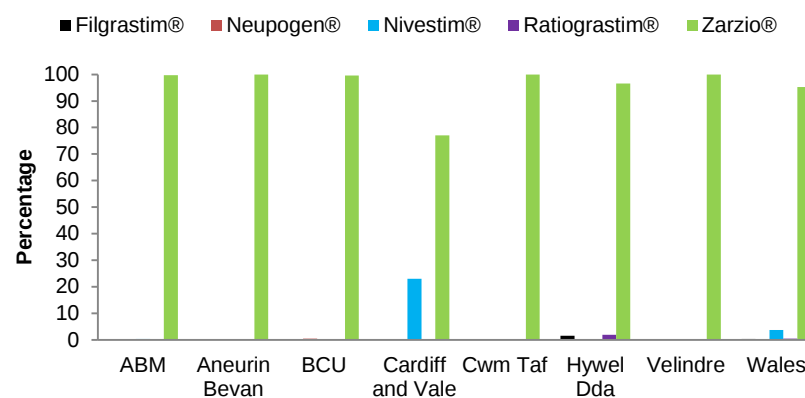


Figure 18. Health board filgrastim generic, reference (Neupogen®) and biosimilar (Nivestim®, Ratiograstim® and Zarzio®) as a percentage of total filgrastim prescribed in secondary care – Quarter ending June 2017



2.1.2 Primary care

Prescribing of filgrastim biosimilar increased as a percentage of all filgrastim from 34.1% to 68.8% for the quarter ending June 2017 compared to the quarter ending June 2016.

2.2 Infliximab

Within Wales there was an increase in the use of the infliximab biosimilar (Inflectra®) as a percentage of all infliximab from 40.2% to 59.2% for the quarter ending June 2017 compared to the quarter ending June 2016. The biosimilar infliximab usage is illustrated in Figures 19 and 20.

Table 20. Quantity of infliximab reference (Remicade®) and biosimilar (Inflectra®) prescribed in NHS Wales

Reference (Remicade®)†	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	3,012*	2,670	-11.4
Biosimilar (Inflectra®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	2,027*	3,876*	91.2

† These data include supplies recorded through homecare.

*Due to quantity discrepancy in the data set, this number has been estimated.

Table 21. Infliximab biosimilars as a percentage of reference and biosimilar prescribed – Quarter ending June 2017

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	40.2%	59.2%	47.3%

Figure 19. Infliximab reference (Remicade®) and biosimilar (Inflectra®) percentage change

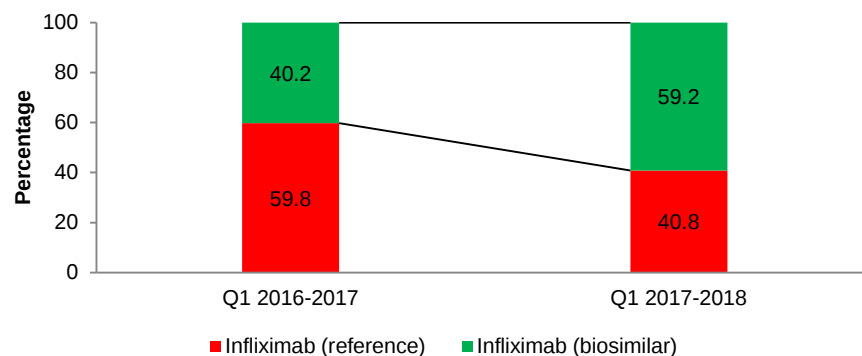
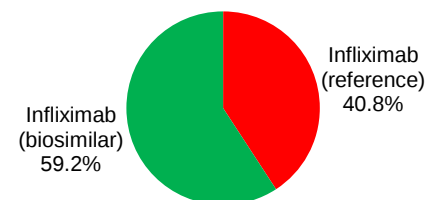


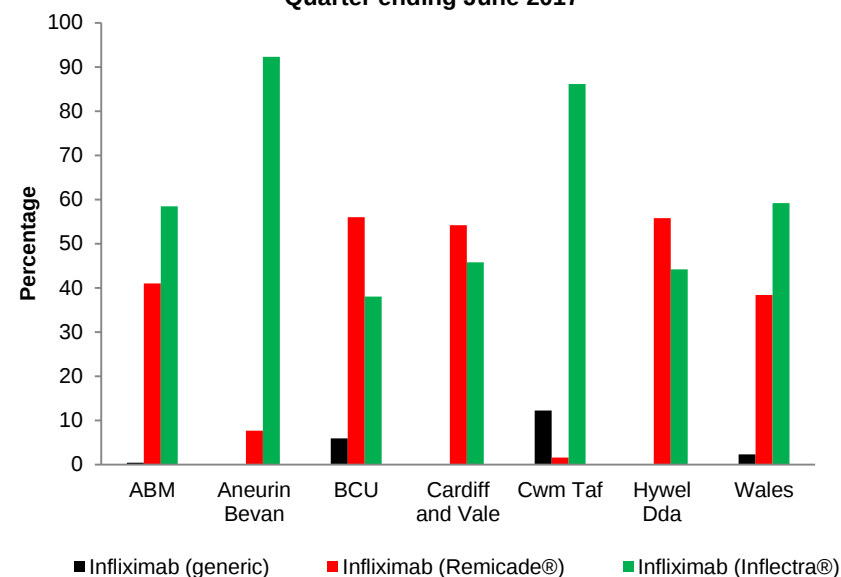
Figure 20. Proportion of infliximab prescribing as reference (Remicade®) and biosimilar (Inflectra®) – Quarter ending June 2017



2.2.1 Secondary care

Three health boards (Abertawe Bro Morgannwg, Betsi Cadwaladr and Cwm Taf University Health Boards) show generic infliximab prescribing. As previously mentioned, in order to adhere to MHRA guidelines infliximab supplies should be recorded as the brand name supplied: Remicade® or Inflectra®.

Figure 21. Infliximab generic, reference (Remicade®) and biosimilar (Inflectra®) as a proportion of total infliximab prescribed in secondary care – Quarter ending June 2017



2.3 Etanercept

Within Wales there was an increase in the use of the etanercept biosimilar (Benepali®) as a percentage of all etanercept from 2.97% to 50.2% for the quarter ending June 2017 compared to the quarter ending June 2016. The biosimilar etanercept usage is illustrated in Figures 22 and 23.

Table 22. Quantity of etanercept reference (Enbrel®) and biosimilar (Benepali®) prescribed in NHS Wales

Reference (Enbrel®) [†]	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	15,812	9,490	-40.0
Biosimilar (Benepali®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	484	9,572	1,878

[†]These data include supplies recorded through homecare.

Table 23. Etanercept biosimilar as a percentage of reference and biosimilar prescribed – Quarter ending June 2017

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	2.97	50.2	1,590

Figure 22. Etanercept reference (Enbrel®) and biosimilar (Benepali®) percentage change

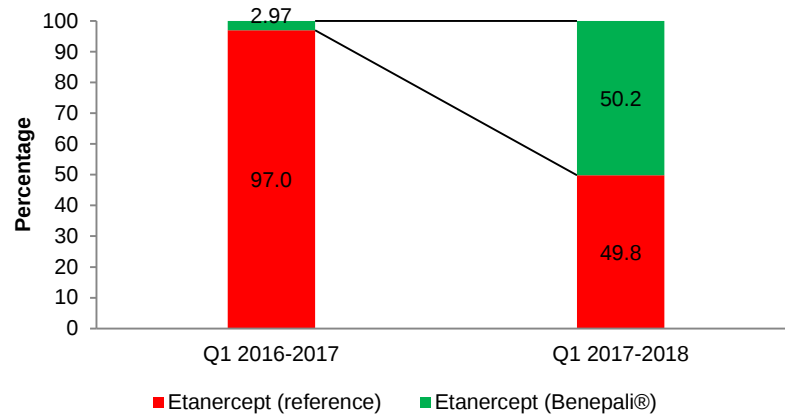
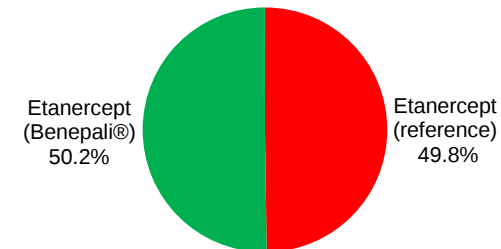


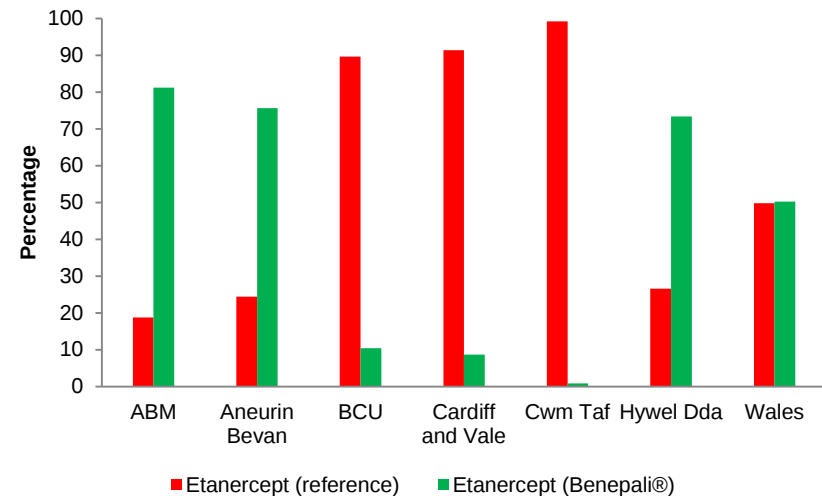
Figure 23. Proportion of etanercept prescribing as reference (Enbrel®) and biosimilar (Benepali®) – Quarter ending June 2017



2.2.1 Secondary care

All health boards have data for biosimilar etanercept prescribing in secondary care. Three health boards (Abertawe Bro Morgannwg, Aneurin Bevan and Hywel Dda University Health Boards) use the biosimilar for the majority of their supplies.

Figure 24. Etanercept generic, reference (Enbrel®) and biosimilar (Benepali®) as a proportion of total etanercept prescribed in secondary care – Quarter ending June 2017



2.4 Rituximab

Within Wales there was an increase in the use of the rituximab biosimilar (Truxima®) as a percentage of all rituximab from 0.00% to 2.92% for quarter ending June 2017 compared to the quarter ending June 2016. The biosimilar rituximab usage is illustrated in Figures 25 and 26.

Table 24. Quantity of rituximab reference (MabThera®) and biosimilar (Truxima®) prescribed in NHS Wales

Reference (MabThera®) [†]	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	2,227	2,196	-1.39
Biosimilar (Truxima®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	0	66	N/A

[†]These data include supplies recorded through homecare.

Table 25. Rituximab biosimilar as a percentage of reference and biosimilar prescribed – Quarter ending June 2017

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Total	0	2.92	N/A

Figure 25. Rituximab reference (MabThera®) and biosimilar (Truxima®) percentage change

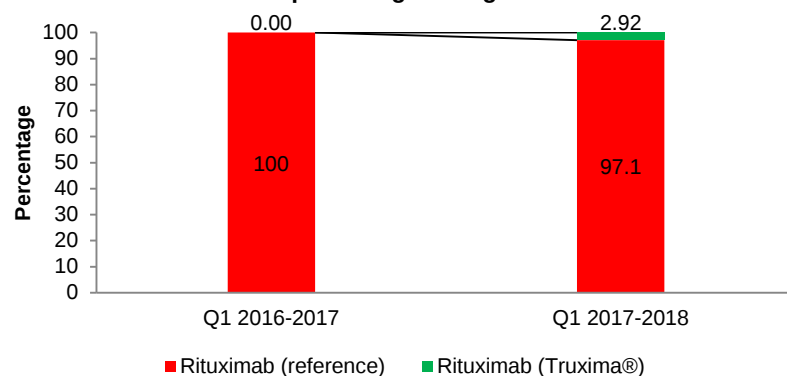
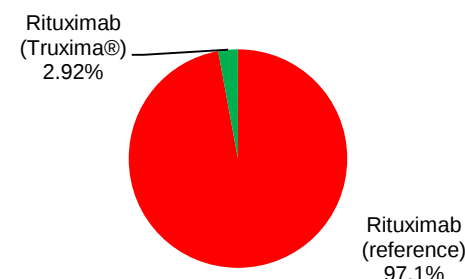


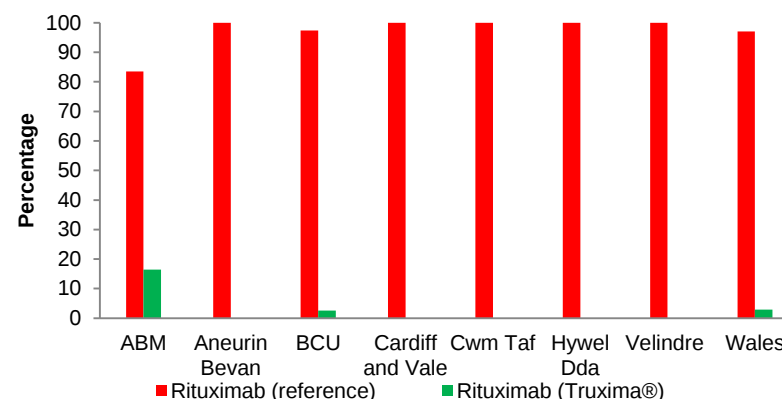
Figure 26. Proportion of rituximab prescribing as reference (MabThera®) and biosimilar (Truxima®) – Quarter ending June 2017



2.2.1 Secondary care

Two health boards show biosimilar rituximab prescribing in secondary care.

Figure 27. Rituximab generic, reference (MabThera®) and biosimilar (Truxima®) as a proportion of total rituximab prescribed in secondary care – Quarter ending June 2017



2.5 Insulin glargine

Within Wales there was an increase in the use of insulin glargine biosimilar (Abasaglar®) from 0.56% to 2.64% for quarter ending June 2017 compared to the quarter ending June 2016. The biosimilar insulin glargine usage is illustrated in Figures 28–30.

Table 26. Quantity of insulin glargine reference (Lantus® and Toujeo®) and biosimilar (Abasaglar®) prescribed – Quarter ending June 2017

Reference (Lantus® and Toujeo®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	205,274	195,078	-4.97
Secondary care	1,782	1,483	-16.8
Total	207,056	196,561	-5.07
Biosimilar (Abasaglar®)	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	1,051	5,113	386
Secondary care	107	214	100
Total	1,158	5,327	360

Table 27. Insulin glargine biosimilar (Abasaglar®) as a percentage of reference (Lantus® and Toujeo®) and biosimilar prescribed – Quarter ending June 2017

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
Primary care	0.51	2.55	400
Secondary care	5.66	12.6	123
Total	0.56	2.64	371

Figure 28. Insulin glargine reference (Lantus® and Toujeo®) and biosimilar (Abasaglar®) percentage change

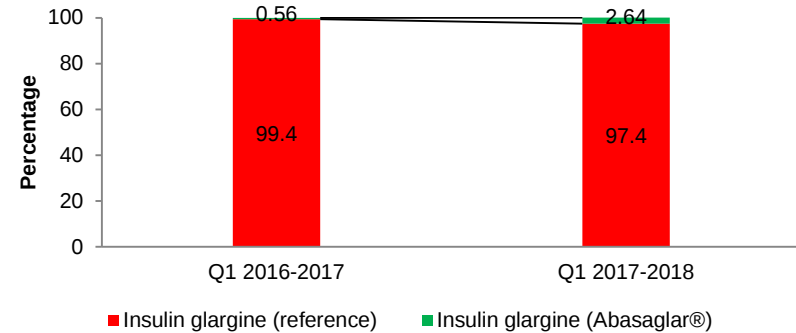


Figure 29. Insulin glargine reference (Lantus® and Toujeo®) and biosimilar (Abasaglar®) – Quarter ending June 2017

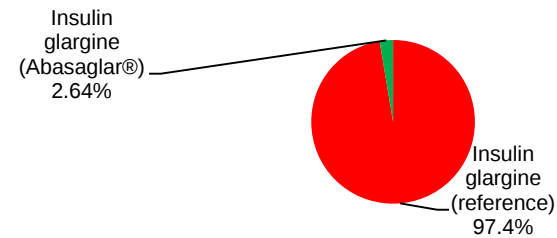
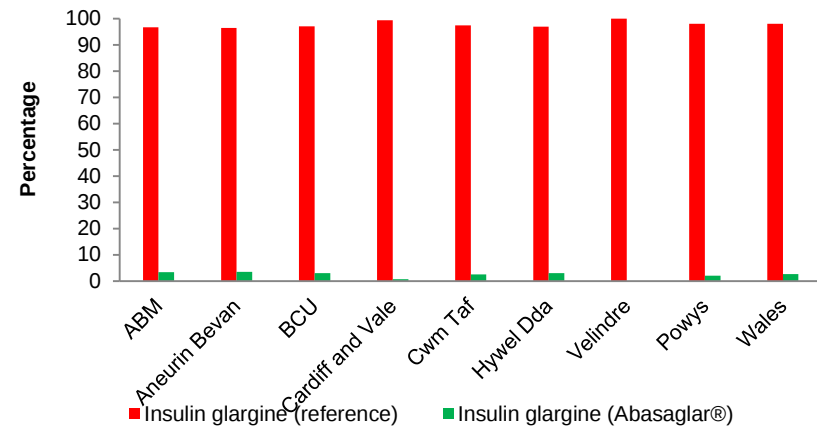


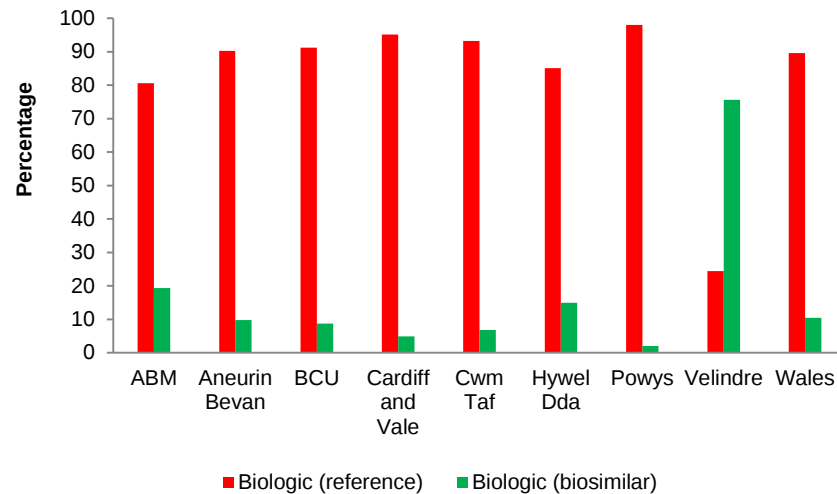
Figure 30. Insulin glargine reference (Lantus® and Toujeo®) and biosimilar (Abasaglar®) as a proportion of total insulin glargine prescribed – Quarter ending June 2017



2.6 Total biosimilar usage

Within Wales there was an increase in the use of the reported biosimilar medicines (filgrastim, infliximab, etanercept, rituximab and insulin glargine) combined as a percentage of reported 'reference' biological medicines plus biosimilars combined, from 4.02% to 10.4% for the quarter ending June 2017 compared to the quarter ending June 2016. The biosimilar usage for each health board is illustrated in Figure 31.

Figure 31. Biological reference and biosimilar as a proportion of total reference plus biosimilar prescribed – Quarter ending June 2017



3.0 ANTIBIOTICS

Purpose: To encourage the appropriate prescribing of antibiotics. The development of NPIs for antibiotic prescribing supports one of the key elements of the Welsh Antimicrobial Resistance Programme: to inform, support and promote the prudent use of antimicrobials

Unit of measure: Proportion of elective colorectal patients receiving surgical prophylaxis for more than 24 hours.

Aim: To reduce prescribing.

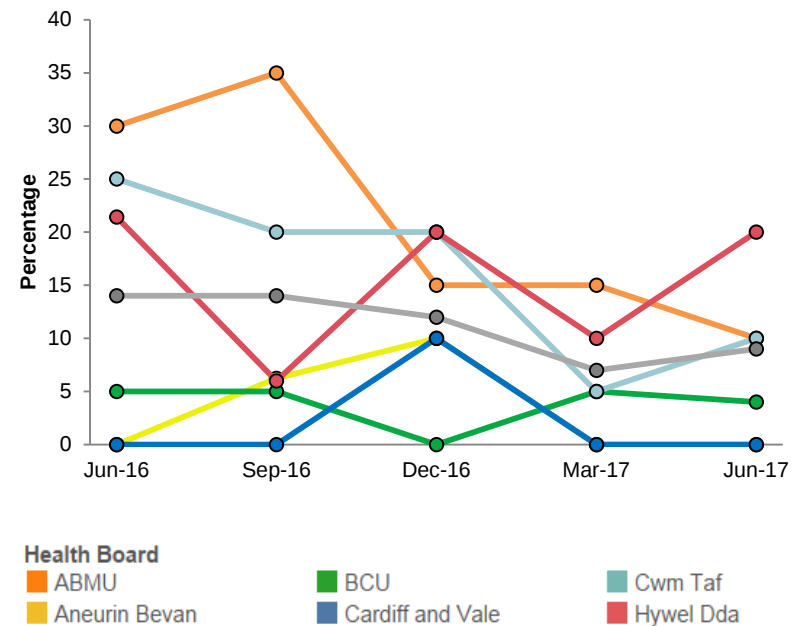
Due to surgical prophylaxis numbers being small and prone to misinterpretation at hospital level, the data are presented at health board level. Hospital level data are available if required.

- For the quarter ending June 2017 compared to the quarter ending June 2016 the percentage of patients receiving colorectal surgical prophylaxis for greater than 24 hours decreased across Wales by 5%.
- The largest percentage decreases were seen in Abertawe Bro Morgannwg UHB (66.7%) and Cwm Taf UHB (60.0%).
- The smallest percentage decrease was seen in Hywel Dda UHB (4.76%).
- In Aneurin Bevan UHB and Cardiff and Vale UHB all patients were receiving prophylaxis for less than 24 hours in the quarters ending June 2017 and June 2016.

Table 28. Percentage of patients receiving colorectal surgical prophylaxis for greater than 24 hours

	2016–2017 Qtr 1	2017–2018 Qtr 1	% Change
ABMU	30%	10%	-66.7
Cwm Taf	25%	10%	-60.0
BCU	5%	4%	-20.0
Hywel Dda	21%	20%	-4.76
Aneurin Bevan	0%	0%	N/A
Cardiff and Vale	0%	0%	N/A
Powys	N/A	N/A	N/A
Wales	14%	9%	-35.7

Figure 32. Percentage of patients whose duration of colorectal surgical prophylaxis is > 24 hours



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 anticholinergic burden and NSAIDs and CKD NPIs have been provided by Audit+, the GP software tool delivered and supported by the NHS Wales Informatics Service (NWIS).

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 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 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.

APPENDIX 1. AWMMSG NATIONAL PRESCRIBING INDICATORS 2017–2018

Primary care indicator	Unit of measure	Target for 2017–2018
Proton pump inhibitors	PPI DDDs per 1,000 PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Inhaled corticosteroids	High strength ICS items as a percentage of all ICS prescribing	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Hypnotics and anxiolytics	Hypnotic and anxiolytic ADQs per 1,000 STAR-PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Analgesics	Tramadol DDDs per 1,000 patients	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
	Opioid patch items as a percentage of all opioid prescribing	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
	Gabapentin and pregabalin DDDs per 1,000 patients	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Antibiotics	Total antibacterial items per 1,000 STAR-PUs	No performance target set; aim for reduction in prescribing year on year, measuring quarter to December only
	Co-amoxiclav items per 1,000 patients Co-amoxiclav items as a percentage of total antibacterial items	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
	Cephalosporin items per 1,000 patients Cephalosporin items as a percentage of total antibacterial items	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
	Fluoroquinolone items per 1,000 patients Fluoroquinolone items as a percentage of total antibacterial items	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Anticholinergic burden	Patients aged 75 and over with an Anticholinergic Effect on Cognition (AEC) score of 3 or more for items on active repeat, as a percentage of all patients aged 75 and over	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
Non-steroidal anti-inflammatory drugs (NSAIDs)	NSAID ADQs per 1,000 STAR-PUs	Maintain performance levels within the lower quartile, or show a reduction towards the quartile below
	Number of patients on the CKD register (CKD 3–5) who have received a repeat prescription for an NSAID within the last 3 months, as a percentage of all patients on the CKD register.	Maintain performance levels within the upper quartile, or show an increase towards the quartile above
	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, as a percentage of all patients who are not on the CKD register but have an eGFR of < 59 ml/min	
Yellow Cards	Number of Yellow Cards submitted per practice and per health board	Target for GP practice – GPs to submit one Yellow Card per 2,000 practice population. Target for each health board – submit Yellow Cards in excess of one per 2,000 health board population

Secondary care indicator	Unit of measure
Insulin prescribing	Items/number of long-acting insulin analogues expressed as a percentage of total insulin prescribed within primary and secondary care.
Prescribing of biosimilars	Quantity of biosimilar medicines prescribed as a percentage of total 'reference' product plus biosimilar.
Antibiotic surgical prophylaxis	Proportion of elective colorectal patients receiving surgical prophylaxis for more than 24 hours.
ADQ = average daily quantity; DDD = defined daily dose; PU = prescribing unit; STAR-PU = specific therapeutic group age-sex related prescribing unit	

APPENDIX 2. PRIMARY CARE NPI PRESCRIBING BY GP CLUSTER

Figure 1. PPI prescribing – Quarter ending June 2016 versus quarter ending June 2017

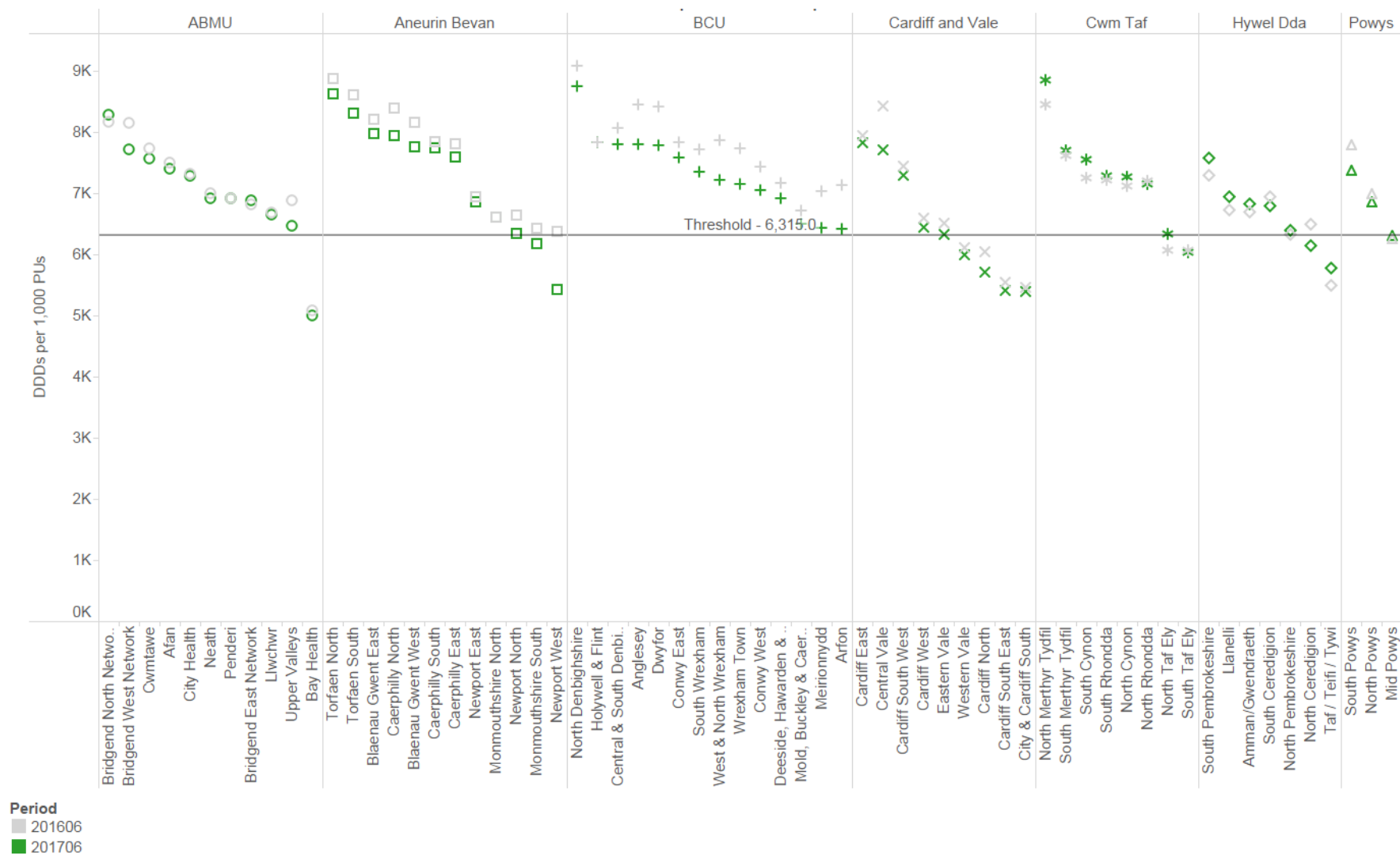


Figure 2. High strength ICS prescribing as a percentage of all ICS prescribing – Quarter ending June 2016 versus quarter ending June 2017

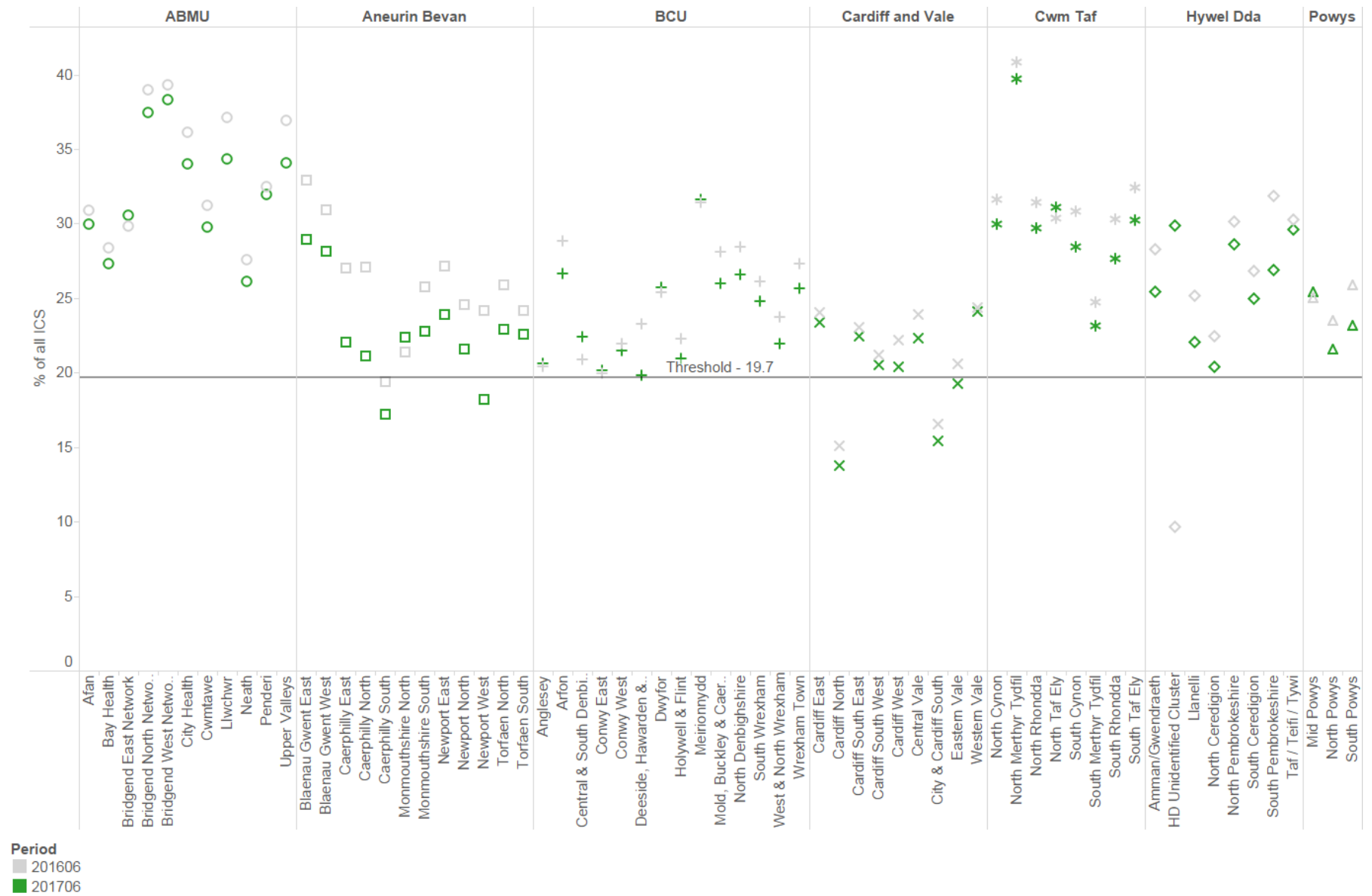


Figure 3. Hypnotic and anxiolytic prescribing – Quarter ending June 2016 versus quarter ending June 2017

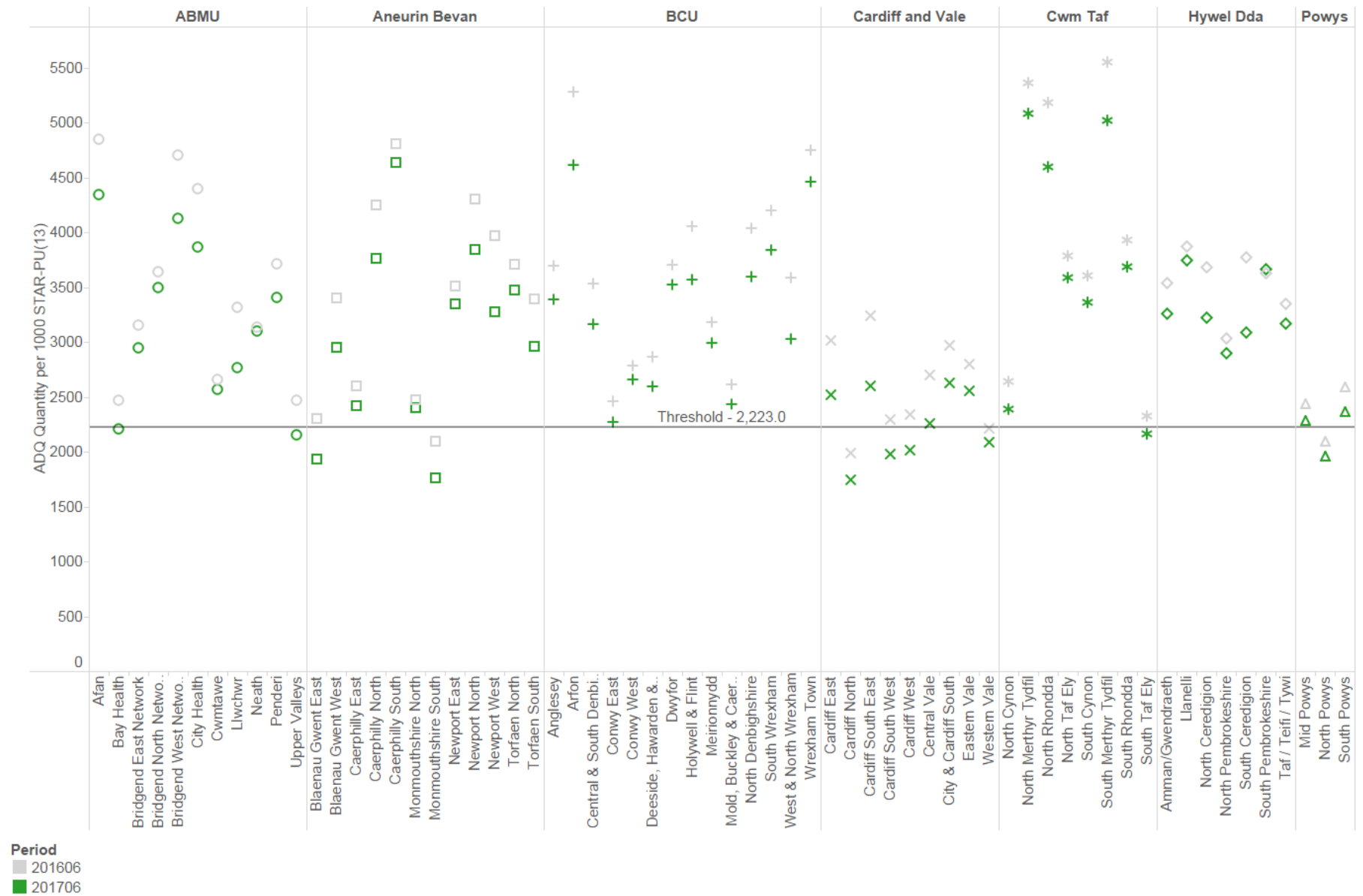


Figure 4. Tramadol prescribing – Quarter ending June 2016 versus quarter ending June 2017

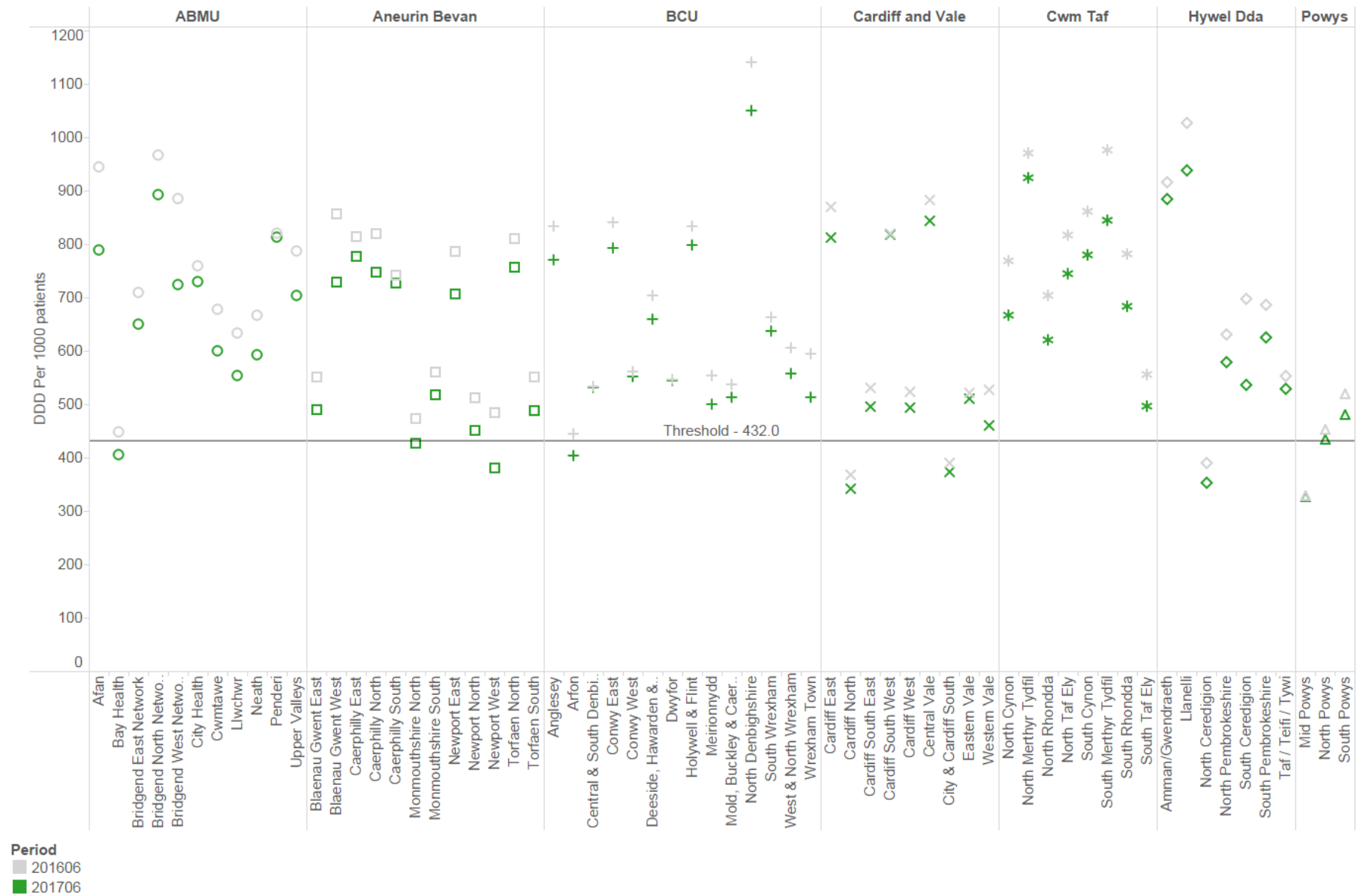


Figure 5. Opioid patch prescribing as a percentage of all opioid prescribing – Quarter ending June 2016 versus quarter ending June 2017

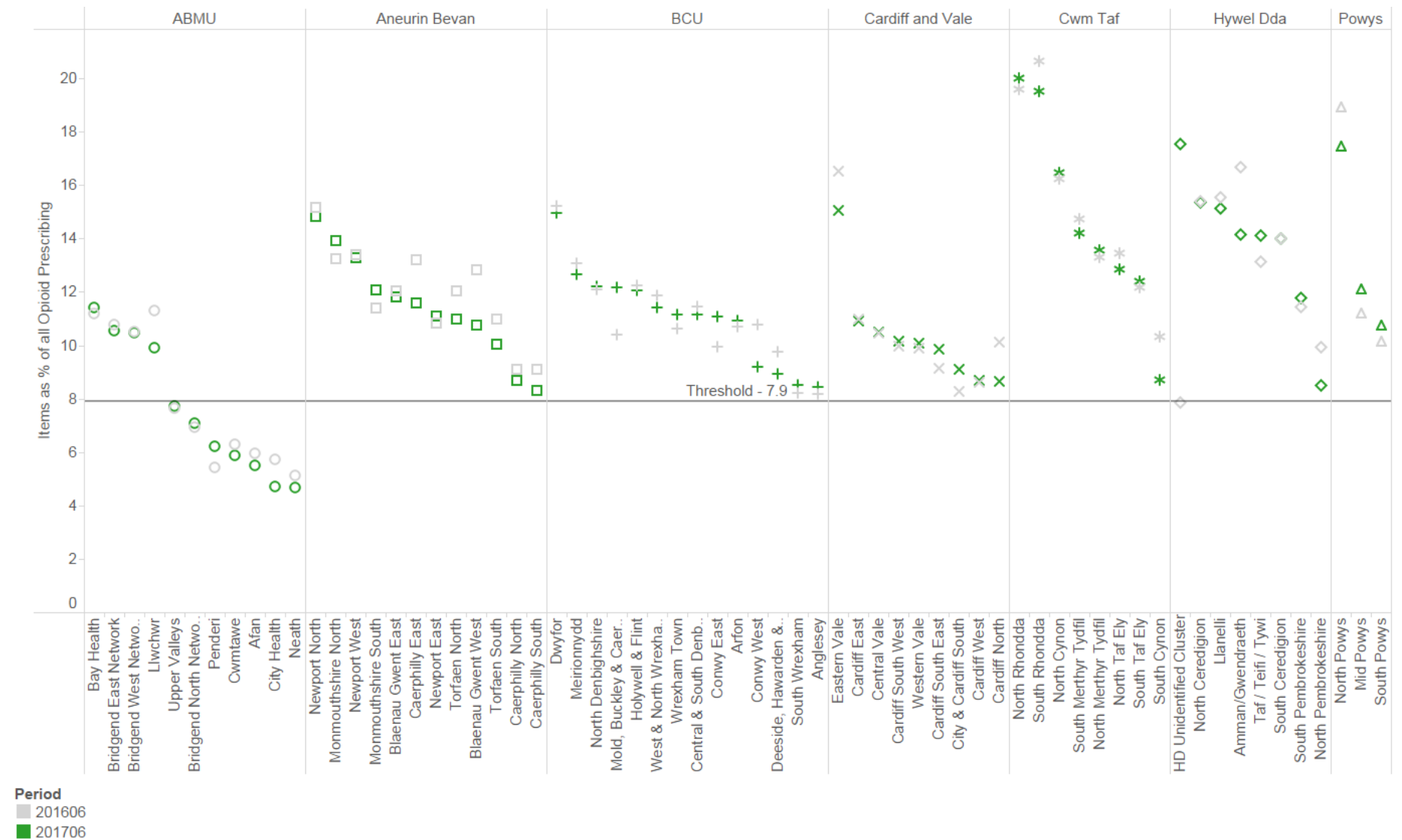
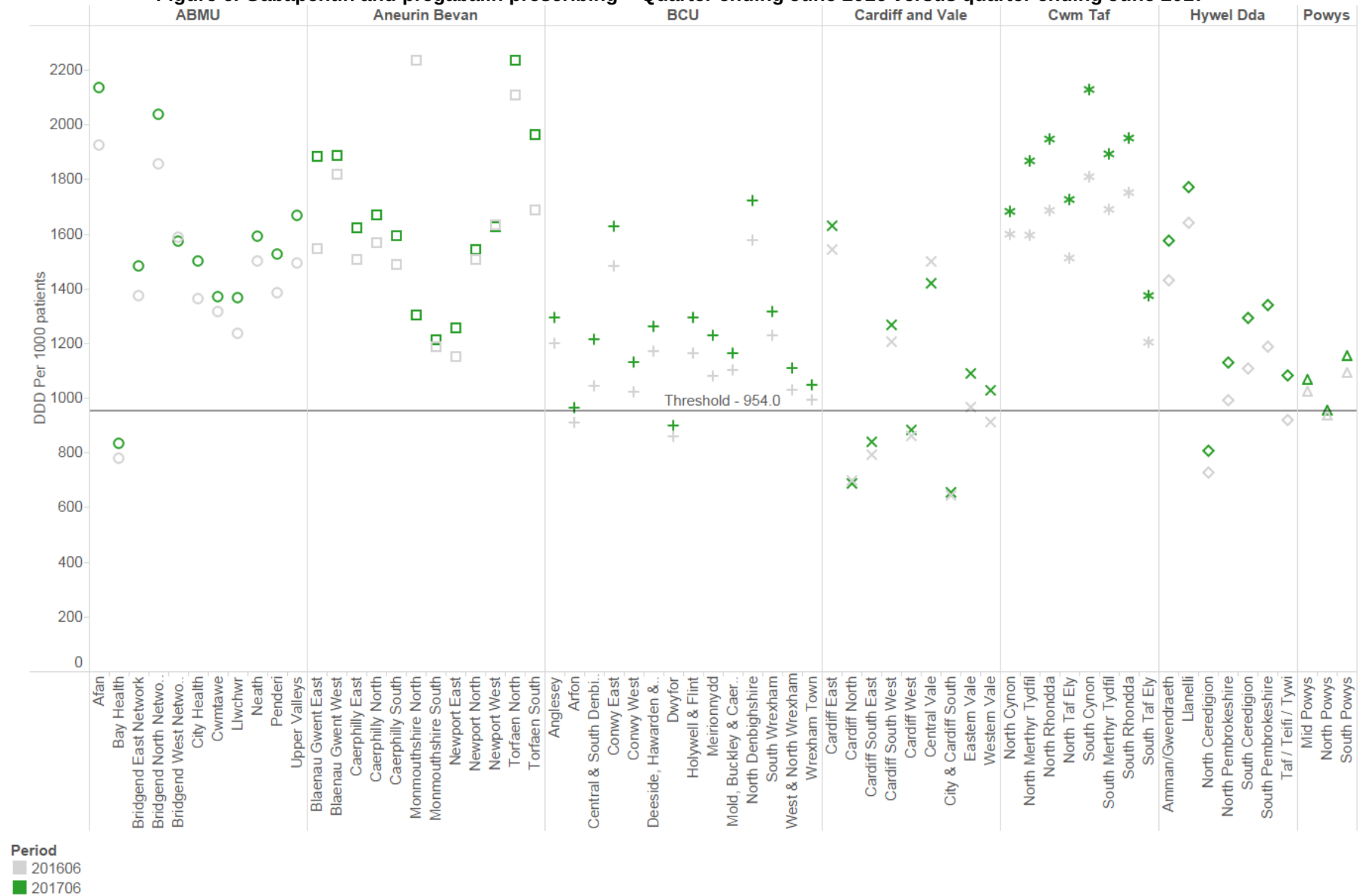


Figure 6. Gabapentin and pregabalin prescribing – Quarter ending June 2016 versus quarter ending June 2017



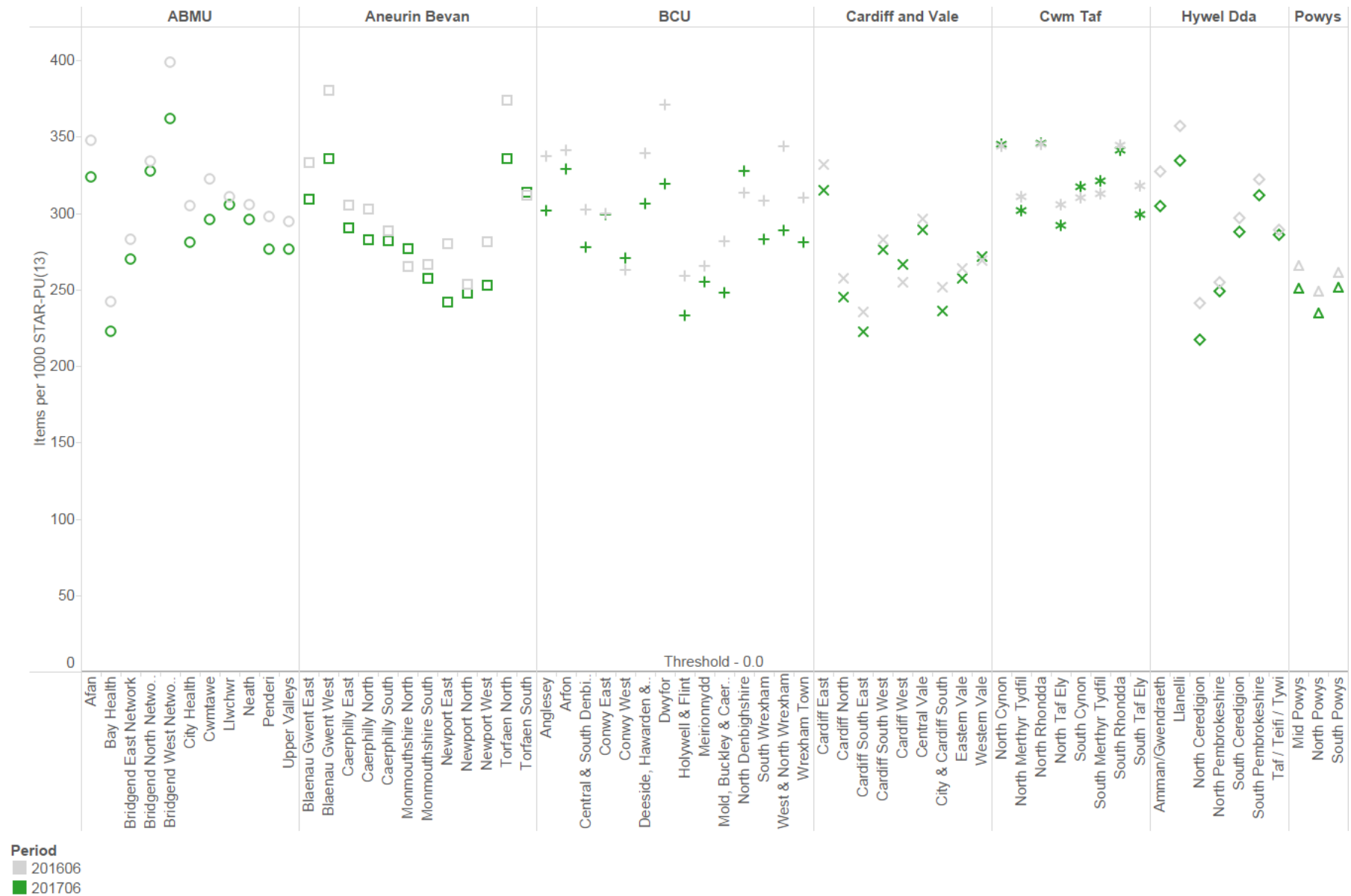


Figure 8. Co-amoxiclav prescribing – Quarter ending June 2016 versus quarter ending June 2017

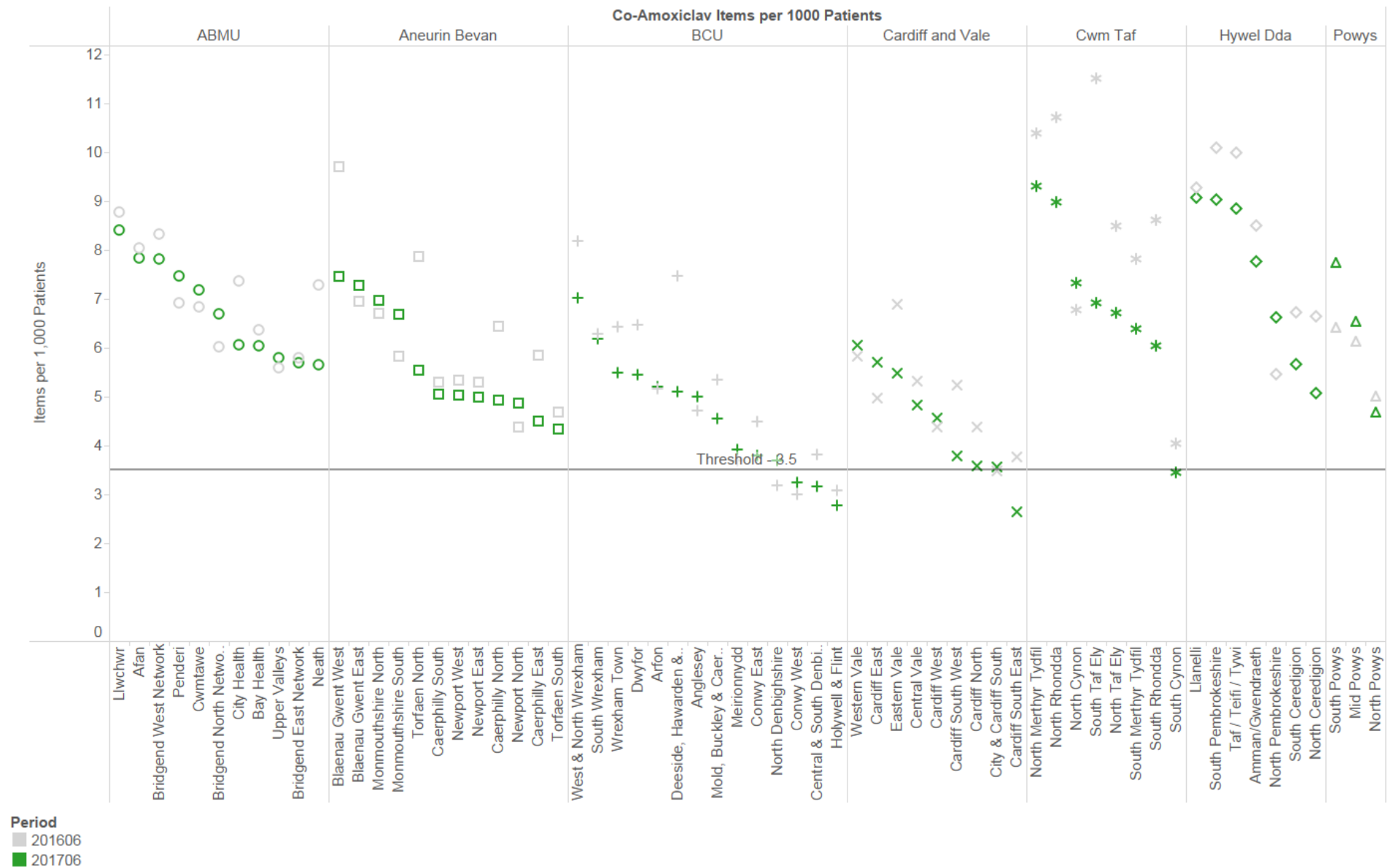


Figure 9. Co-amoxiclav as a percentage of total antibacterial items – Quarter ending June 2016 versus quarter ending June 2017

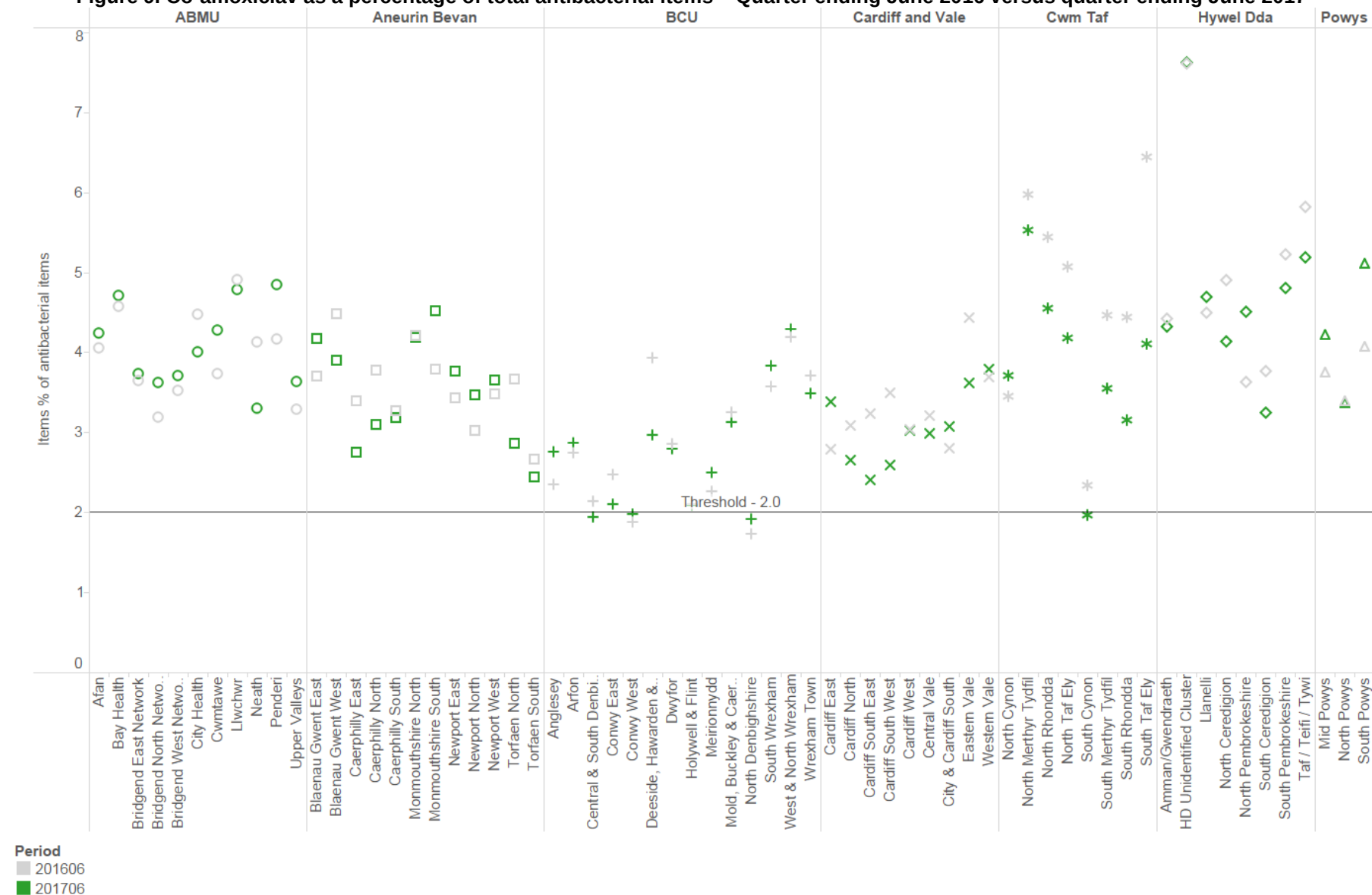


Figure 10. Cephalosporin prescribing – Quarter ending June 2016 versus quarter ending June 2017

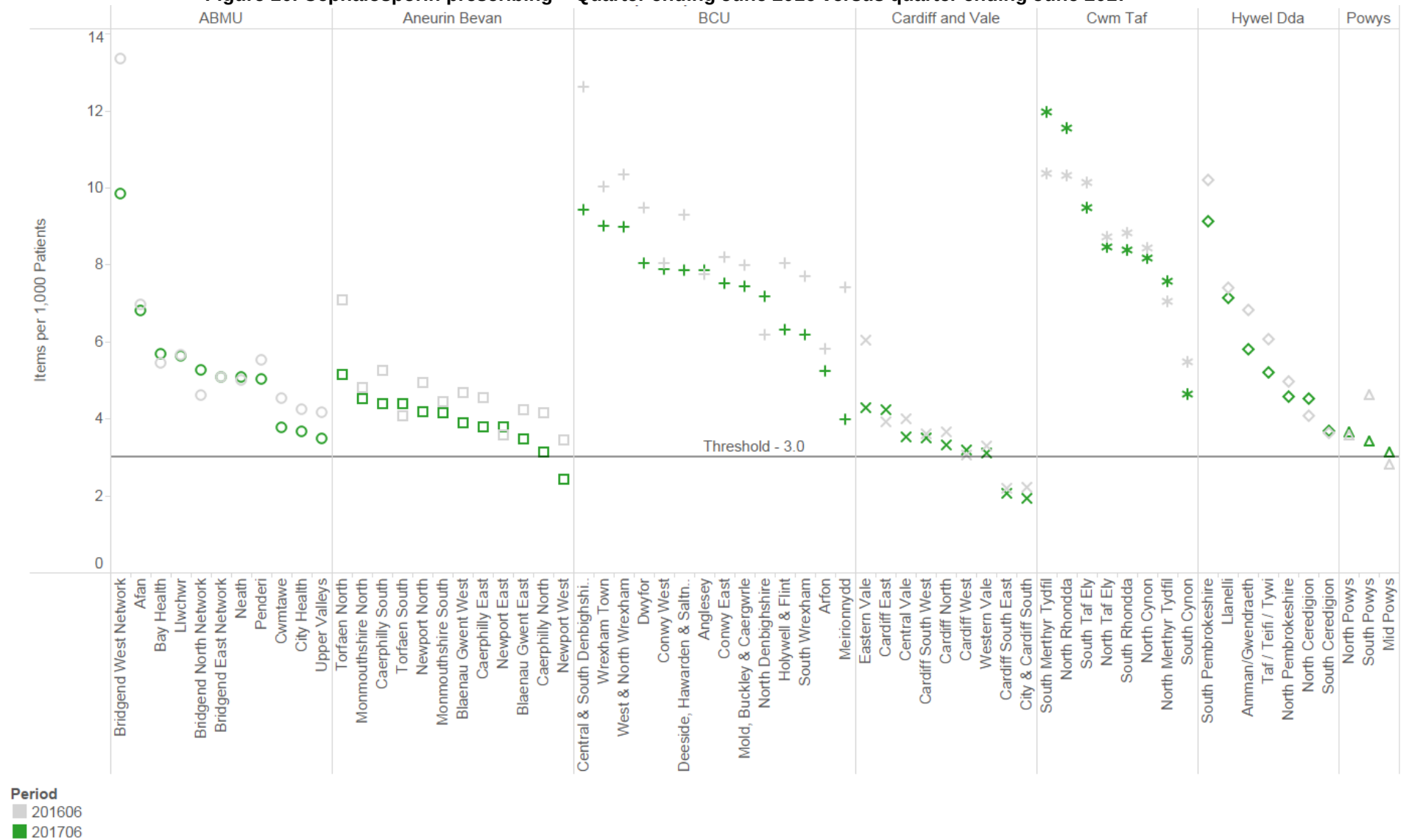


Figure 11. Cephalosporins as a percentage of total antibacterial items – Quarter ending June 2016 versus quarter ending June 2017

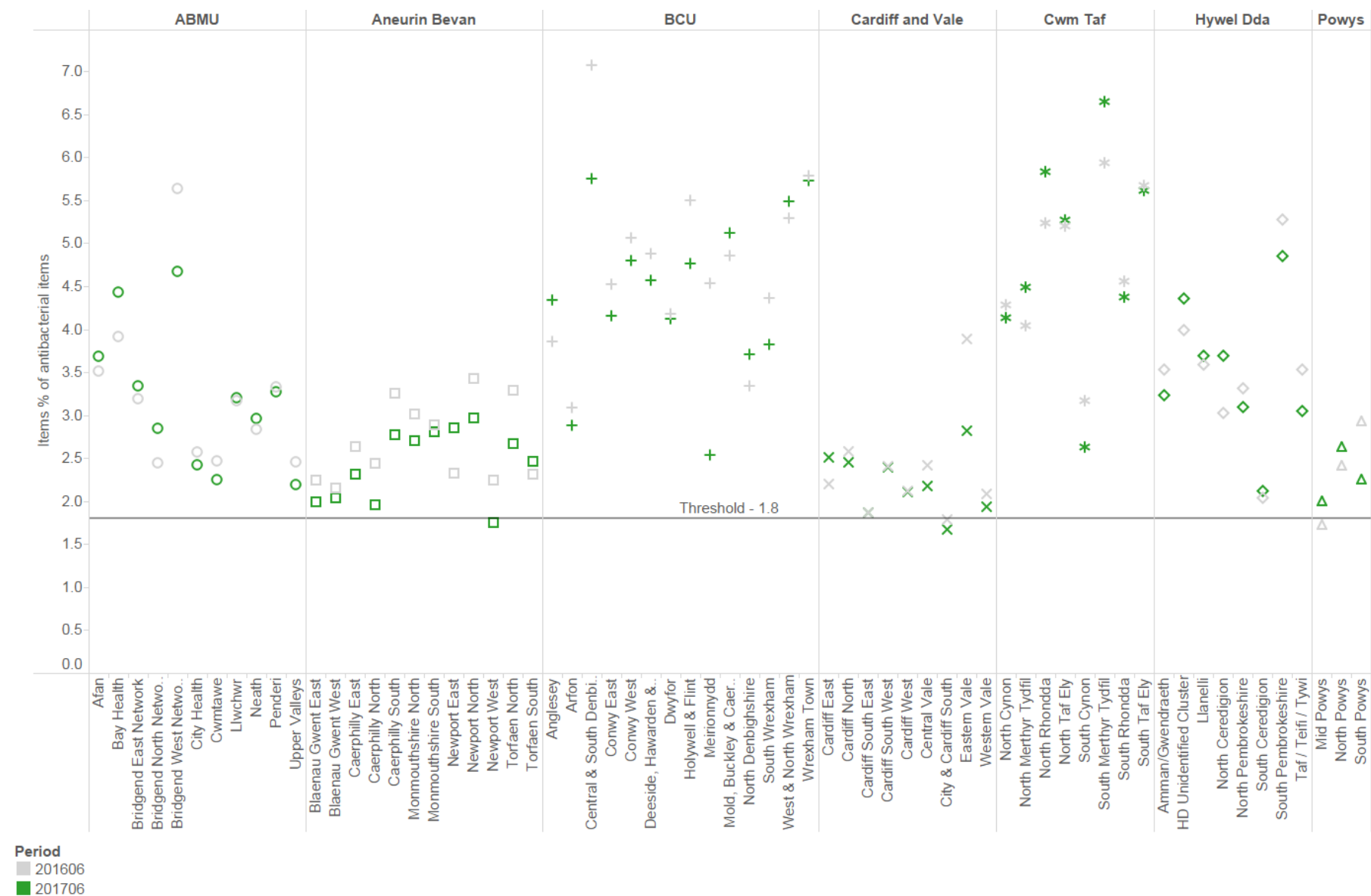


Figure 12. Fluoroquinolone prescribing – Quarter ending June 2016 versus quarter ending June 2017

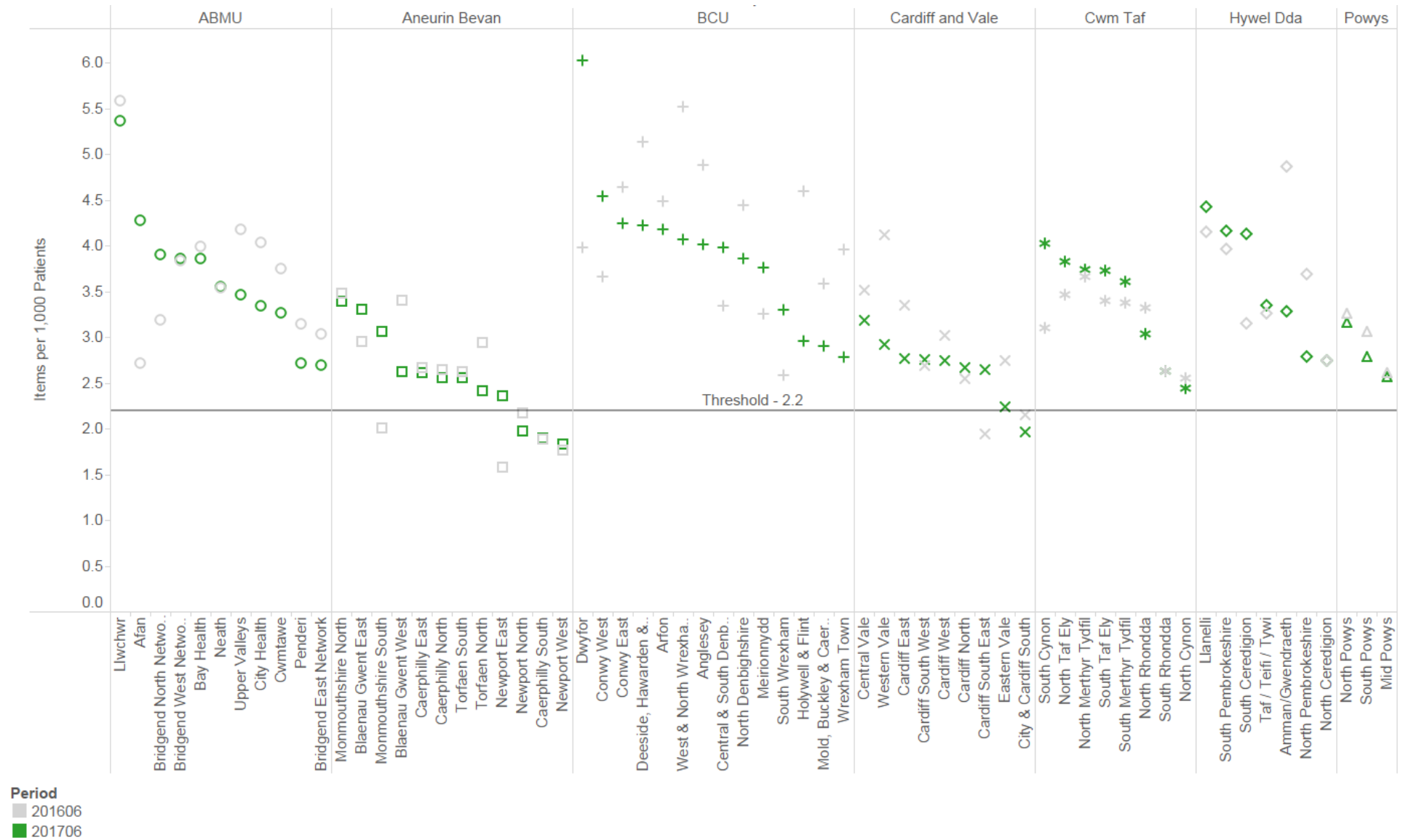


Figure 13. Fluoroquinolones as a percentage of total antibacterial items – Quarter ending June 2016 versus quarter ending June 2017

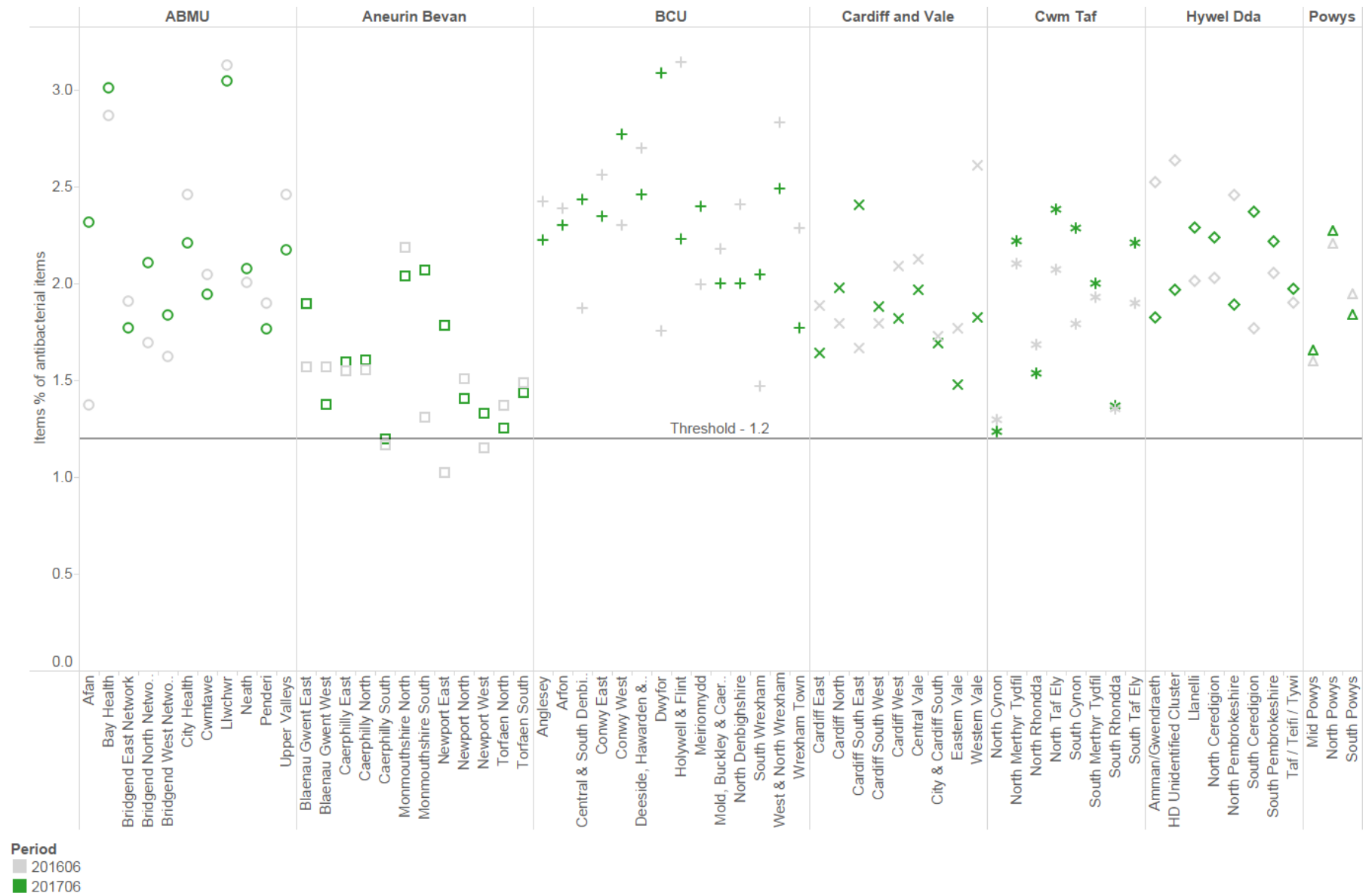


Figure 14. NSAID prescribing – Quarter ending June 2016 versus quarter ending June 2017

