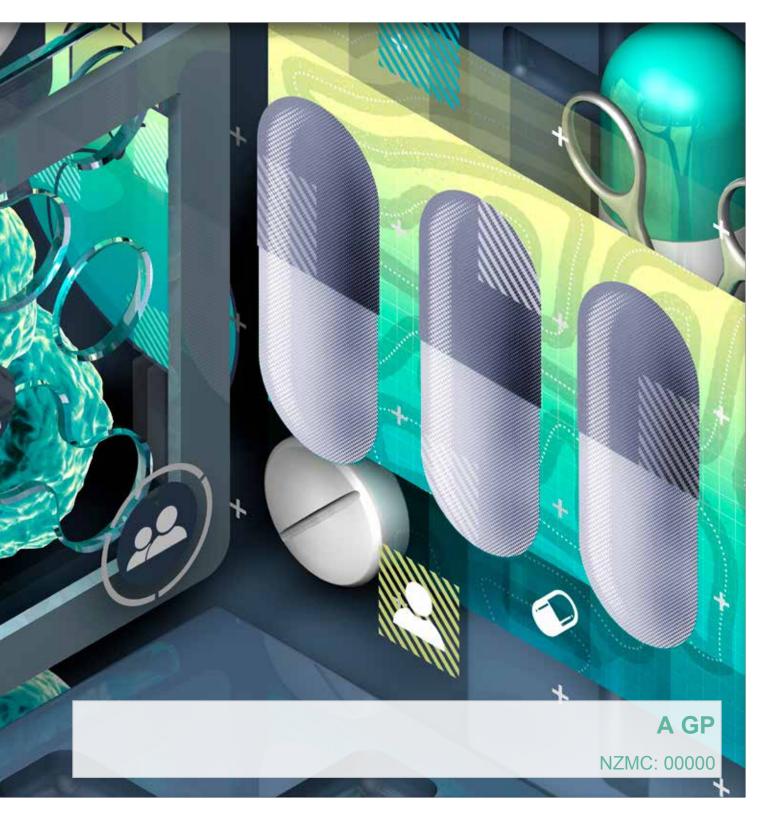


# 2018 ANNUAL REPORT

Pharmaceutical Utilisation July, 2017 – June, 2018

# **YOUR PRESCRIBING**



# Welcome to your Annual Report

This report summarises bpac<sup>nz'</sup>s key prescribing messages from 2018 and provides data on the most commonly dispensed medicines for **your patients** between 1 July, 2017 and 30 June, 2018.

### What is in your report

### 1. Key messages to prescribers from 2018:

- Gout management in New Zealand needs to change
- Tramadol: ensure that prescribing is appropriate
- Antimicrobial stewardship: how are we doing?

### 2. Demographics of your patient population

This group comprises all the patients you have written a prescription for in the past 12 months: these patients may have attended any practice that you have prescribed from.

### 3. Your prescribing overview

### a. Number of medicines reported

Instead of listing dispensing rates for all 826 subsidised medicines available, we have included the 250 most commonly dispensed medicines. These make up 94% of all community dispensings in New Zealand.

### b. Number of items

Item numbers refer to stat dispensings (prescription dispensed in full) and initial dispensings only – these numbers do not include repeat dispensings, e.g. if a patient is taking a long-term medicine and was adherent they should have four initial dispensings per year for that medicine. This eliminates the 'over-counting' of medicines that have more frequent dispensing rates, e.g. methadone which may be dispensed daily or weekly.

### c. Cost Data

This report includes cost data (Pages 9 - 11). This provides you with a general understanding of the highest cost medicines you and other clinicians in New Zealand prescribe each year.

### 4. Annual report methodology

The methodology for how this report was developed from the Ministry of Health's National Collections data is available on Page 22. The methodology includes an explanation of comparator groups comprising ten primary care prescribers whose patient populations are similar to yours in gender, age and ethnicity.

This report shows data for patients that you have prescribed for and patients of comparator prescribers. You will see in the data tables that numbers are reported for you, your comparator group and the national data (all primary care prescribers grouped together).



### **Practice prescribing reports**

If you would like to review your annual **practice prescribing report** for the practice you belong to, please log in to 'My bpac' at **www.bpac.org.nz**. You can then find your report by navigating to 'Your personalised reports'.

### **Feedback**

We are always trying to improve our reports and make them more useful for you. If you have any suggestions for how annual prescribing data could be presented more effectively email us as at: **editor@bpac.org.nz** 

# Gout management in New Zealand needs to change

- 1. The prevalence and burden of gout in New Zealand is greatest among Māori and Pacific peoples
- 2. Māori and Pacific peoples with gout are often under-treated (Figure 1)
- 3. Māori and Pacific peoples with gout are five times more likely to be admitted to hospital due to gout than people of New Zealand European or Asian ethnicity

Figure 1 shows that that from June, 2017 to July, 2018, 5.9% of Māori and 8.1% of Pacific peoples aged over 20 years were dispensed a urate-lowering medicine, compared with 3.2% of New Zealand Europeans aged over 20 years.<sup>1</sup> Based on the prevalence of gout in 2016, this equates to 78% of New Zealand Europeans with gout receiving urate-lowering medicines, compared with 69% of Māori and 58% of Pacific peoples.<sup>2</sup> These results strongly suggest that gout in Māori, and especially in Pacific peoples, is under-treated compared to New Zealand Europeans.

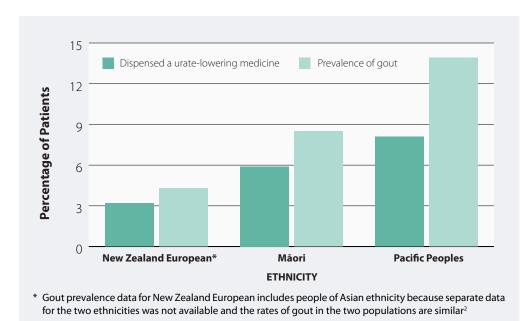


Figure 1: Percentage of registered patients aged ≥ 20 years dispensed allopurinol, benzbromarone, febuxostat or probenecid from a community pharmacy in New Zealand by ethnicity from June, 2017, to July, 2018, compared to the prevalence of gout in patients aged over 20 years in 2016 1,2

### What can primary care do to reduce this disparity?

- Educate patients and their whānau that gout is much more than an intensely painful condition; urate-lowering
  medicines are required to prevent recurrent flares and also reduce the risk of cardiovascular and renal morbidity.
   Management of gout should not rely on analogsics alone.
- Discuss the benefits of urate-lowering treatment with all patients at the first presentation of gout and recommend
  early initiation; flares can be virtually eliminated within two years and the risk of adverse cardiovascular and renal
  events will be decreased for many patients.
- Remember that allopurinol can be initiated during a flare; there is now little evidence supporting delaying treatment until the flare has passed

Further information on gout is available from: "Managing gout in primary care. Part 1 – Talking about gout: time for a re-think" and "Managing gout in primary care. Part 2 – Controlling gout with long-term urate-lowering treatment".

### References

- 1. Ministry of Health. Pharmaceutical Claims Collection. 2018.
- 2. Health Quality & Safety Commission New Zealand. Gout. 2016. Available from: www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/atlas-of-healthcare-variation/gout (Accessed Oct, 2018)

# Tramadol: ensure that prescribing is appropriate

- 1. Tramadol is an atypical centrally-acting opioid analgesic that also inhibits re-uptake of noradrenaline and serotonin
- 2. Tramadol is similar in efficacy to other analgesics that are indicated for moderate pain when paracetamol and/or a NSAID is not adequate or not appropriate, i.e. codeine and dihydrocodeine
- 3. Tramadol is associated with the same adverse effects as other opioids, e.g. constipation, nausea, central nervous system depression (which can lead to falls in people with frailty), opioid-induced ventilatory impairment, misuse and dependence. Symptoms of serotonin toxicity may also occur, e.g. sweating, agitation and tachycardia.
- 4. Tramadol is not a first-line medicine for neuropathic pain; if a step 2 opioid is required for concurrent nociceptive pain, tramadol may be preferred over other options due to its atypical mechanism of action that may provide some benefit (weak evidence).

Figure 1 shows the number of community dispensings of common oral opioids for the past five years (2013-2018). Dispensings of tramadol decreased slightly in 2017/18, following a rise from 2013 to 2016. This trend is also present in the dispensings of codeine and morphine. The number of dispensings for oxycodone has been decreasing over the entire time period. This data is reassuring as it suggests that tramadol prescribing is not increasing in response to decreasing use of oxycodone and the use of opioid analgesics in New Zealand communities has remained relatively stable since 2016.

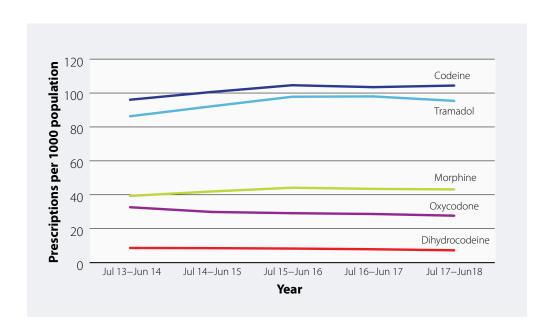


Figure 1: The number of prescriptions of the most common oral opioids dispensed from community pharmacies in New Zealand per 1000 registered patients from July to June, each year from 2013 to 2018<sup>1</sup>

The number of tramadol prescriptions has not increased in recent years, however, there are potential concerns about the duration of tramadol treatment. Figure 2 shows the number of patients per 1000 registered patients in New Zealand who had a prescription for tramadol or codeine dispensed in each quarter of the 12-month periods from July to June, 2013 to 2018, i.e. constant use for at least 12 months. The number of patients taking tramadol long-term has stabilised since 2016, while long-term codeine use has increased at the same rate since 2013. Interestingly, although codeine is prescribed more frequently than tramadol (Figure 1), there are more patients taking tramadol long-term than there are taking codeine long -term (Figure 2). Tramadol, like other opioids, is unlikely to be effective for the treatment of chronic non-malignant pain and prescribers should focus on non-pharmacological techniques and non-opioid medicines for patients with long-term pain.

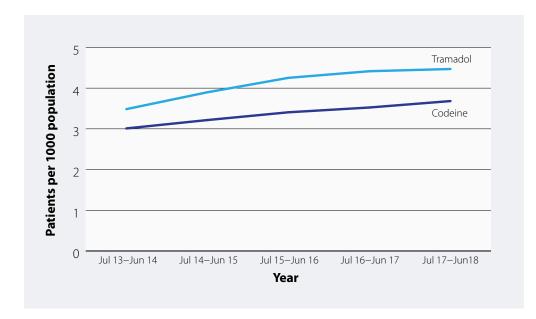


Figure 2: The number of patients per 1000 registered patients in New Zealand who were dispensed tramadol or codeine in each quarter over a 12-month period from July to June, from 2013 to 2018<sup>1</sup>

### What can primary care do to ensure the use of tramadol is appropriate?

- Tramadol, like all opioids, should be used for the shortest possible time, at the lowest effective dose, with a plan in place from the start to taper then discontinue use
- Co-prescribing of paracetamol is effective for reducing tramadol use and adverse effects, as well as providing pain relief as the analgesic is withdrawn
- Patients taking tramadol should be followed up regularly to ensure that their pain is resolving, their functional
  goals of treatment are being met, dependence is not developing, and they are not experiencing adverse effects
  or interactions with other medicines, especially if they are taking another serotonergic medicine, e.g. a selective
  serotonin reuptake inhibitor (SSRI)
- Patients with long-term non-malignant pain are unlikely to benefit from treatment with tramadol or other opioids, therefore prescribers should focus on psychological and social factors and the use of non-opioid analgesics; if use of an opioid cannot be avoided intermittent dosing with the lowest effective dose of the opioid with the lowest potency is recommended.

Further information on prescribing tramadol and opioids appropriately is available from: "Prescribing tramadol appropriately" and "When to consider strong opioids for patient with acute pain"

### References

1. Ministry of Health. Pharmaceutical Claims Collection. 2018.



# Antimicrobial stewardship: how are we doing?

On a global scale New Zealand is a relatively high user of antibiotics. The inappropriate use of antibiotics, particularly for acute upper respiratory infections, increases the development of antibiotic resistant bacteria, the risk of adverse effects and health care costs.

Limiting the use of broad-spectrum antibiotics, e.g. amoxicillin with clavulanic acid, to indicated conditions is a widely accepted marker of good antimicrobial stewardship. Figure 1 shows that the rate of dispensing of the relatively narrow-spectrum antibiotic amoxicillin from July, 2017 to June, 2018, has decreased slightly (1.7%) since 2013, while the use of amoxicillin with clavulanic acid decreased by 16%. Over the same period the use of flucloxacillin decreased by 7%, which is also encouraging. However, use of amoxicillin with clavulanic acid remains relatively high and prescribers in primary care are recommended to reflect on appropriate indications for use of this antibiotic.

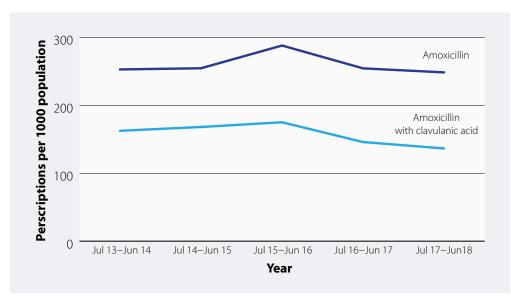


Figure 1: National dispensing from community pharmacies for amoxicillin and amoxicillin with clavulanic acid per 1000 registered patients in New Zealand from July to June, 2013 to 2018 <sup>1</sup>

Figure 2 shows how the use of topical antibacterials and antiseptics has changed in New Zealand since 2013. It is encouraging to see that dispensing of fusidic acid has decreased by 39% in the past five years. During the same time period dispensing of hydrogen peroxide increased by more than three times. Dispensing of mupirocin dropped in 2016/17, due to supply issues; prescribers are encouraged to continue to limit their use of this medicine as it should be reserved for treating MRSA infections.

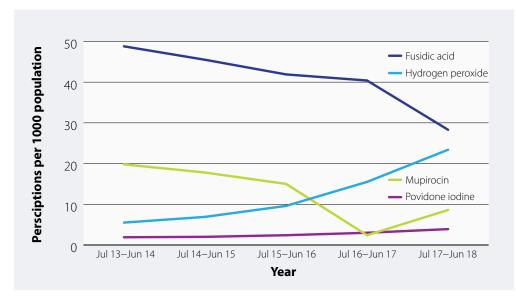


Figure 2: National dispensing from community pharmacies for topical antibacterials and antiseptics per 1000 registered patients in New Zealand from July to June, 2013 to 2018<sup>1</sup>

### What can primary care do to improve antimicrobial stewardship?

Limit the use of antibiotics to situations where they deliver the greatest clinical benefit by:

- Promoting preventative measures for good health, e.g. smoking cessation, a healthy diet, and the principles of good hygiene and infection control
- Explaining why an antibiotic is inappropriate when a viral infection is suspected
- Generally, only prescribing antibiotics when:
  - Symptoms are significant or severe
  - There is a high risk of complications
  - The infection is not resolving or is unlikely to resolve
- Reserving broad-spectrum antibiotics, e.g. amoxicillin with clavulanic acid, cephalexin, azithromycin and ciprofloxacin, for indicated conditions only
- Considering the use of delayed prescriptions (back-pocket prescriptions), i.e. only to be collected if symptoms persist
  or worsen
- Comparing your prescribing to your peers

Further information on improving antimicrobial stewardship is available from: "Antibiotics: the future is short" and "Cold season: managing without antibiotics" and "Topical antibiotics: keep reducing use" and "Antibiotics: choices for common infections".

### References

1. Ministry of Health. Pharmaceutical Claims Collection. 2018.



# Demographics of your patients

This section describes the demographics of your patient population, compared to the demographics of all registered patients for the ten general practitioners in your comparator group (comparator data) and to the demographics of all registered patients in New Zealand (national data). The data in this section are taken from the demographic data contained within the pharmaceutical collection for patients you have prescribed for.

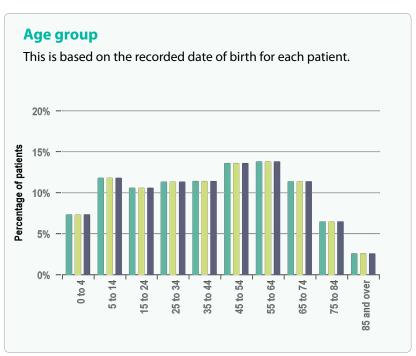
The volume and cost of prescribing are influenced by the demography and morbidity of the population served, e.g. older patients have a greater need for medicines than younger adult patients. We have tried to minimise these differences in patient characteristics by providing you with a comparator group, however, some variations may still exist. These differences should be taken into account when comparing data either between other prescribers in your comparator group or nationally.

# Number of patients Number of patients you prescribed for Average number of patients per GP in your comparator group Average number of patients per GP in New Zealand 628



Use the data to determine if your demography differs from that of the other prescribers in your comparator group or nationally – this may help to explain any differences you see throughout your report.

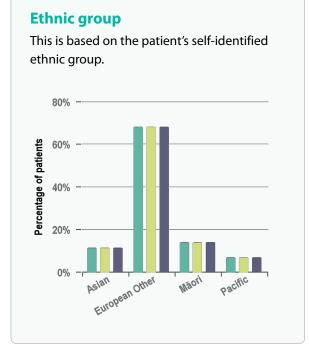




**Your Population** 

Comparator

National



## Your overview



### A GP NZMC: 00000

### Between July, 2017 and June, 2018

Number of unique medicines prescribed

745

Number of prescription items dispensed

6,691

Total medicine cost

\$103,010

### **Summary of prescribing**

	You	Your Comparator (avg per GP)	National (avg per GP)
Number of prescription items per 1000 patients	10,651	10,651	10,651
Average medicine cost per item	\$15.40	\$15.40	\$15.40
Average cost per patient	\$163.98	\$163.98	\$163.98



### What are your comparator general practitioners?

See Page 23 for further information on the use of comparator general practitioners in this report.

# Most used and highest cost medicines - Nationally

The table on the left below shows the 20 highest volume medicines **prescribed by general practitioners** and dispensed from community pharmacies (initial/stat) nationally between July, 2017 and June, 2018.

The table on the right below shows the 20 highest cost\* medicines **prescribed by general practitioners** dispensed from community pharmacies nationally between July, 2017 and June, 2018.

See the box below showing how the number of items per 1000 patients was calculated using paracetamol as an example.

No Top 20 highest volume medicines -		National Property and Indiana.		National			
Natio		Items per 1000 patients	Rank change*	Top 2	0 highest cost medicines - Nationally	Medicine cost per 1000 patients	Rank change*
1	Paracetamol	599	-	1	Dabigatran	\$10,111	-
2	Atorvastatin	349	↑1	2	Fluticasone with salmeterol	\$7,038	-
3	Omeprazole	337	↓ 1	3	Insulin glargine	\$6,791	-
4	Aspirin	303	-	4	Budesonide with eformoterol	\$5,014	-
5	Amoxicillin	270	-	5	Blood glucose diagnostic test strip	\$2,945	-
6	Metoprolol succinate	247	-	6	Lamotrigine	\$2,608	-
7	Salbutamol	232	-	7	Fluticasone furoate with vilanterol	\$2,205	New
8	Cilazapril	210	<b>↑1</b>	8	Sodium valproate	\$2,117	↑1
9	lbuprofen	202	↓ 1	9	Salbutamol	\$2,001	↑1
10	Colecalciferol	201	-	10	Tiotropium bromide	\$1,982	↓3
11	Metformin hydrochloride	156	-	11	Mesalazine	\$1,974	-
12	Prednisone	155	↑1	12	Varenicline tartrate	\$1,664	-
13	Levothyroxine	152	↑1	13	Fluticasone	\$1,571	↑1
14	Zopiclone	146	↑1	14	Insulin aspart	\$1,459	↑1
15	Loratadine	140	↑1	15	Solifenacin succinate	\$1,357	↑2
16	Simvastatin	133	↓ 5	16	Methylphenidate hydrochloride extended-release	\$1,283	<b>†</b> 2
17	Cetirizine hydrochloride	129	<b>†</b> 2	17	Metoprolol succinate	\$1,247	↓9
18	Amoxicillin with clavulanic acid	126	↓1	18	Umeclidinium	\$1,220	New
19	Felodipine	122	↓1	19	Insulin aspart with insulin aspart protamine	\$1,179	New
20	Fluticasone propionate	114	-	20	Gabapentin	\$1,172	-

<sup>\*</sup> Rank is compared to last year, - no change

Paracetamol	Nationally, 1,874,577 items of paracetamol were dispensed to registered patients by general practitioners, divide this by the national number of patients that were dispensed a medicine, 3,130,882, and multiply by 1000
Faracetamor	(1,874,577 / 3,130,882) * 1000
	599 items per 1000 patients

# In this report, cost is the standard price at which a medicine is supplied to wholesalers, exclusive of GST, dispensing fees, markup and rebates. Therefore the actual supply cost listed is not necessarily the actual cost of the medicine.

# Most used and highest cost medicines - You

This table shows the 20 highest volume medicines dispensed (initial/stat) from prescriptions written by you between July, 2017 and June, 2018. To enable comparisons, we have also provided the number of items per 1000 patients for the ten general practitioners in your comparator group and nationally of these medicines. These values will help you to gauge if you prescribe more or less of each medicine compared with other prescribers.

If your prescribing is different to that of your comparator or nationally, this may be due to the difference in the clinical needs of your population

This table shows the 20 highest cost medicines dispensed from prescriptions written by you between July, 2017 and June, 2018. To enable comparisons, we have also provided the cost per 1000 patients for the ten general practitioners in your comparator group and nationally.

Although medicines have a fixed cost, the cost per patient may vary due to different dosing regimens or length of treatment

			Comparator	National
Top 2	0 highest volume medicines - You	Items per 1000 patients	Items per 1000 patients	Items per 1000 patients
1	Paracetamol	599	599	599
2	Atorvastatin	349	349	349
3	Omeprazole	337	337	337
4	Aspirin	303	303	303
5	Amoxicillin	270	270	270
6	Metoprolol succinate	247	247	247
7	Salbutamol	232	232	232
8	Cilazapril	210	210	210
9	Ibuprofen	202	202	202
10	Colecalciferol	201	201	201
11	Metformin hydrochloride	156	156	156
12	Prednisone	155	155	155
13	Levothyroxine	152	152	152
14	Zopiclone	146	146	146
15	Loratadine	140	140	140
16	Simvastatin	133	133	133
17	Cetirizine hydrochloride	129	129	129
18	Amoxicillin with clavulanic acid	126	126	126
19	Felodipine	122	122	122
20	Fluticasone propionate	114	114	114

		You	Comparator	National
Top 2	0 highest cost medicines - You	Medicine cost per 1000 patients	Medicine cost per 1000 patients	Medicine cost per 1000 patients
1	Dabigatran	\$10,111	\$10,111	\$10,111
2	Fluticasone with salmeterol	\$7,038	\$7,038	\$7,038
3	Insulin glargine	\$6,791	\$6,791	\$6,791
4	Budesonide with eformoterol	\$5,014	\$5,014	\$5,014
5	Blood glucose diagnostic test strip	\$2,945	\$2,945	\$2,945
6	Lamotrigine	\$2,608	\$2,608	\$2,608
7	Fluticasone furoate with vilanterol	\$2,205	\$2,205	\$2,205
8	Sodium valproate	\$2,117	\$2,117	\$2,117
9	Salbutamol	\$2,001	\$2,001	\$2,001
10	Tiotropium bromide	\$1,982	\$1,982	\$1,982
11	Mesalazine	\$1,974	\$1,974	\$1,974
12	Varenicline tartrate	\$1,664	\$1,664	\$1,664
13	Fluticasone	\$1,571	\$1,571	\$1,571
14	Insulin aspart	\$1,459	\$1,459	\$1,459
15	Solifenacin succinate	\$1,357	\$1,357	\$1,357
16	Methylphenidate hydrochloride extended-release	\$1,283	\$1,283	\$1,283
17	Metoprolol succinate	\$1,247	\$1,247	\$1,247
18	Umeclidinium	\$1,220	\$1,220	\$1,220
19	Insulin aspart with insulin aspart protamine	\$1,179	\$1,179	\$1,179
20	Gabapentin	\$1,172	\$1,172	\$1,172

# Top 250 – Dispensed subsidised medicines

This section shows the number of initial or stat dispensings of each medicine that **you prescribed** and the number of patients who were dispensed that medicine between July, 2017 and June, 2018. For comparison:

- The comparator data shows the average number of items for the ten general practitioners in your comparator group and the number of items per 1000 patients in your comparator group.
- The national data shows the average number of items and the number of items prescribed by general practitioners per 1000 patients in New Zealand. The example below shows how the number of paracetamol items per 1000 patients was calculated.

	Your patients were dispensed 376 items of paracetamol, divide this by your number of patients that were dispensed a medicine, 628, and multiply by 1000
Paracetamol	(376 / 628) * 1000
	599 items per 1000 patients

### **Alimentary Tract and Metabolism**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antacids and Antiflatulents		You		Your C	Comparator	Na	tional
Sodium alginate	1	3.7	5.9	3.7	5.9	3.7	5.9
Antidiarrhoeals		You		Your C	Comparator	Na	tional
Loperamide hydrochloride	5	21.4	34.0	21.4	34.0	21.4	34.0
Mesalazine	1	5.3	8.4	5.3	8.4	5.3	8.4
Antispasmodics and Other Agents Altering Gut Motil	ity	You		Your C	Comparator	Na	tional
Hyoscine butylbromide	3	11.1	17.7	11.1	17.7	11.1	17.7
Antiulcerants		You		Your C	Comparator	Na	tional
Lansoprazole	2	8.5	13.5	8.5	13.5	8.5	13.5
Omeprazole	53	211.8	337.2	211.8	337.2	211.8	337.2
Pantoprazole	8	32.7	52.1	32.7	52.1	32.7	52.1
Ranitidine	4	16.0	25.5	16.0	25.5	16.0	25.5
Diabetes		You		Your C	Comparator	Na	tional
Gliclazide	6	25.4	40.5	25.4	40.5	25.4	40.5
Glipizide	3	11.9	18.9	11.9	18.9	11.9	18.9
Insulin aspart	2	8.2	13.0	8.2	13.0	8.2	13.0
Insulin aspart with insulin aspart protamine	1	4.0	6.3	4.0	6.3	4.0	6.3
Insulin glargine	5	21.9	34.9	21.9	34.9	21.9	34.9
Insulin isophane	2	6.5	10.4	6.5	10.4	6.5	10.4
Insulin isophane with insulin neutral	1	3.4	5.3	3.4	5.3	3.4	5.3
Metformin hydrochloride	25	98.1	156.1	98.1	156.1	98.1	156.1
Diabetes Management		You		Your C	Comparator	Na	tional
Blood glucose diagnostic test strip	12	49.7	79.1	49.7	79.1	49.7	79.1
Insulin pen needles	5	18.9	30.1	18.9	30.1	18.9	30.1

### **Alimentary Tract and Metabolism**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients	
Laxatives		You		Your C	Your Comparator		National	
Docusate sodium with sennosides	14	56.3	89.6	56.3	89.6	56.3	89.6	
Ispaghula (psyllium) husk	3	13.2	21.0	13.2	21.0	13.2	21.0	
Lactulose	7	27.5	43.8	27.5	43.8	27.5	43.8	
Macrogol 3350 with potassium chloride, sodium bicarbonate and sodium chloride	3	10.1	16.0	10.1	16.0	10.1	16.0	
Sodium citrate with sodium lauryl sulphoacetate	1	4.0	6.4	4.0	6.4	4.0	6.4	
Local preparations for Anal and Rectal Disorders		You		Your C	omparator	Nat	ional	
Fluocortolone caproate with fluocortolone pivalate and cinchocaine	4	14.8	23.6	14.8	23.6	14.8	23.6	
Hydrocortisone with cinchocaine	1	5.4	8.6	5.4	8.6	5.4	8.6	
Minerals		You		Your Comparator		National		
Calcium carbonate	2	8.7	13.9	8.7	13.9	8.7	13.9	
Ferrous fumarate	4	14.7	23.3	14.7	23.3	14.7	23.3	
Ferrous sulphate	5	18.4	29.3	18.4	29.3	18.4	29.3	
Potassium iodate	2	8.8	14.0	8.8	14.0	8.8	14.0	
Mouth and Throat		You		Your C	omparator	Nat	ional	
Nystatin	2	6.1	9.7	6.1	9.7	6.1	9.7	
Vitamins		You		Your C	omparator	Nat	ional	
Ascorbic acid	1	5.1	8.1	5.1	8.1	5.1	8.1	
Colecalciferol	32	126.5	201.4	126.5	201.4	126.5	201.4	
Hydroxocobalamin	5	19.6	31.3	19.6	31.3	19.6	31.3	
Thiamine hydrochloride	2	6.9	11.0	6.9	11.0	6.9	11.0	
Vitamin B complex	1	4.9	7.9	4.9	7.9	4.9	7.9	
Vitamins	6	23.0	36.6	23.0	36.6	23.0	36.6	

### **Blood and Blood Forming Organs**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antianaemics		You		Your C	Comparator	National	
Folic acid	7	28.4	45.1	28.4	45.1	28.4	45.1
Antifibrinolytics, Haemostatics and Local Sclerosant	s	You		Your C	Comparator	Na	tional
Tranexamic acid	1	5.1	8.2	5.1	8.2	5.1	8.2
Antithrombotic Agents		You		Your C	Comparator	Na	tional
Aspirin	48	190.1	302.6	190.1	302.6	190.1	302.6
Clopidogrel	5	21.8	34.6	21.8	34.6	21.8	34.6
Dabigatran	8	31.8	50.6	31.8	50.6	31.8	50.6
Warfarin sodium	8	33.4	53.2	33.4	53.2	33.4	53.2
Fluids and Electrolytes		You		Your C	Comparator	Na	tional
Compound electrolytes	3	10.9	17.3	10.9	17.3	10.9	17.3
Dextrose with electrolytes	2	9.3	14.8	9.3	14.8	9.3	14.8
Potassium chloride	2	6.7	10.7	6.7	10.7	6.7	10.7

### **Blood and Blood Forming Organs**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Fluids and Electrolytes		You		Your C	omparator	Nat	tional
Sodium chloride	1	5.0	7.9	5.0	7.9	5.0	7.9

### Cardiovascular System

	C	ardiovascula	r System				
	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Agents Affecting the Renin-Angiotensin System		You		Your Comparator		National	
Candesartan cilexetil	12	48.3	76.9	48.3	76.9	48.3	76.9
Cilazapril	33	131.8	209.8	131.8	209.8	131.8	209.8
Cilazapril with hydrochlorothiazide	10	40.1	63.8	40.1	63.8	40.1	63.8
Enalapril maleate	4	14.2	22.5	14.2	22.5	14.2	22.5
Lisinopril	2	8.7	13.8	8.7	13.8	8.7	13.8
Losartan potassium	9	36.9	58.7	36.9	58.7	36.9	58.7
Losartan potassium with hydrochlorothiazide	2	6.9	11.0	6.9	11.0	6.9	11.0
Quinapril	14	55.9	89.0	55.9	89.0	55.9	89.0
Quinapril with hydrochlorothiazide	4	16.2	25.9	16.2	25.9	16.2	25.9
Alpha Adrenoceptor Blockers		You		Your (	Comparator	Nat	ional
Doxazosin	10	39.8	63.3	39.8	63.3	39.8	63.3
Terazosin	3	12.3	19.5	12.3	19.5	12.3	19.5
Antiarrhythmics		You		Your 0	Comparator	National	
Digoxin	3	12.2	19.4	12.2	19.4	12.2	19.4
Flecainide acetate	1	3.6	5.8	3.6	5.8	3.6	5.8
Beta Adrenoceptor Blockers		You		Your Comparator		National	
Atenolol	2	9.3	14.8	9.3	14.8	9.3	14.8
Bisoprolol fumarate	5	19.9	31.6	19.9	31.6	19.9	31.6
Carvedilol	2	8.0	12.8	8.0	12.8	8.0	12.8
Celiprolol	1	3.3	5.3	3.3	5.3	3.3	5.3
Metoprolol succinate	39	155.3	247.2	155.3	247.2	155.3	247.2
Nadolol	1	3.6	5.8	3.6	5.8	3.6	5.8
Propranolol	2	6.7	10.7	6.7	10.7	6.7	10.7
Sotalol	1	4.2	6.7	4.2	6.7	4.2	6.7
Calcium Channel Blockers		You		Your (	Comparator	Nat	ional
Amlodipine	16	64.0	101.9	64.0	101.9	64.0	101.9
Diltiazem hydrochloride	9	34.6	55.1	34.6	55.1	34.6	55.1
Felodipine	19	76.6	121.9	76.6	121.9	76.6	121.9
Verapamil hydrochloride	1	4.5	7.1	4.5	7.1	4.5	7.1
Diuretics		You		Your (	Comparator	Nat	ional
Bendroflumethiazide [Bendrofluazide]	11	44.7	71.2	44.7	71.2	44.7	71.2
Chlortalidone [Chlorthalidone]	2	6.5	10.4	6.5	10.4	6.5	10.4
Furosemide [Frusemide]	15	60.1	95.6	60.1	95.6	60.1	95.6

### Cardiovascular System

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Diuretics		You		Your Comparator		National	
Spironolactone	4	15.4	24.4	15.4	24.4	15.4	24.4
Lipid-Modifying Agents		You		Your Comparator		National	
Atorvastatin	55	219.2	349.0	219.2	349.0	219.2	349.0
Bezafibrate	2	7.5	12.0	7.5	12.0	7.5	12.0
Ezetimibe	3	13.2	20.9	13.2	20.9	13.2	20.9
Pravastatin	2	9.4	14.9	9.4	14.9	9.4	14.9
Simvastatin	21	83.4	132.7	83.4	132.7	83.4	132.7
Nitrates	You		Your C	Comparator	Na	tional	
Glyceryl trinitrate	3	13.1	20.8	13.1	20.8	13.1	20.8
Isosorbide mononitrate	4	16.3	26.0	16.3	26.0	16.3	26.0

### Dermatologicals

		Dermatolog	Jicais				
	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antiacne Preparations		You		Your Comparator		National	
Adapalene	1	3.9	6.2	3.9	6.2	3.9	6.2
Isotretinoin	1	4.1	6.6	4.1	6.6	4.1	6.6
Tretinoin	1	3.3	5.3	3.3	5.3	3.3	5.3
Antibacterials Topical		You		Your (	Comparator	Na	tional
Hydrogen peroxide*	4	17.5	27.9	17.5	27.9	17.5	27.9
Mupirocin	1	5.7	9.1	5.7	9.1	5.7	9.1
Sodium Fusidate [fusidic acid]	5	20.3	32.4	20.3	32.4	20.3	32.4
Antifungals Topical		You		Your Comparator		National	
Ciclopirox olamine	1	3.6	5.7	3.6	5.7	3.6	5.7
Clotrimazole	3	10.4	16.5	10.4	16.5	10.4	16.5
Miconazole nitrate	3	12.3	19.7	12.3	19.7	12.3	19.7
Antipruritic Preparations		You		Your Comparator		National	
Calamine	1	5.3	8.4	5.3	8.4	5.3	8.4
Crotamiton	1	3.7	5.8	3.7	5.8	3.7	5.8
Barrier Creams and Emollients		You		Your (	Comparator	Na	tional
Aqueous cream	3	13.4	21.3	13.4	21.3	13.4	21.3
Cetomacrogol	3	12.6	20.1	12.6	20.1	12.6	20.1
Cetomacrogol with glycerol	9	36.1	57.4	36.1	57.4	36.1	57.4
Emulsifying ointment	2	7.5	11.9	7.5	11.9	7.5	11.9
Oil in water emulsion	4	16.4	26.2	16.4	26.2	16.4	26.2
Urea	3	10.1	16.1	10.1	16.1	10.1	16.1
Zinc and castor oil	1	5.0	8.0	5.0	8.0	5.0	8.0

 $<sup>\</sup>hbox{^*\,N.B.\,This is an antiseptic, but is categorised under this heading in the pharmaceutical schedule}\\$ 

### Dermatologicals

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Corticosteroids Topical		You		Your C	Your Comparator		tional
Betamethasone valerate	3	13.8	21.9	13.8	21.9	13.8	21.9
Clobetasol propionate	4	15.9	25.4	15.9	25.4	15.9	25.4
Hydrocortisone	8	30.6	48.8	30.6	48.8	30.6	48.8
Hydrocortisone and paraffin liquid and lanolin	1	5.5	8.7	5.5	8.7	5.5	8.7
Hydrocortisone butyrate	9	37.2	59.1	37.2	59.1	37.2	59.1
Hydrocortisone with miconazole	8	31.9	50.8	31.9	50.8	31.9	50.8
Hydrocortisone with natamycin and neomycin	6	25.1	40.0	25.1	40.0	25.1	40.0
Methylprednisolone aceponate	1	5.3	8.4	5.3	8.4	5.3	8.4
Mometasone furoate	4	14.2	22.6	14.2	22.6	14.2	22.6
Triamcinolone acetonide	1	3.3	5.3	3.3	5.3	3.3	5.3
Other Skin Preparations		You		Your Comparator		National	
Fluorouracil sodium	2	7.7	12.2	7.7	12.2	7.7	12.2
Parasiticidal Preparations		You		Your Comparator		Na	tional
Permethrin	1	5.4	8.6	5.4	8.6	5.4	8.6
Psoriasis and Eczema Preparations		You		Your C	Comparator	Na	tional
Betamethasone dipropionate with calcipotriol	2	7.4	11.7	7.4	11.7	7.4	11.7
Pine tar with trolamine laurilsulfate and fluorescein	2	7.2	11.4	7.2	11.4	7.2	11.4
Scalp Preparations		You		Your Comparator		National	
Hydrocortisone butyrate	1	4.5	7.2	4.5	7.2	4.5	7.2
Ketoconazole	2	9.2	14.7	9.2	14.7	9.2	14.7

### **Genito-Urinary System**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antiandrogen Oral Contraceptives		You		Your C	Your Comparator		tional
Cyproterone acetate with ethinyloestradiol	3	11.5	18.3	11.5	18.3	11.5	18.3
Contraceptives - Hormonal		You		Your C	Comparator	Na	tional
Ethinyloestradiol with levonorgestrel	9	37.2	59.1	37.2	59.1	37.2	59.1
Ethinyloestradiol with norethisterone	2	7.5	11.9	7.5	11.9	7.5	11.9
Levonorgestrel	1	3.3	5.3	3.3	5.3	3.3	5.3
Medroxyprogesterone acetate	1	5.4	8.6	5.4	8.6	5.4	8.6
Norethisterone	3	11.7	18.6	11.7	18.6	11.7	18.6
Contraceptives - Non-hormonal		You		Your C	Comparator	Na	tional
Condoms	2	8.2	13.0	8.2	13.0	8.2	13.0
Gynaecological Anti-infectives	You		Your Comparator		National		
Clotrimazole	4	16.2	25.7	16.2	25.7	16.2	25.7

### **Genito-Urinary System**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Myometrial and Vaginal Hormone Preparations		You		Your C	omparator	National	
Oestriol	5	21.8	34.7	21.8	34.7	21.8	34.7
Urinary Agents	You		Your C	omparator	National		
Finasteride	2	8.0	12.8	8.0	12.8	8.0	12.8
Oxybutynin	2	9.4	14.9	9.4	14.9	9.4	14.9
Sodium citro-tartrate	2	8.0	12.8	8.0	12.8	8.0	12.8
Solifenacin succinate	2	7.7	12.2	7.7	12.2	7.7	12.2
Tamsulosin hydrochloride	1	4.6	7.3	4.6	7.3	4.6	7.3

### Hormone Preparations - Systemic Excluding Contraceptive Hormones

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Corticosteroids and Related Agents for Systemic Use	•	You		Your C	omparator	Nat	ional
Prednisolone	4	16.0	25.5	16.0	25.5	16.0	25.5
Prednisone	24	97.2	154.7	97.2	154.7	97.2	154.7
Hormone Replacement Therapy - Systemic		You		Your C	omparator	Nat	ional
Medroxyprogesterone acetate	1	5.3	8.4	5.3	8.4	5.3	8.4
Oestradiol	1	5.4	8.6	5.4	8.6	5.4	8.6
Oestradiol valerate	1	4.3	6.9	4.3	6.9	4.3	6.9
Thyroid and Antithyroid Agents		You		Your C	omparator	Nat	ional
Carbimazole	1	4.1	6.6	4.1	6.6	4.1	6.6
Levothyroxine	24	95.5	152.1	95.5	152.1	95.5	152.1

### Infections - Agents for Systemic Use

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antibacterials		You		Your C	Your Comparator		tional
Amoxicillin	42	169.6	270.0	169.6	270.0	169.6	270.0
Amoxicillin with clavulanic acid	20	79.2	126.0	79.2	126.0	79.2	126.0
Azithromycin	2	7.9	12.6	7.9	12.6	7.9	12.6
Cefaclor monohydrate	4	17.7	28.2	17.7	28.2	17.7	28.2
Cefalexin	7	26.6	42.3	26.6	42.3	26.6	42.3
Ciprofloxacin	2	8.9	14.1	8.9	14.1	8.9	14.1
Doxycycline	10	41.7	66.4	41.7	66.4	41.7	66.4
Erythromycin ethyl succinate	6	25.0	39.8	25.0	39.8	25.0	39.8
Flucloxacillin	17	66.2	105.4	66.2	105.4	66.2	105.4
Phenoxymethylpenicillin (Penicillin V)	3	13.6	21.7	13.6	21.7	13.6	21.7
Roxithromycin	8	31.7	50.5	31.7	50.5	31.7	50.5
Trimethoprim	7	26.9	42.7	26.9	42.7	26.9	42.7

### Infections - Agents for Systemic Use

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antibacterials		You		Your C	Your Comparator		ional
Trimethoprim with sulphamethoxazole [Co-trimoxazole]	6	22.3	35.5	22.3	35.5	22.3	35.5
Antifungals		You		Your C	omparator	National	
Fluconazole	1	4.9	7.8	4.9	7.8	4.9	7.8
Terbinafine	1	5.8	9.3	5.8	9.3	5.8	9.3
Antitrichomonal Agents		You		Your C	omparator	Nat	ional
Metronidazole	3	13.4	21.4	13.4	21.4	13.4	21.4
Antivirals		You		Your Comparator		National	
Aciclovir	3	13.3	21.2	13.3	21.2	13.3	21.2
Valaciclovir	1	5.5	8.7	5.5	8.7	5.5	8.7
Urinary Tract Infections	You			Your Comparator		National	
Nitrofurantoin	3	13.0	20.7	13.0	20.7	13.0	20.7

### Musculoskeletal System

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antirheumatoid Agents		You		Your C	Your Comparator		tional
Hydroxychloroquine	1	4.7	7.6	4.7	7.6	4.7	7.6
Drugs Affecting Bone Metabolism		You		Your C	Comparator	National	
Alendronate sodium with colecalciferol	3	12.7	20.2	12.7	20.2	12.7	20.2
Risedronate sodium	1	5.0	8.0	5.0	8.0	5.0	8.0
Hyperuricaemia and Antigout		You	Your Comparator		Comparator	Na	tional
Allopurinol	16	65.1	103.6	65.1	103.6	65.1	103.6
Colchicine	2	8.6	13.8	8.6	13.8	8.6	13.8
Muscle Relaxants		You		Your Comparator		Na	tional
Orphenadrine citrate	4	16.4	26.1	16.4	26.1	16.4	26.1
Non-Steroidal Anti-Inflammatory Drugs		You		Your C	Comparator	Na	tional
Celecoxib	9	34.3	54.6	34.3	54.6	34.3	54.6
Diclofenac sodium	14	57.6	91.7	57.6	91.7	57.6	91.7
lbuprofen	32	127.1	202.4	127.1	202.4	127.1	202.4
Naproxen	8	30.5	48.5	30.5	48.5	30.5	48.5

### **Nervous System**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Agents for Parkinsonism and Related Disorders		You		Your C	omparator	Nat	ional
Levodopa with carbidopa	2	6.6	10.6	6.6	10.6	6.6	10.6
Analgesics	You			Your Comparator		Nat	ional
Aspirin	1	4.1	6.6	4.1	6.6	4.1	6.6

### **Nervous System**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Analgesics		You		Your C	omparator	Na	tional
Codeine phosphate	15	58.8	93.6	58.8	93.6	58.8	93.6
Dihydrocodeine tartrate	1	5.4	8.6	5.4	8.6	5.4	8.6
Fentanyl	2	7.9	12.5	7.9	12.5	7.9	12.5
Methadone hydrochloride	2	7.9	12.6	7.9	12.6	7.9	12.6
Morphine hydrochloride	1	4.7	7.6	4.7	7.6	4.7	7.6
Morphine sulphate	6	25.1	39.9	25.1	39.9	25.1	39.9
Oxycodone hydrochloride	5	18.6	29.6	18.6	29.6	18.6	29.6
Paracetamol	94	376.1	598.7	376.1	598.7	376.1	598.7
Paracetamol with codeine	12	46.1	73.3	46.1	73.3	46.1	73.3
Tramadol hydrochloride	12	48.2	76.7	48.2	76.7	48.2	76.7
Antidepressants		You		Your C	omparator	Na	tional
Amitriptyline	11	43.0	68.4	43.0	68.4	43.0	68.4
Citalopram hydrobromide	14	56.7	90.3	56.7	90.3	56.7	90.3
Dosulepin [Dothiepin] hydrochloride	1	4.1	6.5	4.1	6.5	4.1	6.5
Doxepin hydrochloride	1	3.7	5.9	3.7	5.9	3.7	5.9
Escitalopram	6	25.7	40.9	25.7	40.9	25.7	40.9
Fluoxetine hydrochloride	10	40.0	63.6	40.0	63.6	40.0	63.6
Mirtazapine	2	8.9	14.2	8.9	14.2	8.9	14.2
Nortriptyline hydrochloride	7	26.4	42.1	26.4	42.1	26.4	42.1
Paroxetine	4	17.9	28.5	17.9	28.5	17.9	28.5
Sertraline	5	21.5	34.3	21.5	34.3	21.5	34.3
Venlafaxine	8	32.3	51.5	32.3	51.5	32.3	51.5
Antiepilepsy Drugs		You		Your C	omparator	Na	tional
Carbamazepine	2	8.3	13.3	8.3	13.3	8.3	13.3
Gabapentin	7	26.6	42.4	26.6	42.4	26.6	42.4
Lamotrigine	2	7.8	12.5	7.8	12.5	7.8	12.5
Levetiracetam	1	5.5	8.7	5.5	8.7	5.5	8.7
Phenytoin sodium	1	3.7	6.0	3.7	6.0	3.7	6.0
Sodium valproate	4	14.7	23.4	14.7	23.4	14.7	23.4
Topiramate	1	3.8	6.1	3.8	6.1	3.8	6.1
Antimigraine Preparations		You		Your C	omparator	Nat	tional
Rizatriptan	2	10.0	15.8	10.0	15.8	10.0	15.8
Sumatriptan	2	6.8	10.9	6.8	10.9	6.8	10.9
Antinausea and Vertigo Agents		You		Your C	omparator	Na	tional
Betahistine dihydrochloride	1	3.3	5.3	3.3	5.3	3.3	5.3
Cyclizine hydrochloride	1	3.6	5.8	3.6	5.8	3.6	5.8
Domperidone	2	9.3	14.9	9.3	14.9	9.3	14.9

19

### **Nervous System**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Antinausea and Vertigo Agents		You		Your C	Comparator	Na	tional
Metoclopramide hydrochloride	4	14.2	22.6	14.2	22.6	14.2	22.6
Ondansetron	6	23.1	36.8	23.1	36.8	23.1	36.8
Prochlorperazine	3	14.0	22.3	14.0	22.3	14.0	22.3
Antipsychotics		You		Your C	Comparator	Na	tional
Haloperidol	1	3.9	6.2	3.9	6.2	3.9	6.2
Lithium carbonate	1	3.7	5.9	3.7	5.9	3.7	5.9
Dlanzapine	2	7.9	12.5	7.9	12.5	7.9	12.5
Quetiapine	8	32.7	52.1	32.7	52.1	32.7	52.1
Risperidone	3	10.7	17.1	10.7	17.1	10.7	17.1
Anxiolytics		You		Your C	Comparator	Na	tional
Clonazepam	3	12.9	20.5	12.9	20.5	12.9	20.5
Diazepam	4	16.2	25.8	16.2	25.8	16.2	25.8
Lorazepam	7	26.0	41.4	26.0	41.4	26.0	41.4
Sedatives and Hypnotics		You		Your C	Comparator	Na	tional
Midazolam	1	5.1	8.1	5.1	8.1	5.1	8.1
- Temazepam	2	9.1	14.4	9.1	14.4	9.1	14.4
Friazolam	3	10.0	16.0	10.0	16.0	10.0	16.0
Copiclone	23	91.6	145.8	91.6	145.8	91.6	145.8
Stimulants/ADHD Treatments		You		Your C	Comparator	Na	tional
Methylphenidate hydrochloride	4	17.1	27.2	17.1	27.2	17.1	27.2
Methylphenidate hydrochloride extended-release	3	13.4	21.4	13.4	21.4	13.4	21.4
Freatments for Dementia		You		Your (	Comparator	Na	tional
Donepezil hydrochloride	1	5.2	8.4	5.2	8.4	5.2	8.4
Treatments for Substance Dependence		You		Your Comparator		National	
Nicotine	3	11.8	18.8	11.8	18.8	11.8	18.8
Varenicline tartrate	2	7.9	12.6	7.9	12.6	7.9	12.6

### Oncology Agents and Immunosuppressants

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Chemotherapeutic Agents		You		Your C	omparator	Nat	tional
Methotrexate	3	10.8	17.2	10.8	17.2	10.8	17.2

### **Respiratory System and Allergies**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Anticholinergic Agents	You			Your C	omparator	National	
Ipratropium bromide	1	4.3	6.9	4.3	6.9	4.3	6.9
Salbutamol with ipratropium bromide	3	10.6	16.8	10.6	16.8	10.6	16.8

### **Respiratory System and Allergies**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Anticholinergic Agents		You		Your Comparator		National	
Tiotropium bromide	2	9.2	14.7	9.2	14.7	9.2	14.7
Umeclidinium	1	5.1	8.1	5.1	8.1	5.1	8.1
Antihistamines		You		Your Comparator		National	
Cetirizine hydrochloride	20	80.8	128.6	80.8	128.6	80.8	128.6
Loratadine	22	87.7	139.6	87.7	139.6	87.7	139.6
Promethazine hydrochloride	4	14.1	22.4	14.1	22.4	14.1	22.4
Beta-Adrenoceptor Agonists	You		Your Comparator		National		
Salbutamol	36	145.9	232.3	145.9	232.3	145.9	232.3
Terbutaline sulphate	1	5.6	8.9	5.6	8.9	5.6	8.9
Inhaled Corticosteroids	You			Your Comparator		National	
Beclomethasone dipropionate	2	6.4	10.1	6.4	10.1	6.4	10.1
Budesonide	1	3.8	6.1	3.8	6.1	3.8	6.1
Fluticasone	10	39.6	63.0	39.6	63.0	39.6	63.0
Inhaled Long-acting Beta-adrenoceptor Agonists		You		Your Comparator		National	
Budesonide with eformoterol	8	30.1	47.9	30.1	47.9	30.1	47.9
Fluticasone furoate with vilanterol	3	13.1	20.9	13.1	20.9	13.1	20.9
Fluticasone with salmeterol	11	44.8	71.4	44.8	71.4	44.8	71.4
Nasal Preparations	You			Your Comparator		National	
Beclomethasone dipropionate	2	7.5	11.9	7.5	11.9	7.5	11.9
Budesonide	2	8.8	14.1	8.8	14.1	8.8	14.1
Fluticasone propionate	18	71.7	114.1	71.7	114.1	71.7	114.1
Ipratropium bromide	1	5.1	8.1	5.1	8.1	5.1	8.1

### **Sensory Organs**

	Number of patients dispensed	Items	Items per 1000 patients	Average Items	Items per 1000 patients	Average Items	Items per 1000 patients
Ear/Eye Preparations	You		Your Comparator		National		
Dexamethasone with framycetin and gramicidin	2	9.6	15.3	9.6	15.3	9.6	15.3
Ear Preparations	You		Your Comparator		National		
Flumetasone pivalate	1	4.2	6.7	4.2	6.7	4.2	6.7
Triamcinolone acetonide with gramicidin, neomycin and nystatin	2	7.5	12.0	7.5	12.0	7.5	12.0
Eye Preparations	You		Your C	Comparator	National		
Chloramphenicol	9	34.9	55.5	34.9	55.5	34.9	55.5
Hypromellose with dextran	3	12.0	19.2	12.0	19.2	12.0	19.2
Latanoprost	2	9.2	14.6	9.2	14.6	9.2	14.6
Olopatadine	3	10.3	16.4	10.3	16.4	10.3	16.4
Sodium cromoglicate	1	3.7	5.9	3.7	5.9	3.7	5.9
Sodium Fusidate [fusidic acid]	2	9.2	14.6	9.2	14.6	9.2	14.6

# Annual report methodology

### **Methods**

The data in this report is based on two of the Ministry of Health's National Collections. The collections used in this report contain data provided to Sector Services (formerly HealthPAC) and National Collections and Reporting through the General Transaction Processing System:

- The Pharmaceutical Collection holds claim data submitted by pharmacies for all community dispensings of subsidised medicines.
- The Primary Health Organisation Enrolment Collection holds patient enrolment data for 4.52 million patients registered to 992 New Zealand general practices.

As our data is provided by the Ministry of Health, bpac<sup>nz</sup> has no control over data errors which may occur at the pharmacy, Sector Services or Ministry of Health. Some errors may also be due to rounding.

In this report, cost is the standard price at which a medicine is supplied to wholesalers, exclusive of GST, dispensing fees, markup and rebates. Therefore the cost listed is not necessarily the actual cost of the medicine.

Data has been excluded for patients who are not registered to a practice in the PHO Enrolment Collection. Registered patients accounted for 99% of pharmaceutical dispensings recorded in the National Collections. Data has also been excluded when a National Health Index (NHI) number was not recorded for the patient.

This report includes data on subsidised medicines dispensed in community pharmacies. Any medicines prescribed to your patients that were not dispensed by a community pharmacy, or are unsubsidised, will not appear in this report.

The average number of dispensings per prescriber is based on 4909 New Zealand general practitioners and 75 nurse practitioners, including those with low and high rates of prescribing.

### **Important Note**

This report contains data for all prescriptions you wrote for any patient in New Zealand that was dispensed a subsidised medicine. The numbers in this report may not tally with an audit of your Practice Management System (PMS) as they will include prescriptions written for patients you may have seen:

- When working as a locum in another practice
- As casual patients who are not enrolled at your practice
- In after-hours clinics



### **Further investigation of your prescribing**

Undertaking an audit or peer group discussion may provide more detail to help identify similarities and differences in prescribing practice compared to other primary care practitioners. If any issues have been identified these resources can help instigate change, leading to more appropriate use of medicines and facilitate best practice.

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# Using comparator general practitioners

### The problem with national comparisons

We understand that not all patient populations are the same and therefore it can be difficult to compare your prescribing to national prescribing levels.

### The development of comparator general practitioners

To help combat this problem and make these reports more relevant to you, we have developed comparator groups. This allows your prescribing to be compared to **ten general practitioners** from across New Zealand whose patient populations are similar to yours in:

- Gender
- Age
- Ethnicity

We will account for the size of your patient population by using proportions or standardised formats, e.g. prescribing per 1000 patients.

Eliminating some demographic differences mean you will be able to more easily determine meaningful differences in your prescribing practices compared with your comparator general practitioners.

If your prescribing is different compared to other general practitioners in your comparator group, this may be explained by:

- Your prescribing practice and decision- making being different to your peers
- The region you live in, e.g. medicines to treat sore throats and rheumatic fever in the far north of New Zealand will be higher than in the south
- Some general practitioners in your comparator group may specialise in a particular area of medicine that uses certain medicines more than others, e.g. dermatology and isotretinoin prescribing



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