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A collaborating unit of the  
Australian Institute of Health and Welfare



# BEACH

*BETTERING THE EVALUATION AND CARE OF HEALTH*

SUMMARY MEDICATION REPORT for GP DIVISIONS

**Drugs for peptic ulcer and GORD (ATC code A02B) in general practice**

Data period: April 01 – Mar 02



April 2003

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**The details of the methods use in BEACH can be found in any of the AIHW general practice publications. These can be accessed through our web site: [www://fmrc.org.au](http://fmrc.org.au). You can click on the most recent annual report listed in the Publications page and this will link directly to the book. *Britt H, Miller GC, Knox S, Charles J, Lisa V, Henderson J, et al. 2002. General practice activity in Australia 2001-02. AIHW Cat. No. GEP 10. Canberra: Australian Institute of Health and Welfare (General Practice Series No. 10). ISBN 1 74024 217 3. ISSN 1442 3022***

## **Background**

This report is a summary of the data collected from April 2001 to Mar 2002 inclusive. It provides information on the prescribing of PPIs

Total number of GPs participating in BEACH in this period: 983.

The total number of encounters for this period: 98,300

The participating GPs are randomly selected from the HIC list of active GPs (those who provided more than 375 GP services in the previous quarter). The research instrument used for each consultation is a single page recording form containing the following variables:

- date of encounter
- service item number/form of payment/indirect encounters (e.g. telephone consults)
- patient age and sex
- patient status to practice (new or seen before)
- health care card status of patient
- patient post code and ethnic background
- patient's reasons for encounter (up to three)
- diagnoses/problems managed (up to four)
- status of each problem to the patient (new/old)
- whether problems are work related
- medications prescribed (up to 4 per problem)
- over the counter medications recommended
- medications provided by the GP
- brand name, strength and regimen of medication
- number of repeats for medication
- medication status - new or continued
- other treatments (up to 2 per problem)
- tests and investigations ordered
- referrals and hospital admissions.

In general results are reported in terms of the number of observations (n), rate per 100 encounters and 95% confidence interval (CI). The CI is calculated as the rate estimate  $\pm$  (1.96 x standard error). The CI is interpreted as "we are 95% confident that the true population value lies between the lower and upper value". Note that confidence intervals may be missing where data was insufficient to calculate a meaningful estimate.

## RESULTS

### Summary medications – Drugs for Peptic ulcer and GORD (ATC code A02B) Apr 01-Mar 02

Table 1 provides the overall prescription/supply rate of Drugs for Peptic ulcer and GORD (ATC code A02B). It includes a count of the total number of prescriptions for the selected medication during the time period and a breakdown of the number recorded for each generic within this medication group. The prescribing rates are presented in terms of the rate per 100 BEACH encounters, the rate per 100 problems managed (all types) and the percentage of all medications that is accounted for by this medication and the percentage of all drugs in this class. The column titled “National Estimated encs” gives the estimated number of encounters in a year for Australian general practice, at which this drug is prescribed. It is calculated by multiplying the encounter rate by the number of consultations that are carried out in general practice each year about 105 million.

**Results:** Drugs for Peptic ulcer and GORD (ATC code A02B) were prescribed on 2,603 occasions at a rate of 2.68 medications per 100 encounters and at a rate of 1.87 per 100 problems managed. They accounted for 2.57% of all medications prescribed for all problems. National estimates suggest a total of 2.8 million scripts/supplied medications in 2001-02 for Drugs for Peptic ulcer and GORD (ATC code A02B).

Omeprazole accounted for more than one third (35.7%) of these medications particularly and Ranitidine accounted for 25.5%, followed by Pantoprazole (17.2%) Triple therapy was relatively rare.

**Table 1: Summary medications - Drugs for Peptic ulcer and GORD (ATC code A02B)**

BEACH Survey Report - Analysis date: 28MAR03						
Drug label	n	Total per 100 encs	Total per 100 probs	Total % drugs	% Peptic ulcer GORD drugs	National estimated encs
Total Peptic ulcer GORD drugs	2603	2.68	1.87	2.57		2,820,000
Cimetidine	25.463	0.03	0.02	0.03	0.98	27600
Ranitidine	663.42	0.68	0.48	0.65	25.49	718300
Sucralfate	2.9648	0	0	0	0.11	3200
Famotidine	125.67	0.13	0.09	0.12	4.83	136100
Omeprazole	928.16	0.96	0.67	0.92	35.66	1.01E6
Misoprostol	0.8496	0	0	0	0.03	900
Nizatidine	95.093	0.1	0.07	0.09	3.65	103000
Pantoprazole	447.92	0.46	0.32	0.44	17.21	485000
Lansoprazole	175.26	0.18	0.13	0.17	6.73	189800
Metronidaz/Tetracycl/Bismuth	4.95	0.01	0	0	0.19	5400
Omeprazole/Amoxycil/Metronidaz	3.4005	0	0	0	0.13	3700
Omeprazole/Amoxicillin/Clarith	82.28	0.08	0.06	0.08	3.16	89100
Rabeprazole	47.529	0.05	0.03	0.05	1.83	51500

## Summary of database: services and patients – Drugs for Peptic ulcer and GORD (ATC code A02B) Apr 01-Mar 02

Table 2 provides a summary of the encounters and the characteristics of the patients for whom the selected medication was prescribed/provided.

Number of observations (n), rate per 100 encounters, 95 per cent confidence interval (CI) are provided for each data point.

The confidence interval (CI) is calculated as the rate estimate  $\pm$  (1.96 x standard error). The CI is interpreted as “we are 95 per cent confident that the true population value lies between the lower and upper value”. NB: CIs may be missing where data were insufficient to calculate a meaningful estimate.

- ◆ **Encounters** define the different types of services provided by the participating GPs during the course of their recording period. Only encounters where the selected medication was prescribed are included.
- ◆ **Indirect services** occur when the patient is not actually seen by the GP (eg. telephone) but a clinical service is provided
- ◆ **Surgery consults** are patient encounters that take place in the GP’s surgery and are covered by Medicare consultation item numbers.
- ◆ **Home visits** are consultations that take place in the patient’s home and are covered by a Medicare home visit item number.
- ◆ **Hospital** encounters take place with a patient in a hospital setting, and payment is from a Medicare hospital item number.
- ◆ **Nursing home** consultations are those services covered by the relevant Medicare nursing home item numbers.
  
- ◆ **Patients** describes the characteristics of the patients for whom the selected medication was prescribed at encounter
- ◆ **Gender and age** distributions are provided. The age groupings correspond with significant trends in GP service consumption.
- ◆ **HCC Yes:** are encounters with patients who hold a health care card (HCC).
- ◆ **VA gold card** and **VA white card** are encounters with patients who hold a Veteran’s Affairs card (the encounter may not necessarily be claimed through VA in the case of white card holders).
- ◆ **NESB** are encounters with patients whose primary language spoken at home is not English.
- ◆ **Aboriginal** patients are those who identify as being Aboriginal.
- ◆ **Torres Strait Islander** patients are those who identify as being Torres Strait Islander.

Number of observations (n), rate per 100 encounters, rate per 100 problems, 95 per cent confidence intervals (CI) are provided for each data point.

- ◆ **Problems managed** are the problems managed at the encounter, for which the selected drug or drug group was prescribed/provided.
- ◆ **New problems** are those that have never been managed before by any doctor, or are first consultations for a new episode of a recurrent problem.

**Medications:** Provides the total count of the number of the selected medication prescribed/provided. This number will agree with that in Table 0.

- ◆ **Prescribed**
- ◆ **Provided**
- ◆ **Advised**

provides a count of the proportion of the total selected medication that was prescribed by the GP and the proportion that were provided by the GP (e.g. samples) and (where applicable) the proportion that were advised for purchase over-the counter.

Table 2 shows that 826(84.0%) of the 983 participating GPs prescribed or supplied at least one SRLA during their 100 recorded encounters.

**Results:** Ninety one percent of encounters at which a PU/GORD medication was prescribed/provided/advised were conducted in the surgery. The patient receiving the medication was more likely to be male (45.6%, 95% CI 43.3-48.0) when compared with the usual gender distribution in encounter data in Australia (42.6, 95% CI 41.9–43.3). Patients in all age groups from 45 years up were over-represented in this sub-sample but particularly those aged between 45 and 64 years.

Health care cardholders were also over-represented in this PU/GORD medication sample, accounting for 60.9% of these encounters (compared with 41.9% of total encounters). Patients receiving a PU/GORD medication also described more reasons for encounter than average. These two results would be related to their age distribution.

Very few of these patients were new patients to the practice. One in four of the problems managed with a PU/GORD medication were new problems to the patients. Eighty eight percent of the PU/GORD medications were prescribed; 11% were supplied by the GP direct to the patient; and very few were advised for over-the counter purchase. (Table 2).

**Table 2: Summary of data base: services and patients - Drugs for Peptic ulcer and GORD (ATC code A02B)**

BEACH Survey Report - Analysis date: 28MAR03

Data	n	Rate per 100 encs	Lower 95% CI	Upper 95% CI
General practitioners	826.30	.	.	.
Encounters	2590.96	.	.	.
- Indirect consults	58.43	2.46	0.0	10.7
- Surgery consults	2155.06	90.57	88.9	92.2
- Home visits	49.52	2.08	0.0	10.4
- Hospital	5.06	0.21	0.0	26.1
- Nursing home	26.11	1.10	0.0	27.0
- Worker's comp	14.91	0.63	0.0	15.0
- Other paid	24.26	1.02	0.0	20.1
- No charge	7.40	0.31	0.0	33.6
- Other Medicare items	38.62	1.62	0.0	11.8
- Missing	211.57	.	.	.
Patients	2590.96	.	.	.
- Males	1175.60	45.63	43.3	48.0
- Females	1401.02	54.37	52.2	56.5
- Missing gender	14.34	.	.	.
- 5-14 years	11.09	0.43	0.0	14.3
- 15-24 years	102.19	3.98	0.0	10.1
- 25-44 years	502.75	19.57	15.9	23.2
- 45-64 years	951.32	37.02	34.8	39.3
- 65-74 years	504.04	19.62	16.9	22.3
- 75+ years	493.03	19.19	16.0	22.4
- Missing age	21.31	.	.	.
- HCC Yes	1451.81	60.93	58.5	63.4
- VA card	127.40	5.41	0.6	10.2
- NESB	318.36	12.29	0.0	25.0
- Aboriginal	17.75	0.75	0.0	19.7
- Torres Strait Islander	2.77	0.12	0.0	34.1
- Aboriginal & Torres Strait Is	2.30	0.10	0.0	24.6
- New to practice	137.68	5.50	0.0	12.2
Reasons for encounter	4692.31	181.10	176.4	185.8
Problems managed	2592.54	.	.	.
- New problems	660.89	25.49	22.1	28.9
Medications	2602.96	100.40	100.1	100.7
- Prescribed	2300.26	88.73	86.9	90.6
- Advised OTC	9.93	0.38	0.0	22.6
- GP supplied	292.76	11.29	3.5	19.1
New to practice	137.68	5.5	0	12.2
Seen previously	2363.9	94.5	93.2	95.8
Total	2501.6			

## Most common problems managed with Drugs for Peptic ulcer and GORD (ATC code A02B) Apr 01-Mar 02

Up to four problems managed at each encounter can be recorded. The problem label is the classified description of the label given by the GP for the problem being managed with the selected medication.

Table 3 presents the most frequent problems managed with the selected medication, in decreasing order of frequency. Data include: number of observations, per cent of GPs (Percentage base = total number of GPs for this time period) who prescribed/supplied the drug for that particular problem; the per cent of total problems managed with the selected medication, lower and upper confidence intervals for this per cent. The last numeric column gives you the proportion of all contacts with problems of this type that received a script/were supplied with the selected medication.

If there are asterisks in this Table they tell you that the problem label includes more than one ICPC-2 code. (For example: *Hypertension\** includes both *uncomplicated hypertension* and *hypertension with complications*).

### Results:

- Oesophageal disease was the most common problem for which PU/GORD medications were prescribed/supplied/advised (57.2%), followed by Stomach function disorder (which includes duodenitis and gastritis) (9.1%). Peptic ulcers accounted for 5.7% of all problems managed with PU/GORD medications.
- More than two thirds (65.8%) of GPs prescribed a PU/GORD medications at least once for oesophageal disease during their 100 recorded encounters.
- The far right hand column shows that 85% of GP contacts with oesophageal disease generated a script/supply/advice of a PU/GORD medication and 73% of contacts with peptic ulcer resulted in a PU/GORD medication (Table 3).

**Table 3: Most common problems managed with Drugs for Peptic ulcer and GORD (ATC code A02B)**

BEACH Survey Report - Analysis date: 28MAR03

Problem label	n	% of GPs	% of Peptic ulcer GORD		Lower 95% CI	Upper 95% CI	% of problem
			drugs	problems			
Oesophageal disease	1488.	65.82	57.42		54.7	60.2	84.9
Stomach function disorder	235.4	16.28	9.08		3.4	14.7	56.65
Peptic ulcers, other	148.6	11.5	5.73		0	12.5	72.7
Dyspepsia/indigestion	129.9	9.77	5.01		0	13	64.86
Prescription all*	117.2	9.56	4.52		0	13.8	6.5
Gastroenteritis, presumed infection	65.3	5.8	2.52		0	9.6	6.32
Duodenal ulcer	60.30	4.48	2.33		0	10.2	87.57
Hiatus hernia	57.51	4.88	2.22		0	10	85.64
Pain, abdominal epigastric	34.54	2.75	1.33		0	11.2	46.82
Abdominal pain*	25.85	2.85	1.00		0	13.4	4.48
Heartburn	18.63	1.83	0.72		0	11.9	64.6
Adverse effect medical agent	10.61	1.02	0.41		0	12.2	3.1
Total problems	2592.5		100		100	100	

## PPI Source and status

- ◆ **Source:** For the selected medication for each problem managed with that medication, this shows the number and proportion of the medication that was prescribed by the GP, the proportion advised for over-the-counter purchase and the proportion supplied by the GP (as samples etc). This is of greatest interest where the selected medication can be either prescribed or advised (e.g. paracetamol).
- ◆ **Status:** The last two columns of this Table show the number of cases where the medication was designated a new drug for this problem in this patient, and the percent of this medication –problem combination that this number represents (percentage base = the number in the corresponding row, in column 1)

**Results:** We know from Table 2 that 88.7% of PU/GORD drugs were prescribed and 11.3% were supplied directly by the GP to the patient. Table 4 shows that while only 9.3% of PU/GORD medications for oesophageal disease were supplied direct to the patient one in five of those given for stomach function disorders were supplied by the GP.

One in four ( 26.8% of the PU/GORD medications for oesophageal disease were for newly diagnosed cases or first visits for a recurrence of the problem. Almost half (44%) of those given for stomach function disorder were provided for new cases of this problem.

**Table 4: Drugs for Peptic ulcer and GORD (ATC code A02B) medications - source and status**

BEACH Survey Report - Analysis date: 28MAR03

Problem managed	GP						New n	% of problem	Continued n	% of problem
	Prescribed n	% of problem	Advised n	% of problem	supplied n	% of problem				
Oesophageal disease	1350.6	90.4	5.4179	0.4	138.25	9.3	399	26.8	1092	73.2
Stomach function disorder	183.57	78.00	3.9819	1.7	47.894	20.3	90	44.1	114	55.9
Peptic ulcers, other	128.23	86.3	0.5327	0.4	19.853	13.4	50	36.2	88	63.8
Prescription all*	111.16	94.8			6.1234	5.2	4	3.2	121	96.8
Dyspepsia/indigestion	104.81	80.6			25.148	19.4	35	27.1	94	72.9
Gastroenteritis, presumed infection	67.709	96.4			2.5372	3.6	38	57.6	28	42.4
Duodenal ulcer	58.026	96.2			2.2761	3.8	9	16.7	45	83.3
Hiatus hernia	52.599	91.5			4.9176	8.5	18	31	40	69
Pain, abdominal epigastric	28.162	81.5			6.3873	18.5	10	31.3	22	68.8
Abdominal pain*	20.618	79.7			5.236	20.3	9	32.1	19	67.9
Heartburn	18.461	99.1			0.173	0.9	6	33.3	12	66.7
Adverse effect medical agent	8.4846	79.9			2.1306	20.1	5	50	5	50

**Average prescribed daily dose (PDD) for the more common problem managed with Drugs for Peptic ulcer and GORD (ATC code A02B) Apr 01-Mar 02**

For each of the more common problems managed with the selected medication this table provides the mean PDD, the Median PDD, the minimum PDD and maximum PDD recorded by the GPs. The mean, median etc for all prescriptions of the selected medication is provided in the last row of the table. Note that the median is often a more reliable measure of central tendency than the mean, which is influenced by outliers.

**Note** “Average prescribed daily dose” includes prescribed, supplied and advised medications.

**Table 5: Average prescribed daily dose - Drugs for Peptic ulcer and GORD (ATC code A02B)**

BEACH Survey Report - Analysis date: 28MAR03

Problem label	n	Mean	Median		Minimum	Maximum
		PDD	PDD	Measure		
Oesophagus disease	1336	104.7	40	mg	10	8000
Stomach function disorder	174	145.1	40	mg	20	900
Peptic ulcers, other	119	129.4	40	mg	20	800
Dyspepsia/indigestion	111	149.5	150	mg	20	600
Prescription all*	108	140.4	40	mg	10	900
Hiatus hernia	51	110.7	40	mg	20	300
Duodenal ulcer	46	139.4	40	mg	20	800
Pain, abdominal epigastric	26	121.0	40	mg	20	300
Abdominal pain*	22	93.0	40	mg	20	300
Heartburn	14	177.0	170	mg	20	400
Gastroenteritis, presumed infection	13	119.9	40	mg	40	300
Adverse effect medical agent	9	300.6	40	mg	10	800

**Average number of repeats for PU/GORD drugs for the more common problems managed with Drugs for Peptic ulcer and GORD (ATC code A02B) Apr 01-Mar 02**

For each of the more common problems managed with the selected medication this Table provides the mean number of repeats, the median number of repeats, the minimum and maximum number of repeats. Again note that the median is often a more reliable measure of central tendency than the average which is influenced by outliers.

**Table 6: Average number of repeats - Drugs for Peptic ulcer and GORD (ATC code A02B)**

BEACH Survey Report - Analysis date: 28MAR03

Problem label	n	Mean repeats	Median repeats	Minimum	Maximum
Oesophagus disease	1172	3.7	5.0	0	6
Stomach function disorder	137	1.9	1.0	0	5
Prescription all*	109	4.7	5.0	1	5
Dyspepsia/indigestion	104	2.8	5.0	0	5
Peptic ulcers, other	100	2.7	5.0	0	5
Gastroenteritis, presumed infection	45	0.2	0.0	0	5
Hiatus hernia	40	4.1	5.0	0	5
Duodenal ulcer	38	3.0	4.0	0	5
Pain, abdominal epigastric	21	2.9	1.0	0	5
Abdominal pain*	20	2.3	1.0	0	5
Heartburn	13	1.6	1.0	0	5
Adverse effect medical agent	7	0.8	0.0	0	5