

8 Prevalence of upper gastro-intestinal conditions and NSAID use

8.1 Background

Reflux-related indigestion is a common problem in the general community. In a large population survey in the United Kingdom in 1990, Jones et al. found that 41% of adults had experienced either heartburn or upper abdominal pain/discomfort in the past six months (Jones et al. 1990). A review of studies by Talley et al. (1998) suggested that in Western countries the annual prevalence of recurrent upper abdominal pain or discomfort ranged from 20–40%, depending on the definition applied.

The BEACH survey (1998–99) showed that upper gastrointestinal problems (UGIs) were managed at a rate of 4.0 per 100 encounters and that new episodes of UGIs arose at a rate of 1.2 per 100 patient contacts (Kelly 2000). This suggests through extrapolation, that there are around 1.2 million new episodes presenting in general practice in Australia each year. However, the community prevalence of UGI problems is likely to be far higher. Jones et al. demonstrated that in the United Kingdom only about one-quarter of heartburn sufferers had consulted a GP about their condition (Jones et al. 1990).

Talley suggests that dyspepsia affects approximately one in four people in Australia (Talley 1996) while Westbrook et al. (1998) suggest its prevalence may be as high as 36%. In 1993–94, the cost of antacids and drugs for the treatment of peptic ulcer paid through the Pharmaceutical Benefits Scheme was \$163 million and by 1997–98 this had increased to \$376 million (Commonwealth Department of Health and Aged Care 1999a). Additional costs of over-the-counter drugs, and those falling below the PBS cost threshold, are difficult to estimate.

In a review of non-steroidal anti-inflammatory drug (NSAID)-associated gastrointestinal complications, Schoenfeld et al.—suggest that between 0.1% and 2.0% of people using NSAIDs suffer serious gastrointestinal complications and that chronic ingestion of NSAIDs increases the risk for gastrointestinal complications ranging from dyspepsia to gastrointestinal bleeding (Schoenfeld et al. 1999).

The BEACH program provided an opportunity to investigate the prevalence of UGI problems in the general practice patient population and its relationship with NSAID intake.

8.2 Research questions

1. What is the prevalence of upper gastrointestinal problems in general practice patients in Australia?
2. Of those with UGI symptoms, what proportion are currently being treated and how?
3. What proportion of patients with UGI symptoms have also been on NSAIDs in the past 12 months?
4. Is there a relationship between NSAID use and occurrence of UGI symptoms?

8.3 SAND questions

Box 8.1: Prevalence of upper gastrointestinal conditions and NSAID use

GPs asked the patients:

- ◆ *In the past 12 months has this patient used NSAIDs No for any condition?*
 - Short term use—< 3 months*
 - Long term use—> 3 months*
- ◆ *Over the past 12 months has the patient had (forced choice, highest level if multiple selected)*
 - Dyspepsia/indigestion?*
 - Reflux symptoms/heartburn?*
 - Ulcer (duodenal, peptic)?*
 - None of the above?*
- ◆ *Was the duration*
 - Days?*
 - Weeks?*
 - Months?*
- ◆ *How has it been treated? (multiple response allowed)*
 - No treatment*
 - Self-treated (OTC, quickeze etc.)*
 - Prescribed: *Antacids**
 - H₂ antagonists*
 - PPIs*
 - Triple therapy*

8.4 Results

Sample size was 3,569 patient encounters from 89 GPs.

Prevalence of use of NSAIDs

Almost one-quarter (24.0%; 95% CI: 21.4–26.5) of the 3,368 persons responding to this question reported using NSAIDs during the previous 12 months and the majority (70.1%) of these had used them for less than 3 months. NSAID use was most common in middle-aged respondents (32.1%) and decreased in the elderly to 27.5% (Figure 8.1).

Prevalence of UGI problems

The prevalence of UGI problems in patients attending Australian general practice was estimated as 30.8% (95% CI: 27.2–34.4), dyspepsia having the highest prevalence at 16.1% (95% CI: 13.3–19.0), followed by reflux (12.5% 95% CI: 10.5–14.5). Ulcers were far less prevalent, being reported by only 2.2% (95% CI: 1.3–3.1) of the sample.

There was no significant difference between males and females in the overall UGI rate, or in the relative reporting rates of each of the three types of UGI problem. The prevalence of UGI problems increased with age, to peak in patients aged 45–64 years (37.1%) and then decreased slightly in the older age groups (Figure 8.2).

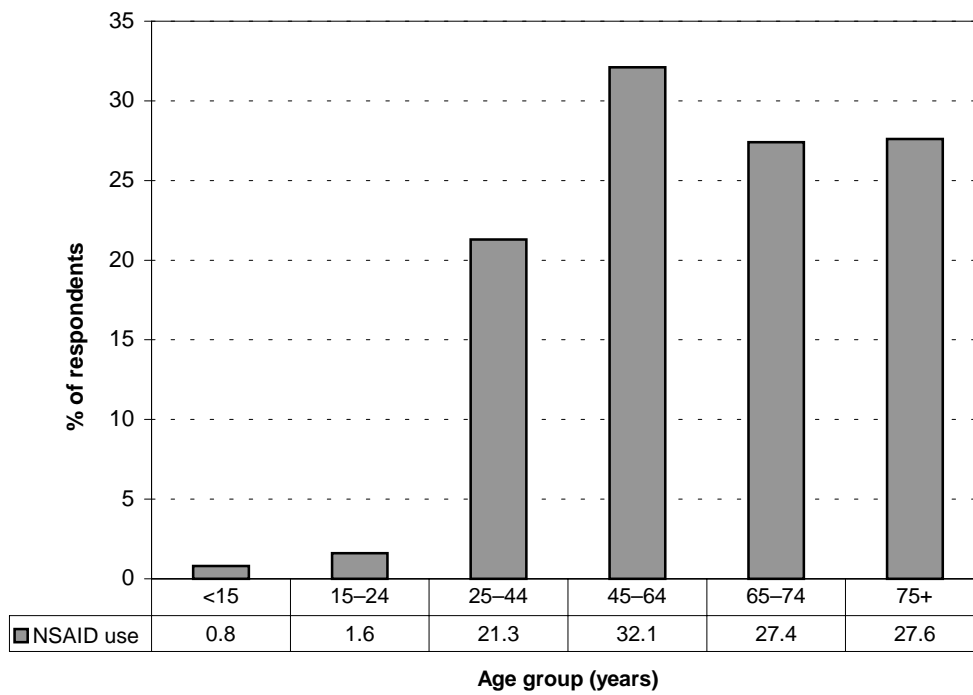


Figure 8.1: Age-specific rates of NSAID use in previous 12 months

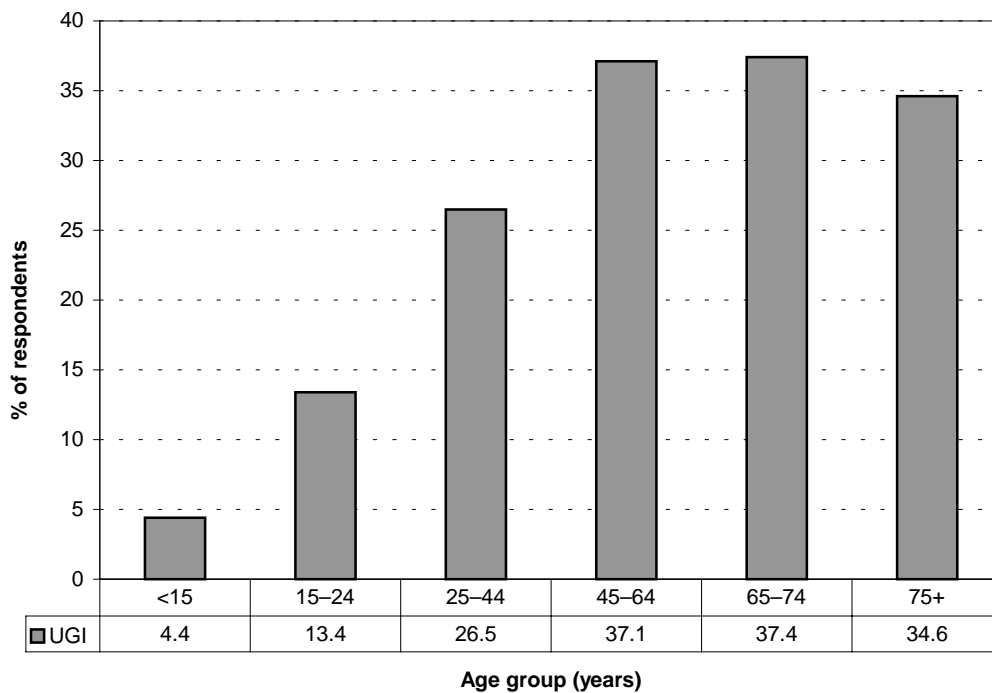


Figure 8.2: Age-specific rates of upper gastrointestinal problems in previous 12 months

Management of UGI problems

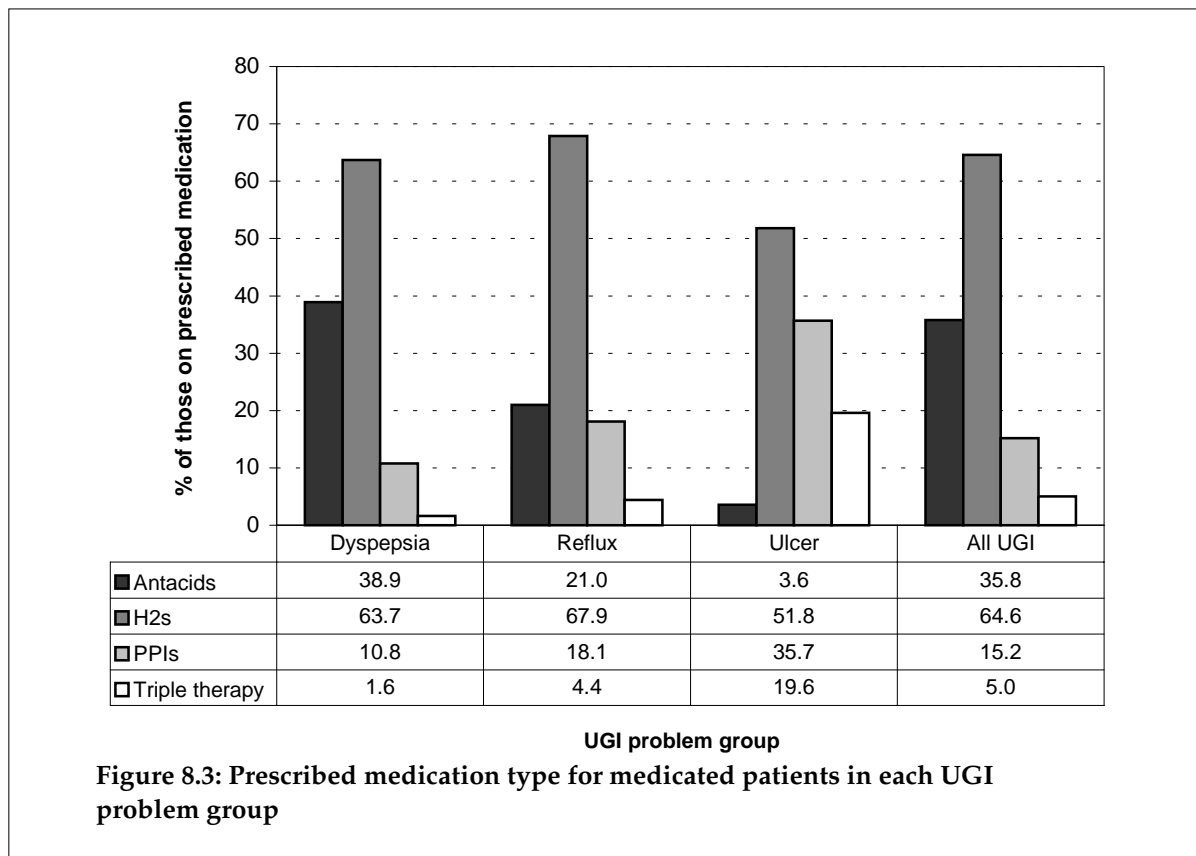
No treatment was being used by 17.8% of UGI sufferers, while 27.2% were self treating only. More than half (55.0%) were taking prescribed medication: 39.2% of those with dyspepsia; 68.8% of those with reflux and 94.9% of those with an ulcer (Table 8.1).

Table 8.1: UGI problem group by treatment type

Treatment type	Dyspepsia (%) (n=492)	Reflux (%) (n=394)	Ulcer (%) (n=59)	All UGI (%) (n=945)
No treatment	23.0	13.2	5.1	17.8
Self-treatment only	37.8	18.0	—	27.2
Prescribed medication (+/- self-treatment)	39.2	68.8	94.9	55.0

Note: Missing data removed

More than one-third of patients with a UGI problem were taking prescribed antacids, and almost two-thirds were on prescribed H2 antagonists. Prescribing of proton pump inhibitors was most likely in patients with ulcers, and then in those with reflux. Triple therapy was rarely being used by this group of patients (Figure 8.3).



Notes:

1. Abbreviations: H2s = H2 antagonist drug group; PPIs = proton pump inhibitors
2. Patients may be on more than one type of prescribed medication for their UGI problem.
3. Number of patients on prescribed medication: Dyspepsia n= 193; Reflux n= 271, Ulcer n= 56; All UGI n= 520

The relationship between NSAID use and UGI problems

There was a significant relationship between NSAID use in the previous 12 months and having a UGI problem. It was found that 41.8% of those who had used NSAIDs reported a UGI problem compared with 25.8% of those who had not used NSAIDs (Table 8.2). After adjusting for age, through multiple logistic regression, the odds ratio indicated a 1.49 increase ($p < .05$) in the likelihood of having a UGI condition for each unit increase in NSAID use (no NSAIDs; <3 months; >3 months) (results not shown). That is, people who had used NSAIDs for less than 3 months were 1.49 times more likely to report a UGI condition than those who had not used NSAIDs. Those who had used NSAIDs for longer than 3 months were 1.49 times more likely to have had a UGI condition than short term users.

Table 8.2 : NSAID use and upper gastrointestinal problems

NSAID USE	UGI problem	Number	% of n
No NSAIDs (n=2,560)	Any UGI problem	660	25.8
	Dyspepsia	343	13.4
	Reflux	272	10.6
	Ulcer	45	1.8
Yes NSAIDs (n=808)	Any UGI problem	338	41.8
	Dyspepsia	183	22.7
	Reflux	129	16.0
	Ulcer	26	3.2

8.5 Discussion

The results of this study suggest that almost one in three persons attending general practitioners in Australia have suffered UGI problems in the previous 12 months, whether or not they have sought medical attention for the problem. This is somewhat less than the Jones et al. (1990) estimate of the prevalence in adults in the United Kingdom (41%). However, the current study included all age groups, not only adults. The estimated prevalence of dyspepsia was far lower than that reported by Westbrook et al. (1998) and this may be due to differences in terminology or definition applied in the two studies.

Many of the patients who had suffered UGI problems were not taking prescribed medication for their condition, suggesting that many people in the community self-treat for their upper UGI symptoms, particularly 'dyspepsia'. The likelihood of use of prescribed medication was highest for peptic ulcer, followed by reflux oesophagitis and least likely for dyspepsia.

This study has given further support to the association between NSAID use and the occurrence of problems related to the upper gastrointestinal system, indicating that the likelihood of suffering from a UGI problem increases with short-term use of NSAIDs and increases again with long-term use. However, these data are cross-sectional in that information on use of NSAIDs and occurrence of UGI problems both relate to the previous twelve months. For example, no information was available as to whether the NSAID use preceded or followed the UGI problem.