

# Is your sample cupboard relevant to your practice?

**Sample medications represented 4% (A\$3.8 million) of the Australian general practice promotional budget of pharmaceutical companies in the second quarter of 2005.<sup>1</sup> In the United States, general practitioners have been shown to use sample medication in up to 20% of encounters both for commencing and for full treatment.<sup>2</sup> Given the USA does not have a universal subsidy for medications like Australia, sample use may be higher than Australian GPs operating with the Pharmaceutical Benefits Scheme. Australian GPs perceive benefits for samples as a trial run: to test patient tolerability, enhance patient satisfaction, and for those who cannot afford multiple trials of drugs.<sup>3</sup> Acceptance of samples by GPs is associated with preference for and rapid prescription of new drugs and positive attitudes toward pharmaceutical representatives.<sup>4</sup> Concerns with sample medications include prescribing medication that is not the GP's preferred choice owing to the limited range of samples available.<sup>5</sup> Other concerns include dispensing expired medication and wastage of medications.<sup>6</sup>**

These concerns stimulated quality improvement research about sample storage at the Inala Health Centre General Practice (IHCGP). Pharmaceutical sales representatives (PSRs) had been allowed to place any samples they chose into the sample cupboard after obtaining a signature from a GP. While medications were regularly reviewed regarding their expiry status, there was no policy regarding acceptance of samples.

The aims of this study were to audit the sample cupboard and assess its relevance to IHCGP with the objective of developing a new practice policy relating to sample medications.

## Methods

The IHCGP is situated in a socially disadvantaged area of Brisbane, Queensland. It is an academic general practice with seven (most working clinically part-time) GPs, three practice nurses, three regular reception staff, and a practice manager. Pharmaceutical sales representatives visited the centre and left samples in the

sample cupboard after detailing or at least obtaining a signature from a GP as required by Queensland poisons regulations. Nursing staff facilitated this process by opening the sample cupboard and finding an available doctor if necessary. Once opened, the PSRs had unsupervised access to the sample cupboard and could add or remove any samples as they wished. A survey was taken of GPs in the practice, asking them what medications should be in the sample cupboard and if PSRs should have access to the cupboard. Following this, an audit of the sample cupboard was undertaken. The frequency of sample cupboard items were compiled using Microsoft Excel 2003. An 'item' was defined as an individual tablet or capsule, tube of cream or metered dose inhaler.

## Results

General practitioners nominated 10 specific drugs and eight drug classes they would ideally like to see in the sample cupboard. A total of 4660 items were found in the sample cupboard. Twenty-six sample cupboard items (0.6%) corresponded to two of the 10 specific drugs nominated by GPs (*Table 1*). When considering specific drugs and drug classes together, 2219 items (47.7%) corresponded with the eight drug classes that GPs indicated should be in the cupboard (*Figure 1*). Of the 2219 items corresponding to GPs' preferences, 1554 items (70%) were antihypertensive medications (*Table 2*). There were no generic medications in the cupboard.

The total wholesale value of sample medications in the cupboard was calculated as \$3279. There were no expired medications in our cupboard.

Two GPs thought PSRs should have access to the drug cupboard and four did not. No evidence was found that PSRs removed any samples from the cupboard. General practitioners reported accessing the cupboard on average once or twice per week.

## Discussion

The current process in our practice of accepting samples passively as they are offered by PSRs has led to a situation where just over 50% of the medications

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in our sample cupboard were not on our GPs' 'wish lists'. Of GPs' preferences, there were no bronchodilators, benzodiazepines, corticosteroid creams, antihistamines, emergency drugs or antifungal creams. The analgesic and antidepressant classes of medications were nominated by GPs and represented 8.9% of sample cupboard

medications. Specific nominated medications within these classes were represented by only two tablets (0.04%) (*Table 1*). This indicates that GPs looking for analgesics or antidepressants were unlikely to find their first preference. Consequently, GPs in our practice may have used medications in these classes that were not their first preference

owing to sample availability. Proton pump inhibitors were nominated by GPs and they were represented by four different drugs making up 185 items (4%).

Anti-hypertensive medications were nominated by GPs and were well represented in the sample cupboard (34%). Evidence based guidelines recommend commencing hypertensive patients on a thiazide diuretic.<sup>7</sup> The thiazide-like drug, indapamide, 'NatriliX SR', was represented with 300 tablets (7%). By comparison, three choices were available for each of the more expensive angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor antagonists (ARA) groups (*Table 2*).

Cost effective prescribing could be facilitated if GPs controlled the layout of the cupboard placing first line, cost effective medications in prominent positions. This contrasts with our current process where unsupervised PSRs control the layout of medications of the sample cupboard.

The wholesale value of sample medications in our sample cupboard, \$3279, is consistent with other general practices in Queensland. Hall et al<sup>3</sup> found that the value of sample medications in six other practices across Queensland was a median \$4959 (\$2395–8709). It is likely that at least half our samples were not relevant to our general practice, potentially wasting over \$1600 worth of sample medications. The absence of expired medications in our cupboard is likely to be attributable to the pre-existing policy of clearly labelling samples with their expiry date. This compares favourably with other studied Queensland practices where the average percentage of expired sample packages was 3%.<sup>3</sup> The absence of generic medication in our cupboard compares unfavourably with other studied Queensland practices where the median number of generic sample packages was 10.5.<sup>3</sup>

The results of our study were fed back to practice staff and a policy of active sample acquisition has been adopted. The practice manager collects each doctor's preferred drug list of samples and then contacts the relevant PSRs to arrange delivery. The PSRs no longer have access to the sample cupboard

**Table 1. Specific medications requested by GPs**

Medication	No. of items in sample cupboard (% of total)
Ventolin	0 (0)
Paracetamol	0 (0)
Aspirin	0 (0)
Panadeine forte	2 (0.043)
Amoxycillin	0 (0)
Cephalexin	24 (0.52)
Penicillin V	0 (0)
Cipramil	0 (0)
Diazepam	0 (0)
Hydrocortisone cream	0 (0)
Total	26 (0.6)

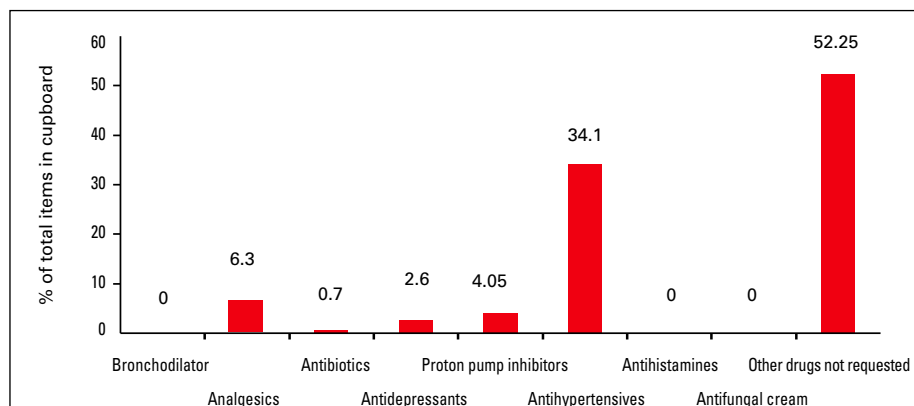


Figure 1. Medication classes requested by GPs

**Table 2. Contents of the sample cupboard by antihypertensive class**

Antihypertensive class	No. of items (% of antihypertensives)	No. of different drugs
Calcium channel blockers	256 (16.5)	3
ACE inhibitors	201 (12.9)	3
Angiotensin receptor antagonists (ARA)	87 (5.6)	3
Combination ACE/thiazide	275 (17.7)	3
Combination ARA/thiazide	375 (24.1)	5
Beta blockers	60 (3.9)	1
Thiazide diuretics	0 (0)	0
Indapamide	300 (19.3)	1
Total	1554 (100)	18

as preferred by the majority of doctors in our survey. We will continue to clearly label our sample medications with expiry dates as suggested by Lohiya et al.<sup>7</sup> The documentation and recording of sample dispensing by GPs was not a subject of investigation in this study but would be an important topic for future research. It would also be useful if the National Prescribing Service or The Royal Australian College of General Practitioners were to produce guidelines on the management of samples in general practice with specific reference to sample acquisition, expiry labelling, sample cupboard layout and the documentation and recording of sample dispensation. We expect the system changes in our practice will make the sample cupboard more relevant to our practice, reduce wastage of samples and improve the quality of our prescribing.

Conflict of interest: none declared.

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