

# Repeat dispensing by community pharmacists: advantages for patients and practitioners

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## SUMMARY

*Repeat prescribing is an appreciable chore for general practitioners (GPs), and often lacks rigorous clinical control. This paper reports on a pilot repeat dispensing system, which employed community pharmacists to streamline the process and provide clinical supervision. The system described operated within the current regulations, was popular, and worked well for patients on stable treatment regimes.*

*Keywords: community pharmaceutical services; repeat prescribing; personal medication records.*

## Introduction

IN the United Kingdom, commonly-used repeat prescribing systems often fail to ensure high quality care and are inefficient for both patients and practitioners.<sup>1,2</sup> One potential solution is for pharmacists to provide repeat dispensing services; however, this has proved difficult because of legal restrictions on instalment dispensing and the complexities of maintaining timely payments to pharmacists.<sup>3,4</sup>

This pilot project aimed to develop a streamlined system of repeat dispensing, operating within current regulations, which improved standards of care but did not financially penalize pharmacists.

## Method

A convenience sample of five medical/pharmacy practice pairs from Tayside was recruited. Although Scottish legislation allowed for instalment dispensing, the remuneration arrangements meant that any system had to operate using multiple prescriptions for pharmacists to receive their usual payments. In the final system, 16 GPs provided blocks of prescriptions for six months' medication, plus a Personal Medication Record (PMR) for each patient<sup>5</sup> (Figure 1). Scripts were stored by the specified community pharmacist, and dispensed at one- or two-month intervals without patients contacting their surgery. Treatment was reviewed, and further prescriptions provided after each six-month period.

The PMR included vital medical or drug history and details of prescribed treatment. It facilitated the release of monthly supplies from the pharmacist, who made a note of what had been

dispensed and could add 'free-text' comments to assist clinical review.

A stratified random sample of 156 adult patients receiving atenolol, thyroxine, allopurinol, or oral hypoglycaemics (since these require regular monitoring) were randomized to receive repeat dispensing ( $n = 80$ ) or their usual service ( $n = 76$ ). After one year, practices were free to expand the system as they wished; however, the resulting expansion also transferred many controls to repeat dispensing. Casenotes of the remaining 70 subjects and 36 controls not receiving repeat dispensing were reviewed to compare clinical markers and consultation patterns after two years.

Following the initial trial year, an evaluation assessed patient opinion of the new scheme using a postal questionnaire ( $n = 214$ ); views on the PMR were collected using a telephone survey ( $n = 91$ ), and professionals' opinions were gathered by interview ( $n = 16$ ).

## Results

Despite selective transfer towards repeat dispensing, these groups were not significantly different in age, sex, disease condition, or practice attended, but controls did receive more medicines (average 4.3 versus 3.2 regular preparations; [Mann-Whitney test]  $P = 0.002$ ; and 1.43 versus 0.83 as required therapies;  $P = 0.034$ ).

There were no significant changes in patients' clinical control, but inappropriate monitoring gaps were reduced. Defined as more than 12 months for hypertensives ( $n = 34$ ), and more than six months for diabetics ( $n = 26$ ), inappropriate gaps were detected for 3 in 41 cases versus 7 in 19 control subjects ( $\chi^2 [1] = 8.1$ ;  $P = 0.004$ ). (Those on allopurinol or thyroxine were excluded, as appropriate clinical monitoring could exceed the study period.) This did not reflect an increased consultation rate, as the mean annual study drug-related consultations (those with a relevant clinical measurement recorded) for these 41 case subjects fell from an average of 3.7 in the pre-study year to 2.2.

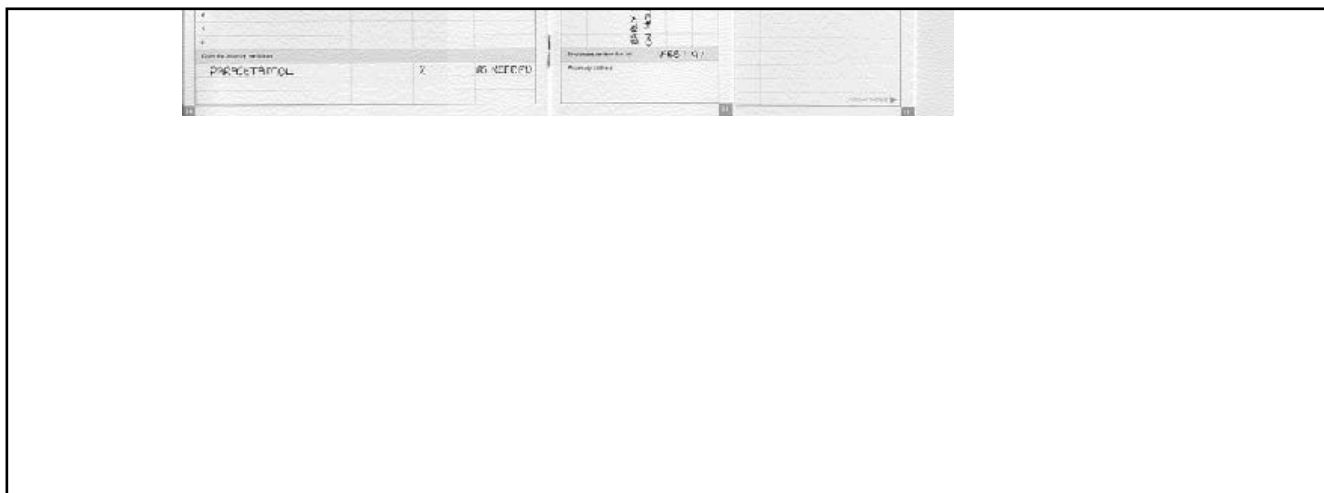
A questionnaire was sent during the second year to the 214 patients then receiving repeat dispensing, of which 166 (77.6%) were returned. One hundred and forty-seven (89.6%) patients preferred the new scheme; two (1.2%) preferred their previous system. Reported problems included forgetting the PMR, medicines being out of synchrony (some 28-, 30- or 56-day supplies), and the added complexity when treatment changed.

We telephoned 91 subjects who had received repeat dispensing services for an average of 18 months (range 1 to 39) and held their PMRs for 2.7 months (range 1 to 6). Ninety patients could locate their PMRs rapidly, with an average of 3.4 medicines listed (range 1 to 20). Eighty-six (95%) patients considered the medication details, including information on timing and dosage, to be correct, and 89 (98%) reported that every dispensing date was entered. Pharmacists had entered nine free-text comments during 234 patient months of observation, of which two had been discussed with the GP, resulting in one treatment change. Forty-one (45%) felt that repeat dispensing with a PMR had 'improved their medical care', 63 (70%) felt the system was 'appreciably better', and none felt it was worse.

The scheme expanded to include 560 patients after two years and 880 after three years. Generally, professionals supported the

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**Figure 1.** The personal medical record.

scheme, though the need for multiple prescriptions tempered enthusiasm considerably.

### Discussion

This pilot study focused on developing a repeat dispensing system that operated under existing regulations and remuneration arrangements. The majority of patients preferred the new system, clinical review was improved, and four out of five practices voluntarily expanded the system.

However, the evaluation contains many flaws and does not provide robust data on quality of care or workload. The selective transfer of control subjects receiving few therapies to repeat dispensing reflects practices' experiences: that it is best suited for patients making few changes to their medication.

Good communication was essential if clinical issues arose or medication changes had to be accommodated. We resolved this with a PMR, which, combined with the partial patient registration that repeat dispensing implied, assisted community pharmacists to provide enhanced care. The potential of this should be assessed.

Our use of medical/pharmacy practice pairs exploited close proximity and encouraged good working relationships at the trial sites. This could operate in an urban setting, but a widescale system would need to be introduced with considerable care to ensure that it was fully understood and ran smoothly.

### References

1. Taylor R. Repeat prescribing - still our Achilles' heel? *Br J Gen Pract* 1996; **46**: 640-641.
2. Zermansky A. Who controls repeats? *Br J Gen Pract* 1996; **46**: 643-648.
3. Joint Working Party on the future of the Community Pharmacy. *Pharmaceutical care - the future of community pharmacy*. London: HMSO, 1992.
4. *Report of the Royal Pharmaceutical Society of Great Britain*. London: RPSGB for the DoH and Pharmaceutical Profession, 1992.
5. Gilhooly ML, McGhee SM. Medical records: practicalities and principles of patient possession. *J Med Ethics* 1991; **17**(3): 138-143.

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