# Do general practitioners and community pharmacists want information on the reasons for drug therapy changes implemented by secondary care?

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#### SUMMARY

Background. The content of discharge prescriptions/summaries to improve communication about medication provided at discharge has been the subject of recent studies. To date, the authors are not aware of any literature that assesses the need for primary care health professionals to receive information on reasons for drug therapy changes incurred during hospital admission. Owing to increased emphasis on seamless care, patient education, and increased accountability for drug costs, general practitioners (GPs) and community pharmacists may consider the receipt of information on the reasons for drug therapy changes incurred during hospital admission to be an essential requirement.

**Aim.** To determine whether GPs and community pharmacists want, and receive, information on the reasons for drug therapy changes implemented by secondary care. The preferred method of acquiring this information is also investigated.

**Method.** A questionnaire was posted to all GPs and community pharmacists within the catchment area of Glasgow Royal Infirmary University NHS Trust. Data were collected between June 1995 and July 1995.

**Results.** Replies were received from 71 (64%) GPs and 33 (80%) community pharmacists. Of the respondents, 96% of GPs and 94% of community pharmacists would like information on one or more reason types for drug therapy changes, but the majority do not receive the desired information. Ninety per cent of GPs and 85% of community pharmacists seek this information to facilitate continuity of patient care. The preferred method of receiving the information is by postal delivery via a modified hospital discharge prescription.

**Conclusion.** The existing hospital discharge prescription requires modification to facilitate the completion of the reasons

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© British Journal of General Practice, 1997, 47, 563-566.

for drug therapy changes. The issue of patient-held cards requires consideration. These factors may facilitate continuity of patient care on hospital discharge.

Keywords: drug therapy; secondary health care; pharmacists; continuity of patient care.

#### Introduction

Patients are often discharged from hospital on drug therapy regimens that are dissimilar to those on admission. Changes in therapy during hospital admission can be caused by a variety of reasons; for example, alterations in disease state, increased drug efficacy, avoidance of drug side effects, patient compliance, formulary management, and local prescribing policies. Owing to the increased emphasis on seamless care, patient education, and increased accountability for drug costs, GPs and community pharmacists may consider the receipt of information on the reasons for drug therapy changes incurred during hospital admission to be an essential requirement.

At present, continuity of patient care after hospital discharge relies on effective communication between hospital doctors and the patient's GP.<sup>2</sup> In the Greater Glasgow Health Board area, GPs initially receive information on hospital discharge drug therapy via hospital discharge prescriptions. These prescriptions contain sections for information on drug names, dosages, and duration of therapy. Some trusts within the Board have developed prescriptions that contain blank sections where reasons for drug therapy changes and drug side effects experienced during admission can be written. However, these sections are unstructured and rarely completed. Thus, reasons for drug therapy changes are not always apparent and not routinely documented. Community pharmacists in Glasgow do not routinely receive discharge drug therapy information from hospital health care professionals.

The content of discharge prescriptions/summaries to improve communication about medication provided at discharge has been the subject of recent studies.<sup>2-6</sup> To date, the authors are not aware of any literature that assesses the need for primary care health professionals to receive information on the reasons for drug therapy changes incurred during hospital admission.

A survey was performed to establish whether the GPs and community pharmacists within the vicinity of a Glasgow Trust hospital wanted information on the reasons for medication changes and drug side effects incurred during hospital admission. The type and purpose of information desired and the preferred method of receiving the information were also determined.

## Methods

A self-completion questionnaire was designed in consultation with pharmacists and medical prescribers from both the hospital and community sectors. The questionnaire was piloted with three GPs and two community pharmacists. The revised questionnaire

was posted to the remaining 111 GPs and 41 community pharmacists within the vicinity of Glasgow Royal Infirmary University NHS Trust. A reminder was issued one month later. Data were analysed using a Microsoft Access database.

#### **Results**

Replies were received from 71 (64%) GPs and 33 (80%) community pharmacists.

Only 30% of the respondent GPs are satisfied with the information currently received from Glasgow Royal Infirmary University NHS Trust on patients' discharge drug therapy. The remainder are not satisfied (58%) or did not reply (12%).

Community pharmacists currently do not receive this information routinely from hospital health care professionals, although 78% wish to do so.

Of the respondents, information on one or more reasons for drug therapy changes is desired by 96% of GPs and 94% of community pharmacists. The type of information desired was similar for both GPs and community pharmacists (Figure 1).

Although GPs receive regular correspondence on patients' drug therapy from Glasgow Royal Infirmary, the reasons for changes are not routinely conveyed (Figure 2).

Reasons for drug therapy changes are required primarily to facilitate continuity of patient care and patient counselling (Table 1). Of the 17 GP practices that are fundholding, preparatory fundholding or primary care purchasing initiatives, 65% (11) desired information for financial considerations, compared with 36% of GPs overall. Other purposes for requiring reasons offered for drug therapy changes were to avoid the risks of adverse drug interactions, to eliminate errors in prescribing, and for educational purposes.

Ninety-three per cent of GPs wish to receive information on drug side effects and allergies experienced during the hospital admission of their patients, but 85% believe that they do not receive this information. The corresponding figures for community pharmacists are 67% and 97%.

The preferred methods of receiving information on the reasons for drug therapy changes and drug side effects are indicated in Tables 2 and 3.

The timing of information receipt was not addressed in this survey. However, 8% of GPs complained of time delays in receiving discharge prescriptions. As a result, suggestions for a combination of postal delivery and patient delivery were offered. One GP also suggested that patient-held medication cards educated the patients themselves that changes had taken place, as it was not uncommon for patients to revert to taking previous medication.

## **Discussion**

To date, little has been published in the medical literature on the opinions and satisfaction of GPs with present patient continuity of drug therapy at discharge.<sup>7</sup> The response rates in this survey indicate that GPs and community pharmacists consider details on discharge drug therapy to be an important issue. The results show that only 30% of respondent GPs are satisfied with the information they currently receive from Glasgow Royal Infirmary University NHS Trust regarding patients' discharge drug therapy. There could be a variety of reasons for this, but this study did not attempt to identify these.

The data illustrate that the majority of GPs and community pharmacists desire similar information on the reasons for drug therapy changes and adverse drug side effects incurred during hospital admission. This information is desired to facilitate the continuity of patient care and patient counselling. The majority of GPs and community pharmacists do not receive either type of information, despite the receipt of discharge prescriptions by GPs.

A crucial aspect of patient care across the primary/secondary interface is the continuity of patients' medication regimens.<sup>2</sup> Discharge summaries should provide GPs with core information about their patients' recent admission into hospital. In one study, when asked to rank 20 clinical items in order of importance, both GPs and hospital prescribers gave the details of drugs at discharge the highest ranking of one.<sup>4</sup> The apparent lack of receipt of information by GPs regarding the reasons for drug therapy changes and drug side effects experienced is of concern. Rationalization of drug regimens during hospital admission is thwarted if, on return home, patients resume previous drug regimens or GPs add or omit drugs.<sup>1,5,7</sup> If GPs are given information regarding the reasons for drug therapy changes, these results suggest that continuity of care will be facilitated.

Information on the reasons for drug therapy changes was felt to be important for financial consideration by only 12% of com-

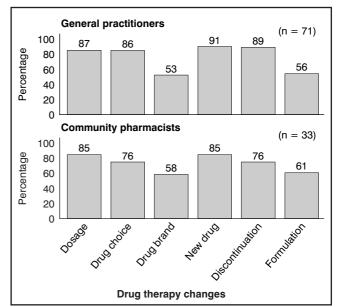


Figure 1. Information desired on reasons for drug therapy changes.

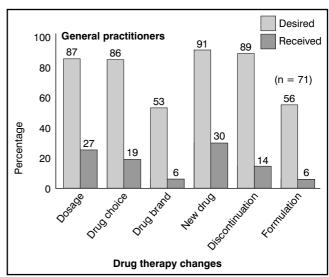


Figure 2. Information desired and received on reasons for drug therapy changes.

**Table 1.** Purpose for requiring information on the reasons for drug therapy changes.

General practitioners	Community pharmacists	
90%	85%	
84%	76%	
64%	70%	
36%	12%	
	90% 84% 64%	90% 85% 84% 76% 64% 70%

Table 2. Preferred format of delivery.

	General practitioners	Community pharmacists	
Hospital discharge letter	67%	-	
Hospital discharge prescription	64%	42%	
Patient-held medication card	27%	39%	
Customized separate form	19%	36%	
Hospital pharmacy care plan	-	36%	
Royal Pharmaceutical Society referral form	_	21%	

Table 3. Preferred method of delivery.

	General practitioners	Community pharmacists
Postal delivery	81%	60%
Electronic mail	19%	3%
Fax communication	51%	12%
Telephone	10%	12%
Patient delivery	39%	45%

munity pharmacists and 36% of GPs. However, the latter figure rose to 65% for GP practices that are fundholding, preparatory fundholding or primary care purchasing initiatives. This has future implications as the number of these practices increases, and as more community pharmacists collaborate with GPs on formulary management issues. § In addition, as 80% of all medicine costs are in primary care, 9 information to enable querying or altering of hospital prescribing for cost, as well as patient care issues, is becoming an increasingly important factor.

As a result of the above, consideration needs to be given for GPs and community pharmacists to receive information on the reasons for drug therapy changes. This may facilitate both continuity of care and financial control. Alteration of the design of the discharge prescription may facilitate the documentation of reasons for drug therapy changes and drug side effects. Receiving the information via discharge prescription was a close second preference to discharge letters. However, ensuring that the information is part of the discharge prescription rather than a discharge letter will enable GPs to receive the information before the issue of the first prescription after patient discharge. Postal communication is the preferred method of receiving this information at present. This may change in the future as more GP practices have access to fax machines and electronic mail and appropriate security measures are introduced.

Where the patient attends a regular pharmacy, a copy of the prescription (preferred format chosen) could also be sent to the community pharmacist. This will enable any drug-related problems identified to be resolved before the patient collects their prescription. To For patients not attending a regular pharmacy, the second choice of a patient-held card may be appropriate. Patient-held cards have the benefit of acting as a source of information for the GP if the patient requires their next medication supply before the discharge prescription arrives. In addition, the card may help to educate the patient of the changes that have

occurred with their medication<sup>7,12</sup> and can be used as a source of information for appropriate staff in social services.<sup>13</sup>

Owing to the findings of this study, a new discharge form has been designed and implemented in the general surgical wards at Glasgow Royal Infirmary. The form is being completed by hospital pharmacists and posted to GPs and community pharmacists. Evaluation of the additional information on the reasons for therapy changes received will take place within the next few months.

It has been suggested that one of the reasons for poor-quality discharge summaries is a mutual lack of understanding between hospital doctors and GPs of each other's need. Hospital pharmacists in the Greater Glasgow Health Board (GGHB) area do not routinely convey information on patients' drug therapy to community pharmacists. This study has highlighted the desire by primary health care professionals to receive information on the reasons for drug therapy changes and drug side effects from secondary care professionals. Systems to ensure that this information is conveyed may facilitate continuity of patient care. Lack of continuity wastes resources spent stabilizing patients on drugs. <sup>1</sup>

# References

- Cochrane RA, Mandal AR, Ledger-Scott M, Walker R. Changes in drug treatment after discharge from hospital in geriatric patients. BMJ 1992; 305: 694-696.
- Mottram DR, Slater S, West P. Hospital discharge correspondence how effective is it? Int J Pharm Pract 1994; 3: 24-26.
- Marks L. Seamless care or patchwork quilt? Discharging patients from acute hospital care. Research Report 17. London: King's Fund Institute, 1994.
- Solomon JK, Maxwell RB, Hopkins AP. Content of a discharge summary from a medical ward: views of general practitioners and hospital doctors. J R Coll Phys Lond 1995; 29: 307-310.
- Burns JMA, Sneddon I, Lovell M, McLean A, Martin BJ. Elderly patients and their medication: a post-discharge follow-up study. Age Ageing 1992; 21: 78-181.
- Bingham L. Communication breakdown. Care of the Elderly 1994;
  184.

- 7. Oborne A, Dodds L. Pharmacy care for medical patients at discharge: which way forward? *Pharm J* 1993; **251**: HS14-HS15.
- 8. Furber T. Prescription for improvement? *Pharm J* 1994; **252:** 879.
- Jackson C. Assess the effect of new drugs. *Pharmacy Pract* 1995; 5: 183.
- Cook H. Transfer of information between hospital and community pharmacy a feasibility study. *Pharm J* 1995; **254**: 736-737.
  Sandler DA, Heaton C, Garner ST, Mitchell JRA. Patients' and gen-
- Sandler DA, Heaton C, Garner ST, Mitchell JRA. Patients' and general practitioners' satisfaction with information given on discharge from hospital: audit of a new information card. BMJ 1989; 299: 1511-1513.
- 12. Oborne CA, Dodds LJ. The quality and quantity of drug-related information provided to hospital inpatients and effects on seamless care. *Pharm J* 1993; **251** (Suppl.): R5.
- Kempner N. Careless seams and community care. *Pharm J* 1993; 251: 164.

## Acknowledgements

The authors would like to acknowledge the assistance of Dr D McGhee, Dr A Dowers, Dr A E Bissell, Townhead Health Centre; Mrs K Thompson and Mrs M Byatt, Glasgow Royal Infirmary Pharmacy Practice Base, for piloting the questionnaire. Acknowledgements also go to Dr P V Knight, Glasgow Royal Infirmary, Dr P F Ryan, Glenbarr Surgery; Mrs C Wylie, Mr S Bryson and Mrs J Coote, Greater Glasgow Pharmacy Practice Unit, for their helpful comments.

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