Evaluation by Patients and Pharmacists of a Summary Form for Seamless Pharmaceutical Care

Dana L. Cole and Kathryn L. Slayter

INTRODUCTION

Pharmaceutical care has been described as the pharmacy profession's mission statement as it moves into the 21st century.[1] Although pharmaceutical care has generally been adopted in principle, many pharmacists still struggle to make it an integral part of their practice. Hospital pharmacists, as a professional group, have been given the most opportunity to develop a process to identify and solve drug-related problems (DRPs) and thus develop pharmacy care plans for patients. In the past few years, however, there has been a growing commitment to the practice of pharmaceutical care in the community as pharmacists gain recognition for cognitive services and patients continue to demand a higher level of care.[2]

Pharmaceutical care is a process whereby DRPs are identified and solved to achieve definite outcomes, but reductions in hospital stay often result in early discharge, which makes it increasingly difficult for hospital pharmacists to assess these outcomes.[1] The need to deal with DRPs according to their priority invariably means that some DRPs are not addressed at all because of time constraints. Community pharmacists are in an excellent position to follow up with patients after discharge and to ensure that the desired outcomes of pharmaceutical care are achieved.

Seamless pharmaceutical care can be described as the provision of pharmaceutical care irrespective of practice setting.[3] Working towards seamless pharmaceutical care is attractive for many reasons. One is the desire to capitalize on relationships already existing among health professions in the community. Another is that community pharmacists are in an ideal position to monitor patients and assess pharmacotherapeutic outcomes over a longer period. A third is that duplication of work can be avoided by the sharing of care plans between hospital and community pharmacists.[4] Yet another reason may be to help ensure that changes in therapy made in hospital are continued after discharge[5,6] (hospital pharmacists sometimes find that the family physician, who may be unaware of the reasons for a change in therapy, reinstitutes previous regimens).[5,7]

Of course, there are obvious barriers to providing seamless pharmaceutical care. For example, time constraints on the part of the pharmacist may be a problem. Confidentiality may be another barrier directly linked to the sharing of patient-specific information; however, confidential information may be shared among health professionals if patient consent is obtained. Lack of information, related to either a drug or the patient, is another concern voiced by community pharmacists,[3,5] although drug-related information can often be easily obtained with the help of regional drug information services. Finally, some community pharmacists may be less familiar with the pharmacotherapeutics of certain specialized areas, and, as a result, hospital pharmacists may need to act as consultants on these issues. Increasing continuing education for community pharmacists, specifically education that deals with practical clinical application, may help to overcome this barrier.

Cancer patients are at high risk for DRPs,[8] in part because many of the problems associated with chemotherapy occur after patients return to the

community. The sharing of knowledge and information among pharmacists becomes imperative in this setting because of the specialized nature of the drugs. This project, to assess a standard form intended to facilitate seamless pharmaceutical care, was conducted on a gynecological oncology floor. All of the patients had gynecological tumours, such as ovarian, cervical, and uterine cancers.

METHODS

This pilot project, which used a tool and process for seamless pharmaceutical care, was undertaken to evaluate the need for and usefulness of such a program in our hospital. Our goals were to assess the satisfaction of patients and community pharmacists, to assess whether DRPs were being addressed, and to identify weaknesses in the process. We assessed patient satisfaction by means of a telephone survey that attempted to first determine what level of care patients were already receiving from their pharmacists and then determine their opinion of the summary form that had been sent to their community pharmacists. We assessed pharmacist satisfaction by means of a survey sent by facsimile and followed up if necessary by telephone. As a secondary aspect of the project, we wanted to record the proportion of recommendations made by the pharmacy resident that were accepted by the medical team. Pharmacist clinical coverage of this floor had begun only 3 months before the project, and it was therefore desirable to gather additional information on the acceptance of recommendations made by pharmacists assigned to this service. We also wanted to estimate the pharmacist time that would be required to add a seamless care process.

All patients admitted to the Gynecological Oncology Service during a 4-week period (April 10 to May 7, 1996) were considered for inclusion in the study. The pharmacy resident (D.L.C.) assessed all patients, identifying those with potential or actual DRPs. A medication history was obtained from each patient, and counselling on chemotherapy and other medications was given. The study was then described to each patient, and she was asked to participate. Agreement to participate consisted of both verbal and written informed consent. A pharmaceutical care plan summary was completed if the patient signed the consent form. The summary included both resolved and unresolved DRPs to ensure that the community pharmacist would be aware of changes that had been made to the patient's therapy. The patient's community pharmacist was then contacted by telephone to explain the purpose of the form and to request his or her participation in the project. If the pharmacist agreed, the summary was sent by facsimile with a confidential cover sheet. To determine the potential increase in pharmacist time associated with

Table I. Responses to Survey of Community Pharmacists Concerning Pharmaceutical Care Plan Summary

Question	Response (% of respondents[a])
Was the summary received before patient arrived in store?	
Yes	94
No	6
Did you refer to the summary when reviewing patient data? *(Supplementary question: Why or why not?)*	
Yes	94
No	6
Did you require additional literature to be sent? (Supplementary question: If yes, please state items sent)	
Yes	12
No	88
Were potential or unresolved DRPs addressed?	
Yes	58
No	42
Length of form	
Too short	0
Too long	0
Appropriate	100
General impression of form	
Helpful to know a plan of action, important to have formal link with hospital, useful to know what information had been provided in hospital, appreciated care plan outlined	
What would you like added?	
Physician's name, creatinine clearance, birth date and home phone number of patient, financial information, allergy status	
What would you like omitted or altered?	
Nothing	
Would you like to receive this information regularly?	
Yes	100
No	0
How has this form assisted you in providing pharmaceutical care?	
Significantly	61
Somewhat	24
Not at all	12

DRP = drug-related problem.
[a] A total of 33 pharmacists responded.

Table II. Responses to Survey of Patients Concerning Pharmaceutical Care Plan Summary

Question	Response (% of respondents[a])
Did you expect your hospital pharmacist to be actively involved in your daily care when you were admitted to the hospital?	
Yes	5
No	95
How much involvement do you routinely have with your community pharmacist?[b]	
My pharmacist counsels me about every prescription I receive	
Always	24
Usually	19
Sometimes	14
Seldom	19
Never	25
My pharmacist answers any questions I might have about my prescriptions	
Always	76
Usually	14
Sometimes	0
Seldom	0
Never	10
How useful do you think this summary form was?	
Very useful and informative	57
Somewhat helpful	33
Not necessary	10
Bothersome	0
Did you think it was important to have care from your pharmacist during your stay at the hospital?	
Yes	95
No	5
If you were to be hospitalized again, would you want a pharmacist involved in your care?	
Yes	95
No	5

[a] A total of 21 patients responded.

[b] Those responding "never" indicated that they did not ask questions of their pharmacists.

the seamless care process, a record was kept of time spent on activities related to seamless care, as well as activities deemed related to pharmaceutical care.

The desired clinical outcomes for identified DRPs were evaluated in hospital when feasible. After the surveys were returned from the community pharmacists, the outcomes were further evaluated when possible. Desired outcomes were evaluated by the pharmacy resident (D.L.C.), the community pharmacist, the project supervisor (K.L.S.) and the patient, where appropriate. Outcomes were defined as achieved if the goals set by the pharmacist and patient were accomplished in full. If the goals were only partially met, for example, control of nausea was improved but not fully resolved, then the outcome was defined as partially achieved. Outcomes were defined as not achieved if the goals set by the pharmacist and the patient were not met.

Patients were also asked to complete a follow-up survey.

RESULTS

Pharmaceutical care was provided to 38 patients over the 4-week period, during which 211 DRPs were identified. The acceptance level for recommendations made in hospital to the patient care team was 93%; 6% of recommendations were not accepted, and 1% were accepted with changes.

Of the 38 patients eligible to participate in the seamless pharmaceutical care aspect of the study, 35 (92%) agreed to participate and 3 declined. Forty summaries were prepared, and 39 community pharmacists, 2 hospital pharmacists, and 1 home care nurse received summaries. In some instances, the patients asked that a summary be sent to more than one pharmacy, as they intended to fill prescriptions at a pharmacy close to the hospital and then return to their home town. It was considered appropriate to provide summaries to all pharmacists who had contact with the patient. These summaries were not necessarily identical. In one instance, a home care nurse was to be assisting the patient, and it was considered appropriate to give her a summary. Hospital pharmacists were involved in all instances in which the patient was to receive further treatment in the local community hospital and would be seen by that pharmacist on an outpatient basis.

Completion of the seamless pharmaceutical care process required, on average, 75 minutes per patient (range 25 to 240 minutes). Approximately 40 minutes was required for patient assessment and counselling and 35 minutes for completion of the summary and further communication with the community pharmacist.

Of the 41 pharmacists who received summaries, 33 (80%) responded to the survey (Table I). Of the 211 DRPs identified in hospital, 112 (53.1%) were considered evaluable in hospital, 78 (37.0%) were not evaluable because of discharge, and 21 (10.0%) were considered not evaluable at the time of the study. For those outcomes evaluable in hospital, the desired clinical outcomes had been fully or partially achieved in 91% of cases. For the 78 DRPs that were not evaluable because of discharge, the outcome of 45 (58%) was evaluated by the community pharmacists, and the

desired clinical outcomes were completely or partially achieved in 42 of these.

In the remainder of cases, the outcome was not evaluated or there was no response from the community pharmacist.

Twenty-one (60%) of the patients completed the follow-up survey (Table II).

DISCUSSION

Seamless care or continuity of care has been a topic of discussion in the medical and nursing literature for several years.[7-9] Recently, the pharmacy literature has followed suit, and it has become evident that all professions have embraced this concept as a necessary process in today's health care environment.[3-6]

This project used a written summary form to transfer the hospital pharmaceutical care plan to the community pharmacist. As has been documented in the nursing literature, community pharmacists are now more fully informed of their patients' medical conditions and special needs.[6,10] The results of this pilot project indicate that pharmacists appreciated being better informed, and patients were impressed with the level of care their pharmacists were able to provide. For example, patients were pleased that the community pharmacists were aware of the chemotherapy they had received and could advise them on how to best manage adverse effects.

The presence of a pharmacist on the gynecological oncology service made a significant contribution to the care of these patients. Acceptance rates for pharmacists' recommendations are reported to range from 82% to 96%.[11-14] The 93% acceptance rate in this project concurs with these results. For outcomes evaluable in hospital, clinical goals were fully or partially achieved in 91% of cases. Unfortunately, because of the short length of stay common in this patient population, 37.0% (78/211) of outcomes could not be evaluated because the patient had been discharged. This degree of loss to follow-up is identical with that reported in another study.[14] However, in our seamless care program, community pharmacists were able to evaluate more than half of DRPs not addressed in the hospital (45/78), and desired outcomes were achieved in most cases (42/45).

For the most part, the community pharmacists who participated were willing and eager to practice pharmaceutical care. Such enthusiasm was also demonstrated in a recent study by Wilson and Whelan.[2] Although one pharmacist stated that he or she was too busy to participate, many commented that finding the time to research DRPs was usually not possible and that they therefore appreciated having the DRPs and recommendations on the summary. Community pharmacists appeared more successful at addressing long-term care issues that could be discussed with the family physician over a period of time than at addressing acute care problems that needed to be dealt with immediately. Challenges such as shift changes, inaccessibility of the patient, and difficulty communicating with the family physicians were all identified as additional barriers.

Perhaps another example of time constraints was illustrated by the level of counselling that patients routinely received in the community. A disappointing 25% of patients stated that they were never counselled by their pharmacist, although 24% stated that they always received counselling. This figure is similar to the 30% counselling rate reported from a study conducted in Kansas City, Mo.[15] According to patient comments, pharmacists appeared to provide more counselling after they had received the pharmaceutical care summary. Perhaps the availability of this information saved the pharmacist time that could be channelled into counselling.

A lack of therapeutic knowledge has been identified as another challenge.[2] Pharmacists commented that they were often not comfortable interpreting laboratory data, particularly if the methods of reporting were different from those learned during their university training. This identifies a gap between the continuing education provided to community pharmacists and that given to hospital pharmacists. Whereas hospital pharmacists receive a great deal of education from their medical team and fellow pharmacists, particularly in a teaching hospital setting, community pharmacists may not have such opportunities. It appears that more work is needed to facilitate continuing education in the community setting.

Several limitations in this project open the door to additional research in the area of seamless care. One limitation was the relatively informal evaluation of pharmaceutical care outcomes by a single pharmacist in conjunction with the patient and the medical team. However, this method, rather than a formal evaluation in which each problem was assessed by a committee of health professionals, was chosen to reflect a real-life environment; evaluation by a committeee rarely occurs outside a research setting.

This project was completed by a pharmacy resident with limited experience in oncology. This may have increased the time required to complete patient assessments, identify and solve DRPs, and complete the

summary. Therefore, pharmacists more experienced in this practice setting might require less time on average to complete the seamless pharmaceutical care process for each patient.

This project did not use a control group and therefore no comparison could be made between care provided to patients with and without the pharmaceutical care summary. The intention of this project is not to suggest that community pharmacists would be unable to adequately follow patients without the summary. However, community pharmacists did comment that it is difficult to adequately monitor patients without knowledge of what has transpired in the hospital and that the summary had assisted them in providing pharmaceutical care.

Future research with a larger patient base and control groups would help to provide more objective evidence of the benefit of seamless care. Long-term follow-up with both patients and community pharmacists is needed to determine if time savings are achieved and if DRPs are less frequent as a result of increased monitoring. These challenges will need to be addressed before the profession routinely uses comprehensive seamless pharmaceutical care. This project established a tool and a process to provide the foundation for continuing research into a continuum of care for our patients.

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Dana L. Cole, BScPharm, PharmD, is a Clinical Pharmacy Specialist, Northern Interior Regional Health Board, Prince George Regional Hospital, Prince George, BC. At the time of writing, Dr. Cole was a Hospital Pharmacy Resident, Queen Elizabeth II Health Sciences Centre, Victoria General, Halifax, NS.

Kathryn L. Slayter, BScPharm, PharmD, is Clinical Coordinator, Pharmacy Department, Queen Elizabeth II Health Sciences Centre, Victoria General, and Honorary Assistant Professor, College of Pharmacy, Dalhousie University, Halifax, NS.

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Address correspondence to:

Dr. Dana Cole
Clinical Pharmacy Specialist
Pharmacy Department
Prince George Regional Hospital
2000 - 15th Avenue
Prince George BC
V2M 1S2
e-mail: dcole@pgrhosp.hnet.bc.ca