A Peer Review Quality Assurance Program in Drug Information

Michael Tierney, Louiselle Godbout and Carol Repchinsky

ABSTRACT

The development and implementation of a peer review quality assurance program for a drug information service is described. Eight drug information centres across Canada initially agreed to participate as peer reviewers. Critera were developed to select drug information requests that would qualify for the program. Peer review responses were compared to the centre's response by a panel of four drug information pharmacists. Thirteen of 14 requests sent to peer reviewers were returned and there was agreement between the conclusions and recommendations provided in the responses by our drug information centre and the peer review pharmacist in 11 cases. Peer reviewer pharmacists tended to prepare more in depth responses. This represents the first report of a peer review quality assurance program for a drug information service.

Key Words: *drug information, quality assurance, peer review*

RÉSUMÉ

Cet article décrit le développement et la mise en œuvre d'un programme d'assurance de la qualité effectué par des pairs pour un service d'informations pharmacothérapeutiques. Huit centres d'informations pharmacothérapeutiques à travers le pays ont accepté de participer en tant qu'évaluateurs. Des critères ont été développés afin de choisir les demandes d'informations pharmacothérapeutiques se qualifiant pour le programme. Les réponses des évaluateurs ont été comparées à celles du centre par une équipe composée de quatre pharmaciens travaillant dans un centre d'information. Treize des quatorze demandes transmises aux évaluateurs ont été retournées et il fut noté que dans 11 cas les conclusions et les recommendations des réponses de notre centre d'informations pharmacothérapeutiques correspondaient à celles données par les pharmaciens évaluateurs. Les pharmaciens évaluateurs avaient tendance à fournir des réponses plus approfondies. Ceci représente le premier rapport d'un programme d'assurance de la qualité effectuée par des pairs pour un service d'informations pharmacothérapeutiques.

Mots clés: *informations pharmacothérapeutiques, assurance de la qualité, évaluation effectuée par des pairs*

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INTRODUCTION

There has been much emphasis focused on the development of quality assurance programs within hospital pharmacy departments in the past several years. This is due, in part, to the inclusion of quality assurance in the Canadian Council on Hospital Accreditation standards of accreditation. However, there is also an increased awareness by practitioners of the importance and benefits of a well organized and objective quality assurance program.

Although drug information services are a well established compo-

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nent of hospital pharmacy practice, there have been relatively few reports in the literature on quality assurance programs in drug information.[1] Quality assurance of the question and answer service provided by a drug information service can be implemented in four ways:

1. Ensuring accurate and complete documentation of all questions received and responses provided;[2,3]
2. Conducting user satisfaction surveys;[4,5]
3. Subjecting individual questions and answers to external review by experts (e.g., physicians, pharmacists);
4. Subjecting individual questions and answers to peer review (i.e., other drug information pharmacists).

It is standard procedure in the majority of drug information centres to document all questions and responses. Although this ensures adherence to policy and procedures and enables the centre to perform retrospective audits, documentation alone makes it difficult to assess, and thereby assure, the quality of the service provided.

User satisfaction surveys of drug information services have been published.[4,5] Although these are useful in assessing if the user was satisfied with the nature of the response and the overall service provided, the user may not be able to assess if the response was complete, objective and accurate. This would require an independent review of the literature by a qualified individual. This may be done using an external review[6,7] but external reviewers may not utilize the processes and resources commonly used by drug information services.

Peer review by drug information specialists may provide a better measure of the quality of a question and answer service. To our knowledge there have been no published reports on a peer review quality assurance program for drug information. The following report outlines the development of and initial results with a peer review quality assurance program for a drug information service.

METHODS

The Drug Information Centre at our institution houses two separate services: one for a 530-bed university affiliated teaching hospital, and a regional service that has approximately 40 hospitals and 95 community pharmacies as subscribers. Drug information and hospital pharmacy residents are actively involved in the Centre's operation. The Centre handles approximately 450 requests monthly. Five percent of requests received by the Centre are randomly selected for an ongoing user satisfaction quality assurance program.

Prior to initiation of the peer review quality assurance program, a letter was sent to 10 drug information centres across Canada requesting their participation in our program. Eight of these centres agreed to participate by having their drug information pharmacist(s) provide a response to a drug information request previously done by our Centre. These pharmacists are referred to as "peer review pharmacists".

Questions and responses eligible for the program fulfilled two criteria:

1. They had also been chosen for the user satisfaction program;
2. They were one of the following types of questions: administration of drugs, therapeutics, adverse drug reactions, pharmaceutics, drug interactions, pharmacokinetics or drug use in pregnancy and lactation. Other types of questions (e.g., identification, availability) were excluded as they generally require minimal judgement on the part of the drug information pharmacist.

A selected question, including background information but excluding our response, was sent to a peer review pharmacist and a response was requested within four weeks. Peer review pharmacists were chosen on the basis of a predetermined rotation.

Initially two questions per month from each service were selected from questions meeting the above criteria. The final selection of questions was made by a drug information pharmacist who was not involved in questions dealt with by the specific service (regional or hospital). After two months the number of questions chosen was reduced to one per month from each service, so as not to over-burden and demotivate the peer review pharmacists.

After two months it became apparent that we were not providing the peer review pharmacists with sufficient background information. Subsequently, we provided as much background to the question as possible including the profession of the requestor and the reason for the request.

Peer review pharmacists responses to questions were compared to our response by the four drug information pharmacists who work in the Centre. The primary criteria for comparison were the conclusion and recommendations of the response (i.e., the essential information needed by the individual requesting the drug information). Secondary comparisons were made for auxiliary information found and references used. A comparison for each request was also made between the results

of the peer review program and the user satisfaction survey.

In the final step of the program, letters were sent to the peer review pharmacists advising them if their conclusion and recommendations were judged to be the same as ours, or if some information was found to be missing from their responses.

RESULTS

During the first five months of the program, 13 of 14 requests sent to peer review pharmacists were returned. Nine of the 13 questions dealt with "therapeutic" issues. There was a discrepancy in the response's conclusions and recommendations in two cases. In one case, the peer review pharmacist's response was incomplete and in the other case we believe the discrepancy was due to providing insufficient background information on the question to the peer review pharmacist. In seven cases, the peer review pharmacist provided more in depth background information pertinent to the response but in each case there was agreement in the conclusions and recommendations between their response and ours.

For example, for questions about drug use during pregnancy, the peer review pharmacist's response would typically provide a review of individual studies prior to a final recommendation and conclusion, whereas our response included just the recommendation and conclusion.

Responses from users were available for 10 of the questions and the user was satisfied with our response in eight of these. For the two questions in which the users were not satisfied, there was no discrepancy in the response given by our service and the peer review pharmacist.

In the past year the program has expanded and now includes 15 drug information centres across Canada. All centres are now involved in both submitting and receiving questions, with our centre acting as the co-ordinator.

DISCUSSION

To our knowledge, this is the first report describing the development and implementation of a peer review quality assurance program for a drug information service. A national network of interested drug information pharmacists serve as the peer reviewers for this program.

Response to the program by our peers has been exceptional. Only one request was not returned and this was because the drug information pharmacist at that site was on a leave of absence. We interpret the high response rate to be the result of a commitment by drug information pharmacists to quality assurance and to co-operation with their peers.

To date, there has been little discordance in the conclusions and recommendations of responses between ourselves and our peers. However, we have noted that our peers' responses tend to include a more in depth review of the literature relevant to the request. Possible reasons for this follow:

1. The reviewers were given a one-month deadline to return their response, thus enabling them to take longer than they ordinarily would for an actual drug information request;
2. The reviewers may have taken more care in responding to the request because they knew it was going to be scrutinized by their peers. In contrast, when we respond to a drug information request in our Centre, we do not know if that response will be subsequently subjected to peer review;
3. The reviewers are at a disadvantage in not being as familiar with the requestor. Consequently, they may compensate by providing as complete an answer as possible.

It was interesting to note that, for the two requests where the user was not satisfied with our response, there was agreement in the conclusions and recommendations between our response and our peer review pharmacist's response. Although the numbers are small, this supports our contention that the two quality assurance programs (user satisfaction and peer review) complement one another. Comprehensive quality assurance for a drug information service should incorporate both of these programs.

The implementation of the peer review quality assurance program has already produced some benefits to our service. We now emphasize more care in obtaining and documenting background information pertinent to a particular request. We have also reviewed our procedure for filing information to ensure that current information is placed in our files as soon as possible. We have not emphasized providing more in depth responses as we are satisfied with the recommendations and conclusions provided and feel that further investment of time to provide more in depth background would not be an efficient use of resources.

Our program can be criticized for possible limitations. The first is that we may not be objective in evaluating the agreement or disagreement between our response and the response provided by the reviewer. We have attempted to be as objective as possible by using a panel of four pharmacists to review the responses. Only one of the four would have been involved in any given request. As a quality assurance program is a time for introspection, it is appropriate to evaluate one's own performance.

A second limitation is the relatively small numbers of requests involved in the program to date. We limited the program to requests that involved judgement (e.g., therapeutics) rather than those that are more straight forward (e.g., availability). Also, we did not want to overwhelm our volunteer reviewers with too many requests. Finally, we are more interested in the development of a process that enables us to perform peer review quality assurance rather than the specific results. We are satisfied that the process used is feasible and have since expanded our peer review network.

Peer review quality assurance in drug information is most similar to review of drug information requests by a committee (e.g., physicians, pharmacists)[6,7] in that both utilize external expertise. A major difference is that committee review involves review of both the request and response whereas our peer review program requires the peer review pharmacist to independently respond to the drug information request without knowledge of the response provided by the drug information pharmacist who originally answered the request. Our results do not permit conclusions regarding the relative advantages and disadvantages of these two methods. However, we do feel that the peer review method is an objective, relevant method of quality assurance that has a high compliance rate.

In summary, this report has described the development and implementation of a viable peer review quality assurance program for a drug information centre. Future efforts will focus on improving the procedures used and developing a larger database of comparisons between our responses and the reviewers' responses.

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