Pharmacists’ recommendations to facilitate communication with patients and physicians

This chapter is based on an article published in the Pharmaceutisch Weekblad as Hordelopen bij pro-actieve farmaceutische patiëntenzorg. Skills and training lead to the finish. Hurdling in pro-active pharmaceutical care.

Ada G.G. Stuurman-Bieze, Anneke D. Booij, Willem O. de Boer, Carola Sonderen and Th (Dick) F.J. Tromp

Pharm Weekbl 2003;138:1129-34
**Introduction**

In The Netherlands pharmacies are equipped with computerized pharmacy information systems registering all prescriptions dispensed to individual patients. Prospective drug use evaluation (1-3) is daily pharmacy practice in Dutch community pharmacies. Besides this so-called ‘medication surveillance’ pharmacists generally instruct patients on how to use medication especially concerning first time prescription and they provide information about the new medicines (1,4,5).

When a major problem concerning a prescription occurs, the pharmacist will contact the prescribing physician to solve the problem. Pharmacists generally have regular meetings with the general practitioners (GPs) to discuss new medicines, drug-related problems and pharmacotherapy (academic detailing, called FTO [6,7]).

The so-called ‘medication review’ is more recently introduced as a retrospective method of drug use evaluation. Pharmacists review patients’ medication records to discuss the complete drug therapy with the patient or the prescribing physician (8).

All these activities are rooted in the Dutch good pharmacy practice standard (1).

In the IPMP study (Interventions on the principle of Pulmonary Medication Profiles) a new approach of pharmaceutical care is introduced. Community pharmacists provided pro-active pharmaceutical care based on medication reviews by tailored interventions to optimize the treatment and drug use of patients at risk of suboptimal drug therapy in pulmonary diseases. This approach calls for collaboration between pharmacists, patients and physicians.

During the IPMP study we surveyed and documented all pharmacists’ activities to investigate the pharmaceutical care interventions and to define barriers concerning the provision of pro-active pharmaceutical care. In the final educational meeting at the end of the study period experiences and considered or reported barriers were discussed and suggestions were given to improve the intervention strategy.

In this chapter we describe the results of the pharmacists’ surveys and the discussion meeting.
Methods

Participating pharmacists
In 24 pharmacies 27 community pharmacists participated in the IPMP study who had practical experience of 1 to 30 years (3 years on an average). Both genders were equally represented. They were located all over The Netherlands.

Pharmacists’ surveys

Daily pharmacy practice
In November 2000, before the start of the IPMP study, two questionnaires were sent to the participating pharmacists to assess the daily pharmacy practice and to analyse pharmaceutical care interventions generally provided to pulmonary patients. In December 2000 a third questionnaire was sent, which focused on the usual collaboration between the pharmacist and the GPs of whom the majority of prescriptions was dispensed in their pharmacy and on any recently organized FTO meeting concerning pulmonary diseases, guidelines (9,10) or medicines.

The pharmacists were asked to return the three questionnaires to the researchers before the end of the year 2000.

Review of drug use profiles
In the first educational meeting of the IPMP-study in February 2001 participating pharmacists were informed about the method of how patients with theoretically deviant pulmonary drug use were selected from their pharmacy database by the researchers. The review process of a drug use profile (DUP) concerning pulmonary medication was discussed. According to the IPMP study protocol recent DUPs of identified patients had to be reviewed by the pharmacists to assess whether patients’ drug use was deviant from the guidelines or that the patient probably received the recommended drug therapy at the time of the investigation. The result of this review process was an invitation to the patient with current deviant drug therapy for a consultation in the pharmacy to start the pro-active pharmaceutical care intervention. A manual with complete background information for this specific medication review was distributed.

To validate the DUP review process the judgements of the participants were investigated. An inquiry was arranged in such a way that all pharmacists reviewed the same medication profiles. The participating pharmacists sent in over 40 typical DUPs of selected patients of which
seven were selected by the researchers to represent the whole range of the DUPs as presented. After the first month of the study the investigators sent questionnaires with these seven DUPs to all participating pharmacies. They were requested to send their findings within 15 days.

*The IPMP intervention*

In four other educational meetings during the IPMP study pharmacists were informed about all the steps in the IPMP intervention strategy. The IPMP intervention started in April 2001. The consultation and the six special pharmaceutical care modules are described in chapter 2, while the results of the pharmaceutical care interventions are described in chapter 4.

According to the study protocol pharmacists informed the researchers every three months about the progress of the patients’ interventions, the provided pharmaceutical care modules. They also reported their activities to monitor patients’ drug treatment and the refill rate of the prescriptions. Based on their professional judgement, these medication reviews led to further provided and documented interventions.

In August 2001 questionnaires (shown in appendix 6 of the thesis) were sent to the participating pharmacists to investigate their experiences with the provided pharmaceutical care interventions, the possible problems, limitations or successes and their satisfaction with the IPMP intervention strategy.

*Discussion meeting*

At the end of the study period, in April 2002, a discussion meeting was organized to analyse all reported problems and limitations in providing interventions to pulmonary patients and in communicating with patients and physicians. To structure the discussion the researchers combined problems and limitations mentioned by the pharmacists and found in the literature (4,11-13) into nine barriers on patient, physician or pharmacist level, as shown in Table 1.

The discussion led to formulated ‘hurdles’ for provision of pro-active pharmaceutical care and tailored interventions. Solutions to these hurdles were considered and discussed.
Table 1  Possible barriers for provision of the IPMP intervention as basis for discussion

<table>
<thead>
<tr>
<th>Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At patient level</strong></td>
</tr>
<tr>
<td>Patients are difficult to attain</td>
</tr>
<tr>
<td>Patients have no awareness of the value of pharmaceutical care services</td>
</tr>
<tr>
<td>Patients ignorant about medication and disease do not accept the invitation</td>
</tr>
<tr>
<td><strong>At physician level</strong></td>
</tr>
<tr>
<td>Repeat prescriptions without a personal contact with the physician</td>
</tr>
<tr>
<td>Physician considers the pharmacist not equal in value</td>
</tr>
<tr>
<td>Pharmacists have no access to medical data</td>
</tr>
<tr>
<td><strong>At pharmacy level</strong></td>
</tr>
<tr>
<td>Insufficient implementation of pharmaceutical care in daily pharmacy practice</td>
</tr>
<tr>
<td>Lack of self-confidence</td>
</tr>
<tr>
<td>Pharmaceutical care can only be care of the patients’ medication use</td>
</tr>
</tbody>
</table>

Results

Pharmacists’ surveys

Daily pharmacy practice
Pharmacists of all 24 participating pharmacies completed all three questionnaires. They reported that their pharmacies had computerized pharmacy information systems registering all patients’ prescriptions. Patients’ medication records were kept for at least six years. All pharmacists performed prospective drug use evaluation prior to dispensing. Pharmacists and their assistant pharmacists gave inhaler instruction to their patients and provided drug information on a regular basis. Pharmacies were equipped with separate rooms for these patient consultations.

All but one pharmacist had regular meetings with GPs (FTO). Pulmonary medication and guidelines have been on the agendas of the FTOs of 50% of the participating pharmacists. The pharmacists were familiar with reviewing drug use profiles based on patients’ medication records (DUPs) and with discussing drug use with the patient and with the prescribing...
The quantitative results of the communication part of this survey are shown in Table 2.

**Table 2**  
*Pharmacists’ survey about communication with patients and general practitioners (GPs) in daily pharmacy practice before the start of the IPMP interventions*

<table>
<thead>
<tr>
<th>Description</th>
<th>% of pharmacists in 24 participating pharmacies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Communication with patients</strong></td>
<td></td>
</tr>
<tr>
<td>Inhaler instruction at first time prescription</td>
<td>100 0 0</td>
</tr>
<tr>
<td>Inhaler instruction structured by a protocol</td>
<td>54 8 38</td>
</tr>
<tr>
<td>Standard evaluation of inhaler instruction with the patient after a few days by telephone</td>
<td>0 75 25</td>
</tr>
<tr>
<td>Check of inhaler skills on later occasions</td>
<td>13 4 83</td>
</tr>
<tr>
<td>Information about medicines at first time prescription</td>
<td>100 0 0</td>
</tr>
<tr>
<td>Consultations about medication (demand and need)</td>
<td>83 0 17</td>
</tr>
<tr>
<td>Medication review on regular basis (DUP)</td>
<td>96 0 4</td>
</tr>
<tr>
<td>Consultation with a patient as a consequence of medication review</td>
<td>75 0 25</td>
</tr>
<tr>
<td><strong>Communication with GPs</strong></td>
<td></td>
</tr>
<tr>
<td>Daily contacts with GPs</td>
<td>96 4 0</td>
</tr>
<tr>
<td>Participant in regular meetings (FTO, 6 times a year)</td>
<td>96 0 4</td>
</tr>
<tr>
<td>Dutch pulmonary guidelines have been discussed recently in the FTO</td>
<td>50 0 50</td>
</tr>
<tr>
<td>Compulsing prescription agreements made in FTO</td>
<td>42 8 50</td>
</tr>
</tbody>
</table>

*Review of drug use profiles*  
In the validation survey of the DUP reviewing process 22 out of 24 questionnaires were completed. By reviewing these medication profiles 22 pharmacists had the same opinion about invitation of such a patient in 149 out of 154 (22 x 7) cases. In the five other cases one out of the 22 pharmacists saw no reason to invite the patient for a consultation.
The IPMP intervention

The questionnaire about their experiences with the IPMP intervention strategy was completed by 24 out of the 27 participating pharmacists. At the moment of the survey all pharmacists were experienced with the tailored pharmaceutical care intervention strategy and they had counselled at least four patients each. The quantitative results of the survey concerning the pharmacists’ satisfaction are shown in Table 6 of chapter 4.

Fourteen pharmacists reported that they had been worried to start the consultations mostly because they were afraid of domain problems with GPs or because of a presumed lack of their knowledge about pulmonary diseases. Now they were generally satisfied with the patients’ consultations and the provided pharmaceutical care interventions. They could use their comprehensive pharmaceutical knowledge in the consultations and they thought that these consultations should be daily practice although it took up much time.

Pharmacists contacted physicians during the study to make a suggestion to improve the drug use. Most of these contacts were valued positively, only a few were frustrating.

Some patients had not accepted the invitation of the pharmacist but the most important barrier mentioned was to contact a patient. As a result of the invitation letter, only a few invited patients made an appointment themselves. In all other cases the pharmacist phoned the patient. Although the study period should last for at least another eight months it was the opinion of the participating pharmacists that they would not be able to reach each patient by mail or by phone. Pharmacists were more disappointed about patients they could not reach compared with those who did not accept the invitation.

The majority of the pharmacists had the opinion that patients who did not respond to the invitation were responsible themselves. Nevertheless according to Dutch practice, each pharmacist intended to contact the patient’s physician during the study period in case his or her drug use was still deviant compared to the guidelines.

Discussion meeting

Figure 1 shows the scheme of the IPMP study from the pharmacists’ point of view. The vertical axis describes the ideal situation, the horizontals are the possible problems mentioned.
Figure 1  Scheme of the IPMP study from the pharmacists’ point of view

Agreement upon standard practice

Identify patient

Send invitation letter

Patient does not respond

Patient does not accept the invitation

Patient does respond

Repeat invitation letter

Pharmacist's responsibility to non-respondents

Support patient

Patient's non-adherence to recommendations

Patient and physician are satisfied with pharmacist's support

Physician does not appreciate the pharmacist's support

Decide action to non-adherent patients

Implementation in daily practice

Decide action to non-cooperative physician
Twenty-one pharmacists representing 18 involved pharmacies participated in the final discussion meeting. As a result of the discussion about the defined barriers (Table 1) four major ‘hurdles’ for collaboration between patients, physicians and pharmacists, which were considered as important obstacles for provision of pro-active pharmaceutical care and tailored interventions could be formulated:

1. Patients did not accept or respond to the invitation of the pharmacist.
2. Physicians did not accept or respond to the suggestion of the pharmacist to change the patient’s drug treatment.
3. Physicians and pharmacists did not agree upon the treatment according to the pulmonary guidelines concerning a specific patient.
4. Patients did not adhere the changed treatment or pharmacists’ advice.

There were large differences in the individual pharmacist’s experiences concerning the formulated hurdles. But all knew individual examples.

Identified recommendations to the formulated hurdles made by the pharmacists in the discussion meeting were:
1. To increase patients’ participation
2. To improve co-operation with physicians
3. To achieve consensus about optimal pharmacotherapy
4. To increase patient adherence to medication changes

*Increased patients’ participation*

In the IPMP study pharmacists invited patients by a very neutral invitation letter. Patients might be better stimulated to contact the pharmacist if the reason for the invitation (i.e. risks of drug used deviant to Dutch pulmonary guidelines) was mentioned in the letter.

To increase the attainability of patients who could not be reached by phone they might be labelled in the pharmacy computer to be contacted when they would visit the pharmacy.

Besides, patients who have no awareness of the value of the pharmaceutical care services have no expectations of a consultation with the pharmacist. Pharmacists have to demonstrate and expand their patient oriented capacities in daily practice, which probably will be a long lasting process.
Improved co-operation with physicians
Just as mentioned in the patients' part not all physicians might be familiar with the counselling services of the pharmacists.

Pharmacists have to market their knowledge about pharmacotherapy and their skills to review patients’ medication records to become an equal colleague in health care. On the other hand the general opinion was that a pharmacist providing pharmaceutical care cannot be dependent on a physician’s permission to do so.

Consensus about optimal pharmacotherapy
To carry out the IPMP study or other patient counselling about their medication a consensus between pharmacists and physicians about optimal pharmacotherapy in pulmonary diseases is required. In a FTO meeting, for instance, agreements can be made. It may always be possible that the treatment of an individual patient differs from the standard therapy. But the patient’s physician will inform the pharmacist about his reason not to adopt a suggestion for a treatment change. Pharmacists have to document this result in the patient’s electronic dossier (EPD).

Increased patient adherence to medication changes
Evaluating all results of the first consultation, the pharmacist might conclude that the patient’s pharmacotherapy was not optimal. By informing and educating this patient extensively the suggestion to the patient’s physician for a treatment change was generally agreed upon. Pharmacists as well as patients made these suggestions to the physician during the study period. Sometimes the pharmacist should know more about a patient than only the patient’s drug use to support him. But no participant had the opinion his or her competence was exceeded.

The follow-up period after the intervention appeared to be very useful to monitor patient’s drug use. In case the patient did not adhere to the new treatment, a new intervention can be started or the patient’s physician can be contacted.

Discussion
The results of the pharmacists’ surveys before the start of the study indicated that the participating pharmacists had implemented the good pharmacy practice standard into practice and appeared to be familiar and experienced with pharmaceutical care interventions to pulmonary patients. The reported situation that pharmacists had contacts with GPs on a regular
basis, facilitated later suggestions for a treatment change concerning an individual patient, which was intended in the IPMP intervention strategy. The validation survey indicated that pharmacists were concordant in their methods to review patients’ medication.

In the satisfaction survey pharmacists were satisfied with the tailored pharmaceutical care intervention strategy and with the obtained results. The consultations with patients and the contacts with physicians were usually pleasant and professional. Only in a few cases pharmacists were aware of domain problems with physicians.

The five educational meetings and the support during the study period resulted in well-implemented intervention and documentation procedures, which could be assessed by the researchers in the periodical reports of all participants.

The participating pharmacists were experienced in providing pharmaceutical care. Therefore they did not mention the often reported barriers to provide pharmaceutical care such as lack of time, money, motivation and knowledge or patients’ privacy legislation. Their principal barrier was the attainability of patients. One presumed reason could be that the patients involved in the IPMP study were relatively young and were generally occupied outdoors during pharmacy opening hours. Besides, the accessibility of mobile phone numbers appeared to be limited. Another reason could be that the patients were feeling well and had no demand for a consultation about their medication although there was a need as indicated by the DUP review.

But the pharmacists were very inventive in contacting their patients and in increasing the number of intervened patients. Otherwise they contacted the patient’s physician in case his or her drug use was still deviant compared with the guidelines.

**Limitations**
The barriers and hurdles are presented as qualitative data. It would be difficult to express the barriers in exact numbers because all surveys were done during the intervention period. The recommendations or solutions reflected in the discussion might have improved the process.
A second limitation for medication review and patient counselling is the fact that pharmacists generally have no access to medical data and the patient’s diagnosis. But ultimately this fact did not appear to be a problem for improving the patient’s treatment.

**Conclusions of the participating pharmacists**

Pharmacists were satisfied with the pharmaceutical care strategy and the provided interventions and they wish to make them daily pharmacy practice.

To implement the intervention strategy clear and plain protocols should be developed.

Searches in the pharmacy database to identify patients at risk of suboptimal drug use were an appreciated start of pharmaceutical care and should be available on a regular basis.

By expanding pharmaceutical care interventions pharmacists will market their patient oriented capacities to patients and physicians.

**References**


