

Initial phase of chronic medication use; patients' reasons for discontinuation

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Aim

The aim of this study was to gain more insight into patients' reasons for discontinuing chronic medication.

Methods

Electronic medication overviews recorded by a pharmacy were analysed with respect to patients' return behaviour during 3 months following their first prescription. Patients who did not return in time were interviewed by telephone to find out their reasons for either returning too late or not returning at all to the pharmacy to collect their repeat medication.

Results

Of 232 first-time chronic medication prescriptions, 132 were not collected at all (46.1%) or too late (11%). These prescriptions involved 121 patients, 113 (93.4%) of whom participated in the telephone interview. Twenty patients returned too late to collect their repeat prescriptions, largely because they had forgotten to take their medication according to schedule ($n = 13$). Ninety-three patients did not return to the pharmacy at all because of side-effects (24.5%), inefficacy (16.4%), medication not intended for chronic use (15.3%) and absence of need for continued use (14.3%).

Conclusions

About 50% of patients who have been prescribed chronic medication for the first time stop using their drugs within a matter of months. Perceived drug side-effects, drug ineffectiveness and personal considerations related to use and a lack of need of treatment were the main reasons for discontinuing chronic drug therapy. This kind of noncompliance may result in an increased health risk as well as constituting a waste of a large amount of money. Adequate patient counselling and shared decision-making between doctors and patients are needed to prevent the unnecessary cessation of chronic drug therapy.

Introduction

Compliance is an important factor contributing to the efficacy of drug treatment. More than 50% of patients, however, are not compliant in their use of drugs [1–3]. Assuming that drugs have been prescribed correctly, noncompliance may substantially affect the efficacy of treatment or even enhance the risk of side-effects. More-

over, noncompliance interferes with correct assessment of the efficacy of treatment [3, 4].

A recent survey in the Netherlands showed that 50–70% of patients discontinue the use of chronic medication within 1 year after initiation [5]. The present study aimed at obtaining more insight into patients' decisions to discontinue chronic drug treatment.

Methods

Setting

The patients were the registered clients of a community pharmacy in Amstelveen (Amsterdam suburb). From May to July 2002 we monitored whether and when patients returned to the pharmacy to collect follow-up medication during the 3-month period following an initial prescription of chronic medication.

Data collection

Patient medication records in the pharmacy administration and information system were searched for patients with a first prescription of chronic medication. The day that the patient should collect follow-up medication was calculated by using the prescribed dosage and the number of drug units. This was matched with the day of the actual supply. Patient return behaviour was classified as compliant or noncompliant according to the definitions listed in Box 1. Supplying a different drug, but which had a similar working mechanism (first three characters of ATC code), was considered to be a valid repeat prescription.

As hay fever was a disorder that occurred frequently during the study period, resulting in a high incidence of short-term drug prescriptions, respiratory drugs were excluded from the analysis. The supply of drugs with the instruction 'to be used if necessary' or 'incidentally' on the label was also excluded.

Within 6 months following their initial prescription, patients who did not return to the pharmacy or who returned too late were asked to participate in the study by telephone. After obtaining their consent, we asked them what the reason was for not returning to collect their repeat prescriptions.

Data analysis

Data were evaluated in SPSS 10.0 (SPSS Inc., Chicago, IL, USA).

Box 1

Definitions

<i>First prescription:</i>	Drug supplied that had not been dispensed during the past half-year
<i>Chronic medication:</i>	Drugs that have to be taken continuously
<i>Compliance:</i>	Patients return to collect repeat medication on time (<7 days too late)
<i>Noncompliance:</i>	Patients return to collect medication too late (≥7 days too late), or not at all

Results

First prescriptions and collection of repeat prescriptions

A total of 232 chronic medication prescriptions were found. Table 1 lists the ATC codes of these prescriptions. Of the prescriptions, 46% were for cardiovascular drugs. Of the repeat prescriptions, 43.1% were collected on time (compliance), 11.0% were collected too late and 45.9% were not collected at all.

Reasons for returning too late or not returning at all

Repeat prescriptions that were not collected on time ($n = 132$) were prescribed for 121 patients. We were able to interview 113 (93.4%) of these patients by telephone. Of the responders, 64.6% were female, 56.6% were in the age group 35–69 years and in 58.4% of cases the medication was prescribed by the general practitioner.

Most of the patients who did not collect their follow-up medication on time ($n = 13/20$) stated that they had forgotten to collect it at the right time. Five patients reported having temporarily stopped using their medication.

Reasons related to both drug and disease were given for not collecting the repeat prescriptions (Table 2). Side-effects or concern about side-effects were reported by about 25% of 93 patients. Ineffectiveness was also an important reason for stopping (16.4%). Nearly 70% of patients who did not return claimed that they had discussed this decision with their physician.

Discussion

In accordance with data in the literature, about 50% of the patients to whom long-term drug therapy had been prescribed ceased using their drugs [1–3].

Table 1

Return behaviour of patients per ATC category ($n = 232$)

Drug category	Patient returns			Total
	On time	Too late	Not	
A10 (antidiabetics)	4	1	0	5
B01AC (antithrombotics)	11	4	7	22
C01-C10 (cardiovascular)	51	11	45	107
G03C (oestrogens)	3	2	9	14
H03 (antithyroid drugs)	5	2	5	12
M05 (bisphosphonates)	2	2	2	6
N03 (antiepileptics)	5	3	11	19
N06A (antidepressants)	16	0	18	34
N04/N05/N06B (other psychoactive drugs)	2	0	6	8
S01E (antiglaucoma drugs)	1	0	4	5
Total	100	25	107	232

Table 2

Patients' reasons for not collecting a repeat prescription
(*n* = 93)

Reason for not collecting a repeat prescription	<i>n</i> (%)
(Concern about) side-effects	21 (21.4)
Inefficacy of the drug	13 (13.3)
Both inefficacy and side-effects	3 (3.1)
Drug was no longer necessary	13 (13.3)
Drug was not intended for chronic use	15 (15.3)
Advice of prescriber	8 (8.2)
Drug was not necessary according to the patient	6 (6.1)
Other reasons	14 (12.9)

The reasons most frequently reported for the early cessation of chronic medication are perceived ineffectiveness, side-effects and concern about possible side-effects. In other studies similar results were found among the users of antihypertensive drugs, lipid-lowering drugs, antidepressants and migraine drugs [6–10].

Many chronically used drugs are prescribed prophylactically, in the absence of symptoms (e.g. antithrombotic and lipid-lowering drugs, antihypertensives), whereas other drugs actually take time to become therapeutically active (e.g. antidepressants). It is therefore likely that the majority of patients who decide to use their medication only for a limited period of time, or who stop taking their medication, do so on the basis of a lack of information. More specifically, these patients may not have been adequately informed about the need for and consequences of chronic drug treatment [11].

In addition, patients may have received inadequate information about the side-effects that can be expected to occur. Furthermore, side-effects appearing at the start of treatment may disappear after a longer period of use. Irrespective of the reason why, it is clear that in many cases cessation of drug treatment on the patients' own initiative is not the best treatment option and represents a waste of (future) efforts and resources.

The response of patients willing to participate in the study, over 90%, was high. This might be due to the fact that all the patients are registered clients and therefore visit the same pharmacy more or less frequently and are familiar with its staff and procedures. The influence of nonresponders was therefore low. However, the tendency of the respondents to give socially desirable answers may have influenced the results. For obvious reasons, patients may have told the investigators that they had discussed their decision not to use their medication with their specialist or general practitioner, while

this was not in fact the case. The actual situation might therefore be even worse.

Another limitation is that the patients of only one pharmacy were included. In addition, the disease and its symptoms, as well as the objectives of the physician, have not been taken into account. Because of the limited number of patients, it was not possible to investigate a possible relationship between patients' return behaviour and various drug categories.

In conclusion, patients discontinue chronic medication frequently because of side-effects, perceived ineffectiveness, and personal considerations related to use and (the lack of) need of treatment.

Physicians should inform their patients about the drug(s) they prescribe, especially with respect to the therapeutic objective and the consequences of treatment, thereby achieving shared decision-making [11, 12]. Pharmacists should clearly explain to patients how to use their drugs and guide them through initial periods of therapeutic inactivity and transient or possibly avoidable side-effects.

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