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Consumer Adverse Drug Reaction Reporting
A New Step in Pharmacovigilance?

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Abstract

The direct reporting of adverse drug reactions by patients is becoming an increasingly important topic for discussion in the world of pharmacovigilance. At this time, few countries accept consumer reports.

We present an overview of experiences with consumer reporting in various countries of the world. The potential contribution of patient reports of adverse drug reactions is discussed, both in terms of their qualitative and quantitative contribution. The crucial question is one of whether patient reports will increase the number and quality of the reports submitted and/or lead to a more timely detection of signals of possible adverse reactions, thus contributing to an enhancement of the existing methods of drug safety monitoring. To date, the data available are insufficient to establish such added value.

The direct of reporting adverse drug reactions by patients is becoming an increasingly important topic for discussion in the world of pharmacovigilance. In several countries there is an ongoing debate about the question of whether consumer reports without physicians or pharmacists acting as an intermediary are desirable. In this paper we use the term 'consumer reporting'; however, it might be argued that the word consumer relates more to a commercial product rather than a healthcare product. Patient reporting could be a better term, relating it more to the patients' than to the producers' side of drugs.[1]

A key problem in the discussion about the usefulness of consumer reporting is the fact that there is little evidence, especially when we relate consumer reporting to spontaneous reporting. All the information available in the literature pertains to research using questionnaires[2-5] or using a drug information service,[6,7] and is not the result of experiences with consumer reporting to a centre that collects spontaneous reports.

In this overview we will make an inventory of experiences with consumer reporting in various countries of the world. The potential contribution of patient reports of adverse drug reactions will be discussed, both in terms of their qualitative and quantitative contribution.

1. The Necessity of Pharmacovigilance

The advent of pharmacotherapy based on recent scientific advances in the first half of the 20th century brought about revolutionary changes in the scope of cures for numerous diseases. These innovations were of course enthusiastically welcomed, and this welcome was almost without question; the

negative aspects of pharmacotherapy received little or no attention. Only when adverse reactions to a particular drug were evident were critical questions asked, but otherwise scrutiny was never systematic.[8]

It was the Dutchman Meyler who, in 1951, was the first to provide a systematic overview of 'side effects of drugs'. His work formed the basis of what is, on an international scale, still regarded as the standard work in the field of adverse effects of drugs.[9]

The thalidomide tragedy in the early 1960s induced many countries to set up national bodies to monitor the safety of drugs, also known as pharmacovigilance centres. The underlying motive for the establishment of such national centres was that, by giving physicians and pharmacists the opportunity to report suspected adverse events, potential but as yet unknown adverse effects of drugs would be detected at an earlier stage. It was thought that the serious and extensive damage as had been caused by thalidomide could thus be prevented. European legislation has led to uniformity in pharmacovigilance within the European Union (EU) by stipulating which tasks and responsibilities are to be carried out and assumed by the national governments, the pharmaceutical industry and the various professional groups involved.

Many countries, among which are all the EU member states, have organised their reporting systems for potential adverse events in such a way that only physicians and pharmacists are qualified to report.[10] In a number of countries pharmacists are not necessarily authorised to report.[11]

This method of collecting and analysing data from the healthcare sector is called a 'spontaneous reporting system' (SRS), the word *spontaneous* in this context meaning that reporting is not compulsory. Consumer reporting was never before an item in the organisation of SRS; it is only recently that consumer has become a point of discussion. When we use the term consumer reporting, we mean users of drugs reporting suspected adverse drug reactions directly to a spontaneous reporting system.

2. International Experiences and Developments Concerning Patient Reports

To date there is little practical experience with patients reporting adverse drug reactions. In a limited number of countries the national reporting system provides some (formal) room for patient reports. Below we will discuss the current situation on consumer reporting in various countries.

2.1 US

MedWatch, the FDA's Safety Information and Adverse Event Reporting Program, offers patients some scope to directly report adverse drug reactions. However, the majority of reports originating from patients that actually reach the FDA are sent in by the pharmaceutical industry. This sector has the legal obligation to pass on all reports it receives. Thus, questions and complaints from patients concerning drugs addressed to the marketing authorisation holder are categorised as patient reports. A mere 9% of all reports the FDA receives have been directly submitted by physicians, pharmacists or health consumers. Approximately 40% of all reports stem from patients.[12] No publications have been done yet about the contribution of consumer reports to the FDA.

2.2 Australia

Since the early 1990s, Australia has been taking its first steps towards creating facilities allowing patients to report complaints on drugs. The Australian Patient Safety Foundation runs and maintains the Australian Incident Monitoring System (AIMS). However, only 20% of the reports concern medication and only 4% of these are about adverse events. The national reporting system (ADRAC) receives about 10 000 reports per year and this includes all appropriately documented patient reports. On an annual basis the latter comprise fewer than 100 reports.[13]

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2.3 Scandinavian Countries

In September 2000 Kilen, the Swedish Consumer Institute for Medicines and Health, organised a conference that was announced as the 'First International Conference on Consumer Reports on Medicines'.[14] The key topic of the conference was: 'Should patients be given the opportunity to report possible adverse drug reactions direct to a national body?' Kilen does collect patient complaints about drugs in Sweden and Norway, although these complaints specifically concern addiction to benzodiazepines and lorazepam in particular. Thus, practical experience with comprehensive consumer reporting is still limited and Kilen's full objectives have as yet not been implemented. What is remarkable is the fact that in the Scandinavian countries pharmacists are not allowed to report adverse drug reactions to their national centres.

2.4 The Netherlands

In The Netherlands there is no hands-on experience with consumer reporting although some research into the topic has been conducted. In 1998 the 'Wetenschapswinkel Geneesmiddelen' ('Science Shop for Drugs') of the Faculty of Pharmacy of the University of Utrecht published a study in which it was investigated which specific facilities would allow patients to report adverse effects in The Netherlands and how these facilities could be adjusted and extended.[15] In a round-table conference following the project it was concluded that further research into consumer reporting was desirable. Also, two Dutch hospitals have conducted research into patients as information source for possible adverse events.[2]

Recently the Dutch Consumer Association insisted on the fact the consumer should be able to report suspected adverse drug reactions to the national pharmacovigilance centre.

2.5 UK

In the UK, the Consumers' Association has also suggested that patients should perhaps be offered facilities to report on adverse drug reactions.[16] Again, as in Sweden, the late discovery of dependency on benzodiazepines was mentioned as an example of signals that might be reported earlier by patients than professionals.

The Medicines Control Agency (MCA) maintains the national reporting system in the UK and has responded with caution based on both intrinsic and practical arguments. Nevertheless, in the UK the National Health Service does facilitate the reporting of complaints by patients, and, although the emphasis is not on drugs, adverse effects are also mentioned in this context.[17] Recently there are new developments regarding direct consumer reporting because of the intended merger of the MCA and the Medical Devices Agency. The Medical Devices Agency accepts patients reports and once the agencies emerge it is would be possible the new agency also accept direct reports from consumers of pharmaceuticals.[18]

2.6 The Internet

The emergence of web sites on the Internet offering patients a forum to exchange their experiences with drugs is novel. Apart from being an expression of the patients' need to share and exchange information about medication, the phenomenon also shows that patients are a rich source of information. It is evident, however, that distinguishing valuable from unreliable data on the Internet poses a real problem.[19]

3. Potential Contribution of Patient Reports on Adverse Reactions

In the debate on the advisability of offering patients facilities to report suspected adverse effects of drugs, various issues play a part. These will be outlined next.

3.1 Qualitative Contribution

It is to be expected that reports from a patient perspective will cause a shift in the type of adverse reactions being reported since the reports that now reach the reporting systems may not reflect the

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adverse events that were originally reported because of the filter applied by physicians and pharmacists.[7] With patient reports, it is not only adverse effects that health professionals generally consider less relevant, but also complaints that are usually less easily communicated to health professionals, for instance those relating to sexual matters, that will receive attention.[20] Similarly, adverse effects caused by the off-label use of medication (applications deviating from the approved indication) are probably less likely to be reported by doctors than by patients. In addition, doctors may not always be familiar with certain over-the-counter drugs or alternative medications.

3.2 Quantitative Contribution

Consumer reporting will raise the number of reports submitted, which will enhance the impact of the reporting systems. Despite the fact that research has repeatedly shown that in The Netherlands the basis of trust between patients and their doctors and pharmacists is such that this generally does not form a major obstacle, the fact that less than 10% of the professionals involved effectively pass on reports does put things in an different perspective: many complaints from patients appear to founder on the reluctance of the healthcare professionals.[7] The huge number of queries the Dutch 'Geneesmiddelen Info Lijn' (Drug Information Line) receives suggests that the number of reports submitted by patients may be considerable.

3.3 Political and Strategic Considerations

An important consideration in support of direct reporting by patients is the fact that, given today's increasing patient awareness and emancipation, it is desirable that patients are given the opportunity to report suspected adverse effects themselves. After all, it is the patient that experiences the adverse reactions, which makes him or her the hands-on expert.

Reporting through a general practitioner or pharmacist implies that complaints are filtered out, which prevents patient complaints from reaching the reporting system. Since patients and consumer organisations have acquired a considerable say in determining healthcare policy, perhaps this argument may carry more weight than before.

4. Possible Objections to and Limitations of Patient Reports

Consumer reporting does not seem to get off the ground properly anywhere. Apparently, there are serious obstacles that prevent a timely establishment of reporting systems for the collection and evaluation of adverse drug reactions reported by patients.

4.1 Establishing the Contribution of Patient Reports in Relation to the Existing Signal Detection Systems

The main obstacle for the development of consumer reporting systems is the fundamental question regarding their intrinsic value.

The existing reporting systems, primarily based on spontaneous reporting by doctors and pharmacists and on obligatory reporting by marketing authorisation holders, have evolved extensively over the past few decades, particularly with respect to both the quality and the analyses of the reports.

As far as we know, no research has been conducted to show that extending the current systems to include reports from patients will add to their value when the size and speed of signal generation and detection are concerned.

4.2 Quality of Patient Reports

A key issue concerns the quality of the reports submitted by patients. Firstly, the quality as regards the selection of the reports is at stake: Are patients capable of distinguishing possible adverse drug reactions from other complaints associated with the use of medication? A second aspect relating to the quality of patient reports is their documentation. Is a lay reporter capable of providing a clear and objective description of the adverse effects and can he or she supply the relevant clinical information necessary for an adequate evaluation of the report?

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5. Discussion

Since during clinical trials, carried out in the evaluation and marketing authorisation stages, the safety of drugs can only be investigated to a limited extent, it is essential to also monitor the safety of drugs after marketing. For this purpose, many countries have set up a national pharmacovigilance systems, which, as a rule, function on the basis of spontaneous reporting by physicians and pharmacists. In this paper the advisability of direct reporting of potential adverse drug reactions by patients has been evaluated.

It is evident that patient reports are desirable from a politico-strategic perspective. Edwards has typified the reporting of adverse effects as concern reporting.[21] Apart from the medical professionals, the users of drugs also have such concerns. Physicians, pharmacists and patients all have reason for concern when the safety of drugs is concerned and all parties need to be able to express their worries in such a way that they can be assured that they are taken seriously and that the necessary steps will be taken. The fact that patient and consumer organisations have considerable influence on healthcare policy, lends validity to this argument. Consumer reporting is in line with the striving for quality in the healthcare system, in the evaluation of which the care taker takes up a key position. Unfortunately, to date few studies into the potential contribution of patient reports on possible adverse drug reactions are available in the literature. Both Solovitz et al.[4] and Mitchell et al.[5] have reported that users of drugs are capable of discriminating between adverse effects and other complaints or symptoms. Mitchell et al.[5] are more hesitant in this respect, particularly in connection with the patient's ability to associate suspected adverse events with a particular drug. However, one may ask whether this should be the reporter's responsibility. In a retrospective study Egberts et al.[6] compared the questions posed by the users of drugs with adverse reactions reported by physicians and pharmacists in the same period. It appeared that about a certain number of signals derived from the database of the official reporting system users had earlier demanded information. Van den Bemt et al.[2] have shown that when specifically asked for them, hospital patients were able to report on adverse effects. In this case the reported effects mainly concerned less serious reactions that were not known at the time. It needs to be noted, however, that it was not investigated whether the reported adverse reactions were effectively related to the drugs used. Jarernsiripornkul et al.[3] reported that patients are willing to report if they are asked to do so.

Both The Netherlands and Australia have been considering whether specific patient groups could function as reporting parties. Such a reporting system could be efficiently organised and could specifically analyse patients' experiences with particular groups of drugs. In this context research into new drugs aimed at particular patient groups, e.g. patients with rheumatism or diabetes mellitus, could be thought of, during which study patient organisations could also be involved. However, if reports are expressly invited, this would be a case of intensive monitoring, which implies research rather than continuous surveillance.

Establishing a system to collect patient reports is no easy matter. For instance, are patients interested in a system specifically aimed at gathering suspected adverse drug reactions or would they prefer a system with a wider scope covering other aspects of pharmacotherapy. It is clear that a more comprehensive system will be quite different from a system that focuses solely on possible adverse effects. Either way, the evaluation and scientific analysis of the reports received will require manpower and funds. A reporting system raises expectations with those who report, i.e. they expect their reports to lead to results, and, in addition, they wish to be informed about the steps to be taken. With reporting systems for the medical professions such feedback has proved essential for their success.[22]

Setting up a patient reporting system requires a separate organisation. The existing doctor-pharmacist systems are hesitant in taking on this extra task. This hesitation originates from the fear that

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the system will receive too much 'noise' without the added value of the new system having been established, receiving many but poorly documented reports. Again, this relates to the question of whether patient reporting systems should merely concentrate on adverse effects or whether they should also take other aspects of drug use relevant to patients, such as queries regarding delivery and use, into account.

Reporting of adverse drug reactions experienced by patients through a health professional could mean a kind of filtering. It also could be argued that this filter is a desirable one, preventing an overloading of the national pharmacovigilance centre with invalid reports. There is some parallel with the discussion about direct-to-consumer drug advertisements.[23] On one hand these advertisement could stimulate consumer reporting. On the other hand in this discussion is also the question for the need of a 'learned intermediary'.[24]

Apart from reports that are submitted direct to the national pharmacovigilance centres, there are also consumer reports that are sent to the pharmaceutical companies that produce the drugs concerned. As mentioned earlier, this latter practice is quite common in the US. A recent study has investigated the way the pharmaceutical sector deals with these consumer reports.[25] Most drug companies include the information derived from such reports in their databases. Moreover, they have the legal obligation to pass on any reliable information about their products to the authorities. In most cases, however, the data received are insufficient to perform a proper causality assessment.

To be able to make a well-founded judgement on the advisability of an independent reporting systems for patients the pivotal question in need of an answer is whether such a system will add to the value of the existing systems. Such a study should be carried out within the context of a spontaneous reporting system.

Establishing a patient system for political and strategic reasons only, without having established its possible added value first, falls outside the scope of pharmacovigilance.

Adverse drug reactions do not only concern patients, both the prescribing doctor and the delivering pharmacist are also involved. Reporting in cooperation with the prescribing doctor and/or pharmacist seems to be the preferred method of reporting, supposing these professionals do report. The crucial question is whether patient reports will increase the number and quality of signals of adverse drug reactions and/or lead to a more timely detection of them, thus contributing to an enhancement of the existing methods of drug safety monitoring. To date, the data available are insufficient to establish such added value.

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