Peer reviewed article

Quality assessment of the visits of pharmaceutical company representatives to hospital pharmacists[1]

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Summary

Objectives: To evaluate whether the quality of pharmaceutical company representatives' (PCRs) visits to hospital pharmacists can be improved by written communication of the results of an evaluation of their visits.

Methods: Pilot study with prospective evaluation of overall visit quality and strength of request for adding drugs to the hospital formulary, and of the scientific quality of products presentations using a standardized form. Two one-year study periods (59 vs. 61 visits) separated by the intervention (global results of the first period sent to each drug company).

Results: No difference was observed between both periods in overall visit quality (VAS 0 = null, 10 = excellent: mean 4.7 (2.1 SD) vs. 5.2 (2.1) or strength of request for adding drug to hospital formulary (VAS 0 = null, 10 = extreme: 7.0 [2.6] vs. 7.2 [2.7]). Clarity and scientific value of products' presentations and scientific value of responses were better during the second study period, as a sign of quality improvement. Conclusions: This study suggests that systematic quality evaluation of PCRs visits and communication of results to drug companies may improve the scientific quality of products' presentation.

Key words: quality assessment; drug company; pharmaceutical company representatives; hospital pharmacists

Introduction

The visits of pharmaceutical company representatives (PCR) in the community and the hospital may be of poor scientific quality depending on PCR qualification and inaccurate statements about drugs are sometimes given [1, 2]. Information provided by PCRs cannot be independent and unbiased and is always marketing-orientated [3]. Meetings with PCRs have a strong influence on physicians, such as increasing their requests for adding promoted drugs to the hospital formulary or changing their prescribing practice [4]. To our knowledge, there is no information available on the quality and influence of PCRs' visits on hospital pharmacists, who have a central position in drug selection and supplying. As visits are frequent and time-consuming, it is necessary to evaluate their quality and value for the hospital pharmacist. Therefore, we decided to describe and assess the quality of PCRs' visits to hospital pharmacists and to evaluate whether promotion of communication with drug companies can result in an improvement of visits' quality.

1 The first part of this work was presented as a poster at the 11th Journées Franco-suisses de Pharmacie hospitalière (JFSPh), Besançon 13 and 14 March 2003, France.

All authors declare that they have no competing interest and therefore have nothing to declare. Funding: None to declare.

Methods

Evaluation of visits

A standardized form to evaluate the visit was developed, based on the evaluation sheet used in France by the "Réseau d'observation de la revue Prescrire" [1] (see Appendix). We performed a two periods' study to evaluate the quality of PCRs visits to our hospital pharmacy in terms of overall visit quality, strength of request for adding drugs to the hospital formulary, knowledge of presented products, and clarity and scientific value of the presentation and the responses. Spontaneous mention of at least one registered indication, dosage, and tackling of the subjects "adverse drug reactions (ADRs)", "contraindications" and "interactions" was also assessed. The first period of the study extended from January to December 2002 (59 visits) followed by a wash-out phase with intervention (January to June 2003) during which our first

global results were presented in a congress as a poster, which was then sent with an accompanying letter to each of the drug companies who participated. The second study period extended from July 2003 to June 2004 (61 visits). Pharmacists attending the visits, including both authors, listened to the presentation and, when necessary, asked the PCR questions.

Quality assessment

Quality assessment was performed immediately after each PCRs visit by the pharmacists attending the visit. When only the chief pharmacist was present, he performed the evaluation alone. When more pharmacists were present, the assessment was discussed in common until a consensus was found. PCRs were not included in the visits' quality assessment. Visual analogue scales (VAS 0–10; 0 = null, 10 = excellent respectively extreme) were used to assess overall visit quality and strength of request for adding a drug to the hospital formulary, and categorical scales (very good = 1, good = 2, medium = 3, bad = 4) to score knowledge of products, clarity and scientific value of the presentation.

Data analysis

Due to the small sample size and the observational nature of the data that are highly unbalanced, multivariate modelling is not feasible and simple statistical inference could be misleading, the lack of balance potentially masking or creating differences. Results are presented as a mean (and standard deviation, SD).

Using box-plots, we explored graphically the sensitivity of our results to imbalances in the data – a few individual PCRs visited both before and after the intervention and some visits were not assessed by the chief pharmacist alone. For these sensitivity analyses, we considered just three main parameters: overall visit quality, strength of request for adding drug to hospital formulary, and scientific value of the presentation. For the parameter "scientific value of the presentation", our sensitivity analysis is only approximate because data were measured on an ordinal scale and we treated these as if measured on an interval scale.

Results

In two years, a total of 120 PCRs visits were performed in our hospital pharmacy. 59 and 61 visits were run by 38 and 39 different drug companies (max. 5 visits / company / year) during the first and the second study period respectively (see Appendix). Between one and eight pharmacists assessed the visits (mean 1.6 [1.1 SD] vs. 1.7 [1.6]). As chief pharmacist, PB assessed 93% vs. 92% of the visits during both periods respectively (CF 19% vs. 17%). Mean duration of PCRs visits was 25 min (13, min 10, max 60) vs. 29 min (18, min 10, max 105). In only six instances, the presentation of at least one product in both study periods was performed by the same PCR for the same company. A date for the visit was planned by the PCR in 91.5% vs. 98.4% of the visits respectively. In 6.8% and 14.8% of the cases respectively, the declared goal of the visit did not correspond to the main subject effectively discussed during the visit.

No difference was observed between both periods in overall visit quality (4.7 [2.1] vs. 5.2 [2.1]) or strength of request for adding a drug to the hospital formulary (7.0 [2.6] vs. 7.2 [2.7]). For the six PCRs who visited in both periods for the same company, no obvious difference was seen in the overall visit quality (4.1 [2.8] vs. 5.6 [1.8]) or strength of request for adding a drug to the hospital formulary (6.9 [3.1] vs. 8.2 [1.2]). The main goal of the visits was presentation of products (48/59 visits [81%] vs. 39/61 [64%]). Of 87 presentations, 10 (12%) concerned products that were not yet registered in Switzerland. Clarity and scientific value of products presentations and scientific value of responses were noticeably better during the second study period, as a sign of quality improvement (figure 1).

When a product was presented (48 visits vs. 39 visits), no difference was observed in the sponta-

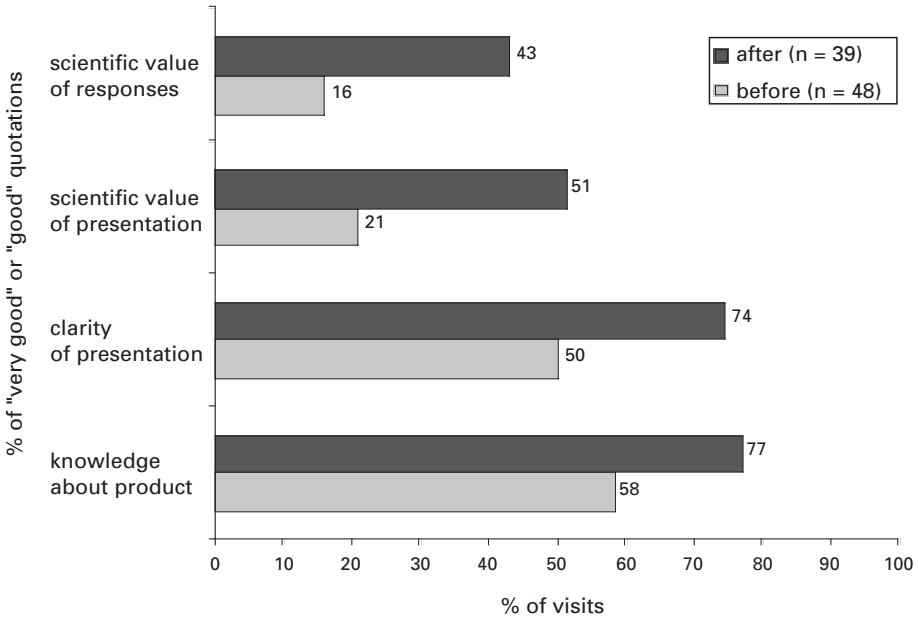


Figure 1

Quality of PCRs presentation of products.

neous mention of registered indications (38/48 [79%] vs. 34/39 [87%]), dosage (39/48 [81%] vs. 33/39 [85%]) or ADRs (18/48 [38%] vs. 18/39 [46%]), but a trend for contraindications (5/48 [10%] vs. 10/39 [26%]) and a major improvement for interactions (2/48 [4%] vs. 10/39 [26%]) was determined (figure 2).

Written information was distributed in 63% of the visits, mainly consisting of published articles (41%) and/or product monographs (33%).

We explored graphically the sensitivity of our results to imbalances in the data. Figure 3 shows that after either removing the six PCRs who visited twice (to exclude contamination by individual improvement) or considering those visits (with the exclusion of the six PCRs who came before and after) evaluated by the chief pharmacist alone (to remove inter-observer variability), the results for the three main evaluation scores did not change. In figure 4 are shown the pair differences (delta scores) for the six PCRs who came for the same company before and after the intervention. A trend

Figure 2

Spontaneous mentioned criteria during products' presentation.

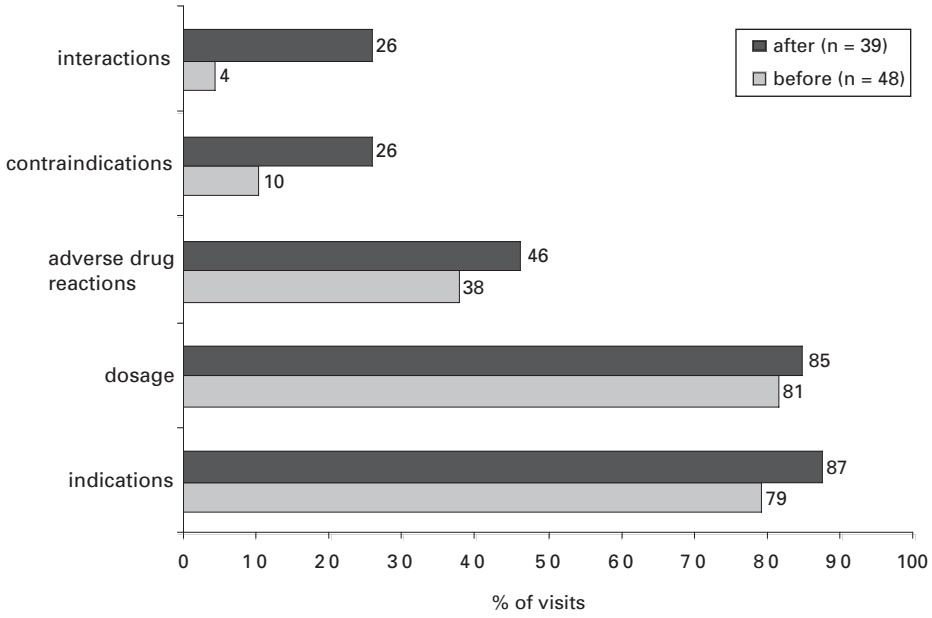
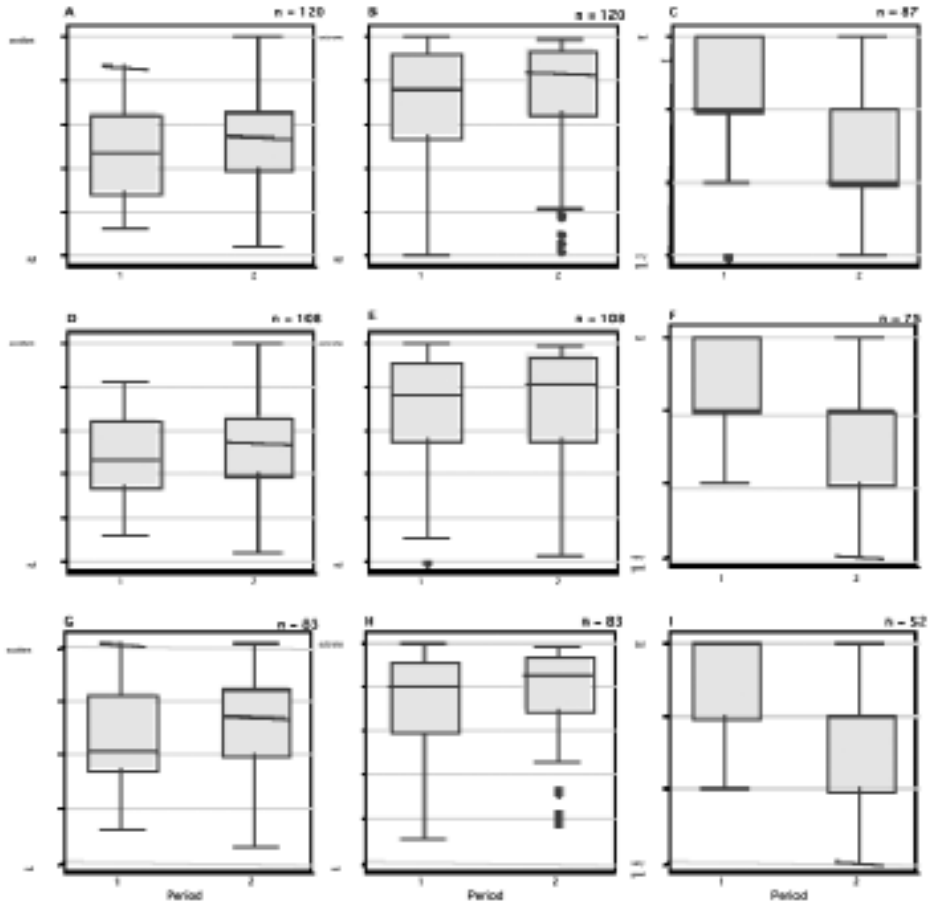


Figure 3

Visits' evaluation expressed as overall visit quality, strength of request for adding drug to hospital formulary and scientific quality of the products' presentation. Legend: A–C: whole group / D–F: after excluding the 6 PCRs (12 observations) who visited both before and after the intervention / G–I: visits evaluated by the chief pharmacist alone.



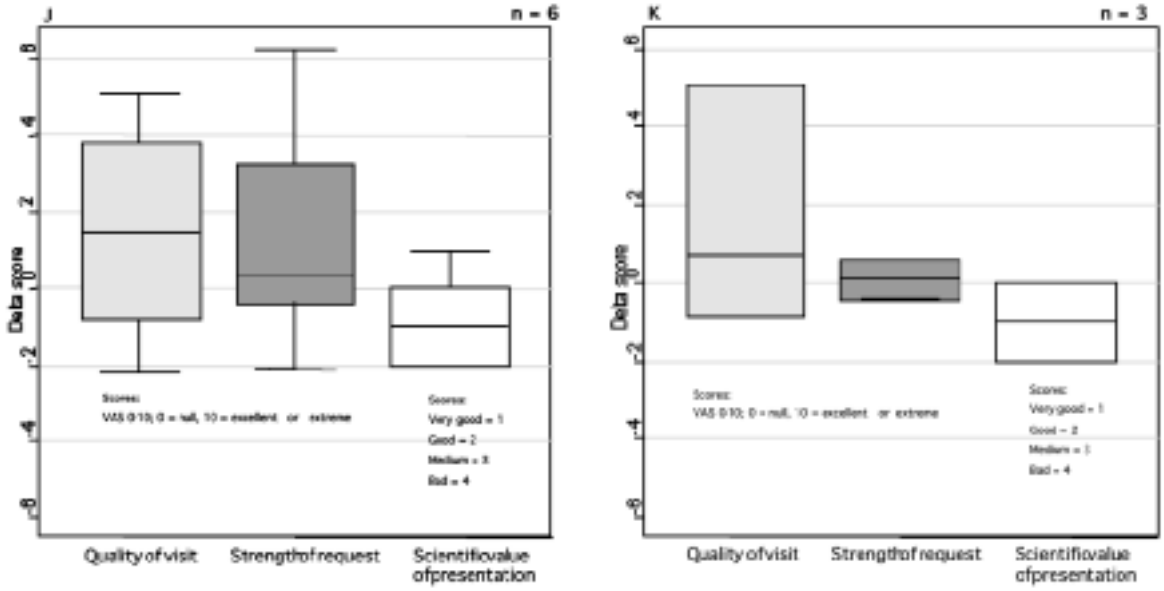


Figure 4

Delta scores (difference between scores after the intervention minus score before) of the three main parameters for the 6 PCRs who visited both before and after the intervention.
Legend: J: evaluated by all pharmacists / K: evaluated by the chief pharmacist alone
Note that positive delta scores represent improving overall visit quality, stronger requests for adding a drug or a decline in scientific value of the presentation.

in the direction of an improvement in the overall visit quality, the strength of request for adding a drug to the hospital formulary and the scientific value of the products presentations was observed. Results were similar when considering all data or only PCRs visits seen both before and after by the chief pharmacist alone.

Discussion

This study suggests that systematic quality evaluation of PCRs visits and communication of global results to drug companies can improve the scientific quality of products' presentation. As expected, global quality of PCR visits was poor and strength of request for adding a drug to the hospital formulary was strong. Use of a form to evaluate the quality of PCRs visits was useful and opened positive discussions between visits attendees.

One weakness of our study is that the quality assessment was based on subjective estimation and both authors were assessors both before and after the intervention. The expectation that the information to the drug companies should improve subsequent visits might have induced a bias in the evaluation. Few data were available on PCRs who made at least one visit before and after the intervention for the same company. Our data is observational and therefore unbalanced and sample size is modest. We showed graphically that imbalances in the data (heterogeneity of the companies and of the observers) do not seem to affect our conclusion. However, the current study should be considered as a pilot one. A larger multicentre study might add more information. However, collecting experimental data on this subject seems difficult as the status of a drug company may change rapidly and the turnover of PCRs is high.

PCRs visits are time-consuming and therefore only valuable if valid scientific information is provided. The pharmaceutical industry being by nature benefits-orientated, a critical appraisal of the information provided is necessary. Aspects important for patient security such as adverse drug reactions, contraindications or interactions were frequently omitted, the products presentation being oriented towards indications and dosage of the drugs. The aim is not to dress a list of all potentially negative points of the drug but to describe clearly the main advantages and risks. One may argue that pharmacists should be prepared for the PCRs' visit to be more reactive. This is only possible if the declared goal of the visit is the same as the effective subject discussed during the visit, which is not the fact in about 10% of the cases. For products not already registered, these problems arise because of a lack of available information. As observed in our study, information on new products that have not yet been registered by the Swiss Agency for Therapeutic Products (Swissmedic) is provided in about 12% of the cases. As indicated in the "Pharmaceutical Promotion Code", promotion and advertising for such products is not permitted in Switzerland [5]. However, information to health professionals is permissible as long as it is clearly indicated that Swissmedic has not yet approved the product. We observed that the spontaneous mention of products registration status was sometimes omitted.

Policies restricting PCRs access to young physicians have been implemented in some hospitals and a move towards more distance in all kind of relations with industry has been observed among health professionals [6, 7]. Relationship between PCRs and physicians may be different than between PCRs and pharmacists as their role in

hospital is different. We think that PCRs visits to hospital pharmacists may still be useful in terms of commercial partnership as long as PCRs also have sufficient hospital practice and scientific knowledge to answer questions arising during the visits. This study triggered the elaboration of a code of practice by our Pharmacy and Therapeutics committee (P & T committee) that defines rules to be respected for PCRs visits in our hospital in general (degree of PCRs scientific knowledge, identification and access of PCRs in the hospital, minimal hierarchical grade necessary to receive PCRs, no distribution of product samples and gifts). A major change is that PCRs must now be accredited to access our hospital (http://www.hcuge.ch/Pharmacie/demande_accreditation_fournisseur.doc). All drug companies in Switzerland have received this code of practice and its impact on PCRs' visits to physicians will be evaluated in the future. The French version of this code of practice is accessible on our internet site (http://www.hcuge.ch/Pharmacie/charte_fournisseur_a4.pdf).

In conclusion, this study suggests that systematic quality evaluation of PCRs visits and communication of results to drug companies may improve the scientific quality of product presentation. Systematic quality evaluation of PCR visits should be considered of educational value for young attendees improving their critical appraisal of drug evaluation. Our pilot study is the first of its kind for Swiss hospitals and may represent an example for other hospitals on how to deal with this subject in their institution and may open areas for further work.

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Appendix

List of drug companies who participated to the study.

Drug company	Visits' number during first period	Visits' number during second period
Abbott AG	1	1
Allergan AG		1
Altana Pharma AG		1
Amgen Switzerland AG	2	2
AstraZeneca AG	1	2
Aventis Behring AG	2	1
Aventis Pharma AG		1
B. Braun Medical AG	3	3
Baxter AG	5	
Berna Biotech AG	1	
Biomed AG	1	1
Biotest (Schweiz) AG	1	
Boehringer Ingelheim (Schweiz) GmbH	1	
Bristol-Myers Squibb GmbH	1	
Desitin-Arzneimittel GmbH		1
Domedics AG		1

Appendix cont.

Drug company	Visits' number during first period	Visits' number during second period
Ecolab SA		1
Ecosol AG		1
Ferring AG	1	1
Fresenius Kabi (Schweiz) AG	1	1
Gebro Pharma AG	1	1
Genzyme Pharmaceuticals		1
GlaxoSmithKline AG	1	2
ICN Pharmaceuticals Switzerland AG		1
Janssen-Cilag AG	1	1
Johnson-Johnson AG		1
Eli Lilly (Suisse) SA	4	
Lipomed AG	1	2
H. Lundbeck A/S	2	
Maco Pharma Unepharma SA	1	
Medika AG	1	
MedServe GmbH	1	
MSD Merck Sharp & Dohme-Chibret AG		4
Neuropharm SA	3	
Norgine AG	1	1
Novartis Consumer Health Schweiz AG	1	
Novartis Pharma Schweiz AG	2	4
Novo Nordisk Pharma AG	1	
Nycomed AG	2	2
Organon AG		1
Orphan Europe		1
Pfizer AG	1	2
Pharmacia & Upjohn AG*	1	
Roche Pharma (Schweiz) AG	3	2
Sankyo Pharma (Schweiz) AG		1
Sanofi-Synthelabo (Suisse) SA	1	1
Servier (Suisse) SA	4	4
Sintetica SA	1	
Solvay Pharma AG	1	1
Spirig Pharma AG	1	
G. Streuli & Co. AG	1	2
TRB Chemedica SA		1
UCB-Pharma AG		2
Vifor (International) AG	1	
Wyeth AHP (Schweiz) AG		2
ZLB Bioplasma AG		2
TOTAL	59 visits	61 visits

* included as Pfizer during second period

Standardized form used for the study

HUG
Hôpitaux Universitaires de Genève

Hôpital Cantonal

Département APSIC

Pharmacie des HUG

FORMULAIRE D'EVALUATION DE LA VISITE MEDICALE

1. Données générales sur la visite

Date:.....

Durée:.....

Visite annoncée: ❒ Oui ❒ Non

Nombre de collaborateurs présents:.....

❒ PB ❒ ADOM ❒ NV ❒ CF ❒ AMS ❒ AFR ❒ FS

❒ Autres: .....

2. But de la visite

❒ Présentation nouveau médicament — Nom et DCI: .....
médicament enregistré en CH? ❒ oui ❒ non

❒ Changement (médicament commercialisé) — Nom et DCI: .....

❒ Introduction médicament sur la liste — Nom et DCI: .....

❒ Visite de courtoisie

❒ Autres:.....

❒ Distribution de documentation — Nom et DCI: .....

- ❒ Catalogue GSASA
- ❒ Monographie — daté ❒ oui ❒ non — mention risques ❒ oui ❒ non — termes inadéquat ❒ oui ❒ non
- ❒ Aide prescription — daté ❒ oui ❒ non — mention risques ❒ oui ❒ non — termes inadéquat ❒ oui ❒ non
- ❒ Articles publiés
- ❒ Autres:.....

Remarques:.....

But de la visite annoncée correspond-il au but réel? ❒ Oui ❒ Non

Remarques:.....

3. Infos recherchées par le délégué

❒ Introduction d'un médicament sur la liste

❒ fonctionnement COMED ❒ noms de personnes de références ❒ Autres:.....

❒ Produits concurrents en stock à la pharmacie

❒ Prix des produits concurrents

❒ Autres:.....

4. Evaluation de la présentation

Type de présentation ❒ Power-Point ❒ Rétroprojecteur ❒ A l'aide de documents ❒ Orale

[ ] Connaissance du produit ❒ Très bon ❒ Bon ❒ Moyen ❒ Insuffisant

[ ] Clarté de la présentation ❒ Très bon ❒ Bon ❒ Moyen ❒ Insuffisant

[ ] Qualité scientifique de la présentation ❒ Très bon ❒ Bon ❒ Moyen ❒ Insuffisant

[ ] Qualité scientifique des réponses ❒ Très bon ❒ Bon ❒ Moyen ❒ Insuffisant

[ ] Attitude ❒ Très agréable ❒ Coopératif ❒ Sur la défensive ❒ Désagréable

[ ] Détails:

Indications énoncées correspondent au Compendium:	❒ Oui	❒ Non
Posologie énoncées correspondent au Compendium:	❒ Oui	❒ Non
A parlé spontanément des effets indésirables:	❒ Oui	❒ Non
A parlé spontanément des contre-indications:	❒ Oui	❒ Non
A parlé spontanément des interactions:	❒ Oui	❒ Non
A parlé spontanément du médic. concurrent:	❒ Oui	❒ Non

Remarques:.....

5. Questions en suspens

1.....
2.....
3.....

Réponse obtenue: ❒ Oui ❒ Non Délai: .....

6. Cadeaux

❒ Echantillon produit
❒ Littérature (livres)
❒ Aucun
❒ Objets petite valeur: .....
❒ Autres: .....

7. La réplique de trop

.....
.....
.....

[ ] **Evaluation globale de la visite (mettre croix sur VAS):**
Perfection _____ **Nulle**

[ ] **Evaluation de l'incitation à mettre sur la liste (mettre croix sur VAS):**
Enorme _____ **Aucune**

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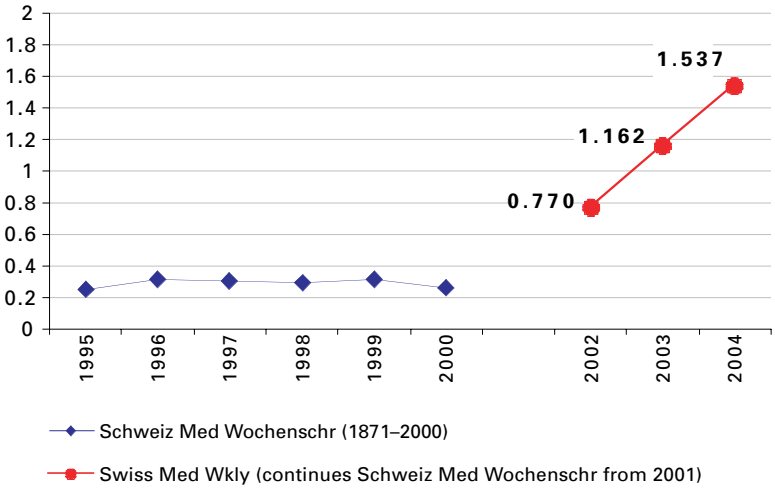

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