

Assessment of the e-Answers Initiative, a New Model for Response by Email to Scientific Information Requests Carried Out by the Medical Information Service of Novartis Pharmaceuticals in Spain: Results of an Internal Satisfaction Survey

Therapeutic Innovation
& Regulatory Science
2015, Vol. 49(4) 547-552
© The Author(s) 2015
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/2168479014567320
tirs.sagepub.com

Clara Amat, BPharm¹, Anastasia Sarycheva, BPharm²,
Cristina Rodellas, BSc², Agnès Diaz-Fort, BPharm¹, and Elisenda Berge, BA²

Abstract

Background: The aim of this study was to evaluate internal customer satisfaction with the Medical Information Service of Novartis Farmacéutica after changing to a new model of response by email to scientific information requests (the e-Answers initiative). **Methods:** A survey, conducted 3 months after the e-Answers initiative was implemented, was designed to determine the profile of each respondent and included 10 multiple-choice questions on user satisfaction. A 7-point Likert-type scale was used whenever possible. **Results:** A total of 97 responses (50.5%) were analyzed. Overall satisfaction with the change was favorable for 94% of respondents, and 94% and 97% of respondents evaluated favorably the elimination of paper load and the decrease in environmental impact, respectively. Satisfaction with response time since implementing the new model was positive for 91% of the respondents. **Conclusion:** In this anonymous survey with high participation of service users, the e-Answers initiative was evaluated positively.

Keywords

medical information, drug information service, pharmaceutical industry, satisfaction, survey, copyright

Introduction

The use of medications for the treatment of diseases generates specific information needs for health care professionals. Usual clinical practice implies that once a diagnosis is established, a doctor should decide on a treatment from the therapeutic arsenal available, taking into account the specific situation of the patient (comorbidities, concomitant therapies, interactions, allergies, etc). In this decision-making process, together with clinical criteria and prior knowledge, doubts or specific information needs arise frequently and must be addressed using different sources. One of them is the industry that markets the product.

Pharmaceutical laboratories continuously receive requests for information related to their drugs. The answers to these requests are provided by the medical departments, not only promoting decision making based on the evidence but also increasing professionals' degree of knowledge.

In larger pharmaceutical laboratories, there is usually a medical information service composed of professionals who, in addition to being graduates in biomedical sciences, have been trained in the management of scientific knowledge and have high levels of informational competence. This enables them to meet the scientific information needs of the members of the medical,

¹ Novartis Farmacéutica SA, Barcelona, Spain

² Trial Form Support SL, Barcelona, Spain

* Clara Amat and Anastasia Sarycheva contributed equally to this work

Submitted 18-Sep-2014; accepted 9-Dec-2014

Corresponding Author:

Clara Amat, BPharm, Gran Via de les Corts Catalanes, 764, 08013, Barcelona, Spain.

Email: clara.amat@novartis.com

marketing, and sales departments, as well as health care professionals who prescribe or dispense the products of the company.

These departments began as very small documentation units, usually located within the medical departments, that provided full-text article delivery services and bibliographic searches to respond to internal and external customer needs for scientific information. In recent years, by incorporating more technically qualified staff members, this type of unit has evolved into medical information services.

The added value of this new type of service is that it manages the entire process, from receipt of the request, through search and analysis of the available information, to the development of a specific answer to the question, which must be truthful, balanced, and in agreement with the state of knowledge. Most requests are received from the sales force and from the medical scientific liaisons, who are in contact with health care professionals in the sector.

In the Spanish subsidiary of Novartis Pharmaceuticals, this change began in 2006 and became effective in 2007. The subsidiaries of other laboratories had achieved this degree of development in the 1980s and 1990s.¹⁻¹⁰

Despite this qualitative evolution and although the internal information was managed electronically, mailing of articles that supported responses was still done by post.

Because of copyright legislation, specific permission from publishers is needed to send articles outside the company, as it is publishers who have the rights of distribution of articles by virtue of the contracts signed with their authors when the articles are published. It is true that Novartis Pharmaceuticals buys access to publications from various publishers for the entire Novartis organization, including its subsidiaries, but this permission of access is only for internal personnel, which is why the Spanish subsidiary, Novartis Farmacéutica, decided to sign a license with the Spanish Centre for Publishing Rights (CEDRO; <http://www.cedro.org>), which permitted the delivery in Spain of publications for noncommercial purposes. At that moment, the license allowed the distribution of articles only in printed form. As a result, to be able to answer the questions of health care professionals, the medical information service had to spend time and resources on irrelevant tasks, such as printing letters and copies of articles, packaging, labeling, and shipping.

To increase the efficiency of the service significantly, the information needed to be sent by email, but this change required new license agreements with publishers. By working with CEDRO, which negotiated the various proposals with editors, in March 2012, Novartis Pharmaceuticals became the first pharmaceutical laboratory to sign the new digital license in Spain.

The new model for response by email to scientific information requests was called the e-Answers initiative and became well known within the company through a communication plan that included the following: presentation to the

management of the medical department and to the different commercial areas, a communication by email from the medical director to the entire department, a promotional video for the company's closed-circuit television channel, a written communication that was delivered to all employees of the Novartis Pharmaceuticals office in Barcelona, an article in the company magazine, and an oral presentation at the international congress of the pharmaceutical industry specializing in medical information, Pharma-Bio-Med.

After implementing the e-Answers initiative, we decided to find out if, in the opinion of users of the service, this new approach constituted an improvement. For this reason, a survey was carried out among the users of the service working at Novartis Pharmaceuticals. This article sets out the results of that survey.

Methods

A satisfaction survey was conducted among the users of the medical information service, considering as service users those who worked for the Spanish subsidiary of Novartis (commercial representatives, medical scientific liaisons, medical advisors, therapeutic area heads, pharmacovigilance technicians, etc) and who had used the service at least once since the implementation of the e-Answers initiative (March 1, 2012), the new model for response by email to scientific information requests. The complete contents of the survey can be found in Table 1.

The survey was created on the Web at SurveyMonkey (<http://es.surveymonkey.com>), a tool for conducting surveys online, and it was sent to respondents by email.

The form was sent 3 months after the launch of the new service model, on June 1, 2012, and the results were collected 1 month after submission of the form.

Survey Design

The first part of the survey included questions designed to determine the profile of each respondent in terms of age, gender, professional profile within the company (role), business unit, seniority in the company, and frequency of use of the medical information service.

To ensure anonymity of responses, it was decided not to ask for the respondent's name in the questionnaire.

The second part of the survey included 10 multiple-choice questions and answers designed to assess the impact of the e-Answers initiative. The variables used were importance for the user that the new digital license guarantee intellectual property rights, satisfaction with response times since the implementation of the new model, perception of the change in response times compared with the previous model, assessment of the elimination of the burden of paper and folders at work, environmental impact assessment, satisfaction with the level of information received with the new model, assessment of the

Table I. Survey Contents.**Respondent profile**

1. Year of birth / gender / business unit / professional profile:
2. Since March 1, 2012, medical knowledge answers via email the questions of the health care professionals thanks to the new digital license, but the service was working before. How long have you been a user of the service?
3. Approximately how many times do you use the medical response service during a year?

Respondent evaluation

4. Please score the following from 1 to 7, with 1 = very good and 7 = very bad:
 - How much do you value the fact that the digital license signed with CEDRO ensures the noninfringement of the intellectual property rights?
 - How much do you value the paper suppression in your daily work (no need to hand out paper and folders)?
 - How much do you value the paper suppression from the point of view of the impact on the environment?
 - How much do you value the internal communication done on the new model?
5. What is the response time with the new model? (Scale of 1-7: 1 = very good, 7 = very bad.)
6. Has it changed a lot since the implementation of the new model? (Scale of 1-7: 1 = yes it has diminished a lot; 7 = yes it has increased a lot.)
7. If you had the opportunity to comment on this change with your colleagues from other pharmaceutical companies, what has been their opinion? [Given list of responses; in case none of the options was appropriate, the respondent could indicate his or her own response in a text box.]
8. Please score the following from 1-7 (1 = it got a lot better; 7 = it got a lot worse):
 - How much has the new model of medical responses affected your relationship with the health care professional?
 - How do you consider this change has affected the physician's satisfaction with the service?
9. Please score the following from 1-7 (1 = very good; 7 = very bad):
 - Globally, how much do you value the change of model from the print to the electronic format in the medical responses to the health care professionals?
10. Do you have any comments? [The respondent had the option of writing a comment in a blank text box.]

Abbreviation: CEDRO, Spanish Centre for Publishing Rights.

impact on the relationship with health care professionals, and overall satisfaction with the change to the new model.

Although the survey was designed to obtain the opinions of the "direct" users of the information service (staff members of the company) on the e-Answers initiative, it also included a question about the perceptions of "indirect" users (health care professionals outside the company), in terms of satisfaction with the responses provided by email compared with the previous model.

A 7-point Likert-type scale was used in the valuation of the variables, with a minimum of 1 and a maximum of 7 for all questions for which it was possible. It was not possible to apply this scale to the question about the valuation of colleagues in other laboratories. An open question was included at the end of the questionnaire to give respondents the opportunity to comment.

Analysis of Results

All answers were exported to an Excel file (Microsoft Corporation), and the results were analyzed descriptively according to professional profile within the company and business unit to which the respondent belonged.

To facilitate interpretation of the results, responses with positive connotations ("good," "fairly good," "very good," "yes, it has decreased a lot," "yes, has decreased quite a lot," "yes, it has decreased somewhat," "has improved a lot," "has improved quite a lot," and "has improved somewhat") were considered favorable. The neutral responses "indifferent" and "has not changed"

were considered indifferent. Answers with negative connotations ("bad," "fairly bad," "very bad," "yes, it has increased somewhat," "yes, has increased significantly," "yes, has increased a lot," "has worsened somewhat," "has worsened quite a lot," and "has worsened a lot") were considered unfavorable.

For the subgroup analysis, it was considered interesting to learn the opinions of users who were in direct contact with health care professionals: the sales force and the medical scientific liaison. It also seemed interesting to evaluate the views of more senior users compared with more junior users and frequent users compared with infrequent users.

More senior users had experience in the functioning of the unit before the creation of the department of medical information; more junior ones had experience with the service only since its creation. For this reason, those with more and those with less than 5 years' experience (ie, before and after January 1, 2007, when the medical information service was implemented) were analyzed separately.

Frequent users were considered those who used the service 18 times or more a year and infrequent users those who used it less than 18 times a year. Because 18 was the mean value, the value 300 was excluded as being atypical.

Results

The questionnaire was sent to a total of 192 users (the total number of users of the information service during 2012 was

Table 2. Characteristics of Respondents.

Characteristic	Value
General profile	
Age, y, average (range)	41 (25-58)
Male gender, %	42.3
Seniority as a user of the service, y, average (range)	4.5 (1-25)
Amount of requests, average (range)	18 (1-100)
Professional profile, No. (%)	
Sales force	81 (83.5)
Medical scientific liaison	13 (13.4)
Medical advisor	3 (3.1)
Membership in business units, No. (%)	
Critical care	12 (12.4)
Hematology	6 (6.2)
Integrated hospital care	10 (10.3)
Neurosciences	10 (10.3)
Oncology	27 (27.8)
Ophthalmology	2 (2.1)
Primary care	30 (30.9)

408). There were 105 responses (54.7%), of which 8 (7.6%) were incomplete. A total of 97 responses (50.5% of the surveys sent) were included in the analysis. The characteristics of the respondents who replied to the survey are summarized in Table 2.

The overall results of the survey are presented in Table 3. This table includes only the results for the questions to which the 7-point Likert-type scale was applied.

With regard to the question about the opinions of colleagues in other laboratories on this initiative, 40% of respondents (39 of 97) were able to comment on the change with their colleagues in the pharmaceutical industry. Fifty-six percent of them indicated that their colleagues considered it a competitive advantage, and 23% felt that their colleagues had not been interested in commenting on the new model of responding to medical questions implemented at Novartis.

Through the open-text field of the last question, we collected a total of 25 comments: 11 expressed appreciation, 9 were related to the relationship between sales force delegates and health care professionals, and 5 were considered irrelevant and therefore are not discussed. The comments are more interesting to us than to a reader, I don't think they should appear in the article.

The 11 comments of appreciation included congratulations or thanks for the service received (n = 3) and positive comments about the innovative image that is provided by the service (n = 3), quick response (n = 4), and the new model's being more convenient for doctors (n = 1).

Of the 9 comments on the implications of the new model for the relationship between delegates (medical scientific liaison and/or sales representatives) and health care professionals, 3 simply insisted on the importance to the delegates of receiving

copies of the responses provided to questions, whereas the other 6 expressed concern that the use of the new model could change relationships with health care professionals.

Subgroup Analysis

A total of 92.50% (74 of 80) of sales force users responded favorably and 5% (4 of 80) indifferently to the question on the general assessment of the change to e-Answers. Within the medical scientific liaisons group (n = 13), 100% of the responses were favorable.

Of users with seniority more than 5 years (incorporation until December 31, 2007; n = 30), 93% (n = 28) valued the change as favorable, and 7 (n = 2) were indifferent.

Of users with seniority less than 5 years (incorporation to the company later than January 1, 2008; n = 67), 94% (n = 63) valued the change as favorable, 3% (n = 2) were indifferent, and 3% (n = 2) rated the change as unfavorable.

In the group of frequent users (n = 31), 100% (n = 31) of the responses were favorable. In the group of infrequent users (n = 66), 91% (n = 60) of the responses were favorable, 6% (n = 4) indifferent, and 2% (n = 2) unfavorable.

Discussion

The response rate to the survey was close to 60%, which reduces the probability of nonresponse bias.¹¹

The average of the overall assessment of users regarding the e-Answers initiative was favorable.

No numerical differences were observed between the results of more senior users compared with more junior ones. However, it was observed that the most frequent users tended to value the initiative more favorably. In addition, a large proportion of users considered the change to confer a competitive advantage.

The comments section shows the opinions of 6 users who conveyed concern with the change in relationships with doctors implicit in sending responses from the medical information service by email directly to health care professionals.

Before implementing the e-Answers initiative, answers to questions from health care professionals were sent to the sales force, who handed the answers personally to the health care professional at their next visits.

We suggest that for these users, delivering information to health care professionals firsthand, as they did previously, is not the same as talking to these professionals after they have already received the information from the medical information service. However, the CEDRO digital license allows the non-promotional use of articles to answer questions posed by health care professionals, and the mailing must be performed from the medical department to health care professionals who request the information.

Table 3. Overall Results of the Survey.

Item	Results, No. (%)		
	Favorable	Indifferent	Unfavorable
Overall satisfaction with the change to the new model	91 (94)	4 (4)	2 (2)
Importance to the user that the new digital license does not infringe on intellectual property rights	91 (94)	6 (6)	0
Valuation of the elimination of the load of paper and folders at work	91 (94)	2 (2)	4 (4)
Personal valuation that the elimination of paper will contribute to a lower environmental impact	94 (97)	2 (2)	1 (1)
Satisfaction with the level of information received on the e-Answers initiative	82 (85)	7 (7)	8 (8)
Satisfaction with the response time since the implementation of the new model	88 (91)	9 (9)	0
Perception of the change in the response time compared to the previous model	85 (88)	11 (11)	1 (1)
Assessment of the impact on relationships with health care professionals	68 (70)	28 (29)	1 (1)
Perception of physician satisfaction with the service compared with the previous model	83 (86)	13 (13)	1 (1)

Response time is a key factor in the evaluation of this type of services, so it is notable that no response with a negative connotation was received, with the exception of an answer that was considered wrong. To the question “Has the response time changed since the implementation of the new model?” the answer given was “has increased a lot,” but in the comments section, the user typed “quick service and assured delivery.”

On the other hand, it was noted that some users had not correctly identified the object of the study, because they thought that they were being asked about promotional materials. For this reason, in the next survey that will be done to assess the quality of the medical information service, we will try to ask the opinions of respondents just after or together with the service provided.

No publications on the results of a satisfaction survey carried out by a medical information service to assess the impact of changing from sending replies by mail to sending them by email were found, and therefore no comparison with similar studies could be done.

There were several limitations to the present study. First, the survey was conducted only 3 months after the change to the electronic format. It is possible that because of the short period of time since the beginning of the service, users did not have opinions based on sufficiently long experience. For example, it might be the case that a user has a negative experience on first using the service and that the next experiences are more positive. Given time to do more than one consultation, this user would provide a positive assessment, whereas with such a short time, the assessment would be negative. In addition, the short time between the implementation of the e-Answer initiative and the survey had a negative influence on the sample size. The questionnaire was sent to 192 users, those who had made use of the service since the implementation of the e-Answers initiative, while the total number of users of the information service during 2012 was 408, and only 97 responses could be included in the analysis.

It was not possible to study differences among business units or among professional profiles, because of a lack of statistical power. The size of the sample did not allow a comparative analysis among groups to assess significant differences; it was possible only to do a descriptive analysis of the results obtained. It might be desirable to extend the number of participants in future studies.

Our results seem to confirm good acceptance of the change of model from printed to digital format to respond to medical information requests from health care professionals. In addition to the improvements in internal processes, the indicators show a high perception of improvements in response times and customer satisfaction on the part of users of the service.

Without doubt, the resolution of the issues related to the management of intellectual property was a key point to the implementation of the model and accounted for the final push for the change.

Once the assessment of internal users of the medical information service is known and the electronic model has been consolidated, it will be easier to conduct a direct assessment of the final recipients of the information provided, health care professionals. The digital environment opens new possibilities for research.

Conclusions

After carrying out an anonymous survey with high participation of service users, we conclude that the e-Answers initiative, the new model for response by email to scientific information requests carried out by the medical information service of Novartis Pharmaceuticals in Spain, has been evaluated positively.

Acknowledgments

The authors offer sincere thanks to Francesc Roig, Cristina Calle, and Raquel Lahoz for their ideas and review of this work. Thanks also to Edmond F. Smyth for his kind assistance in the translation of this article from Spanish to English.

Declaration of Conflicting Interests

All authors work directly or indirectly for Novartis Farmacéutica SA.

Funding

Novartis Farmacéutica SA provided funding for this study.

Notes

Clara Amat and Anastasia Sarycheva contributed equally to this work. Results were presented as an oral communication at the Pharma-Bio-Med Conference, Lisbon, Portugal, November 1-3, 2012.

References

1. Hoffman KH, Gumbhir AK. Evaluation of an industry-based drug information service. *Drug Inf J.* 1993;27(2):549-560.
2. Baker RP. User survey of an industry-based drug information service. *Drug Inf J.* 1990;24(1):235-243.
3. Rawn P. Hoffman-La Roche Ltd. Drug Information & Safety Department survey of customer needs and satisfaction. *Drug Inf J.* 1999;33(2):525-539.
4. Collins GE. Drug information services at Burroughs Wellcome Co. *Am J Hosp Pharm.* 1990;47(9):1991-1993.
5. Magnuson D, Buchanan J, Quan MP, Teichman S. Drug information services at Genentech. *Am J Hosp Pharm.* 1990;47(9):1993-1995.
6. Pfeil-Doyle JL, Jones MD, Oberlin JA, Benitez J Jr. Drug information services at Eli Lilly and Company. *Am J Hosp Pharm.* 1990;47(9):1996-1998.
7. Gasperino JL. Drug information services at Pfizer Labs. *Am J Hosp Pharm.* 1990;47(9):1998-1999.
8. Baker RP, Gurwich EL, Depew CC. Drug information services at The Upjohn Company. *Am J Hosp Pharm.* 1990;47(9):1999-2001.
9. Bassin LG, Billhuber PA. Functioning of a medical information unit within a large pharmaceutical organization: a methodological approach and review. *Drug Inf J.* 1986;20(1):165-172.
10. Bauman JH, Fuentes RJ. Drug information at Glaxo Inc. *Drug Inf J.* 1989;23(1):95-103.
11. Fincham JE. Response rates for surveys and responsiveness, standards, and the journal. *Am J Pharm Educ.* 2008;72(1):1-3.