

Internet as a Medium of Pharmaceutical Companies Promotional Activities

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Summary

Pharmaceuticals market is highly regulated, and it can be stated that prescription (legal or ethical) drugs have a status of substances in controlled circulation. Promotional activities are also under strict legislation, further burdened with ethical consideration and public scrutiny. Internet as liberal and hard to control medium brings entirely new sets of solutions and/or problems to pharmaceuticals market(ers).

Key words

marketing, pharmaceuticals, promotional mix, Internet promotion.

Introduction

'Marketing... is communication and communication is marketing.' (Czinkota *et al.*, 2000, p. 418). This brief statement unequivocally reflects the nature of promotion as an explicit means of communication between a company and its environment. Marketing science and marketing practice developed immense specter of promotional mix tools to facilitate communication process. During time continuum possibilities and usability of certain media expended or accordingly lost its 'trendiness'. 'Advertising frequently generates controversy. Few industries, however, have so much strong feeling aroused by their promotional activities as pharmaceuticals.' (Reekie, 1970, p. 33). The issue of promotional activities in pharmaceutical industry is not new, and the same controversy and the same emotional charge are still present after more than 35 years of practice.

The controversy and strong emotion have also resulted in strictly regulated promotional activities of pharmaceutical companies. The sources of such legislation should also be sought in historical data, where unregulated promotion in this sphere of trade resulted in the sale of pharmaceutical products by the formula '...one for man, two for beast...' Without strict legislation, '...often not labeled with their ingredients, resulting in benign substances as well as dangerous chemicals being touted as cure-alls containing "secret" ingredients.' (Sterling, Ravich, 2002, p. 12). Although there is no precise data, it was not uncommon for such preparations not only not to help patients, but also to exacerbate their condition, including the case of sulfanilamide poisoning in 1937, leading to the loss of 100 lives. Another tragedy, 30 years later in

Europe, taking the sedative Thalidomide in pregnancy resulted in the births of a large number of children with deformities. These two isolated cases contributed to a strict regulation of pharmaceutical industry, with the requirement to prove the safety and effectiveness of a drug before the sale license is issued. Legislation defining the labeling, packaging and promotion of pharmaceuticals was developed simultaneously.

Legislation determines what is permitted in the promotion of pharmaceutical products, but it would be wrong to conclude that this limits the creativity in the promotion of pharmaceutical products. Marketers in pharmaceutical industry have all the instruments of promotional mix and all their combinations at their disposal, so as to convey the intended message to the target audience. The nature of the product, legal regulations and ethical principles create an environment in which the marketers need above-average creativity and care of the target audience, message content and choice of appropriate communication channels for the message to produce the desired effect.

1. Pharmaceutical Products and Future of Promotional Activities

Regarding method of sale, which directly translates to restrictiveness of access and promotional practice, drugs are divided into two major groups:

- **Prescription drugs (ethical or Rx drugs)** where the primary focus of marketing industry's promotional activities is on prescribing physicians. Ethical pharmaceuticals correspond to situations

that require expert medical opinion in diagnosis, seriousness of condition creates necessity for medical supervision during the treatment and inappropriate use of medication may represent serious health hazard. In such circumstances limiting promotional activities only towards physicians, in role of prescribers, is a reasonable decision. As of 1997 (Draves *et al.*, 2004), the USA has seen a significant growth in expenditure on promotional messages about ethical drugs aimed at final consumers/patients – a concept known as DTC (direct-to-consumer). Apart from this market, the practice of DTC promotion of ethical drugs is permitted only in New Zealand. According to Medwar (2002), there is a pressure from pharmaceutical companies for DTC to be allowed in Europe as well, but apart from discussions, no steps have been made towards the legalization of such practices.

- **OTC drugs** can be promoted to final consumers, which is a result of the fact that these are used for conditions where self-treatment is possible, have comparatively clear and brief package inserts, and a significant amount of information and long experience in the use of these drugs guarantee safety and effectiveness. Promoting OTC products is similar to promoting any other FMCG (fast moving consumer goods), and the presence of advertising in print and electronic media proves that manufacturers actively utilize this possibility. The key fact is that, on this market, the decision whether to purchase a product or not is 'returned' to the direct consumers, while physicians and pharmacists play an advisory role.

Regarding prescription drugs pharmaceutical industry primarily engaged in personal selling (detailing), followed by mass use of samples, and also investing in scientific conferences and publications. Companies promoting their OTC products are more prone towards mass media and advertising. True nature of promoting pharmaceuticals and its specific features is visible on prescriptions drugs market, and in this paper effort is dedicated to understanding how Internet as a promotional medium is influencing promotional practice regarding ethical drugs.

Morris and Pines (2001) specifically state that new communication channels and new information

requirements, among other factors, will lead to the growth of promotional activities. The promotion of pharmaceutical products '...operates in the context of a geometrically expanding universe of health information available to individuals via the internet as well as other, increasingly numerous and specialized media channels.' (Draves *et al.*, 2004, p. 54). This fragmentation of media, followed by their expanding number, facilitates communication between industry and physicians/patients and gravitates towards personalized message – answering to new information requirements. Companies have to meet the differentiated information requirements of patients, payers and prescribers. On the other hand, if number of information and media channels is moving towards 'innumerable' how hard it will be to control substance and ethics of such communication practice. Furthermore, it has to be added that market is facing increasing competition, development of new drugs/therapies, off-label use of pharmaceuticals and internationalization.

2. Idea of Promoting Pharmaceuticals

Pharmaceutical promotion must not be primarily guided by the motive of 'selling a unit more of its product'. What differentiates pharmaceutical industry from any other practice is that 'its product, message, promotional channels, even the audience are determined' (Castagnoli, 2008, p. 82) by national regulatory bodies. The primary purpose of pharmaceutical promotion is conveying objective and balanced information to the target auditorium. The promotional message meets the needs of prescribers (as well as other stakeholders) for appropriate information, and its content becomes the basic element of understanding promotion in this market.

The objectivity of conveyed message is based on clinical trials. The promotional message in pharmaceutical industry cannot be separated from the scientific context. Only the information proven and confirmed in clinical trials can be used in promotional message. This information is derived from documents submitted when applying for sale licenses. The balance of information requires that a promotional message for a pharmaceutical product must contain an equal proportion of positive (affirmative) and negative information. Pharmaceutical industry is the only industry required by law to state the adverse features of its product (Smith *et al.*, 2002).

The basic problem is that it is hard to separate education from promotion. Scientific (expert)

communication and promotion inevitably mix when pharmaceutical products are concerned (Morris, Pines, 2001; Smith *et al.*, 2002). Promotional activities, based on the results of clinical trials, communicate scientific information, while at the same time, a publication resulting from a clinical trial may have the promotional function or effect. Furthermore, there is the conflict between the scientific and economic logic concerning R&D in pharmaceutical industry. In any other industry based on R&D, this data is regarded as confidential. The scientific component of the R&D process requires that this knowledge be shared with the expert public, so that research may yield appropriate contribution to the fund of human knowledge on medicine, pharmacology, epidemiology *etc.* On the other hand, legislation requires pharmaceutical companies to practice transparency in their R&D processes, ingredients of their products and the results of clinical trials.

Drawing an analogy with the opinion of Azoulay (2002) on the adoption of technological innovation, it may be concluded that the dissemination of new knowledge in medicine and pharmacological therapies also results from the availability of relevant information to prescribing physicians. From the moment of finishing their university studies and throughout their professional career, physicians need to innovate and update their knowledge. A significant portion of this body of knowledge relates to available pharmacological therapies, especially in view of the fact that ‘...the body of knowledge regarding pharmaceutical products is dynamic and growing.’ (Lobb, Kolassa, 2005, p. 3)¹. Doctors have various sources of information at their disposal, where the most significant elements are articles in periodicals, seminars, conferences and information sponsored by pharmaceutical companies.

Regarding patients, if there is a slight possibility of professionals being overwhelmed with data, would it be fair to assume that for patients usability of plethora of information would cause even more confusion? Not necessarily. It depends on cleverly tailored communication channels and sent message. The new role of patients as active participants in the treatment process has also given

rise to controversies related to promoting drugs directly to final consumers/patients, and the discourse on the beneficial and/or adverse effects of this communication channel is far from conclusion. Responsible marketing practice could lead to multiple beneficial effects for all stakeholders in healthcare market, with fact that is a constant “walk on the edge” where boundaries between legal/illegal, ethical/unethical and commercial/altruistic are most of the time blur.

3. Internet as a Promotional Medium for Pharmaceuticals

The Internet is a relatively new medium in the promotional mix. In view of the fact that, unlike most other media, it enables interaction with the user and flexibility, as well as the fact that the use of the resources/information from web pages is the result of the user’s choice, this is a complex medium capable of delivering an enormous body of information. It is almost impossible to control access to on-line content, making most of material equally accessible to professional and general public. Since this medium can be equally accessed it can be equally utilized (and oriented) to convey a message to vast stakeholder audience.

According to a publication entitled ‘Consumer, Patient, and Physician Oriented Web Initiatives’ (FGC Consulting, 2001) web-based solutions may be branded or unbranded WebPages (with or without clear association with a pharmaceutical company), which are strategically oriented on: a specific product, therapeutic area or a certain medical condition. It may be added that authors did not include WebPages that have broad area of medical topics, such as Yahoo!Health, and can also be consider as a web-based solution for information needs of patients/consumers.

Issue is especially significant having on mind fact that pharmaceuticals market is global market and that most drugs are being sold worldwide. It has to be mentioned that substantial differences are visible in practice of US, UK or EU based operations. Different national legislations open possibilities to have substantially different attitudes towards ethical standards in promoting pharmaceuticals in different markets.

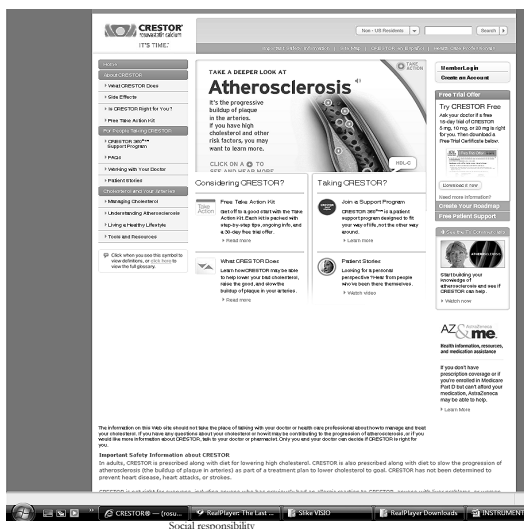
For instance WebPages like www.arimidex.com or www.crestor.com represent typical example where name of web page is actual brand name of drug. Content of webpage is created to support patients with specific diagnosed conditions and prescribed therapy (see Illustration). Arimidex is global brand of AstraZeneca, UK based company,

¹ Lob and Kolassa (2005, p. 4) pose the question whether prescribing physicians are objectively capable of keeping up-to-date with the new information in the area of pharmacy in view of ‘information overload’. The authors have established that, on the average for 25 best-selling drugs, the period from 2000 to 2003 saw the publication of 214 articles in specialist journals and 158 abstracts from conferences per drug.

but drug is also registered in Serbian market for treatment of breast cancer patients. Thus in full scale this example represents major issues of pharmaceuticals promotion using Internet as a medium and answering on question how can company prevent patient from Serbia to access information and promotional material intended to serve patient in US market?

4. Illustration: Crestor – Branded Web Page for Specific Product

Crestor (rosuvastatin calcium) is AstraZeneca's medication for the control of blood cholesterol levels. Crestor works by blocking an enzyme in the liver responsible for cholesterol synthesis, thus reducing levels of bad cholesterol (LDL) and simultaneously raising the proportion of good cholesterol, which, combined with appropriate dietary habits, can slow down arteriosclerosis. Using the drug's web site, the manufacturer directly addresses the patients, current and potential medication users. Some of the key elements of this web site include:



Page can be reached directly by entering name of drug in any search engine (like Google or Yahoo), or link can be provided by manufacturers home page (in case of Crestor and Arimidex it is AstraZeneca), or through various web pages with or without clear association with manufacturer. If you analyze content of webpage for Arimidex (potent drug prescribed to patients with breast cancer) on the bottom of page you can notice disclaimer that states: “This site is intended for US consumers/patients. If you are a non-US consumer/patient, [click here](#) [link].” Link will lead

to branded site, sponsored by AstraZeneca that has no direct association with company's products, but speaks about conditions – therapeutic areas in which AstraZeneca offers solutions – therapies. There is nothing to prevent non-US resident to browse brand based web page, and therefore be influenced by promotional material/message. Disclaimer mounted on bottom of page is more formal than essential tool of managing consumer's access to promotional material. It could be argued that more sophisticated solution is available, lot of companies uses rerouting to local web pages automatically detecting proxy address of computer accessing web page, thus detecting precise location of user. Applying this common and easy solution would prohibit consumers, other than ones from US and New Zealand (where direct to consumer advertising of prescription pharmaceuticals is allowed), to access promotional materials legally unacceptable on most world markets. Real question might be are pharmaceutical companies interested in limiting this access? Furthermore, is better understanding of disease, improving adherence to therapy, amassing information vital to enhancing quality of life delivered by branded web pages and if it is, should this access to information be restricted? Answers to these questions should be looked upon considering mentioned problem of separation of information and promotion regarding pharmaceutical products, and adding fact that World Wide Web exists above national legislation boundaries. Devlin *et al* (2007) could argue that pharmaceutical marketing is a question of legislation, but Baumer *et al* (2007, p. 13) with a good reason ask “can regulation of distribution [and promotion] of pharmaceutical products coexist with advances in information technology.”

Serbian pharmaceutical companies developed web pages that primarily would fit in to category of institutional promotion, but only few mouse clicks away, as user goes deeper trough site maps, information about specific products can easily be found. Most of producers in Big Five (Hemofarm, Vršac; Galenika, Beograd; Zdravlje-Actavis, Leskovac, Jugoremedija, Zrenjanin and HabitPharm, Ivanjica) have a detail package insert (PI) for every product in portfolio. Before consumer/patient gets to data, he either needs to confirm that he read or at least has opportunity to read warning info that states that available data is just for educational purposes and that they do not substitute conversation with physician or pharmacist. Some of producers introduced disclaimers of responsibility stating that each

visitor/patient is directly responsible for utilization of available information. In a sense only difference between branded web pages is that there is no additional information about condition, testimonies of patients already using therapy, and there is no direct promotional message stating that you should use drug A if condition X occurs. It could be argued that information provided with product in PI and information provided on-line is redundant, and that available on-line information does not bring any additional benefit to end users. Could it be use as quick reference guide for medical doctors? It could be, but then again National drug registry already provides such information, both on print and as e-resource. Searching for similar practice in several EU member states countries, i.e. Stada, Germany (owner of Serbian pharmaceutical company Hemofarm), Roche, Switzerland or Lek, Slovenia, none of them shares similar practice conducted by Serbian pharmaceutical sector of giving extensive information on line available through home page of company. Roche web site has list of available brands/products, but click on name of drug will provide just basic information of intended indications and statement that regulatory reasons prohibit company to provide further detail about product.

Some of web initiatives are intended to serve information needs of patients with primary focus on either specific condition, or on therapeutic area. From our previous example of Arimidex, non-US visitor should redirect itself (*sic!*) to www.patienthealthinternational.com, web page sponsored (and maintained) by AstraZeneca, leading user towards information about conditions, disease research and medical information.

There are numerous examples of non branded web sites without association to pharmaceuticals manufacturers. Some of them are developed and maintained by government as American Heart Association www.americanheart.org or Serbian Institute for Public Health "Dr Milan Jovanovic Batut" www.batut.org.rs. Entering name of certain condition on any search engine will produce abundant results, some of them are specialized and some cover broad range of health topics. Tracking information in health segment is equally burdened with issues of source and validity of data like any other topic that can be found on-line. It is common to find out initiatives that are results of personal efforts, i.e. www.kardiologija.net, web paged posted and maintained by one health care professional, or web pages owned by patients in organized or non-organized groups. Some

initiatives, like Katarina Rebraca Found (www.rebracafond.com) have intention to raise awareness about certain condition, in this particular example breast cancer, but also to collect funds destined to be invested in education, prevention and diagnosis. Some of these web initiatives can be utilized by pharmaceutical companies to invest in building good image and reputation, but sometimes these initiatives are ferocious opponents of pharmaceutical companies and induce substantial pressure to business policies of industry.

Most of discussion on web based promotion of pharmaceuticals was dedicated to end users or patients, and most of time physicians were not mentioned. Usually access to medical professional's part of web site is available from page intended for patients and vice versa, so there is no actual restriction of access to neither group.

Drummy (2006) points to several key features rendering the Internet as a medium of above average effectiveness in conveying a message to the target audience:

1. Immediate segmentation. A Pharmaceutical company's web page should meet the information requirements of various target groups. Patients may seek information on how to maximize the effects of a therapy, to learn about the benefits of adherence to therapy or the dangers of discontinuing it; certain users may be interested in information on disease prevention or diagnosis; prescribing physicians may seek information on the mechanism of action, contraindications or drug tolerance, taking therapy in combination with food and/or other drugs *etc.* For this reason, a web page must enable intuitive, fast approach to information sought, with the reservation that there is no way of 'forcing' the users to follow information paths they do not require or perhaps deem as inappropriate. Time is one of the key elements of keeping the user 'involved' in the web page content; the user's attention is kept on the web page for only a few seconds, and the inability of web page's infrastructure to lead the user to desired information in this extremely brief period of time results in his abandoning the information search, or turning to other sources (Sakal, 2007).
2. Integration. Internet communication channel is only one in a complex combination of communication channels at a company's disposal within its promotional

mix. Marketers should find a synergy between 'offline and online media' (Drummy, 2006, p. 89), integrating the direction to the internet into the promotional messages of the traditional media (such as TV and print media), and vice versa. A pharmaceutical company's web page may be an excellent addition to personal selling, so that some companies '... including Bristol and Merck, are supplementing often brief physician visits with „e-detailing“. They might, for example, point doctors to interactive Web sites that teach them about new drugs and that can be updated instantly with fresh clinical-trial data to support their sales pitches.'

3. Immersion. Pharmaceutical companies should provide for a large enough target group to be informed about the existence of a web page. The amount of information available to various stakeholders on a web page acquires its full sense only when it has produced an effect in the expansion of information and/or knowledge to a large enough population. For this reason, in the virtual space, attracting the target group to use the web page on a disease and/or therapy is achieved either by buying key words with major search engines (Google, Yahoo, MSN *etc.*) or 'catching' the users who actively and intensively use the Internet but do not primarily seek health information, i.e. their access to web pages sponsored by pharmaceutical companies results from other stimulations (banners, advertisements, news *etc.*).
4. Impact. The future development of Internet infrastructure will provide for more audio and visually intensive, accompanied by animations, video footage *etc.* Harrell (in Drummy, 2006, p. 94) warns of the danger of marketing using all these new possibilities '...just because they can, not because they are serving a particular marketing goal or user need.'
5. Investment measurement. Measuring the effect of investing in promotional activities is one of the typical marketing issues. Web-based promotion is comparatively easy to follow (Iskowitz, 2008), especially in the category of the number of users who accessed different contents. However, the objective result will only be manifested in the changes of behavior among prescribers

or consumers on the market, which requires more complex mechanisms of effect measurement. The existence of additional channels of communicating with stakeholders is also important in strengthening the connections between a company and its environment.

McGuire points out that the 'shift' of the industry towards the Internet and interactive promotional solutions for prescribers must be set in the context of the fact that the prescriber population has also changed. Old physicians, hostile to information technology, are slowly retiring from practice, and the younger generation of doctors, who grew up with computers, expect e-marketing solutions from the pharmaceutical industry. Catallo (2008, p. 24) predicts an expansion in the use of the Internet for decision-making on health issues on the patient side as well, especially among the younger, educated population, facing '...a lifetime of healthcare decision-making...'

Internet represents one of most important communication channels in contemporary society. It has astonishing potential in emitting information and knowledge, and can influence habits and decisions through diagnosis and treatment, but also can do a lot in prevention and rehabilitation of patients. Its influence can be tremendous in education (especially lifelong learning) for next generation of medical doctors. Global nature of industry will require global regulation, and global nature of World Wide Web is bringing new communication media that also requires clarification and regulation in interest of public safety – regulating trade, distribution and promotion of pharmaceuticals. Potential benefits would be realized only if we are able to neutralize potential perils.

5. Internet and Direct-to-Consumer (DTC) Promotion of Ethical Drugs

Relative novelty of Internet communication regarding pharmaceuticals requires understanding of pros and cons of utilization of this media, especially stressing ease of access for end-user/patient. The problem of direct-to-consumer (DTC) promotion of ethical drugs gained momentum in 1997, with the exponential growth in the costs of communicating with final consumers/patients in the US. This form of promotion had legally existed before as well, but became effectively usable when the FDA, as the

regulatory body of the largest pharmaceutical market in the world – the USA – decided to loosen the regulations on advertising on TV, radio and the Internet. Namely, the manufacturers of these product got the permission ‘...to advertise in the broadcast mass media without including detailed or summary information on the use, indications and potential adverse effects of a drug.’ (Findlay, 2001, p. 111). The manufacturers’ obligation was reduced to stating the most important adverse effects, referring to other media with detailed information (web page, patient hotlines or print media) and mandatory statement, i.e. instruction ‘to consult their doctors/pharmacists’ (Buckley, 2004, p. 94).

The choice of an ethical drug for treating a patient’s symptom and/or disease is based on the assumption that the physician possesses the required expertise enabling him/her to make a proper diagnosis and choose the best available therapy for the patient based on available information. On the other hand, a patient who has decided that the ‘aberration from normal’ in his/her case is such that it requires seeking expert help in the domain of socially accepted medical practice will delegate the decision on the choice of therapy best suited to his/her requirements to a physician. The relationship between a physician and a patient is based on mutual recognition of rights and obligations arising from the doctor-patient relationship and is based on trust. It must be pointed out that **direct** promotion to patients is in fact indirect (White *et al.*, 2004), as the mechanism of its functioning implies that a patient will influence a physicians who has undoubted ultimate authority to prescribe a drug (or withhold it from the patient if it does not suit the patients circumstances).

Analyzing the opinions of various authors (Finlay, 2001; Smith *et al.*, 2002; Shankland, 2003; Dubois, 2003; White *et al.*, 2004; Buckley, 2004; Richardson, Luchsinger, 2005; Kavadas *et al.*, 2007) we can define conclusions regarding the positive and negative effects of DTC practices. In many authors’ opinion, the central beneficial effect is raising information levels among patients, reflecting in:

1. enhancing the role of patients as active participants in their personal medical history (Shankland, 2003; White *et al.*, 2004);
2. raising the awareness of diseases, which contributes to the recognition of symptoms, more precise and timely diagnosis and therapy (Dubois, 2003; Kavadas *et al.*, 2007);

3. raising the levels of knowledge on available therapeutic alternatives, including prevention and lifestyle adjustment (Buckley, 2004);
4. faster dissemination of information on new available therapies, and developing pharmaceutical brands, and special expertise in particular therapeutic areas (Findlay, 2001; Richardson, Luchsinger, 2005);
5. improving therapy outcomes, through appropriate use of and adherence to therapy (Smith *et al.*, 2002; White *et al.*, 2004). According to Dick-Rath (2008, p. 74) the best marketing practice in pharmaceutical promotion results from ‘...evolving a dialogue with their patients to improve adoption, compliance and adherence.’;
6. economizing with physicians’ time, as the patient has numerous sources available where (s)he can gather information on the disease and therapies, and other desired information (Richardson, Luchsinger, 2005).

As for negative outcomes, the task of pharmaceutical marketing to ‘harmonize the needs and wishes in an efficient and effective manner’ is challenged when:

1. the doctor-patient relationship is disrupted through undermining physician’s authority, where (s)he turns into a provider servicing patients’ desires, while the diagnosis and choice of therapy are transferred to the patient. Self-diagnosis is a specific problem which, according to Shankland (2003), takes a significant amount of the physician’s time, who must dissuade a patient who has come with his/her own, uncorroborated diagnosis. Smith *et al.* (2002), for instance, list four different producers who differentiate four different advantages of their hypertension therapies, so how can a patient make an appropriate decision?;
2. there is a pressure on physician to prescribe unnecessary or inappropriate therapy, which is based on influence without education (Kavadas *et al.*, 2007);
3. costs of therapy grow due to insistence on branded drugs when there is an appropriate generic parallel;
4. there is a questionable ratio of positive and negative information in DTC promotion, where the authors agree that advertisers tend to overemphasize positives and play down negative effects (Dubois, 2003; Richardson, Luchsinger, 2005; Kavadas *et al.*, 2007);

5. the issue of ethicality of influencing 'vulnerable and suggestible' audience is raised (Richardson, Luchsinger, 2005) as well as the danger of disease mongering (Buckely, 2004).

Stakeholders, in widest notion, have to be aware of positive and negative aspects of direct to consumer promotion of pharmaceuticals. National legislations prevent DTC promotion on most markets in the entire world, but contemporary user can collect information and be influenced by media that surpass national legislation borders. In fact, part of the problem is that there are markets allowing promotion to patients which with advances in digital media become widely available, but even without that – would we be able to prevent patients accessing web pages intended only for professionals.

6. Further Issues Related to Use of Internet as Promotional Medium for Pharmaceuticals

Pharmaceutical market is burdened with substantial controversy. Its source might be embodied in clash of specific use of pharmaceuticals and business logic of pharmaceuticals manufacturers. State of being ill implies certain physical and biological, but more important social and cultural phenomenon resulting in empathy and ethical attitude that if solution is available it should be accessible to all (or at least to wide population). On the other hand pharmaceutical industry as any business enterprise needs to achieve business goals, often presented in form of profit. Simplified advertisers interest is to reach audience and convey message that will result in increase of consumption/sales with intention to achieve business goals. A further complexity results from the fact that that the production/consumption of drugs functions in a combination of various (and often conflicting) interests of numerous stakeholders on this complex market: prescribing physicians, legislators, payers, manufacturers, consumers/patients, various social groups and society as a whole.

To paraphrase Liebman (2003, p. 44) promotional activities in the pharmaceutical industry are in a delicate position balancing between education and promotion, between affirmative and negative attitudes to its role in the sphere of healthcare, and marketers invest constant effort '...to ensure that god intentions don't bring bad results.'

Utility and ethicality of pharmaceuticals promotion will be always measured through impact on attitudes and behavior of two key stakeholders groups: prescribers and patients. Without a doubt, it is necessary for prescribing physicians to have access to up-to-date information on new therapies and alternatives in the treatment of their patients. The physician's freedom to choose a therapeutical alternative that (s)he regards as the optimum solution in a given situation should not be jeopardized by the 'promotional pressure' of the pharmaceutical industry. Alternatively, a physician could decide that the patient does not require drug therapy, but rather an alteration of the lifestyle that will alleviate or neutralize the factor of risk of a person developing a certain disease. One should not neglect the need for all consumers to be informed, within the limits of possibility, about the available alternatives and all aspects of choosing individual therapies. The new - more significant - role of patients in treatment is based on the fact that the contemporary consumer is better educated and informed than it was objectively possible in the past. The abundance of research and existing attitudes for and against the promotional practices in pharmaceutical industry aimed at practitioners and even more at final consumers i.e. patients, once again result from a very reasonable question – what is the interest of the source of information, how complete and accurate it is, and how much freedom of choice it leaves. With the strength of its expertise, pharmaceutical industry is the primary source of information on pharmaceutical therapies for prescribers, and at the same time, pharmaceutical industry itself wants to provide information for the final consumers i.e. patients.

Introducing Internet as promotional media has opened new area of possibilities, but threatens with new (or reappeared) issues, to name a few:

- Potential of pharmaceuticals to harm was "restrained" by introducing strict regulation and giving exclusive right to prescribe drug to educated professional – physician. As internet becomes not just a promotional medium, but also a distribution channel, regulation becomes diluted in cyber space and possibility opens for end-users/patients to make decisions without being properly diagnosed and thus prescribed therapies that fit circumstances and is in their best interest.
- Losing control over distribution channel further meant losing control over production of pharmaceuticals and their quality, opening route for trade with

counterfeited or adulterated pharmaceuticals.

- Medicalization of mankind's problems has been given additional credibility by promoting pharmaceutical solutions for ailments that are not necessarily illnesses *per se*.

Internet should also be considered as evolving or "alive" media. Regulators didn't settle existing issues when new developments regarding Internet brought new sets of advances in web based solutions i.e. Web 2.0 applications – blogs, podcasts, wikis, social network communities (Alkhateeb *et. al*, 2008, Dick-Rath, 2008). It is certain that everything is not said, and at for sure everything is not yet done regarding promotion of pharmaceuticals on-line, so it will remain a hot topic to investigate.

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