

## IMPACT OF DIRECT-TO-CONSUMER ADVERTISING (DTCA) ON PRESCRIPTION DRUG UTILIZATION

**\*Arjun Dnyaneshwar Pawar and Nidhi Pradeep Naralkar**

Student –Lokmanya Tilak Institute of Pharmaceutical Sciences Pune, 411037.

Article Received on  
16 Jan. 2024,

Revised on 05 Feb. 2024,  
Accepted on 26 Feb. 2024

DOI: 10.20959/wjpr20245-31578



**\*Corresponding Author**  
**Arjun Dnyaneshwar**  
**Pawar**

Student -Lokmanya Tilak  
Institute of Pharmaceutical  
Sciences Pune, 411037.

### ABSTRACT

The increasing importance of new technologies of the Internet and social media and their importance as a source of health information is pushing the pharmaceutical industry to digital channels. This article examines the potential implications of the pharmaceutical industry's growing interest in online marketing and examines how Canada's current regulatory framework is reflected in social medias. Although Health Canada has confirmed that the existing DTCA regulations apply to new Internet and social media technologies, new dynamics such as user-generated content, consumer distribution and targeted marketing make applying the current regulations an uncertain process. Additionally, social media can exacerbate some issues commonly associated with DTCA. Finally, there is doubt as to whether national regulatory agencies have the resources or political will to effectively control new digital media. This article examines not only the role of

direct government regulation in regulatory oversight and enforcement of the DTCA, but also the role of third-party oversight and industry self-regulation, both of which can play an important role in filling Internet and social gaps. media regulation. Direct-to-consumer advertising of prescription drugs (DTCA) is prohibited in Canada, as in most industrialized countries; the only two countries that allow such advertising are the United States and New Zealand. However, over the last two decades, there have been significant changes in the interpretation of laws prohibiting the DTCA in Canada, which has led to an increase in drug advertising. Consequently, the DTCA has become an increasingly contentious issue in Canada, particularly following the 2005 CanWest Mediaworks lawsuit, which argued that the DTCA prohibition violated the Canadian Charter 2(b) right to freedom of expression Liberties.<sup>[2]</sup> Although the challenge was granted an indefinite statute of limitations in 2009,

the case sparked a lively debate over the DTCA in Canada, a debate that is far from settled. While there is a large body of research and literature on the topic of prescription drug DTCA in Canada in general, very little work has been done on the role or resulting policy of social media marketing and new Internet technologies. consequences Therefore, the purpose of this article is to explore the possible implications of the pharmaceutical industry's growing interest in online marketing and consider how social media is affected by the current laws and regulatory framework in Canada.

## INTRODUCTION

According to many commentators, the pharmaceutical industry is currently in a phase of significant change due to a number of important factors: “[t]he rapid growth of digital and social media channels, the ever-evolving regulatory environment, major blockbusters and the decline in new drug launches all show to an important turning point in pharmaceutical marketing”<sup>[7]</sup>, p. 3). Due to increasing financial pressures, many pharmaceutical companies are forced to abandon traditional and more expensive media channels such as print and television to more economical “digital channels”, namely the Internet and social media platforms.<sup>[7]</sup> Social media marketing has a lot of potential to benefit the pharmaceutical industry, including “flexibility in marketing successful and niche therapies, the ability to reach larger audiences and target specific patients, and better Social Media and Marketing Financial AnalysisROI”<sup>[1]</sup>, not to mention significantly lower costs than traditional forms of advertising. Although investments in Internet and social media advertising represent only a fraction of the total pharmaceutical advertising market, Internet advertising spending by pharmaceutical companies is projected to increase from \$4,444 to \$1.03 billion to \$1.86 billion in 2010.

New interactive technologies have become another means by which some drug marketers can try to create brand preferences. Many pharmaceutical companies are establishing themselves on popular social media platforms such as Facebook, Twitter and YouTube, and others are adding new interactive technologies to their standard websites through elements such as videos and interactive features with anatomical images, doctor interviews and patient testimonials. . . ; symptom assessment studies; physician discussion guides; and tools that promote adherence.<sup>[9]</sup> Some of these online tools are designed for enrollment and compliance 2. Such health management tools can be effective in attracting and retaining an audience to a website and, perhaps more importantly, adding value to a particular brand. Some

pharmaceutical companies also develop health management tools for mobile apps available in online marketplaces such as Apple iTunes Store and Android Market. While many early smartphone apps focused primarily on diabetes management tools, there is now a rapid expansion into other 4,444 diseases.

Another important factor pushing pharmaceutical marketers to digital channels is that consumers today use the Internet as one of the main sources of health information.<sup>[12]</sup> Most people turn to the Internet first when looking for health information, even before discussing health topics with a doctor, family members, or friends.<sup>[7]</sup> A Statistics Canada survey of 4,444 individuals found that 70 percent of Canadian household Internet users searched for health information online in 2009, compared to 59 percent in 2007.<sup>[13]</sup> In addition, more and more consumers trust social media as a source of health information. A 2012 US study found that 4,444 “one-third of consumers use Facebook, Twitter and other websites to search for medical information, discuss symptoms and express opinions about doctors, medicines and health insurance”.<sup>[11]</sup> In addition, 34% of respondents reported that information found through social media will influence their 4,444 decision to take a certain medication.

As more and more consumers use the Internet as a primary source of health information, it is important to consider how the health information that consumers receive online affects their perception of health. On the other hand, patient participation in medical care can help improve health outcomes, especially for chronic conditions. researching medical issues on reputable websites can be a positive step for patients if it helps them become more educated about their health.<sup>[14]</sup> Patients can even accurately diagnose themselves, especially for common conditions such as appendicitis and laryngitis.<sup>[14]</sup> On the other hand, many health websites are unreliable and can mislead patients into thinking they have a medical problem. As consumers are increasingly exposed to drug advertisements on the Internet and social media, healthcare professionals must be aware of the impact of these messages on patient interactions with the healthcare system.<sup>[15]</sup> Although the debate over the risks and benefits of pharmaceutical DTCA is complex and controversial—and beyond the scope of this article—it is worth noting that several reviews of online drug advertisements have shown that they often contain dubious claims and may exaggerate the drugs' benefits. . drugs treatment medicine.<sup>[12]</sup> Doctors are increasingly treating patients who self-diagnose themselves based on information they find on the Internet. When some consumers experience unexplained symptoms, they

may draw the worst possible conclusion from health information they find online about a phenomenon sometimes called as “cyberchondria”

## 2. Regulating DTCA in the Digital Age

While Canada has all advertising regulations that prohibit false and misleading messages, the DTCA for prescription drugs is subject to additional restrictions due to the unique safety concerns associated with these products. First, prescription drugs differ from other consumer products in that their proper use often requires the expertise of a trained physician. Although prescription drugs are given with the goal of improving the patient's health, they can also cause unwanted and even serious side effects. Therefore, doctors must consider several individual factors when deciding whether to prescribe a particular drug for a patient. In Canada, only two types of DTCA are allowed for prescription drugs: (1) reminder advertisements that contain only the brand name of the drug, without reference to health claims or indications of the product's use (eg, a list of medical specialties); and (2) disease-targeted or help-seeking ads that do not mention a specific brand but instead discuss a disease and encourage viewers to ask their doctor about an unspecified treatment.<sup>[3]</sup> Full product advertisements, such as those commonly seen in the United States, that include the drug's brand name and health claims and risk information are currently prohibited under Canadian regulations.

### 2.1. Food and Drugs Act and Regulations

In Canada, DTCA for prescription drugs is prohibited by two provisions of the federal Food and Drug Act, first enacted in 1953 as part of the federal Criminal Code. The law prohibits the DTCA in two main ways. First, the Act generally prohibits the promotion of prescription drugs to the general public<sup>[3]</sup> (ie, drugs that contain drug ingredients listed on the Prescription Drug List administered by Health Canada<sup>[22]</sup>). Second, Section 3(1) and Schedule A of the Act set out a number of diseases and disorders for which "treatment, prevention or therapy" cannot be advertised to the public.<sup>[23]</sup> The schedule includes many diseases, such as depression, diabetes, asthma and heart disease, which are often the target of drug advertising in the United States. The rationale of Article 3(1) is "the recognition that seriously ill people can be threatened by the marketing of unscrupulous medicines" (<sup>[3]</sup>, p. 7). Finally, section 9 of the Act also prohibits general false and misleading advertising: "No person shall - - advertise any medicinal product in a manner which is false, misleading or deceptive or which is likely to create a false impression as to its nature, value, quantity, composition, benefits or security"

(<sup>[23]</sup>, p. 9 paragraph 1). The law also prohibits the narcotics DTCA (Sec. 70 of the Narcotics Control Regulations) and controlled drugs (S. G.01.007 of the Food and Drug Regulations). Looking at the legislation, it may appear that all prescription drug advertising is prohibited in Canada. However, over the past 15 years, the interpretation of the prescription drug DTCA policy has undergone considerable change. Despite the DTCA's express prohibition, certain forms of prescription drug advertising have become increasingly common as a result of legislative changes and reinterpretations.

In November 2000, Health Canada published a second policy statement proposing further liberalization of the interpretation of the DTCA ban.<sup>[25]</sup> It gave express approval to help-seeking and reminder ads, but declared that full product ads were illegal. According to the document, recall ads fall under C.01.044, a 1978 amendment that allows pharmacies to advertise "brand name, proper name, generic name, price and quantity." prescription medication for competitive purposes (<sup>[26]</sup>, page C.01.044). "Reminder" advertisements, although considered advertisements by Health Canada, fall within the scope of Regulation C.01.044 if they contain only reference to name, price and quantity; However, if the reminder advertisement is accompanied by messages suggesting its intended use, the advertisement is considered to be in violation of C.01.044.<sup>[6]</sup> This guidance also clarified that it is prohibited to display two separate ads (ie a help request ad and a reminder) that together violate the rules.<sup>[25]</sup> Note that while Health Canada technically considers help-seeking and disease-related ads to be "dissemination of information" rather than advertising, the discussion in this article includes help-seeking ads, disease-specific ads, and reminders. All of these are covered by the DTCA because they are all direct-to-consumer marketing activities.

### 3. The New Dynamics of DTCA in Social Media

The interactivity of social media has changed the way the world communicates. New Internet technologies have not only increased the quantity and quality of Internet information and the speed at which it is available, but have also introduced new ways of communicating. There are three main aspects of social media that have changed the rules of the game when it comes to drug marketing: the ability for users to create their own content; the ability of users to distribute content through their social networks; and the unprecedented ability for advertisers to target ads based on information contained in user profiles and search history. In addition, pharmaceutical marketers have discovered that consumers are more likely to engage with "generic" messages on social media than with specific brand campaigns. As discussed in the

following chapters, each of these aspects of social media presents issues that make the application of existing regulations an uncertain process and emphasizes the need for additional regulatory guidance from Health Canada on certain issues.

One of the most unique features of social media technologies is the opportunity for everyday users to become a source of broadcast, either by creating their own message or broadcasting a message from another source. The use of social networks for marketing purposes can sometimes rise to the level of "viral marketing" when the self-diffusion of popular messages in social media is analogous to the spread of viruses, especially computer viruses.<sup>[48]</sup> The time and manner in which the message is delivered, as well as the chosen medium, influence the determination of the content of this advertisement.<sup>[24]</sup> Health Canada's policy statement Distinguish between advertising and other activities indicates that the broader the target group, the more likely the message is perceived as advertising.<sup>[24]</sup> Social media platforms are quite informal in nature and in most cases are widely accessible to the general public. Obviously, advertisers who participate in popular social media do so with the goal of spreading their message to the widest possible audience, and many advertisers run campaigns on multiple social media platforms simultaneously. For example, Janssen's Canadian Living Well with Psoriasis campaign includes a website, Facebook page, Twitter channel, YouTube channel and iPhone/smartphone apps, presumably to reach the widest possible audience.<sup>[47]</sup> As such, the social media context can lend a certain promotional aspect to industry-sponsored health information. Health Canada states in its policy statement that "when the same message is delivered repeatedly, the message is more likely to be perceived as advertising".<sup>[24]</sup> While in traditional forms of push media, such as television, radio and print, the advertiser alone controls the frequency of messages through their advertising budget, in social media the frequency of message delivery is highly dependent on consumer participation and distribution. It is common practice in all economic sectors for websites to include "widgets" that allow users to share a website or page via popular social media sites such as Twitter and Facebook with a single click. The purpose of such widgets is to spread a particular website or message as easily as possible, and they are often added to pharmaceutical websites, especially those related to a specific cause or disease. Advertisers can also include various incentives in their social media campaigns to encourage consumers to spread the sponsored message through their social networks: drug marketers can run contests, make donations to charity based on the number of times a message is sent. are shared or design games or apps to increase the entertainment factor of the site. For example, in 2011, Sunovion created a

"Follow the Wings" game on Facebook around the sleeping pill Lunesta. To encourage users to share the game, Sunovion partnered with the CARE charity and pledged to donate \$1 to CARE the first time a user played the game and each time a user shared the game with a friend.<sup>[49]</sup> In another example, Pfizer launched a contest in its Canadian campaign "Start Something with Alesse" where young women can submit innovative project proposals and the winner is determined based on the votes of online users, encouraging contestants to share the message widely on social media. . networks for voices.<sup>[50]</sup> As such, the measurement of message frequency in a social media context should take into account the measures taken by the advertiser to encourage consumers to spread the message through their social networks.

While traditional advertising media allows for limited targeted marketing (eg, advertising anti-arthritis medication in a magazine aimed at the elderly), social media technologies offer an unprecedented opportunity to capture a target audience. Social media allows advertisers to target their ads to specific audiences based on the users and#039; profiles and online activity; advertisers can target users not only based on the demographics and interests listed in a user's profile, but they can even advertise to users' friends and contacts who have shown interest in those pages.<sup>[51]</sup> The pharmaceutical industry can use these targeted marketing opportunities in a number of ways to narrow the focus of their advertising campaigns to those users who are most likely to be interested in their products. For example, advertisers may advertise birth control pills for women ages 14 to 40, or anti-arthritic pain relievers or cholesterol-lowering medications for over-50s. Such targeted marketing even has potential benefits, as it can be used to target ads to more relevant audiences – for example, blocking children under 18 from seeing ads. However, there is a disadvantage when certain drugs are targeted especially at vulnerable groups such as children or the elderly. Targeted marketing could be controversial if it had to promote, for example, sleeping pills or anti-anxiety drugs to high-stress students, such as law and medical students. Since drug advertisers can use targeted marketing to target their online campaigns to specific groups or demographics, this is another area of social media marketing that could benefit from more regulation.

### **Search Engine Advertising**

Search engine advertising, where advertisers pay search engines like Google, Bing and Yahoo! traffic from the search engine to their website.<sup>[51]</sup> In most cases, sponsored search results are based on specific keywords that the advertiser chooses to include in their ad. With the latest wave of sponsored search results, search engines such as Google actually provide

"personalized ads" by collecting and aggregating information about a user's online activity to show consumers ads related to visited sites, recent searches, and information from clicks or emails.<sup>[52]</sup> According to L2, about 70% of pharmaceutical brands engage in paid search advertising on Google or Bing.<sup>[9]</sup> Sponsored search results have received a fair amount of criticism. The US Federal Trade Commission reported that search engines do not adequately mark sponsored links, and several studies have shown that searchers often do not know the difference between sponsored links and non-sponsored links.<sup>[51]</sup> And while the same research shows that searchers who are aware of the difference find sponsored links less relevant, there are still a significant number of consumers who are persuaded to click on sponsored links instead of natural search results (although if this were not the case, advertisers would not invest in sponsored links).<sup>[51]</sup> Thus, sponsored search advertisers have a clear opportunity to manipulate the information that consumers use online. Like all other forms of medical DTCA, search engine sponsored link advertising and the keywords that generate those links are subject to Health Canada regulations. According to the PAAB guidelines, the keywords, sponsored link, landing page (ie the page you can reach after the link in a web browser) and its URL cannot exceed the name, price and amount of reminder ads.<sup>[34]</sup> Similarly, the combination of keywords, sponsored link, landing page and its URL on websites for drugs used to treat A-list diseases does not necessarily indicate therapeutic use.<sup>[34]</sup> Finally, the keywords, sponsored link, landing page and URL of websites related to this disease should not contain the name of the drug.<sup>[34]</sup> However, these restrictions do not currently apply to free keywords.

## CONCLUSION

Despite a slow start, social media marketing for pharmaceutical products is now becoming more common and is expected to grow in the future. And while Health Canada has made it clear that the current DTCA rules apply to the Internet and social media, this new resource remains an uncertain landscape for drug advertisers and regulators alike. Many social media campaigns have proven short-lived, usually due to a lack of consumer interest or actual or perceived noncompliance with DTCA regulations. Drug advertisers quickly learned that consumers are more likely to engage with and support an "off-brand" educational message on social mediaplatforms, especially when it's related to a cause, than a specific brand drug. Although the effectiveness of a social media initiative depends on several factors, such as disease category, brand objectives, product status and regulatory environment, recent trends point to the growing importance of online advertising as a useful complement to other



marketing initiatives. Finally, in the rapidly evolving world of social media, pharmaceutical companies must be increasingly creative if they want to stay relevant, especially with 4,444 competitors entering the social media space. Although the experience of US drug regulators shows that providing detailed guidance on social media can be more trouble than it's worth, the FDA is now incorporating social media considerations into more general guidance documents. As such, Health Canada appears to be lagging behind the FDA in social media marketing. Social media in particular has some unique aspects such as UGC, consumer distribution and targeted marketing that make applying current regulations to this new medium an uncertain process. Although the rules on UGC are quite clear, producers are responsible for the content of the website, regardless of its source, more detailed guidance is needed on the obligation to report adverse events and the acceptable use of UGC in advertising activities. Health Canada should also consider some general principles regarding appropriate targeted marketing practices, particularly as they relate to vulnerable populations. Implementing DTCA regulations, even in traditional media, has often proven difficult, raising serious questions about Health Canada's ability to effectively regulate the Internet and social media. While the exact reasons for Health Canada's lack of enforcement action are unclear, the trend likely stems at least in part from resource constraints and industry reluctance to engage in protracted and costly legal battles.

The drug advertising on the Internet and social media does not currently appear to be a priority for Health Canada, direct government regulation is unlikely to be sufficient to ensure compliance with the DTCA. With social media still largely uncharted territory for the pharmaceutical industry, drugmakers are likely to pay close attention to what their competitors are doing in this new environment and may be happy to complain to RxandD if they know of another company. gets an unfair advantage by pushing the limits of the provisions of the DTCA too far. However, industry self-regulation still has significant weaknesses and should only complement the more centralized enforcement efforts of Health Canada and promotion by pre-licensing agencies. There is no doubt that consumers want more information about medicines and their safety and effectiveness. The response to the pharmaceutical industry's growing interest in social media should not be limited to limiting or regulating the advertising of pharmaceutical products in digital media. Rather, the Internet and social media are available to health professionals, advocates, government and consumers as well as a means of disseminating their health information, and such means should be developed as an alternative to pharmaceutical industry advertising. More than a decade ago,

the high-profile Romanow Report on the Future of Health Care in Canada expressed clear opposition to the DTCA and advocated the creation of a national drug agency that, among its various duties, "would provide evidence-based information and guidance to both health professionals and patients using a range of media, including the Internet." (<sup>[67]</sup>, p. 202). Although Health Canada provides access to its online drug database, which provides detailed information on all drugs approved for use in the United States. Canada, much of the information provided is quite technical in nature and not intended for consumers. Easier to access with a user-friendly interface available through a single government-supported health information portal. This would be an important step forward in providing Canadians with reliable and neutral online health information, especially regarding drugs approved for sale in Canada.

### Abbreviations

ASC: Advertising Standards Canada;

DTCA: direct-to-consumer advertising;

FDA: Food and Drug Administration;

PAAB: Pharmaceutical Advertising Advisory Board;

Rx&D: Canada's Research-based Pharmaceutical Companies;

UGC: user-generated content.

### Conflicts of Interest

The author declares no conflict of interest.

### REFERENCES

1. Bryan A. Liang, and Timothy K. Mackey. "Prevalence and Global Health Implications of Social Media in Direct-to-Consumer Drug Advertising." *Journal of Medical Internet Research*, 2011; 13: e64. doi:10.2196/jmir.1775.
2. Ann Silversides. "Charter Challenge of Ban on Direct-to-Consumer Advertising to Be Heard by Ontario Court in Mid-June." *Canadian Medical Association Journal*, 2009; 181: E5–6.
3. Barbara Mintzes. "What Are the Public Health Implications? Direct-to-Consumer Advertising of Prescription Drug in Canada." *Health Council of Canada*, January 2006. Available online: [http://www.healthcouncilcanada.ca/tree/2.38-hcc\\_dtc-advertising\\_200601\\_e\\_v6.pdf](http://www.healthcouncilcanada.ca/tree/2.38-hcc_dtc-advertising_200601_e_v6.pdf) (accessed on 8 July 2014).

4. Jeff Chester, Ed Mierzwinski, John M. Simpson, and Pam Dixon. "In the Matter of Online Health and Pharmaceutical Marketing That Threatens Consumer Privacy and Engages in Unfair and Deceptive Practices (Complaint, Request for Investigation, Public Disclosure, Injunction, and Other Relief before the Federal Trade Commission)." 23 November 2010. Available online: <http://www.democraticmedia.org/sites/default/files/2010-11-19-FTC-Pharma-Filing.pdf> (accessed on 8 July 2014).
5. Jeanne Lenzer. "Big Pharma would like to Befriend You." *British Medical Journal*, 2011; 342: d4075.
6. David M. Gardner, Barbara Mintzes, and Aleck Ostry. "Direct-to-Consumer Prescription Drug Advertising in Canada: Permission by Default?" *Canadian Medical Association Journal*, 2003; 169: 425–27.
7. Beth Snyder Bulik. "Pharmaceutical Marketing (Ad Age Insights White Paper)." 17 October 2011. Available online: [http://adage.com/images/bin/pdf/WPpharmmarketing\\_revise.pdf](http://adage.com/images/bin/pdf/WPpharmmarketing_revise.pdf) (accessed on 8 July 2014).
8. Marc Iskowitz. "Pharma Poised to up Online Ad Spend eMarketer." *Medical Marketing & Media*, 27 April 2011. Available online: <http://www.mmm-online.com/pharma-poised-to-up-online-adspend-emarketer/article/201584/> (accessed on 8 July 2014).
9. L2. "Digital IQ Index Pharma." May 2010. Available online: [www.l2thinktank.com/pharmadigitaliq/Digital\\_IQ\\_Pharma.pdf](http://www.l2thinktank.com/pharmadigitaliq/Digital_IQ_Pharma.pdf) (accessed on 8 July 2014).
10. "Pharmaceutical Industry Rapidly Expanding Partnerships with New Entrants in Health Care Space, Ernst & Young Finds." *PR Newswire*, 15 February 2011. Available online: <http://www.prnewswire.com/news-releases/pharmaceutical-industry-rapidly-expandingpartnerships-with-new-entrants-in-health-care-space-ernst--young-finds-116209364.html> (accessed on 8 July 2014).
11. Chad Terhune. "Consumers Using Social Media for Medical Information, Report Says." *Los Angeles Times*, 17 April 2012. Available online: <http://articles.latimes.com/2012/apr/17/business/la-fi-mo-social-health-20120417> (accessed on 8 July 2014).
12. Adam Hooper. "'Cyberchondria' a Growing Problem." *Winnipeg Free Press*, 3 January 2011. Available online: <http://www.winnipegfreepress.com/arts-and-life/life/health/cyberchondria-agrowing-problem-117135708.html> (accessed on 8 July 2014).

13. Statistics Canada. "Canadian Internet Use Survey." *Statistics Canada*, 10 May 2010. Available online: <http://www.statcan.gc.ca/daily-quotidien/100510/dq100510a-eng.htm> (accessed on 8 July 2014).
14. Christine S. Moyer. "Cyberchondria: The One Diagnosis Patients Miss." *American Medical News*, 30 January 2012. Available online: <http://www.amednews.com/article/20120130/health/301309952/1/> (accessed on 8 July 2014).
15. Jeremy A. Greene, and Aaron S. Kesselheim. "Pharmaceutical Marketing and the New Social Media." *New England Journal of Medicine*, 2010; 363: 2087–89.
16. Kurt C. Stange. "Time to Ban Direct-to-Consumer Prescription Drug Marketing." *The Annals of Family Medicine*, 2007; 5: 101–04.
17. Steven G. Morgan. *Canwest Mediaworks Inc. v. Attorney General of Canada*, Affidavit of Steven G. Morgan, (Ontario Superior Court of Justice 2006).
18. Joel Lexchin. *Canwest Mediaworks Inc. v. Attorney General of Canada*, Affidavit of Joel Lexchin, (Ontario Superior Court of Justice 2006).
19. Barbara Sibbald. "Rofecoxib (Vioxx) voluntarily withdrawn from market." *Canadian Medical Association Journal*, 2004; 171: 1027–28.
20. Rena Steinzor, and Margaret Clune. "The Hidden Lesson of the Vioxx Fiasco: Reviving a Hollow FDA." *Center for Progressive Reform*, October 2005. Available online: [http://progressivereform.org/articles/Vioxx\\_514.pdf](http://progressivereform.org/articles/Vioxx_514.pdf) (accessed on 8 July 2014).
21. Advertising Standards Canada. "ASC Clearance Services DTCI Guide." Available online: <http://www.adstandards.com/en/Clearance/ConsumerDrugs/DTCIGuideEN.pdf> (accessed on 8 July 2014).
22. Health Canada. "Prescription Drug List." 20 March 2014. Available online: [http://www.hc-sc.gc.ca/dhp-mps/prodpharma/pdl-ord/pdl\\_list\\_fin\\_ord-eng.php](http://www.hc-sc.gc.ca/dhp-mps/prodpharma/pdl-ord/pdl_list_fin_ord-eng.php) (accessed on 8 July 2014).
23. Food and Drugs Act. R.S.C., 1985, C. F-27, n.d.
24. Health Canada. "The Distinction between Advertising and Other Activities (Policy Statement)." 12 January 1996. Available online: [http://www.hc-sc.gc.ca/dhp-mps/alt\\_formats/hpfbdgpsa/pdf/advert-publicit/actv\\_promo\\_vs\\_info-eng.pdf](http://www.hc-sc.gc.ca/dhp-mps/alt_formats/hpfbdgpsa/pdf/advert-publicit/actv_promo_vs_info-eng.pdf) (accessed on 8 July 2014).
25. Health Canada. "Advertising Campaigns of Branded and Unbranded Messages (Policy Statement)." November 2000. Available online: <http://www.hc-sc.gc.ca/dhp->

- mps/alt\_formats/hpfb-dgpsa/pdf/advert-publicit/advert-pub\_camp\_final\_2005-08-eng.pdf (accessed on 8 July 2014).
26. Food and Drugs Regulations. C.R.C., C. 870, n.d.
  27. Health Canada. "Record of Discussions - Canadian Advertising Preclearance Agencies and Health Canada—7 April 2009." 7 April 2009. Available online: [http://web.archive.org/web/20130603005841/http://www.hc-sc.gc.ca/dhp-mps/advert-publicit/meet-reunion/2009\\_04\\_07\\_rod\\_rddeng.php#a5](http://web.archive.org/web/20130603005841/http://www.hc-sc.gc.ca/dhp-mps/advert-publicit/meet-reunion/2009_04_07_rod_rddeng.php#a5) (accessed on 8 July 2014).
  28. Health Canada. "Record of Discussions - Canadian Advertising Preclearance Agencies and Health Canada—19 April 2011." 19 April 2011. Available online: [http://web.archive.org/web/20130111031108/http://www.hc-sc.gc.ca/dhp-mps/advert-publicit/meet-reunion/rod-rdd\\_2011\\_04\\_19\\_eng.php](http://web.archive.org/web/20130111031108/http://www.hc-sc.gc.ca/dhp-mps/advert-publicit/meet-reunion/rod-rdd_2011_04_19_eng.php) (accessed 8 July 2014).
  29. Bliss Hanlin. "FDA Guidance for Pharma on Social Media and Off-Label Use." *Blog: eModeration*, 19 January 2012. Available online: <https://www.emoderation.com/fda-guidancefor-pharma-on-social-media-and-off-label-use> (accessed on 8 July 2014).
  30. US Food and Drug Administration. "Guidance for Industry: Responding to Unsolicited Requests for Off-Label Information about Prescription Drugs and Medical Devices." December 2011. Available online: <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM285145.pdf> (accessed on 8 July 2014).
  31. Dale Cooke. "The FDA Social Media Guidance: The Path Forward." *MediaPost Blog: Marketing: Health*, 10 February 2012. Available online: <http://www.mediapost.com/publications/article/167499/the-fda-social-media-guidance-the-path-forward.html> (accessed on 8 July 2014).
  32. Advertising Standards Canada. "DTCA Rx Checklist and DTCI Guide—Updated to Include Social Media!" *Enews*, Fall 2011. Available online: [http://www.adstandards.com/en/ASCLibrary/newsletters/fall2011/newsletter\\_clearanceNews.aspx](http://www.adstandards.com/en/ASCLibrary/newsletters/fall2011/newsletter_clearanceNews.aspx) (accessed on 8 July 2014).
  33. Dominic Tyer. "ABPI: Nothing to Stop Pharma Using Social Media." *PMLiVE Digital Intelligence Blog*, 27 January 2012. Available online: [http://www.pmlive.com/blogs/digital\\_intelligence/archive/2012/jan\\_2012/abpi\\_uk\\_pharma\\_use\\_social\\_media](http://www.pmlive.com/blogs/digital_intelligence/archive/2012/jan_2012/abpi_uk_pharma_use_social_media) (accessed on 8 July 2014).
  34. Patrick Massad. "Incorporating a Strategic Regulatory Thought Process Into Your SMM Planning...To Develop a Successful Social Media Marketing Campaign with PAAB."

- Slideshow presented at Pharma e-Marketing Canada 2010, Toronto, Canada, 1 November 2010.
35. Jennifer McKenzie, and Ainslie Parsons. “Guidance on Social Media Marketing for Pharmaceuticals.” *Bereskin & Parr Intellectual Property Law*, 25 May 2011. Available online: <http://www.bereskinparr.com/Article/id49/?srch=guidance%20on%20social%20media> (accessed on 8 July 2014).
36. Matthew Snodgrass. “Facebook Page Commenting Changes.” *Common Sense*, 13 April 2011. Available online: <http://blog.wcgworld.com/2011/04/facebook-page-commenting-changes> (accessed on 8 July 2014).
37. Eric Eldon. “Facebook No Longer Blocking Comments for (Most) Pharmaceutical Pages.” *Inside Facebook*, 24 May 2011. Available online: <http://www.insidefacebook.com/2011/05/24/facebookno-longer-blocking-comments-for-most-pharmaceutical-pages/> (accessed on 26 April 2014).
38. Health Canada. “Guidance Document for Industry—Reporting Adverse Reactions to Marketed Health Products.” 2 March 2011. Available online: [http://www.hc-sc.gc.ca/dhp-mpps/alt\\_formats/pdf/pubs/medeff/guide/2011-guidance-directrice\\_reporting-notification-eng.pdf](http://www.hc-sc.gc.ca/dhp-mpps/alt_formats/pdf/pubs/medeff/guide/2011-guidance-directrice_reporting-notification-eng.pdf) (accessed on 8 July 2014).
39. John Mack. “Janssen to Shut Down Psoriasis 360 FaceBook Page Due to Lack of Commitment.” *Pharma Marketing Blog*, 22 March 2012. Available online: <http://pharmamkting.blogspot.ca/2012/03/janssen-to-shut-down-psoriasis-360.html> (accessed on 8 July 2014).
40. Dominic Tyer. “Janssen to Close Groundbreaking Psoriasis Facebook Page.” *PMLiVE Digital Intelligence Blog*, 21 March 2012. Available online: [http://www.pmlive.com/blogs/digital\\_intelligence/archive/2012/mar\\_2012/janssen\\_closes\\_psoriasis\\_360\\_facebook\\_page](http://www.pmlive.com/blogs/digital_intelligence/archive/2012/mar_2012/janssen_closes_psoriasis_360_facebook_page) (accessed on 8 July 2014).