



The Tip of the Iceberg of Misleading Online Advertising

Comment on “Trouble Spots in Online Direct-to-Consumer Prescription Drug Promotion: A Content Analysis of FDA Warning Letters”



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Abstract

Kim's overview of Food and Drug Administration (FDA) regulatory actions from 2005 to 2014 is a comprehensive analysis of the US regulatory experience with online direct-to-consumer advertising (DTCA) of prescription medicines. This experience is of relevance internationally as online DTCA reaches the English-speaking public globally, despite the illegality of DTCA in most countries. The most common violations were omissions or minimizations of risk information, overstatements of efficacy, unsubstantiated claims, and promotion of unapproved (“off-label”) use. Nearly one fourth of violations involved cancer drugs, raising additional concerns about patient vulnerability, limited treatment advance, and high costs. Based on content analyses of online DTCA, these cases likely reflect a small proportion of unbalanced and misleading promotional information available on the web. The FDA is only able to review a small proportion of promotional materials submitted to them, due to limited staffing, and the delay between first posting and regulatory action means that many people may be exposed to messages that are found to be inaccurate and misleading. The sheer volume of online DTCA, combined with the ability for content to shift continually, poses unique regulatory challenges.

Keywords: Direct-to-Consumer Advertising (DTCA), Online Promotion of Prescription Drugs, Food and Drug Administration (FDA), Medication Safety

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Introduction

Most industrialized countries, with the exception of the United States and New Zealand, prohibit direct-to-consumer advertising (DTCA) of prescription-only medicines as a health protection measure. DTCA has the potential to harm the public in two main ways. If advertising convinces people to take a medicine they do not need and that is unlikely to benefit them, the potential for harm is likely to outweigh benefit. If it convinces them to choose a medicine that is less safe or less effective than available alternatives, users' health is also likely to suffer. DTCA played a prominent role for example in the promotion of the arthritis drug rofecoxib (Vioxx), withdrawn globally in 2005 due to an increased risk of heart attack.^{1,2} A range of equally effective, less costly and less toxic alternatives were available. The advertisements, featuring ex-Olympic skater Dorothy Hamill gliding effortlessly on the ice, gave the impression of otherwise unattainable active, pain-free living. The other main potential for harm is to healthcare costs, if advertising convinces people to use expensive products that are no better than alternatives. Cost and affordability concerns led the American Medical Association (AMA) to call for a ban on DTCA in November 2015.³

The Regulatory Experience With Online Direct-to-Consumer Advertising

Regulatory oversight aims to protect the public, in part through enforced information standards to prevent exposure

to inaccurate and misleading information. In her paper, “trouble spots in online direct-to-consumer prescription drug promotion: a content analysis of FDA warning letters,” Hyosun Kim analyzed US Food and Drug Administration (FDA) regulatory actions concerning online DTCA over a 10-year period, from 2005 and 2014.⁴ This is a comprehensive analysis of the US regulatory experience with online DTCA, which provides important insights into the types of information and activities the FDA has judged to be in violation of US law. One previous study examined FDA letters of violation on online promotion to 2012⁵; results complement Kim's analysis, also documenting a pattern of violations in which safety information is often omitted. US regulation of online DTCA is relevant internationally, as this advertising reaches much of the English-speaking world. Manufacturers' brand-specific websites, for example, are accessible in many countries, regardless of the location of the computer's IP address. Some websites are labeled as being ‘for US residents only’ but this labeling is not always present or prominent, and rarely blocks access. In 2010, the 10 largest drug companies globally had corporate Facebook pages, Twitter feeds and sponsored blogs or RSS feeds; 8/10 top products, by global sales, had DTCA ads on YouTube and 9/10 had a dedicated Facebook page.⁶ Kim identified 73 letters listing 179 violations.⁴ The most common were omissions or minimizations of information on risks, followed by overstatements of efficacy, unsubstantiated claims, and misrepresentation of the indication for use. The

most common treatment area was cancer; nearly one fourth of the letters were about advertisements of cancer treatments. This raises additional concerns because of extra vulnerability of cancer patients when faced with a life-threatening disease. An example is the 2010 FDA warning letter on advertising of nilotinib (Tasigna), a leukemia treatment, on 'Facebook Share,' in which information on the risk of sudden death was omitted, the posting failed to state this drug was approved only for those who had failed on previous treatment, and the text implied superior efficacy, despite the lack of evidence to support this claim.⁷ Another concern specific to cancer treatments is the very high cost of many new cancer drugs and limited evidence of advantage over existing drugs, with average survival improvements of only one to two months.⁸ Banner ads in Internet search engines were featured in one fourth of FDA letters over this 10-year period. In April 2009, the FDA sent regulatory letters to 14 companies because of omission of risk information in banner ads. This included for example the banner for Avandia (rosiglitazone), which included the brand name, the statement that this was the "Avandia® official site" and the tag line "See How Avandia® Can Help Patients Living with Type 2 Diabetes."⁹ April 2009 was 18 months after the FDA had required a boxed warning of increased heart attack risks in rosiglitazone's labeling.¹⁰ Rosiglitazone's use was severely restricted in the United States soon after, in 2010, and was withdrawn from the market in the European Union (EU).¹¹

In response to this FDA crackdown, many companies have run two types of ads that are not required by law to include risk information: 'reminder' ads, which state the brand name, but make no health claims; or 'disease-awareness' ads, that name a condition but not the brand.¹² When a viewer clicked into the latter, they were often redirected to a branded website (eg, clicking on <http://www.managingra.info>, on rheumatoid arthritis, one landed on <http://www.orencia.com>, a rheumatoid arthritis drug). Google announced in 2015 that it would no longer allow this redirection,¹³ closing a loophole that had allowed companies to skirt FDA regulations.

Information Imbalance the Norm, not the Exception

The violations that result in a regulatory letter likely represent a "tip of the iceberg" of inaccurate and misleading information in online DTCA. The Internet and social media represent enormous challenges to a limited team of reviewers, with ever-increasing volumes of materials, potentially hundreds of pages per website, and the ability for content to shift continuously.¹⁴ Although the FDA does not pre-screen online DTCA, manufacturers must submit promotional materials when they are first disseminated. However, the FDA can only review a small proportion of these materials because of limited staffing. DTCA volume has increased continually, reaching ~20000 items in 2007.¹⁵ Even when the FDA does take regulatory action, many people may have been exposed to misleading messages before they are removed. In 2006, the US General Accounting Office found that the time from first public exposure to removal was on average eight months.¹⁵ The Food and Drug Administration Amendments Act of 2007 required that manufacturers submit certain television advertisements for pre-dissemination review by the FDA, but this provision does not extend to online promotion.¹⁶

Egilman and Druar carried out a review of fraudulent pharmaceutical marketing in social media, extending beyond the examples highlighted in FDA letters.⁷ One issue addressed is YouTube and Twitter postings and websites in which the commercial sponsor is not listed. For example, Egilman and Druar cite the website for patients with type 2 diabetes, <http://www.r3i.org>, the 'Residual Risk Reduction Initiative.' This website was set up by Abbott in 2011 to promote their fenofibrate drug TriLipix for type 2 diabetes patients.⁷ In December 2015, the website and r3 initiative's funding sources remain unstated.

Whether benefit and risk information is equally prominent, as is required by US 'fair balance' provisions, depends strongly on placement within a website. Huh and Cude examined 60 websites of commonly-prescribed brand-name drugs.¹⁷ Around one third only mentioned benefits on their home page, and risks, when present, were often in smaller font. In 2005, Sheehan carried out a similar study on 91 websites of top brands: 40% had no risk information on the home page, another 24% minimal risk information, and 76% of the time, the viewer had to scroll to reach risk information, if present.¹⁸ These imbalances are important because of how often people search for medicines information online. In a 2008 survey, 45% of Internet users had searched online for information on medicines.¹⁹ Two-thirds of search engine results for nearly 300 commonly prescribed brands listed industry-sponsored sites as first 'hits' in three of four popular search engines.²⁰ The exception was Google USA, which has partnered with the National Institutes of Health (NIH) to give prominence to drug information from the NIH.²¹

Conclusion

FDA regulatory letters provide an important information source on the content of online advertising judged to violate US law. Kim recommends more explicit and comprehensive FDA guidelines for online DTCA.⁴ This step would be helpful but is unlikely to be sufficient to stop online DTCA from misleading the public. Regulatory violations for broadcast and print DTCA are frequent despite explicit FDA guidance concerning presentation of risk information.²² Given the strong pharmaceutical presence on high-volume social media sites and the global reach of social media, health and cost effects may well be felt globally.⁵ Widespread minimization of risk information in promotional websites is more likely to reflect the aim to sell a product than space constraints or lack of familiarity with US regulatory requirements.

DTCA has become a prominent part of both the mass and online media landscape for nearly 20 years, and has been shown to influence patient demand and prescribing decisions, to be associated with shifts to less appropriate prescribing and less cost-effective treatments, and to maintain sales despite a price increase.¹ Online DTCA is an integral part of these campaigns.

The AMA's call for a ban on DTCA in 2015 follows a 2007 US Institute of Medicine call for a moratorium on DTCA in the first two years post approval as a safety measure, as new evidence of serious harm often emerges within this period.²³ These calls are an important step in opening up a discussion about whether public health and sustainability of healthcare services should be prioritized over commercial free speech.

Whether they translate to a shift in policy is likely to depend largely on political will.

In 1990, Lou Morris, Acting Director of the FDA division regulating drug advertising, and David Banks wrote a commentary on five advertising “end-runs” at odds with US regulation.²⁴ Two of these are highly relevant to online DTCA: the “publicity end-run” featuring various public relations activities, including celebrity endorsements, and the “consumer end-run,” then novel, skirting both the FDA and professionals to promote products directly to the public. They comment: “We are reminded of the old adage, ‘Cheer up, things could get worse.’ We cheered up and sure enough, things got worse.” With the sheer volume of ever-changing materials on the Internet, the large international reach of US online promotion, and the ease with which promotional websites and social media posts may obscure their sponsorship, this quip is more than apt today.

Ethical issues

Not applicable.

Competing interests

Author declares that she has no competing interests.

Author's contribution

BM is the single author of the paper.

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