

# The Attitudes and Beliefs of Oncology Nurse Practitioners Regarding Direct-to-Consumer Advertising of Prescription Medications

Pamela Hallquist Viale, RN, MS, CS, ANP, OCN®,  
and Deanna Sanchez Yamamoto, RN, MS, CS, ANP

**Purpose/Objectives:** To obtain information about the knowledge and attitudes of oncology nurse practitioners (ONPs) concerning the effect of direct-to-consumer (DTC) advertising of prescription medications on prescribing patterns.

**Design:** Exploratory survey.

**Setting:** Oncology Nursing Society Nurse Practitioner Special Interest Group members in the United States.

**Sample:** 221 of 376 ONPs completed the survey (58%).

**Methods:** Researcher-developed 12-question postal survey.

**Main Research Variables:** Knowledge and attitudes of ONPs on DTC advertising effects on prescribing patterns.

**Findings:** The findings were similar to those of previous studies of physicians regarding the number of visits when patients requested DTC-advertised medications. Major differences were the positive attitudes of ONPs toward potentially longer patient visits to explain and educate patients regarding medication requests based on DTC advertising and smaller percentages of ONPs who felt “pressured” to prescribe requested medications.

**Conclusions:** ONPs have mixed opinions regarding the practice of DTC advertising but do not believe that they are influenced heavily by advertising with regard to prescriptive practices. ONPs consider patient encounters for education purposes as appropriate and include information about requested DTC-advertised medications in their approach to patient care.

**Implications for Nursing:** This is an exploratory survey of a specialty group of ONPs. More research is needed to further explore the practice of DTC advertising and potential influences on the prescribing patterns of ONPs. DTC advertising of prescription medications is increasing; ONPs need to increase their knowledge base about the potential for influences of prescriptive practices.

Direct-to-consumer (DTC) advertising of prescription medications is a growing phenomenon. Spending on prescription drugs has become the fastest-growing part of the healthcare budget, although many of those dollars are concentrated on a small group of products (Rosenthal, Berndt, Donohue, Frank, & Epstein, 2002). DTC advertising of prescription medications for patients with cancer also has increased; advertisements have appeared for hormonal products used in the treatment of breast cancer, supportive care medications such as growth factors, and even oral chemotherapy agents for colon cancer (Viale, 2002).

A televised advertisement for pegfilgrastim (Neulasta®, Amgen Inc., Thousand Oaks, CA) created problems for an oncologist who described his reaction in the *Journal of Clinical Oncology* (Hannigan, 2003). The oncologist believed that the advertisement was misleading and implied that the physician

## Key Points . . .

- Direct-to-consumer (DTC) advertising dollars for medications are increasing; the cost of prescription drugs is a major part of the healthcare budget.
- Although oncology nurse practitioners (ONPs) have different opinions about DTC advertising of prescription medications, overall, most consider patient requests for DTC-advertised medications to be part of the ONP-patient encounter.
- ONPs with prescribing privileges have the potential to be influenced by DTC advertisements aimed at patients with cancer.

in the commercial had administered chemotherapy without informing the patient of the risk of myelosuppression, essentially undermining the patient’s confidence in the treating physician. Advertisements depicting treatments for deep vein thrombosis, a potential complication for patients with cancer, also have entered the fray. DTC advertisements may play a role in influencing the prescribing habits of physicians and nurse practitioners (NPs), as well. Although the focus of this article is DTC advertisements regarding medications, DTC advertisements are branching out to include genetic testing, which also can affect patients with cancer and their families.

The effect of DTC advertising on prescribing patterns of NPs has not been well described or studied (Viale, 2003). Although the impact of DTC advertising on the prescribing habits of general physicians has been published, its effect on prescribing patterns of oncology NPs (ONPs) has not been reported in the literature. Physicians in various studies previously have reported

*Pamela Hallquist Viale, RN, MS, CS, ANP, OCN®, is an oncology nurse practitioner at the Santa Clara Valley Medical Center in San Jose, CA, and an assistant clinical professor in the Department of Physiological Nursing in the School of Nursing at the University of California, San Francisco; Deanna Sanchez Yamamoto, RN, MS, CS, ANP, is a nurse practitioner in oncology and rheumatology in the Department of Physiological Nursing at the Santa Clara Valley Medical Center. (Submitted December 2003. Accepted for publication December 30, 2003.) (Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Oncology Nursing Forum or the Oncology Nursing Society.)*

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feeling pressured to prescribe specific agents requested by patients. Although the most frequently advertised and prescribed agents are not specific to oncology, several of them can be viewed as common adjunctive agents or even “lifestyle” drugs frequently prescribed to patients with cancer. These agents include sildenafil citrate (Viagra<sup>®</sup>, Pfizer Inc., New York, NY) and cox-2 inhibitor drugs such as celecoxib (Celebrex<sup>®</sup>, Pfizer Inc.), valdecoxib (Bextra<sup>®</sup>, Pfizer Inc.), and rofecoxib (Vioxx<sup>®</sup>, Merck & Co., Inc., Whitehouse Station, NJ). Other agents often used in patients with cancer are the proton pump inhibitor agents that are advertised heavily in the media. In 2000, the top five prescription drugs with the most DTC advertising also included antihistamines (see Figure 1). The five most heavily advertised drugs in 2001 were for depression, ulcers, high cholesterol, nonviral infections, and arthritis (Fischer, 2003).

Practicing ONPs most likely are getting more requests for medications seen in DTC advertisements; most of the literature has documented these increases in the nononcology arena. However, little is known about the perceptions of clinicians working in the field of oncology or how this practice affects the ONP-patient encounter. In an effort to better determine how the practice of DTC advertising affects ONPs and their prescribing, a survey of the members of the Oncology Nursing Society’s (ONS’s) NP Special Interest Group (SIG) was conducted in September 2002.

## History of Direct-to-Consumer Advertising of Prescription Medications

Marketing of prescription medications initially was directed almost entirely toward physicians in an effort to focus on these primary customers; however, pharmaceutical companies now are aiming their advertisements toward consumers (Kravitz, 2000a, 2000b). These dollars are not misplaced because successful marketing efforts by pharmaceutical companies have led to increased sales of individual products (Findlay, 2001). The amount of dollars spent on DTC advertisements is expected to rise to \$7.5 billion by 2005, increasing from \$55 million in 1991 (Findlay; Huang, 2000). For the first time, pharmaceutical advertising dollars are more concentrated in DTC advertisements rather than in medical journals (Berger, Kark, Rosner, Packer, & Bennett, 2001; Pines, 1998).

Opinions regarding DTC advertisements are varied. Proponents of the practice believe that patients receive education from the advertisements; this empowers them to make choices regarding their health care and gives them control, contributing to a positive outlook (Berger et al., 2001). Some reports have stated that DTC advertising can help to promote conversations about conditions that may not be discussed readily by patients and providers and that patient compliance with medications may increase (Cornell, 1999; Holmer, 1999; Zoeller, 1999).

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1. Rofecoxib (Vioxx<sup>®</sup>, Merck & Co., Inc., Whitehouse Station, NJ)
  2. Omeprazole (Prilosec<sup>®</sup>, AstraZeneca, Wilmington, DE)
  3. Loratidine (Claritin<sup>®</sup>, Schering-Plough, Kenilworth, NJ)
  4. Paroxetine (Paxil<sup>®</sup>, GlaxoSmithKline, Research Triangle Park, NC)
  5. Simvastatin (Zocor<sup>®</sup>, Merck & Co., Inc.)
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### Figure 1. Five Most-Advertised Medications in 2000

Note. Based on information from the Kaiser Family Foundation, 2001.

Detractors believe that DTC advertisements are contributing to the increase in healthcare dollar expenditure and that they make misleading or inappropriate claims regarding the medications themselves. They have concerns that the practice of DTC advertising increases prescription writing for medications that are advertised most frequently (Elliot, 2001). Some researchers believe that DTC advertisements are an inappropriate way to provide messages about the possible risks of medications because of time and space constraints; also problematic is the inherent bias in the practice because advertisers are trying to sell a product (Mello, Rosenthal, & Neumann, 2003).

Others believe that having to take time out of a busy clinic day to explain why patient-requested medications are not appropriate for a particular individual takes valuable time away from clinicians (Elliot, 2001). If providers believe that they have increased responsibilities with patient care and are unable to explain all inappropriate medication requests or alternatives, they may be frustrated; this can damage the patient-provider relationship (Elliot). However, a survey of NPs and physician assistants showed that more than half of the group believed that these interactions were important to provide information to their patients, despite the fact that the discussions were time consuming (“PA and NP Opinions,” 2002).

## Literature Review

### Historical Influences on Prescribing Habits of Clinicians

Historically, NPs have had to overcome many barriers to prescribing medications (Sherman, Fuller, & Hunter, 1999). Thus, studies defining NP prescribing practices and behaviors are scarce in the literature and are complicated further by the “ghost provider” status of NPs (Pulcini & Vampola, 2002). This ambiguous status is partly the result of some state laws that require each prescription written by the NP to contain a physician name. The pharmaceutical industries long have tracked physician-prescribing trends with assigned national prescriber numbers that become tracking devices on every prescription written. Similar data for NP prescribing practices are less available because they are not part of this drug registry and therefore are out of the mainstream of data collection. This is compounded further by delays in computerizing nursing records and the variability of state-to-state definition of NP practices that complicate data collection on prescriptive practices behaviors (Pulcini & Vampola).

### Effects of Direct-to-Consumer Advertising of Prescription Medications on Prescribers

Few studies have examined the influences on the decision-making process of NPs’ prescriptive behaviors and the selection of treatment options, and no studies to date have addressed the practice of DTC advertising on prescribing habits of ONPs. In an attempt to determine the antibiotic-prescribing patterns of NPs and identify factors that influenced their decision-making process, 509 NPs were given four case scenarios on which to make treatment decisions. The survey results demonstrated that the first priority was safety, followed by efficacy and providers’ knowledge, experiences, and resources. The respondents listed external prescribing constraints low on their priority list and rated information from pharmaceutical representatives as last in the important

factors in making treatment decisions. The authors of this study noted that this low ranking may have been a result of the NPs not wanting to be perceived as being influenced by pharmaceutical representatives (Wright & Neill, 2001).

In 1982, the U.S. Food and Drug Administration (FDA) requested that pharmaceutical companies suspend DTC promotion while it conducted its own study of the practice. Based on the first of three studies conducted by the FDA on DTC advertisements, it concluded that DTC advertisements successfully could communicate information regarding potential risks of taking prescription medications. Of the 1,500 consumers surveyed, 66% of the respondents regarded DTC promotion as useful and 74% strongly supported their physician as the decision maker in the prescription of drugs. From the results of this study and in conjunction with consultations with consumers, the FDA rescinded the DTC moratorium in 1985 (Henney, 2000). In 1999, the FDA conducted a second consumer survey of DTC advertising of prescription medications and concluded that DTC drug promotion offered public health benefits. These benefits included making consumers more adherent to their drug regimens by being reminded to refill medications and ask about new medical conditions (Henney).

However, initial studies of physicians demonstrated that DTC advertising of prescription medications was not viewed in a favorable manner. The American Medical Association conducted a survey in 1984 of its members and found that 84% opposed television advertising of prescription drugs (Mitka, 2003). In 1997, the year before the FDA relaxed the guidelines for DTC advertising, members of the American Academy of Family Physicians were surveyed (Lipsky & Taylor, 1997). Out of the 454 initial respondents, 419 surveys were evaluable, and the physician members reported that they were approached on average by seven patients over the previous six months for a specific medication request. The majority of those surveyed (80%) believed that DTC advertising was not a good idea, and 84% had negative feelings about television and radio advertising. However, when asked to list perceived benefits of DTC advertising, 303 of those polled believed that they led to "better informed patients" and helped to "promote patient-physician communication" (Lipsky & Taylor).

Therefore, when the FDA released the results of its third DTC survey with more favorable findings, it created a controversy because it was contradictory to past study results (Aiken & Swasy, 2003). Based on the results of this study, the 2002 FDA study concluded that, when done correctly, DTC advertising of prescription medications could serve as a positive public health function. The FDA surveyed 500 physicians (250 general practitioners and 250 specialists) to determine their attitudes toward DTC advertising. The study highlights included the following results: 32% of the physicians believed that DTC advertising had a negative effect, 40% believed that it had been positive, and 28% reported that it had no effect. The most commonly cited benefits to DTC advertising of prescription medications were that it led to better discussion with patients and that patients were more aware of possible treatments (Aiken & Swasy; FDA, 2003).

The debate arises from critics who believe that DTC advertising encourages patients to request newer, more expensive, and inappropriate medications while adding stress to the patient-physician encounter (Mechanic, 2003; Mitka, 2003). In

one study, approximately 36% of the 199 primary care doctors polled believed that they would give into the pressure to prescribe patient-requested medications (Spurgeon, 1999). In another study of consumers, one-fourth of the respondents stated that if a physician refused to prescribe DTC-advertised and requested medication, they would resort to persuasion or seek the prescription elsewhere (Bell, Wilkes, & Kravitz, 1999). The Kaiser Family Foundation conducted a national survey and found that 30% of the respondents had talked to a physician regarding a drug as a result of DTC advertisement and that 44% had received the drug requested, which, regardless of the outcome, increased time for the clinic visit (Mechanic). Based on these results, patients' requests are granted much of the time and these interactions can increase time needed for office visits; thus, this could be true of patients with cancer, as well. Mintzes et al. (2003) compared physicians (N = 78) and patients (N = 1,431) in the United States, where DTC advertising is legal, and Canada, where such advertisements are illegal. They found that no statistically significant difference existed between the number of requests fulfilled for DTC-advertised drugs for the two groups. The researchers determined that DTC advertising seemed to affect prescribing volume and for every 10 patients requesting a medication, 9 received the drug that they requested or an alternative. They also found that 75% of the patients in each country believed that physicians and patients should have an equal say in treatment, and 14% of the patients would seek the care of another physician if their prescription request was refused (Mintzes et al.).

Zachry et al. (2002) conducted the first empirical study that looked directly at the relationship between monies spent on DTC advertising and number of prescriptions written. They concluded that a relationship existed between the monthly number of diagnoses for hyperlipidemia and the amount of money spent advertising antilipemic medication. DTC advertising expenditures for prescription drugs were found by the researchers to ultimately relate to the frequency that physicians diagnosed and prescribed specific drugs and diseases, although more research is needed to determine the extent of influence of DTC advertising on all prescribers, including NPs.

Most recently, 423 primary care physicians and 340 physician assistants were surveyed for their likely responses to different patient case scenarios involving DTC advertising (Zachry, Dalen, & Jackson, 2003). The researchers found that the clinicians were more likely to answer patients' questions (97%) and provide additional information (86%) and less likely to become frustrated (93%) with medication requests based on a drug reference (e.g., *Physician's Desk Reference*). In contrast, the clinicians were more likely to become annoyed with a patient requesting a medication as a result of viewing a DTC advertisement ( $p = 0.003$ ) as to one seen in a drug reference and more likely to change the subject rather than discuss a requested medication ( $p = 0.02$ ). This study demonstrated that clinicians are willing to have patients participate in their own care but distinguish between medication requests based on a drug reference versus requests based on a DTC advertisement. Based on the findings of the study as well as the results of other studies, the authors concluded that clinicians have concerns about the quality and content of DTC advertisements.

The practice of DTC advertising of prescription medications has the potential to affect the prescribing habits of healthcare professionals, although little research evidence is available to make the same claim for ONPs. Opinions are varied on the positive and negative aspects of the practice of DTC advertising of prescription medications. Taking more time in provider-patient encounters to explain more about choices of medications could affect ONPs, especially in settings where time issues are becoming more prevalent and as healthcare resources are scrutinized more heavily. Therefore, a postal survey of the perceived effects of DTC advertising on the prescribing habits of the members of the ONS NP SIG was performed.

## Methods

The ONS NP SIG was surveyed in the fall of 2002 to determine the perceived effect of DTC advertisements on their prescribing habits. A total of 376 surveys were mailed along with a self-addressed, stamped envelope to encourage response rates; 220 were returned (58%). Traditionally, mailed surveys have a 10%–30% response rate, but a rate of 60% should minimize the impact of nonresponse bias (Mail Research Center, 2004). Therefore, the high rate of respondents in this study indicates a high level of interest in the topic and validates the results.

The survey consisted of 12 questions that looked at various aspects of DTC advertising. The questions were similar to several previously published surveys of physicians regarding DTC advertisements. The survey was intended to be a pilot survey exploring the topic of DTC advertisements as it affects ONPs. The respondents were asked to record the possible answers, and an area was specified for individual comments. Additional questions were asked to obtain demographic data.

## Sample

The majority of respondents have worked as NPs from 1–10 years; most worked in either a private physician office or hospital ambulatory clinic. Eighty-two percent described their practice settings as either medical oncology or hematology/oncology, and 73% reported 6–15 patient visits a day. Most respondents were female (98%).

## Results

### Prescriptive Authority

Of the 216 responses regarding prescriptive authority, 90% had prescriptive authority and the other 10% either practiced in a state that did not allow NPs to have prescriptive privileges or were in the process of obtaining their prescriptive license. One respondent indicated that her state of employment, Georgia, did not allow NPs prescriptive authority but described her role as “discussion and recommendation of meds.”

### Direct-to-Consumer Advertisements and Patient Education

By far, the majority of respondents (82%) believed that DTC advertisements did provide education to patients sometimes. One respondent believed that “DTC is as much a reality as patients being Internet savvy and bringing in reams of printout info.” She believed that although DTC advertisement

discussion takes time, it was no more time consuming than explaining why a prescription written for another patient was not appropriate for this patient. Another NP said that when her patients ask about DTC-advertised medications, “I take the opportunity to educate my patients regarding their treatment and medications.” One NP working in a hospital ambulatory clinic responded that “Often, the presentation of an ad spurs a conversation where I can explain the patient’s condition and my rationale for prescribing or not prescribing their request.” She added, “The patient [then] feels satisfied and well informed on the matter.”

### Frequency of Requests for Direct-to-Consumer-Advertised Medication

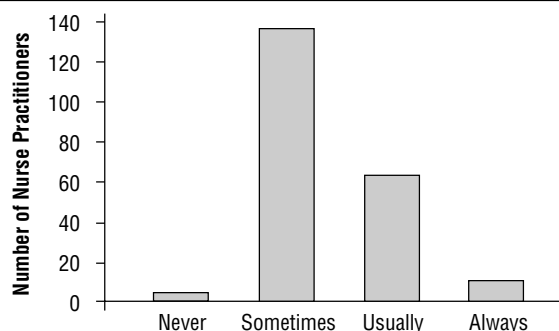
More than 94% of the respondents reported being visited by a patient requesting specific medications seen in a DTC advertisement. This percentage is similar to the 88% of physicians reporting patient visits requesting DTC advertised medications indicated in the most recent FDA survey and may reflect the increasing number of DTC-advertisements (Aiken & Swasy, 2003; FDA, 2003). The reports ranged from 40% of the respondents indicating 1–5 visits a week to 38% of the NPs describing 6–10 visits a month.

### Sample Drugs and Prescribing Practices

Sample drugs did affect the ultimate prescription choice made for 57% of the respondents; some of the NPs did not have samples available in their practice settings for use. Previous studies also have documented that the final selection of a prescription medication may be affected by which drug is available to the clinician by sample.

### Are Direct-to-Consumer Advertisements Misleading?

Although the respondents previously had indicated that they believed that the DTC advertisements could provide education to their patients, many believed that these advertisements were misleading at times (see Figure 2). One respondent indicated that she believed that the advertisements were “usually” misleading and described erythropoietin alpha (Procrit®, Ortho Biotech, Thousand Oaks, CA) as a “prime example.” She said that “patients get the impression that it is a miracle drug for fatigue” and noted that “several of the ads on TV give no hint of what the medication is intended for. . . . Just ask your doctor.”



**Figure 2. How Often Do You Believe That Direct-to-Consumer Advertisements Are Misleading to Patients or Consumers?**

This NP was opposed to drug companies' advertising and wished that the money could be used for patient assistance. Another NP noted that the "only DTC-marketed drugs I've ever been asked about have been growth factors . . . [and] the other area that impacts my job is the DTC advertising regarding natural hormone sources."

### Pressure to Prescribe a Particular Medication

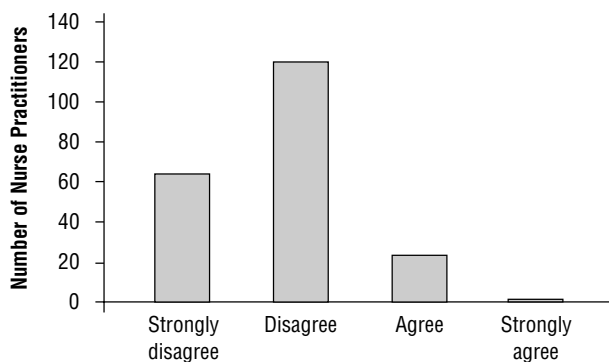
The majority of respondents (52%) did not feel pressured to prescribe a medication requested by a patient in response to a DTC advertisement, whereas 43% reported that they sometimes felt pressured to do so. Interestingly, a previous study in the United Kingdom looked at physicians' responses to feeling pressured, and the findings varied from the ONP survey (Spurgeon, 1999). The physicians polled felt pressured to prescribe requested drugs 30%–60% of the time. The most recent FDA survey also found that 62% of the 500 respondents believed that the practice of DTC had caused some tension between them and their patients (Aiken & Swasy, 2003; FDA, 2003).

### Requests for an Inappropriate Medication Based on a Direct-to-Consumer Advertisement

The majority of the respondents (74%) did believe that their patients requested inappropriate medications based on DTC advertisements. One NP stated that the "most frequent drug asked for is Procrit" and that "it opens up discussion of fatigue, but [it is] often not appropriate or the patient is already on it!" Another respondent said that "DTC ads are usually superficial—for instance, [the] Procrit ad does not say 'injection,' nor is there any thought as to what might be not only appropriate but covered by insurance."

### Time to Explain Medications

Overwhelmingly, the respondents believed that explaining information regarding DTC-advertised medications would not take too much time from the patient-NP encounter (see Figure 3). These results are not consistent with previous studies looking at the perception of physicians and time spent with patients talking about DTC-advertised medications (Aiken & Swasy, 2003; FDA, 2003). Many of the NPs used these encounters to reinforce education or conduct further discussion with their patients regarding medications and their disorders.



**Figure 3. Does Explaining Information Regarding Medications Seen by Patients in a Direct-to-Consumer Advertisement Take Too Much Time for the Patient-Nurse Encounter?**

One respondent did say that "I hate these ads. Take the [money] and [decrease] the cost to my patients instead of spending it on flashy, bogus advertising!" Another noted that, with regard to over-the-counter hormonal remedies easily available to patients, "It takes a lot of counseling to undo the 'logic' of some of those sales pitches. . . . At least with pharmaceutical companies, they are regulated as to what they can/cannot say."

### Can Direct-to-Consumer Advertisements Foster Patient-Nurse Practitioner Dialogue?

Approximately 63% reported that DTC advertisements fostered the patient-NP dialogue for particular symptoms or conditions. Interestingly, two of the respondents stated that, upon discussion of DTC advertisements with their patients, they found that some of the individuals refused medications based on the side effects mentioned in the DTC advertisement. One person stated that, "I have had patients refuse to take a medication that was medically necessary because they saw on TV that it causes liver, kidney, etc., problems." For these ONPs, DTC advertising had the opposite effect on patients' decisions to take medication.

### Patient Awareness of Alternative Drugs

Many of the respondents (58%) did find that patients usually were unaware of an alternative drug with equivalent efficacy as the DTC-advertised drug that they were requesting. Some of the ONPs (32%) reported that sometimes their patients were unaware of different equivalent medication choices. Previous studies reported that physicians sometimes cited this as a reason not to prescribe the requested drug and that it could lead or encourage patients to request newer, more expensive medications (Mechanic, 2003; Mitka, 2003).

### Rates of Prescribing Based on Patient Request

Approximately 75% of the NPs responded negatively to the query regarding their prescribing medications to patients solely because of the individuals' requests, although 25% reported they "sometimes" give in to pressure to prescribe requested agents for their patients with cancer. This is in contrast to a previous survey of physicians' beliefs. As discussed earlier, Spurgeon (1999) reported that 36% of 199 primary care physicians would give in to pressure to prescribe a specific agent requested by a patient. A previous study of NPs also reported a low effect of pharmaceutical influence in their prescribing choices (although this was not specifically regarding DTC advertising). The authors believed that this might be because the respondents did not wish to be "less professional" (Wright & Neill, 2001). Other research has shown that some patients will seek health care elsewhere if a prescription request is denied. Studies also have shown that providers have more negative feelings toward a patient request if the request is for a brand name product rather than a generic medication (Aiken & Swasy, 2003).

### Appropriateness of Prescription Choice

Only 104 of the 226 NPs who returned the survey answered the question of whether prescriptions they wrote based on patient requests were appropriate; 40% believed that their choices were always appropriate, 32% reported that it was usually a correct choice, 14% said sometimes the choice was correct, and 14% said the choice was never correct.

## Implications for Oncology Nurse Practitioners

Many factors can affect the prescribing patterns of ONPs. As a group, NPs should be cognizant of these factors, including the potential for influence from the phenomenon of DTC advertisements. Advertisements for medications aimed at consumers are increasing, and some of these medications are directed toward patients with cancer. When an advertisement targets patients with colon cancer and offers a possible choice of therapy options or describes the benefits of aromatase inhibitors, ONPs need to be ready to discuss these options with their patients. Many patients with cancer have comorbid conditions that are targeted frequently by DTC advertisements. ONPs should increase their awareness of the practice of DTC advertising and be prepared to discuss these advertisements accordingly.

The small sample size is a recognized limitation of the survey project; ONPs who are not members of the SIG should be addressed in additional survey research studies. Future research needs to address other questions and obtain more detailed information, including the most frequent drugs requested and the most prevalent types of advertisements reported by patients with cancer. The high response rate did validate the interest of the survey respondents in DTC advertisements.

Because very little existing information is available on this practice, further research needs to be conducted to determine the effects of DTC advertisements on the prescribing patterns of ONPs. Although the most recent FDA survey did include specialists as well as general physicians, oncologists also should be studied.

### The Role of the Oncology Nurse Practitioner

ONPs routinely assess their patients, ordering appropriate tests and prescribing needed medications when necessary. Another crucial part of the NP role is to provide education to their patients, dealing with many different facets of cancer, including medications, symptom management, cancer prevention, and supportive care issues. This role in patient education is key to the practice of ONPs and can affect outcomes for patients.

Clearly, the majority of the NPs surveyed believed that taking the time to discuss the appropriateness of a prescription requested on the basis of a DTC advertisement was not a negative for their practice. This is in contrast to much of the physician-related literature. The most recent FDA survey stated that one of the major reasons for not supporting DTC advertising was the time doctors had to spend correcting the misconceptions caused by the advertisements (Aiken & Swasy, 2003).

However, the physicians in the study also believed that the positive aspect of DTC advertising was the promotion of patient-physician discussion. Results from these studies can be seen as conflicting.

Healthcare dollars continue to shrink, and healthcare providers, including ONPs and physicians, find themselves struggling to provide quality care under additional time constraints. They experience more reimbursement issues and have fewer supportive systems. DTC advertising of prescription medications can provide education and information to patients, but it also can be misleading and require additional time on the part of the provider to correct misconceptions. Accuracy of this information can enhance education and provide a bridge to a successful NP-patient encounter.

## Conclusion

The practice of DTC advertising of prescription medications is legal. Exposure to information about medication choices and options is an ever-increasing phenomenon that includes print, television, radio, and Internet sources. Because patients with a diagnosis of cancer are going to be exposed to these advertisements, including for medications directly related to their cancer diagnosis and treatments, NPs should work with pharmaceutical companies to encourage truthfulness in DTC advertisements. DTC advertisements for genetic testing also have entered the market; this is another potential area of exposure for patients with cancer and their families (Gray & Olopade, 2003).

A two-day hearing was held in September 2003 to determine the effects of DTC advertising and whether this practice can be detrimental to consumers (Ives, 2003). The hearing was part of the FDA's review of the rules governing prescription-drug advertising; 29 different studies on the effects of DTC advertisements were presented at the meeting. Many of these studies reported positive public results. Not surprisingly, many of those who gave testimony were representatives of major pharmaceutical companies who believed that the practice was a positive one. Detractors of the practice of DTC advertising of prescription medications described inaccuracies of data and side effect information as still a major problem, believing that 30- to 60-second television and radio spots are not adequate to explain all pertinent data in medication prescription choices. One of the important points made at the meeting was that the FDA is increasing its scrutiny of DTC advertisements and that caution letters will continue to be sent out to manufacturers who do not follow the requirements for the advertisements.

Interestingly, the current chief executive officer of Genentech, a biotechnology company poised to release and potentially advertise a major new oncology agent, bevacizumab or rhuMab-VEGF (Avastin<sup>®</sup>, Genentech, South San Francisco, CA) (since released in early 2004), was quoted in *Business Week* in 2003. He stated that DTC advertisements of medications in the media are "distasteful" and preferred marketing his company's medications directly to prescribers, in this case, doctors, whom he believes should explain complex drugs to patients (Weintraub, 2003).

Despite controversies in DTC advertisements for prescription medications and the potential for increases in advertising of medications used in the practice of oncology care, NPs in this specialty should increase their knowledge regarding the potential for bias in prescribing from DTC advertising effects on their patients. Information is needed regarding the effectiveness of providers and their ability to educate patients about drug risks of consumer-requested medications based on DTC advertising (Mello et al., 2003). More research is needed to further study DTC advertising of prescription medication effects on prescribers, including the growing numbers of NP prescribers.

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**Author Contact:** Pamela Hallquist Viale, RN, MS, CS, ANP, OCN<sup>®</sup>, can be reached at pgviale@aol.com, with copy to editor at rose\_mary@earthlink.net.

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