

Advertising by Academic Medical Centers

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Background: Many academic medical centers have increased their use of advertising to attract patients. While the content of direct-to-consumer pharmaceutical advertisements (ads) has been studied, to our knowledge, advertising by academic medical centers has not. We aimed to characterize advertising by the nation's top academic medical centers.

Methods: We contacted all 17 medical centers named to the *US News & World Report* 2002 honor roll of "America's Best Hospitals" for a semistructured interview regarding their advertising practices. In addition, we obtained and systematically analyzed all non-research-related print ads placed by these institutions in their 5 most widely circulating local newspapers during 2002.

Results: Of the 17 institutions, 16 reported advertising to attract patients; 1 stated, "We're just word of mouth." While all 17 centers confirmed the presence of an institutional review board process for approving advertising to attract research subjects, none reported a comparable process for advertising to attract patients. We identified 127 unique non-research-related print ads for the 17 institutions during 2002 (mean, 7.5; range, 0-39). Three

ads promoted community events with institution sponsorship, 2 announced genuine public services, and 122 were aimed at attracting patients. Of the latter group, 36 ads (29.5%) promoted the medical center as a whole, while 65 (53.3%) promoted specific clinical departments and 21 (17.2%) promoted single therapeutic interventions or diagnostic tests. The most commonly used marketing strategies included appealing to emotions (61.5%), highlighting institution prestige (60.7%), mentioning a symptom or disease (53.3%), and promoting introductory lectures or special offers likely to lead to further business (47.5%). Of the 21 ads for single interventions, most were for unproved (38.1%) or cosmetic (28.6%) procedures. While more than half of these ads presented benefits, none quantified their positive claims and just 1 mentioned potential harms.

Conclusions: Advertising to attract patients is common among top academic medical centers but is not subjected to the oversight standard for clinical research. Many of the ads seemed to place the interests of the medical center before the interests of the patients.

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ACADEMIC MEDICAL CENTERS are among the most valued public institutions in the United States. They possess a rich history, having housed many of the major figures of American medicine and numerous landmark innovations in clinical care. They have gone on to become the preferred site for clinical training of young physicians, the primary source of highly specialized medical care, and the sole health care provider for many of the poor in America's largest cities. Their public value has been recognized in unambiguous terms—with large amounts of public money.^{1,2}

As health care markets became more competitive in the early 1990s, however, many academic medical centers began to seek new sources of revenue—by increasingly using marketing strategies (includ-

ing advertising) in an effort to attract patients.³ When used by pharmaceutical companies, this practice has been criticized for medicalizing symptoms,^{4,5} creating demand for services,⁶⁻⁹ and failing to present balanced information regarding the potential benefits and harms of the product promoted.^{4,6,10-12} While the generally apparent financial interests of pharmaceutical companies may invoke a healthy degree of skepticism among viewers of their advertisements (ads), academic medical centers may be viewed as more trustworthy sources of information.

While considerable discussion has accompanied the rise of direct-to-consumer advertising by pharmaceutical companies, medical device manufacturers, and diagnostic laboratories,¹³⁻²⁰ to our knowledge, the newer trend of consumer-targeted advertising by academic medical

Table 1. The 17 Medical Centers Named to the *US News & World Report* 2002 Honor Roll of “America’s Best Hospitals”

Rank	Academic Medical Center	Metropolitan Area	Associated Medical School
1	Johns Hopkins Hospital	Baltimore, Md	The Johns Hopkins School of Medicine
2	Mayo Clinic	Rochester, Minn	Mayo Medical School
3	Cleveland Clinic	Cleveland, Ohio	Cleveland Clinic Lerner College of Medicine of Case Western Reserve University
4	Massachusetts General Hospital	Boston, Mass	Harvard Medical School
5	UCLA Medical Center	Los Angeles, Calif	The David Geffen School of Medicine at UCLA
6	Duke University Medical Center	Durham, NC	Duke University School of Medicine
7	University of California, San Francisco, Medical Center	San Francisco	University of California, San Francisco, School of Medicine
8	University of Michigan Medical Center	Ann Arbor, Mich	University of Michigan Medical School
9	Barnes-Jewish Hospital	St Louis, Mo	Washington University School of Medicine
10	Brigham and Women’s Hospital	Boston	Harvard Medical School
11	University of Washington Medical Center	Seattle, Wash	University of Washington School of Medicine
12	New York-Presbyterian Hospital	New York City	Columbia University College of Physicians and Surgeons and Weill Medical College of Cornell University
13	Hospital of the University of Pennsylvania	Philadelphia, Pa	University of Pennsylvania School of Medicine
14	Stanford University Hospital	Stanford, Calif	Stanford University School of Medicine
15	University of Chicago Hospitals	Chicago, Ill	Pritzker School of Medicine
16	University of Pittsburgh Medical Center	Pittsburgh, Pa	University of Pittsburgh School of Medicine
17	Vanderbilt University Hospital and Clinic	Nashville, Tenn	Vanderbilt University School of Medicine

centers has not been formally examined. We aimed to characterize health services advertising by the nation’s most prominent academic medical centers.

METHODS

STUDY POPULATION

To define a set of the most prominent academic medical centers for the investigation, we used the *US News & World Report* 2002 honor roll of “America’s Best Hospitals.”²¹ This annual listing, first published in 1990, has become popular with lay consumers for assessing health care facilities. The ranking starts with US hospitals that have membership in the Council of Teaching Hospitals, affiliation with a medical school, or availability of at least 9 of 17 specified items of medical technology. All are then scored using a method that incorporates peer reputation, mortality ratios, and care-related factors such as nursing. To be named to the honor roll, facilities have to score greater than 2 SDs above the mean in at least 6 of the 17 best hospitals’ specialties.^{22,23} The 17 centers given this distinction in 2002 compose our study population (**Table 1**).

PROCESS

To evaluate health services advertising by academic medical centers, we examined 2 important components—the processes for approval of the ads and the content of the ads themselves.

We conducted semistructured telephone interviews with each academic medical center. We called each facility’s main number, asked for the “Marketing Department,” and once connected asked to speak with “the person in charge of advertising.” While the marketing departments varied in level of sophistication, setup, and job titles, this request was consistently met without difficulty. Although several facilities required return calls to find a time when the person in charge was available, none of the facilities declined our request.

The interviews consisted of 13 questions aimed at learning what types of health services advertising were done at the institution and what procedures existed for reviewing and approving ads aimed at attracting patients.²⁴ The centers’ mar-

keting departments were contacted between December 20, 2002, and May 19, 2003, and the interviews took approximately 15 minutes to complete.

CONTENT

Search Strategy

We sought to analyze all unique non–research-related print ads placed by the academic medical centers during 2002 in the 5 most widely circulating newspapers in the centers’ metropolitan areas (**Figure 1**).

To determine the top 5 newspapers with greater than 500 paid circulation in each academic medical center’s local market, we used data from the Audit Bureau of Circulations.²⁵ Copies of all non–research-related print ads placed in these newspapers by the honor roll institutions during 2002 were obtained via 2 sources. First, we contracted with Video Monitoring Service, an independent advertisement monitoring service, to locate all local print ads placed by the institutions between January 1, 2002, and December 31, 2002. Video Monitoring Service routinely scans and electronically archives all print ads placed in common newspapers and maintains them in an electronic ad library with information, including the sponsor, date and location of publication, and general topic. This allowed the service to easily search for all ads that met our inclusion criteria and provide high-quality electronic copies of each ad. Second, any newspaper identified by the Audit Bureau of Circulations report but not included on the Video Monitoring Service search list was contacted directly. To determine our final sample, we excluded duplicates, ads promoting clinical research trials or employment opportunities, and any other non–patient-targeted or non–health services ads (eg, solicitations for charitable donations, recognition of nonclinical staff, and editorials).

Content Analysis

We developed a standard coding scheme to describe the overall purpose, what was being promoted, the condition(s) targeted, and the marketing strategies used for each ad.²⁴

As outlined in Figure 1, coders (R.J.L. and S.W.) first broadly grouped the ads according to their overall purpose—whether

they were aimed at promoting a public service unlikely to directly generate customers or income (no further coding), increasing awareness of a community event sponsored by the institution (no further coding), or attracting patients for services at the institution. Each ad in the latter group was then coded according to what was being promoted—the hospital overall (ie, hospital image), a department or group of related services, or a single service. Conditions targeted were indicated from a list of common disease categories (eg, cardiovascular diseases, cancer, and musculoskeletal disorders), and coders then assessed each ad for the presence of specific marketing strategies (from “highlights institution prestige” to “mentions cost”) (Table 2). Ads for single services were further coded according to 6 predefined balanced presentation criteria patterned from the standard components of an appropriate informed consent (mentioning the indication, alternatives, benefits, and harms). Finally, we searched MEDLINE to assess the level of evidence supporting each specific service advertised.

To facilitate consistency and reproducibility of coding, definitions including specific words and phrases were provided for each variable. Two investigators (R.J.L. and S.W.) independently coded each ad, and the individual results were compared to identify concordance. Disagreements could occur because of true disagreement (eg, coder A believes the ad targets people with a specific diagnosis, but coder B does not), misunderstanding about the code definitions (eg, coder A thought “seminar” referred only to on-site meetings, whereas coder B recognized that the definition included broadcast meetings), or data entry errors. Because, in assessing reliability, we were interested in measuring true agreement, after coding the ads the investigators reviewed each variable’s definition and then reevaluated ads with differing responses to confirm the original codes. Errors due to definition or data entry problems were corrected before calculating κ values, and persistent disagreements were arbitrated by a third investigator (L.M.S.) to determine the final code. In our analyses, we only included those items with a κ value of 0.70 or higher (range, 0.73–1.00; mean, 0.98).

RESULTS

ACADEMIC MEDICAL CENTER ADVERTISING PROCESSES

Who Places the Ads?

Of the 17 marketing departments, 16 reported that their institutions used advertising to attract patients; the remaining site stated, “We’re just word of mouth.” Of the marketing departments that advertised, 8 described being involved in all advertising done by their institution while the other 8 reported that individual departments could design and place ads on their own.

Who Reviews the Ads?

Ads to attract subjects for research studies are expected to obtain approval from an institutional review board prior to being distributed.^{26,27} About two thirds of the marketing department representatives were familiar with their institutional review board’s process for assuring fair, balanced, and straightforward content in advertising to attract research participants. None of the marketing departments had a similar process for reviewing ads to attract patients for health services. Although 14 marketing de-

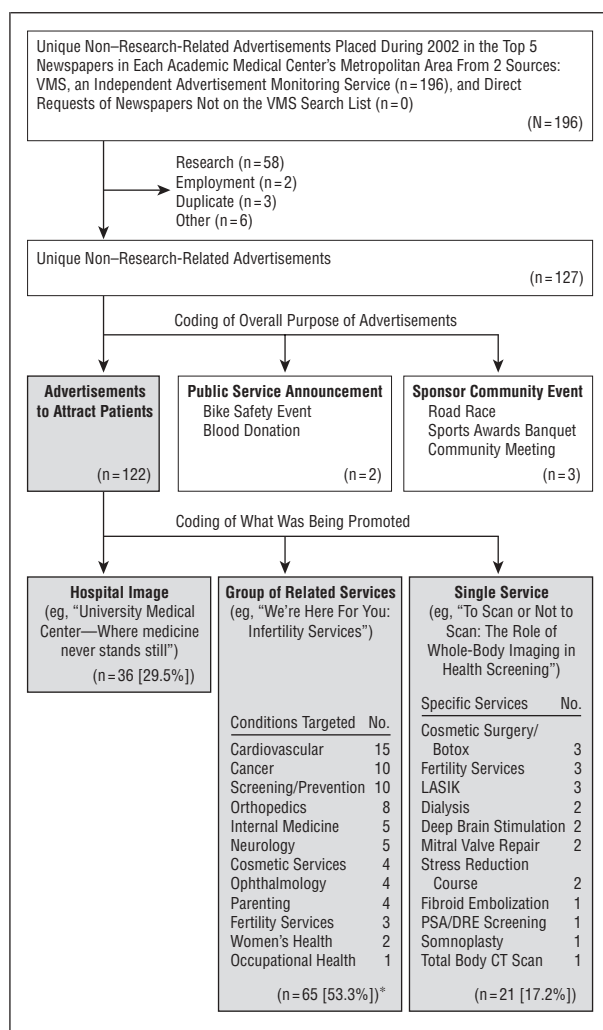


Figure 1. Methods and results of academic medical center advertisement search and content analysis. Botox is botulinum toxin type A. CT indicates computed tomographic; DRE, digital rectal examination; LASIK, laser-assisted in situ keratomileusis; PSA, prostate-specific antigen; VMS, Video Monitoring Service; and asterisk, the total is more than 65 because some advertisements promoted multiple services.

partments described routinely involving medical staff in the process of approving ads to attract patients (typically the chair of the department placing the ad), this step was consistently described as being focused on aesthetics rather than the application of formal criteria for judging the balance and potential ambiguities of the ad’s message. Only 1 center had a mechanism in place for obtaining medical approval from a person outside the department being advertised—this center’s chief medical officer gave final approval to all clinically related ads.

ACADEMIC MEDICAL CENTER ADS

We identified 127 unique non-research-related local print ads placed by the 17 academic medical centers during 2002. The number of unique ads per institution ranged from 0 to 39 (mean, 7.5). As shown in Figure 1, 3 ads promoted community events with institution sponsorship, 2 announced genuine public service events, and 122 were aimed at attracting patients.

Table 2. Marketing Strategies Used in Advertising by Academic Medical Centers

Marketing Strategy	Definition	% of 122 Ads*
Emotional appeal	Evokes feelings such as hope, fear, happiness, anxiety, or sympathy; alludes to important relationships; focuses on health risk, disability, or death	61.5
Highlight institution prestige	Uses claims of institution prestige or status ("world renowned," "top rated," "expertise"); cites awards (eg, <i>US News & World Report</i> rating)	60.7
Mention symptom or disease	Specifically mentions a symptom or disease	53.3
Promote gateway offer	Offers free or nominal fee service likely to lead to further business; offers seminar or other educational forum promoting specific service	47.5
Focus on technology	Highlights technology ("high tech," "cutting edge," "innovative," "at the forefront," "most advanced resources")	33.6
Increase awareness of a specific service	Promotes awareness of a specific available service	21.3
Mention convenience	Highlights ease of access to services ("multiple locations," "appointments available," "all at one site")	21.3
Suggest medical miracle	Claims service(s) advertised to be "miraculous," "breakthrough," "life changing"	12.3
Highlight comfort	Suggests comfort with experience of services ("less pain," "low-stress," "comforting setting")	5.7
Use testimonial	Promotes service(s) via endorsement by a celebrity, patient, or health provider	5.7
Minimally invasive	Specifically uses the term "minimally invasive" to describe service	4.9
Use statistics	Uses any form of numerical statistic ("1 in 4," "80%," "2/3's")	4.9
"FDA approved"	Specifically cites FDA approval status of service advertised	2.5
Reducing errors	Gives safety claims regarding facility error rates or mentions continuing improvement processes to reduce errors	2.5
Safety	Gives safety claims regarding the advertised service or procedure ("low-risk," "safe," "reversible")	1.6
Mention cost	Mentions cost of service or likelihood of reimbursement; "covered by most insurance"	0.8

Abbreviation: FDA, Food and Drug Administration.

*Individual advertisements (ads) may be coded for multiple marketing strategies.

What Is Being Advertised?

Of the 122 ads designed to attract patients for health services, 36 promoted the medical center as a whole, 65 promoted groups of related services, and 21 promoted single therapeutic interventions or diagnostic tests.

Among the ads for groups of related services, the most commonly targeted conditions included cardiovascular, cancer, screening/prevention, and orthopedic issues (Figure 1). Many of the grouped services ads promoted individual hospital departments, often identifying themselves as specific entities (eg, The Heart Institute, [Jones] Cancer Center, The Spine Center, and [Smith] Eye Institute).

Of the 21 ads for single services, 2 promoted a widely accepted procedure (dialysis). The remaining 19 single-service advertisements were for procedures considered cosmetic (cosmetic surgery/botulinum toxin type A [Botox] and laser-assisted in situ keratomileusis [LASIK]), having limited (or no) efficacy data (experimental mitral valve repair, deep brain stimulation, somnoplasty, fibroid embolization, and a total body computed tomographic scan), or lacking consensus (prostate-specific antigen/digital rectal examination screening).

What Marketing Strategies Are Used?

The frequencies of the various marketing strategies used to attract patients are shown in Table 2. Most common were appealing to emotions, highlighting institution prestige, and mentioning a symptom or disease. Nearly half of the ads promoted introductory lectures (eg, "Join us

for fertility matters: A free symposium") or special offers (eg, "\$25 Heart Screening includes EKG [electrocardiographic] fitness test, cholesterol profile") likely to lead to further business—so-called gateway offers—and about a third touted high-technology resources. Of the ads, 17.2% specifically cited the institution's *US News & World Report* ranking. Despite the recent focus on report card measures of quality in health care, less than 5% of the ads highlighted medical error reduction efforts or patient safety records.

Figure 2 further details 3 important high-visibility advertising elements (all of the medical center slogans and special offers, and a selection of ad headlines that exemplifies several commonly used marketing strategies). Most of the institution slogans emphasized cutting-edge care and institution status, using words or phrases like "at the forefront," "breakthrough," "tomorrow's medicine today," "world class," and "most accomplished." The remaining slogans tended to use emotional themes—"caring" and "working together." Special offers most often involved screening opportunities, food, or printed material. While some of the screening offers included widely recommended measures, like blood pressure and cholesterol screening, others included tests of unclear value, such as the non-diagnostic electrocardiographic fitness test for primary prevention of heart disease and heel ultrasonography for osteoporosis screening. Advertising headlines (the ad text in the largest or boldest font) commonly mentioned symptoms or diseases or used strategies that might appeal to patients' emotions or fears. Examples of selected marketing strategies as used in actual ads are provided in **Figure 3**.

What Information Is Presented?

To assess whether the ads provided balanced presentations of benefits and harms, we looked at the 21 advertisements for discrete services. As shown in **Figure 4**, we found that 57.1% of these ads specified an indication for the service being advertised (eg, “You’ve probably heard that Botox injections can reduce wrinkles”) and 33.3% mentioned 1 or more alternatives (eg, “The discomfort and inconvenience of glasses and contacts”). While more than three quarters of the single-service ads highlighted potential benefits of the service promoted (eg, “improving not just the appearance of your nose, but also the function”), none quantified their positive claims. Only 1 ad mentioned or implied potential harms of the service advertised (“state-of-the-art technology significantly lowers the risks associated with surgery” was thought to acknowledge that risks existed).

COMMENT

The top academic medical centers commonly use advertising to attract patients. The ads typically use marketing strategies that capitalize on emotional appeals, institution prestige, self-diagnosis, and gateway offers (eg, offering introductory lectures or services likely to lead to further business). Many advertisements for discrete services promote unproved or cosmetic procedures, and while these advertisements often highlight benefits, none quantify their positive claims and few provide information on potential harms. Unlike advertising to attract clinical research participants, advertising to attract patients is not subjected to formal assessment of balance and straightforwardness before distribution.

Our study should be interpreted in light of several limitations. First, because we limited our analysis to the 17 medical centers named to the *US News & World Report* 2002 honor roll of “America’s Best Hospitals,” our results may not be generalizable to other institutions. Medical centers with less name recognition may rely more on advertising to attract patients and may use different marketing strategies. Second, we specifically limited our investigation to newspaper advertising. While we recognize that other forms of consumer-directed marketing (direct mail, magazine, outdoor, radio, or television advertising) might differ in content or character, this is the mode of advertising most commonly reported by the marketing departments of the centers we studied. Finally, like all content analyses, ours involves subjective judgments. We aimed to maximize the objectivity of our findings by developing an explicit coding scheme and restricting the analysis to only those variables with high agreement. Equally important, we provided the exact text of some of the high-visibility elements (Figures 2 and 3) to allow readers to make their own judgments.

Academic medical centers have a public mission to “improve the health of their communities and the larger society in which they reside.”¹ If advertising from these centers were designed to serve the institutions’ public mission, one would expect the centers to promote evidence-based services, or at least those likely to improve overall public health. Furthermore, ads would be presented in

Medical Center Slogans

At the Forefront of Medicine
Breakthrough Medicine—Exceptional Care
Caring, Curing, Healing
Every Life Deserves World Class Care
Hearts and Minds
The most accomplished minds in medicine. Working for you.
Tomorrow’s Medicine Today
Two hospitals working together as one health care provider

Offers

\$25 Heart Screening (EKG monitored fitness test—a non-diagnostic exercise test,* total and HDL cholesterol, blood pressure, body fat analysis, height and weight check, and a Cardiac Risk Profile Report with customized instructions for reducing risks)
Complimentary Health Screenings, Fantastic gifts, and giveaways
Complimentary Meals*
Cosmetic Surgery e-newsletter
Free First Aid Kit
Free Heel Ultrasound Screening
Free Prostate Screenings (prostate exam and blood test)
Free subscription to *Healthy Happenings**
Reprint of the *U.S. News & World Report* article*
Women’s Health Fair with screenings

Advertising Headlines†

25% of all adults are habitual snorers. Fortunately, we have a solution.
Early detection is key to surviving heart disease.
FDA Approves Deep Brain Stimulation Therapy for Parkinson Disease
How a revolutionary heart procedure helped Carol take on the Rockies.
Last year, more than 100 doctors selected [medical center name] for their heart surgery.
I was one of them.
Ordinary? Routine? Not on your life.
Researchers find the leading killer of women to be indifference.
The [medical center name] restored my eyesight. And my ability to dream.
The more you know about Uterine Fibroids the better you’ll feel.
Trust your image to medicine’s most respected image.
We Do Botox!
Why don’t women recognize the signs of their own heart attacks? Ask.

Figure 2. All slogans and offers, and selected headlines appearing in advertisements by academic medical centers. Botox is botulinum toxin type A. EKG indicates electrocardiographic; FDA, Food and Drug Administration; HDL, high-density lipoprotein; asterisk, found in multiple unique advertisements; and dagger, advertising text in largest or boldest font.

ways that assisted the public in making good health decisions by providing balanced and objective information. Instead, we found ads aimed at reaching relatively healthy consumers. Several ads were for unproved or cosmetic procedures, and few provided readers with adequate information to guide good decision making.

Realistically, however, academic medical centers have another mission—to succeed financially. It is not hard to understand why academic medical centers are increasingly advertising to attract patients. Academic medical centers face growing financial challenges to their survival in the current marketplace. As providers of a disproportionate amount of care to the poor and uninsured as well as many unprofitable but necessary services, such as trauma, burn, AIDS, and intensive care unit care, they have been forced to find innovative ways to ensure continued revenues.^{3,28,29} Because academic medical centers cannot serve the public unless they are financially viable, some might argue that advertising to attract patients is warranted to make their public mission possible.

However, there are 2 important problems with this type of advertising. First, given the prestige of academic medical centers—particularly those on the honor roll—consumers may have great confidence in the quality, accuracy, and underlying altruistic motivations of any information with which the institutions are associated. Because of this trust, consumers may not recognize the difference between information intended to inform the public and advertising designed to generate revenue. It is

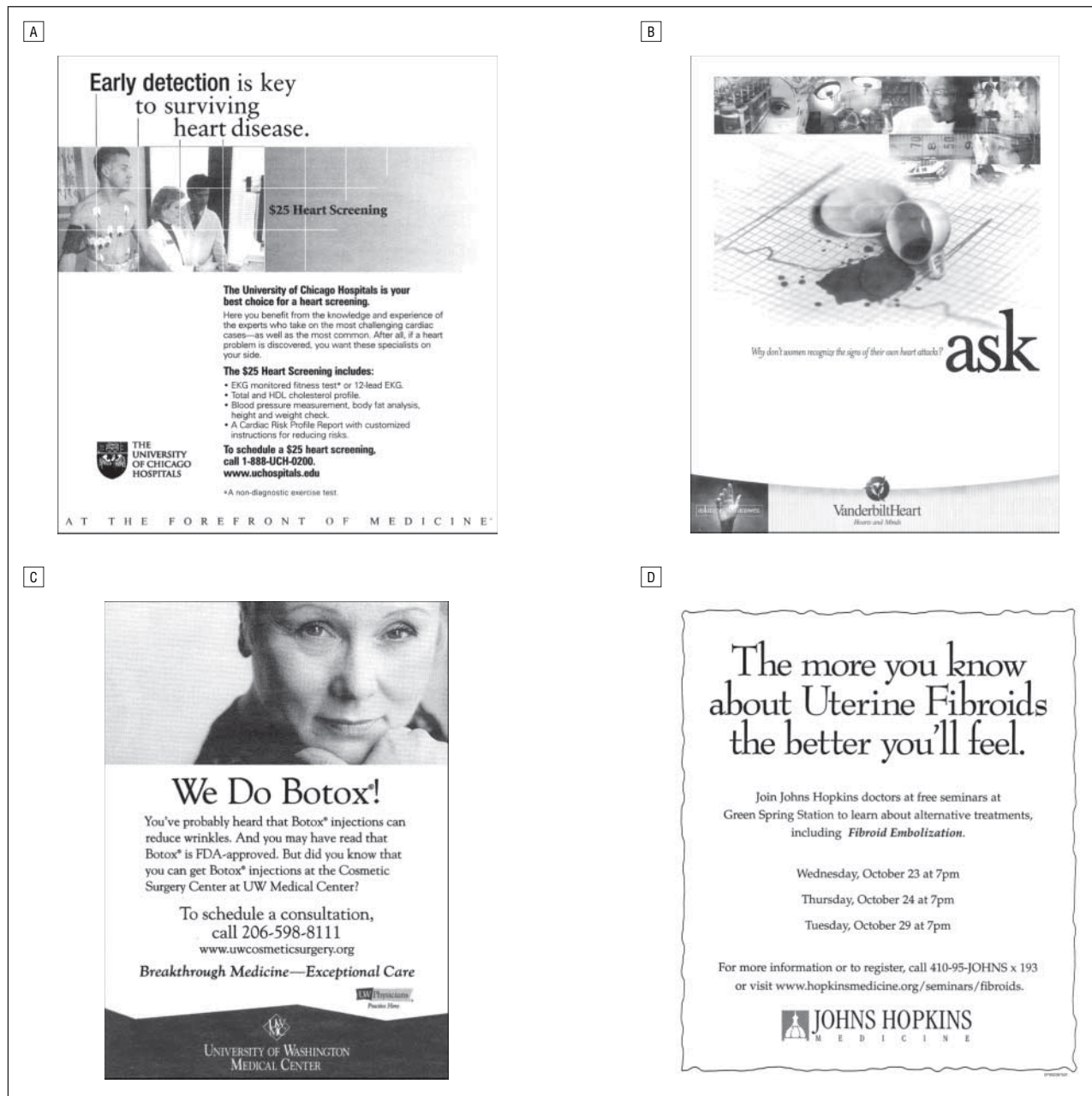


Figure 3. Examples of direct-to-consumer advertisements using selected marketing strategies. A, Promote gateway offer. B, Emotional appeal. C and D, Increase awareness of a specific service.

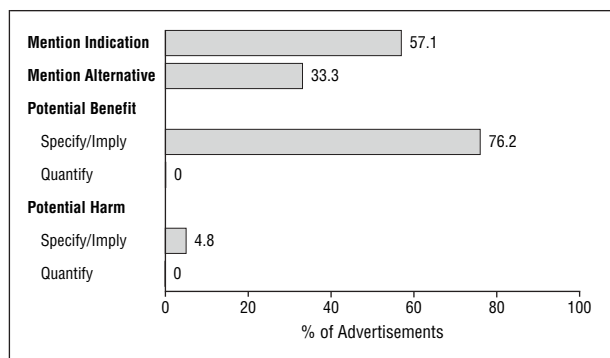


Figure 4. Proportion of 21 advertisements for single services that fulfilled specific balanced presentation criteria.

reasonable to assume that consumers do not bring the same skepticism to health services ads from academic medical centers that they do to other forms of advertising.

Second, many of the ads seem to foster the perception that more and higher-technology medicine is always better. They tend to promote newer more advanced procedures and provide an exaggerated sense of how good medical care is. As a result, patients may be given false hopes and unrealistic expectations. The ads also tend to package hospital functions into specialized products and market them separately, creating product lines. This technique, in part by encouraging self-referral, is intended to create a need in medical consumers' minds where one might not have existed.³⁰ These mes-

sages increase the likelihood that services are used inappropriately, exposing patients to labeling and unnecessary risks.^{31,32} Indeed, recent evidence suggests that higher utilization does not result in higher quality care or patient satisfaction, but rather may be associated with worse outcomes.^{33,34} Ads suggesting otherwise seem to put the financial interests of the academic medical center ahead of the best interests of the patients, and arguably compromise the centers' mission to improve the health of the public.

If academic medical centers are to continue with advertising to attract patients, we believe they must be more sensitive to the conflict of interest between public health and making money. They must make a substantial effort to improve the nature of the ads by presenting a fair balance of benefit and harm information and minimizing the promotion of services of unclear value. The Food and Drug Administration's guidelines for advertising to attract research participants—mandating formal institutional review of ads before they are run—provide a useful model, particularly for ads promoting discrete services. Why should patients get less protection than research subjects?

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