

Interaction of Detailing and Journal Advertising

*How Detailing and Journal Advertising
Impact New Prescriptions*

One Year Analysis

The Association of Business Media Companies

**AMERICAN
BUSINESS MEDIA**



**The Association of
Medical Publications**

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Executive Summary

This prospective study of the effect of medical journal advertising on new prescriptions (NRx) and first choice therapy (FCRx) was unusual in that it evaluated different levels of spending (and resultant advertising exposure), ranging from zero to double the average spending typically seen in the therapeutic class, and included both advertising that followed the detailing message and advertising with a discordant message. The two products were from different therapeutic classes, were in the middle of their life cycles, and had not previously been advertised to primary care physicians (PCP) with national programs. The test areas were randomly drawn and were matched to ensure similar prescribing potential, and the analysis for each product was based on about 64,000 mutually-exclusive PCPs.

For Product “A”, where the advertising pre-test had indicated the advertisement would be well received and the message was consistent with that used in detailing, campaign awareness rose in line with higher levels of advertising spending. PCP exposed to the “double” level of spending were the most likely to recognize the ad campaign, to associate the campaign with its message, to choose the product as FCRx, and to have highest sales aid recognition. The highest level of advertising raised NRx at a rate 10.47% greater than in the control group over a 12-month period.

For Product “B”, the advertising pre-test was critical of the advertisement and the message was discordant to the message used by the field force during the study period. Here, the advertising had no measurable impact on PCPs in any test group, and the test was discontinued after 6 months.

This research confirms that at appropriate levels of promotion, medical journal advertising created awareness, communicated its message, raised FCRx, and raised sales. The study also offers important lessons on the interaction of medical journal advertising and detailing. It showed that medical advertising can raise the level of perceived detailing when it connects with the sales aid, but it also showed the importance of pretesting the ad campaign to avoid confusion and inconsistency in messaging.

Interaction of Detailing and Journal Advertising Study

The Association of Medical Publications (AMP) and American Business Media (ABM), in conjunction with two major pharmaceutical companies and sixteen publishers, commissioned a prospective study of the effect of medical journal advertising on new prescriptions (NRx) as well as first choice therapy (FCRx). This study was unusual in that it examined the impact of different levels of advertising, ranging from zero to aggressive spending, and included both advertising that followed the same message as detailing and advertising with a discordant message.

The research was coordinated by AC Nielsen/HCI. The research methodology was developed under the guidance of Alan Fask, Ph.D., a professor at Fairleigh Dickinson University and a pharmaceutical industry consultant for research and experimental design, and was endorsed by the Pharmaceutical Management Science Association (PMSA) and the participating companies.

The study was designed to measure the impact of three different advertising levels for two product campaigns. The three levels, described as Half, Full, and Double promotion, were based on advertising levels typically seen in the two therapeutic classes, with “Full” defined as the *average level of promotion*. Each product test was scheduled to run for a one-year period.

Study Design

The two patent-protected products were from different therapeutic classes and were selected based on the fact that they were in the middle of their life cycles and had not been previously advertised to primary care physicians (PCPs) with national programs. Three test areas, each with a different level of promotional activity, plus one control area (no advertising), were randomly drawn so that the analysis for each product was based upon approximately 64,000 mutually-exclusive PCPs (16,000 per area). The four areas were matched by the pharma companies to ensure that the prescribing potential was similar.

The study design included a pre-promotion period (running from February 2003 through February 2004) and two six month test periods (March-August 2004 and

September 2004-February 2005). The advertising campaigns were pretested prior to launch to evaluate the quality of the ads and to make recommendations for improvement, if needed. At the end of the six month test period, a post-test survey measured the degree to which the advertising raised campaign awareness and message retention. Importantly, a quantitative analysis of NRx was conducted at the end of six months and at the end of 12 months under the guidance of Dr. Fask. Participating companies provided prescription data as well as detailing and sampling activity for their respective products.

Product “A” Results

(March-August 2004)

The CTS PreTest conducted prior to launch indicated that the Product “A” journal advertisement would be well received pending minor changes relative to message placement and the location of fair balance. Once the recommended changes were made, journal advertising was initiated (February 2004). At the end of six months (August 2004), a qualitative CTS PosTest analysis documented that campaign awareness moved higher as promotion levels increased.

Primary care physicians (PCP’s) exposed to the “double level” of spending and resultant exposure (twice the average spend in the class) were the most likely to recognize the ad campaign and to associate the campaign with its message, and were most likely to choose the product as drug of first choice (FCRx) for the main condition treated. In addition, PCP’s in the test cell having the highest promotion level were also more inclined to think that they were recently detailed on Product “A” and indicated higher sales aid recognition, even though the number of calls was the same across all test and control cells. This suggests the potentiating effect of medical journal advertising in leveraging the detailing effort.

Importantly, an analysis of prescriptions confirmed that only the highest level of advertising (the level implemented in test group C) was effective in raising NRx’s for Product “A,” at a rate that was 9.8 percent higher than that observed in the control area. This result is statistically significant.

(September 2004-February 2005)

The key measurement for the second six-month period (September 2004-February 2005) was once again based on NRx activity. ***During this period, the average increase per month in NRx's in test group C as compared to control was 11.07%.*** This result was also found to be statistically significant. The data are not adequate to support the effectiveness of other (lower) levels of ad spending.

(Full Year – March 2004-February 2005)

The results of this study relative to Product “A” strongly suggest that medical journal advertising can be effective in raising sales. This is evidenced by the fact that ***for the full year, the average increase per month in NRx's in test group C over the control group was 10.47%.*** Again, the difference noted was statistically significant.

Note that the results observed with Product “A” were similar to those in studies conducted over the prior five years, including the ROI Analysis of Pharmaceutical Promotion (RAPP), Analysis of ROI for Pharmaceutical Promotion (ARPP), and the PhRMA Patient Assistance Program Physician Awareness Study. While the methodologies differed somewhat, the results indicated that well-structured print promotion will have a positive impact on both NRx and return on investment (ROI).

Product “B” Results

(April-September 2004)

In contrast to the findings on Product “A”, the CTS PreTest results for Product “B” were critical of the tested advertisement, finding that this ad’s visual appearance was “too crowded,” “too busy,” and “too detailed.” Despite these physician responses, the company chose to run the advertisement because it felt the main message was communicated. The advertisement began running in March 2004 journals.

A qualitative CTS PosTest conducted in September 2004 indicated that the advertisement had no impact on PCP’s in any of the three test groups. Specifically, there was no correlation between the different advertising promotional levels and campaign recognition, message association, recognition of the sales aid, or the percentage of PCP’s

who selected Product “B” as drug of first choice for any of the three major conditions for which the product most often is used. In addition, the prescription analysis indicated that at the end of six months, there was no significant difference between any of the three advertising test levels and the control group.

Subsequent research indicated that there was a discrepancy between the advertising message and the message that the field force was promoting to physicians. As a result, Brand Team “B” agreed with the ACNielsen/HCI recommendation that the test should immediately be discontinued.

Conclusions of the study

1. Medical journal advertising can work, and this research confirmed that at an appropriate level of spending, the medical advertising created awareness, communicated its message, raised 1st choice therapy, and raised sales in both the six-month and twelve-month measurement periods.
2. Medical advertising can raise the level of perceived detailing when it connects with the sales aid.
3. The PostTest research in this study supports the concept that for medical journal advertising to be effective, it is important for a series of events to take place (campaign awareness, message penetration, and change in FCRx) in advance of increased prescriptions.
4. It is mandatory to analyze campaign effectiveness using both qualitative and quantitative techniques. A quantitative (Rx) analysis is designed to determine if the program raised sales, while the qualitative analysis explains the results. This combined methodology allows necessary adjustments to be made, if needed, to improve the probability of success
5. Medical journal advertising campaigns should be pretested and evaluated in order to address user concerns. Any degree of confusion or perceived clutter must be addressed.
6. Not all medical advertising is effective. If a promotional approach doesn't work, this research shows that it can be the result of a problem ad campaign or inconsistency in messaging, and not the fault of the medium.

Background and Discussion

Over the past several years, the effectiveness of various product promotion media has been debated. These media include the use of traditional detailing, journal advertising, medical education events, direct-to-consumer promotion, non-traditional advertising, and other modalities.

Several studies have been conducted on the claimed effectiveness of specific marketing techniques, independently and in conjunction with other forms of promotion. In the past few years, two major initiatives examined the effectiveness and ROI of various types of promotion.

The first was the ROI Analysis of Pharmaceutical Promotion (RAPP), presented in 2001. The research was designed and conducted by Dr. Scott Neslin (Albert Wesley Fry Professor of Marketing, Amos Tuck School of Business, Dartmouth College) under an unrestricted educational grant from the AMP.

The Analysis of ROI for Pharmaceutical Promotion (ARPP) was a follow-up, independent study comparing the average marginal Return on Investment (ROI) for four major promotional tactics: detailing, direct-to-consumer advertising, advertising in medical publications, and physician meetings and events. The results of this analysis were first presented to the healthcare industry on September 18, 2002 by its author, Dr. Dick Wittink, General George Rogers Clark Professor of Management and Marketing at the Yale School of Management.

After the release of the RAPP Study, members of the Pharmaceutical Management Science Association (PMSA) offered several suggestions for future studies. The AMP Board of Directors resolved that future studies underwritten by grants from the AMP would seek advice from PMSA members of participating pharma companies. The ARPP Study included many of the ideas submitted to the AMP and Dr. Wittink.

One of the approaches developed with input from PMSA members became the Interaction of Detailing and Journal Advertising reported here, designed to measure the impact of various levels of advertising on two products that were midway through their product lifecycles, in two distinct therapeutic groups, and had not run national advertising

campaigns to primary care physicians. Measurement of NRx would be an indicator of the effectiveness of the different levels of journal promotion.

ACNielsen/HCI was commissioned to conduct the study. A list of potential products was drawn up, and brand managers of these products were interviewed to gauge the level of interest and commitment to the planned research.

The brand teams for each of the two chosen products committed to create an advertisement to be run in selected publications for one year. The participating pharma companies agreed to share detailing and sampling activity with AC Nielsen/HCI with the understanding of anonymity. The participating brands also agreed to participate in the selection of regional areas to offer four demographically balanced market segments.

In consultation, AC Nielsen/HCI, the brand teams, and the AMP chose to target four specific physician specialties for the project;

- Office-based General Practice (GP-O)
- Office-based Family Practice (FP-O)
- Office-based Internal Medicine (IM-O)
- Office-based Primary Care Osteopaths (DP-O)

Care was taken to evaluate typical campaign levels seen in the four specialties to establish realistic journal schedules and Reach/Frequency goals. PERQ/HCI Research assisted in calculating the number of insertions required to meet the established goals, and media schedules to meet the established goals were planned and executed by the AMP.

AMP members were approached to volunteer advertising space exclusively to the various demographic segments in order to deliver predetermined levels of reach and frequency based on spending patterns in the two therapeutic categories. Several major publishers donated advertising space for the 12-month campaigns. The AMP followed up with publishers to confirm continuity with the schedule and rotation of the advertisements within the journals throughout the campaign.

Tracking of the journal insertions, as well as calculations of the campaign “expenditures” and resultant Reach and Frequency, were conducted and donated by PERQ/HCI. It should be noted that the advertising unit implemented for Product A was a four-page insert. While this may increase the projected cost of an annual campaign, a smaller unit (i.e. a single leaf insert) would reduce the spend level by 50% while maintaining the same Reach and Frequency levels.

Each brand team contributed promotional information, advertising creative, advertising inserts, and resultant NRx data. The brand teams committed that no other promotional behaviors (including product detailing, sampling, and medical education events) were to be altered during the term of the study.

AC Nielsen/HCI provided the independent evaluations of both benchmark and mid-campaign results. [The actual PreTest and PosTest reports for Products “A” and “B”, which were made available to the two participating pharmaceutical companies, are on file at AC Nielsen/HCI, but otherwise have not been distributed to maintain confidentiality.]

Key Analytics – 6 Months promotion Product A

Schedule Performance:

	GP Exposures	FP Exposures	IM Exposures	DP Exposures	# of pub insertion	Est. 6-Month Budget \$
Control Cell	na	na	na	na	na	na
Cell I 1x/mo	58%	71%	45%	50%	33	\$875,000
Cell I 2x/mo	32%	34%	29%	27%		
Cell II 1x/mo	79%	82%	78%	74%	82	\$1,750,000
Cell II 2x/mo	63%	61%	58%	57%		
Cell III 1x/mo	93%	93%	89%	97%	169	\$3,500,000
Cell III 2x/mo	86%	82%	78%	95%		

An analysis of prescriptions confirmed that the highest level of advertising tested was effective in raising NRx in this study. An NRx analysis was used because it is most reflective of promotion responses. The table below reports the specific results after six months:

	<u>Test Cell III</u>	<u>Control</u>	<u>Percentage Point Increase</u>
Ad Recognition	58%	21%	+37
Product Recall	44%	11%	+33
Correct Message Association	44%	32%	+12
1 st Choice Therapy	38%	31%	+ 7
			<u>Percent Inc.</u>
New Prescriptions			9.8%

Key Analytics – One Year Promotion Product A

Schedule Performance:

	GP Exposures	FP Exposures	IM Exposures	DP Exposures	# of pub insertion	Est. Annual Budget \$
Control Cell	na	na	na	na	na	na
Cell I 1x/mo	58%	71%	51%	44%	66	\$2,036,928
Cell I 2x/mo	26%	37%	27%	28%		
Cell II 1x/mo	79%	84%	75%	71%	168	\$4,007,992
Cell II 2x/mo	57%	64%	55%	53%		
Cell III 1x/mo	93%	92%	87%	86%	325	\$7,623,800
Cell III 2x/mo	80%	82%	77%	79%		

The key measurement for the second six-month period (September 2004-February 2005) was once again based on NRx activity. *During this period, the average increase per month in NRx's in test group C as compared to control was 11.07%.* This result was also found to be statistically significant. The data are not adequate to support the effectiveness of other (lower) levels of ad spending.

Key Analytics – Product B

Based on the results of the six month analysis and the disparity of the advertising and sales messages, the Product B test was terminated. The brand team did not feel that they would be able to create a new advertising message to mirror the detail message as quickly as the promotional scheme required.

Conclusions of the study (See also page 6)

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2. Medical advertising can raise the level of perceived detailing when it connects with the sales aid.
3. The PosTest research in this study supports the concept that for medical journal advertising to be effective, it is important for a series of events to take place (campaign awareness, message penetration, and change in FCRx) in advance of increased prescriptions.
4. It is mandatory to analyze campaign effectiveness using both qualitative and quantitative techniques. A quantitative (Rx) analysis is designed to determine if the program raised sales, while the qualitative analysis explains the results. This combined methodology allows necessary adjustments to be made, if needed, to improve the probability of success

5. Medical journal advertising campaigns should be pretested and evaluated in order to address user concerns. Any degree of confusion or perceived clutter must be addressed.
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