

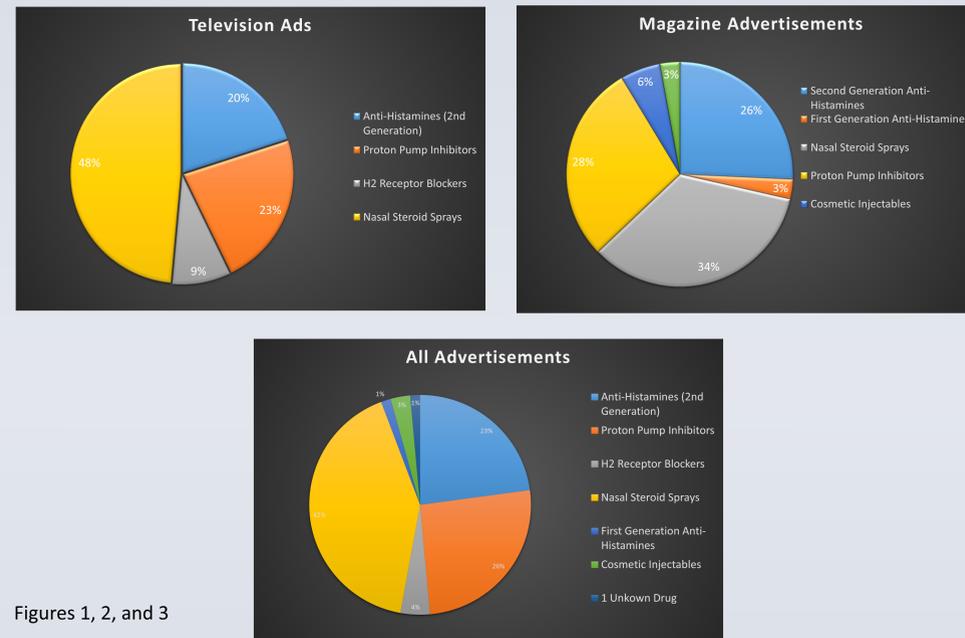
# Direct To Consumer Advertising For Otolaryngologic Pharmaceuticals: A Cross- Sectional Analysis of Print and Televised Media

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## Results

In 74 issues of 31 different magazine publications there were 266 total direct to consumer advertisements, 35 (13.2%) of these were medications frequently prescribed by Otolaryngologists. In screening the evening news for one week on three different channels there were 117 direct to consumer advertisements, 35 (29.9%) of these were for medications frequently prescribed by otolaryngologists. These advertisements are not screened for scientific backing before they are published or placed on the air.



Figures 1, 2, and 3

266 magazine advertisements were reviewed in this study and 35 (13.2%) were related to the field of otolaryngology. These advertisements were focused on a relatively small number of classes of medications, namely proton pump inhibitors (PPI), anti-histamines (both 1st and 2nd generation), and nasal steroid sprays. The drug class advertised the most was nasal steroid sprays, which were the focus of 34.3% of the advertisements reviewed in the study. Specifically, Flonase accounted for 8.6% of DTCA, Rhinocort 14.3%, and Nasacort 2.9%. Interestingly, the most common advertised single drug was Prilosec, which accounted for 22.9% of the otolaryngologic DTCA in this study.

Of the 117 television drug ads that were reviewed during the sample period, 35 (29.9%) of them were specific to otolaryngology. Similarly, television ads were focused on OTC medications such as nasal steroid sprays, 2<sup>nd</sup> generation anti-histamines, and proton pump inhibitors. The most common class of drug advertised on television during the sample period was nasal steroid sprays, advertised 37.1% of the time otolaryngologic advertisements were aired. The single most common Otolaryngic drug advertised was Flonase, a nasal steroid spray, at 31.4%.

## Objective

To investigate direct to consumer advertising (DTCA) of medications which are relevant to the field of otolaryngology. Several studies have shown a relationship between advertising of medications, and sales of those medications<sup>1</sup>. Most DTCA relevant to Otolaryngology is for over the counter (OTC) medication, allowing patients to be directly influenced by advertising without talking to their doctors.

## Introduction

Direct to consumer advertising (DTCA) is an effort employed by pharmaceutical companies in the United States, used to promote prescription and over the counter (OTC) medications to the lay public. These advertisements target patients and often ask them to “talk to their doctor” about a specific medication in the hopes that a provider may prescribe or recommend that medication for use by the patient. DTCA is a unique aspect of the United States healthcare system. New Zealand is the only other developed nation in the world that allows this type of advertising<sup>1</sup>. There is no doubt that DTCA has a profound impact on medical practice and patient treatment in the United States<sup>2</sup>. Numerous studies have been conducted to assess the impact of DTCA on healthcare in general.

## Materials and Methods

74 issues of 31 different magazine publications were reviewed from March to November 2016. Each advertisement for medications, whether prescription or OTC, was tallied. The subset of DTCA that was relevant to otolaryngology was also tallied. Similarly, television advertisements were screened for DTCA during the evening news on three different channels for one week in May 2016. Total number of DTCA was totaled along with DTCA relevant to the field of otolaryngology.

Type of Advertisement	Total DTCA	ENT Relevant DTCA	Percent of Total DTCA
Television	117	35	29.9%
Magazine	266	35	13.2%

Table 1 - Total number of pharmaceutical advertisements reviewed to get to the goal sample number of 35 ENT relevant advertisements.

## Discussion

Prilosec had \$203.5 million in sales in 2018<sup>3</sup>. Flonase and Nasacort had \$229.9 million and \$72.3 million in sales, respectively, in 2019<sup>4</sup>. Actual advertising expenditures made by the companies that sell these medications was not available during the time of the study. Due to this, we can not directly infer or conclude that advertising spending increased sales revenue of these medications. However, it is interesting to note that the relative prevalence of DTCA for Flonase and Prilosec, seem to mirror their sales comparisons as noted above.

The United States of America (US), along with New Zealand are the only two countries in the world to allow DTCA<sup>5</sup>. In the US, DTCA for prescription drugs is regulated by the Food and Drug Administration (FDA), while DTCA for over the counter (OTC) drugs is regulated by the Federal Trade Commission (FTC)<sup>5</sup>. Our study revealed that OTC drugs are advertised much more frequently than prescription drugs, 82.9% and 14.3% respectively. These data are in concurrence with typical drug recommendations of otolaryngologists, with most of their medication recommendations being for OTC medications.

The FDA has quite stringent regulations on drug advertising and requires that each advertisement include the following: at least one approved use for the drug, the generic name of the drug, and all or most important risks of the drug<sup>6</sup>.

Several studies have shown relationships between advertising dollars spent and increases in sales and prescriptions<sup>7</sup>. Specifically, one study showed that increased advertising for PPI medication increased the number of times providers switched specific medications within that drug class, for patients. Though this may seem harmless for these medications, it shows that DTCA may even sway the ways that doctors prescribe or recommend medications<sup>1-2, 7-10</sup>.

One study by Kamenica et al showed a relationship between advertising and physiologic response to medication<sup>11</sup>. In this study 2 groups of patients without clinical allergy symptoms were given either Claritin or Allegra. They were then asked to watch advertising for Claritin during the trial. The results showed that nearly all of the Claritin patients felt that the drug worked better for them<sup>11</sup>. This shows that advertisements can cause a placebo-like effect in patients and cause them to believe that their current medication regimen, or lack thereof, may be ineffective or worse than the drug that they are seeing in the media or in advertisements, when the drugs have been shown to be equivocal in randomized trials.

## Conclusion

In this study, we found DTCA relevant to otolaryngology to be pervasive in magazine and television lay media, representing 13.2% and 29.9% of total DTCA viewed in this study. The most frequently advertised medications in these forums were intranasal steroids, and proton-pump inhibitors. We also provided a brief overview of expenditures made to advertise for these medications. As otolaryngologists, we should be aware that our patients are viewing otolaryngology related DTCA in everyday media, and by extension, may be influenced in the way they use these medications.

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