Exploring marketing trends in the pharmacy industry

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Researchers from McGill University and Ontario Tech University published a new *Journal of Marketing* article that examines the drivers of specialty drug diffusion.

The study is authored by Demetrios Vakratsas and Wei-Lin Wang.

A notable trend in the pharmaceutical industry is the development of specialty drugs to treat complex, severe diseases, often with a limited number of patients. Of the 219 new drugs (or new active substances, NASs) that were launched in the U.S. between 2014 and 2018, 136 (62%) belonged to specialty classes. In 2017 alone, specialty drugs accounted for 32 of the 42 NASs.

Specialty drugs are produced using advanced biotechnology and often fill unmet patient needs. They treat complex, critical diseases, but also come with high risks of adverse events and are extremely costly.

For example, in 2018, specialty drugs accounted for 49.5% of total medicine net spending ($344 billion) in the US even though they represented only 2.2% of the 5.8 billion prescriptions. Because of high costs, their prescription is subject to prior insurance authorization, which requires documentation on the appropriateness of the treatment for the patient.

Despite the proliferation of specialty drugs, little is known about the drivers of diffusion. What is the role of scientific evidence? And do marketing activities influence prescriptions by physicians, who are mainly specialists? This new study finds that clinical studies affect the diffusion of new specialty drugs through a multi-stage scientific

evidence production process.

The researchers propose a framework of specialty drug diffusion, which is motivated by two principles.

1. The combination of novelty, complexity, and importance of specialty drugs necessitates that prescribing physicians must quickly develop an extensive knowledge base to make appropriate and timely evidence-based decisions.
2. Specialty drug prescribers are predominantly specialist physicians who have the motivation, opportunity, and ability to directly source and process scientific information to make evidence-based decisions. Thus, evidence emerging from clinical studies for a specialty drug should be critical for its diffusion.

The importance of scientific evidence

The scientific evidence production is a process consisting of three stages: (1) unpublished clinical studies, (2) evidence published in medical journals, and (3) clinical guidelines. Because of the high potential benefits of specialty drugs and the severity of the diseases they treat, the researchers expect specialty drug prescribers to extensively source information from all scientific evidence production stages to evaluate a drug's utility or net benefit for patients.

Moreover, they expect direct-to-physician marketing (personal selling and journal advertising) to have a weaker or even negligible effect given the ability of prescribing physicians to source information directly from the scientific evidence production process.

As Vakratsas explains, "Our findings support the idea that the influence of scientific evidence production on specialty drug diffusion is seen through all three stages of its production process. We also find that both

journal advertising and personal selling have no significant effect on diffusion, confirming our expectations."

To further validate these findings, they study the diffusion of a non-specialty drug and find that in terms of scientific evidence production, only uncited publications (i.e., publications in medical journals not cited in clinical guidelines) and clinical guidelines influence prescriptions, but not unpublished clinical studies. Moreover, separate analyses by physician specialty status reveal that clinical guidelines influence only specialty physician prescribers and detailing has a significant influence only on general practitioner prescribers.

"Our study offers a framework to help pharmaceutical firms evaluate returns on scientific evidence production. We underscore the need for changing the focus from published clinical results to the consideration of all three stages of the scientific evidence production process. Our implications show that focusing only on publications will lead to an underestimation of the returns on scientific evidence," says Wang.

Lessons for Chief Marketing Officers

These findings suggest that scientific evidence is the dominant driving force for the diffusion of specialty drugs. This provides the following opportunities for Chief Marketing Officers:

- Engage physicians and patients in clinical study protocol design to produce customer-led innovation. Patient engagement may not only increase enrollment and reduce protocol amendment costs, but also increase drug relevance to the target patient population.

- Install processes to systematically monitor patient and physician input and assess its impact on scientific evidence production. Shifting the focus to engage with patients and physicians has the

potential to optimize marketing efforts given marketing's capabilities to glean customer insights.

- Develop closer involvement in the production of innovation, which could lead to increased marketing influence within the firm.

Pharmaceutical firms could commit to innovation and quality at the prospect of a high scientific evidence ROI for specialty drugs. This in turn will improve the quality of life for patients, enhance productivity, and minimize the burden of the disease.

More information: Demetrios Vakratsas et al, EXPRESS: Scientific Evidence Production and Specialty Drug Diffusion, *Journal of Marketing* (2023). DOI: 10.1177/00222429231177627

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