

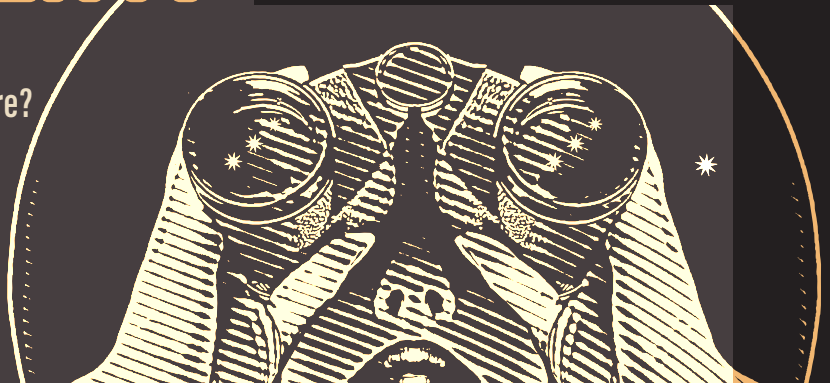
FROM DROPS TO DRUG DELIVERY:

CHANGING THE HEARTS AND MINDS OF CLINICIANS

What factors influence a lasting evolution in care?



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The history of glaucoma care is rich with innovation. Significant progress has been made in recent years, but attempts to revolutionize the way in which we manage glaucoma span decades. Luminaries such as Reay Brown, MD, and Alan Robin, MD, pushed the envelope early on with promising cutting-edge ideas. However, timing is everything when it comes to commercialization. Many brilliant concepts have gone into the wastebasket of technologies that never evolved, simply because they were before their time. As glaucoma specialists now face a potential shift in drug delivery, we must consider what factors influence a lasting evolution in care.

PERCEIVED NEEDS AND PRECEDENTS

Guided administration of pharmaceuticals, or GAP therapy, includes external and internal options for sustained drug delivery. Substantial innovation is taking place in this space, and I would argue that the time is finally right for GAP therapy for several reasons.

For starters, the cost of branded topical medications is highly prohibitive, with financial implications felt by patients and practices alike. In my practice, we have a full-time employee devoted to working with physician

assistants, insurance companies, and patients to navigate the many obstacles to medication access. GAP therapy may offer financial benefits to the practice, given the injectable codes and the buy-and-bill margin of about 6%.

From a disease standpoint, the benefits of sustained IOP reduction over time are promising, with potentially months of effect after one placement or injection. Further, the reduced side effect profile of internal GAP therapy would eliminate several negative outcomes of medication use, such as prostaglandin-associated periorbitopathy, hyperemia, hypertrichiasis, and hyperpigmentation. It has been well established that many patients do not comply with their prescribed drop regimens or fail to administer their drops properly. By eliminating many of the variables that affect patient compliance, GAP therapy can dramatically improve treatment adherence and, thus, treatment outcomes.

When it comes to the widespread adoption of injections, a strong precedent already exists in ophthalmology. If someone had told me when I started practicing that retina specialists would eventually spend a significant portion of their days outside the OR and in the clinic administering injections, I would not have believed it. But a major—and successful—shift in retina care took

place with the introduction of anti-VEGF agents, and the same will likely happen with GAP therapy in glaucoma.

PHYSICIAN INFLUENCERS

As with all innovation, there will be both winners and losers in the sustained drug delivery space. At this time, it is difficult to predict which solutions will prevail in the long term. As a key component in the commercialization process, physicians play a role in the adoption of new technologies and treatments. But how is that influence exercised, particularly when it is not yet possible to determine the true utility of an innovation?

Several years ago, researchers at Northwestern University conducted a study to investigate how small groups of highly trained individuals adopt innovations that have a potentially large societal impact but whose true utility is difficult to determine.¹ Specifically, the investigators focused on critical care physicians' adoption of a new assay technique for life-threatening bacterial infections. The critical care physicians could not estimate the true accuracy of the assay based on personal experience, so the researchers used simulated technologies to intervene like an influential colleague—opinionated but not bossy. They also analyzed the

WHEN IT COMES TO EVOLUTIONS IN CARE, PHYSICIAN COLLEAGUES AND INDUSTRY PARTNERS CAN CHANGE THE HEARTS AND MINDS OF CLINICIANS.



physicians' social networks to see how they were professionally connected.

The traditional belief has been that physicians “catch” a new therapy via the contagion model—physicians obtain information at a medical conference or in a journal, or they see another physician prescribe or perform a treatment, and they are “infected” and influenced to do the same. The Northwestern study, however, showed that physicians are more likely to follow the persuasion model—to try new therapies when persuaded by influential colleagues. Simply put, the art of persuasion was more effective at boosting adoption; the trick was finding the appropriate frequency and tone of the messaging so that it was effective and not off-putting. This finding has implications in other educational and business settings where small groups of highly qualified peers make adoption decisions regarding innovations whose utility is difficult to gauge.

INDUSTRY SUPPORT

As influential as physicians may be, innovation would not be possible

without industry support. Industry partners are often physicians' key touchpoints when an innovation comes to fruition. Today, physicians are frequently in touch with specialty representatives who are experts in selected products or pharmaceuticals and who thereby have the power to truly change the hearts and minds of clinicians.

An in-depth statistical analysis using ZS Associates and IMS prescriber data was conducted to identify the effect of representative-sourced communication on the prescribing habits of 72,000 US doctors.² The investigators used three instances of clear changes in prescribing recommendations, including the introduction of sitagliptin (Januvia, Merck) as a first-line therapy for diabetes. They determined that it took up to 4.6 times longer for physicians who were not interacting with representatives to prescribe the drug, compared with physicians who had access to industry representatives. This is a compelling case for having representatives call on physicians.

CONCLUSION

When it comes to innovation, timing is everything, and a perceived need increases the likelihood of success. Collegial influence is one of the strongest predictors for the uptake of an innovation, and industry is a critical partner in the rapidly expanding knowledge base of practicing clinicians. Above all, it is important that we work to introduce GAP therapy into the glaucoma space ethically and collaboratively, for the benefit of physicians, industry, and patients alike. ■

1. Weiss CH, Poncela-Casasnovas J, Glaser JJ, et al. Adoption of a high-impact innovation in a homogeneous population. *Phys Rev*. 2014;4(4):041008.

2. Chressanthos GA, Khedkar P, Jain N, et al. Can access limits on sales representatives to physicians affect clinical prescription decisions? A study of recent events with diabetes and lipid drugs. *J Clin Hypertens*. 2012;14:435-446.

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