

Predicting Competitor Drug Adoption

The successful diffusion of new drugs into the market requires an intricate understanding of the wide assortment of characteristics that influence the patient's and/or physician's decision to adopt a new medicine. Modern data and analytics tools and capabilities can now enable businesses to synthesize these characteristics for actionable information to both launch their own new products and understand the impact of a competitor's new drug launch to their market.

Clarkston was engaged by a leading biopharmaceutical company to evaluate and predict the adoption of the client's current physician base to a new drug being released by a competitor. The analytics team used external data about the doctors, including their existing relationship with the competitor, institution information, and publishing/presenting data about the new drug, to create a likelihood assumption of the doctor's adoption. The team then used client data including prescribing patterns and history with the client to predict and validate these assumptions.

Ultimately, the team delivered groups classified as low, medium, or high "likelihood to adopt" to allow sales representatives to target specific doctors to further educate them on the disease for which the drug is prescribed and how to properly dose. This output gave the client more concrete and tangible way to target doctors with a likelihood to transition to the competitor drug.

Life Sciences Case Study

PROJECT OVERVIEW

COMPANY:



A pharmaceutical manufacturing company

PRODUCTS + SERVICES:



Rare disease pharmaceutical manufacturer

EMPLOYEES:



700

REVENUE:



\$2 billion

PRIMARY OBJECTIVES:

Clarkston and the client worked together to:

- Identify doctors at risk to adopt the competitor drug on a spectrum of low (unlikely to move to competitor drug) to high (very likely to move to competitor drug),
- Recommend actionable groups for focused efforts based on target segments of doctors who have a high volume of patients or doctors who may be dosing their patients incorrectly, and
- Use channel optimization results to identify how to best reach and engage doctors who may require more education on drug application for success.

RESOLUTION:

To successfully achieve the stated objectives, Clarkston and the client:

- Extracted data from internal and external sources and developed a data dictionary of all fields,
- Transformed, profiled, and tested each data set to develop a deeper understanding of each physician attributes' effect on adoption to the new drug,
- Used a gradient-boosted tree machine learning algorithm to make data-driven predictions of the doctor's adoption likelihood,
- Overlaid the *Medium and High* segments with the client's known doctors with a high volume of patients and who are sub-optimally dosing their patients, and
- Segmented the *Medium and High* groups by territory to identify targets for sales and better arm sales representatives with critical information.

KEY BENEFITS:

As a result of the project, the client was able to realize:

- A jumpstarted action plan for the client to target specific groups of doctors and defend market share,
- Improved organizational competency, understanding, and adoption of exploratory analytics to enable a data-driven approach to problem-solving, and
- A model for competitive analysis in other markets.

CLARKSTON
CONSULTING

92%

Over 92% confident that all doctors likely to adopt the competitor drug will be engaged by the client's sales teams and education efforts

700

Adjusted sales strategy for over 700 doctors to ensure face-to-face field sales engagement that focused on dosing education and clinical evidence

