

Biotech Tailored Solution Example

HCV Patient-Based Dynamic Marketing Model

Impressed with the success of an Idiopathic Pulmonary Fibrosis (IPF) Patient-Based Dynamic Marketing Model, a top-10 biopharmaceutical company asked Applied Strategies Technology to use a similar approach to improving the company's ability to forecast the near-term sales of their drug for Hepatitis C Virus (HCV). Like the IPF market, the HCV market contains a pool of patients, but the dynamics of the HCV pool is conditioned by several different factors, including genotype, ethnicity, incarceration, previous treatment history, and the result of previous treatment, among others.

Applied Strategies Technology worked closely with this company to design and implement a user-friendly, re-usable patient-based dynamic market forecasting model that captures the movement of patients through the different treatment levels and treatment outcomes while maintaining patient history. As with the IPF model, the HCV model will not only capture the volumes of patients in any given disease and treatment state, but also track the movement from state to state at each defined time period. In addition, the HCV model provides the ability to condition treatment depending on the complete treatment and outcome history of the patients.

Designed so that the user can uniquely define the implications and dynamics of each state as it evolves over time, the model will provide the company with the ability to generate insight into the variability and impact of variables such as:

- Length of therapy
- Type of therapy
- Average compliance
- Patient/Physician education
- Treatment result
- Viral response

On outputs such as:

- New, continuing and total patients
- Revenue
- Number of vials

The HCV Patient-Based Dynamic Marketing Model provides the company with a new understanding of the dynamics of the HCV market, helps to more accurately forecast demand, and provides a sound basis for marketing and drug supply decisions.