ESTIMATING THE BUDGET IMPACT OF A NEW PAIN TREATMENT

CLIENT

As one of the world's top ten largest pharmaceutical companies, this client has a diverse portfolio of drug and biologic therapies, medical devices and diagnostics, and consumer healthcare products. This company is noted for developing treatments in the therapeutic areas of cardiovascular disease and metabolism, immunology, infectious diseases and vaccines, neuroscience and pain, and oncology.

CHALLENGE

Opioids are used to treat both acute and chronic pain; however, traditional μ-opioids are often associated with opioid-induced side effects that can limit treatment effectiveness. Issues with tolerability have led to the development of novel opioids that may have a more favorable adverse event profile. Clinical studies for a long-acting form of a new opioid developed by this client found a more favorable side effect profile compared with traditional μ-opioids. Improved tolerability may lead to greater adherence and persistence with therapy, and reduced costs associated with manging opioid-induced side effects. We were asked to develop a budget impact model assessing the potential budget impact of adding a new long-acting opioid to health plan formularies.

SOLUTION

We worked closely with the client to develop a budget impact model that included inputs relevant to US managed care formulary decision-makers, including medication and adverse event management costs. The model included commonly used Schedule II long-acting opioids, and considered both medical and pharmacy costs based on the published literature and clinical trial data. We established before and after formulary scenarios to estimate the budget impact of adding this new treatment to the formulary of a hypothetical health care plan.

OUTCOME

We developed an Excel-based model with a base case analysis from a typical health care plan, but which allowed individual health plans to input their own data and run customized analyses. Base case results showed that health plans may achieve savings in both pharmacy and medical costs by adding this therapy to their formulary. The methods and model results were recently published in *Clinical Therapeutics*, and the model is being used by the client directly with customers to estimate the budget impact in their own plans.