

CASE STUDY:

Waste Reduction through Packaging Optimization

BACKGROUND

In response to the Waste Reduction Act of 2022, and with the adoption of Section 1847A of the Social Security Act (42 U.S.C. 1395w-3a) as of January 1, 2023, pharmaceutical companies are being challenged to develop more effective delivery mechanisms of their therapies in order to reduce the amount of product waste (less than or equal to 10%) or be required to provide rebates with respect to the discarded amounts of said drugs to Medicare.

OBJECTIVE

EVERSANA was approached by a manufacturer planning to launch a complex therapy packaged by vials to treat up to eight separate indications, each with a wide variance among patient types based on condition type, gender, and body weight. This manufacturer needed to identify the most efficient packaging and administration protocols to accommodate varying dosage requirements across the widest range of patients while minimizing product wastage.

CHALLENGES

Given the eight proposed indications for this product, each with unique patient types and treatment characteristics, the client initially

anticipated that although not a perfect solution, identifying one single vial size could help minimize the wastage problem. Simplifying the complexity of drug administration was also an important consideration, both from a manufacturing standpoint and from the perspective of treatment delivery. If the product is too cumbersome to administer in the healthcare provider's office, it could inhibit product adoption.

STRATEGY

EVERSANA's Specialty Consulting team conducted a multi-step approach to help the client solve this problem:

1. Collaborated with a cross-functional client team including representation from Market Access, Pricing and Manufacturing to develop an aligned approach to identify key issues, recognize manufacturing parameters/limitations, and establish alignment to socialize and communicate recommended solutions once they become available.
2. Designed and developed a multi-variant forecasting model, incorporating patient characteristics across all patient populations, to enable multiple packaging scenarios and generate various output simulations.

Least aggregate wastage (~2.5%) with highest dosing complexity



Most efficient single-dose option for one group (0% wastage) results in 8.9% wastage for another group



Combo vial dosing produces 0% waste for 1 group and 1.0% wastage for second group



3. Performed a comprehensive data assessment and gap analysis using these output simulations to help identify possible solutions.
4. Established and executed an internal communications plan targeting critical stakeholders not directly involved in the process to:
 - a. Convey important project issues
 - b. Provide education on project analytics
5. Gain commitment on proposed strategies.

RESULTS

Simple math dictates that larger vials generate more wastage, while smaller vials minimize wastage. Unfortunately, this oversimplification discounts the fact that offering the product in a series of smaller vials actually complicates the administration of the product. For instance, if the product was manufactured in 100ml vials, some patients would require up to 48 vials of medication during one administration, which is simply not practical.

EVERSANA’s custom, proprietary forecasting model generated comprehensive and sophisticated output which enabled EVERSANA’s Specialty Consulting team to identify and recommend an approach that addressed the needs of the various patient populations through both single and combo vial strategies, along with a third dosing configuration for the specific patient population that requires greatest simplification of therapy administration.

EVERSANA’s Specialty Consulting team then worked directly with the client stakeholders to develop their manufacturing strategy and communicate the outcome internally. As a result of this modeling, the client was able to decrease the collective product wastage rate of over 20% (approximately \$400 million in wastage penalties) to below the 10% threshold, reducing the planned reduction of wastage penalties to approximately \$20 million per year.

Learn how EVERSANA’s team of Specialty Consultants can help you optimize efficiency and reduce financial risk. Visit EVERSANA.com or contact our team of experts.

