

SmartDose® Platform

Case Study

Solving the Challenge of Single-Use, Large-Volume Delivery for Patient Self-Injection



The Situation

Delivering biologics comfortably and effectively via glass containers can be difficult due to the large dose volumes typically required. Large molecule drugs require a level of stability that must be considered at every step of the manufacturing and packaging process. In cases of a combination product, there needs to be a consideration of the tolerances of the various elements, and the impact on functionality. In addition, patient comfort, ease of use, onboarding and training must be considered to ensure that the patient adheres to a prescribed therapeutic regimen.

The Challenge

Drug therapies are only effective when patients follow a prescribed treatment. For those suffering from chronic conditions, daily or even weekly injections can cause pain and fatigue, resulting in patient non-adherence. New options in biologic therapies have enabled single-dose options, but those options require higher dose volumes administered over a longer period of time. Such was the case with a cholesterol-lowering drug offered by one of West's customers. While a once-a-month dose could work, effective delivery of the large-volume dose posed a challenge.

The Solution

West's SmartDose platform allows patients to self-administer large volumes of medication in accordance with their prescribed treatment over a longer period of time. West developed the SmartDose platform with extensive human factors testing and analysis to understand the interaction between the patient and the delivery system. The SmartDose platform adheres to the patient's body, usually on the abdomen, so patients can be hands off during administration. The SmartDose platform is an integrated solution of delivery and containment featuring a silicone-free Daikyo Crystal Zenith® cartridge and a Flurotec® coated piston containment system.

"The combination of a customer's innovative treatment with West's patient-focused SmartDose technology platform is an example of how West closely collaborates with our pharmaceutical and biotechnology partners to deliver advanced, integrated solutions for drug delivery and containment."

Eric M. Green
President & CEO
