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Albuterol Sulfate HFA inhaler Review

An Albuterol Sulfate HFA inhaler is one of the many types of inhalers available in the pharmaceutical aerosol industry. Although asthma is a chronic respiratory disease, inhalers can manage asthma by mitigating the feeling of breathlessness and other symptoms. The engineering behind the structure of an inhaler is simple. There are four parts: the canister, the actuator, the mouthpiece, the cap. The canister is the part you press on that contains and delivers the medicine. The actuator is the plastic body of the inhaler that holds the canister. The mouthpiece is the open part of the inhaler that allows your mouth to go over and inhale the medicine. The cap covers the mouthpiece to prevent any dirt and dust getting into your inhaler.

One of the technological innovations that made the inhaler possible is the invention of metering valves. These valves allow for medicine to be administered consistently whenever a patient uses it. When a patient presses down on the canister, the outer valve opens, allowing for a single dose of medication to be administered to the patient (Stein et al., 2014).

Albuterol inhalers are not covered by all insurance plans, and most will only cover a part of the price. Without insurance, it costs \$83 for a 200 inhalation Albuterol Sulfate HFA inhaler (Modglin, 2022). Since asthma is an incurable disease, lifetime costs will add up, making it a costly medication. It roughly costs \$2.4 for each breath and depending on the amount you need daily, it could end up costing a user thousands of dollars a year. Another criteria is the availability of albuterol inhalers. There are a total of 3 albuterol HFA inhalers that are approved by the FDA; specifically, ProAir HFA Inhalation Aerosol, Proventil HFA Inhalation Aerosol, and Ventolin HFA Inhalation Aerosol. Albuterol inhalers cannot be bought over the counter and can only be obtained through a prescription from a doctor. This favors individuals who can afford health insurance and will only allow those with asthma to purchase.

The size and durability of an Albuterol Sulfate HFA inhaler is appropriate. They are small enough to fit comfortably in your hand, pocket, or bag. In other words, inhalers are portable and convenient devices. Despite the small size, it is still durable as it has a hard exterior made of plastic. While not waterproof, dropping an inhaler will not cause damage to its interior or exterior functions or design.

Despite the high-cost, limited availability, and appropriate size and durability, the overall function of an inhaler categorizes it as a product that fulfills its purpose. Its purpose is to deliver medication to patients with asthma, and it does so in a manner that is quick and efficient. While its price range and availability are not something that is affordable and available to several members of the public, it will still fulfill its intended purpose to deliver medication.

References

Modglin, L. (2022, July 5). *How much do inhalers cost?* The Checkup. Retrieved February 6, 2023, from https://www.singlecare.com/blog/asthma-inhalers-price-list/#:~:text=Does%20insurance%20cover%20asthma%20inhalers,depend%20on%20the %20specific%20plan.

Stein, S. W., Sheth, P., Hodson, P. D., & Myrdal, P. B. (2014, April 1). Advances in metered dose inhaler technology: Hardware development. AAPS PharmSciTech. Retrieved February 6, 2023, from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3969498/