

Evaluation of Alternative Packaging for Tablets

An assessment from Elanco's perspective

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Have you ever had trouble while opening an aluminum blister to retrieve a tablet? Have you ever wondered whether there are other alternatives for tablet packaging? In this thesis, this question is going to be answered along with an analysis of the current aluminum blister used by Elanco Animal Health Inc. Further, the most important aspects of pharmaceutical packaging, such as child resistance, are discussed. In total, 22 alternatives have been evaluated and assessed according to various pre-defined aspects.

Aluminum blisters (see Figure 1) are one of the most common pharmaceutical packaging types for tablets and are used by Elanco Animal Health Inc. – a global player in the animal health industry. Excellent barrier properties and convenience of usage to the consumers give it the appearance of being an ideal solution for tablets.



Figure 1: Typical aluminum blister

Unfortunately, due to a lack of innovation since its invention in the 1960s, there have been certain shortcomings in its use, like lack of environmental friendliness, difficulties opening, etc. This project aims to overcome these shortcomings by assessing 22 alternatives.

These alternatives have been assessed using an evaluation system assessing different attributes and analyzing the alternatives from different viewpoints (see Figure 2).

The aspects were assessed during expert interviews from personnel at Elanco and throughout the industry to get a holistic view of the packaging alternative. The information obtained from the expert interviews have been backed up with current legislation and literature. In addition, a consumer study and a benchmarking study were conducted to better define the intended area innovation. In the consumer study, ease of opening was found to be the biggest concern for consumers. The alternative solutions vary from small improvements in the visual appearance of the blister to flexible, multi-dose systems. From the 22 assessed alternatives, ten were evaluated to be more promising than the current aluminum blisters.

Overall, a flexible, single-dose solution appeared as the most promising alternative because it enjoys the functional strengths of blisters while mitigating its disadvantages, like ease of opening and environmental friendliness (see Figure 2).

Comparison of Al Blister and Solution 7

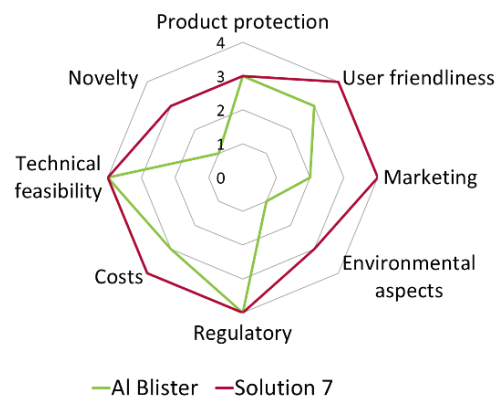


Figure 2: Comparison of the aluminum blister with flexible, single-dose solution A