
Description: Given the intricacy of the anatomy and physiology of the eye, it is quite challenging to deliver an ophthalmic drug effectively to a specific ocular site. Several barriers have to be overcome for a successful ocular drug delivery. These include dilution of a drug by tears, clearance of a drug by the lymphatic system of conjunctiva and drug permeation issues with respect to the cornea, sclera and choroid. Approximately 95% of the drug, in topical eye drops, is lost due to the aforementioned barriers.

The widening gap between the demand of novel treatments and supply of drugs/systems is going to provide a major impetus to the sustained release ocular drug delivery market in the coming decade. Different ocular drug delivery systems have been devised for supplying drugs effectively to various parts of the eye. Contact lenses and punctal plugs are used to deliver drugs to the anterior segment of the eye while intravitreal implants and injectable particulate systems are used for drug delivery into the posterior segment of the eye. There are both advantages and disadvantages of the existing drug delivery systems; advancements are being made to enhance ocular bioavailability and retention time of the drug.

In the past few years, these implants and inserts have become one of the key focus areas of researchers and companies alike. Several venture capital firms have backed the smaller organizations working in this field. In addition, partnerships and collaborations have played a pivotal role in the advancement of the market.

The 'Sustained Release Ocular Drug Delivery Systems, 2015 - 2025 (2nd edition)' report provides an extensive study of the emerging market of implants and particulate drug delivery systems (DDS) for ophthalmic diseases. The focus of this study is on commercial implants and those under development, their applications and the likely mid-term and long-term evolution. It is widely anticipated that such drug delivery systems have tremendous potential as they provide improved retention time compared to topical applications and offer convenience over regular intravitreal injections, mainly for posterior eye diseases.

The report covers various aspects such as technological progress, product pipeline, target indications, industry and academic research programs to assess new evolving opportunities. We have provided a competitive spider web analysis to compare different implants based on technical parameters (drug elution rate, amount of drug delivered, life of implant etc.) and their likely user friendliness. Our opinion and insights, presented in this study, were influenced by the discussions that we conducted with different ophthalmic implant developers in this industry.

The base year for the report is 2014. The report provides market forecasts for the following two time horizons: 2015 - 2020 and 2020 - 2025. In addition to the above, we have also provided our own independent perspective on the key drivers behind the growth of this market, likely challenges and potential threats. The research, analysis and insights presented in this report include the sales potential of various marketed and late stage pipeline ocular sustained drug delivery systems based on the current expected launch timelines, adoption rates and the estimated end-use price points. The figures mentioned in this report are in USD, unless otherwise specified.

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