

Smart Insulin Pens Market Assessment, By Type [First Generation Pens and Second Generation Pens], By Indication [Type 1 Diabetes and Type 2 Diabetes], By Usability [Disposable and Reusable], By Product [Smart Insulin Pens and Adaptors for Conventional Pens], By Connectivity [Bluetooth and USB], By End-user [Hospital and Clinics, Ambulatory Surgical Centers and Home Care Settings], By Distribution Channel [Clinics and Ambulatory Surgical Centers, E-commerce and Retail Pharmacies], By Region, By Opportunities and Forecast, 2017-2031F

Market Report | 2024-04-19 | 221 pages | Market Xcel - Markets and Data

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Report description:

Global Smart Insulin Pens Market size was valued at USD 51.4 million in 2023, expected to reach USD 129.09 million in 2031 with a CAGR of 12.2% for the forecast period between 2024 and 2031F. Numerous factors are propelling the global smart insulin pens market forward, including the increasing prevalence of diabetes, better management of glycaemic levels, increased patient convenience, ongoing technological progress, a heightened emphasis on telehealth, growing awareness, minimized medication error risk, and potential healthcare cost reductions.

The global smart insulin pens market signifies a significant leap forward in diabetes management. These groundbreaking devices have revolutionized the insulin administration process for people with diabetes, providing them with improved accuracy, convenience, and data-driven insights to improve their overall well-being and quality of life. The escalating global diabetes prevalence and the growing need for efficient and user-friendly diabetes management tools have fuelled the expansion of the global smart insulin pens market. Both healthcare providers and patients are increasingly acknowledging the potential of these devices to improve insulin therapy, leading to more effective glycaemic control and a reduction in the long-term complications

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associated with diabetes.

With the evolution of technology and the introduction of increasingly sophisticated features and connectivity choices by manufacturers, the global smart insulin pens market is positioned for ongoing growth. Smart insulin pens are furnished with technology that facilitates automated and precise dose calculations, diminishing the potential for human errors during insulin administration. These devices frequently establish wireless connections with smartphone applications, enabling users to track their insulin dosing history, blood glucose levels, and other vital data. This presents a promising outlook for improved diabetes management and increased independence for individuals with this chronic condition.

Growing Awareness

The increased awareness of using smart methods to monitor and control diabetes has led to significant growth in the global smart insulin pens market. Diabetes care is transitioning from traditional in-person office visits to synchronous telehealth methods, such as video consultations, and increasingly, asynchronous digital healthcare services, primarily provided by emerging players in the market. In the United States, the utilization of insulin pens has witnessed a consistent rise over the past few decades, becoming the preferred mode of insulin delivery for both type 1 diabetes (T1D) and type 2 diabetes (T2D) patients. Insulin pens now dominate the market among commercially insured individuals. Patients opt for insulin pens due to their high satisfaction levels and user-friendliness compared to insulin vial and syringe methods. These pens offer superior dose accuracy, leading to improved insulin adherence. Moreover, insulin pen usage has demonstrated better glycaemic controls, reducing HbA1c levels and minimizing hyperglycemia. Despite initial higher costs, insulin pens translate into lower total healthcare expenses, resulting in fewer hospitalizations, diabetes-related admissions, and instances of hyperglycemia-associated healthcare utilization for users.

Advancements in Technology are Propelling the Market Forward

Innovations in technology have transformed the realm of the global smart insulin pens market. These developments include precise dose computations, immediate smartphone data integration, and user-friendly interfaces. The evolution of smart insulin pens provides individuals with efficient means of managing their health, ultimately resulting in enhanced well-being and a better quality of life. For example, in March 2023, Diabeloop, a trailblazer in Automated Insulin Delivery, revealed a partnership with Novo Nordisk, a prominent global healthcare firm. Their joint effort focuses on advancing an interoperability strategy incorporating connected insulin pens. The agreement involves the integration of Diabeloop's self-learning algorithm for Multiple Daily Injections (MDI) therapy, DBL-4pen, with Novo Nordisk's connected and reusable insulin pens, including NovoPen 6 and NovoPen Echo Plus.

Government Initiatives

Government programs focusing on smart insulin pens are pivotal in tackling the worldwide diabetes crisis and improving the well-being of those afflicted with the condition. Governments efforts give a huge boost to global smart insulin pens market. These efforts reflect a forward-looking approach governments took to combat the increasing incidence of diabetes and the escalating need for cutting-edge solutions in diabetes care and management. On January 1, 2023, a notable development occurred as smart insulin pens were incorporated into Medicare Part D by the US government. This means that individuals enrolled in Medicare who rely on smart insulin pens will now have their expenses capped at a maximum of \$35 per month for a one-month supply of each approved insulin product. This pivotal inclusion of smart insulin pens in Medicare Part D was mandated under the Affordable Care Act, commonly known as Obamacare. The ACA mandates Medicare to encompass specific categories of diabetes-related supplies, among them being insulin pens. Such initiatives have a large impact on the global smart insulin pens market.

Growing Demand for Bluetooth Devices

The advent of Bluetooth-enabled smart insulin pens marks a substantial advancement in global smart insulin pens market. These cutting-edge tools amalgamate the precision inherent in conventional insulin pens with the capabilities of Bluetooth connectivity, presenting users with a cohesive and data-centric methodology for managing their insulin therapy. By facilitating immediate data transfer to smartphones and other suitable devices, these smart insulin pens empower individuals managing diabetes to meticulously monitor their insulin doses, oversee blood glucose levels, receive dose guidance, and seamlessly communicate vital health data with healthcare professionals. As an example, in December 2022, Biocorp, a French firm specializing in medical devices and drug delivery systems, unveiled its FDA 510(k) clearance to commercialize the Mallya smart medical device, designed to interface with insulin pens. Mallya, functioning as a smart sensor, seamlessly affixes to insulin pen injectors, effectively transforming them into connected devices via bluetooth.

Disposable Smart Insulin Pens are Becoming More Popular

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Disposable smart insulin pens are reshaping diabetes management by merging the simplicity of one-time-use pens with state-of-the-art technology, ultimately influencing the global smart insulin pens market. These compact instruments come pre-filled with insulin and boast smart capabilities like dosage monitoring, reminders, and wireless connectivity. This enables users to administer insulin with accuracy while effortlessly overseeing their treatment progress. The disposability factor removes the necessity for cartridge swaps, streamlining insulin administration and boosting patient adherence. As an example, in November 2021, the French multinational pharmaceutical and healthcare company Sanofi and the Swiss multinational healthcare company Roche established a collaborative effort in France. They united their efforts to promote the utilization of a connected accessory designed for disposable insulin pens. Together, they will create an educational program for healthcare professionals, including physicians and retail pharmacists, focusing on the Biocorp product known as Mallya.

Impact of COVID-19

COVID-19 pandemic had a huge impact on the global smart insulin pens market. On one hand, the demand for smart insulin pens surged during the pandemic, primarily driven by the heightened vulnerability of people with diabetes to severe COVID-19 complications, given their increased susceptibility to respiratory infections. This elevated demand was fueled by the urgency for effective diabetes management to reduce hospitalization risks. Conversely, the pandemic disrupted the supply chain for smart insulin pens as production facilities and distribution networks faced closures and shipping challenges, leading to shortages in certain regions. However, despite these short-term setbacks, the long-term outlook for smart insulin pen sales remains positive. COVID-19 underscored the critical importance of effective diabetes management, shedding light on the role smart insulin pens can play in empowering individuals with diabetes to manage their condition proactively and remotely. This heightened awareness is expected to drive sustained growth in the smart insulin pens market.

Key Players Landscape and Outlook

Amidst the rapidly changing healthcare environment, marked by a strong emphasis on precision, connectivity, and patient-centric care, the global market for smart insulin pens is experiencing a multitude of partnerships and cooperative ventures. These endeavors frequently bring together a diverse array of stakeholders, including pharmaceutical firms, technology enterprises, startups, and healthcare providers, who combine their knowledge and resources with the goal of creating advanced smart insulin pens. These next-generation devices aim not only to enhance insulin delivery precision but also to offer users immediate data insights and the ability to remotely monitor their insulin therapy. In May 2021, Eli Lilly & Co., an American pharmaceutical company, took steps to ensure the compatibility of its forthcoming connected insulin pen system with various daily diabetes management platforms by entering into compatibility agreements with four global providers. These agreements encompass a range of offerings, such as glucose monitoring sensors, digital health solutions, and other resources provided by Roche, Dexcom, Glooko, and myDiabby Healthcare.

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