Prefilled Syringes Market (4th Edition), 2017-2026

Description: Injectable drug delivery systems have traversed a long way from conventional syringes with vials to prefilled syringes, autoinjectors, pen injectors and needle free systems. These modern devices have become preferred devices for parenteral administration of drugs. Specifically, the demand for prefilled syringes has been rising strongly over the past several years.

A growing number of healthcare facilities are now adopting this format for delivering drugs. The popularity of prefilled syringes is not limited to healthcare settings; self-injecting patients looking for easier and safer methods also prefer using prefilled syringes for drug administration in home settings. The rise in parenteral drugs, especially biologics for the treatment of diseases and chronic conditions, such as multiple sclerosis and rheumatoid arthritis, has forced drug and packaging manufacturers to seek more sophisticated container closure and drug delivery systems.

Responding to this increasing preference, pharmaceutical companies are now packaging a number of their injectable drugs and vaccines in prefilled syringe format. Over 100 injectable drug products are available in prefilled syringes and a rising number of pipeline drugs are targeted to be delivered by this method.

The origins of prefilled syringes can be traced back to the early 1980s when Sanofi and Rhone Poulenc-Rorer (Sanofi-Aventis) introduced them as drug delivery devices for heparins in Europe. They have been around for more than three decades now and are used for administration of all major classes of therapeutics, including vaccines, anticoagulants, anti-arthritis drugs and anti-anemic drugs. Prefilled syringes have improved significantly over the years.

Manufacturers have recently developed multi-chamber syringes for use with lyophilized drugs. Such syringes are also being integrated with advanced injection devices, such as autoinjectors and pen injectors. In addition, prefilled diluent syringes and flush syringes are already quite popular. With more than 60% of candidate drugs/therapies in the clinical pipeline being biologics that usually require parenteral administration, the adoption of prefilled syringes is anticipated to further increase in the mid-long term.

The ‘Prefilled Syringes Market (4th edition), 2017-2026’ report provides a comprehensive analysis of the current state of prefilled syringes market and the likely future evolution of these devices over the next decade. Starting with an overview on prefilled syringes, the report elaborates on the development and manufacturing of prefilled syringes. It also includes information on needlestick injuries and provides an overview of the safety laws and legislations related to prefilled syringes across the major markets in the world.

Some of the key objectives of the report were to enumerate the various prefilled syringe systems that are available in the market, identify the drugs that are available in such dosage forms and estimate their corresponding market potential across different geographical regions.

Specifically, the report includes insights on:

- The current state of the market with respect to key players, targeted disease indications and the therapeutic classes of drugs that are available in the form of prefilled syringes, including a brief overview of biologics and biosimilars that are considered to be one of the primary growth drivers of this market.
- The key drugs that are available in prefilled syringes; this has been presented in the form of detailed case studies.
- The regulatory landscape in different countries, including the guidelines related to the grant of a marketing authorization for drugs in prefilled syringes.
- The candidates that are likely to be tried for delivery via prefilled syringes in the future. It is worth highlighting that the candidates were chosen based on various parameters, such as their current route of administration, targeted indication and dosage frequency.
- The key prefilled syringe and component manufacturers based in different geographies.
- Product competitiveness and supplier power (in the form of 2 X 2 matrices) across the growing landscape of glass and plastic prefilled syringes.
- Specialty syringes, which include prefilled flush syringes, prefilled diluent systems and contrast agents in prefilled syringes.
- The contract manufacturing organizations providing fill / finish services related to prefilled syringes.
- Future growth opportunities that are likely to drive the market in the short and long terms.

The study also features a detailed analysis of the existing market size and the potential future growth opportunities of these drug delivery devices across different classes of therapeutics.

The analysis includes volumetric (number of units of prefilled syringes) and financial (future market size) projections of the market's evolution over the next ten years (2017-2026). We have provided insights on the regional evolution of the prefilled syringes market covering North America, Europe (UK, France, Italy, Spain, Germany and the rest of Europe), Latin America (Brazil, Mexico, Argentina and the rest of Latin America), Asia Pacific (Japan, China, India, South Korea and the rest of Asia Pacific), and the Middle East and Africa (Saudi Arabia, UAE, Africa and the rest of the Middle East). In addition, we have provided the likely evolution distributed by the type of material (glass and plastic), and nature of molecules (vaccines, biosynthetic insulins, synthetic pentasaccharides, monoclonal antibodies, small molecules).

The forecast takes into account the impending price variations that are likely to emerge in the mid-long term as a result of growing adoption and increased competition. In order to account for the uncertainties associated with drug development and production, we have forecasted three different market scenarios, depicting conservative, base and optimistic tracks of the industry's evolution.

The opinions and insights presented in this study were influenced by discussions conducted with experts in this field. These included contributions from Kevin Cancelliere and Tibor Hlobik (Marketing Directors, West Pharmaceutical Services), Kirti Maheshwari (Chief Technical Officer, Intas Pharmaceuticals), Matthew Young (Founder and Chief Technology Officer, Oval Medical Technologies), and Rondald Wheet (Chief Executive Officer, Revolutions Medical). All actual figures have been sourced and analyzed from publicly available information forums and primary research discussions. Financial figures mentioned in this report are in USD, unless otherwise specified.

Example Highlights

- Currently, more than 100 drugs and vaccines are available in prefilled syringes across different therapeutic classes. Humira®, Enbrel®, Copaxone®, Lovenox®, Rebif® and Pegasys® are examples of blockbuster drugs that are being extensively administered via prefilled syringes. In addition, over 65 drugs in prefilled syringe format are in clinical development for the treatment of number of indications such as rheumatoid arthritis and multiple sclerosis.
- The rise of biologics has emerged as a major growth driver. Additionally, a number of biologics are getting off patent in the coming few years. Biosimilar developers will be competing for the same drug and, in such situations, use of prefilled syringes as a mode of administration can act as a key differentiator. The market's evolution in the long-term will be fueled by pipeline drugs, technological advances and the rising adoption in developing markets. Moreover, integration of prefilled syringes with advanced delivery systems such as pen and autoinjectors will aid in gaining wider adoption.
- The development and launch of dual / multi-chambered syringes and prefilled diluent syringes has enabled easier and faster delivery of lyophilized drugs. Novel lubrication technologies such as TriboFilm Research’s TriboGlide® and Becton Dickinson's XSi™ coating technologies have been introduced to overcome the problems associated with the use of silicone oil. Additionally, the design and availability of silicone-free and tungsten-free syringes is making them more suitable for use with sensitive drugs such as biologics.
- The current market is highly consolidated and is dominated by a handful of key manufacturers such as Becton Dickinson, Gerresheimer, SCHOTT, and Nuova Ompi. Other key players include West Pharmaceutical Services and Vetter Pharma; these players have already driven some novel devices and technologies in the market and are likely to foster more innovation.
- Many regional players have recently surfaced. Specifically in China, which has a large home consumer market, domestic players have an installed annual production capacity of as high as 150 million units; Shandong Weigao Group Medical Polymer Company, Shandong Zibo Minkang Pharmaceutical Packing, and Shandong Pharmaceutical Glass are well-known players. In Japan, Arte Corporation, Nipro Corporation, Taisei Kako and Terumo Corporation are known manufacturers of prefilled syringes; similarly, Roselabs Group, an India based manufacturer has invested heavily in this area.
- Aseptic filling of sterile drugs into prefilled syringes is one of the most crucial steps in pharmaceutical production. During the course of our study, we identified more than 45 contract manufacturing organizations, which provide fill and finish services for prefilled syringes. Majority (~70%) of the fill and finish service providers are based in North America and Europe. Prominent players in these regions include Biopharma Solutions, Catalent, Pfizer CentreOne, Rovi CM and Boehringer Ingelheim BioXcellence. Some well-known fill and finish service providers based in emerging markets include Cipla BioTec, DM Bio, Genovior Biotech and The Birgi Mefar Group.
We anticipate the global prefilled syringe market to grow at an annualized rate of 3.9% between 2016 and 2026. The majority share of the prefilled syringes market is currently divided between North America (35%) and the EU (45%). We believe that the prefilled syringes markets in Asia, Latin America, the Middle East and Africa are likely to grow at faster rate than those of the more developed regions.

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