Handheld Devices for Injecting High Viscosity Drugs

Technologies, Markets, Therapeutics & Opportunities

Report Brochure
Greystone Research Associates is pleased to announce the publication of a new market assessment. Handheld Devices for Injecting High Viscosity Drugs: Technologies, Markets, Strategies and Forecasts is a comprehensive evaluation and analysis of the technology, products and participants providing the driving force behind this evolving segment of the healthcare sector. The study is designed to provide drug company decision makers, drug delivery developers, device designers, healthcare marketers, and supply chain participants with a detailed understanding of the economics, technologies, opportunities for handheld injection devices that are capable of injecting drugs with high viscosities. Provider organization business managers, healthcare administrators and investors will also benefit from this study.

Evolving Engineered Solution

Growth in high viscosity drugs is being driven by advances in biotechnology and host–vector engineering – advances that have led to a steady stream of biologics for a number of ailments and conditions. These powerful drugs come with a high cost–per–dose and the risk of significant side effects – factors that place an elevated emphasis on administration efficiency, safety and reliability. Many drugs in this class are characterized by physical properties and sensitivities that challenge the drug commercialization ecosystem. For example, monoclonal antibodies, perhaps the most significant category in terms of therapeutic and commercial importance, typically possess viscosities that are well above the normal limits of subcutaneous injection devices and techniques. Without a technical solution, these high viscosity drugs are formulated and supplied for infusion, a trend that threatens to put additional pressure on patient logistics and healthcare economics. Drug developers and device designers are increasingly working in collaboration to address the goal of subcutaneous administration of high viscosity injectables.
Executive Summary

Injectable Drug Market Dynamics
The High Viscosity Drug Market
The Economics of Drug Delivery
The Market Opportunity
Dosing and Patient Adherence
Competitive Landscape
Risk Factors

High Viscosity Injection Device Design Factors
Drug Properties
Drug Storage Requirements
Baseline Device Capabilities
Primary Packaging
Human Engineering/Ergonomics
Formulation Technology
Injection Site Modification

High Viscosity Drugs - Addressable Markets
Legacy Drugs: IV-to-Subcutaneous Migration
Biologics
Biological Drugs Approved for Infusion
Formulation-related High Viscosity
Sustained Release Injectables

Analysis of Hi Viscosity Handheld Devices
Specialty Glass Syringes
Specialty Autoinjectors
High Viscosity Devices
Liquified Gas Assisted Delivery
Specialty Platform Injectors
Needle-free Injectors
Cyclic Olefin Prefillable Syringes

Market Factors
Regulatory Issues
Device Branding
Ease of Use

Market Participant Profiles

Table of Contents
Comprehensive Analysis and Visualizations

FDA Approval of new BLAs by Applicant (2005 – 2017)

(Market Segment is Based on Primary Label Indication)
What You Will Learn

• What are the handheld device classes and individual devices that can inject high viscosity drugs; what are the key market segments, market dynamics and market demographics?
• What are the therapeutic demand drivers and commercial devices in key product segments?
• What are the design factors, material selection issues, technologies and market development issues?
• How big is the market? How is it growing?
• Who are the leading injectable drug and device participants in this sector, what are their product development activities, business strategies, and corporate alliances and affiliations?
• What is the importance of pharma-device alliances and design partnerships for high viscosity device commercialization and market access?
• What are the significant economic, technology, and regulatory factors affecting the market for high viscosity injection devices?

Report Format and Availability

This report is available electronic format. A site license for a single physical location and a corporate license are also available. Custom licensing options to address specific company user requirements are available by calling client services at 603-595-4340, or by emailing clientservices@greystoneassociates.org.

Methodology

Research methodology is based on primary research in the form of in-depth interviews with key market participants, technology developers, distributors, industry experts, and market influencers, a list that includes regulatory officials, industry trade groups, and materials standards organizations.

Primary data is evaluated and normalized against secondary sources including trade journal articles, technical literature, industry publications, company data sheets and published information, and statistical data from government agencies and trade associations.

Forecasts and projections of market demand and future market activity are derived using standard modeling and statistical techniques.

About Greystone Associates

Greystone Associates is a medical technology consulting firm focused on the areas of medical market strategy, product commercialization, venture development, and market research. We assist medical and healthcare market participants in achieving their business objectives through the creation of detailed development strategies, product commercialization programs, and comprehensive market and technology research and analysis.

Our market research publications are designed, researched and written to provide timely and insightful information and data on focused market segments, with the aim of providing market participants with the essential knowledge to refine and execute their marketing plans and financial targets.
Ordering Information

Orders may be placed via postal mail, e-mail or fax. Orders not accompanied by a purchase order must contain a telephone number for verification, and clearly indicate the physical shipping address and billing address.

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We accept the following forms of payment:

- **Company Check**: Please make checks payable to ‘Greystone Associates’
- **Credit Cards**: We accept MasterCard, Visa and American Express
- **Wire Transfers**: See ‘Wire Transfers’ below for more information

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Orders must be prepaid via credit card, company check in US funds and drawn on a US bank, or wire transfer.

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### Handheld High Viscosity Injectable Drug Devices

**Technology, Devices, Therapeutics & Opportunities**

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