

# **Artificial Intelligence (Ai) In Clinical Trials Market Outlook 2025-2034: Market Share, and Growth Analysis By Offering (Software, Services), By Process (Trial Design, Patient Selection, Site Selection, Patient Monitoring), By Application, By End-User**

<https://marketpublishers.com/r/A527905BF939EN.html>

Date: October 2025

Pages: 160

Price: US\$ 3,950.00 (Single User License)

ID: A527905BF939EN

## **Abstracts**

The Artificial Intelligence (Ai) In Clinical Trials Market is valued at USD 2.9 billion in 2025 and is projected to grow at a CAGR of 23.6% to reach USD 19.5 billion by 2034. The AI in clinical trials market involves the application of AI technologies to improve the efficiency, accuracy, and speed of clinical trials. This includes the use of machine learning, natural language processing, and data analytics to analyze patient data, predict trial outcomes, and optimize patient recruitment. The market is driven by the increasing cost and complexity of clinical trials and the need for faster and more efficient drug development.

The market is characterized by rapid innovation, with a focus on developing AI-powered solutions that can provide real-time insights and automate various stages of the clinical trial process. The integration of AI into clinical trial management systems, electronic health records (EHRs), and wearable sensor platforms is driving the adoption of these technologies. Geographically, North America and Europe are leading the market due to their established pharmaceutical industries and research infrastructure.

The AI in clinical trials market is experiencing significant growth, fueled by the increasing demand for personalized medicine and the need for accelerated drug development. The market's future trajectory depends on the ability to address challenges related to data privacy, regulatory compliance, and the development of robust and reliable AI models for clinical trial applications.

## Key Insights Artificial Intelligence (Ai) In Clinical Trials Market

- Increased use of AI for patient recruitment and enrollment optimization.
- Growth of AI-powered data analysis and predictive modeling for trial outcomes.
- Integration of AI into remote patient monitoring and data collection.
- Development of AI-driven trial design and protocol optimization.
- Use of AI for synthetic control arms to reduce patient burden.
- Adoption of AI for real-world data analysis to supplement trial findings.
- Rising interest in AI-driven biomarker discovery to improve patient stratification.
- Expansion of partnerships between AI companies and pharmaceutical firms.
- Increasing complexity and cost of traditional clinical trials.
- Need for faster and more efficient drug development processes.
- Growing availability of large-scale healthcare data (EHRs, genomics, imaging).
- Demand for personalized medicine and targeted therapies.
- Advancements in AI algorithms and machine learning techniques.
- Regulatory support for the use of AI in clinical trials.
- Potential for significant cost savings and improved trial outcomes.
- Rising adoption of digital health technologies and remote monitoring.
- Data privacy and security concerns related to sensitive patient information.
- Regulatory compliance and validation of AI models in clinical settings.
- Lack of standardized data formats and interoperability between systems.

Need for robust and reliable AI algorithms for diverse patient populations.

Addressing ethical concerns related to AI-driven decision-making in trials.

Integration of AI into existing clinical trial workflows and systems.

Need for skilled professionals to develop and manage AI-powered solutions.

Demonstrating the clinical and economic value of AI in clinical trials.

Ensuring transparency and explainability of AI models to stakeholders.

Overcoming resistance to change and fostering trust in AI technologies.

## Artificial Intelligence (Ai) In Clinical Trials Market Segmentation

### By Offering

Software

Services

### By Process

Trial Design

Patient Selection

Site Selection

Patient Monitoring

### By Application

Oncology

Neurological Disease And Condition

Cardiovascular Disease

Metabolic Disease

Infectious Disease

Immunology Disease

Other Applications

#### By End-User

Pharmaceutical And Biotechnology Company

Contract Research Organizations

Other End-Users

#### Key Companies Analysed

Medable Inc.

PathAI inc.

Saama Technologies Inc.

Apellis Pharmaceuticals Inc.

TriNetX LLC

SymphonyAI Summit Inc.

Aktana

Nference Inc.

Insilico Medicine Inc.

Vineti Inc.

Innoplexus AG

Healx

AiCure Inc.

MEDIAN Technologies SA

Owkin Inc.

Science 37

Ardigen SA

Cyft Inc.

Unlearn.AI Inc.

Mendel AI

Deep Lens Inc.

Antidote Technologies Inc.

Arterys Inc.

Euretos BV

Halo Health Systems Inc.

Trials.AI Inc.

Transparency Life Sciences

BioAge Labs Inc.

Wave Life Sciences Ltd.

BioSymetrics Inc.

## Artificial Intelligence (Ai) In Clinical Trials Market Analytics

The report employs rigorous tools, including Porter's Five Forces, value chain mapping, and scenario-based modeling, to assess supply–demand dynamics. Cross-sector influences from parent, derived, and substitute markets are evaluated to identify risks and opportunities. Trade and pricing analytics provide an up-to-date view of international flows, including leading exporters, importers, and regional price trends.

Macroeconomic indicators, policy frameworks such as carbon pricing and energy security strategies, and evolving consumer behavior are considered in forecasting scenarios. Recent deal flows, partnerships, and technology innovations are incorporated to assess their impact on future market performance.

## Artificial Intelligence (Ai) In Clinical Trials Market Competitive Intelligence

The competitive landscape is mapped through OG Analysis' proprietary frameworks, profiling leading companies with details on business models, product portfolios, financial performance, and strategic initiatives. Key developments such as mergers & acquisitions, technology collaborations, investment inflows, and regional expansions are analyzed for their competitive impact. The report also identifies emerging players and innovative startups contributing to market disruption.

Regional insights highlight the most promising investment destinations, regulatory landscapes, and evolving partnerships across energy and industrial corridors.

## Countries Covered

North America — Artificial Intelligence (Ai) In Clinical Trials market data and outlook to 2034

United States

Canada

Mexico

Europe — Artificial Intelligence (Ai) In Clinical Trials market data and outlook to 2034

Germany

United Kingdom

France

Italy

Spain

BeNeLux

Russia

Sweden

Asia-Pacific — Artificial Intelligence (Ai) In Clinical Trials market data and outlook to 2034

China

Japan

India

South Korea

Australia

Indonesia

Malaysia

Vietnam

Middle East and Africa — Artificial Intelligence (Ai) In Clinical Trials market data and outlook to 2034

Saudi Arabia

South Africa

Iran

UAE

Egypt

South and Central America — Artificial Intelligence (Ai) In Clinical Trials market data and outlook to 2034

Brazil

Argentina

Chile

Peru

*\* We can include data and analysis of additional countries on demand.*

## Research Methodology

This study combines primary inputs from industry experts across the Artificial Intelligence (Ai) In Clinical Trials value chain with secondary data from associations, government publications, trade databases, and company disclosures. Proprietary modeling techniques, including data triangulation, statistical correlation, and scenario planning, are applied to deliver reliable market sizing and forecasting.

## Key Questions Addressed

*Artificial Intelligence (Ai) In Clinical Trials Market Outlook 2025-2034: Market Share, and Growth Analysis By...*

What is the current and forecast market size of the Artificial Intelligence (Ai) In Clinical Trials industry at global, regional, and country levels?

Which types, applications, and technologies present the highest growth potential?

How are supply chains adapting to geopolitical and economic shocks?

What role do policy frameworks, trade flows, and sustainability targets play in shaping demand?

Who are the leading players, and how are their strategies evolving in the face of global uncertainty?

Which regional “hotspots” and customer segments will outpace the market, and what go-to-market and partnership models best support entry and expansion?

Where are the most investable opportunities—across technology roadmaps, sustainability-linked innovation, and M&A—and what is the best segment to invest over the next 3–5 years?

## Your Key Takeaways from the Artificial Intelligence (Ai) In Clinical Trials Market Report

Global Artificial Intelligence (Ai) In Clinical Trials market size and growth projections (CAGR), 2024-2034

Impact of Russia-Ukraine, Israel-Palestine, and Hamas conflicts on Artificial Intelligence (Ai) In Clinical Trials trade, costs, and supply chains

Artificial Intelligence (Ai) In Clinical Trials market size, share, and outlook across 5 regions and 27 countries, 2023-2034

Artificial Intelligence (Ai) In Clinical Trials market size, CAGR, and market share of key products, applications, and end-user verticals, 2023-2034

Short- and long-term Artificial Intelligence (Ai) In Clinical Trials market trends, drivers, restraints, and opportunities

Porter's Five Forces analysis, technological developments, and Artificial Intelligence (Ai) In Clinical Trials supply chain analysis

Artificial Intelligence (Ai) In Clinical Trials trade analysis, Artificial Intelligence (Ai) In Clinical Trials market price analysis, and Artificial Intelligence (Ai) In Clinical Trials supply/demand dynamics

Profiles of 5 leading companies—overview, key strategies, financials, and products

Latest Artificial Intelligence (Ai) In Clinical Trials market news and developments

### Additional Support

With the purchase of this report, you will receive

An updated PDF report and an MS Excel data workbook containing all market tables and figures for easy analysis.

7-day post-sale analyst support for clarifications and in-scope supplementary data, ensuring the deliverable aligns precisely with your requirements.

Complimentary report update to incorporate the latest available data and the impact of recent market developments.

*\* The updated report will be delivered within 3 working days*

## Contents

### 1. TABLE OF CONTENTS

- 1.1 List of Tables
- 1.2 List of Figures

### 2. GLOBAL ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET SUMMARY, 2025

- 2.1 Artificial Intelligence (Ai) In Clinical Trials Industry Overview
  - 2.1.1 Global Artificial Intelligence (Ai) In Clinical Trials Market Revenues (In US\$ billion)
- 2.2 Artificial Intelligence (Ai) In Clinical Trials Market Scope
- 2.3 Research Methodology

### 3. ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET INSIGHTS, 2024-2034

- 3.1 Artificial Intelligence (Ai) In Clinical Trials Market Drivers
- 3.2 Artificial Intelligence (Ai) In Clinical Trials Market Restraints
- 3.3 Artificial Intelligence (Ai) In Clinical Trials Market Opportunities
- 3.4 Artificial Intelligence (Ai) In Clinical Trials Market Challenges
- 3.5 Tariff Impact on Global Artificial Intelligence (Ai) In Clinical Trials Supply Chain Patterns

### 4. ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET ANALYTICS

- 4.1 Artificial Intelligence (Ai) In Clinical Trials Market Size and Share, Key Products, 2025 Vs 2034
- 4.2 Artificial Intelligence (Ai) In Clinical Trials Market Size and Share, Dominant Applications, 2025 Vs 2034
- 4.3 Artificial Intelligence (Ai) In Clinical Trials Market Size and Share, Leading End Uses, 2025 Vs 2034
- 4.4 Artificial Intelligence (Ai) In Clinical Trials Market Size and Share, High Growth Countries, 2025 Vs 2034
- 4.5 Five Forces Analysis for Global Artificial Intelligence (Ai) In Clinical Trials Market
  - 4.5.1 Artificial Intelligence (Ai) In Clinical Trials Industry Attractiveness Index, 2025
  - 4.5.2 Artificial Intelligence (Ai) In Clinical Trials Supplier Intelligence

- 4.5.3 Artificial Intelligence (Ai) In Clinical Trials Buyer Intelligence
- 4.5.4 Artificial Intelligence (Ai) In Clinical Trials Competition Intelligence
- 4.5.5 Artificial Intelligence (Ai) In Clinical Trials Product Alternatives and Substitutes Intelligence
- 4.5.6 Artificial Intelligence (Ai) In Clinical Trials Market Entry Intelligence

## **5. GLOBAL ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET STATISTICS – INDUSTRY REVENUE, MARKET SHARE, GROWTH TRENDS AND FORECAST BY SEGMENTS, TO 2034**

- 5.1 World Artificial Intelligence (Ai) In Clinical Trials Market Size, Potential and Growth Outlook, 2024- 2034 (\$ billion)
- 5.1 Global Artificial Intelligence (Ai) In Clinical Trials Sales Outlook and CAGR Growth By Offering, 2024- 2034 (\$ billion)
- 5.2 Global Artificial Intelligence (Ai) In Clinical Trials Sales Outlook and CAGR Growth By Process, 2024- 2034 (\$ billion)
- 5.3 Global Artificial Intelligence (Ai) In Clinical Trials Sales Outlook and CAGR Growth By Application, 2024- 2034 (\$ billion)
- 5.4 Global Artificial Intelligence (Ai) In Clinical Trials Sales Outlook and CAGR Growth By End-User, 2024- 2034 (\$ billion)
- 5.5 Global Artificial Intelligence (Ai) In Clinical Trials Market Sales Outlook and Growth by Region, 2024- 2034 (\$ billion)

## **6. ASIA PACIFIC ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS INDUSTRY STATISTICS – MARKET SIZE, SHARE, COMPETITION AND OUTLOOK**

- 6.1 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Insights, 2025
- 6.2 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Revenue Forecast By Offering, 2024- 2034 (USD billion)
- 6.3 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Revenue Forecast By Process, 2024- 2034 (USD billion)
- 6.4 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Revenue Forecast By Application, 2024- 2034 (USD billion)
- 6.5 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Revenue Forecast By End-User, 2024- 2034 (USD billion)
- 6.6 Asia Pacific Artificial Intelligence (Ai) In Clinical Trials Market Revenue Forecast by Country, 2024- 2034 (USD billion)
  - 6.6.1 China Artificial Intelligence (Ai) In Clinical Trials Market Size, Opportunities, Growth 2024- 2034

6.6.2 India Artificial Intelligence (Ai) In Clinical Trials Market Size, Opportunities, Growth 2024- 2034

6.6.3 Japan Artificial Intelligence (Ai) In Clinical Trials Market Size, Opportunities, Growth 2024- 2034

6.6.4 Australia Artificial Intelligence (Ai) In Clinical Trials Market Size, Opportunities, Growth 2024- 2034

## **7. EUROPE ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET DATA, PENETRATION, AND BUSINESS PROSPECTS TO 2034**

7.1 Europe Artificial Intelligence (Ai) In Clinical Trials Market Key Findings, 2025

7.2 Europe Artificial Intelligence (Ai) In Clinical Trials Market Size and Percentage Breakdown By Offering, 2024- 2034 (USD billion)

7.3 Europe Artificial Intelligence (Ai) In Clinical Trials Market Size and Percentage Breakdown By Process, 2024- 2034 (USD billion)

7.4 Europe Artificial Intelligence (Ai) In Clinical Trials Market Size and Percentage Breakdown By Application, 2024- 2034 (USD billion)

7.5 Europe Artificial Intelligence (Ai) In Clinical Trials Market Size and Percentage Breakdown By End-User, 2024- 2034 (USD billion)

7.6 Europe Artificial Intelligence (Ai) In Clinical Trials Market Size and Percentage Breakdown by Country, 2024- 2034 (USD billion)

7.6.1 Germany Artificial Intelligence (Ai) In Clinical Trials Market Size, Trends, Growth Outlook to 2034

7.6.2 United Kingdom Artificial Intelligence (Ai) In Clinical Trials Market Size, Trends, Growth Outlook to 2034

7.6.2 France Artificial Intelligence (Ai) In Clinical Trials Market Size, Trends, Growth Outlook to 2034

7.6.2 Italy Artificial Intelligence (Ai) In Clinical Trials Market Size, Trends, Growth Outlook to 2034

7.6.2 Spain Artificial Intelligence (Ai) In Clinical Trials Market Size, Trends, Growth Outlook to 2034

## **8. NORTH AMERICA ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET SIZE, GROWTH TRENDS, AND FUTURE PROSPECTS TO 2034**

8.1 North America Snapshot, 2025

8.2 North America Artificial Intelligence (Ai) In Clinical Trials Market Analysis and Outlook By Offering, 2024- 2034 (\$ billion)

8.3 North America Artificial Intelligence (Ai) In Clinical Trials Market Analysis and

Outlook By Process, 2024- 2034 (\$ billion)

8.4 North America Artificial Intelligence (Ai) In Clinical Trials Market Analysis and Outlook By Application, 2024- 2034 (\$ billion)

8.5 North America Artificial Intelligence (Ai) In Clinical Trials Market Analysis and Outlook By End-User, 2024- 2034 (\$ billion)

8.6 North America Artificial Intelligence (Ai) In Clinical Trials Market Analysis and Outlook by Country, 2024- 2034 (\$ billion)

8.6.1 United States Artificial Intelligence (Ai) In Clinical Trials Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.6.1 Canada Artificial Intelligence (Ai) In Clinical Trials Market Size, Share, Growth Trends and Forecast, 2024- 2034

8.6.1 Mexico Artificial Intelligence (Ai) In Clinical Trials Market Size, Share, Growth Trends and Forecast, 2024- 2034

## **9. SOUTH AND CENTRAL AMERICA ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET DRIVERS, CHALLENGES, AND FUTURE PROSPECTS**

9.1 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Data, 2025

9.2 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Future By Offering, 2024- 2034 (\$ billion)

9.3 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Future By Process, 2024- 2034 (\$ billion)

9.4 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Future By Application, 2024- 2034 (\$ billion)

9.5 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Future By End-User, 2024- 2034 (\$ billion)

9.6 Latin America Artificial Intelligence (Ai) In Clinical Trials Market Future by Country, 2024- 2034 (\$ billion)

9.6.1 Brazil Artificial Intelligence (Ai) In Clinical Trials Market Size, Share and Opportunities to 2034

9.6.2 Argentina Artificial Intelligence (Ai) In Clinical Trials Market Size, Share and Opportunities to 2034

## **10. MIDDLE EAST AFRICA ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET OUTLOOK AND GROWTH PROSPECTS**

10.1 Middle East Africa Overview, 2025

10.2 Middle East Africa Artificial Intelligence (Ai) In Clinical Trials Market Statistics By Offering, 2024- 2034 (USD billion)

10.3 Middle East Africa Artificial Intelligence (Ai) In Clinical Trials Market Statistics By Process, 2024- 2034 (USD billion)

10.4 Middle East Africa Artificial Intelligence (Ai) In Clinical Trials Market Statistics By Application, 2024- 2034 (USD billion)

10.5 Middle East Africa Artificial Intelligence (Ai) In Clinical Trials Market Statistics By Application, 2024- 2034 (USD billion)

10.6 Middle East Africa Artificial Intelligence (Ai) In Clinical Trials Market Statistics by Country, 2024- 2034 (USD billion)

10.6.1 Middle East Artificial Intelligence (Ai) In Clinical Trials Market Value, Trends, Growth Forecasts to 2034

10.6.2 Africa Artificial Intelligence (Ai) In Clinical Trials Market Value, Trends, Growth Forecasts to 2034

## **11. ARTIFICIAL INTELLIGENCE (AI) IN CLINICAL TRIALS MARKET STRUCTURE AND COMPETITIVE LANDSCAPE**

11.1 Key Companies in Artificial Intelligence (Ai) In Clinical Trials Industry

11.2 Artificial Intelligence (Ai) In Clinical Trials Business Overview

11.3 Artificial Intelligence (Ai) In Clinical Trials Product Portfolio Analysis

11.4 Financial Analysis

11.5 SWOT Analysis

## **12 APPENDIX**

12.1 Global Artificial Intelligence (Ai) In Clinical Trials Market Volume (Tons)

12.1 Global Artificial Intelligence (Ai) In Clinical Trials Trade and Price Analysis

12.2 Artificial Intelligence (Ai) In Clinical Trials Parent Market and Other Relevant Analysis

12.3 Publisher Expertise

12.2 Artificial Intelligence (Ai) In Clinical Trials Industry Report Sources and Methodology

## I would like to order

Product name: Artificial Intelligence (Ai) In Clinical Trials Market Outlook 2025-2034: Market Share, and Growth Analysis By Offering (Software, Services), By Process (Trial Design, Patient Selection, Site Selection, Patient Monitoring), By Application, By End-User

Product link: <https://marketpublishers.com/r/A527905BF939EN.html>

Price: US\$ 3,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A527905BF939EN.html>