

Accelerating Clinical Trials for a Leading Pharma Company





Summary

A leading pharmaceutical company aimed to expedite the clinical trial process for a ground-breaking drug targeting a severe terminal infection in ICU settings. With a high mortality rate associated with the infection, rapid patient identification, enrollment, and real-time data collection were critical for evaluating the drug's efficacy and safety





Challenges



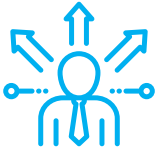
- **Delayed Patient Enrollment:** Traditional processes slowed down patient identification and recruitment, impacting trial timelines.
- **Data Fragmentation:** Disparate data sources across multiple trial sites hindered comprehensive data analysis.
- **Regulatory Complexity:** Ensuring data compliance and generating FDA-ready datasets required meticulous data standardization.
- **Manual Processes:** High dependency on manual workflows led to inefficiencies and increased error rates.

Key Focus Areas



- Accelerating patient identification, recruitment, and clinical trial processes using real-time data from devices and EMR applications
- Aggregating data from disparate sources (EMR, medical devices, administrative databases) across 100+ clinical trial sites
- Standardizing data through coding protocols for comprehensive analysis and interpretation





Solution Approach



- **Cloud-Based Analytical Platform:** Developed a scalable data platform with deployable connectors and a one-click deployment strategy, reducing site onboarding time to less than a week.
- **Customizable Clinical Trial Setup:** Enabled site-specific protocols and workflows for seamless integration.
- **AI-Driven Patient Identification:** Implemented clinical decision support tools to identify eligible patients quickly.
- **Automated Enrollment Alerts:** Integrated alert systems for site coordinators to streamline patient enrollment.
- **Digitized Consent Process:** Introduced digital consent forms with decision support, integrated with EMR, ensuring informed patient consent.
- **Real-Time Monitoring Tools:** Built-in Clinical Quality Dashboard, Data Explorer, and Visualizations for continuous trial oversight.
- **Adverse Event & Outcome Tracking:** Monitored adverse events, treatment efficacy, and patient outcomes, including survival rates and treatment responses.
- **AI-Powered Data Enrichment:** Leveraged NLP and NER techniques to enhance data quality and aggregate clinical notes.
- **Stakeholder Dashboards:** Provided real-time dashboards for sponsors and site investigators to track trial progress.



Results & Impact

- 50% automation of manual clinical trial processes
- 60% reduction in site onboarding time
- 40% faster patient enrollment ensuring timely access to investigational drugs
- Improved consent rates through digital tools and EMR integration
- Regulatory success with FDA-ready datasets enabling smooth submission and drug approval
- Enhanced data quality with reduced errors and improved accuracy



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