A US-based public health institute has a rich history of conducting clinical trials to investigate the safety and efficacy of a medical drug, device, or procedure.

Eligibility criteria for enrollment into trials include factors such as a patient’s age, medical conditions, drug history, allergies, gender, ethnicity, among others. The company has access to this information for over 2 million patients from diverse sources and in diverse formats. The company would like to use this repository of medical records to establish patient eligibility and enrollment into clinical trials.

Challenges

- Existing ways of patient identification and enrollment delay the start of most clinical trials, which in turn delays the approval of the medical procedure being investigated, severely impacting competitiveness
- The company has access to terabytes of data for over two million patients such as patient data, prognosis, diseases, treatment data, and hospital data from diverse sources, but lacks the infrastructure to pull it together onto a single platform
- Besides bringing data together, the company needs to compare this data with trial protocols and patient consent information to determine patient eligibility, adding to the complexity of data under active analysis
- Due to ineffective enrollment, patient dropouts during trials lead to prolonged interruptions that increase trial costs
- The company’s current analytics tool can only be operated by data specialists with technical skills

Solution

The company used Accelerite ShareInsights as its core big data analytics platform for researchers in the organization to bring together all the necessary medical records under a single roof and determine patient eligibility rapidly using its self-service interface.
Researchers in the organization now plug their database that contains clinical trial plans, protocols, and criteria into ShareInsights.

They further connect multiple sources of patient medical records and complex patient consent forms with ShareInsights.

Researchers quickly compare, drill up/down, slice and dice data for nearly two million active patients using visual dashboards to determine which patients can be enrolled in the trial.

They also automatically accommodate consent responses in real-time to alter enrollments.

Researchers study consent patterns and predict dropout propensity using point-and-click correlation machine learning algorithms and devise strategies to improve patient engagement and retention.

Results

- The company is able to meet patient enrollment goals on time and has reduced trial delays by 30%.
- They are now able to predict dropout propensity accurately which has reduced patient dropout rate by 54%.
- Patient recruitment numbers for the trials went up by 38% due to faster identification of eligible patients.
- The company is able to launch trials much faster than before and execute them at a cost much lesser.

About Accelerite

Accelerite is a Silicon Valley based company delivering secure business-critical infrastructure software for Global 1000 enterprises. Accelerite’s product suite includes hybrid cloud infrastructure, endpoint security, big data analytics, and the Internet of Things.

To know more about Accelerite ShareInsights visit: [www.accelerite.com/shareinsights](http://www.accelerite.com/shareinsights)