

Automated Solution for Clinical Research Enhances Data Quality and Accelerates Timelines



Our client's mission is to serve patients and society by maximizing the value of radiology, radiation oncology, interventional radiology, nuclear medicine, and medical physics by advancing the science of radiology; improving the quality of patient care; positively influencing the socio-economics of the practice of radiology; providing continuing education for radiology and allied health professions; and conducting research for the future of radiology.

The Need

Our client regularly conducts clinical studies as part of investigations into radiological therapy. Practitioners submit proposals for alternative/ improved therapy. These proposals are reviewed by a panel of doctors before submission to the FDA for approval. Studies are executed after approval by the FDA.

Results of the clinical study were tracked manually. They required a faster, more accurate system to reduce the cost and time for designing and executing trials.

Marlabs Solution

Marlabs built software to track progress of FDA approvals as well as protocols for approved studies.

Using a custom forms designer and standard templates, the application makes it easy to create schemas to collect study data. It includes stratification schemas to determine patient eligibility.

The software uses patient calendars to schedule events for each treatment arm of the study. Sophisticated algorithms such as permuted block randomization are used to assign patients to study groups in order to ensure that patient sampling is truly random. The application includes Question and Response Banks to enable quick set up of questions.

Key functionality includes:

- Study setup
- Patient accruals
- Protocol setup and management
- Automation of patient calendars for multi-step studies
- Management of facilities and provider databases
- Creation of SAS data sets for further analysis
- Enhanced reporting

Marlabs successfully migrated 1.5 million legacy data points to the new system. By providing metrics that track and measure results in real time during and at study conclusion, the solution provides additional transparency into processes.

Client:

Leading radiological institution

Technology Platform:

- Java
- PowerBuilder

Benefits

- Provided efficient data management solution
- Eliminated manual data capture and compilation
- Automated tracking of changes
- Increased real-time access to clinical data
- Raised level of standardization
- Improved system and process flexibility