Category: Cross-cutting Innovation and Collaboration – Work in Progress

Integration of Electronic Health Record (EHR) systems with Electronic Data Capture (EDC)

A. Almazar, J. Lengfellner, L. Andrews, M. Bush, A. Fritsche

Mayo Clinic Comprehensive Cancer Center

1. Background
Integrating electronic health record (EHR) systems with electronic data capture (EDC) technologies streamlines clinical data management and enhances operational efficiency. The IgniteData Technology offers an advanced platform that facilitates the seamless transfer of data from EHR to EDC, minimizing manual data entry errors and reducing workload through cloud-based technology as learned from Memorial Sloan Kettering Cancer Center (MSK) who began implementation in 2022. However, past attempts to implement this technology have often faced challenges with timelines, user adaptation across cancer centers, and difficulties in scaling it across different protocols and sponsors.

2. Goals
This project aims to evaluate the effectiveness of IgniteData in facilitating EHR to EDC data capture across participating cancer centers. The goals are to measure staff satisfaction, quantify time savings, data quality, accuracy of data and assess the overall impact on the clinical research trial workflow. Additionally, we seek to identify any implementation challenges and areas for improvement in the adoption process.

3. Solutions and Methods
Integrating EHR systems with EDC technologies streamlines clinical data management and enhances operational efficiency. IgniteData offers a platform that facilitates seamless data transfer from EHR to EDC, minimizing manual data entry errors and reducing workload. However, the adoption and implementation of such technology often encounter challenges in terms of timelines and user adaptation across cancer centers.

4. Outcomes
Implementation of IgniteData's technology varies among cancer centers, reflecting their internal processes, but overall, it has proven faster than previous solutions. For cancer centers who have implemented IgniteData for a study or across multiple studies, positive results have been recognized including significantly reducing the time spent on manual data entry per study and monitoring queries. Preliminary data shows a notable decrease in data input time and improved data quality. Staff satisfaction surveys reflect a generally positive reception of the technology, with increased satisfaction regarding data accuracy and ease of use.

5. Learned and Future Directions
Future implementations will benefit from the lessons learned during this initial phase, including optimized timelines and enhanced training protocols and further development of IgniteData capabilities beyond labs, vitals and con meds to adverse events and other unstructured EHR data. The authors plan to analyze the data collected across the cancer centers to further share data accuracy improvements and long-term impact on clinical trial timelines. The objective is to broaden the adoption of EHR to EDC across various sites and sponsors, thereby enhancing automation capabilities. This expansion aims to enable staff to perform at the peak of their expertise.