

*Category: Clinical Trial Operations (Trial Start-up, Regulatory, Finance, Data Management, IITs) – Completed Project*

## **Enhancing Visualization Into Study Start-up Using a Homegrown Time to Activation Dashboard**

A. Ou, J. Reilly

*Sandra and Edward Meyer Cancer Center at Weill Cornell Medicine*

### **1. Background**

At the Meyer Cancer Center (MCC), there was no centralized tool enabling leadership, investigators and study teams to clearly see where studies resided within the activation process. Tracking required manual aggregation of data across multiple systems, which made it difficult to monitor start-up activities and measure time to activation (TTA). Leadership had limited access to operational data, resulting in poor visibility of performance metrics and limited confidence in reported outcomes. The absence of standardized, accessible data compounded the difficulty of identifying inefficiencies, hindering the progress for process improvements.

To address these gaps, Cancer Clinical Trials Office (CCTO) leadership with support from the Weill Cornell Medicine Research Administrative Computing Team (RAC) and our Business Intelligence Development Team (BI Team) created an institutional 'Time to Activation' Dashboard.

### **2. Goals**

- Increase transparency for end-to-end activation processes for key stakeholder groups
- Deliver comprehensive real-time start-up status reporting and metrics for activated studies to identify bottlenecks in the study activation pipeline
- Optimize start-up processes and activation times, with a targeted reduction in TTA by 10 percent

### **3. Solutions and Methods**

Developed through a multi-phased approach, Phase One established the foundational framework and leveraged data from existing systems to create the core dashboard structure and functionality. Datapoints from two institutional systems (OnCore and InfoEd) were extracted and linked using a unique identifier to create a single resource, then visualized in a PowerBI dashboard. Data is refreshed daily.

Utilizing standardized milestones, studies are categorized into 'Pending Activation' or 'Activation Complete' pages, and a 'Summary Metrics' page provides high-level snapshot information. Each page converts key time points into interactive visualizations of the overall timeline, while enabling detailed drill-down views for each milestone.

Multiple slicers allow users to refine and tailor the visualizations, fostering study team engagement and accountability while providing transparency to leadership. Institutional Key Performance Indicators (KPIs) are overlaid on visualizations to assess portfolio health, identify areas for improvement, and enable proactive performance adjustments for study in the startup phase.

### **4. Outcomes**

The TTA Dashboard transformed start-up tracking by enabling real-time identification of the outstanding items required for activation, distinguishing between study team and systemic process delays, which highlighted opportunities for performance improvement initiatives. Streamlined start-up metrics magnified KPIs to leadership, supported proactive identification and resolution of study start-up

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bottlenecks and facilitated the PRMC in identifying and abandoning idle studies from the queue. Leadership is now able to conduct post-mortem analyses on activated studies, providing insight into operational deficiencies.

### **5. Lessons Learned and Future Directions**

As MCC navigated Phase one of this project, strong engagement from the CCTO enabled iterative feedback and continuous improvement that was implemented into the prototype, minimizing large scale changes. Early input from study teams also strengthened the product and generated enthusiasm for the release.

Lessons Learned:

- Data validation took longer due to scale and mapping complexity
- Stronger communication and marketing strategies needed to boost awareness
- Tailored, user-centric training needed to drive adoption in future releases

Future directions include enhancements to visualizations and data models, updated criteria for the contract's milestones, and user experience updates. Phase two expands functionality to include study team tracking and workload metrics to improve resource management.