

Research Portfolio Management: The Protocol Performance Monitoring Dashboard

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1. Background

As an NCI-Designated Comprehensive Cancer Center, Memorial Sloan Kettering (MSK) is required per Cancer Center Support Grant (CCSG) guidelines to have a protocol review and monitoring system (PRMS) that is responsible for monitoring ongoing institutional research. Historically, MSK's PRMS committee (PRMC) was responsible for monitoring the scientific progress of our clinical research portfolio. More recently, MSK's PRMC created a protocol monitoring subcommittee whose sole responsibility is carrying out their mission by evaluating accrual rates, scientific merit, and patient need; and determining trials' potential for completion.

2. Goals

To accomplish its task of closing protocols with low potential for completion, the subcommittee needed a real-time reporting tool to aid in identifying underperforming trials. The tool could be used by department leadership to assess their portfolio and preemptively close underperforming trials that may otherwise be identified by the committee.

3. Solutions and Methods

In collaboration with MSK's clinical research informatics and technology, we sought to develop a user-friendly dashboard to assist with assessing protocol performance. Leveraging data from multiple systems, the dashboard blends comprehensive metrics, including protocol lifespan, estimated time to study completion (ETC), and accrual rates.

4. Outcomes

The protocol performance monitoring dashboard (Fig. 1a) was built with two sections. The upper section shows a graph with percentage of completed accruals on the horizontal axis and years open to accrual on the vertical axis. Each dot on the graph represents a protocol and is encoded by color based on ETC. ETC estimates the amount of time (in years) in which a protocol will complete accrual based on the completed accruals and time open. Protocols with 0 accruals are listed as unknown. Over target protocols have met or exceeded planned accruals.

The bottom section of the dashboard includes important details such as the regulatory sponsor, principal investigator, last accrual date, number of target and actual accruals, ETC, protocol type/category, title, information about prior underperforming notices (i.e., number of NP notices) and when the last notice was issued (i.e., last NP date), etc.

There are multiple filters which make it easy to isolate key protocols. For example, the dashboard can be filtered to isolate protocols that have accrued 0 patients or have been open for an extended period (determined by the user) and may no longer be scientifically relevant.

To provide further understanding, when any protocol on the dashboard is selected, a new graph appears showing the number of accruals by month over the lifetime of a study (Fig. 1b). This provides context, showing a clear picture of accrual performance for patients accrued with MSK oversight (internal locations and participating sites) which can assist the committee when making decisions about closures.

5. Lessons Learned and Future Directions

Spring 2022 will be the first time the new subcommittee is conducting reviews of underperforming protocols and will utilize this new dashboard. We plan to broaden utilization to other institutional leaders (e.g., department heads) and provide education to increase transparency and promote collaboration of portfolio management between PRMS and departments. We plan to reassess the stakeholder needs throughout 2022 to identify improvements or new tools for portfolio management.

Figures:

Fig1a: Protocol Performance Monitoring Dashboard

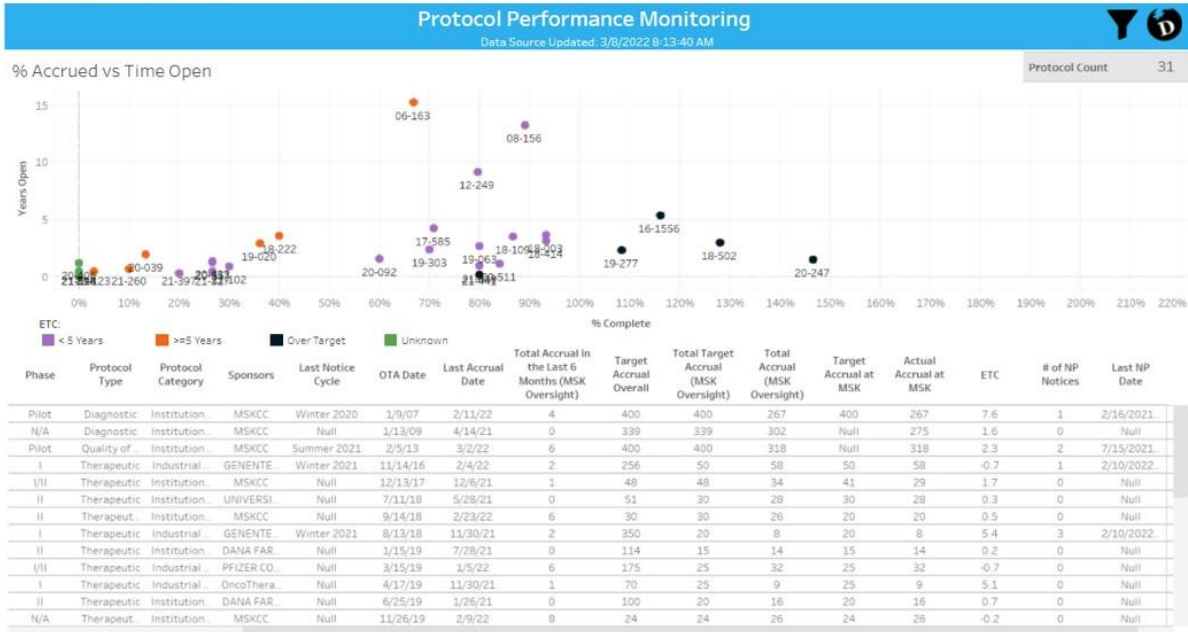
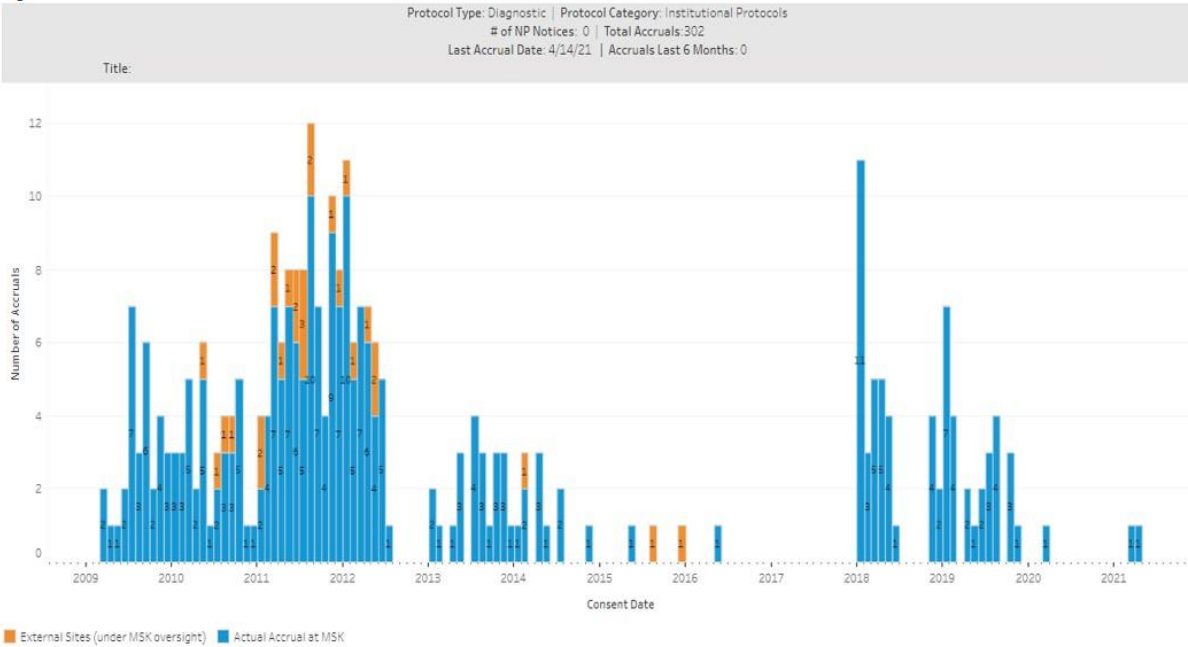


Fig1b: Protocol Accruals Over Time



Category: Finance/CCSG/PRMS – Completed Project