

Research Kit Management

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1. Background

Clinical research coordinators rely heavily on the protocol's schedule of events, lab manuals, and projected patient counts to order the correct number of kits for each trial. However, quite often, this leads to an overwhelming number of kits that supersede storage limitations.

In October of 2023, Tisch Cancer Center's Center of Excellence for Multiple Myeloma began piloting Slope's free clinical inventory management software to track their lab kits, including low inventory and expiration dates. Before piloting this program, there were several occurrences where screenings were delayed or certain lab kits weren't reordered due to disorganization and poor inventory management processes.

2. Goals

We wanted to evaluate if Slope would improve the overall success of patient screenings by reducing the number of unused and expired kits, as well as reducing preparation time for blood draws.

3. Solutions and methods

We approached implementing Slope's inventory management system in two phases. Phase 1 consisted of evaluating current inventory and disposing of unusable products. Phase 2 consisted of dividing storage areas in our facility into five zones. All kits were divided and sorted by trial, cataloged in Slope, and assigned to a storage zone. We labeled each zone with smart labels, which significantly improved organization. Each study that requires lab kits has a designated shelf labeled with the associated study name.

4. Outcomes

Using inventory data from Slope, we were able to determine that the multiple myeloma team reduced kit waste and expanded available storage space by 40 percent. The reduction in excess inventory allowed the multiple myeloma team to use the extra cabinet space for new study supplies so that Tisch can support additional trials.

The accountability to study monitors was improved, reducing emails and requests when providing inventory reports. Additionally, the time required to run an inventory report has plummeted from 30 minutes to 2 minutes per study, leading to a significant monthly time savings for research staff.

5. Lessons Learned and Future Directions

Disorganized lab kit management can lead to a wide range of issues, including an accumulation of expired kits, a lack of available storage space, and time management issues for clinical research coordinators.

This leads to a heightened risk of protocol deviations across all studies, but more specifically in Phase I studies that may require more than one kit per time point. Introducing Slope to manage clinical

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inventory has improved accountability, communication, and reporting to sponsors, in addition to reducing the time required to prepare important inventory reports.