Leveraging Automation to Increase Time Savings for Processing Research Non-Billables (RNBs)

S. Siamwalla, R. Panchal, M. Buckley, J. Lengfellner

Memorial Sloan Kettering Cancer Center

1. Background

Memorial Sloan Kettering Cancer Center (MSK) uses its Clinical Trials Management System (CTMS) to manage protocol information and study budgets but relies on an additional system known as Application for Research Charges (ARC) to process RNB information. Both systems require the same input of data to carry out their independent functions, just at different time points. This resulted in hours of repetitive manual data entry by the budgets team, ultimately prolonging the processing of RNBs and introducing risk into the accuracy of the data entered.

2. Goals

For this two-phase initiative, the elimination of double data entry was prioritized by leveraging CTMS as a primary source and pulling its data into a view for automatic injection into ARC. Since the successful go-live of Phase I for new protocols on October 17, 2022, Phase II is currently targeted to automate manual data entry tasks for protocol and budget amendments. The goals of both phases are the same: to improve data quality, reduce errors from manual data entry, increase time savings, and streamline productivity for budget staff.

3. Solutions and Methods

The approach in addressing the challenges above was multifold:

- The triggers: there are three sign-off points within CTMS that indicate when a protocol is ready to have data injected into ARC
- The data view: a view picks up the data when the triggers are entered and makes it available for the injection into ARC
- The injection: a new worksheet is created within ARC based on four integrated fields taken from CTMS: funding source category, budget date, current cost center number and fund number, and the service code; from these four fields, the rate bases are automatically calculated for each RNB procedure within the protocol
- The exceptions report: for every procedure entered on a new protocol, a Tableau dashboard captures the studies with RNBs and assigns it a status according to the integration

The go-live schedule was divided into three different parts for Phase I, each time adding on more services than the previous.

4. Outcomes

Each study pushed from CTMS to ARC saves 45 minutes in manual work for the budgets team and 30 minutes for the study team. Since the first go-live, a total of 116 have been published, amounting to a total of 5,220 minutes for the budgets team and 3,480 minutes for the study team in time savings. In addition, the integration has made an impact from a compliance perspective since the previous process caused errors due to manual data entry.

5. Lessons Learned and Future Directions

We have learned that eliminating steps for manual data entry has benefits that supplement the expected process improvements, such as opening a gateway for future integrations. With the data view, triggers, and mapping created in Phase I of the integration, we have a robust foundation now to introduce amendments within the automated process for Phase II. By Quarter 3 2023, we expect to be live with both phases of the integration and entirely reliant on CTMS as a single point of data entry.