

Closing Time: Protocol Scoring & Remote Closeout for Portfolio Optimization

M. Ismailzadah, C. Rivera, S. Mistretta, D. Agrinoni, T. Negri, R. Shelton, J. Jurcic, A. Lassman

Herbert Irving Comprehensive Cancer Center, Columbia University Irving Medical Center

1. Background

Despite the negotiations and arduous work required to activate a trial, the closure of unsuccessful trials remains in the best interest of a clinical research site. Maintaining a heterogeneous portfolio of clinical trials is paramount for a research site to present alternative treatment routes for populations with analogous cancer types who have not responded well to approved treatment options. However, an issue common to many clinical sites is the oversaturation of low-accruing clinical trials. While a promising drug mechanism may seem exciting for patients with a rare mutation at the forefront of activation, slow enrollment in the institution seeking funds to maintain their program has financial ramifications. Further, there is a significant administrative burden in renewing, processing amendments, and providing repeated explanations to internal and external entities for the underperformance of a study. For these reasons, the Herbert Irving Comprehensive Cancer Center (HICCC) has established systems that streamline and amplify trial closures and close-out visit processes to bolster the integrity of clinical trial portfolios across disease teams, offer the most promising investigational agents to our patients, and optimize the financial output of our team efforts.

2. Goals

- Decrease administrative burden
- Bolster integrity of clinical trial portfolios
- Increase rate of close out visit of low/no accrual studies
- Optimize quality of study start-ups

3. Solutions or Methods

In Fall 2020, HICCC deployed the Disease Based Team (DBT) Prioritization scoring process, adapted from an NIH-based scoring system (Andrews, 2013, 5-10), and evaluated during routine DBT meetings, as presented in Figure 1. Prioritization review works with a trial Feasibility review to examine and qualify studies for start-up activities.

Adopting remote monitoring visits in early 2020 catalyzed the rapid innovation of external monitoring visits. In tandem with the DBT Prioritization review, the regulatory team transitioned to LabArchives, a remote Investigator Site File (ISF) sharing platform. The shift to LabArchives further optimized the secure document review process for our site and monitors by facilitating ISF sharing, external accessibility, and expediting close-out visit review.

4. Outcomes

The implementation of the DBT Prioritization Scoring review has led the investigators to select trials that satisfy feasibility deliberately. The process has demonstrated that start-ups are selected thoughtfully. (Figure 2)

Concurrently, utilizing LabArchives for close-out visits has enabled faster scheduling. This platform facilitates remote monitoring visits, and in the recent year, 2022, there has been an uptick in closing out studies with poor accruals and inactive studies. (Figure 3)

5. Lessons Learned and Future Directions

- Priority scoring has allowed for a more defined evaluation of each study before submission to our review committees. The feasibility process decreased the amount of Protocol Review and Monitoring Committee (PRMC) declined trials as submitted trials are of higher scientific merit and meet clinical needs.
- The PRMC reviews studies annually and issues six-month warnings for studies with no accruals. In Fall 2022, PRMC evolved this oversight to close studies with zero accruals after 12 months. The PRMC intervention is backed by biostatistical analysis suggesting that underperforming studies are unlikely to improve over time.
- LabArchives is being further developed as an eRegulatory platform to eliminate the need for regulatory staff to upload documents for review manually.

Sources:

1. Andrews, Jeff. 2013. "Prioritization Criteria Methodology for Future Research Needs Proposals Within the Effective Health Care Program: PiCMe-Prioritization Criteria Methods" *Methods Future Research Needs Reports*, no. 10 (Jan). 5-10. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK116677/>

Figures

Clinical Trial Prioritization

PI	Study Name	SCIENTIFIC MERIT	CLINICAL NEED	ACADEMIC OUTPUT	FUNDING	RESOURCES	OVERALL SCORE

The scoring criteria as defined by the NIH is 1-5 with 1 being the best or highest merit/need/etc.

- Scientific merit: Will this study lead to impactful discoveries and advances in the field?
- Clinical need: Is the intent of the study curative or palliative? Does the study offer the possibility of meaningful clinical benefit? Are other treatment options available?
- Feasibility: What is the anticipated rate of recruitment? Can the study be completed in a reasonable period of time? What is the complexity of the trial regarding number of patient visits, route of administration, pharmacokinetic sampling, etc.?
- Academic output: Will the study result in publications, grants, and presentations? Is it important for career development?
- Funding: Has funding been secured to complete the study? Is the source internal or external?
- Resources: Is there adequate research staff available to complete the study?
- Overall score: This should reflect the overall priority of the study and not simply be an average of the above.

Figure 2. Start-Ups & Closures Tracker

	2019	2020	2021	2022
Total # of start-ups	130	99	101	66
Total # of closures	86	98	94	111
Average # of start-ups	11	8	8	6
Average # of closures	7	8	8	9
Ratio of start-ups: closures	1.511628	1.010204	1.074468	0.594595

Figure 3. Start-Ups & Closure Comparison

