Category: Clinical Trial Operations (Trial Start-up, Regulatory, Data Management, IITs) – Work in Progress

Development of a Screening Coordinator Dashboard to Optimize Clinical Trial Pre-Screening and Enhance Enrollment Strategies Across Multiple Disease Programs

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1. Background

Oncology clinical trials face challenges in patient enrollment due to multiple factors including complex eligibility criteria and the workload on Clinical Research Coordinators (CRCs). Studies have identified restrictive eligibility criteria and clinician-related factors contribute to low participation rates in cancer clinical trials[1]. To address these challenges, Moffitt Cancer Center developed the Clinical Trials Screening Coordinator (CTSC) role to improve patient identification and streamline pre-screening workflows[3]. A recent study introduced an agile monitoring dashboard providing real-time insights into patient recruitment and retention, improving efficiency and helping research teams identify enrollment trends to facilitate timely interventions[2].

Building upon this foundation, the Screening Coordinator Dashboard was created using Power BI to centralize data, enhance efficiency, and provide actionable insights across multiple disease programs, supporting CTSCs and clinical research leadership.

2. Goals

The primary goal of the Screening Coordinator Dashboard is to guide focus for the CTSC and enable them to pull quick, accurate metrics for manager or clinical research medical director use. This dashboard streamlines data retrieval, supports data-driven decision-making, and offers a comprehensive understanding of trial performance across disease programs.

3. Solutions and Methods

The dashboard centralizes key pre-screening and enrollment data, consolidating metrics on patients consented, those on study, and screen failures within the Clinical Trials Office (CTO). Users can filter by disease program, Clinical Research Coordinator (CRC), or Principal Investigator (PI), enabling targeted reviews. A leaderboard highlights top enrolling studies by PI, fostering healthy competition. A pre-screening section provides a monthly breakdown of pre-screened subjects and reasons for ineligibility, filterable by CRC. Enhancements under development feature a referrals-per-physician metric, a timeline chart displaying pre-screenings and enrollments, and an accrual pace chart highlighting underperforming studies.

The dashboard retrieves real-time data from the Clinical Trial Management System (CTMS), Oncore, ensuring up-to-date metrics without the need for manual data entry. Auto-populated fields provide immediate access to key performance indicators. This automation reduces administrative burden and enhances workflow efficiency by minimizing data discrepancies and ensuring consistency in reporting.

4. Outcomes

Early use of the dashboard has improved visibility into pre-screening activities, allowing for more strategic allocation of CTSC time. Users can quickly pull key metrics for managerial or medical director use, streamlining reporting and improving responsiveness. Initial feedback indicates increased efficiency in identifying enrollment bottlenecks and a clearer understanding of trial performance. Additionally, the

dashboard allows for analysis of enrollment trends, which can inform protocol amendments or recruitment strategies. By identifying eligibility criteria frequently leading to screen failures or analyzing patient refusal trends, leadership can engage with sponsors to address potential barriers while maintaining trial integrity.

5. Lessons Learned and Future Directions

Next steps include expanding dashboard adoption across disease programs, training users on advanced filtering options and refining the interface based on CTSC and leadership feedback. An enhancement under consideration is cross-referencing each program's new patients against the medical record numbers pre-screened to identify missed opportunities and provide a pre-screening quality check. This could improve trial matching and highlight pre-screening gaps, benefiting programs without a dedicated CTSC. Ongoing engagement of the CTSCs and leadership will be essential in maximizing its effectiveness and identifying further improvements.

Citations:

[1] Ebrahimi, H., Megally, S., Plotkin, E., Shivakumar, L., Salgia, N. J., Zengin, Z. B., ... & Chehrazi-Raffle, A. (2024). Barriers to clinical trial implementation among Community care centers. *JAMA Network Open, 7*(4), e248739-e248739. https://doi:10.1001/jamanetworkopen.2024.8739

[2] Gardner, L., Bylund, P., Robbins, S., Holler, E., Shojaei, F., Shojaei, F., ... & Boustani, M. (2024). Agile monitoring dashboard for clinical research studies. *Trials, 25*(1), 802. https://doi.org/10.1186/s13063-024-08646-0

[3] Goodridge, D., Ugrenovic-Petrovic, M., Royster, E., Fazilova, S., Aminpour, A., Bustamante, F., ... & Soliman, H. (2024, October 20-22). *Development of a clinical trials screening coordinator role and workflow to improve recruitment* [Poster presentation]. Association of American Cancer Institutes (AACI) Annual Meeting, Chicago, IL, United States. [https://www.aaci-cancer.org/Files/Admin/CRI/2024/114%2Dposter%2DDevelopment%5Fof%5Fa%5FClinical%5FTrials%5FScreening%5FCoordinator%5FRole%5Fand%5FWorkflow%5Fto%5FImprove%5FRecruitment.pdf]