

Operationalizing the Strategic Plan: a Predictive Framework for PRMS Protocol Prioritization

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1. Background

The UC Davis Comprehensive Cancer Center (UCDCCC) Office of clinical research developed a weighted scoring system to score protocols during the first stage of protocol review and monitoring system (PRMS) review. The scoring system consists of five categories to rank protocols between one and five. Each category is weighted based on key UCDCCC strategic priorities. The weighted score sum is divided by the total possible score to calculate a percentage that aligns with a priority score of low (zero-49 percent), medium (50-74 percent), or high (75-100 percent). Accrual potential was identified as critically important within the strategic plan and was given the highest weighted factor of “three.” A retrospective analysis of the 2023 active protocol portfolio was completed prior to the implementation of the scoring system to analyze how the current portfolio would score and if there was any correlation with accrual. This analysis showed that low and high scoring protocols demonstrated corresponding low and high actual accruals with two and 13 accruals respectively. The new scoring system was implemented in July of 2023.

2. Goals

To implement a scoring tool that is predictive of actual protocol accrual and aids disease teams in portfolio curation.

3. Solutions and Methods

Protocols were assigned a priority score during the first stage of PRMS review and confirmed at the second stage beginning in July 2023. An analysis of all active protocols that were proactively scored by PRMS was done by pulling data reports from OnCore. Metrics of how many protocols were activated in each scoring level, as well as score compared to current total and expected accrual were analyzed.

4. Outcomes

Of the 144 protocols, one had a low score, 73 had a medium score, and 70 had a high score. This represents a significant shift in the portfolio as the retrospective analysis demonstrated 12, 89, and nine protocols respectively. The 73 medium protocols show a median activation time of seven months with a median total accrual of one patient per protocol. The 70 high protocols show a median of 10 months to activation and five protocols. The range of accruals seen on medium protocols is 0-9 accruals per protocol while high protocols show 0-1,837. Medium protocols are achieving an average of 40 percent of their expected accrual goals while high protocols are achieving an average of 70 percent. Thirty-five medium score protocols had zero accrual while only 14 high score protocols had zero accrual.

Utilizing the new scoring system to discuss protocols during PRMS review has influenced the first stage review teams to select higher priority protocols. Overall, these metrics show that high scoring protocols

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are outperforming medium scoring protocols in accrual and the prospective scoring of protocols is predictive of the accrual potential.

5. Lessons Learned and Future Directions

We learned that the thoughtful curation of a scoring rubric that is in alignment with the cancer center's strategic plan can be a tool to improve the trial portfolio. In the future, we would like to prospectively test more of the scoring categories to assess success in all strategic plan metrics, as well as adapt the scoring rubric with changes to the cancer center's strategic plan.