

Measuring Effectiveness of the Clinical Research Competency Training Program for Clinical Research Professionals

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1. Background

The clinical research competency training (CRCT) program was launched in January 2024 to address the gap in standardized competency-based training for the clinical research workforce at MD Anderson. Guided by the Joint Task Force (JTF) framework, the program supports staff from diverse professional backgrounds by establishing a shared foundational understanding of the clinical research enterprise. The standardized approach strengthens research quality, promotes consistent practices, and upholds institutional integrity.

2. Goals

The primary goal of the CRCT program is to implement a uniform, comprehensive training curriculum aligned with the JTF guidelines for clinical research professionals. The program aims to strengthen foundational knowledge, provide consistent orientation across departments, and support the development of a robust, well-prepared clinical research workforce.

3. Solutions and Methods

Using the JTF framework and collaborating with key leaders and subject-matter experts, a comprehensive foundational clinical research curriculum was developed that integrates oncology-specific and MD Anderson-specific content. Core topics include clinical research fundamentals, oncology trials, subject and data management, and research support services. The program consists of three key components: (1) a competency guide incorporating core JTF-based competencies, (2) foundational training sessions, which are conducted both in-person and virtually, and (3) department-specific training focusing on oncology and clinical trials. Program effectiveness was evaluated using a questionnaire aligned with the course objectives to assess learners' perceptions of the training's relevance and usefulness.

4. Outcomes

Since launch, a total of 996 staff members have enrolled in CRCT, including clinical research staff across multiple roles. Enrollment increased from 348 participants in 2024 to 597 participants in 2025. A survey assessed participants' confidence in the knowledge gained. Of the ninety-five survey respondents from the 2024 cohorts, forty-three were new hires. The confidence scores for new hires averaged between eight and nine on a zero-to-ten scale, with the lowest average at 7.91, indicating strong perceived knowledge gain.

Audit outcomes also improved following CRCT implementation. Between fiscal years 2024 and 2025, audit findings decreased across informed consent (from 50 percent to 35 percent), eligibility (from 43

percent to 39 percent), study assessments (from 39 percent to 31 percent), and source data verification (from 66 percent to 56 percent). These reductions, illustrated below, reflect meaningful improvements in documentation accuracy, protocol adherence, and overall research conduct.

5. Lessons Learned and Future Directions

Standardized competency-based training is essential for ensuring consistency and quality across the clinical research workforce. Early feedback indicates that the CRCT program provides a solid foundation for learning and is well-received by new staff. Learners expressed a need for greater scheduling flexibility to accommodate clinical responsibilities. In response, a structured learning plan was added to the Learning Management System with self-scheduling, progress tracking, and automated certificates. To further reinforce learning and promote ongoing professional development, the training team incorporated monthly Clinical Research Educational Sessions, offering topic-focused opportunities for continued learning. Ongoing evaluation and refinement will continue to strengthen workforce development and institutional research quality.

Figure

