

## **Designing a Scalable Oncology Clinical Research Workforce Infrastructure: a Competency-Integrated Model for Standardized Onboarding**

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### **1. Background**

Oncology clinical research requires mastery of regulatory standards, protocol-driven workflows, and multidisciplinary coordination. Variability in onboarding across clinical research roles can limit structured competency development and alignment with professional expectations. At our institution, the absence of standardized, role-specific training infrastructure constrained formal linkage between daily responsibilities and defined professional competencies.

At Sylvester Comprehensive Cancer Center, advancement to clinical research coordinator three requires completion of the Society of Clinical Research Associates (SOCRA) Certified Clinical Research Professional (CCRP) credential within six months of hire. Operational workflows were not formally mapped to certification domains, highlighting an opportunity to align workforce development with established competency standards.

### **2. Goals**

- Establish a standardized, competency-aligned onboarding framework
- Align daily operational responsibilities with regulatory and certification expectations
- Create a scalable workforce development model adaptable to oncology research programs nationally

### **3. Solutions and Methods**

Role-specific onboarding manuals were developed for clinical research coordinators and clinical research data specialists and expanded to nursing, management, and leadership roles. Each manual functions as both an operational guide and a competency-mapped framework aligned with SOCRA CCRP domains and oncology trial workflows.

Manuals were embedded into Clinical Research Services, integrating orientation, refresher, and professional development programs. To enable broader dissemination without sharing institutional policies, the framework was translated into eleven universal competency domains, including protocol navigation, informed consent, regulatory oversight, operational execution, cross-functional coordination, systems literacy, and career development.

These domains anchor monthly national educational seminars in 2026, focused on applied oncology research decision-making. Post-seminar surveys are being collected to assess perceived competency alignment and certification preparedness.

#### **4. Outcomes**

Implementation established a structured onboarding infrastructure that standardizes competency expectations and aligns operational practice with credentialing standards. The framework introduces defined domains that support measurable workforce evaluation and scalable adoption. Manuals are embedded across multiple roles, supporting professional development, internal mobility, and consistency in operations.

#### **5. Lessons Learned and Future Directions**

Structured, competency-mapped onboarding improves clarity of responsibilities and bridges operational practice with certification readiness. Early engagement across roles fosters culture adoption, and translating materials into policy-agnostic domains enables national dissemination without compromising institutional policies.

Ongoing national seminars and structured evaluation will refine this framework as a replicable workforce development model. The goal is to strengthen onboarding consistency, certification alignment, and operational excellence across oncology clinical research programs nationwide.