

*Category: Clinical Trial Operations (Trial Start-up, Regulatory, Finance, Data Management, IITs) – Completed Project*

## **Leveraging Artificial Intelligence and Workflow Automation to Streamline Cancer Committee Operations**

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### **1. Background**

At our institution, much of the administrative work supporting the Protocol Review and Monitoring System (PRMS) and Investigator-Initiated Trial (IIT) Committee was conducted outside of the OnCore Clinical Trial Management System (CTMS). Communications with Principal Investigators (PIs) and study teams were generated, reviewed, and tracked manually, requiring significant time and effort. This involved:

- Extensive email management
- Overlooked responses
- Complexity that extended to PIs
- Delayed communication
- Manual file maintenance, tracker updates, and letter creation
- Transcription errors

While tools such as Power Automate are designed for end users, they remain technically complex and often inaccessible to non-programmers. Recognizing this gap, we leveraged the use of AI tools as collaborative partners to design and implement workflow automations. This project demonstrates how administrative professionals—without formal programming training—can streamline complex committee operations through AI-assisted development.

### **2. Goals**

- Reduce manual administrative workload in accrual monitoring and other committee operations
- Improve accuracy, timeliness, and standardization of committee determinations and communications
- Enhance PI engagement by simplifying submission and response processes
- Demonstrate that AI tools can serve as effective collaborators for operational teams without programming backgrounds

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

The first step was independent workflow design—AI then advised on translation of operational outlines into automation.

Key initiatives included:

- Designing Microsoft Forms to collect PI input during monitoring cycles in a standardized, mobile-friendly format
- Developing multiple Power Automate flows to:
  - Automatically populate accrual monitoring trackers with PI input
  - Generate formal records of that content
  - Automatically save these materials to SharePoint

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- Email commentary to committee administration listservs
- Generate standardized determination letters following chair decisions
- Distribute these to committees and PIs
- Creating internal workflow documentation and guidance to share with colleagues and external AACI peers

#### **4. Outcomes**

- Eliminated approximately one-to-two weeks of manual administrative work per accrual monitoring cycle across hundreds of protocols twice annually
- Reduced inaccuracies through auto-generated letters
- Improved PI response rates through simplified, mobile-friendly submission tools
- Standardized communication, eliminating fragmented email chains and inconsistent documentation
- Reallocated administrative time toward higher-value initiatives, including quality improvement and strategic projects
- Enhanced capability in AI-assisted problem solving, enabling further operational innovation

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

##### Lessons Learned:

- AI tools can meaningfully empower administrative professionals to solve complex operational challenges without prior programming expertise
- Clear workflow design is essential before leveraging AI for automation
- Automating repetitive tasks improves efficiency, accuracy, and job satisfaction
- Cultural readiness and team enthusiasm are critical success factors

##### Future Directions:

- Enhancing existing workflows with additional logic and validation, such as connecting our automation directly to OnCore via its Application Programming Interface (API)
- Expanding automation to additional processes, including inactive submissions review, Disease Management Team (DMT) submission, and Cancer Protocol Review and Monitoring Committee (Cancer PRMC) initial and amendment submission cycles
- Continuing cross-institutional knowledge sharing with AACI peers