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

Improving Clinical Trial Audit Effectiveness through Comprehensive Reviews

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1. Background

Clinical trial research data are essential for evaluating the safety and efficacy of new treatments and medical devices. Trials that are high accruing, involve safety risks, and require long-term follow-up tend to accrue large amounts of data. Compliance teams do not have the resources to complete 100 percent source data verification. As such, many risk-based approaches require reviews of a certain percentage of the data. These routine monitoring reviews are productive in catching deviations in real time but may miss study-wide patterns of reoccurring noncompliance. To mitigate these difficulties, the Huntsman Cancer Institute Research Compliance Office (RCO) developed a comprehensive audit review to ensure significant data relating to the primary and secondary endpoints are reviewed for all enrolled participants.

In previous audits, we reviewed three patient charts in depth to verify protocol and regulation compliance. This included source documentation, consent forms, eligibility, adverse events, study assessments, and intervention. This strategy is effective for identifying deviations for a small number of patients but does not allow for a review of all data.

In comparison, a comprehensive audit focuses on primary and secondary endpoint assessments for all enrolled patients and a very targeted review of three patient charts. This risk-based approach allows us to tailor each review based on the complexity of the trial.

2. Goals

The goal of comprehensive audits is to review and validate all safety, primary, and secondary endpoints that have occurred since the prior audit. By looking at the data as a whole and in a timely manner, we identify patterns of significant, reoccurring noncompliance more easily and quickly.

3. Solutions and Methods

The comprehensive audit is tailored to the trial characteristics (safety risk, endpoints, etc.) and current compliance needs. The auditor works with the data manager and site monitor to determine items that require a deeper review in the audit. The auditor then reviews the targeted data points for every patient using data exports from the electronic data capture system. If there are any concerning findings, they are discussed with the study team. A corrective and preventive plan is required for major findings. All findings are discussed with the site monitor to ensure future reviews are consistent and informed.

4. Outcomes

After completing comprehensive audits, we identified reoccurring patterns of protocol noncompliance and data errors across multiple participants. These errors were identified for some participants on an individual basis previously but not enough to establish a pattern. It also provided the opportunity to recognize teams exhibiting patterns of strong protocol compliance and documentation.

These patterns facilitated in identifying training needs, confusion in case report forms, and gaps between investigators' intention and actual data collected.

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5. Lessons Learned and Future Directions

Moving forward, we will measure if the percentage of validated endpoint data at the end of a trial increases and if the number of major findings decreases. We plan to use the results of the audits to determine future reviews. We expect this to lead to increased patient safety, less deviations, and higher data quality.

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