Addressing Challenges of DMC for Small Companies and Clinical Research Organizations

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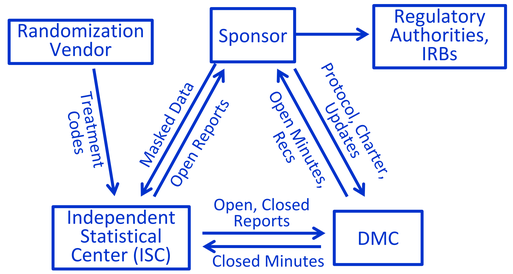
Abstract

A **Data Monitoring Committee (DMC) is**
- Independent group of experts
- Clinicians and at least one biostatistician
- Charged with ensuring patient safety and protecting trial integrity

It involves Sponsor Organization, DMC and often an **Independent Statistical Center (ISC).** DMC Charter defines roles, responsibilities and procedures for how a DMC operates.



DMC=iDMC, DSMB, DMB, DSMC

Motivation

- **General increase in use of DMCs**
  - Increased FDA safety concerns
  - Increase use of adaptive designs, which often rely on the DMC to assist
  - Often required by IRBs/Ethics committees
  - Increased interests in more personalized medicine
  - Identification of compounds for smaller patient populations
  - Smaller research organizations are interested in finding successful medications in these small populations

Inherent challenges exist with smaller companies with limited resources and personnel

Characteristics for Small Company

- Tendency for collaborations between a diagnostic device company and a biologic start-up company
- Often R&D in orphan disease areas
- Emphasis on medicine targeted on a subpopulation of interests, thus a smaller population
- Generally one or two compounds in pipeline

Inherent Disadvantages

- Fewer sponsor employees -> less clear responsibilities and contractual issues
- Limited financing
- Increased reliance on CROs
  - Multiple vendors involved
  - Data management, statistics, DMCs
- Survival of the company depends on the success of one or two compounds

Characteristics for Big Company

- Well-established internal SOPs and corporate culture
- Systematically trained workforce and personnel throughout each “node” in the process.
- By definition, more experience in all aspects of a clinical trial

Inherent Advantages

- Much in-house expertise
- Financing is more readily available
- Decreased reliance on CROs
- Use full-service CROs rather than niche CROs

What makes DMC special when it comes to Small Company?

- More cross-functional training between the CRO and Sponsor team when starting a DMC
- More communication and collaboration between sponsor team and CRO
- More reliance on CRO statistician and data group for day-to-day operations
- Recommendations often go directly to the head of the organization
- More customized DMC report due to complexities in study design and use of reports for non-DMC activities (such as data review and annual updates)
- **Challenges with limited personnel, custom reports, contractual issues, and SOPs**

Challenges and Solutions for DMC in Small Company

Limited personnel	• Make CRO an extension of the study team • Clear expectations and responsibilities • More persistent with timelines
Customized requests	• Use existing DMC report templates for data review • Utilize existing DMC reports for annual safety reports to FDA
Contractual issues	• Initial kick-off meeting to walk through the contract details • Continuous re-valuation of contract milestones • Better understanding of responsibilities and expectations
Fewer SOPs	• Allow sponsors to work under CRO’s SOPs • Continual communication on processes for quality control • Clear work instructions at the beginning of the DMC service

Conclusion

Increased Collaboration → **High-quality Charter** → **More Integrity** → **Successful Research**

Reference:Guidance for Clinical Trial Sponsors :Establishment and Operation of Clinical Trial Data Monitoring Committees; FDA