

Data Quality Strategies in 2004

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Disclaimer

Views expressed in this discussion are those of the speaker and not, necessarily, of the Food and Drug Administration.

Presentations

- *Clinical Research Data Quality*

Kaye Fendt

University of North Carolina, Chapel Hill

- *Part 2: Toward a Standard Risk*

Assessment Vocabulary for Clinical Trials

Don Hopkins

Ursa Logic Corporation

Summary

- Kaye has re-emphasized the need to pay careful attention to the quality of data/information from clinical trials -- describing broadly the “opportunities” for describing and improving quality.
- Don has described a risk assessment path towards an improved dialogue and a better understanding of one element of the systems employed to assure data quality – software development.

Confession

- I am part of the problem
 - Regulatory review of the quality of clinical trials data does not (at times) focus realistically on what is most important in making decisions: the “Gotcha” tradition of regulatory review
 - Even though these are large, complex experiments, there is an expectation that the data should be “squeaky” clean.
 - Not always science (Congressional oversight).
- There is a growing need for an “Adult Conversation” concerning data quality (e.g., EDC – electronic data capture).

The Need to Pay Attention

- Very Public (and Personal) Experiences
 - Halcion
 - Tamoxifen and the *National Surgical Adjuvant Project for Breast and Bowel Cancer*
 - Robert Fiddes

A Growing Need

- Growing number of people (subjects and investigators) involved in trials
- More reliance on data from international trials
- Cost of trials and drug development are continuing to rise
- Adoption of new technologies slow and difficult

Paying Attention

- 1998. Knatterud, Genell L., et al. “Guidelines for Quality Assurance in Multicenter Trials: A Position Paper.” *Controlled Clinical Trials*, 19: 477-493 (1998)
- 1999. Institute of Medicine. *Assuring Data Quality and Validity in Clinical Trials for Regulatory Decision Making*. Academic Press

Nice Words

- “Quality assurance aims primarily to prevent problems.”
- “The foremost protection entails the selection of responsible investigators who recruit and train staff and stress the importance of careful and honest reporting”
- “The plan should specify reasonable cost-effective procedures that guarantee the validity of the primary results; i.e. the variation introduced by errors in the database must not be so great as to threaten the validity of the primary results

Good Ideas

- “The investigators should define objectives for data quality while planning each study.”
- “...we recommend including as part of the database the identity of the staff member measuring and/or recording the data...”
- “If more trialists reported such information on what they observed in specific studies, they would help establish standards.”
- “We recommend that any journal publication describe the methods used to ensure quality of data during the trial and associated key findings”

More Good Ideas

- “More credentialed investigators and study coordinators are needed.”
- “...the development of a “decision science” that could establish quality control procedures on a scientific basis...”
- “Gathering of quality data requires greater transparency and sharing among study sponsors as well as with the ... FDA, to achieve greater standardization and increase confidence in innovative approaches.”

Frustration: Little Movement

- How do we do this?
- Who does this?
- Is it being done?
- How does the FDA help?

Hopeful Signs

- *Cancer Drug and Biological Products – Clinical Data in Marketing Applications*
- *SCDM's Good Clinical Data Management Practices, Version 3, September 2003*
- Training of Inspectors at CDER's Division of Scientific Investigations
- CDISC – clinical data submission standards and Operational Data Model
- Broader attention to risk assessment in more areas of pharmaceutical development (e.g., PAT – manufacturing)

Clinical Research Data Quality

Kaye Fendt

- Favorite definition: “support conclusions and interpretations equivalent to those derived from error free data”
- Still important: trust in the system
- Timing is even more right: more data, can't measure quality, don't know what “good enough” is.
- Attention to all processes: study design to reporting.
- Proposed Roadmap

Part 2: Toward a Standard Risk Assessment Vocabulary for Clinical Trials

Don Hopkins

- Application to one aspect of building quality into the system – software
- 21 CFR 11 – encourage use of technology?
- How software development language and vocabulary/methodology influences compliance and limits the discussion of quality
- Once again, I am the problem with a proposed draft guidance list of “you shoulds” -- conundrum

Part 2: Toward a Standard Risk Assessment Vocabulary for Clinical Trials

- June 11: “In what ways can part 11 discourage innovation.”
- “Privileging one particular software development vocabulary, they have inadvertently created barriers to using other vocabularies.”
- “Reposition risk assessment as preceding software validation [and] develop a common language for talking about the relationships between assessed risks, on the one hand, and strategies for safeguarding software quality on the other.”

Part 2: Toward a Standard Risk Assessment Vocabulary for Clinical Trials

- DQRI risk assessment model
 - Impact of failures
 - Factors contributing to the likelihood of system failures
 - Dimensions on which validation procedures may vary as assessments of risk increase or decrease
- A useful framework for justifying decisions about any activity that affects the quality of ... data?

Next Steps?

How do we get to the “Adult Conversation”?

- Encourage research and publication? What research?
- The role of risk assessment in quality assuring clinical trials data/information? Regulatory?
- Communicate with regulatory agencies?
 - Regulation
 - Guidance
 - Inspection
- Role of *Society for Clinical Trials*?
- *Data Quality Research Institute*?
- Partnerships?

THANK YOU!

If you have the answers...

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