

# Quality Assurance in Clinical Trials Research

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## **Quality assurance –**

Set of characteristics that lead to a desired product or service.



Quality Assurance is...

an ounce of prevention.

# First things first

Clinical research quality is designed & embedded in the clinical trial processes well in advance of the first patient enrollment.

Remember....

Clinical Practice  $\neq$  Clinical Research

# Clinical Trials Operations Manual

## Cancer Center “Blue Book”

- Describes processes and workflows to help ensure quality of data and subject protection.
- Elements contained within include:
  - Protocol Review and Monitoring system
  - Data Safety Monitoring Plan
  - Data Safety and Toxicity Committee (DSTC)
  - Protocol Development
  - Investigator Responsibilities
  - <http://www.wvucancer.org/ctru/Investigator-Services>

# HSC Clinical Trials Operations Manual

HSC “Gold Book”

Elements contained within similar to Blue Book

- HSC Clinical Trials Working Group (CTWG)
- Data Safety and Monitoring plan (DSMP)
- Protocol Development Guide
- Investigator Responsibilities
- Training Guide for Investigators and Study team
- **To be released first quarter 2014**

# The Research Question

Successful development of a research questions includes assistance from professionals with expertise in:

- ❖ Biostatistics
- ❖ Clinical experimental design
- ❖ Clinical Science, e.g., pathology, radiology, surgery etc.
- ❖ Basic science, e.g., biochemistry, immunology, neuroscience, etc.

# The beginning

Conducting a clinical trial is a team activity.

The team, as it is being assembled, which typically includes co-investigators, nurses and/or study coordinators, lab assistants, etc., need a detailed statement of the proposed hypothesis.

This statement will include:

- ❖ type of patients
- ❖ duration of the trial
- ❖ methods of evaluation

Advice: Seek input from study team on conduct and final protocol

# The study protocol

- Introduction, background and rationale
- Objectives
- Eligibility criteria
- Randomization/registration procedures
- Treatment plan or research design
  - Include reporting AEs and DSMP

# The study protocol (cont)

- Study endpoint(s)
- Drug formulation and procurement
- Statistical considerations
- Records to be kept
- Patient consent
- References

Protocol template is available in Blue Book or <http://www.nhlbi.nih.gov/crg/word-templates/clinical-research-guide-protocol-template.doc>

# The Principal Investigator (PI) Responsibilities

- FDA I 572 Statement of Investigator form – for studies with investigational drugs
- Abridged list:
  - Agree to conduct study in accordance with relevant current protocol and will make changes in a protocol after notifying the sponsor, and IRB, except when necessary to protect the safety, rights and welfare of subjects.
  - Agree to personally conduct or supervise the described investigations.
  - Obtain informed consent.
  - Agree to report to the sponsor and IRB adverse experiences that occur in the course of investigations.

# The Principal Investigator (PI) Responsibilities

FDA I 572 Statement of Investigator form (continued)

- He/She has read and understands the information in the IB, including potential risks and side effects of the drug.
- Agreement to ensure that all study team members assisting in the conduct of the study is informed about their obligations in meeting above commitments.
- Agree to maintain adequate and accurate records
- Ensure that an IRB will be responsible for initial and continuing review and promptly report to the IRB all changes in the research activity and all unanticipated problems involving risks to human subjects or others.

# To Summarize

The PI is responsible for ***all*** aspects of the study.

The good news is, the PI can delegate study tasks to ***qualified*** individuals.

- Pharmacists – drug accountability/preparation/distribution
- Nurses – obtaining samples/ administering drug, etc.
- Lab – processing samples and reporting results
- Study Coordinator – identify & consent participants, schedule appointments, collect data, report problems, etc.

# The Research Team

The successful principal investigator (PI) is aligned with a knowledgeable team with demonstrated capabilities in all aspects of clinical trial design and execution.

Essential team responsibilities should include:

- budget preparation

- IRB submission (regulatory)

- patient recruitment & consenting

- follow schema (schedule study visits & evaluations)

- data collection & reporting

- data analysis

# Team members

- Investigators responsibilities include
  - Ensure that the is conducted according to the approved protocol
  - Obtain & document the informed consent of all subjects
  - Document evidence of study oversight

Per Code of Federal Regulations, Title 21

- Study Coordinator facilitates & coordinates the daily clinical trial activities by
  - helping to assess feasibility,
  - prepares a budget
  - prepares ICF
  - data capture documents
  - enrollment logs, drug accountability, etc.

# Team Members can include

- Regulatory specialists
- Data managers
- Lab technicians
- Radiology personnel
- Pharmacists
- Bedside nurses
- Physical therapists
- Psychiatrists



**ALL team members must be trained on the approved protocol, and any amended protocols.**

# Training the team

In-service training should be provided to all research staff

- before study begins
- “as-needed”
  - before new team members participate
  - when/if the protocol is amended
  - if existing team members need remedial training

Should include presentations on ICH- GCP guidelines and pertinent FDA regulations.

# Study initiation is important part of Quality Assurance

Get the Team together to review the

- Protocol, including study activities & timelines
- Roles/responsibilities of team members
- Data collection document & management
- Study product accountability & management
- Adverse event definition & reporting
- Deviation reporting



# Reminder:

Maintaining accuracy and quality throughout a clinical study is a continual, dynamic process.

# Stick to the protocol

To ensure the Study Team Members are

- following the protocol
- complying with
  - regulatory policies
  - Good Clinical Practice (GCP) standards
- collecting and reporting quality data

The progress of clinical trials should be performed by the investigators and/or a neutral person/group.

# QA Audits

## IRB audit –

Part of Human Research Protection Program oversight in accordance with Federal Regulations.

### *Purpose:*

1. ensure human subject protection
2. identify areas that need improvement
3. provide targeted training

# QA Audits (cont)

FDA conducts clinical investigator inspections to determine if clinical studies are being conducted in compliance with applicable statutory and regulatory requirements.

# Reminder:

**Maintaining accuracy and quality throughout a clinical study is a continual, dynamic process.**

- Get input from other disciplines when developing the protocol
- Gather a talented & enthusiastic team
- Train the team as many times as necessary
- Stick to the rules and always be prepared for an audit