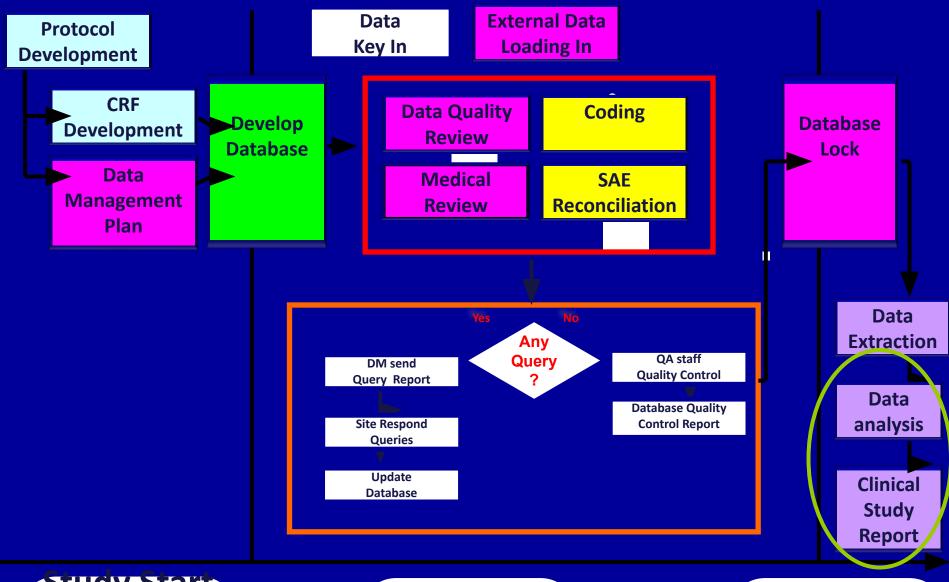
#### **Before Presentation...**

 This slide deck is based on Jain Chung's presentation for the 1st CDM training course in 2008.

#### **DM Flow**



Study Start
Up

**Conduct** 

**Close out** 

### ICH E9 Statistical Principles

INTERNATIONAL CONFERENCE ON HARMONISATION OF TECHNICAL REQUIREMENTS FOR REGISTRATION OF PHARMACEUTICALS FOR HUMAN USE

ICH HARMONISED TRIPARTITE GUIDELINE

STATISTICAL PRINCIPLES FOR CLINICAL TRIALS
E9

Current Step 4 version dated 5 February 1998

### **ICH E3 Clinical Study Reports**

INTERNATIONAL CONFERENCE ON HARMONISATION OF TECHNICAL REQUIREMENTS FOR REGISTRATION OF PHARMACEUTICALS FOR HUMAN USE

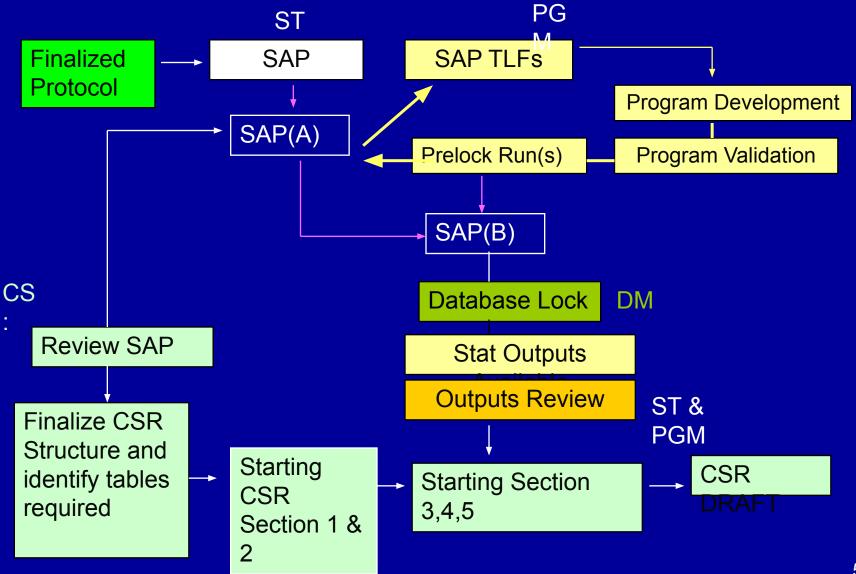
ICH HARMONISED TRIPARTITE GUIDELINE

STRUCTURE AND CONTENT OF CLINICAL STUDY REPORTS
E3

Current Step 4 version

dated 30 November 1995

#### **Process for Development Clinical Study Report**



## Sample of CSR Report Body In the format of the Journal-Style scientific paper

- 1. Background, Rationale and Objectives
- 2. Materials And Methods
- 3. Results
  - 3.1 Study Population
  - 3.2 Efficacy Results
  - 3.3 Pharmacodynamic, Pharmacokinetic and PK/PD Modeling
  - 3.4 Safety Analysis
  - 4. Discussion
  - 5. Conclusion
  - 6. References
    - **Appendices**

### Sample of CSR Report Body

## In the format of ICH E3 "Structure and Content of Clinical Study Reports"

- 1. Title page
- 2. Synopsis
- 3. Table of contents
- 4. List of abbreviations
- 5. Ethics
- 6. Investigators and study administrative structure
- 7. Introduction
- 8. Study objectives
- 9. Investigational plan

- 10. Study patients
- 11. Efficacy evaluation
- 12. Safety evaluation
- 13. Discussion and overall conclusions
- 14. Tables, figures and graphs referred to but not included in the text
- 15. Reference list
- 16. Appendices

#### **CSR Section 3 - Results**

#### 3.1 Study Population

- 3.1.1 Disposition of Patients
- 3.1.2 Patients Withdrawn Prematurely from treatment
- 3.1.3 Overall of Analysis Populations
- 3.1.4 Protocol Violations
- 3.15 Demographic Data and Baseline Characteristics
- 3.1.6 Previous Concomitant Medications and Diseases

#### **CSR Section 3 - Results**

#### 3.2 Efficacy Results

- 3.2.1 Primary Efficacy Parameter
- 3.2.2 Secondary Efficacy Parameter (s)
- 3.1.3 Subgroup and Exploratory Analyses

## 3.3 Pharmacodynamic, Pharmacokinetic and PK/PD Modeling

#### **CSR Section 3- Results**

#### 3.4 Safety Analysis

- 3.4.1 Extent of Exposure to Trial Medication
- 3.4.2 Overview of Safety
- 3.4.3 Adverse Events
- 3.4.3.1 Overview Adverse Events
- 3.4.3.2 Deaths
- 3.4.3.3 Serious Adverse Events
- 3.4.3.4 Adverse Events and Laboratory abnormalities Leading to Withdrawal from treatment
- 3.4.3.5 Dose Modifications for Safety Reasons

#### **CSR Section 3 - Results**

- 3.4.4 Laboratory Parameters
- 3.4.4.1 Mean (or Median) Change from Baseline
- 3.4.4.2 Shift from Baseline
- 3.4.5 Vital Signs
- 3.4.6 ECGs

## Other CSR Sections: 4, 5, and 6

- 4. Discussion
- 5. Conclusion
- 6. References
  Appendices

#### Review CSR, final TLFs

- Validation
- Consistency
- Interpretations
- Discussions

# CSR Section 1: Background, Rationale and Objectives

- 1.1 Background
- 1.2 Rationale
- 1.3 Objective

#### **CSR Section 2 - Materials and Methods**

- 2.1 Overall Study Design
  - 2.1.1 Protocol Amendments
- 2.2 Study Population
  - 2.2.1 Overview
  - 2.2.2 Inclusion Criteria
  - 2.2.3 Exclusion Criteria
  - 2.2.4 Criteria for Withdrawal from Treatment or Study and Replacement Policy
  - 2.2.5 Concomitant Medication, Treatments and Procedures

- 2.3 Compliance with Good Clinical Practice
  - 2.3.1 Ethics
  - **2.3.2** Audits
  - 2.3.3 Data Quality Assurance
- 2.4 Trial Medication
  - 2.4.1 Rationale for Dosage Selection
  - 2.4.2 Formulation and Packaging
  - 2.4.3 Assignment to Treatment Group/Sequence
  - 2.4.4 Blinding
  - 2.4.5 Drug Administration
  - 2.4.6 Dose Modification
  - 2.4.7 Dose Accountability and Compliance

# ICH E3 Structure and Content of Clinical Study Reports

- 1. Title page
- 2. Synopsis
- 3. Table of contents
- 4. List of abbreviations
- 5. Ethics
- 6. Investigators and study administrative structure
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- 15. Reference list
- 16. Appendices

<sup>\*</sup> Details for Sections 9 - 12 on next slides

# ICH E3 Structure and Content of Clinical Study Reports (cont.)

#### 9. Investigational plan

- 9.1 Overall study design and plan description
- 9.2 Discussion of study design, including the choice of control groups
- 9.3 Selection of study population
  - 9.3.1 Inclusion Criteria
  - 9.3.2 Exclusion Criteria
  - 9.3.3 Removal of Patients from Therapy or Assessment
- 9.4 Treatments
  - 9.4.1 Treatments Administered
  - 9.4.2 Identity of Investigational Product(s)
  - 9.4.3 Method of Assigning Patients to Treatment Groups
  - 9.4.4 Selection of Doses in the Study

- 9.4 Treatments (cont.)
  - 9.4.5 Selection and Timing of Dose for each Patient
  - 9.4.6 Blinding
  - 9.4.7 Prior and Concomitant Therapy
  - 9.4.8 Treatment Compliance
- 9.5 Efficacy and safety variables
  - 9.5.1 Efficacy and Safety Measurements
    Assessed and Flow Chart
  - 9.5.2 Appropriateness of Measurements
  - 9.5.3 Primary Efficacy Variable(s)
  - 9.5.4 Drug Concentration Measurements
- 9.6 Data quality assurance
- 9.7 Statistical methods planned in the protocol & determination of sample size
- 9.8 Changes in the conduct of the study or planned analyses

# ICH E3 Structure and Content of Clinical Study Reports (cont.)

#### 10 Study patients

- 10.1 Disposition of patients
- 10.2 Protocol deviations

#### 11. Efficacy evaluation

- 11.1 Data sets analyzed
- 11.2 Demographic and other baseline characteristics
- 11.3 Measurements of treatment compliance
- 11.4 Efficacy results and tabulations of individual patient data

#### 12. Safety evaluation

- 12.1 Extent of exposure
- 12.2 Adverse events (AEs)
- 12.3 Deaths, other SAEs, and other significant adverse events
- 12.4 Clinical laboratory evaluation
- 12.5 Vital signs, physical findings and other observations related to safety
- 12.6 Safety conclusions

#### References

- ICH Guidelines <u>www.ich.org</u>
  - E9 Statistical Principles for Clinical Trials
  - E3 Structure and Content of Clinical Study Reports