

Implementation of CDISC Standards at Nycomed

PhUSE, Basel (19-21 October 2009)
Nycomed GmbH, Dr. B Traub

Agenda



- **Background**
- **Clinical Data Warehouse**
- **CDISC implementation**
- **Electronic data submission within eCTD**
- **Conclusions and outlook**

Partnering – Together for medicines that matter



Nycomed is actively seeking partnerships

- Co-development from early research on
- In-licensing for marketing by Nycomed
- Out-licensing where Nycomed is not present



The R&D Operating Model – contribution of Data Science



In-house

- **State-of-the-art statistical capabilities**
 - For statistical input into protocol and drug development plans
- **Maintenance of standards**
 - Data acquisition
 - **Data integration**
 - Data quality
- **Ensure availability of integrated clinical trial data for pooled analyses**
(Data Warehouse Development, operation and maintenance)

Outsourced

- **Data cleaning process and database set-up outsourced** (to a large proportion)
Flexible data management capacities available for in-house processing as well as for supervision of Data Management CROs
- **Study specific statistical reporting and generation of analysis data bases**
outsourced with flexible resources for CRO supervision.

Heterogeneous Data Sources



- **CRO databases**
 - Standardised data based on Nycomed requirements (CDISC SDTM and ADaM datasets)
 - Analysis datasets in proprietary format
- Data from **in-licensing** partners
 - What-ever-they-have structures (now and in future)
- **Legacy** data from two prior companies
 - What-ever-we-have structures

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Clinical data warehouse / Nycomed Business scope



Clinical Trial Data is the assets of our company. To ensure

- **Data security**
- **compliance** with regulations (21 CFR part 11, ICH E9)
- And fast data **availability** for all data-related questions

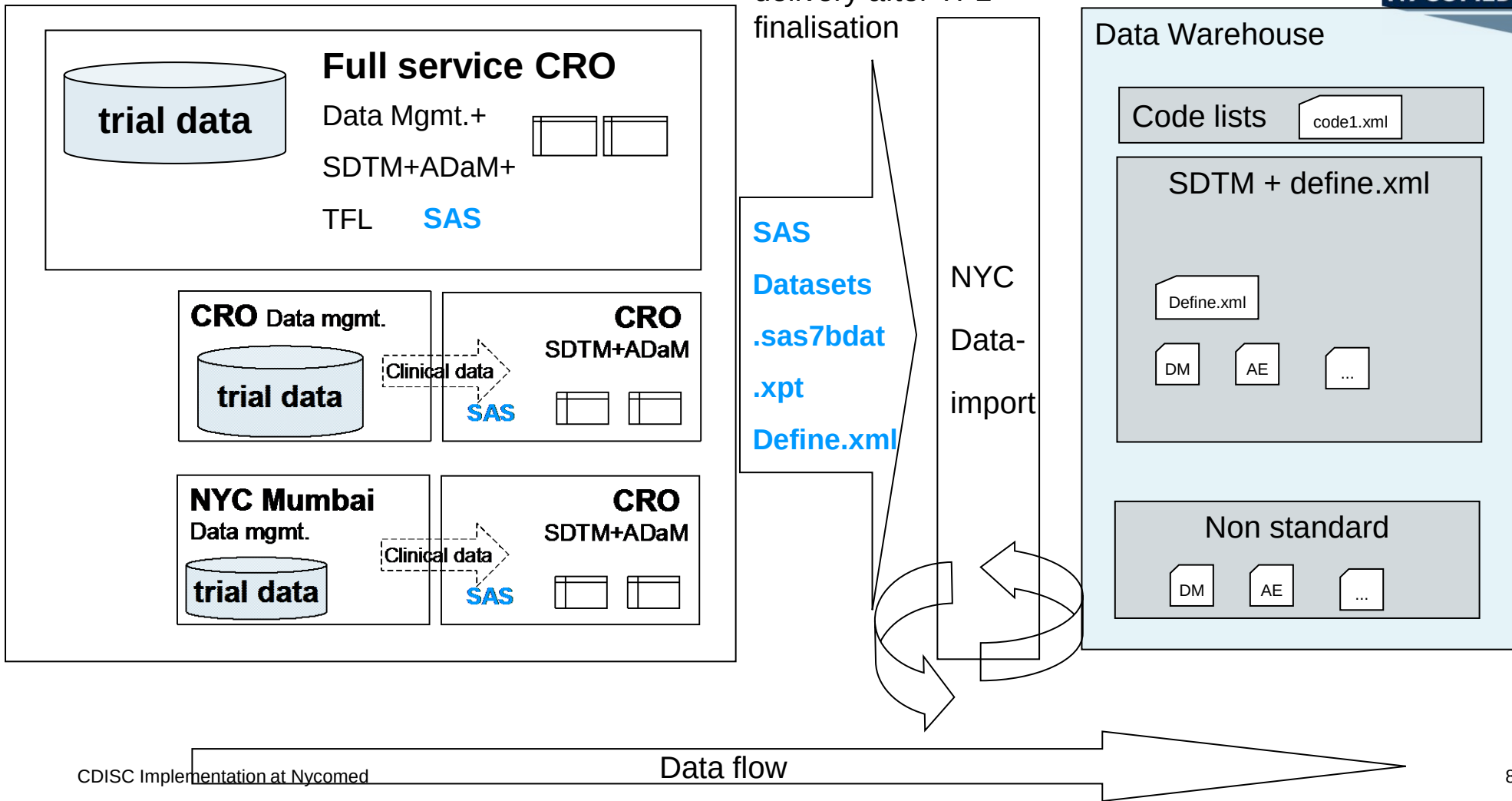
We decided to implement a clinical data warehouse solution focussing on

- Standardized data storage (CDISC SDTM 3.1.1) to
 - Ensure data **integrity** and allow to **explore across studies**
 - **Efficient exchange** of clinical trial data with external and internal partners
- Non-standardized data storage to
 - **Enable fast and secure data** acquisition from partners in licensing projects
 - Provide a platform for storage of **legacy** data / databases

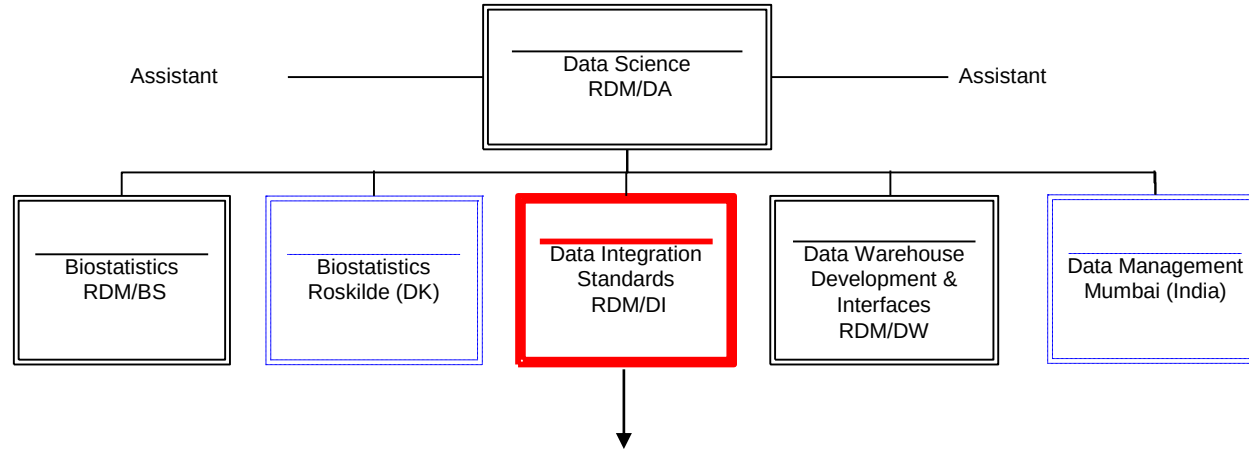
Data flow and data processing

NYCOMED

Full package
delivery after TFL
finalisation



Dpt. Data Integration Standards



1. Mainly responsible to define, develop in-house data standards based on CDISC **SDTM** and **ADaM**
2. Coordinates CRO interfaces / deliverables and processes
3. Data exchange between Nycomed and partners in particular data import process definition and operation
4. QC concepts
5. Data warehouse operation and maintenance

Dpt. Data Integration Standards – the CDISC team



Role	No of individuals	Tasks / responsibilities
CDISC coordinator	1	Scope, process definition, strategy, submission
DIM - Data Integration Manager	2	• SDTM ongoing and legacy • SDTM Phase I / PK
• Study setup • Data import/export • Integration/codelists • QC • Maintenance	1	• ADaM / define.xml / ODM • SAS Server, batch jobs, export • SAS QC SDTM- TFL compare • SAS Clinical Standards Toolkit
	1	• Data import and export

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Processes on study and project level



- **CDISC project plan** .
 - Deliverables, timelines, contact persons, responsibilities, process descriptions
 - QC plans
- SDTM annotated CRF (**aCRF**)
- SDTM and ADaM **specification** (URS)
 - Contain all information about domains, variables, computation rules, etc
 - Basis to create the define.xml file
- Communication:
 - **'issue_logs'**
 - **Emails** (restricted to organisational or administrative messages)
- **SAS programming**: external provider are required to do all programming of SDTMs, ADaM and TFLs in SAS. (SAS program validation acc. to provider SOPs).

SDTM ADaM mapping

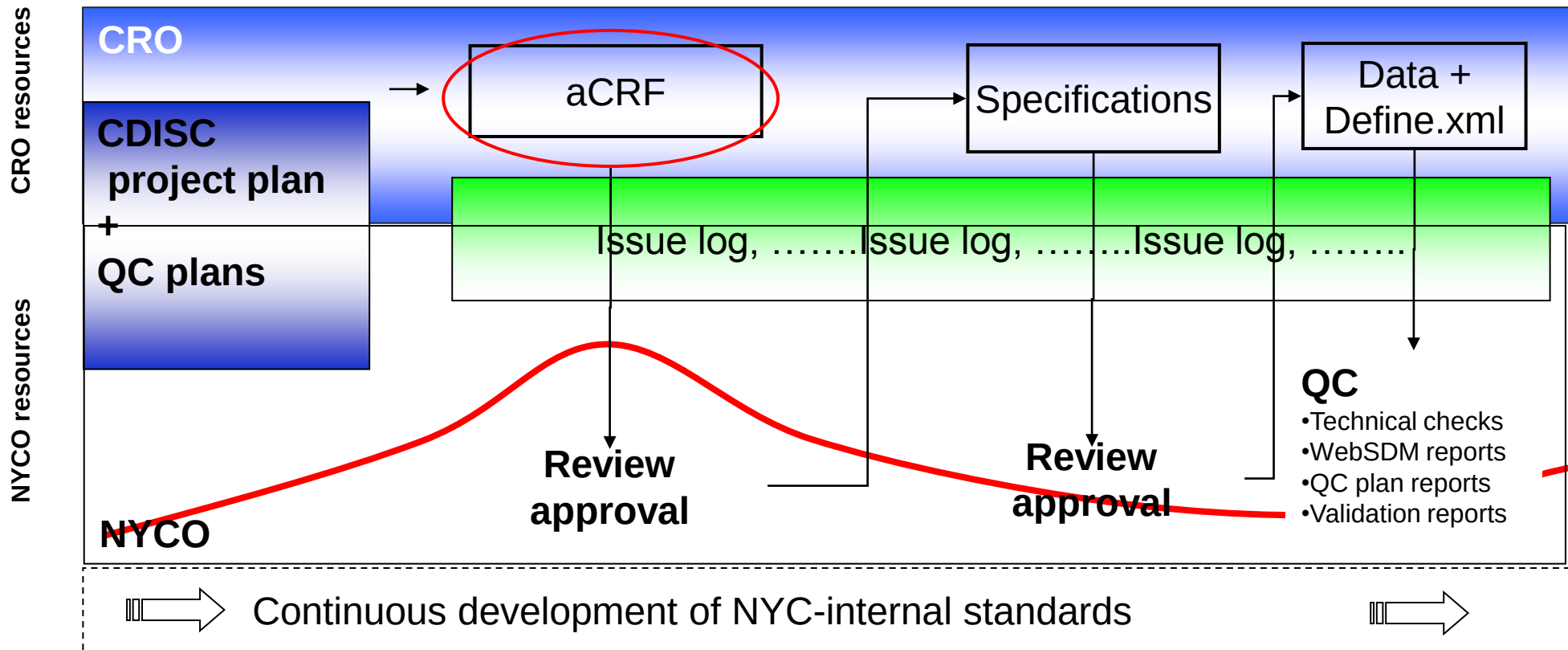


Study Data Tabulation Model
Implementation Guide:
Human Clinical Trials

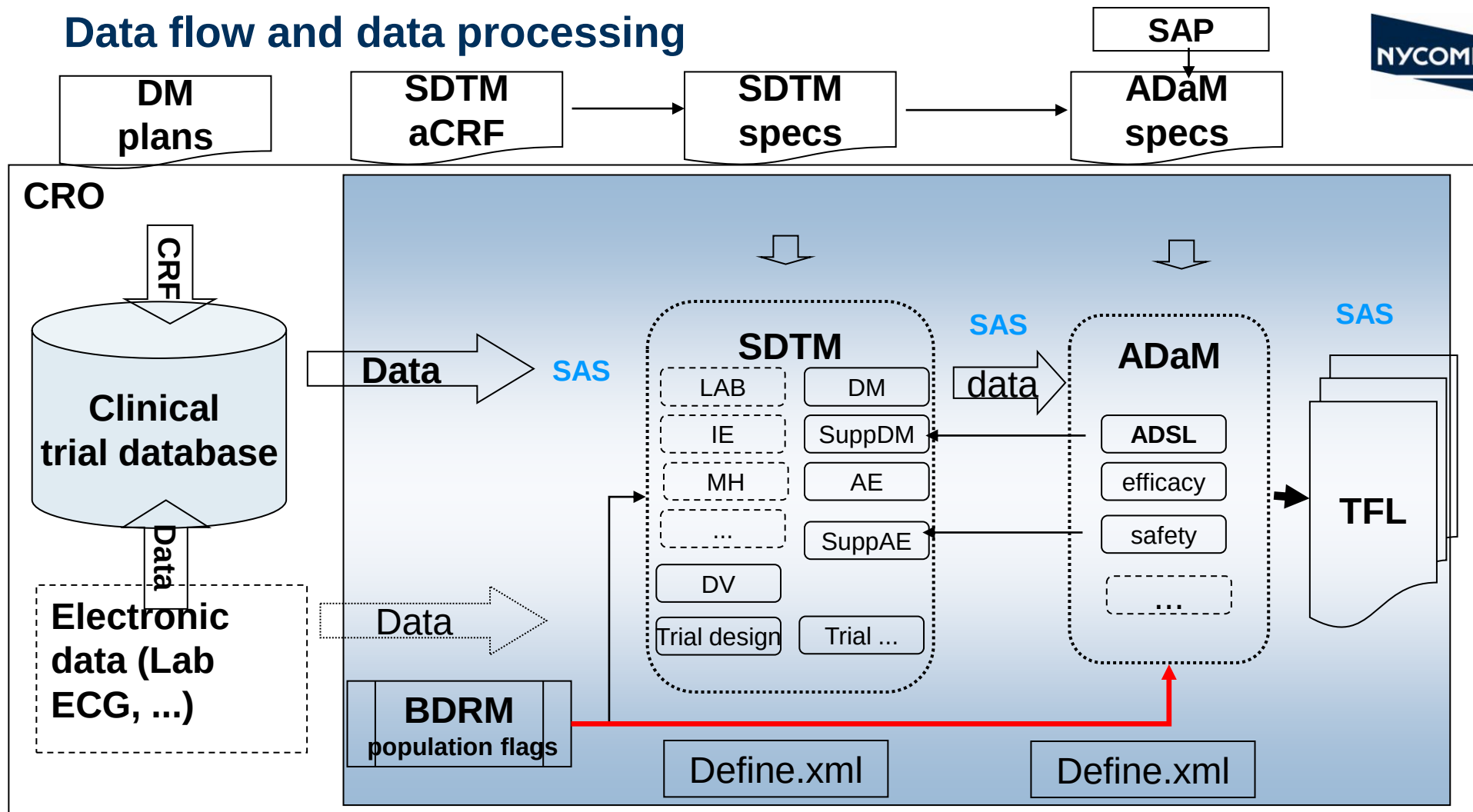
Prepared by the
CDISC Submission Data Standards Team



Analysis Data Model: Version 2.0
Prepared by the
CDISC Analysis Dataset Modeling Team
(ADaM)



Data flow and data processing



Study 01217_0P-005, Data Definitions - Microsoft Internet Explorer provided by SynGene

Address: file:///C:/Users/roberta/Desktop/01217_0P-005/DataDefinitions/define_codelist

	Variable	Label	Type	Codeded Terminology	Origin	Role	Comment
☐ Associated Case Report Form ☐ Subjects ☐ Subject Level Metadata ☐ Unpublished Terminology	SURSTF	Start Relative to Reference Period	text	SURSTF	Derived	TIMD93	If smoking status was reported to be past smoker or current smoker = "RESPCKR", otherwise missing
	SUREDF	End Relative to Reference Period	text	SUREDF	Derived	TIMD93	If smoking status was reported to be past smoker, SUREDF = "ENDSMOKING"; if smoking status was reported to be current smoker, SUREDF = "DURINGAFTER", otherwise missing
Adverse Events Database (AE)							see SP1
	STUDYID	Study Identifier	text		CRF Page 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	IDENTIFIER	STUDYID = "B217_0P-005"
	DOMAIN	Domain Abbreviation	text		Derived	IDENTIFIER	DOMAIN = "AE"
	USUBJID	Unique Subject Identifier	text		Derived	IDENTIFIER	Concatenation of STUDYID, SUREDF separated by "_"
	AESSEQ	Sequence Number	integer		Derived	IDENTIFIER	Unique sequence number within the dataset per USUBJID
	AESPID	Sponsor-Defined Identifier	text		CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	IDENTIFIER	
	AETERM	Reported Term for the Adverse Event	text		CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	TERM	
	AEDBOOD	Dictionary-Derived Term	text	AEDBOOD	Assigned	SYNONYM QUALIFIER	
	AEDOCGYS	Body System or Organ Class	text	AEDOCGYS	Assigned	RECORD QUALIFIER	
	AESEV	Severity/Grade	text	AESEV	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	
	AESEX	Service Event	text	AESEX	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	
	AEACHN	Action Taken with Study Treatment	text	AEACHN	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	Action taken mapped to SDTM terminology
	AEACHTH	Other Action Taken	text		CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	
	AEHEL	Causality	text	AEHEL	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	
	AEPAIT	Pattern of Adverse Event	text	AEPAIT	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	
	ABOUT	Outcome of Adverse Event	text	ABOUT	CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	RECORD QUALIFIER	Outcome mapped to SDTM terminology
	AEINTTC	Start Date/Time of Adverse Event	text		CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	TIMD93	
	AEENDTC	End Date/Time of Adverse Event	text		CRF Pages 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54	TIMD93	

SDTM specs / dataset metadata



Seq. For Order	Dataset	Description	Class	Location	Structure	Purpose
1	TA	Trial Arms	Trial Design	ta.xpt	One record per planned element per arm	Tabulation
2	TE	Trial Elements	Trial Design	te.xpt	One record per element	Tabulation
3	TI	Trial Inclusion/Exclusion Criteria	Trial Design	ti.xpt	One record per I/E criterion	Tabulation
4	TS	Trial Summary	Trial Design	ts.xpt	One record per trial summary parameter per occurrence	Tabulation
5	TV	Trial Visits	Trial Design	tv.xpt	One record per planned visit per arm	Tabulation
6	DM	Demographics	Special Purpose	dm.xpt	One record per subject	Tabulation
7	CO	Comments	Special Purpose	co.xpt	One record per comment per subject	Tabulation
8	SE	Subject Elements	Special Purpose	se.xpt	One record per actual element per subject	Tabulation
9	SV	Subject Visits	Special Purpose	sv.xpt	One record per subject per actual visit	Tabulation
10	CM	Concomitant Medications	Interventions	cm.xpt	One record per medication intervention episode per subject	Tabulation
11	EX	Exposure	Interventions	ex.xpt	One record per constant dosing interval per subject	Tabulation
12	SU	Substance Use	Interventions	su.xpt	One record per substance type per visit per subject	Tabulation
13	XD	Dilator	Interventions	xd.xpt	One record per Dilator per time point per visit per subject	Tabulation
14	AE	Adverse Events	Events	ae.xpt	One record per adverse event per subject	Tabulation
15	DS	Disposition	Events	ds.xpt	One record per disposition status or protocol milestone per subject	Tabulation
16	DV	Protocol Deviations	Events	dv.xpt	One record per protocol deviation per subject	Tabulation
17	MH	Medical History	Events	mh.xpt	One record per medical history event per subject	Tabulation
18	XE	COPD Exacerbations	Events	xe.xpt	One record per COPD exacerbation per subject	Tabulation
19	XH	Health Economics	Events	xh.xpt	One record per health economic event per category per subject	Tabulation
20	XY	Planned Surgeries	Events	xy.xpt	One record per planned surgery per subject	Tabulation
21	DA	Drug Accountability	Findings	da.xpt	One record per accountability per subject	Tabulation
22	EG	ECG	Findings	eg.xpt	One record per ECG observation per visit per subject	Tabulation
23	IE	Inclusion/Exclusion Exceptions	Findings	ie.xpt	One record per Inclusion/Exclusion criterion not met per subject	Tabulation
24	LB	Laboratory Tests	Findings	lb.xpt	One record per lab test per visit per subject	Tabulation
25	PE	Physical Exam	Findings	pe.xpt	One record per body system per visit per subject	Tabulation
26	QS	Questionnaire	Findings	qs.xpt	One record per question per questionnaire per visit per subject	Tabulation
27	SC	Subject Characteristics	Findings	sc.xpt	One record per characteristic per subject	Tabulation
28	VS	Vital Signs	Findings	vs.xpt	One record per vital sign measurement per visit per subject	Tabulation

SDTM specs / variable and value level metadata



Seq. For Orde	Variable name	Variable label	Type	Length	Format	Codelist	Controlled Terms or Format	Origin	Role	Core
1	STUDYID	Study Identifier	text	\$20.	\$20.			CRF Cover Page	Identifier	Req
2	DOMAIN	Domain Abbreviation	text	\$5.	\$5.	DOMAIN	DA	Derived	Identifier	Req
3	USUBJID	Unique Subject Identifier	text	\$20.	\$20.			Derived	Identifier	Req
4	DASEQ	Sequence Number	integer	8.	BEST20.			Derived	Identifier	Req
5	DAREFID	Reference ID	text	\$20.	\$20.			CRF Page 113,114,115,116	Identifier	Perm
6	DASPID	Sponsor ID	text	\$20.	\$20.			CRF Page 106	Identifier	Perm
7	DATESTCD	Short Name of Accountability Assessment	text	\$10.	\$10.		see Value-Level Metadata	CRF	Topic	Exp
8	DATEST	Name of Accountability Assessment	text	\$40.	\$40.		see Value-Level Metadata	CRF	Synonym Qualifier	Exp
9	DACAT	Category of Assessment	text	\$200.	\$200.			Derived	Grouping Qualifier	Exp
10	DASCAT	Subcategory of Assessment	text	\$200.	\$200.			Derived	Grouping Qualifier	Perm

Source Variable	Seq. For Orde	Category	Subcategory	Value	Label	Type	Codelist	Controlled Terms or Format	Origin	Comments	M2-125
DATESTCD	1			BLTABTAK	Number of Tablets Taken	integer			CRF Page 22		if source table=comply, DAORRES=medtaken
DATESTCD	2			BLDAYS	Number of Days in Period	integer			CRF Page 22		if source table=comply, DAORRES=medsched
DATESTCD	3			BLCOMPLY	Compliance	integer			CRF Page 22		if source table=comply, DAORRES=complan
DATESTCD	4			TABTAK	Number of Tablets Taken	integer			CRF Page 106		if source table=patstmed, DAORRES=nof_tk
DATESTCD	5			DISPAMT	Amount Dispensed	integer			CRF Page 113,114,115,116		if source table=stmdcomp, DAORRES=NULL

- **Guidelines and rules**

- CRT-DDS V 1.0 (define.pdf will not be accepted)
- CDISC 'Metadata Submission Guidelines, Appendix to the SDTM IG V3.1.1'
- CDISC ODM V 1.2 standard (machine-readability)
- Naming conventions according to ICH eCTD

- **Separate** define files for SDTM and ADaM domains;

- **Consistency checks:**

- Number of datasets and variables included
- Dataset names and labels
- Variable names, labels, data type (expressed in ODM terminology)
- Order of variables within a dataset
- Consistency of values of variables regulated by controlled terminology
- Data warehouse requirements

- **Quality control of SDTM, ADaM datasets is based on**
 - Nycomed CDISC standards
 - QC check plan
 - **WebSDM edit checks** of SDTM datasets
- **Expectation to the CRO**
 - Enhanced by study/project specific checks to the WebSDM checks
 - Choose appropriate tools to carry out the checks
 - Nycomed relies on compliance to good clinical - and good programming practice
- **Internal QC**
 - Checksum / xpt files
 - Schema conformity to ODM 1.2
 - Consistency checks SDTM / ADaM (such as primary keys, variable naming and completeness, Null values)
 - Final SDTM contents check after data warehouse upload (SDTM-TFL)

WebSDM checks



Standards

[CDISC Technical Roadmap](#)

Quick Links to Models:

Standards in Production

Submission Data Standards Team	SDTM V1.2 & SDTM IG V3.1.2 (SDTM IG V3.1.1) (SDTM V1.1)
	WebSDM edit checks for SDTM 3.1.1
	(ODM V1.3)

WebSDM™ V. 1.5 Validation Checks

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Validation Checks Performed by WebSDM™ on SDTM version 3.1.1 Datasets

ID	APPLIES	RULE DESCRIPTION	SEVERITY	COMMENTS
IR4100	All (Timing)	Identifies records that violate the condition [(Study Day of Start of Observation less than or equal to Study Day of End of Observation)], limited to records where [Study Day of Start of Observation is not null and Study Day of End of Observation is not null]	High	
IR4101	All (Timing)	Identifies records that violate the condition [(Start Date/Time of Observation less than or equal to End Date/Time of Observation)], limited to records where [Start Date/Time of Observation is not null and End Date/Time of Observation is not null]	High	
IR4102	Findings	Identifies records that violate the condition [Baseline Flag either 'Y' or null]	Medium	
IR4103	Findings	Identifies records that violate the condition [Derived Flag either 'Y' or null]	Medium	
IR4104	Events, Interventions	Identifies records that violate the condition [End Relative to Reference Period in ('BEFORE','DURING','AFTER','DURING/AFTER','U')], limited to records where [End Relative to Reference Period is not null]	Medium	

PHASE•FORWARD.

Deliverables summary



- **CDISC project plan and summary document**
- **SDTM aCRF**
 - Annotation of variables and variable values
 - Top level bookmarks
- **CDISC SDTM datasets (.xpt/.sas7bdat) + define.xml**
- **CDISC ADaM datasets (.xpt/.sas7bdat) + define.xml**
 - SAS programs for ADaMs (.pdf/.sas)
 - SAS programs for TFLs (.pdf /.sas)
- **Final specification documents**
 - SDTM
 - ADaM
- **Quality Checks (QC)**
 - QC plans
 - QC reports (in particular WebSDM edit check reports)
 - Validation reports

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FDA- eCTD guidelines and requirements



U.S. Department of Health & Human Services www.hhs.gov

FDA U.S. Food and Drug Administration

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Home > Drugs > Development & Approval Process (Drugs) > Forms & Submission Requirements

Development & Approval Process (Drugs)

Forms & Submission Requirements

Electronic Submissions

Electronic Regulatory Review

Electronic Regulatory Submissions

Electronic Regulatory Submissions and Review Helpful Links

Data Standards Manual (monographs)

Electronic Common Technical Document (eCTD)

FDA would like to work closely with people who plan to provide a submission using the eCTD specifications and offer the following steps to help smooth the process. [eCTD Basics](#), [Getting Started](#) and [Sample Submissions](#)

[Request a Pre-assigned Application Number for a Planned eCTD Submission](#)

[Request a Waiver](#): NOTICE: Important instructions regarding electronic submissions, effective January 1, 2008

Guidance Documents

- Final Guidance for Industry: Providing Regulatory Submissions in Electronic Format--Human Pharmaceutical Applications and Related Submissions Using the eCTD Specifications [PDF] (June 2008)
- Final Guidance for Industry: Integrated Summaries of Effectiveness and Safety: Location Within the Common Technical Document [PDF] (April 2009)

eCTD Specifications

- FDA eCTD Table of Contents Headings and Hierarchy [PDF] (updated 7/7/2005)
- eCTD Backbone Files Specification for Module 1 [PDF] (updated 12/13/2006)
- eCTD Backbone File Specification for Modules 2 through 5 3.2.2 [PDF] (updated 7/16/2008)
 - Clarification for question #10 of "ICH M4: The CTD -- Efficacy Q&As" on submitting integrated summaries of safety and effectiveness (ISS/ISE) in the eCTD format (9/12/2006)
- The eCTD Backbone File Specification for Study Tagging Files 2.6.1 [PDF] (6/3/2008)
- Study Data Specifications [PDF] (updated 8/7/2007)
- eCTD Validation Specifications (3/10/2008)
- Portable Document Format Specifications [PDF] (6/4/2008)
- Transmission Specifications [PDF] (updated 8/27/2009)

Guidance for Industry

Providing Regulatory Submissions in Electronic Format — Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specifications

ICH eCTD Specification V 3.2.2

16-July-2008

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

ICH M2 EWG

Electronic Common Technical Document Specification

Name

Name is a token composed of the following characters:

- Letters "a" to "z" [U+0061 to U+007A].
- Digits "0" to "9" [U+0030 to U+0039].
- "-" [HYPHEN-MINUS, U+002D].

The notation "U+" refers to the Unicode [UNICODE] notation.

This Specification does not provide for Japanese characters in file and folder names.

Examples of correct names (only the name without the extension):

part-b
myfile
hello

Examples of incorrect names (only the name without the extension):

part a " "; SPACE is not allowed

<http://www.fda.gov/Drugs/DevelopmentApprovalProcess/FormsSubmissionRequirements/ElectronicSubmissions/ucm153574.htm>

■ Study Data Specifications [PDF] (updated 8/7/2007)

Study Data Specifications

Revision History

Date	Version	Summary of Changes
2004-07	1.0	Original version
2005-03-18	1.1	Addition of specifications for define.xml and SAS XPORT transport files specifications. <u>Changes in document organization.</u>
2006-03-04	1.2	Update information on annotated ECG waveform data. Delete ecg folder under Specifications for Organizing the Datasets.
2006-11-27	1.3	Addition of specifications for submitting tumor datasets (tumor.xpt from rodent carcinogenicity studies).
2007-08-01	1.4	Addition of hyperlink to information for 3.1.1 datasets

 [Folder name]	Replace with folder name, e.g., m5
 Datasets	
 [Study]	Replace with study identifier, e.g., 123-070
 analysis	Contains analysis datasets and associated files
 programs	Contains program files
 listings	Contains data listing datasets and associated files
 profiles	Contains subject profiles
 tabulations	Contains data tabulation datasets and associated files

SPECIFICATIONS FOR SPECIFIC DATASETS AND DOCUMENTATION

Study data are provided using different presentations: Data Tabulation Datasets, Data Listing Datasets, Subject Profiles, and Analysis Datasets.

Data tabulation datasets

Definition

Data tabulations are datasets in which each record is a single observation for a subject.

Specifications

Specifications for the Data Tabulation datasets of human drug product clinical studies¹, are located in the Study Data Tabulation Model (SDTM) developed by the Submission Data Standard working group of the Clinical Data Interchange Standard Consortium (CDISC)². This folder is reserved for the datasets conforming to the SDTM standard. The latest release of the SDTM and implementation guides for using the model in clinical trials is available from the CDISC web site. FDA currently accepts SDTM datasets prepared in accordance with the SDTM implementation guide versions listed in the following table. Follow the corresponding hyperlink to view the appropriate SDTM and implementation guide.

Version	Implementation Guide
3.1	www.cdisc.org/models/sds/v3.1/index.html
3.1.1	http://www.cdisc.org/models/sdtm/v1.1/index.html

- eCTD data submission using CDISC standards
- PK data of PK and Phase I studies were submitted in original format + define.pdf
- Phase I studies
 - Partly mapped into CDISC – safety
 - ADaMs were created only for one study
- Phase II- III trials: complete mapping to CDISC SDTM 3.11
 - Huge amount of legacy data conversion
 - Analysis of enhanced program trials as well as pooled analysis were based on CDISC ADaM
- CDISC part of reviewers guide is based on the CDISC ADaM pilot
 - Main focus on folder structure and folder contents, file types, physical and logical links of files
 - Description of deviations from guidelines
 - Document contains no details about data contents

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5.3.5 Variable and Value Level Metadata

The following naming conventions were used as much as possible in the analysis datasets, given the restriction to 8 characters for variable names:

- If the variable came from SDTM with no changes, the name remained the same.
- An 'N' was appended to the variable name for a numeric version of a variable (e.g., RACE and RACEN).

MedDRA version 11.0 was used to code the adverse events. The SOC and the PT are included in the AE domains whereas the three levels not currently included in the SDTM AE model (HLGT, HLT, LLT) were included in the supplemental qualifiers domain for AE (i.e. SUPPAE).

Further rules:

- All occurring CRF page references of a variable are provided in the define.xml (column "Origin").
- Data type adheres to ODM terminology, i.e. integer, float, text, date, time and datetime, etc (we used Type=Text for --DTC variables as long as XPT format for SDTM and ADaM datasets is used).
- For variables with a discrete list of values, code list references are provided.
- Variable Value Level Metadata are delivered for Findings Domains, Supplemental Qualifier datasets and Trial design datasets TI and TS.
- Nested Variable Value Level metadata were applied for Questionnaire (QS) Laboratory Data (LB) Inclusion/Exclusion Criteria (IE/TI), Pulmonary Function Tests (XP), and ECG (EG) datasets if applicable; i.e. QSCAT (types of questionnaire) link to QSCAT metadata, QSCAT metadata link to QSTESTCD metadata.

5.3.6 M5 dataset Folder Structure:

All submitted datasets and related files are stored in a folder structure that follows the rules in the eCTD guidance/ Study Data Specifications (updated 8/7/2007) without deviations.

Empty folders will not be submitted, i.e. the folder structure below [study] is individual.

Information on the content of each folder is provided in Table 9 below.

```
m5
.....datasets
.....[study]
.....analysis
.....programs
.....profiles
.....tabulation
util
.....dtd
.....styles
```

Table 9 Datasets - folder description

Name	Contents	Deviations / comments
m5	-	
datasets	-	
[study]	Data of single studies Nomenclature: [prefix][study] total length=6 digits where prefix=[flp, fl, cp-, in-, smr-, in-, ml-,]	pooled data are stored in the folder: iss-asthma-data (Asthma safety pool) iss-ise-copd-data (COPD pool) poppk-copd poppk-healthy
analysis	CDISC ADaM data (.xpt) Define file (define.xml) Results metadata (.pdf)	PK data are not delivered in CDISC format
programs	SAS programs (ADaM and TFL) (.txt / .pdf)	NONMEM control stream and output files in poppk- ->copd/healthy->programs
profiles	Patient profiles (.pdf)	
tabulation	CDISC SDTM domains (.xpt) SDTM annotated CRF (blankcrf.pdf) Define file (define.xml)	PK data are not delivered in CDISC format
util	-	
dtd	-	All define files refer to the define.xml schema version 1.0 which is located at http://www.cdisc.org/schema/d ef/v1.0/definel-0-0.xsd
styles	Stylesheets (.xsl) Icons (.gif)	

5.3.7 Additional Files in the Analysis Folder

These pdf files contain results-metadata and/or computational rules. These files are referenced as hyperlinks in the define.xml file and are tagged as additional define files. Information about the content of each folder is provided in Table 10 below.

ADaM define / results metadata



File Edit View Favorites Tools Help

Address: file:///I:/Daxas%20Results%20to%20Exalox(eCTD/m5/datasets/final%2005-MAR-2009)/cp-069/analyses/define.xml#DATASETS

Analysis Datasets for Study BY217_CP-069

Dataset	Description	Structure	Purpose	Keys	Location	Documentation
ADSL	Subject Level	One record per subject	Analysis	STUDYID, USUBJID	adsl.xpt	See program: adsl.pdf
ADAE	Adverse Events	One record per subject per treatment per adverse event term per start date/time	Analysis	STUDYID, USUBJID, TRTA, AETERM, AESTDTM	adae.xpt	See program: adae.pdf
ADEG	ECG	One record per subject per parameter per analysis visit per analysis timepoint	Analysis	STUDYID, USUBJID, PARAM, AVISIT, ATMVISIT	adeg.xpt	
ADEGS	ECG (derived)	One record per subject per treatment per parameter	Analysis	STUDYID, USUBJID, TRTA, PARAM	adegs.xpt	

Go to the top of the [define.xml](#)

Date of document generation (2009-02-09T11:37:33)

Subject Level Dataset (ADSL)

Variable	Label	Type	Length/Format	Controlled Terminology	Source/Computational Method
STUDYID	Study Identifier	text	12		DM STUDYID
USUBJID	Unique Subject Identifier	text	21		DM USUBJID

File Edit View Favorites Tools Help

Address: file:///I:/clnprojects/daxas/_eCTD/0000/m5/datasets/cp-069/analyses/define.xml#ARM-Entry1

Analysis Results Metadata (Detail) for Study BY217_CP-069

Analysis	Table 13.2.1: Summary of Subject Characteristics
Description	Frequency distribution of Gender and Race. Descriptive statistics of Age at Day 1, Weight at Screening, Height at Screening and BMI.
Reason	
Data	
References	Subject Level (ADSL) [Safety Flag = 'Y']
Documentation	slsum.pdf , See CSR 6.4

Go to the [Analysis Results Metadata Summary](#)

Analysis	Table 13.6.3: Summary of TESS Adverse Events
Description	Number of subjects with TESS AEs and associated TESS AEs. Number of TESS AEs and associated TESS AEs. Both by Treatment Group and Intensity. Number of withdrawals due to TESS Aes, number of serious TESS Aes and number of deaths by Treatment Group.
Reason	pre-specified in protocol
Data	
References	Adverse Events (ADAE) [TRTEMFL = 'Y' for TESS AEs, AEREL = 'LIKELY' for associated Aes]
Documentation	aesum.pdf , See CSP 9.4 and CSR 9.1

Go to the [Analysis Results Metadata Summary](#)

Analysis: [Table 13.9.1: Summary of OT Results by Treatment Group - Day 1](#)

Agenda



- Background
- Clinical Data Warehouse
- CDISC implementation
- Electronic data submission within eCTD
- **Conclusions and outlook**

Contracting external partners for CDISC data conversion tasks is more than just telling the partner to refer to the current CDISC SDTM/ADaM and define.xml standards

- Important
 - CROs experience, stable CDISC standard SDTM V 1.1 / IG V 3.1.1
 - Electronic data submission within eCTD is a very specific task, following the guidelines is key!
 - CDISC knowledge / training of employees
- In general, the CDISC standards are of high value and in particular the results published from the SDTM/ADaM pilot provided excellent examples

Thank you

Nycomed GmbH
Dr. Berthold Traub
Associate Director
Data Integration Standards

T + 49 (0) 7531 84 3025
www.nycomed.com
berthold.traub@nycomed.com