New & Enhanced Expectations for the Use of Controlled Terminology

PharmaSUG Philly SDE
22 October 2015
Goals for This Presentation

The FDA mandate for standards

• Impact on controlled terminology deployment
• Expectations for controlled terminology maintenance
• Considerations when preparing for regulatory submission

Specific controlled terminology articulated today
Guidance for Industry:
Providing Regulatory Submissions in Electronic Format — Submissions Under Section 745A(a) of the Federal Food, Drug, and Cosmetic Act

Guidance for Industry:
Providing Regulatory Submissions in Electronic Format — Standardized Study Data

Guidance for Industry:
Providing Regulatory Submissions in Electronic Format — Certain Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specifications
## Companion Documents

### Study Data Technical Conformance Guide

**Technical Specifications Document**

This Document is incorporated by reference into the following Guidance Documents:

- Guidelines for Industry Providing Regulatory Submissions in Electronic Format – Standardized Study Data
- FDA Standards for Exchange of Nonclinical Data (SEND) (2012)
- Data Standards Catalog

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### FDA Data Standards Catalog v4.1 (04-09-2015) - Supported and Required Standards

<table>
<thead>
<tr>
<th>Use</th>
<th>Data Exchange Standard</th>
<th>Exchange Format</th>
<th>Standards Development Organization (SDO)</th>
<th>Supported Version</th>
<th>Implementation Guide Version</th>
<th>CBIR, CDRH</th>
<th>FDA Date</th>
<th>Date Support Begins</th>
<th>Date Support Ends</th>
<th>Date Requirement Begins</th>
<th>Date Requirement Ends</th>
<th>Regulatory Reference Information</th>
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This section is reserved for future therapeutic area standards.

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### Data Standards Catalog

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Guidance for Industry
Standardized Study Data

• Clarifies...
  – When you will be required to initiate studies based on FDA recognized data standards
    • 24 months – NDAs, ANDAs, BLAs (clinical studies)
    • 36 months – INDs (non-clinical studies)
  
  – VERY high level summary of
    • Study data exchange formats
    • Study data exchange standards
    • Terminology
# Data Standards Catalog

## Controlled Terminology Standards

**FDA Data Standards Catalog v4.4 (08-17-2015)**

This table contains a listing of the standard terminology code sets. When the Catalog expresses support for more than one terminology for a given type of regulatory information, the submitter may choose which one to use. Submissions using any terminology not listed should be discussed with the Agency in advance.

The listing of the data exchange standards developed at FDA are listed in a separate tab. Please look at the “Data Exchange Standards” tab to find data exchange standards information supported by FDA. The data exchange standards listed have established processes and technology infrastructure to support the process, review, and archive of the data. The submission of standardized data using any standard not listed, or to an FDA component not listed, should be discussed with the Agency in advance.

<table>
<thead>
<tr>
<th>Terminology Standard</th>
<th>Terminology Type</th>
<th>Terminology Standards Development and/or Maintenance Organization</th>
<th>Version(s)</th>
<th>FDA Centers That Use This Terminology</th>
<th>Date Support Begins (MM/DD/YYYY)</th>
<th>Date Support Ends</th>
<th>Date Requirement Begins (MM/DD/YYYY)</th>
<th>Date Requirement Ends</th>
<th>Examples of Use</th>
<th>Regulatory References and Information Sources</th>
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<td>Maintenance and Support Services Organization (MSSO)</td>
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**Location:** [http://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM340684.xlsx](http://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM340684.xlsx)
### Study Data Technical Conformance Guide, Section 6

#### Controlled Terminology

<table>
<thead>
<tr>
<th>Concept</th>
<th>Controlled Terminology for Concept</th>
<th>Location in SDTM</th>
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<td>Adverse Events</td>
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<td>Concomitant Medications</td>
<td>WHODrug</td>
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</table>
| Study Medication            | FDA Unique Ingredient Identifier (UNII) | TS trial design domain   
  - Investigational product (TSPARM=TRT or TRTUNII)  
  - Active comparator (TSPARM=COMPTRT)  
  - Background Treatments (TSPARM=CURTRT) |
## Study Data Technical Conformance Guide, Section 6
### Controlled Terminology

<table>
<thead>
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<th>Concept</th>
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<td>SDTM LB.LBLOINC</td>
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<td>Pharmacologic Class</td>
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<td>Indication</td>
<td>SNOMED Clinical Terms</td>
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<td>• Indication (TSPARM=INDIC)</td>
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<td></td>
<td>• Diagnosis Group (TSPARM=TDIGRP)</td>
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<td><strong>CDISC Controlled Terminology</strong></td>
<td><strong>Just about anything with a codelist</strong></td>
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</table>
Controlled Terminology – Some Observations
What is the scope of terminology use?

Protocol & Subject
• CDISC CT
• MedDRA
• WHODrug
• Medical Devices Event Problem Codes
• LOINC

Protocol Only
• FDA UNII Codes
• National Drug File – Reference Terminology
• SNOMED
Controlled Terminology – Some Observations

Who determines CT values?

Skilled Coders

• MedDRA
• WHODrug
• Medical Devices Event Problem Codes
• LOINC

Data Professionals

• CDISC CT

Clinical Professionals

• FDA UNII Codes
• National Drug File – Reference Terminology
• SNOMED
Controlled Terminology – Some Observations

What domains does the CT end up in?

Subject Level Data

- CDISC CT
- MedDRA
- WHODrug
- Medical Devices Event Problem Codes
- LOINC

Trial Design Domains

- CDISC CT
- FDA UNII Codes
- National Drug File – Reference Terminology
- SNOMED
Controlled Terminology Resources
SNOMED

SNOMED CT
Version: 2014_09_01 (Release date: 2014-09-01-08:00)

Viral hepatitis C (Code 50711007)

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<th>Type</th>
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<tr>
<td>Type C viral hepatitis</td>
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<tr>
<td>Viral hepatitis C</td>
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<td>PT</td>
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<tr>
<td>Viral hepatitis type C</td>
<td></td>
<td>SY</td>
<td></td>
</tr>
<tr>
<td>Viral hepatitis type C (disorder)</td>
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<td>FN</td>
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</table>
A universal code system for tests, measurements, and observations.

More than 40,500 people in 170 countries use LOINC to make bridges across their islands of health data.

It's free, but invaluable.

Start fast with the free Quick Start Guide

Get instant access to the official LOINC Quick Start Guide for free. Plus, we'll send you notices of new versions, new resources, other key news.
Controlled Terminology Resources
LOINC

How do you say glucose?

https://loinc.org

<table>
<thead>
<tr>
<th>Downloads</th>
<th>Documentation</th>
<th>Community</th>
<th>Content</th>
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<td>LOINC</td>
<td>Quick Start Guide</td>
<td>International</td>
<td>Top Result and Order Code Lists</td>
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<td>RELMA</td>
<td>Document Library</td>
<td>User’s Forum</td>
<td>Newborn Screening</td>
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<td>Accessory Files</td>
<td>About LOINC</td>
<td>Meetings</td>
<td>Document Ontology</td>
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<td>Go Premium</td>
<td>LOINC Users’ Guide</td>
<td>News</td>
<td>HIPAA Attachments</td>
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<td>Recommended Readings</td>
<td>Mailing Lists</td>
<td>What’s Coming in the Next Release</td>
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<td>Presentations/Tutorials</td>
<td>Directory of Adopters</td>
<td>Request New LOINC Terms</td>
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<td>FAQ</td>
<td>Collaboration with other SDOs</td>
<td>FHIR Vocab Service (pilot)</td>
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<td>Wisdom of the Crowd</td>
<td>NLM/RI LForms Widget</td>
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</table>
Controlled Terminology
FDA Expectations

• The FDA acknowledges that clinical trials are run over time and that terminology versions will likely differ from one study to the next as a result (Study Data TCG, Section 6.1.2, 1st paragraph)

• The FDA expects sponsors to use the most current version of an FDA-supported terminology available at the time of coding (Study Data TCG, Section 6.1.2, 1st paragraph)

• Regardless of the specific versions used for individual studies, the FDA expects sponsors to utilize a single version of a controlled terminology when pooling data in support of an integrated analysis (Study Data TCG, Section 6.1.2, 2nd paragraph)
Controlled Terminology
FDA Expectations

- The FDA expects sponsors to utilize controlled terminology wherever available and, if the controlled terminology does not contain the information needed by the sponsor for submission, it is incumbent upon the sponsor to work with the controlled terminology maintenance organization with enough lead time to ensure that necessary controlled terminology is available at the time of regulatory filing (Study Data TCG, Section 6.1.3)
Controlled Terminology
Additional Reading & Resources

• The Data Standards Catalog

• The Structured Product Labeling resources on the FDA web site

• Introductory presentation on maintaining controlled terminology in your environment
Life Sciences

Accelerated R&D Services
The Science of Getting Products to Patients Faster

Thank you!

For further information:

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High performance. Delivered.