ADaM Office Hours

Nancy Brucken, IQVIA
Daphne Ewing, CSL Behring
Nate Freimark, The Griesser Group
Brian Harris, AstraZeneca
Trevor Mankus, Pinnacle 21
Sandra Minjoe, ICON

Luke Reinbolt, Navitas Data Sciences
Paul Slagle, IQVIA
Cindy Stroupe, UCB Pharmaceuticals
Tatiana Sotingco, Janssen R&D
Mario Widel, Reata Pharmaceuticals

THU 2 JUN 2022
11:00AM-12:30PM ET
Today’s Agenda

1. Housekeeping
2. Feature Presentation
3. Upcoming Learning Opportunities & Events
Housekeeping
Housekeeping

You will remain on mute
Submit questions at any time via the Questions tool on your Zoom app
Audio Issues?

First, close and restart your Zoom App
Second, check your local internet connection strength
A recording of this webinar and the slides will be available in the Members Only section of CDISC website
### Our Presenters

<table>
<thead>
<tr>
<th>Nancy Brucken</th>
<th>Luke Reinbolt</th>
</tr>
</thead>
<tbody>
<tr>
<td>IQVIA</td>
<td>Navitas Data Sciences</td>
</tr>
<tr>
<td>Daphne Ewing</td>
<td>Paul Slagle</td>
</tr>
<tr>
<td>CSL Behring</td>
<td>IQVIA</td>
</tr>
<tr>
<td>Nate Freimark</td>
<td>Cindy Stroupe</td>
</tr>
<tr>
<td>The Griesser Group</td>
<td>UCB Pharmaceuticals</td>
</tr>
<tr>
<td>Brian Harris</td>
<td>Tatiana Sotingco</td>
</tr>
<tr>
<td>AstraZeneca</td>
<td>Janssen R&amp;D</td>
</tr>
<tr>
<td>Trevor Mankus</td>
<td>Mario Widel</td>
</tr>
<tr>
<td>Pinnacle 21</td>
<td>Reata Pharmaceuticals</td>
</tr>
<tr>
<td>Sandra Minjoe</td>
<td></td>
</tr>
<tr>
<td>ICON</td>
<td></td>
</tr>
</tbody>
</table>
ADaM Office Hours

Nancy Brucken, IQVIA
Daphne Ewing, CSL Behring
Nate Freimark, The Griesser Group
Brian Harris, AstraZeneca
Trevor Mankus, Pinnacle 21
Sandra Minjoe, ICON

Luke Reinbolt, Navitas Data Sciences
Paul Slagle, IQVIA
Cindy Stroupe, UCB Pharmaceuticals
Tatiana Sotingco, Janssen R&D
Mario Widel, Reata Pharmaceuticals

THU 2 JUN 2022
11:00AM-12:30PM ET
ADaM Office Hours

06.02.2022
ADaM Implementation Guide
Version 1.3
ADaMIGv1.3: Why update the IG at this time?

Balancing incremental improvement with stability of standards

- As part of the ADaM team’s review of the FDA Study Data Technical Conformance guide (sdTCG), items were noted where modifications to the ADaM Implementation Guide could be beneficial by having better alignment between the two documents
  - Add more clarity on the inclusion of SDTM variables in ADaM datasets
  - Require relative timing variable (from either SDTM or ADaM) in repeated measures datasets

- The ADaM team decided to explore creating minor update to the ADaMIG
  - to demonstrate responsiveness to the FDA
  - to potentially address other minor issues that have accumulated
# ADaMIGv1.3: Minor Update to Address Specific Issues

<table>
<thead>
<tr>
<th>Location</th>
<th>Type</th>
<th>Description</th>
<th>Rationale</th>
<th>Rule?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1.3.1</td>
<td>Modification</td>
<td>Added 1.3 to text prior to table</td>
<td>Updated for this version</td>
<td>No</td>
</tr>
<tr>
<td>Table 1.3.1.1</td>
<td>New</td>
<td>Added column for ADaMIG v1.3; Added rows for other ADaM docs being published this year; Updated Rules document version &amp; date</td>
<td>Updated for this version</td>
<td>No</td>
</tr>
<tr>
<td>Section 2.2</td>
<td>Clarification</td>
<td>The first paragraph of this section was modified to clarify the inclusion of SDTM variables in ADaM datasets to assist traceability.</td>
<td>To align with FDA sdTCG</td>
<td>No</td>
</tr>
<tr>
<td>Section 3.3.3</td>
<td>Modification</td>
<td>The following was added to the 1st paragraph: <em>If a dataset contains more than one record within a parameter and within a subject, then an SDTM or ADaM relative timing variable must be present.</em></td>
<td>To align with FDA sdTCG</td>
<td>No</td>
</tr>
<tr>
<td>Table 3.3.3.1</td>
<td>Modification</td>
<td>Added to CDISC notes for ADY (and similar text to ASTDY &amp; AENDY): <em>If a dataset contains more than one record per parameter per subject then a SDTM or ADaM relative day timing variable must be included (ADY would meet this requirement).</em></td>
<td>To align with FDA sdTCG</td>
<td>Yes</td>
</tr>
<tr>
<td>Table 3.3.4.1.1</td>
<td>Modification</td>
<td>Added the text noting that BASETYPE does not need to be populated if BASE or BASEC is not populated.</td>
<td>Addresses pre-BL recs</td>
<td>Yes</td>
</tr>
<tr>
<td>Appendix B</td>
<td>New</td>
<td>Version history now includes changes from v1.2 to v1.3</td>
<td>Updated for this version</td>
<td>No</td>
</tr>
</tbody>
</table>
## ADaMIGv1.3: Conformance Rules Updated in Parallel

<table>
<thead>
<tr>
<th>Check Number</th>
<th>ADaM Structure Group</th>
<th>Machine Testable Failure Criteria</th>
<th>Message Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>131</td>
<td>BDS</td>
<td>Within a given value of PARAMCD where either BASE or BASEC are populated, BASETYPE is populated for at least one record and is not populated for at least one record</td>
<td>Error</td>
</tr>
<tr>
<td>152</td>
<td>BDS</td>
<td>BASETYPE is populated, BASE is populated, and BASE is not equal to AVAL where ABLFL is equal to Y for a given value of PARAMCD and BASETYPE for a subject</td>
<td>Error</td>
</tr>
<tr>
<td>165</td>
<td>BDS</td>
<td>BASETYPE is populated, BTOXGR is populated, and BTOXGR is not equal to ATOXGR where ABLFL is equal to Y for a given value of PARAMCD and BASETYPE for a subject</td>
<td>Error</td>
</tr>
<tr>
<td>168</td>
<td>BDS</td>
<td>BASETYPE is populated, BNRIND is populated, and BNRIND is not equal to ANRIND where ABLFL is equal to Y for a given value of PARAMCD and BASETYPE for a subject</td>
<td>Error</td>
</tr>
<tr>
<td>353</td>
<td>BDS</td>
<td>BASETYPE is populated, ByIND is populated, and ByIND is not equal to AyIND where ABLFL is equal to Y for a given value of PARAMCD and BASETYPE for a subject</td>
<td>Error</td>
</tr>
</tbody>
</table>
ADaMIGv1.3: Introducing Dataset Metadata Tables

Table 2.3.1.1 Data Structure

<table>
<thead>
<tr>
<th>Data Structure Name</th>
<th>Data Structure Description</th>
<th>Class of Dataset</th>
<th>CDISC Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADSL</td>
<td>Subject Level Analysis Dataset</td>
<td>SUBJECT LEVEL ANALYSIS DATASET</td>
<td>ADSL contains one record per subject, regardless of the type of clinical trial design. ADSL contains variables such as subject-level population flags, planned and actual treatment variables, demographic information, randomization factors, subgrouping variables, stratification factors, and important dates. ADSL is used to provide key facts about the subject that are analysis-enabling or which facilitate interpretation of analysis. The process for adding ADSL variables into BDS datasets is set by the producer of the datasets.</td>
</tr>
</tbody>
</table>

The Data Structure Description & CDISC Notes are intended to provide information to assist producers in preparing their datasets and are not intended to be metadata submitted in define.xml.
# ADaMIGv1.3: Introducing Dataset Metadata Tables (cont)

## Table 2.3.2.1 Data Structure

<table>
<thead>
<tr>
<th>Data Structure Name</th>
<th>Data Structure Description</th>
<th>Class of Dataset</th>
<th>SubClass of Dataset</th>
<th>CDISC Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>BDS</td>
<td>Basic Data Structure</td>
<td>BASIC DATA STRUCTURE</td>
<td></td>
<td>A BDS dataset contains one or more records per subject, per analysis parameter, per analysis timepoint. Analysis timepoint is conditionally required, depending on the analysis. In situations where there is no analysis timepoint, the structure is one or more records per subject per analysis parameter.</td>
</tr>
<tr>
<td>TTE</td>
<td>Basic Data Structure Time-to-Event</td>
<td>BASIC DATA STRUCTURE</td>
<td>TIME-TO-EVENT</td>
<td>Datasets in the SubClass TIME-TO-EVENT must have a Class of BASIC DATA STRUCTURE and meet all the principles of that class. A TTE dataset is used specifically for survival or time-to-event analyses and includes the following: (1) time from a defined starting point (e.g., the date of randomization or of an intervention) to the time of occurrence of the event of interest; and (2) an indication that a subject’s time to event has been censored and for what reason.</td>
</tr>
</tbody>
</table>

The Data Structure Name, Data Structure Description, and CDISC Notes are intended to provide information to assist producers in preparing their datasets and are not intended to be metadata submitted in define.xml.
ADaM OCCDS v1.1: Improvements & Enhancements

After great effort and two public reviews, here is a list of key updates:

- Added a subclass of ADVERSE EVENT
- Introduced “U” prefix for Unmodified SDTM variables when combining multiple SDTM domains (e.g. MHTERM, AETERM becomes UTERM)
- Added SRCSEQ, SRCDOM, and ASEQ for traceability
- Added ADECODy for Analysis Dictionary-Derived Term y
- Text Updated to be consistent with updates made in v1.2 of ADaMIG
- Added 3 new examples
  - AE that change over time collecting this information in FA
  - Analysis of AEs from multiple input domains (AE, CE)
  - Analysis of Protocol deviations
- Added additional treatment-emergent and on-treatment variables.
<table>
<thead>
<tr>
<th>Data Structure Name</th>
<th>Data Structure Description</th>
<th>Class of Dataset</th>
<th>Subclass of Dataset</th>
<th>CDISC Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCCDS</td>
<td>Occurrence Data Structure</td>
<td>OCCURRENCE DATA STRUCTURE</td>
<td></td>
<td>Generally these are 1 record per record in SDTM domain (optional: per coding path, per Analysis Period and/or Phase. See Section 1.1, Purpose, for examples of when the analysis data structure might not be one record per record in SDTM domain.)</td>
</tr>
<tr>
<td>AE</td>
<td>Occurrence Data Structure Adverse Event</td>
<td>OCCURRENCE DATA STRUCTURE</td>
<td>ADVERSE EVENT</td>
<td>Datasets in the SubClass ADVERSE EVENT must have a Class of OCCURRENCE DATA STRUCTURE and meet all the principles of that class. The SDTM input dataset for the ADVERSE EVENT SubClass is always AE, with some additional information from SUPPAE, FA, and ADSL. See Section 3.1.2, SubClass ADVERSE EVENT, for more details.</td>
</tr>
</tbody>
</table>

The Data Structure Name, Data Structure Description, and CDISC Notes are intended to provide information to assist producers in preparing their datasets and are not intended to be metadata submitted in define.xml.
ADaM Implementation Guide for Non-compartmental Analysis (ADNCA)

Version 1.1
ADaM ADNCA v1.0: New Sub-class of BDS

Details the typical dataset that can be submitted to create PK parameters:

<table>
<thead>
<tr>
<th>Data Structure Name</th>
<th>Data Structure Description</th>
<th>Class of Dataset</th>
<th>Subclass of Dataset</th>
<th>CDISC Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADNCA</td>
<td>Basic Data Structure Non-Compartmental Analysis</td>
<td>BASIC DATA STRUCTURE</td>
<td>NON-COMPARTMENTAL ANALYSIS</td>
<td>Dataset designed to support NCA. Primarily sourced from SDTM PC and supplemented by information from the EX, EC, or other relevant domains.</td>
</tr>
</tbody>
</table>

The Data Structure Name, Data Structure Description, and CDISC Notes are intended to provide information to assist producers in preparing their datasets and are not intended to be metadata submitted in define.xml.
ADaM Implementation Guide for Medical Devices

Version 1.0
ADaM Implementation Guide for Medical Devices v1.0

Addresses typical needs for clinical trials analyzing medical device data.

- The guide introduces three new classes of data structures
  - ADDL → ADaM Device Level Analysis dataset
  - MDOCCDS → Medical Devices Occurrence Data Structure
  - MDBDS → Medical Devices Basic Data Structure

- One new subclass data structure under MDBDS for device survival analysis
  - Medical Device time-to-event MDTTE
Other Current & Forthcoming Publications

1. Other Current Publications
2. ADaM Questionnaire Supplements (ADQRS)
3. ADaM Oncology Examples
4. ADaM Traceability Examples
5. Other future publications
Other Current ADaM Publications

The following are companions to the above publications:

• **ADaM Model Document v2.1**
  - ADaM v2.1 was released December 2009 and, although most of the content in the document still applies today, an important considerations document has been created to aid the ADaM user, outlining developments not described in ADaM v2.1:

• **ADaM Conformance v4.0**
  - Contains rule sets for each version of the ADaMIG and incorporates all conformance rules from above publications
Other Current ADaM Publications (cont)

ADaM Guidance for Ongoing Studies Disrupted by the COVID-19 Pandemic

• The guidance provides recommendations for addressing the analysis needs for data analysis and reporting in clinical trials impacted by the pandemic
• The guidance focuses on ADSL and OCCDS metadata and provides examples
Other Current ADaM Publications (cont)

ADaM Traceability Examples (Published 12May2022)

• Good traceability in a submission unambiguously shows the data lineage, allows reviewers to reproduce results and identify supporting source data

• Current ADaM documents describe need & provide elements supporting traceability
  • ADaM Model v2.1
    • Foundational principle: “provide traceability between the analysis data and its source data”
  • ADaMIG:
    • “ADaM datasets and metadata must clearly communicate how the ADaM datasets were created”
  • OCCDS
    • “In general, include all variables from the SDTM dataset and corresponding supplemental qualifiers that are needed for analysis or traceability”

• This document
  • provides various simple and complex traceability examples using current ADaM dataset structures
  • contains no new guidance, recommendations, or standards
Current/Forthcoming: ADaM Questionnaire Supplements

- Published first ADaM QRS supplement which describes the structure of a typical dataset that could be used for summarization and analysis of the Geriatric Depression Scale Short Form (GDS-SF)
- Sent out for public review (through 23 Jun 2022), Generalized Anxiety Disorder – 7-Item (GAD-7) questionnaire supplement.
- Published 4 ‘readme’ files, which provide rationale for not developing ADaM supplements for corresponding single-item instruments
- Finalized templates for creating ADaM QRS supplements and ‘readme’ files
Forthcoming: ADaM Oncology Examples

• Details various oncology analysis needs using current ADaM dataset structure

• First version of Document is currently in **public review** (through **27Jun2022**)
  • Adverse Events
  • Biomarkers
  • Blood Transfusions
  • Survival Analysis
    • Including PARQUAL

• Subsequent versions will include additional topics
Future of ADaM Documents

- Can we provide additional implementation guidance?
  - such as for Population PK?
- Should all or some of the publications be combined?
- Can we improve internal consistency within ADaM?
- Can we better serve the user community?
Acknowledgements to Document Leads

• Deb Bauer  
  OCCDS IG v1.1

• Nancy Brucken  
  ADQRS

• Liana Forman  
  COVID-19 Guidance

• Luke Reinbolt  
  ADNCA IG

• Julia Yang  
  Medical Devices IG

• Paul Slagle  
  Oncology Examples.

• Tatiana Sotingco  
  Previous ADaM Team Lead

• Wayne Zhong  
  Traceability Examples
Questions & Answers
Questions & Answers
How do I code 'SCREEN FAILURE' from DM to ADSL? 'SCREEN FAILURE' is no longer populated in ARM, but in ARMNRS. If I leave ARM as null for the screen failures, Pinnacle complains ARM value is null in ADSL.
Audience Questions

What is population PK (PPK)?
How do you make population PK (PPK) data CDISC compliant?
Audience Questions

What are some challenges to making PPK BDS like?
Audience Questions

For oncology studies, how do you handle PARAMCD/PARAM for individual tumor measurements in ADTR?
Audience Questions

If a test is NOT DONE, should we include it in ADaM dataset, e.g., ADVS, and add a ANL0xFI to indicate its usage (eg, listing)?
Any decisions on changing integrated file names with a leading "I" such as IADSL? Saw this online but P21 doesn't accept
Audience Questions

The Order of Variables in ADaM Datasets is not defined. If it is defined, it is easier for us to maintain consistency.
While PRAMTYP has been deprecated, is it a non compliance if someone still uses it to indicate that parameter is derived?
Audience Questions

When will the team build the IG for IVD (In-vitro Diagnostic)?
Is it possible to create ADaM domains straight from raw data or does it have to be from SDTM domains? If yes, is it valid?
Audience Questions

Should ADNCA be used in all cases of handling PK data at the ADaM level regardless of if PK parameter analysis is being done?
ADNCA IG structure supports only PK concentration data. For the companies which are not using Software to derive the PK parameters like Cmax, Tmax and AUC can we derive those parameters in ADAM OTHER? Do we have some examples we can refer?
Audience Questions

Q: Could you please provide the location Oncology examples document that is out for public review?

A: https://wiki.cdisc.org/display/ADAMONC/ADaM+Oncology+Examples+Home
What happened to the integrated ADaMs effort, e.g. for ISS, ISE, etc.?
Audience Questions

Can you give an example of a study / situation where following will be true? A set of analysis timing variables can be included in ADSL only if the definitions for all the variables in the set are fixed across the study.
Ideally csr reports are one proc away from ADAM and considering multiple statistics that might require from one ADAM dataset it could make really complex ADAM design in return at times..Is there any guidance on that like how much allowed in ADAM or could leave it to CSR development.
How do we technically volunteer to be on a team and help? I think I would like to be on the team for ISS/ISE as I fell victim to thinking the names IADSL etc were OK...currently working with a CRO for merging phase 2 and phase 3 studies and trying to be compliant.
Any specific reason why draft variable PARQUAL was not eventually made a standard variable?
Audience Questions

Is it prohibited for users to create CATy variables?
Upcoming Events
July
Asia
Virtual Training Event
*Regional discounts will appear at checkout.*

September
US
Virtual Training Event

- Information available at: [www.cdisc.org](http://www.cdisc.org)
- Register at: [https://learnstore.cdisc.org/](https://learnstore.cdisc.org/)
- Contact us at: training@cdisc.org
Free CDISC Courses

[Image of a screenshot from the CDISC Learning System website]

Http://learnstore.cdisc.org
# Upcoming Webinars

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 JUN</td>
<td>CORE Volunteer Onboarding Training Webinar</td>
</tr>
<tr>
<td>27 JUN</td>
<td>The TMF Reference Model Group and CDISC Affiliation: What’s Next?</td>
</tr>
<tr>
<td>28 JUN</td>
<td>Controlled Terminology Updates: P50 Publication / P51 Public Review</td>
</tr>
<tr>
<td>30 JUN</td>
<td>COSA Spotlight for Q2</td>
</tr>
<tr>
<td>4 OCT</td>
<td>Controlled Terminology Updates: P51 Publication / P52 Public review</td>
</tr>
</tbody>
</table>

**Future topics:**
QRS Quarterly Updates  
COSA Quarterly Spotlights
Why Become a Member?

• To ensure the CDISC standards remain open and free

• To support CDISC in the development and maintenance of global standards

• To work with the CDISC community and be a voice in the development of clinical research standards

• To impact the development of regulatory requirements for submissions

• To access members only resources and benefits

• To gain visibility in the marketplace
CDISC MEMBERSHIP

Become a Member!
Join nearly 500 member organizations that contribute to bringing clarity to data.

Already a Member?
Thank you! It is our members’ support which enables us to develop standards, keeping it free and accessible to all.

Email: membership@cdisc.org
Thank you!

Contact the Events inbox: 
events@cdisc.org

Contact Education inbox: 
training@cdisc.org

Contact Bernard directly: 
bklinke@cdisc.org