



SDTM at LEO

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The story

- It began in 2004 with a question to FDA
- In 2005 two programmers went to a CDISC Interchange in Copenhagen and Phuse in Heidelberg (the very first Phuse conference 😊)
- In the beginning: SDTM (LEO DM) inhouse based on views from Oracle Clinical
- When DM started outsourcing => vendors to deliver SDTM
- This lead to a long journey towards where we are now



Food and Drug Administration
Center for Drug Evaluation and Research
Office of Drug Evaluation ODE 5

FACSIMILE TRANSMITTAL SHEET

DATE: June 8, 2004

Sponsor's Question 13:

LEO intends to submit all clinical data as SAS transport datasets in accordance with the current FDA guidelines. CRT datasets for each CRF domain will be provided for each clinical study in the format and with variable names given by **CDISC Submission Data Standards Model Version 3.0** (or Version 3.1, if available by March 2004), and in accordance with the FDA guidance "Providing Regulatory Submissions in Electronic Format – NDAs". We plan to provide the following CRT datasets which will cover all data captured in individual studies:

Agency Response:

Yes, FDA agrees with the proposed strategy.

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Current status

- LEO does not – with a very few exceptions – create SDTM inhouse
- SDTMs done by external vendors
- We use SDTM for medical monitoring:
 - SDTM on ‘dirty data’
 - SDTM on an ongoing basis during the trial
- A lot of front loading done with ADaMs and TFLs – also on ‘dirty data’

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The goals

- LEO SDTM goals:
 1. SDTM to follow a uniform standard across studies
 2. Submission ready SDTMs = they will be accepted by authorities without questions back

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The challenges

- Precisely how do we want SDTMs ?
 - Standard has room for interpretation = you have to define and describe how YOU want it. NOT a trivial task!
- How to communicate our SDTM Interpretation ?
 - Whenever you get something that is not what you expected the problem is most likely your own specifications

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The challenges

- Stat programmers – at LEO - traditionally have not been involved in the process before you are at the point where you are to receive data – which is way too late
- Vendors not used to deliver SDTM while the trial is ongoing => vendors might have to adjust their internal processes
 - This was actually quite surprising to us

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The journey – in a very short version 😊

- The first thing we did was asking for data to be delivered in CDISC format (and in which version)
- Next: adding a LEO SDTM interpretation guide (based on an old LEO SDTM IG from our DM)
- Reworking this IG a number of times
- Adding demands on running data through OpenCDISC Checker (now Pinnacle)
- Hiring in a consultant to work on our SDTM IG
- Adding Study Composer

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Study Composer

- A tool that can build CRFs
- It has a library where you can store CRF forms – incl. SDTM annotations
- We use it solely for specifying CRFs (incl SDTM annotations)
- The output from Study Composer is an ODM XML file: This is what we want to collect and how to map to SDTM

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The solution

- Define how the LEO interpretation of CDISC SDTM standard and put that into writing
- Acknowledge that standards are evolving and we are getting wiser all the time = the job of standardisation – and the processes around it - will never ever be 'final'
- Limit the customisation to an absolute minimum.
- Think standardisation from protocol to CTR – formation of a Standard Governance Board – SGB.
- A 'package' to deliver to CROs with our demands for SDTM:

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SGB

- Driven by DM
- Permanent members are key stakeholders in the process from protocol to CTR:
 - DM, Stat programming, medical expert, stats, medical writing.
 - Ad hoc members can be called in if needed.
 - Direct output from SGB are standard CRF pages with SDTM mapping.

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The package

- What we deliver to a CRO:
 - An ODM XML file containing the CRF spec and the SDTM annotations
 - A LEO SDTM IG
 - A LEO SDTM Model
 - A LEO CT – with items not covered by NCI controlled term

Each part of the package is constantly evolving (versioned)

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Final remarks

- Fingers crossed 'Yes' our new processes has improved the quality of the SDTM that we get from external vendors
- To get where we are has been a lot of trial and error: trying out a way of specifying what we want, evaluate the outcome and adjust accordingly
- Being part of this process from the very beginning has been really exiting and interesting



Thank you for your attention 😊

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