

FDA View: Technical Rejection Criteria for Study Data

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Disclaimer



The views and opinions presented here represent those of the speakers and should not be considered to represent advice or guidance on behalf of the U.S. Food and Drug Administration.

- **Study Data Technical Rejection Criteria Conformance Statistics from Previous Analysis**
- **Revised Technical Rejection Criteria for Study Data**
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Study Data Technical Rejection Criteria Conformance Statistics from Previous Analysis



Study Data Conformance from Previous Analysis

❖ Study Data was assessed for:

- ☐ NDA, BLA, and ANDA Submissions received from 12/18/2016 to 3/31/2018
- ☐ Commercial IND Submissions received from 12/18/2017 to 3/31/2018
- ☐ No duplicates

❖ Conformance was checked against the existing two high-level validation rules as described in the Technical Rejection Criteria for Study Data

- ☐ 1734 – TS Dataset & Correct Study Start Date must be present
- ☐ 1736 – DM Dataset, ADSL Dataset and define.xml must be present

Overall Conformance Statistics from Previous Analysis

	NDA	ANDA	BLA	Comm. IND	All
Total Number of Submissions with Study Data	1,126	1,446	473	176	3,221
Total Number Submissions with Critical Errors	302	551	138	41	1,032
Error 1734	290	506	137	35	968
Error 1736	14	63	1	6	84
Failure Rate (% among submissions with Study Data)	26.8%	38.1%	29.2%	23.3%	32.0%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Analysis includes NDA, BLA, and ANDA submissions received by CDER between 12/18/2016 and 3/31/2018, and commercial IND submissions received by CDER between 12/18/2017 and 3/31/2018
- (3) Validation of error 1736 of a study is not performed if a study has Error 1734
- (4) A submission with multiple studies can report both Errors 1734 and 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate

Revised Study Data Technical Rejection Criteria



CY2018 Conformance Analysis for Validation Errors 1734 & 1736

❖ ANDA, NDA, BLA, and commercial IND Submissions received by CDER between 1/1/2018 and 12/31/2018, were assessed for conformance to the two high-level errors as revised in the Technical Rejection Criteria for Study Data (Revised Jan. 2019)

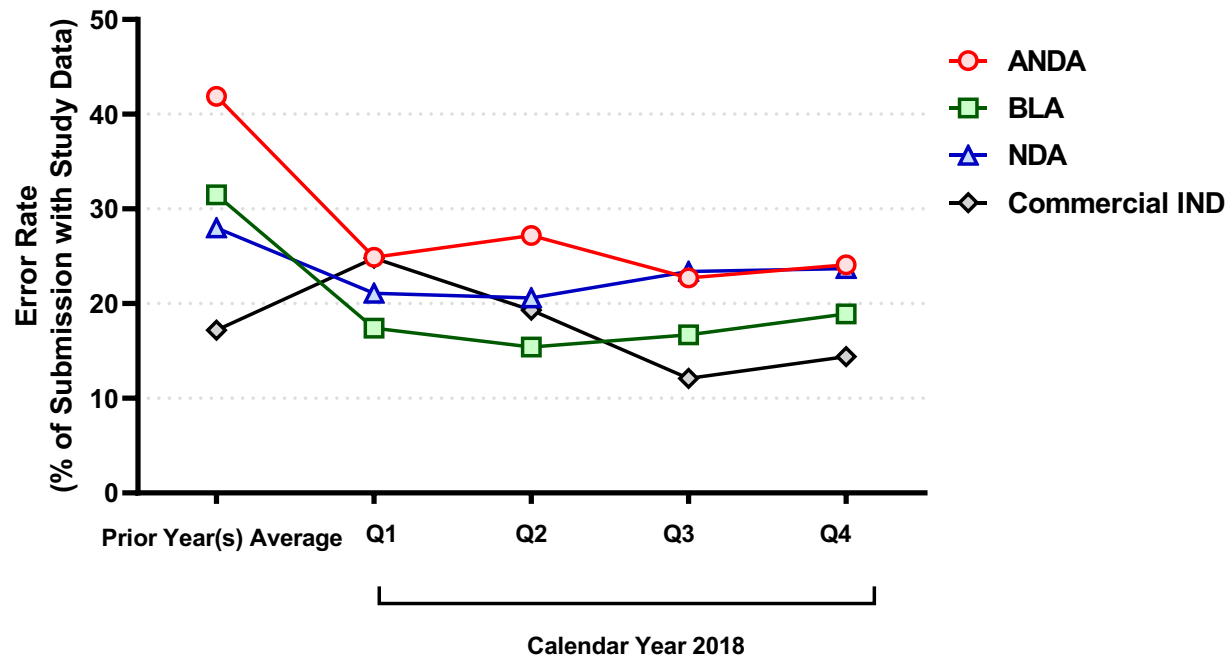
	NDA	ANDA	BLA	Comm. IND	All
Total Number of Submissions with Study Data	877	1078	291	649	2895
Total Number Submissions with Critical Errors	195	266	50	113	624
Error 1734	185	186	48	96	515
Error 1736	16	88	2	18	124
Failure Rate (% among submissions with Study Data)	22.2%	24.7%	17.2%	17.4%	21.6%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments;
- (2) Analysis includes NDA, BLA, ANDA and Commercial IND submissions received by CDER between 1/1/2018 and 12/31/2018
- (3) Validation of error 1736 is not performed if a study has Error 1734
- (4) A submission with multiple studies can report both Errors 1734 and 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate
- (5) Analysis is conducted according to the revised TRC (Revised Jan. 2019)

Overall Conformance Trend for Validation Errors 1734 & 1736

- ❖ Submissions with study data received during CY2018 showed overall decreases in Validation Errors 1734 and 1736 compared to prior years' average error rate



Notes:

- (1) Prior year(s) average uses data from the previous analysis, but excludes any submissions received in 2018
- (2) CY2018 analysis is conducted according to the revised TRC (Revised Jan. 2019)



Summary of 1734 and 1736 Conformance Trend

- ❖ The failure rate for Errors 1734 and 1736 for all application types received in CY2018 is 21.6%
- ❖ Overall conformance for Errors 1734 and 1736 improved compared to the previous analysis (previous years' average of 68.0% vs. CY2018's average of 78.4%)
- ❖ FDA has identified the need to provide additional clarifications on TRC to help Industry meet study data requirements and continue to improve the conformance trend over time
 - ❖ Revision to TRC
 - ❖ Details on 1734 and 1736
 - ❖ Emphasis on Error 1735
 - ❖ Inclusion of Error 1789
 - ❖ Inclusion of **Table 1** eCTD Technical Rejection Criteria for Study Data Expectation
 - ❖ Inclusion of **Appendix 1** Examples of Validation Findings in Study Data
 - ❖ Inclusion of **Appendix 2** Examples of ts.xpt datasets
 - ❖ **Additional Tools:** Self-Check Worksheet and Instructions for Study Data



Summary of Latest Revisions to the Technical Rejection Criteria for Study Data (Revised Jan. 2019)

Error	Description	Severity Level
1734	Trial Summary (TS) dataset (ts.xpt) with information on study start date must be present for required sections*	High
1735	Correct STF file-tags must be used for all standardized datasets and corresponding define.xml files in required sections*	High
1736	For SEND data, a DM dataset and define xml must be submitted in required sections* For SDTM data, a DM dataset and define.xml must be submitted in required sections* For ADaM data, an ADSL dataset and define.xml must be submitted in required sections*	High
1789**	STF Files must be submitted in a study section. STF s are not required for required sections*	High

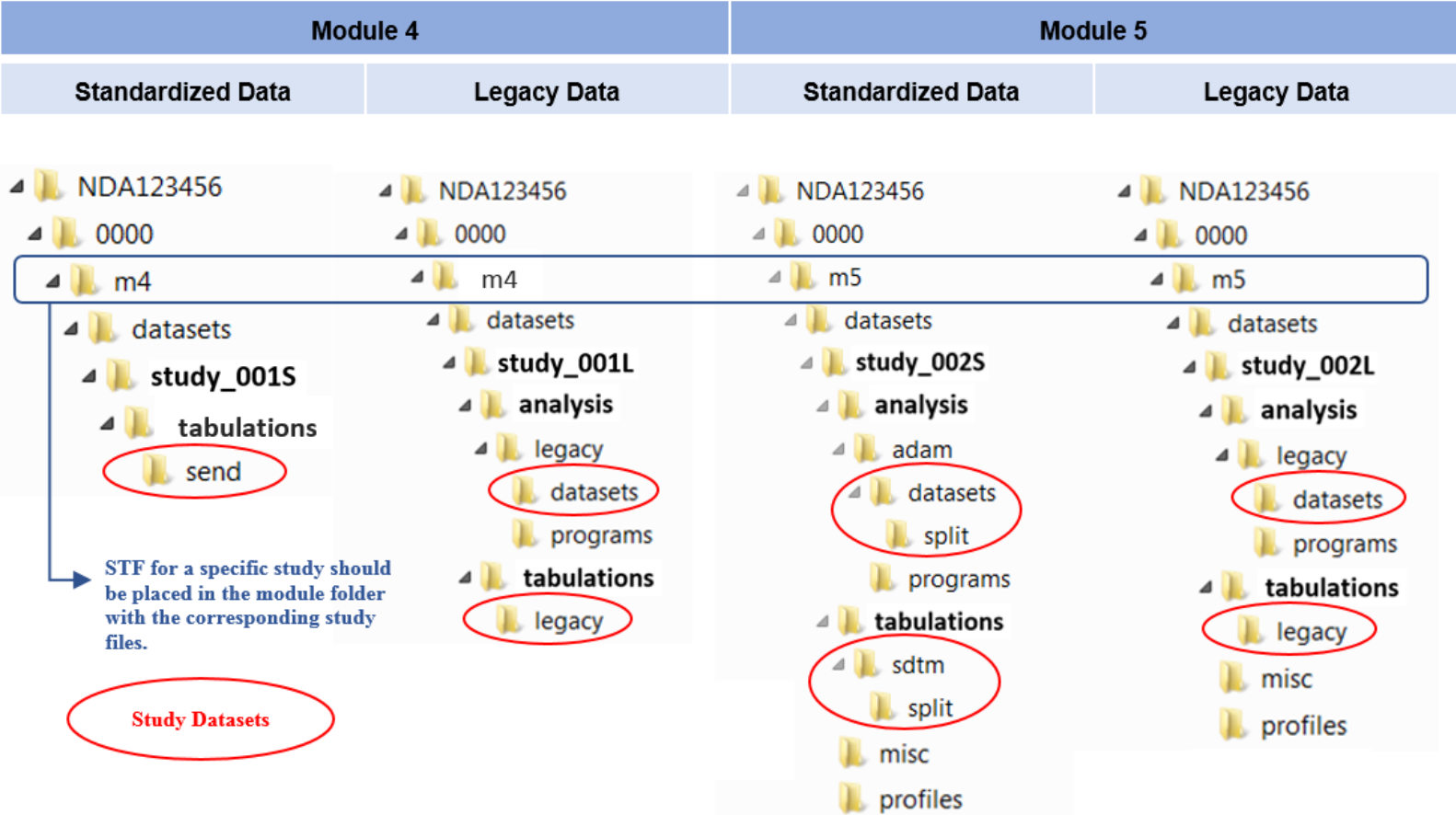
** Refer to the latest Technical Rejection Criteria for Study Data*

*** From Providing Regulatory Submissions in Electronic Format – Certain Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specification, Section J: Datasets must only be provided in modules 3, 4, or 5 and not in modules 1 or 2*

Reference: FDA Study Data Technical Rejection Criteria (Revised Jan. 2019)

Folder Structure for Module 4 and Module 5

- ❖ STF files and their associated datasets should be organized into a specific file directory structure and a specific headings and hierarchy structure



Additional Details for Error 1734

❖ Full ts.xpt

Sponsors should submit a dataset named 'ts.xpt' following published CDISC Standard and FDA Study Data Technical Conformance Guide

❖ Simplified ts.xpt

Sponsors should submit a dataset named 'ts.xpt' with four variables: STUDYID, TSPARMCD, TSVAL, AND TSVALNF)

Example of ts.xpt Datasets

STUDYID	TSPARMCD	TSVAL	TSVALNF
•Study ID in STF File	•SSTDTC for a clinical study •STSTDTC for a nonclinical study	•Format: yyyy-mm-dd •Left blank when study start date is not available	• Left blank when study start date is provided in TSVAL • Exception code as specified in the ISO 21090 Standard when study start date is not available

References:

FDA Study Data Technical Conformance Guide (Appendices F & G; Version 4.2, October 2018)

FDA Study Data Technical Rejection Criteria (Revised Jan. 2019)

Emphasis on Errors 1735 and Inclusion of 1789

- ❖ Each submission typically contains many studies, an STF file is necessary to process study files into their corresponding studies; Accepting a submission where CDER cannot process the study tagging file will result in the reviewer seeing a list of files for which they do not know the study they belong to
- ❖ If a study data file (e.g. define.xml) is not properly tagged in the STF file, it cannot be identified and located, resulting in Error 1736 being reported

Error	Description	Severity Level
1789	STF Files must be submitted in a study section. STF s are not required for required sections*	High
1735	Correct STF file-tags must be used for all standardized datasets and corresponding define.xml files in required sections*	High

** Refer to the latest Technical Rejection Criteria for Study Data*

Commercial IND Submissions

Study Data Requirements for Commercial IND Submissions

- ❖ A ts.xpt File (full or simplified) is required for all studies whether or not the study contains an xpt dataset

Study Start Date	Application Type	Data Type	Study Sections	Expectation by Center	
				CDER	CBER
Prior to or on 17-Dec-2017	Commercial INDs	Nonclinical	4.2.3.1, 4.2.3.2, 4.2.3.4	Rejection criteria will be applied; submit a simplified TS whether or not the study contains an xpt dataset (other than the ts.xpt)	Rejection criteria will not be applied
		Clinical	5.3.1.1, 5.3.1.2, 5.3.3.1z, 5.3.3.2, 5.3.3.3, 5.3.3.4, 5.3.4, 5.3.5.1, 5.3.5.2	Rejection criteria will not be applied	
After 17-Dec-2017	Commercial INDs	Nonclinical	4.2.3.1, 4.2.3.2, 4.2.3.4	Rejection criteria will be applied; submit a full TS	Rejection criteria will not be applied
		Clinical	5.3.1.1, 5.3.1.2, 5.3.3.1, 5.3.3.2, 5.3.3.3, 5.3.3.4, 5.3.4, 5.3.5.1, 5.3.5.2	Rejection criteria will not be applied	

CY2018 Conformance Analysis of Commercial IND Submission Studies: Errors 1734, 1735 & 1736

	Submission Type		Study Type			Total
	Original	Other	Nonclinical (m4)	Clinical (m5)	Other	
Total Number of Studies	718	631	883	288	178	1,349
Total Number Studies with Critical Errors	77	126	105	98	0	203
Error 1734	44	106	65	85	0	150
Error 1735	27	11	36	2	0	38
Error 1736	9	15	11	13	0	24
Error Rate (% among Total Number of Studies)	10.7%	20.0%	11.9%	34.0%	0%	15.0%

Note:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Analysis includes Commercial IND submissions received by CDER between 1/1/2018 and 12/31/2018
- (3) Validation of errors 1735 and 1736 is not performed if a study has Error 1734
- (4) A submission with multiple studies can report Errors 1734, 1735 and/or 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate
- (5) Analysis is conducted according to the revised TRC (Revised Jan. 2019)
- (6) Study Type "Other" includes datasets identified in module 4 and 5 sections not specifically mentioned as required section in the TRC

CY2018 Conformance Analysis of Commercial IND Submissions: Error 1789

	Submission Type		Total
	Original	Other	
Total Number of Submissions	1293	78180	79473
Error 1789	25	168	193
Failure Rate (% among Total Number of Submissions)	1.93%	0.21%	0.24%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Each submission may contain more than one study
- (3) Analysis includes Commercial IND submissions received by CDER between 1/1/2018 and 12/31/2018
- (4) Analysis is conducted according to the revised TRC (Revised Jan. 2019)

NDA, BLA & ANDA Submissions

Study Data Requirements for NDA, BLA & ANDA Submissions

- ❖ A ts.xpt File (full or simplified) is required for all studies whether or not the study contains an xpt dataset. However, a study started prior to or on 17-Dec-2016 for clinical data, a simplified ts.xpt is required only if the study contains other xpt dataset

Study Start Date	Application Type	Data Type	Study Sections	Expectation by Center	
				CDER	CBER
Prior to or on 17-Dec-2016	NDA, BLA, ANDA	Nonclinical	4.2.3.1, 4.2.3.2, 4.2.3.4	Rejection criteria will be applied; submit a simplified TS whether or not the study contains an xpt dataset (other than the ts.xpt)	Rejection criteria will not be applied
		Clinical	5.3.1.1, 5.3.1.2, 5.3.3.1, 5.3.3.2, 5.3.3.3, 5.3.3.4, 5.3.4, 5.3.5.1, 5.3.5.2	Rejection criteria will be applied; submit a simplified TS if the study contains an xpt dataset (other than the ts.xpt)	
After 17-Dec-2016	NDA, BLA, ANDA	Nonclinical	4.2.3.1, 4.2.3.2, 4.2.3.4	Rejection criteria will be applied; submit a full TS	Rejection criteria will not be applied
		Clinical	5.3.1.1, 5.3.1.2, 5.3.3.1, 5.3.3.2, 5.3.3.3, 5.3.3.4, 5.3.4, 5.3.5.1, 5.3.5.2	Rejection criteria will be applied; submit a full TS	

CY2018 Conformance Analysis of NDA Submission Studies: Errors 1734, 1735 & 1736

	Submission Type				Study Type			Total
	Original	Efficacy	Rolling	Other	Nonclinical (m4)	Clinical (m5)	Others	
Total Number of Studies	1201	194	128	904	403	1810	214	2427
Total Number Studies with Critical Errors	172	42	14	201	38	390	0	354
Error 1734	122	37	10	185	33	321	0	354
Error 1735	42	5	1	11	6	53	0	59
Error 1736	23	0	4	9	1	35	0	36
Error Rate (% among Total Number of Studies)	14.3%	21.7%	10.9%	22.2%	9.7%	21.6%	0	17.7%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Analysis includes NDA submissions received by CDER between 1/1/2018 and 12/31/2018
- (3) Validation of errors 1735 and 1736 is not performed if a study has Error 1734
- (4) A submission with multiple studies can report Errors 1734, 1735 and/or 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate
- (5) Analysis is conducted according to the revised TRC (Revised Jan. 2019)
- (6) Study Type "Other" includes datasets identified in module 4 and 5 sections not specifically mentioned as required section in the TRC

CY2018 Conformance Analysis of NDA Submissions: Error 1789

	Submission Type				Total
	Original	Efficacy	Rolling	Other	
Total Number of Submission	160	136	83	40,698	41077
Error 1789	8	3	1	31	43
Failure Rate (% among Total Number of Studies)	5.00%	2.21%	1.20%	0.08%	0.10%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Each submissions may contain more than one study
- (3) Analysis includes NDA submissions received by CDER between 1/1/2018 and 12/31/2018
- (4) Analysis is conducted according to the revised TRC (Revised Jan. 2019)

CY2018 Conformance Analysis of BLA Submission Studies: Errors 1734, 1735 & 1736

	Submission Type				Study Type			Total
	Original	Efficacy	Rolling	Other	Nonclinical (m4)	Clinical (m5)	Others	
Total Number of Studies	17	55	2	217	12	206	73	291
Total Number Studies with Critical Errors	6	11	1	36	3	51	0	54
Error 1734	5	9	1	33	2	46	0	48
Error 1735	1	2	0	2	0	5	0	5
Error 1736	1	0	0	1	1	1	0	2
Error Rate (% among Total Number of Studies)	35.3%	20.0%	50.0%	16.6%	25.0%	24.8%	0%	18.6%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Analysis includes BLA submissions received by CDER between 1/1/2018 and 12/31/2018
- (3) Validation of errors 1735 and 1736 is not performed if a study has Error 1734
- (4) A submission with multiple studies can report Errors 1734, 1735 and/or 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate
- (5) Analysis is conducted according to the revised TRC (Revised Jan. 2019)
- (6) Study Type "Other" includes datasets identified in module 4 and 5 sections not specifically mentioned as required section in the TRC

CY2018 Conformance Analysis of BLA Submissions: Error 1789

	Submission Type				Total
	Original	Efficacy	Rolling	Other	
Total Number of Submission	18	83	7	10944	11042
Error 1789	0	0	0	1	1
Failure Rate (% among Total Number of Studies)	0	0	0	<0.01%	<0.01%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Each submissions may contain more than one study
- (3) Analysis includes BLA submissions received by CDER between 1/1/2018 to 12/31/2018
- (4) Analysis is conducted according to the revised TRC (Revised Jan. 2019)

CY2018 Conformance Analysis of ANDA Submission Studies: Errors 1734, 1735 & 1736

	Submission Type		Study Type			Total
	Original	Other	Nonclinical (m4)	Clinical (m5)	Others	
Total Number of Studies	591	497	N/A	1004	74	1078
Total Number Studies with Critical Errors	392	281	N/A	673	0	673
Error 1734	77	109	N/A	186	0	186
Error 1735	327	170	N/A	497	0	497
Error 1736	55	33	N/A	88	0	88
Error Rate (% among Total Number of Studies)	67.5%	56.5%	N/A	67.0%	0	62.4%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Analysis includes ANDA submissions received by CDER between 1/1/2018 to 12/31/2018
- (3) Validation of errors 1735 and 1736 is not performed if a study has Error 1734
- (4) A submission with multiple studies can report Errors 1734, 1735 and/or 1736. In this instance, the submission is counted only once at the submission level when calculating failure rate
- (5) Analysis is conducted according to the revised TRC (Revised Jan. 2019)
- (6) Study Type "Other" includes datasets identified in module 4 and 5 sections not specifically mentioned as required section in the TRC

CY2018 Conformance Analysis of ANDA Submissions: Error 1789

	Submission Type		Total
	Original	Other	
Total Number of Submission	1099	61596	62695
Error 1789	40	185	225
Failure Rate (% among Total Number of Studies)	3.64%	0.30%	0.36%

Notes:

- (1) One drug application could contain multiple submissions throughout its review life-cycle, such as original, supplements, and amendments
- (2) Each submissions may contain more than one study
- (3) Analysis includes ANDA submissions received by CDER between 1/1/2018 and 12/31/2018
- (4) Analysis is conducted according to the revised TRC (Revised Jan. 2019)

New Tools for Industry

Tools for Industry

FDA has developed tools to help sponsors meet updated study data standard requirements and provide more transparency on the validation process



www.fda.gov



Gateway

Sponsor reviews Study Data Standard Resources:

- Revised Study Data Technical Rejection Criteria with eCTD Validation Table
- Study Data Self-Check Worksheet & Instruction

Sponsor submits a eCTD and/or Standardized Data Sample to the FDA for validation

After review, FDA will provide with feedback, highlighting the errors found during the processing of the sample submission

Sponsor submits an application with study data

1. Revised Study Data Technical Rejection Criteria (Revised Jan. 2019)

Purpose: To clarify the requirements for eCTD Validation of submissions with study data and to provide examples (**Appendix 1 and 2**) to illustrate the requirements

2. TRC Self-Check Worksheet & Instruction

Purpose: To help sponsors understand criteria for submissions with study data to pass the updated TRC

3. eCTD and/or Standardized Data Sample Validation

Purpose: To help sponsors validate their sample submissions and receive feedback with identified errors



Selected Examples of Validation Findings in Study Data

1. A study prior to December 17, 2016 for NDAs, BLAs, and ANDAs (or December 17, 2017 for Commercial INDs), is submitted to FDA and the study files are referenced in a Study Tagging File (STF), a ts.xpt dataset is not included in the study. The Study Data Start Date cannot be determined, the study fails validation 1734.
2. A study in standardized format is submitted to FDA and the study files are referenced in a Study Tagging File (STF). The ADaM study in Module 5 contains a define.xml file and a adsl.xpt file and they are appropriately file tagged. The study passes validation 1736.

Reference: FDA Study Data Technical Rejection Criteria (Revised Jan. 2019)

Overview of the Self-Check Worksheet

- ❖ Designed to walk sponsors through each step of TRC validation process
- ❖ Dynamically guides sponsors through study data requirements based on study information entered
- ❖ Designed to help the sponsors when they prepare study data to submit to the FDA for the first time

Reference: “Technical Rejection Criteria Self-Check Worksheet”
<https://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM630732.pdf>
 “Technical Rejection Criteria Self-Check Worksheet Instructions”
<https://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM630733.pdf>

Self-Check Worksheet for Study Data Preparation

Note: This Self-Check Worksheet is designed for newly submitted Study Data.

**Required field*

Section 1: Application & Submission Information	1a. FDA Center*:	CDER ☐	CBER ☐	
	1b. Application Type*:	NDA ☐	BLA ☐	ANDA ☐ Commercial IND ☐
	1c. Application Number:	_____		
	1e. eCTD Submission Type:	_____		
	1d. eCTD Sequence Number:	_____		
	1f. eCTD Submission Sub Type:	_____		

Note: Repeat Sections 2 through 5 for each study.

**Required field*

Section 2: Study Information	2a. Study ID*:	_____		
	Study ID is the unique identifier across application documents. Therefore, the study ID must be consistent across all the files being submitted for the same study, i.e. STF File, ts.xpt, dm.xpt, etc.			
	2b. Is This the First Time Study Data is Being Submitted for This Study as Part of This Application?*	Yes ☐	No ☐	
	If you answered “No” in Field 2b, do not proceed. This self-check worksheet is designed for newly submitted study data.			
	2c. Name of the Study:	_____		
	2d. Study Section - eCTD Heading (Example: m4-2-1-1):	_____		
	2e. Module*:	Nonclinical (m4) ☐	Clinical (m5) ☐	
	2f. Study Dataset Type(s)*:	Tabulation ☐	Analysis ☐	

Section 3: STF File Information	3a. Are Files Included in a Study Section? (Not Applicable to Sections 4.3, 5.2, 5.3.6, and 5.4)*	Yes ☐	No ☐	
	If you answered “No” in Field 3a, and no files are included in a study section, excluding sections 4.3, 5.2, 5.3.6, and 5.4, then Validation Rules 1734, 1735, 1736, and 1789 do not apply. Do not proceed.			
	3b. Is STF File Included?*	Yes ☐	No ☐	Referenced Validation Error Number 1789
	3c. Does STF File Reference all Associated Study Files?*	Yes ☐	No ☐	
	If you answered “No” in Fields 3b or 3c, Validation Rule 1789 FAILS. Do not proceed.			
	3d. Study ID in STF File*:	_____		



Sections of the Study Data Self-Check Worksheet

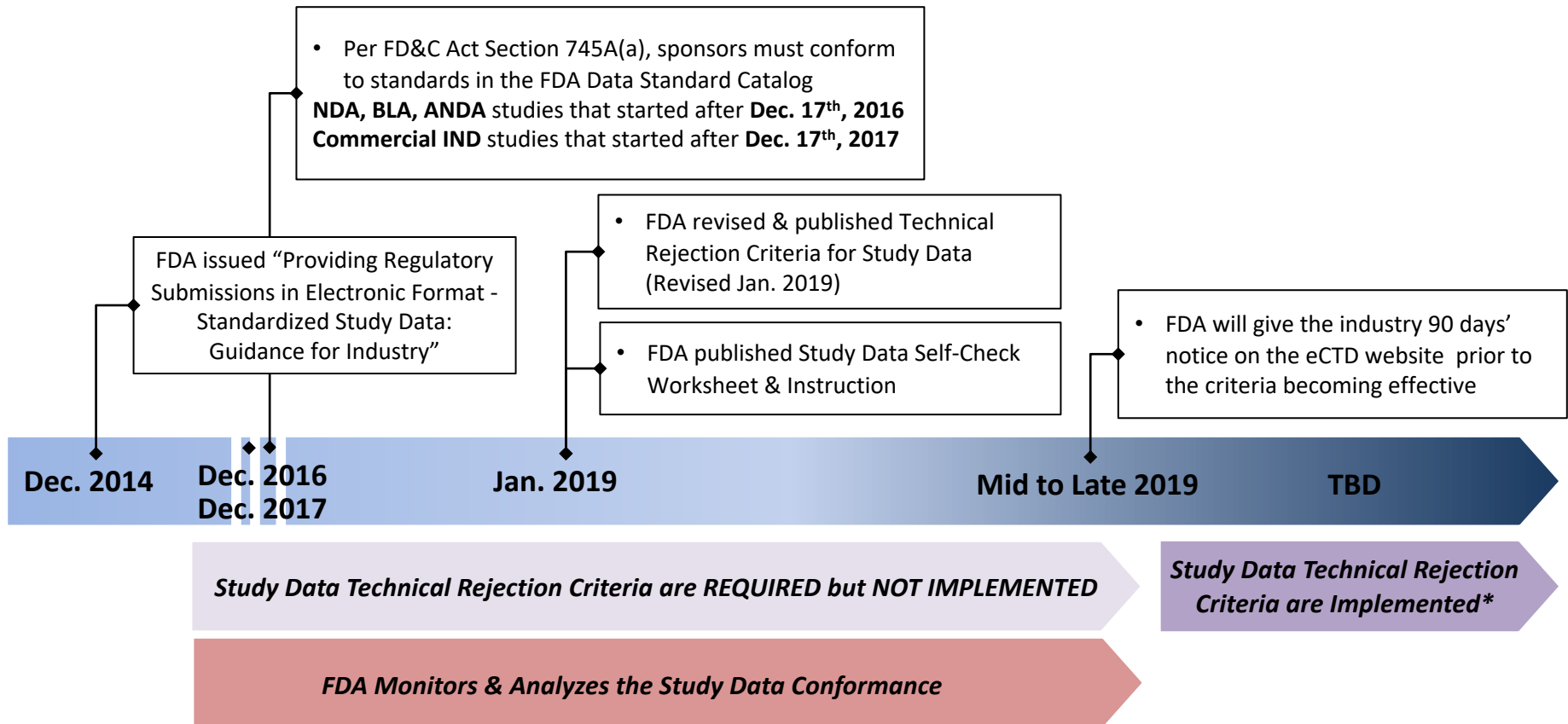
Section	Contents	Example(s)
1	Application & Submission Information Provides high level information about the application and submission	1a. FDA Center*: CDER ☐ CBER ☐
2	Study Information Provides more detailed information about the specific study	2a. Study ID*: 2f. Study Dataset Type(s)*: Tabulation ☐ Analysis ☐
3	STF File Information (1789 Validation Error) Provide information about STF file	3b. Is STF File Included?* Yes ☐ No ☐ 3c. Does STF File Reference all Associated Study Files?* Yes ☐ No ☐
4	TS File Information (1734 Validation Error) Provide information about ts.xpt file with study start date	4c. Study ID in TS File*: _____ 4d. Does Study ID in STF & TS Files Match?* Yes ☐ No ☐
5	Standardized Dataset Information (1735 & 1736 Validation Error) - Provide information about SEND or STDM and/or ADaM dataset and define.xml - Provide information about STF File-tags	5f. Is DM File Included?* Yes ☐ No ☐ 5g. Is Define File Included?* Yes ☐ No ☐

Note: Sections 2 through 5 are repeated for each study.

Reference: “Technical Rejection Criteria Self-Check Worksheet”
<https://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM630732.pdf>
“Technical Rejection Criteria Self-Check Worksheet Instructions”
<https://www.fda.gov/downloads/ForIndustry/DataStandards/StudyDataStandards/UCM630733.pdf>

Implementation Timeline

FDA published Revised Study Data Technical Rejection Criteria (Revised Jan. 2019) and Study Data Self-Check Worksheet to assist sponsors with the TRC Conformance



* Note: When a submission is technically-rejected, the submission sequence is not transferred into the FDA electronic document rooms
www.fda.gov

Summary

- ❖ Based on the revised TRC, about 21.6% all submissions were received with non-critical errors for 1734 and 1736.
- ❖ FDA published Study Data Self-Check Worksheet to help sponsors to follow the revised TRC
- ❖ FDA requires the submission of standardized Study Data as defined in the FDA Data Standard Catalog.
- ❖ FDA has not rejected any submission that contains errors as reflected in this analysis.
- ❖ FDA plans to use technical rejection criteria to identify applications that are not fulfilling this requirement.



TIP



To avoid validation errors, it is important for sponsors and applicants to understand the requirements specified in guidance and recommendations for submitting study data in the Study Data Technical Conformance Guide.

References

- ❖ **“Providing Regulatory Submissions In Electronic Format - Standardized Study Data: Guidance For Industry”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/DRUGS/GUIDANCECOMPLIANCEREGLATORYINFORMATION/GUIDANCES/UCM292334.PDF](https://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm292334.pdf)
- ❖ **“Providing Regulatory Submissions In Electronic Format - Submissions Under Section 745a(a) Of The FD&C Act: Guidance For Industry”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/DRUGS/GUIDANCECOMPLIANCEREGLATORYINFORMATION/GUIDANCES/UCM384686.PDF](https://www.fda.gov/downloads/drugs/guidancecomplianceregulatoryinformation/guidances/ucm384686.pdf)
- ❖ **“Technical Rejection Criteria For Study Data”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS/UCM630740.PDF](https://www.fda.gov/downloads/forindustry/datastandards/studydatastandards/ucm630740.pdf)
- ❖ **“Study Data Technical Conformance Guide”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS/UCM624939.PDF](https://www.fda.gov/downloads/forindustry/datastandards/studydatastandards/ucm624939.pdf)
- ❖ **“FDA Data Standards Catalog”**
[HTTPS://WWW.FDA.GOV/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS/DEFAULT.HTM](https://www.fda.gov/forindustry/datastandards/studydatastandards/default.htm)
- ❖ **“Technical Rejection Criteria Self-Check Worksheet”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS/UCM630732.PDF](https://www.fda.gov/downloads/forindustry/datastandards/studydatastandards/ucm630732.pdf)
- “Technical Rejection Criteria Self-Check Worksheet Instructions”**
[HTTPS://WWW.FDA.GOV/DOWNLOADS/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS/UCM630733.PDF](https://www.fda.gov/downloads/forindustry/datastandards/studydatastandards/ucm630733.pdf)

Recommended Readings:

- ❖ For FDA instruction of Study Data submission, see the FDA “Study Data for Submission to CDER and CBER” page at:

[HTTPS://WWW.FDA.GOV/DRUGS/DEVELOPMENTAPPROVALPROCESS/FORMSSUBMISSIONREQUIREMENTS/ELECTRONICSUBMISSIONS/UCM248635.HTM](https://www.fda.gov/drugs/developmentapprovalprocess/formssubmissionrequirements/electronic submissions/ucm248635.htm)

- ❖ For the full list of Study Data standards, see the FDA “Study Data Standards Resources” page at:

[HTTP://WWW.FDA.GOV/FORINDUSTRY/DATASTANDARDS/STUDYDATASTANDARDS](http://www.fda.gov/forindustry/datastandards/studydatastandards)

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