



Submission of Programs to authorities

14 March 2023



Submission of Programs to authorities

- Programs should be part of delivery packages that are provided to regulatory authorities
- Requirements differ slightly by authority
 - FDA and PMDA provide rather detailed guidance
 - EMA does not provide any guidance at all
 - NMPA provides (slightly vague) details in their Jul-2020 guidance

Submission of Programs to authorities

- FDA requirements (<https://www.fda.gov/media/153632/download>):
 - Programs covering any of the following should be submitted:
 - All ADaM datasets
 - Tables and figures associated with primary/secondary efficacy analysis
 - Any source code used to generate additional information included in section 14 CLINICAL STUDIES of the Prescribing Information
 - The software used (version and operating system) should be specified in the ADRG
 - No mention if programs must be executable or not (Macros thus might not need to be submitted, if described in ADRG)
 - Programs provided to FDA must be in single byte ASCII text format

Submission of Programs to authorities

- PMDA requirements (<https://www.pmda.go.jp/files/000247157.pdf>):
 - Programs covering any of the following should be submitted:
 - All ADaM datasets
 - Tables and figures showing “important” results on efficacy and safety (i.e. primary/secondary endpoints)
 - Tables and figures producing the clinical study results that provide the rationales for setting dosage and administration levels
 - The software used (version and operating system) should be specified in the ADRG
 - Would prefer to receive macros as well but concede that this might be possible
 - Providing specifications showing the used algorithms (in ADRG) is sufficient
 - Programs provided to PMDA should use the extension attached by the respective software (i.e. .sas is accepted)

Submission of Programs to authorities

- EMA requirements:
 - None
- NMPA requirements (from the July-2020 guideline, effective since Oct-2020 <https://www.lexjansen.com/pharmasug/2021/SS/PharmaSUG-2021-SS-073.pdf>):
 - Programs covering any of the following should be submitted:
 - All ADaM datasets
 - TFLs covering primary and secondary efficacy endpoints
 - “etc.”
 - Programs must be readable (with comments), understandable, executable, and not include external program calls
 - Particularly the use of “external macro programs” should be avoided
 - Programs should generally be provided in TXT format

Submitting programs in deliveries

- Summary:
 - SDTM programs not required to be submitted
 - All production side ADaM programs should be included
 - All production side Tables/Figure programs that support primary/secondary endpoints should be included
 - Macros should not be provided normally
 - Follow good programming practice throughout the project to ensure that programs fulfill the readability and understandability requirement
 - File extension:
 - For PMDA as .sas
 - For all others as single byte ASCII .txt

Submitting programs in deliveries

- Summary:
 - In ADRG:
 - Provide the SAS version and more details like operating system used
 - list all programs that are being submitted and briefly describe their purpose
 - Also detail if and which macros are used by each program
 - Separately list out all macros utilized and describe their functionality



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