



2023
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Experience and problems encountered during the whole FDA BLA submission and review cycle of an oncology drug

Presented by
Lihong Wen, Senior Manager, Statistical Programming, Clin-nov
26th Aug 2023



Meet the Speaker

Lihong Wen

Title: Senior Manager of Statistical Programming

Organization: Tianjin Clin-nov Medical Technology Co., Ltd.

Lihong is the statistical programming senior manager at Tianjin Clin-nov Medical Technology Co., Ltd., she has nearly 10 years experience in statistical programming and biostatistics for both CRO and pharmaceutical company.



Disclaimer and Disclosures

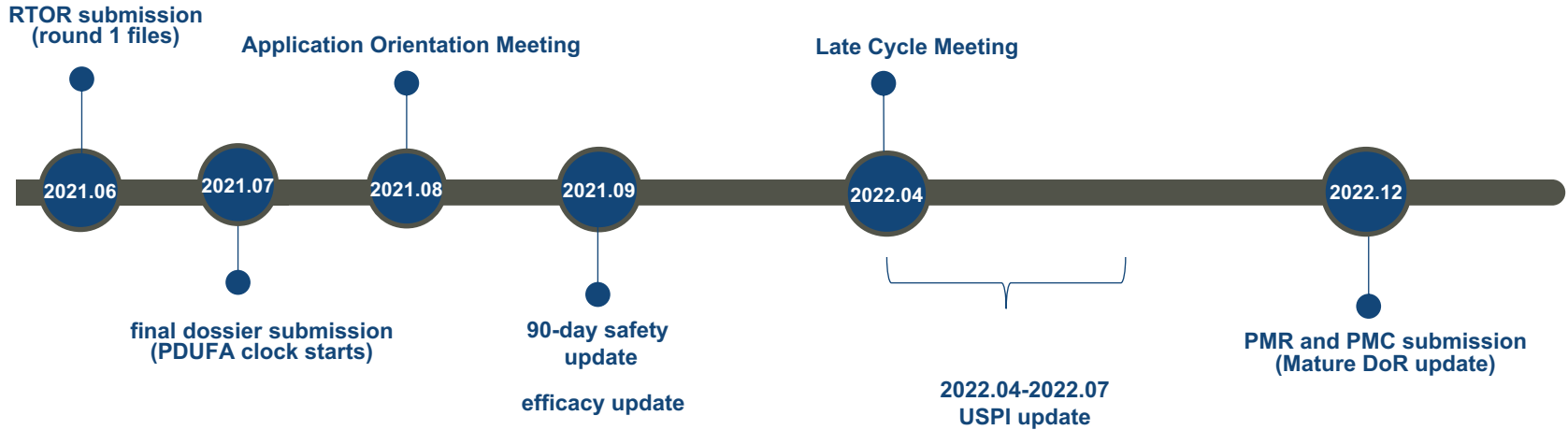
- *The views and opinions expressed in this presentation are those of the author(s) and do not necessarily reflect the official policy or position of CDISC.*



Agenda

1. Submission and review cycle
2. Real-Time Oncology Review and Assessment Aid
3. Bioresearch Monitoring (BIMO)
4. AOM - Datasets walkthrough meeting
5. 90-day safety update report
6. efficacy update and mature DoR update
7. United States Prescribing Information

Submission and review cycle



Real-Time Oncology Review and Assessment Aid

- RTOR pilot

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Real-Time Oncology Review

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Purpose of the RTOR

The Oncology Center of Excellence Real-Time Oncology Review (RTOR) aims to provide a more efficient review process to ensure that safe and effective treatments are available to patients as early as possible, while improving review quality and engaging in early iterative communication with the applicant.

RTOR facilitates earlier submission of topline efficacy and safety results, prior to the submission of the complete application, to support an earlier start to the FDA's evaluation of the application.

Content current as of:
06/30/2022

To learn more about real-time oncology review, go to:

FDA website: <https://www.fda.gov/about-fda/oncology-center-excellence/real-time-oncology-review>

White Paper: Friends of Cancer Research. (2018). Real-Time Oncology Review and the Assessment Aid: Increase Review Efficiency Through Standardization and Earlier Data Access

Real-Time Oncology Review and Assessment Aid

- RTOR Successful case study

The first approval made through the RTOR pilot was ribociclib (trade name: Kisqali).

Figure 1: Timeline for RTOR submissions*

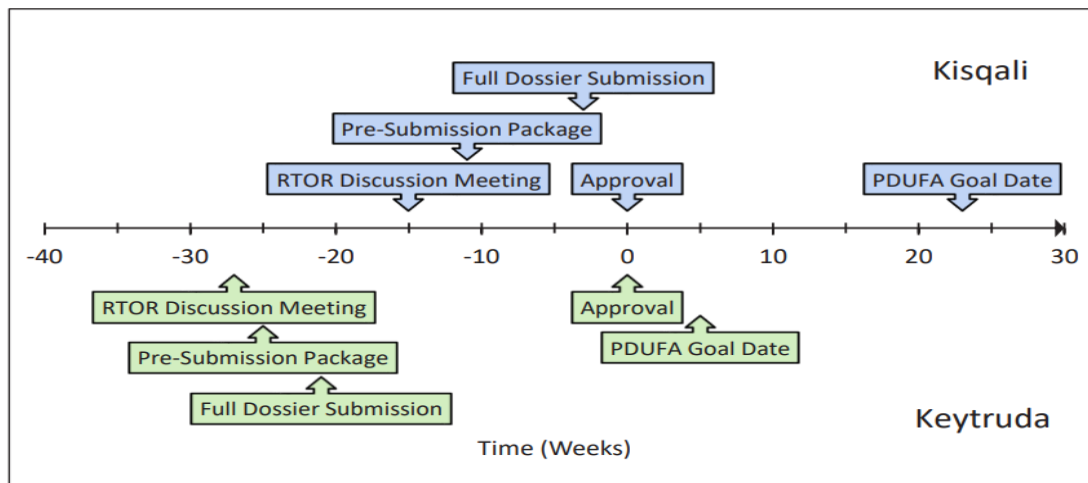


Table 3: Novartis RTOR Timeline

Event Date	Action	Not
January 2018	Pre-NDA meeting held with FDA	
April 6, 2018	Novartis/FDA RTOR discussion	
April 24, 2018	Pre-submission packages start to be sent to FDA	• • • • • •
April-June 2018	FDA issues multiple IRs	
June 28, 2018	Full dossier submission	• •
July 18, 2018	sNDA for Kisqali approved	

Real-Time Oncology Review and Assessment Aid

- Assessment Aid

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Assessment Aid

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Purpose

The Oncology Center of Excellence developed an Assessment Aid, a voluntary submission from the applicant to facilitate FDA's assessment of the NDA/BLA application, including supplements.

The Assessment Aid is based on the FDA Multidisciplinary Review template. The main objectives of the Assessment Aid are to (1) focus the FDA review on critical thinking (assessment) and (2) increase review efficiency and consistency, and decrease review time spent on administrative tasks such as formatting.

To learn more about Assessment Aid, go to:

FDA website: <https://www.fda.gov/about-fda/oncology-center-excellence/assessment-aid>

White Paper: Friends of Cancer Research. (2018). Real-Time Oncology Review and the Assessment Aid: Increase Review Efficiency Through Standardization and Earlier Data Access

Real-Time Oncology Review and Assessment Aid

• Assessment Aid Template

8.2.4. Safety Results¹

Deaths¹

Data¹

[To the Applicant: Insert text here]¹

- Sample Table: Summary of Deaths [Replace this title with a Table Caption using the *Insert Caption* button in the Cross-Reference tab.]¹

	Treatment Group ¹ N=X ¹ n (%) ¹	Control Group ¹ N=X ¹ n (%) ¹
Total Deaths¹		
Due to progressive disease ¹		
Due to adverse event ¹		
Due to other reasons ¹		
Other: ¹		
Within 30 days after last dose¹		
Due to progressive disease ¹		
Due to adverse event ¹		
Due to other reasons ¹		
Other: ¹		
Beyond 30 days after last dose¹		
Due to progressive disease ¹		
Due to adverse event ¹		
Due to other reasons ¹		
Other: ¹		

Source: .

- Sample Table: Grade 5 Adverse Events [Replace this title with a Table Caption using the *Insert Caption* button in the Cross-Reference tab.]¹

Adverse Event ¹	Treatment Group ¹ N=X ¹ n (%) ¹	Control Group ¹ N=X ¹ n (%) ¹
Deaths due to Adverse Event¹		
Preferred term (PT) ¹		

Source: .

- Sample Table: Grade 5 Adverse Events within 30 days of Last Dose of Study Drug [Replace this

title with a Table Caption using the *Insert Caption* button in the Cross-Reference tab.]¹

Study Arm ¹	Subject ID ¹	Age/Gender ¹	Study Day of Death ¹	Cause of Death ¹	Related to Study Drug (Y/N) ¹

Source: .

The Applicant's Position:¹

[To the Applicant: Insert text here]¹

The FDA's Assessment:¹

[FDA will complete this section.]¹

FDA prefers the Assessment Aid (AAid) be used with RTOR.

Real-Time Oncology Review and Assessment Aid

- **RTOR pre-submission files**

- ✓ Complete STDM and ADaM dataset package and supporting documents for pivotal study
- ✓ Topline safety/efficacy TLF for pivotal study
- ✓ SAS programs for pivotal study
- ✓ Protocol, amendments and SAPs for pivotal study
- ✓ Summary of data supporting dose selected for pivotal study
- ✓ **ISS datasets**
- ✓ Key analyses and datasets for clinical pharmacology (including popPK and ER)
- ✓ User fee
- ✓ Final reports module 4
- ✓ Patient narratives
- ✓ Proposed labeling
- ✓ CRFs
- ✓ All CMC information
- ✓ **Assessment Aid**

Bioresearch Monitoring (BIMO)

- BIMO overview

[← Home](#) / [Inspections, Compliance, Enforcement, and Criminal Investigations](#) / [Compliance Actions and Activities](#) / [FDA Bioresearch Monitoring Information](#) / [Bioresearch Monitoring Program Information](#)

Bioresearch Monitoring Program Information

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FDA Bioresearch Monitoring Information

Bioresearch Monitoring Program Information

Program Information

FDA's Bioresearch Monitoring (BIMO) program is a comprehensive program of on-site inspections, data audits, and remote regulatory assessments designed to monitor all aspects of the conduct and reporting of FDA regulated research. The BIMO program was established to assure the quality and integrity of data submitted to the agency in support of new product approvals and marketing applications, as well as, to provide for protection of the rights and welfare of the thousands of human subjects and animals involved in FDA regulated research. It has become a cornerstone of the FDA preapproval process for new medicines, medical devices, food and color additives, veterinary products and, tobacco products introduced to the U.S. consumer.

The BIMO program also takes part in pharmacovigilance activities for postmarketing drug products. These activities serve to detect, understand, and prevent drug-related problems.

Bioresearch Monitoring (BIMO)

- BIMO Technical conformance guide

BIORESEARCH MONITORING TECHNICAL CONFORMANCE GUIDE

Technical Specifications Document

This Document is Referenced by the Following Draft Guidance Document:

Standardized Format for Electronic Submission of NDA and BLA Content for the Planning of Bioresearch Monitoring (BIMO) Inspections for CDER Submissions

For questions regarding this technical specifications document, contact CDER-BIMO-NDA-BLA-request@fda.hhs.gov.

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research (CDER)

August 11, 2022

Bioresearch Monitoring (BIMO)

• BIMO submission files

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Table 1: STF File Tags

Requested Item	STF File Tag	Used For	Required File Formats
III.A.1-2	data-listing-dataset	General clinical study-level information	.pdf
III.A.3	Protocol-or-amendment	Protocol and Protocol Amendments, by study	.pdf
III.A.3	annotated-crf	Sample annotated case report form, by study	.pdf
III.B	data-listing-dataset	Data listings, by study (Line listings, by site)	.pdf
III.C	data-listing-dataset	Site-level dataset, across studies	.xpt
III.C	data-listing-data-definition	Define file	.xml
Optional	data-listing-dataset	BIMO Reviewer's Guide	.pdf



Provided by clinical operation team

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Provided by statistical programming team

名称

类型

define	XML 文档
clnsite	SAS Xport Transport File
Study xxxx Data Line Listings by Clinical Site - part1	Adobe Acrobat 文档
Study xxxx Data Line Listings by Clinical Site - part2	Adobe Acrobat 文档
BIMO Reviewer's Guide	Adobe Acrobat 文档
aCRF	Adobe Acrobat 文档
define2-0-0	XSL 样式表

Bioresearch Monitoring (BIMO)

- Clinsite dataset

	STUDYID	TITLE	SPONSOR	IND	NDA	BLA	SITEID	ARM	SAFFOP	ENDPOINT	ENDPTYPE	TRTEFFR	NSAE	SAE	FINLDISC	LASTNAME	FRSTNAME	PHONE	COUNTRY
1	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	01	xxx	11	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0.3	77	6	<\$25,000	XXX	LI	123456789	CHN
2	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	01	Screen Failure	0	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0	0	0	<\$25,000	XXX	LI	123456789	CHN
3	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	02	xxx	5	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0.5	41	1	<\$25,000	XXX	WEN	123456789	CHN
4	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	02	Screen Failure	0	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0	0	0	<\$25,000	XXX	WEN	123456789	CHN
5	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	03	xxx	13	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0.4	200	14	<\$25,000	XXX	LIU	123456789	CHN
6	XXXX-XXX	A Single-arm, Open-label, Multicenter Phase II Clinical Study of XXXX	XXXX Pharmaceuticals Ltd	123456		123456	03	Screen Failure	0	Objective response rate (ORR) assessed by IRRC per RECIST v1.1	discrete	0	0	0	<\$25,000	XXX	LIU	123456789	CHN

The dataset should contain one record per study, clinical site, and treatment arm, and primary endpoint, for the intent-to-treat (ITT) population. Clinical sites included in multiple studies will have separate records for each study.

Bioresearch Monitoring (BIMO)

- Response required

- 1) Clarify the discrepancy between the principle investigators' names as reported in clinsite and Module 1.3.4 for Sites xxx and xxx.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Food and Drug Administration

CERTIFICATION: FINANCIAL INTERESTS AND ARRANGEMENTS OF CLINICAL INVESTIGATORS

TO BE COMPLETED BY APPLICANT

With respect to all covered clinical studies (or specific clinical studies listed below (if appropriate)) submitted in support of this application, I certify to one of the statements below as appropriate. I understand that this certification is made in compliance with 21 CFR part 54 and that for the purposes of this statement, a clinical investigator includes the spouse and each dependent child of the investigator as defined in 21 CFR 54.2(d).

Please mark the applicable check box.

(1) As the sponsor of the submitted studies, I certify that I have not entered into any financial arrangement with the listed clinical investigators (enter names of clinical investigators below or attach list of names to this form) whereby the value of compensation to the investigator could be affected by the outcome of the study as defined in 21 CFR 54.2(a). I also certify that each listed clinical investigator required to disclose to the sponsor whether the investigator had a proprietary interest in this product or a significant equity in the sponsor as defined in 21 CFR 54.2(b) did not disclose any such interests. I further certify that no listed investigator was the recipient of significant payments of other sorts as defined in 21 CFR 54.2(f).

Clinical Investigators	Please find the list of names attached to this form	

(2) As the applicant who is submitting a study or studies sponsored by a firm or party other than the applicant, I certify that based on information obtained from the sponsor or from participating clinical investigators, the listed clinical investigators (attach list of names to this form) did not participate in any financial arrangement with the sponsor of a covered study whereby the value of compensation to the investigator for conducting the study could be affected by the outcome of the study (as defined in 21 CFR 54.2(a)); had no proprietary interest in this product or significant equity interest in the sponsor of the covered study (as defined in 21 CFR 54.2(b)); and was not the recipient of significant payments of other sorts (as defined in 21 CFR 54.2(f)).

(3) As the applicant who is submitting a study or studies sponsored by a firm or party other than the applicant, I certify that I have acted with due diligence to obtain from the listed clinical investigators (attach list of names) or from the sponsor the information required under 54.4 and it was not possible to do so. The reason why this information could not be obtained is attached.

333 APPENDIX 1: CLINICAL STUDY-LEVEL INFORMATION

334

335 *Format for comprehensive and readily located list of all clinical sites that participated in each*

336 *clinical study. A separate table should be provided for each clinical study.*

337 **Table A: Format for Clinical Site Lists**

Protocol Number: Protocol Title			
Site Identifier	Investigator Name (Prior Clinical Investigator(s))	Site Address at Time of Clinical Study (Updated Site Address when exists and available)	Site Contact Information at Time of Clinical Study (Updated Contact Information when exists and available)
SITEID	LASTNAME, FRSTNAME, MINITIAL	FACILITY NAME STREET CITY, STATE, POSTAL COUNTRY	PHONE FAX EMAIL
0001*	Doe, John M.	Doe University Department of Medicine 1 Main St., Suite 100 Silver Spring, MD 20850 USA	Phone: 1-555-555-5555 Fax: 1-555-555-5555 Email: john.doe@mail.com
0002	Doc, Jean (Smith, John)	Doe University Department of Medicine 1 Main St., Suite 100 Silver Spring, MD 20850 USA	Phone: 1-555-555-5555 Fax: 1-555-555-5555 Email: john.smith@mail.com (Phone: 1-555-555-5554 Email: jean.doe@mail.com)
003	Dietric-Fischer, Inge	Hartmannstrasse 7 5300 Bonn 1 Germany	Phone:49-555-555-5555 Fax: 49-555-555-5555 Email: Dietric.Fischer@web.de
* Site terminated, or clinical investigator changed, at request of sponsor before study completion.			

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Bioresearch Monitoring (BIMO)

- Response required

2) Submit a revised clinsite dataset in which the TRTEFFR is consistent with the CSR (denominator limited to the primary efficacy population as assessed by IRRC): i.e., $TRTEFFR = \frac{\text{total subjid number where AVALC in ("CR","PR") and param="Best Overall Response for FAS per IRRC" in ADaM.ADRS}}{\text{total subjid number where ADaM.ADSL.FIRRCFL="Y"}}$

Bioresearch Monitoring (BIMO)

Variable Index	Variable Name	Revision History			Sample Value
13	SAFF				20
		Date	Version	Summary of Changes	
		12/28/2017	1.0	Original Version	
		07/23/2020	2.0	<ol style="list-style-type: none"> Corrected footnote hyperlinks Edited variable names in examples and tables to maintain consistency across document Clarified document, listings, and data requests Deleted request for SITEFFE and SITEFFS variables in clinsite.xpt Added COHORT variable Revised PROTVIOL variable to IMPDEV and NOIMPDEV variables Provided additional instructions for placement of files per eCTD format 	
14	SCRI				100
15	DISC				5
16	DISC				10
17	ENDI	08/11/2022	3.0	<ol style="list-style-type: none"> Rename BIMO Review Guide to BIMO Data Review Guide Renamed TRTEFFR to TRTEFFR1 Added EFFPOP, TRTEFFR2, and CENSOR2 Variables Deleted request for TRTEFFS Change instructions for use of ISO codes to use of Geopolitical Entities, Names and Codes (GENC) codelist. Minor editorial changes. 	Average increase in blood pressure
18	ENDI				Continuous
19	TRTE				1.00
20	TRTE				0.065

Variable Index	Variable Name	Variable Label	Type	Controlled Terms or Format	Notes or Description	Sample Value
19	ENDPTYPE	Primary Endpoint Type	Char	String	Variable type of the primary endpoint (i.e., "continuous," "discrete," "time to event," or "other").	Continuous
20	TRTEFFR1	Treatment Efficacy Result for SAFPOP	Num	Floating Point	Summary statistic for each primary efficacy endpoint by treatment arm at a given site for subjects in SAFPOP.	1.00
21	TRTEFFR2	Treatment Efficacy Result for EFFPOP	Num	Floating Point	Summary statistic for each primary efficacy endpoint by treatment arm at a given site for subjects in EFFPOP.	0.98

AOM – Datasets walkthrough meeting

- **Application orientation meeting (AOM)**

- ✓ Optional but standard in Oncology (especially for Priority, Breakthrough and expedited review applications)
- ✓ Hear about an application and know applicant's position
- ✓ requested and held within 45 days of submission
- ✓ Very little time to prepare
- ✓ Two-part meeting
 - one-hour meeting (35-40 mins presentation and 20-25 mins Q&A)
 - **technical walkthrough - datasets walkthrough meeting (30 minutes)**

AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting attendees

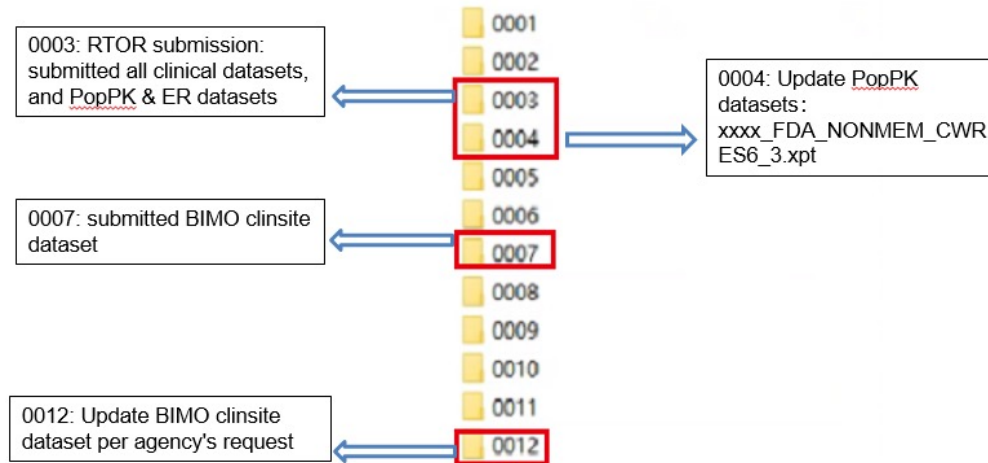
Sponsor Team	FDA Team
Clinical leader and other clinical team members	FDA Clinical Reviewers
Regulatory team	
Statistical leaders and study statisticians	
Statistical programming leader and programmers	FDA Statistical reviewers
Clinical pharmacology team members	FDA Clinical Pharmacology reviewers
Global medical safety team members	

AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation

- ✓ eCTD overview: show each sequence numbers for the submitted datasets

12 package submitted to FDA including Module1 - Module 5 documentations and updated files per agency comments.



AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation
 - ✓ eCTD index.xml: Point out important submitted datasets (initial submission)

0007 index

- m5-clinical-study-reports
 - m5-3-5-reports-of-efficacy-and-safety-studies [indication:]
 - m5-3-5-4-other-study-reports
 - [Study No. bimo STF](#) [new]
 - [BIMO\[. \].CRF](#) [new]
 - [BIMO\[. \].Clinical Study-level Information](#) [new]
 - [BIMO\[. \].Contracted Clinical Study Related Activities](#) [new]
 - [BIMO\[. \].Data Line Listings by Clinical Site - part1](#) [new]
 - [BIMO\[. \].Data Line Listings by Clinical Site - part2](#) [new]
 - [BIMO Reviewer's Guide](#) [new]
 - [BIMO summary-level clinical site data](#) [new]
 - [define](#) [new]
 - [define2-0-0](#) [new]



BIMO clinsite.xpt Dataset

AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation

- ✓ eCTD index.xml: Point out important submitted datasets (updated submission)

0012 index

- m5-clinical-study-reports
 - m5-3-clinical-study-reports
 - m5-3-5-reports-of-efficacy-and-safety-studies

- [Study No. bimo STF](#) [append]
 - [BIMO summary-level clinical site data](#) [replace]
 - [define](#) [replace]
 - [define2-0-0](#) [replace]

→ BIMO clinsite Dataset updated per agency's request. This is the final version submitted to FDA.

AOM – Datasets walkthrough meeting

- **Datasets walkthrough meeting presentation preparation**
 - ✓ Key ADaM datasets walkthrough – ADSL: important population flag

Key ADaM datasets - ADSL

Key analysis set flag variables:

Variable Name	Label
SAFFL	Safety analysis set Flag
FASINVFL	FAS per Investigator Flag
FIRRCFL	FAS per IRRC Flag

FASINVFL and FIRRCFL are used to flag Primary efficacy analysis set described in clinical study report and 2.7.3 Summary of Clinical Efficacy

AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation

- ✓ Key ADaM datasets walkthrough - efficacy

Key ADaM datasets - efficacy (ADRS)

ADRS: One record per subject per analysis parameter per analysis timepoint. (Basic Data Structure)

Below parameters are derived in ADRS:

ADRS.PARAM	ADRS.PARAMCD
Overall Response for FAS per IRRC	IRRCRESP
Overall Response for FAS per Investigator	OVRLRESP
Best Overall Response for FAS per IRRC	BSTRESIR
Best Overall Response for FAS per Investigator	BSTRESIN

Below date variables can be used to generate DoR/PFS in ADTTE:

DTFTRSP1: Date of First Response per Investigator

DTFTRSP2: Date of First Response per IRRC

FPDDT1: Date of Fir Disease Progression per Investigator

FPDDT2: Date of Fir Disease Progression per IRRC

And according to SAP, variables ADSL.DTHDTC & ADSL.NEWATDT(Date of New Anticancer Therapy) will also be used to derive DoR/PFS

AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation

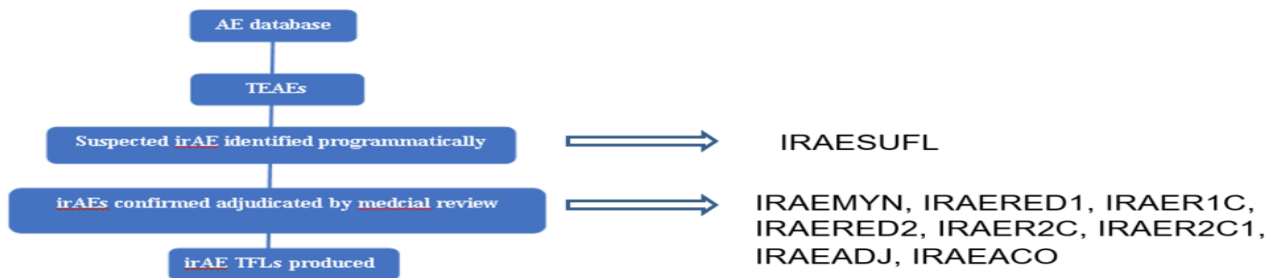
- ✓ Key ADaM datasets walkthrough - irAE related analysis

Key ADaM datasets - safety (pivotal study)

ADAE: One record per subject per Adverse Event. (Occurrence Data Structure)

Note: if CTCAE grade of AE change, variables AECTGR1-AECTGR8 used to collect.

irAE related variables:



AOM – Datasets walkthrough meeting

- Datasets walkthrough meeting presentation preparation
 - ✓ Key ADaM datasets walkthrough - irAE related analysis

Key ADaM datasets - safety (pivotal study)

ADAE.irAEHCAT, irAECAT

Table 14.3.1 Time to onset of first irAE and time to resolution - Subjects with irAE - Safety Analysis Set

irAE Category irAE Subcategory	Total (N)
With at Least One irAE (%)	
Lung toxicity (pneumonia)	
Lung toxicity (pneumonia)	
Time to first irAE (Months) [a]	
n (%)	
Mean (SD)	
Median (Min - Max)	
Time to resolution (Months) [b]	
n (%)	
Mean (SD)	
Median (Min - Max)	
Kaplan Meier Median and 95% CI	

select records where ADAE.ANL01FL="Y"
and then use variable astdy to do
descriptive analysis

where ADTTE.PARAMCD='IRAETTR'

AOM – Datasets walkthrough meeting

- Dataset walkthrough meeting presentation preparation
 - ✓ Key ADaM datasets walkthrough - irAE related analysis

Key ADaM datasets - safety (pivotal study)

Table 14.3.1.6 Summary of Dose and Duration of Concomitant Corticosteroid Use for irAE Episodes -Safety analysis set

	Total
Lung toxicity (pneumonia)	
Lung toxicity (pneumonia)	
Not Treated with Systemic Corticosteroid	
Treated with Systemic Corticosteroid	
Starting Dose (%) [a]	
Starting dose (mg/day)	
Mean (SD)	
Median (Min - Max)	
High Starting Dose (%) [b]	
Starting high dose (mg/day)	
Mean (SD)	
Median (Min - Max)	
Duration of Treatment (months) [c]	
Mean (SD)	
Median (Min - Max)	

→ ADAE.CORT1FL="Y"

→ ADAE.STDOSE

→ ADAE.HIGHDOSE

→ ADAE.irAETDUR

90-day safety update report

	Pivotal study	ISS	Label
SDTM	All datasets and define package	Other supportive studies have sufficient treatment exposure and no more patients were dosed after DCO for initial BLA submission, therefore, no safety updates were provided for those studies	FDA's reply: "With regard to the 90-day safety, xxx's proposal not to update the label is likely acceptable but pending FDA's review of the safety data."
ADaM	ADSL, ADAE, ADCM, ADLB and define package		
TFLs	<p>No more patients for pivotal study were dosed after DCO for initial BLA submission and There is only one new SAE, no \geq Grade 3 irAE judged by investigator, and no Grade 5 AE since initial BLA submission, so the Sponsor provide below TFLs in safety update report:</p> <p>Table 1: Summary of TEAE</p> <p>Listing 1: All new or updated AEs and newly added suspected irAEs (after initial BLA submission)</p> <p>Listing 2: Laboratory Assessment (for newly added \geq Grade 3 lab abnormality)</p> <p>Narratives: Narrative of the new or updated SAE from pivotal study xxx will be submitted</p>		

Lifecycle management: RA may confirmed with Lead statistician/programmer which attributes should be used for submission files, "replace" or "new". We generally should suggest to use "replace".

efficacy update and mature DoR update

	efficacy update	mature DoR update (PMC required)
SDTM	All datasets and define package (no need to submit again and state in the cover letter that: SDTM datasets used is the same as 90-day safety update)	All datasets and define package
ADaM	ADSLxx, ADRSxx, ADTTExx and define package	ADSLxx, ADRSxx, ADTTExx and define package
TFLs	Table 14.XX Summary of Time to Response (TTR) and Duration of Response (DoR) Based on RECIST 1.1 Figure 14.XX Swimmer Plot of Duration of Treatment Based on RECIST 1.1 per IRRC – Full Analysis Set - Responders	Table 14.XX Summary of Time to Response (TTR) and Duration of Response (DoR) Based on RECIST 1.1 Figure 14.XX Swimmer Plot of Duration of Treatment Based on RECIST 1.1 per IRRC – Full Analysis Set - Responders

PMC required description: submit mature duration of response (DOR) results from Trial xxx for the xx responders based on the original data cut-off date for the BLA. Follow all responders for at least 24 months from the date of initial response or onset of disease progression, whichever occurs first.

United States Prescribing Information

- Response required

FDA ask sponsor to provide the algorithm and SAS program used to determine the select laboratory abnormalities values in Table 3 of the xxx labeling.

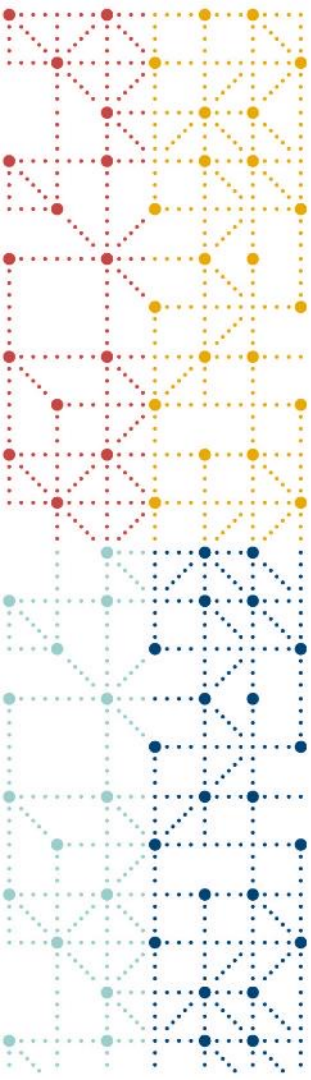
Table 3. Select Laboratory Abnormalities (≥20%) Worsening from Baseline in Patients Who Received XXX in Study XXX.

Laboratory Abnormality	XXX	
	All Grades* (%)	Grade 3 or 4* (%)
Chemistry		
Decreased phosphate	XX	X
Decreased sodium	XX	X
Increased triglycerides	XX	X.X
Increased gamma-glutamyl transferase	XX	X
Hematology		
Decreased lymphocytes	XX	XX
Decreased hemoglobin	XX	X.X

Toxicity graded according to NCI-CTCAE version 4.03.

* Each test incidence is based on the number of patients who had both baseline and at least one on-study laboratory measurement available: XX (range of the patient number:XXX to XXX).

FDA may update USPI's results based on results summarized by themselves. Sponsor's statistical team may reject the updates / comments and provide the correct results based on the results confirmed by SAS program.



Thank You!

cdisc