Analysis Data Reviewer's Guide

Pfizer Inc.

BioNTech SE

Study BNT162-01

Contents

1. Introduction

1.1 Purpose

This document provides context for the analysis datasets and terminology that benefit from additional explanation beyond the Data Definition document (define.xml). In addition, this document provides a summary of ADaM conformance findings.

1.2 Acronyms

Acronym	Translation
CRF	Case Report Form
P/B	Prime/Boost: a dosing regimen, comprising a priming immunization and a boost immunization
modRNA	Nucleoside modified messenger RNA
FIH	first-in-human
SRC	Safety Review Committee
COVID-19	Coronavirus Disease 2019
IMP	Investigational Medicinal Product
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
TEAE	Treatment Emergent Adverse Event

1.3 Study Data Standards and Dictionary Inventory

Standard or Dictionary	Versions Used
SDTM	SDTM v1.4/ SDTM-IG v3.2
SDTM Controlled Terminology	CDISC SDTM Controlled Terminology, 2020-03-27
ADaM	•ADaM v2.1 •ADaM-IG v1.1
ADaM Controlled Terminology	CDISC ADaM Controlled Terminology, 2020-03-27
Data Definitions	Define-XML v2.0
TAUG (if applicable)	Vaccines Therapeutic Area User Guide v1.1
Medical Events Dictionary	MedDRA 23.0
Other standards (optional)	WHODRUG GLOBAL B3 March 1, 2020

1.4 Source Data Used for Analysis Dataset Creation

The ADaM datasets were derived from SDTM version 3.2 and ADaM-IG version 1.1. The CSR datasets (SDTM) are based on ongoing data cut as of 23OCT2020.

2. Protocol Description

2.1 Protocol Number and Title

Protocol Number: BNT162-01

Protocol Title: A Multi-site, Phase I/II, 2-Part, Dose-Escalation Trial Investigating the Safety and Immunogenicity of Four Prophylactic SARS-CoV-2 RNA Vaccines Against COVID-19 Using Different Dosing Regimens in Healthy Adults

Protocol Versions: CorVAC-BNT162-01_CTP_v1.0_2020-03-24_final.pdf
CorVAC-BNT162-01_CTP_v2.0_2020-04-09_final_mod2.pdf
CorVAC-BNT162-01_CTP_v3.0_2020-04-17_final.pdf
CorVAC-BNT162-01_CTP_v4.0_2020-05-13_final_v1.2.pdf
CorVAC-BNT162-01_CTP_v5.0_2020-05-26_final.pdf
CorVAC-BNT162-01_CTP_v6.0_2020-06-09.pdf
CorVAC-BNT162-01_CTP_v7.0_2020-06-26_final.pdf
BNT162-01_CTP_v8.0_2020-07-21.pdf
BNT162-01_CTP_v9.0_2020-10-05_final.pdf

There were 8 amendments to the protocol. A detailed description of each amendment, with rationale for change, is provided in the protocol v9.0 under section 10.10. Some changes were also implemented to align data collection and reporting in this trial with the data collection and reporting in other trials with BNT162 vaccines candidates (to facilitate data merging). Some of the critical changes are listed here.

- Allow the assessment of additional intermediate and low dose cohorts for BNT162b modRNA vaccine candidates to support identification of a suitable dose for Phase II/III evaluation.
- Allow the assessment of BNT162b1 modRNA vaccine candidate in elderly subjects, given its favorable safety, tolerability, and immunogenicity profile in younger adults to date and recently available n on-human primate immunogenicity data for the BNT162b1 and other modRNA vaccine candidates.
- Plan the assessment of BNT162b2 modRNA vaccine candidate in elderly subjects.
- Allow revision of safety assessment & dose limiting toxicity criteria.
- Add additional for blood draws for explorative biomarker/immunogenicity research purposes.
- BNT162b1 and BNT162b2 are both non-modified uridine RNAs, while BNT162a1 and BNT162c2 are both nucleoside-modified pseudomethyl-uridine containing. This modification is known to impact the extent of innate immune activation at a given dose level, and thus potentially the extent of reactogenicity. Therefore, tolerability dat obtained with one of the vaccine variants of each of these pairs may be potentially informative for the respective other one and should be taken in consideration by the SRC for recommendations of lower or interim doses.
- Leftover blood may be used for additional biomarker analysis (blood sampling for research).
- Align diary data collection with other BNT162 studies.

2.2 Protocol Design in Relation to ADaM Concepts

Four different vaccines (BNT162a1, BNT162b1, BNT162b2, and BNT162c2) will be tested.

This trial has two parts. Part A is for dose ranging with dose escalation and de-escalation plus the evaluation of interim dose levels. It also includes dose ranging in older subjects. Part B is dedicated to recruit expansion cohorts with dose levels which are selected from data generated in Part A.

The vaccines BNT162a1, BNT162b1, BNT162b2, and BNT162c2 will be administered using a P/B regimen. The vaccine BNT162c2 will also be administered using a SD regimen.

The chosen trial design reflects discussion and advice from the Paul-Ehrlich Institute (PEI) obtained in scientific advice meetings held in February, March, and June 2020.

Part A

Trial subjects with the first-in-human [FIH] immunization will be immunized using a sentinel dosing/subject staggering (EMA 2017 guidance "Strategies to Identify and Mitigate Risks for First-in-Human and Early Clinical Trials with Investigational Medicinal Products"). The FIH starting dose and the planned escalation/de-escalation doses are given in Table 1 of protocol version 8. Dose escalation rules have been defined in this protocol to guide dose escalation.

For all cohorts, if the investigator considers necessary, the planned observation periods before proceeding to dose further subjects in the same group may be prolonged by 24 h.

Dose de-escalation in the case of possible vaccine-related toxicities will be guided by the Safety Review Committee (SRC), as required.

In Cohort 1, the sentinel dosing/subject staggering process will be as follows:

- One sentinel subject will be dosed on one day.
- If the dosing in this subject was considered to be safe and well tolerated by the investigator after 24±2 h observation on site, 5 further subjects will be dosed (with intervals of at least 1 h between subjects).
- If the dosing in these 5 subjects was considered to be safe and well tolerated by the investigator based on 48 h data (24±2 h observation on site and phone interview for assessment 48±2 h after immunization; in addition to the available 48±2 h data from the sentinel subject):
    - The remaining 6 subjects in the group will be dosed (with intervals of at least 30 min between subjects).
    - If approved by the SRC, the next planned escalation dose will be initiated. The data assessed by the SRC comprises 48 h data for 6 subjects including observation on site, short summary of phone interview (including statement about diary reports), vital signs, investigator reported local and systemic reactions, TEAEs, solicited local & systemic reactions, blood/clinical laboratory data, and brief physical examination outcome.
    - If approved by the SRC, the planned de-escalation dose in Cohort 3 will be initiated.

For any subsequent dose-escalation cohorts (to doses higher than the maximum already tested for a vaccine candidate), the sentinel/subject staggering process will be as follows:

- Two sentinel subjects will be dosed on one day (with intervals of at least 30 min between subjects).

- If the dosing in these subjects was considered to be safe and well tolerated by the investigator after 24±2 h observation on site, 4 further subjects will be dosed (with intervals of at least 30 min between subjects).
- If the dosing in these 4 subjects was considered to be safe and well tolerated by the investigator based on 48 h data (24±2 h observation on site and phone interview for assessment 48±2 h after immunization; in addition to the available 48 h data from the sentinel subjects):
    - The remaining 6 subjects in the group will be dosed (with intervals of at least 30 min between subjects).
    - If approved by the SRC, the next planned escalation dose (see Table 1) will be initiated. The data assessed by the SRC comprises 48 h data for 6 subjects including observation on site, short summary of phone interview (including statement about diary reports), vital signs, investigator reported local and systemic reactions, TEAEs, solicited local & systemic reactions, blood/clinical laboratory data, and brief physical examination outcome.

The maximum allowed dose for each vaccine candidate is defined in the protocol.

For the planned dose de-escalation cohorts, 12 subjects may be dosed on one day (with intervals of at least 30 min between subjects). The doses in these cohorts in younger adults must be lower than doses than doses that have shown acceptable tolerability in younger adults (based on the data from 12 subjects up until 48 h after the first dose). The same dose will not be administered twice, i.e., in two cohorts.

For BNT162b1 and BNT162b2, administration of the planned 10 µg dose in older subjects (Cohort 8) may start once at least a 30-µg dose has shown acceptable tolerability in younger adults (based on the data from 12 subjects up until 48 h after the boost dose). The dose in Cohort 8 must also be confirmed by the SRC. In Cohort 8, 12 subjects will be dosed using a sentinel dosing/subject staggering (2-4-6) process with intervals of at least 1 h between the first 6 subjects and then at least 30 min intervals for the remaining 6 subjects.

For BNT162b1 and BNT162b2, administration of the planned dose escalation cohorts in older adults (Cohorts 9 and 10), 12 subjects will be dosed using a sentinel dosing/subject staggering (2-4-6) process with intervals of at least 30 min between subjects. The doses planned in these cohorts will only be administered if the dose is confirmed by the SRC.

For the unplanned dose de-escalation cohorts, i.e., where the SRC requests the use of a reduced dose for safety reasons, 12 subjects may be dosed on one day with intervals of at least 30 min between subjects (as for planned de-escalation cohorts).

Note: BNT162b1 and BNT162b2 are modified uridine RNAs, while BNT162a1 and

BNT162c2 are both nucleoside-modified pseudomethyl-uridine containing RNAs. RNA modification is known to impact the extent of innate immune activation at a given dose level, and thus potentially the extent of reactogenicity. Therefore, tolerability data obtained with one of the vaccine variants of each of these pairs may be potentially informative for the respective other one and should be taken in consideration by the SRC for recommendations of lower or interim doses.

In the case that an individual experiences dose limiting toxicities or that the frequency or pattern of AEs within a sub-cohort gives cause for concern, the investigator may request by phone an ad hoc review by the SRC, at any time, before further doses of a given vaccine construct are administered.

Part B

Part B will only be started if approved using a substantial protocol amendment.

Details of Part B will be defined using a protocol amendment after thorough evaluation of immunogenicity and safety data from Part A for each vaccine candidate individually. Part B may be initiated for one or more vaccines while Part A is still ongoing, depending on the available data.

Safety data to be evaluated includes the package used by the SRC to assess individual dose levels and in addition any other safety observations that may be reported until the data cut off. Immunogenicity of all doses will be thoroughly assessed.

The protocol amendment will include a summary of relevant safety and tolerability data collected in Part A. This protocol amendment will also include Part B specific inclusion/exclusion criteria, objectives/endpoints, a description of the planned statistical analyses, and descriptions of any added trial assessments and procedures.

Part B will use a randomized, placebo-controlled design in the likely target population (e.g., higher risk populations such as immune compromised populations). Part B may employ a surrogate marker as a measure of vaccine efficacy.

3. Analysis Considerations Related to Multiple Analysis Datasets

3.1 Core Variables

Core variables are those that are represented across all/most analysis datasets.

Variable Name	Variable Description
STUDYID	Study Identifier
USUBJID	Unique Subject Identifier
SUBJID	Subject Identifier for the Study
SUBJIDN	Subject Identifier for the Study (N)
SITEID	Study Site Identifier
AGE	Age
AGEU	Age Units
AGEGR1	Pooled Age Group 1
AGEGR1N	Pooled Age Group 1 (N)
SEX	Sex
SEXN	Sex (N)
RACE	Race
RACEN	Race (N)

Variable Name	Variable Description
SCRFL	Screened Population Flag
SCRFN	Screened Population Flag (N)
SAFFL	Safety Population Flag
SAFFN	Safety Population Flag (N)
SAFBFL	Safety Boost Population Flag
SAFBFN	Safety Boost Population Flag (N)
IMMFL	Immunogenicity Population Flag
IMMFN	Immunogenicity Population Flag (N)
EXIMM1	Reason for Exclusion Immunogenicity Set
PPROTFL	Per-Protocol Population Flag
PPROTFN	Per-Protocol Population Flag (N)
EXPPROT1	Reason 1 for Exclusion Per-Protocol Set
CP7FL	Prime + 7 Days Completers Set
CP7FN	Prime + 7 Days Completers Set (N)
CPBP28FL	Prime to Boost or Prime +28 D. Comp. Set
CPBP28FN	Pri. to Bo. or Pri. +28 D. Comp. Set (N)
CB7FL	Boost + 7 Days Completers Set
CB7FN	Boost + 7 Days Completers Set (N)
CB28FL	Boost + 28 Days Completers Set
CB28FN	Boost + 28 Days Completers Set (N)
CPB28FL	Prime or Boost + 28 Days Completers Set
CPB28FN	Prime or Boost + 28 Days Comp. Set (N)
COMPLFL	Completers Population Flag
COMPLFN	Completers Population Flag (N)
COHORT	Cohort
COHORTN	Cohort (N)
COHCAT1	Cohort Category 1
COHCAT1N	Cohort Category 1 (N)
COHCAT2	Cohort Category 2
COHCAT2N	Cohort Category 2 (N)

Variable Name	Variable Description
GROUP	Group
GROUPN	Group (N)
ARM	Description of Planned Arm
ACTARM	Description of Actual Arm
TRTP	Planned Treatment
TRTPN	Planned Treatment (N)
TRTA	Actual Treatment
TRTAN	Actual Treatment (N)
TRTSDT	Date of First Exposure to Treatment
TRTSTM	Time of First Exposure to Treatment
TRTSDTM	Datetime of First Exposure to Treatment
TRTEDT	Date of Last Exposure to Treatment
TRTETM	Time of Last Exposure to Treatment
TRTEDTM	Datetime of Last Exposure to Treatment
ALLOCDT	Date of Allocation
ALLOCTM	Time of Allocation
ALLOCDTM	Datetime of Allocation
PRIMDT	Date of Prime Immunization
PRIMTM	Time of Prime Immunization
PRIMDTM	Datetime of Prime Immunization
BOIMDT	Date of Boost Immunization
BOIMTM	Time of Boost Immunization
BOIMDTM	Datetime of Boost Immunization

3.2 Treatment Variables

ARM versus TRTxxP

Are the values of ARM equivalent in meaning to values of TRTxxP?

Yes, the values of ARM are equivalent in meaning to values of TRT01P. ARM and TRT01P correspond to the planned treatment.

ACTARM versus TRTxxA

If TRTxxA is used, then are the values of ACTARM equivalent in meaning to values of TRTxxA?

Yes, the values of ACTARM are equivalent in meaning to values of TRT01A. ACTARM and TRT01A corresponds to the actual treatment. It has same value as TRT01P for the treated subjects.

Use of ADaM Treatment Variables in Analysis

Are both planned and actual treatment variables used in analysis?

No, only actual treatment variables were used in analyses. Actual treatment variables were used for safety analysis and Immunogenicity related report analysis.

Use of ADaM Treatment Grouping Variables in Analysis

Are both planned and actual treatment grouping variables used in analysis?

No

3.3 Subject Issues that Require Special Analysis Rules

There are no subject issues that require special analysis rules.

3.4 Use of Visit Windowing, Unscheduled Visits, and Record Selection

Was windowing used in one or more analysis datasets?

No.

Were unscheduled visits used in any analyses?

No. Data collected at unscheduled visits will not be included and analyzed for safety and efficacy analysis.

3.5 Imputation/Derivation Methods

If date imputation was performed, were there rules that were used in multiple analysis datasets?

No. Date imputations were not performed for this study.

Additional Content of Interest

DTYPE was used in analysis dataset ADVA and ADLB to indicate the type of derivations used in creating additional rows based on source data. Details about the derivation of DTYPE can be found in Section 5.2 in subsections specific to analysis datasets.

4. Analysis Data Creation and Processing Issues

4.1 Split Datasets

There are no split datasets.

4.2 Data Dependencies

All datasets get core variable values from ADSL. There were no other processing dependencies.

4.3 Intermediate Datasets

No intermediate analysis datasets were created in this trial.

5. Analysis Dataset Descriptions

5.1 Overview

Are data for screen failures, including data for run-in screening (for example, SDTM values of ARMCD='SCRNFAIL', or 'NOTASSGN') included in ADaM datasets? **No**

No. There are no Subjects with ARMCD='SCRNFAIL', or 'NOTASSGN' included in ADSL or any other datasets.

Are data taken from an ongoing study?

Yes.

Do the analysis datasets support all protocol- and statistical analysis plan-specified objectives?

The analysis datasets support a subset of protocol- and statistical analysis plan-specified data presentations included in an interim abbreviated clinical study report featuring a data cutoff date of October 23, 2020.

Additional Content of Interest

The dataset cutoff date used for the generation of the SDTM domains from which the ADaM datasets were created was 2020-10-23.

5.2 Analysis Datasets

Dataset Label	Class	Efficacy	Safety	Baseline or other subject characteristics	PK/PD	Primary Objective	Structure
ADSL Subject-Level Analysis Dataset	SUBJECT LEVEL ANALYSIS DATASET			X			One record per subject
A-DAE Adverse Events Analysis Dataset	OCCURRENCE DATA STRUCTURE		X				One record per subject per adverse event per event start date
ADCEVD Reactogenicity Analysis Dataset	OCCURRENCE DATA STRUCTURE		X			X	One record per subject per clinical event per analysis timepoint per vaccination period (identified by traceability variable CESEQ)

Dataset Label	Class	Efficacy	Safety	Baseline or other subject characteristics	PK/PD	Primary Objective	Structure
ADFACEVD Reactogenicity Findings Analysis Dataset	BASIC DATA STRUCTURE		X				One record per subject per analysis parameter per analysis timepoint
ADLB Laboratory Analysis Dataset	BASIC DATA STRUCTURE		X				One record per subject per analysis parameter per analysis timepoint
ADVA Immunogenicity Analysis Dataset	BASIC DATA STRUCTURE	X					One record per subject per analysis parameter per analysis timepoint
ADVS Vital Signs Analysis Dataset	BASIC DATA STRUCTURE		X				One record per subject per analysis parameter per analysis timepoint

5.2.1 ADSL - Subject-Level Analysis Dataset

ADSL includes all subjects in the DM domain and contains relevant subject level information, treatment variables and analysis set flags. This dataset supported the creation of all other analysis datasets. ADSL also contains the variables to support baseline characteristics and disposition analyses.

ADSL includes the following information for each subject.

- Subject identifier
- Demographic information
- Planned treatment and actual treatment
- Population flags
  - SCRFL (Screened Population Flag)
  - SAFFL (Safety Population Flag)
  - SAFBFL (Safety Boost Population Flag)
  - IMMFL (Immunogenicity Population Flag)
  - PPROTFL (Per-Protocol Population Flag)
  - CP7FL (Prime + 7 Days Completers Set)
  - CPBP28FL (Pri. to Bo. or Pri. +28 D. Comp. Set)
  - CB7FL (Boost + 7 Days Completers Set)
  - CB28FL (Boost + 28 Days Completers Set)
  - CPB28FL (Prime or Boost + 28 Days Completers Set)
  - COMPLFL (Completers Population Flag)
- Key dates and datetime related to conduct of the study

- Date of First Exposure to Treatment (TRTSDT)
- Date of Last Exposure to Treatment (TRTEDT)
- Datetime of First Exposure to Treatment (TRTSDTM)
- Datetime of Last Exposure to Treatment (TRTEDTM)
- Date of Informed Consent (RFICDT)
- Datetime of Informed Consent (RFICDTM)
- Date of Screening (SCRDT)
- Date of Last Visit (LVDT)
- End of Study Date (EOSDT)
- End of Follow-up Date (EOFUDT)
- Datetime of Prime Immunization (PRIMDTM)
- Datetime of Boost Immunization (BOIMDTM)
- Date of first Informed Consent (FIRICDT)
- Datetime of Informed Consent Reconsented 1 (ICR1DTM)
- Datetime of Informed Consent Reconsented 2 (ICR2DTM)
- Datetime of Informed Consent Reconsented 3 (ICR3DTM)
- Datetime of Informed Consent Reconsented 4 (ICR4DTM)
- Date of Prime Immunization (PRIMDT)
- Date of Boost Immunization (BOIMDT)
- Date of Informed Consent Reconsented 1 (ICR1DT)
- Date of Informed Consent Reconsented 2 (ICR2DT)
- Date of Informed Consent Reconsented 3 (ICR3DT)
- Date of Informed Consent Reconsented 4 (ICR4DT)
- Date of Death (DTHDT)

- Key variables related to treatment for reporting
  - Cohort (COHORT)
  - Group (GROUP)
  - Description of Planned Arm (ARM)
  - Description of Actual Arm (ACTARM)
  - Planned Treatment for Period 01 (TRT01P)
  - Actual Treatment for Period 01 (TRT01A)

5.2.2 ADAE - Adverse Events Analysis Dataset

This is a main safety analysis dataset comprised of adverse events recorded on the CRF. For dictionary coding, including specific terms for COVID-19, MedDRA version 23.0 was used. Source data can be traced back to the SDTM.AE domain using AESEQ. This dataset produces all outputs related to adverse events analysis. Safety summary for AE were performed based on treatment-emergent adverse events (TEAE). TEAE is defined as any AE with an onset date on or after the first immunization or worsened after the first immunization (if the AE was present before the first immunization). AEs with an onset date more than 28 days after the last immunization will be considered as treatment emergent only if assessed as related to IMP by the investigator. AEs that cannot be determined to not be treatment emergent due to

missing date or time will be defined as TEAE and flagged as "Y" in ADAE.TRTEMFL. The TEAEs were evaluated for the following time intervals:

- Prime immunization up to day 7 (inclusive) after initial immunization (TMINT1FL)
- Prime immunization up to boost immunization or day 28 (inclusive) after initial immunization (whatever comes first) (TMINT2FL)
- Boost immunization up to day 7 (inclusive) after boost immunization (TMINT3FL)
- Boost immunization up to day 28 (inclusive) after boost immunization (TMINT4FL)
- Prime immunization up to day 28 (inclusive) after boost immunization (TMINT5FL)

A look up table has been used to derive Preferred Term based on diary entry (PTDIAFL) which is described in Appendix II.

Some of the key ADAE variables/Flags used for analysis are described below.

Variable	Description
TRTEMFL	Treatment Emergent Analysis Flag
PTDIAFL	Preferred Term based on diary entry
AEEPRELI	Epi/Pandemic Related Indicator
AEEMREL	Treatment emergent related AE
AEEMSREL	Treatment emergent severe related AE
AEEMSER	Serious treatment emergent AE
AEEMSERR	Serious treatment emergent related AE
AEACN	Action taken with study treatment
AETOXGR	Standard Toxicity Grade
ASEV	Analysis Severity/Intensity
TMINT1FL	Time Interval 1 Flag
TMINT2FL	Time Interval 2 Flag
TMINT3FL	Time Interval 3 Flag
TMINT4FL	Time Interval 4 Flag
TMINT5FL	Time Interval 5 Flag

Methods used to derive these key variables are described in Appendix III.

5.2.3 ADCEVD – Reactogenicity Analysis Dataset

ADCEVD follows the ADaM Occurrence Data Structure to support the analysis of reactogenicity events. This dataset contains information regarding the occurrence (variable CEOCCUR) and severity (variable ASEV) of local and systemic reactions (identified by variable ACAT1) as reported by the subject in a

daily diary during the 7±1-day assessment period following each vaccination. Specific reactions are identified by CETERM, and occurrence flag variables (see table below) provide information regarding occurrences at the categorical level. Individual daily records from the diary can be viewed in the ADFACEVD dataset. Reactions which are first reported beyond the assessment period (with a value of ATPTN > 8 in ADFACEVD) are not considered in the population of occurrence and severity variables in ADCEVD but are considered in the population of the Analysis End Date (variable AENDT).

Key variables from ADCEVD utilized for analysis are the occurrence flags described here:

Occurrence Flag	Variable Label	Selection Criteria [Flags 1st record having CEOCCUR = 'Y' and meeting the additional selection criteria specified for a given USUBJID when sorted by ASTDT and CETERM.]
AOCCLRFL	1st Occurrence Local Reaction	ACAT1 = 'local'
AOCCL3FL	1st Occur Gr>=3 Local Reaction	ACAT1 = 'local' and SEVGR1 = 'grade >= 3'
AOCCLPFL	1st Occurrence Local Reaction-Prime	ACAT1 = 'local' and ATPTREF = 'Prime'
AOCCXPFL	1st Occur Gr>=3 Local Reaction-Prime	ACAT1 = 'local' and SEVGR1 = 'grade >= 3' and ATPTREF = 'Prime'
AOCCLBFL	1st Occurrence Local Reaction-Boost	ACAT1 = 'local' and ATPTREF = 'Boost'
AOCCXBFL	1st Occur Gr>=3 Local Reaction-Boost	ACAT1 = 'local' and SEVGR1 = 'grade >= 3' and ATPTREF = 'Boost'
AOCCSRFL	1st Occurrence Systemic Reaction	ACAT1 = 'systemic'
AOCCS3FL	1st Occur Gr>=3 Systemic Reaction	ACAT1 = 'systemic' and SEVGR1 = 'grade >= 3'
AOCCSPFL	1st Occurrence Systemic Reaction-Prime	ACAT1 = 'systemic' and ATPTREF = 'Prime'
AOCCYPFL	1st Occur Gr>=3 Systemic Reaction-Prime	ACAT1 = 'systemic' and SEVGR1 = 'grade >= 3' and ATPTREF = 'Prime'
AOCCSBFL	1st Occurrence Systemic Reaction-Boost	ACAT1 = 'systemic' and ATPTREF = 'Boost'.
AOCCYBFL	1st Occur Gr>=3 Systemic Reaction-Boost	ACAT1 = 'systemic' and SEVGR1 = 'grade >= 3' and ATPTREF = 'Boost'

5.2.4 ADFACEVD – Reactogenicity Findings Analysis Dataset

ADFACEVD follows the ADaM Basic Data Structure (BDS) to support the analysis of reactogenicity event findings. This dataset contains information regarding the occurrence and severity of local and systemic reactions (identified by variable PARCAT1), as well as the timing of first reactions in relation to treatment start and the duration of reactions from earliest to latest report. Variables PARAM and PARAMCD are used to distinguish different findings. The detailed parameters are described in Appendix IV.

Key variables from ADFACEVD utilized for analysis include the following: AVALC (analysis value for occurrence and severity parameters), AVAL (analysis value for time to first reaction and time from first to last reaction parameters), PARCAT1 (identifies reactions as local or systemic), AVALCAT1 (identifies reactions as having grade >= 3), ATPTREF (identifies reactions as being related to the Prime or Boost vaccination), and ANL01FL (identifies reactions included in frequency analyses, as those reported to

have occurred prior to the associated vaccination date/time – presumably due to data issue – are not included in frequency analyses).

5.2.5 ADLB – Laboratory Analysis Dataset

This dataset follows ADaM Basic Data Structure (BDS) supporting the analysis of laboratory data. The data can be pulled by any specific PARAMCD to view a certain lab endpoint. The AVAL value represents the result in the standard unit. New records have been imputed for qualifying parameters and DTYPE (Derivation Type) is populated as "HALFLLOQ". Lab parameters are described in Appendix I.

Laboratory data includes the flags which help understand the incidence of laboratory abnormalities (clinically significant or not) in the dataset. ANRIND, BNRIND, NABCS described below are abnormality flags. The reference ranges, ANRLO (Analysis Normal Range Lower Limit) and ANRHI (Analysis Normal Range Upper Limit) are used to determine the laboratory abnormalities. In addition to above variables there is an additional flag WPBLFL (Worst Post-Baseline Flag) which captures the first incidence of post-baseline abnormality. The analysis flags ANL01FL, ANL02FL are also included in the data. This dataset is used for the lab listings and lab abnormality/summary tables.

ANL01FL: Flag for all scheduled visits.
ANL02FL: Flag for all observed/original collected values. Will be NULL for imputed records.
ANRIND: Any Abnormality Criteria.
BNRIND: Abnormality at Baseline.
DTYPE: If any parameter has result captured as "<X" then a new record is imputed with AVAL as 0.5*X and DTYPE is populated as HALFLLOQ.
NABCS: Abnormality with Clinical Significance
WPBLFL: First occurrence of unique post-baseline abnormality. if there is no abnormality then first post-baseline record is flagged for each parameter.

Key Variables: PARAM, AVISIT, AVISITN, AVAL, AVALC, BASE, CHG, PARCAT1, ANRIND, BNRIND, NABCS, ADT, ADY.

5.2.6 ADVA – Immunogenicity Analysis Dataset

This is a main analysis dataset and contains immunogenicity assessments in IS dataset.

Assay result below the corresponding LLOQ were set to 0.5 × LLOQ and DTYPE was set to "HALFLLOQ", and missing assay results was not imputed. All analysis parameters are presented in below table.

The ratio from post-baseline to baseline was calculated as AVAL/ BASE for fold rise summaries.

PARCAT1	PARAMCD	PARAMN	PARAM	ISLLOQ
IMMUNOGENICITY	C19RBDIG	1	COVID-19 RBD IgG (U/mL)	1.1505
IMMUNOGENICITY	C19S1IGG	2	COVID-19 S1 IgG (U/mL)	1.2665
IMMUNOGENICITY	C2NGNT50	3	SARS-CoV-2 Serum Neutralizing Titer 50	20
IMMUNOGENICITY	C2NGNT90	4	SARS-CoV-2 Serum Neutralizing Titer 90	20

PARCAT1	PARAMCD	PARAMN	PARAM	ISLLOQ
IMMUNOGENICITY	FRC19RBD	5	COVID-19 RBD IgG Fold Rise	
IMMUNOGENICITY	FRC19S1I	6	COVID-19 S1 IgG Fold Rise	
IMMUNOGENICITY	FRC2NT50	7	SARS-CoV-2 Serum Neutralizing Titer 50 Fold Rise	
IMMUNOGENICITY	FRC2NT90	8	SARS-CoV-2 Serum Neutralizing Titer 90 Fold Rise	

Key Variables: PARAM, AVISIT, AVISITN, AVAL, AVALC, BASE, CHG, PCHG, CRIT1, CRIT1FL, PARCAT1, ADT, ADY.

5.2.7 ADVS – Vital Signs Analysis Dataset

This dataset follows ADaM Basic Data Structure (BDS) supporting the analysis of vital signs measurement. The data can be pulled by any specific PARAMCD to view at any timepoint. The AVAL value represents the result in the standard unit.

Vitals data includes the flags which help understand the incidence of abnormalities (clinically significant or not) in the dataset. ANRIND, BNRIND, NABCS described below are abnormality flags. The reference ranges, ANRLO (Analysis Normal Range Lower Limit) and ANRHI (Analysis Normal Range Upper Limit) are used to determine the abnormalities. The analysis flags ANL01FL, ANL02FL are also included in the data. This dataset is used for the vital signs' listings and abnormality/summary tables.

ANL01FL: Flag for all scheduled visits.
ANL02FL: Flag for all observed/original collected values. Will be NULL for imputed records.
ANRIND: Any Abnormality Criteria.
BNRIND: Abnormality at Baseline.
NABCS: Abnormality with Clinical Significance

Listed below are the parameters used in reporting.

PARAMCD	PARAMN	PARAM
BMI	1	Body Mass Index [kg/m2]
DIABP	2	Diastolic Blood Pressure [mmHg]
HEIGHT	3	Height [cm]
PULSE	4	Pulse Rate [beats/min]
RESP	5	Respiratory Rate [breaths/min]
SYSBP	6	Systolic Blood Pressure [mmHg]
TEMP	7	Temperature [C]
WEIGHT	9	Weight [kg]
TEMPR	8	Temperature (Reactogenicity) [C]

Key Variables: PARAM, PARAMCD, PARCAT1, PARCAT2, VSCLSIG, AVISIT, AVISITN, AVAL, BASE, CHG, PCHG, ANRIND, BNRIND, NABCS, ADTM, ATPT, ADT, ADY.

6. Data Conformance Summary

6.1 Conformance Inputs

Specify the software name and version for the analysis datasets

Pinnacle 21 Enterprise 4.1.4., Validation Engine version 1907.2

Specify the version of the validation rules (i.e. CDISC, FDA) for the analysis datasets

CDISC ADaM-CT 2020-03-27

Specify the software name and version for the define.xml

Pinnacle 21 Enterprise 4.1.4.

Specify the version of the validation rules (i.e. CDISC, FDA) for the define.xml

CDISC ADaM CT 2020-03-27

6.2 Issues Summary

Check ID	Diagnostic Message	FDA Severity	Dataset	Count (Issue Rate)	Explanation
SD1229	AVAL value is null when PARAMCD == 'EOSLEBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'LYMLEBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'NEUTLEBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'BASOBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'NEUTBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'EOSBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'BASOLEBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.

Check ID	Diagnostic Message	FDA Severity	Dataset	Count (Issue Rate)	Explanation
SD1229	AVAL value is null when PARAMCD == 'MONOBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'LYMBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'MONOLEBS'	Error	ADLB	1 (4.55%)	Lab was unable to analyze cells for subject BNT162-01-276-02-0191 at Day 29 visit.
SD1229	AVAL value is null when PARAMCD == 'TEMP'	Error	ADVS	3 (< 0.1%)	Temperature was not recorded for subject BNT162-01-276-02-0242 at 1, 3, and 6-hour timepoints following boost vaccination.
SD1229	AVALC value is null when PARAMCD == 'TEMP'	Error	ADVS	3 (< 0.1%)	Temperature was not recorded for subject BNT162-01-276-02-0242 at 1, 3, and 6-hour timepoints following boost vaccination.

7. Submission of Programs

All programs for analysis datasets as well as primary safety and secondary immunogenicity results are not submitted.

7.1 ADaM Programs

Programs are not submitted.

7.2 Analysis Output Programs

Outputs are not submitted.

7.3 Macro Programs

Macro programs are not submitted.

8. Appendix

8.1 Appendix I: Lab Parameters

PARAM	PARAMCD	PARAMN
Alanine Aminotransferase [U/L]	ALT	1
Albumin [g/L]	ALB	2
Alkaline Phosphatase [U/L]	ALP	3
Amphetamine	AMPHET	4
Amylase [U/L]	AMYLASE	5
Anisocytes	ANISO	6
Aspartate Aminotransferase [U/L]	AST	7
Bacteria [/HPF]	BACT	8
Barbiturates	BARB	9
Basophils (Blood Smear) [10^9/L]	BASOBS	14
Basophils (Blood) [10^9/L]	BASOB	11
Basophils/Leukocytes (Blood Smear) [%]	BASOLEBS	17
Basophils/Leukocytes (Blood) [%]	BASOLEB	16
Benzodiazepine	BNZDZPN	18
Bilirubin (Serum) [umol/L]	BILIS	19
Bilirubin (Urine) [umol/L]	BILIU	20
C Reactive Protein [mg/L]	CRP	21
Calcium [mmol/L]	CA	22
Cannabinoids	CANNAB	23
Casts [/HPF]	CASTS	24
Choriogonadotropin Beta	HCG	25
Cocaine	COCAINE	26
Creatine Kinase [U/L]	CK	27
Creatinine [umol/L]	CREAT	28
Crystals [/HPF]	CRYSTALS	29
Eosinophils (Blood) [10^9/L]	EOSB	31

Eosinophils (Blood Smear) [10^9/L]	EOSBS	34
Eosinophils/Leukocytes (Blood) [%]	EOSLEB	36
Eosinophils/Leukocytes (Blood Smear) [%]	EOSLEBS	37
Epithelial Cells [/HPF]	EPIC	38
Ery. Mean Corpuscular HGB Concentration [mmol/L]	MCHC	39
Ery. Mean Corpuscular Hemoglobin [fmol]	MCH	40
Ery. Mean Corpuscular Volume [fL]	MCV	41
Erythrocytes (Blood) [10^12/L]	RBCB	42
Erythrocytes (Urine) [/HPF]	RBCU	43
Ethanol	ETHANOL	44
Ferritin [ug/L]	FERRITIN	47
Follicle Stimulating Hormone [IU/L]	FSH	48
Gamma Glutamyl Transferase [U/L]	GGT	49
Glucose (Blood) [mmol/L]	GLUCB	50
Glucose (Urine)	GLUCU	51
Granulocytes Band Form/Total Cells [%]	GRANBCE	52
Hematocrit [L/L]	HCT	53
Hemoglobin (Blood) [mmol/L]	HGBB	54
Hemoglobin (Urine) [10^6/L]	HGBU	55
Ketones [mmol/L]	KETONES	56
Leukocytes (Blood) [10^9/L]	WBCB	57
Leukocytes (Urine - Dipstick) [10^6/L]	WBCUD	58
Leukocytes (Urine - Microscopy) [/HPF]	WBCUM	59
Lipase [U/L]	LIPASET	60
Lymphocytes (Blood) [10^9/L]	LYMB	62
Lymphocytes (Blood Smear) [10^9/L]	LYMBS	65
Lymphocytes Atypical/Leukocytes [%]	LYMATLE	66
Lymphocytes/Leukocytes (Blood) [%]	LYMLEB	68
Lymphocytes/Leukocytes (Blood Smear) [%]	LYMLEBS	69
Macrocytes	MACROCY	70

Methadone	METHDN	71
Methamphetamine	METHAMPH	72
Microcytes	MICROCY	73
Monocytes (Blood) [10^9/L]	MONOB	75
Monocytes (Blood Smear) [10^9/L]	MONOBS	78
Monocytes/Leukocytes (Blood) [%]	MONOLEB	80
Monocytes/Leukocytes (Blood Smear) [%]	MONOLEBS	81
Myelocytes [%]	MYCY	82
Neutrophils (Blood) [10^9/L]	NEUTB	84
Neutrophils (Blood Smear) [10^9/L]	NEUTBS	87
Neutrophils/Leukocytes (Blood) [%]	NEUTLEB	89
Neutrophils/Leukocytes (Blood Smear) [%]	NEUTLEBS	90
Nitrite	NITRITE	91
Opiate	OPIATE	92
pH	PH	93
Phencyclidine	PCP	94
Platelets [10^9/L]	PLAT	95
Poikilocytes	POIKILO	96
Potassium [mmol/L]	K	97
Protein [mg/L]	PROT	98
Round Epithelial Cells [/HPF]	EPIROCE	99
Smudge Cells/Leukocytes [%]	SMDGCELE	100
Sodium [mmol/L]	SODIUM	101
Specific Gravity	SPGRAV	102
Tricyclic Antidepressants	TRCYANDP	103
Urea Nitrogen [mmol/L]	UREAN	104
Urobilinogen [umol/L]	UROBIL	105
Yeast Cells [/HPF]	YEAST	106

8.2 Appendix II: Look Up Table

Preferred Term	Preferred Term Code
Abdominal pain	10000081
Abdominal pain lower	10000084
Arthralgia	10003239
Axillary pain	10048750
Body temperature increased	10005911
Chills	10008531
C-reactive protein increased	10006825
Decreased appetite	10061428
Diarrhoea	10012735
Discomfort	10013082
Dizziness	10013573
Fatigue	10016256
Feeling hot	10016334
Gastrointestinal disorder	10017944
Head discomfort	10019194
Headache	10019211
Hot flush	10060800
Influenza like illness	10022004
Injection site discolouration	10051572
Injection site discomfort	10054266
Injection site erythema	10022061
Injection site hypersensitivity	10022071
Injection site hypoaesthesia	10074586
Injection site pain	10022086
Injection site paraesthesia	10022088
Injection site reaction	10022095
Injection site swelling	10053425
Malaise	10025482

Muscle tightness	10049816
Myalgia	10028411
Nausea	10028813
Neck pain	10028836
Procedural pain	10064882
Pyrexia	10037660
Vomiting	10047700

8.3 Appendix III: Methods to derive key ADAE variables

ADAE Variables	Derivation Method
TRTEMFL	*if not missing Adverse start date/time and AE start date/time >= first immunization date/time and AE start date/time <= (last immunization date/time + 28 days), then TRTEMFL='Y'; *if missing Adverse start time and AE start date >= first immunization date and AE start date <= (last immunization date + 28 days), then TRTEMFL='Y'; *if not missing Adverse start date/time and AE start date/time > (last immunization date/time + 28 days) but assessed as related to IMP by investigator then TRTEMFL='Y'; *if missing Adverse start time and AE start date > (last immunization date + 28 days) but assessed as related to IMP by investigator then TRTEMFL='Y'; *if AE present before immunization and worsened after first immunization, then TRTEMFL='Y'; *if missing AE date or time and AE cannot be determined TEAE from the above set rules, then TRTEMFL='Y';
PTDIAFL	if (AEDECOD in ('Abdominal pain', ' Abdominal pain lower', ' Arthralgia', 'Chills', 'Decreased appetite', 'Diarrhoea', 'Discomfort', 'Fatigue', ' Feeling hot', 'Gastrointestinal disorder', 'Headache', 'Hot flush', 'Influenza like illness', 'Injection site discomfort', 'Injection site erythema', 'Injection site hypersensitivity', 'Injection site pain', 'Injection site paraesthesia', 'Injection site reaction', 'Injection site swelling', 'Malaise', 'Muscle tightness', 'Myalgia', 'Nausea', ' Pyrexia' , 'Vomiting', 'Axillary pain', 'Body temperature increased', 'C-reactive protein increased', 'Dizziness', 'Head discomfort', 'Injection site discolouration', 'Injection site hypoaesthesia', 'Neck pain') and ((AENDT - ASTDT)+ 1)<=7) then PTDIAFL='Y'.
AEEMREL	If TRTEMFL='Y' and upcase(arel)='RELATED' then AEEMREL='Y'; else AEEMREL='N'.
AEEMS	If TRTEMFL='Y' and asevn in (3,4) then AEEMS='Y'; else AEEMS='N'.
AEEMSER	If TRTEMFL='Y' and aeser='Y' then AEEMSER='Y'; else AEEMSER='N'.
AEEMSERR	If TRTEMFL='Y' and aeser='Y' and upcase(arel)='RELATED' then AEEMSERR='Y'; else AEEMSERR='N'.
AEEMSREL	If TRTEMFL='Y' and asevn in (3,4) and upcase(arel)='RELATED' then AEEMSREL='Y'; else AEEMSREL='N'.

ASEV	Propcase(AE.AESEV) when AE.AESEV not missing ; else Propcase(AE.AETOXGR) when AE.AETOXGR is not missing. ASEV= ' ' when both AE.AESEV and AE.AETOXGR missing.
TMINT1FL	AE is Treatment-Emergent: if ASTDTM >= PRIMDTM and (PRIMDTM <= ASTDTM <= (PRIMDTM + 7 days)) then TMINT1FL='Y'; if ASTDTM < PRIMDTM and Adverse Event worsened after Prime immunization then TMINT1FL='Y'; if AE time missing and Date not missing and (PRIMDT <= ASTDT <= (PRIMDT + 7)) then TMINT1FL='Y'; if missing AE Date/or time and AE cannot be determined with above set rules, then TMINT1FL='Y';
TMINT2FL	AE is Treatment-Emergent: Identify the minimum of duration - ((Prime to Boost) or (28 days from Prime) - whatever comes first. When Boost is missing, duration is 28 days from Prime. if duration < 28 then: (Prime to Boost contribution) if not missing AE start date/time and PRIMDTM <= ASTDTM <= BOIMDTM then TMINT2FL='Y'; if not missing AE start date/time and ASTDTM < PRIMDTM and Adverse Event worsened after Prime immunization then TMINT2FL='Y'; if missing AE start time and PRIMDT <= ASTDT <= BOIMDT then TMINT2FL='Y'; if missing AE start time and ASTDT < PRIMDT and Adverse Event worsened after Prime immunization then TMINT2FL='Y'; if duration = 28 then: (28 days from prime contribution) if not missing AE start date/time and PRIMDTM <= ASTDTM <= (PRIMDTM + 28 days) then TMINT2FL='Y'; if not missing AE start date/time and ASTDTM < PRIMDTM and Adverse Event worsened after Prime immunization then TMINT2FL='Y'; if missing AE start time and PRIMDT <= ASTDT <= (PRIMDT + 28) then TMINT2FL='Y'; if missing AE start time and ASTDT < PRIMDT and Adverse Event worsened after Prime immunization then TMINT2FL='Y';

	if missing AE Date/or time and AE cannot be determined with above set rules, then TMINT2FL='Y';
TMINT3FL	AE is Treatment-Emergent: if ASTDTM >= BOIMDTM and (BOIMDTM <= ASTDTM <= (BOIMDTM + 7 days)) then TMINT3FL='Y'; if ASTDTM < BOIMDTM and Adverse Event worsened after boost immunization then TMINT3FL='Y'; if AE time missing and Date not missing and Boost immunization date not missing and (BOIMDT <= ASTDT <= (BOIMDT + 7)) then TMINT3FL='Y'; if missing AE Date/or time and AE cannot be determined with above set rules, then TMINT3FL='Y';
TMINT4FL	AE is Treatment-Emergent: if ASTDTM >= BOIMDTM and (BOIMDTM <= ASTDTM <= (BOIMDTM + 28 days)) then TMINT4FL='Y'; if ASTDTM < BOIMDTM and Adverse Event worsened after boost immunization then TMINT4FL='Y'; if AE time missing and Date not missing and Boost immunization date not missing and (BOIMDT <= ASTDT <= (BOIMDT + 28)) then TMINT4FL='Y'; if missing AE Date/or time and AE cannot be determined with above set rules, then TMINT4FL='Y';
TMINT5FL	AE is Treatment-Emergent: if not missing AE Date/time, Prime/Boost immunization date/time and ASTDTM >= PRIMDTM and (PRIMDTM <= ASTDTM <= (BOIMDTM + 28 days)) then TMINT5FL='Y'; if not missing AE Date/time, Prime/Boost immunization date/time and ASTDTM < PRIMDTM and Adverse Event worsened on/after prime immunization and before/on (boost immunization + 28 days) then TMINT5FL='Y'; if not missing AE and Prime immunization date/time and boost date/time missing and ASTDTM >= PRIMDTM and (PRIMDTM <= ASTDTM <= (PRIMDTM + 28 days)) then TMINT5FL='Y'; if missing AE time and AE date available and

	ASTDT >= PRIMDT and (PRIMDT <= ASTDT <= (BOIMDT + 28)) then TMINT5FL='Y'; if missing AE time and AE date available and boost immunization missing and ASTDT >= PRIMDT and (PRIMDT <= ASTDT <= (PRIMDT + 28)) then TMINT5FL='Y'; if missing AE Date/or time and AE cannot be determined with above set rules, then TMINT5FL='Y';

8.4 Appendix IV: ADFACEVD Analysis Parameters

PARAM	PARAMCD	PARAMN
Arthralgia occurrence indicator	OCARTHR	230
Arthralgia severity/intensity	SEVARTHR	231
Chills occurrence indicator	OCCHILLS	235
Chills severity/intensity	SEVCHIL	236
Diarrhea occurrence indicator	OCDIAR	210
Diarrhea severity/intensity	SEVDIAR	211
Fatigue occurrence indicator	OCFATIG	220
Fatigue severity/intensity	SEVFATI	221
Fever occurrence indicator	OCFEVER	250
Fever severity/intensity	SEVFEVER	251
Headache occurrence indicator	OCHEAD	215
Headache severity/intensity	SEVHEAD	216
Loss of Appetite occurrence indicator	OCLOA	240
Loss of Appetite severity/intensity	SEVLOA	241
Malaise occurrence indicator	OCMALAI	245
Malaise severity/intensity	SEVMALAI	246
Myalgia occurrence indicator	OCMYALG	225
Myalgia severity/intensity	SEVMYALG	226
Nausea occurrence indicator	OCNAUS	200
Nausea severity/intensity	SEVNAUS	201
Pain at injection site occurrence indicator	OCPIS	100
Pain at injection site severity/intensity	SEVPIS	101
Redness occurrence indicator	OCISR	110
Redness severity/intensity	SEVREDN	111
Swelling occurrence indicator	OCINS	115
Swelling severity/intensity	SEVSWEL	116
Tenderness at injection site occurrence indicator	OCTIS	105
Tenderness at injection site severity/intensity	SEVTIS	106
Time from first to last arthralgia	DURARTH	2303
Time from first to last arthralgia with grade >= 3	DURARTH3	2304
Time from first to last chills	DURCHIL	2353
Time from first to last chills with grade >= 3	DURCHIL3	2354
Time from first to last diarrhea	DURDIAR	2103
Time from first to last diarrhea with grade >= 3	DURDIAR3	2104
Time from first to last fatigue	DURFATI	2203
Time from first to last fatigue with grade >= 3	DURFATI3	2204
Time from first to last fever	DURFEVE	2503
Time from first to last fever with grade >= 3	DURFEVE3	2504
Time from first to last headache	DURHEAD	2153
Time from first to last headache with grade >= 3	DURHEAD3	2154

Time from first to last local or systemic reaction	DURAR	3
Time from first to last local or systemic reaction with grade >= 3	DURAR3	4
Time from first to last local reaction	DURLR	13
Time from first to last local reaction with grade >= 3	DURLR3	14
Time from first to last loss of appetite	DURLOA	2403
Time from first to last loss of appetite with grade >= 3	DURLOA3	2404
Time from first to last malaise	DURMALA	2453
Time from first to last malaise with grade >= 3	DURMALA3	2454
Time from first to last myalgia	DURMYAL	2253
Time from first to last myalgia with grade >= 3	DURMYAL3	2254
Time from first to last nausea	DURNAUS	2003
Time from first to last nausea with grade >= 3	DURNAUS3	2004
Time from first to last pain at injection site	DURPIS	1003
Time from first to last pain at injection site with grade >= 3	DURPIS3	1004
Time from first to last redness	DURISR	1103
Time from first to last swelling	DURINS	1153
Time from first to last systemic reaction	DURSR	23
Time from first to last systemic reaction with grade >= 3	DURSR3	24
Time from first to last tenderness at injection site	DURTIS	1053
Time from first to last tenderness at injection site with grade >= 3	DURTIS3	1054
Time from first to last vomiting	DURVOMI	2053
Time from first to last vomiting with grade >= 3	DURVOMI3	2054
Time to first arthralgia	TTEARTH	2301
Time to first arthralgia with grade >= 3	TTEARTH3	2302
Time to first chills	TTECHIL	2351
Time to first chills with grade >= 3	TTECHIL3	2352
Time to first diarrhea	TTEDIAR	2101
Time to first diarrhea with grade >= 3	TTEDIAR3	2102
Time to first fatigue	TTEFATI	2201
Time to first fatigue with grade >= 3	TTEFATI3	2202
Time to first fever	TTEFEVE	2501
Time to first fever with grade >= 3	TTEFEVE3	2502
Time to first headache	TTEHEAD	2151
Time to first headache with grade >= 3	TTEHEAD3	2152
Time to first local or systemic reaction	TTEFAR	1
Time to first local or systemic reaction with grade >= 3	TTEFAR3	2
Time to first local reaction	TTEFLR	11
Time to first local reaction with grade >= 3	TTEFLR3	12
Time to first loss of appetite	TTELOA	2401
Time to first loss of appetite with grade >= 3	TTELOA3	2402
Time to first malaise	TTEMALA	2451
Time to first malaise with grade >= 3	TTEMALA3	2452
Time to first myalgia	TTEMYAL	2251

Time to first myalgia with grade >= 3	TTEMYAL3	2252
Time to first nausea	TTENAUS	2001
Time to first nausea with grade >= 3	TTENAUS3	2002
Time to first pain at injection site	TTEPIS	1001
Time to first pain at injection site with grade >= 3	TTEPIS3	1002
Time to first redness	TTEISR	1101
Time to first swelling	TTEINS	1151
Time to first systemic reaction	TTEFSR	21
Time to first systemic reaction with grade >= 3	TTEFSR3	22
Time to first tenderness at injection site	TTETIS	1051
Time to first tenderness at injection site with grade >= 3	TTETIS3	1052
Time to first vomiting	TTEVOMI	2051
Time to first vomiting with grade >= 3	TTEVOMI3	2052
Vomiting occurrence indicator	OCVOMI	205
Vomiting severity/intensity	SEVVOMI	206