
# Clinical Data Acquisition Standards Harmonization (CDASH)

CDASH Package-2

Inclusion& Exclusion (IE)
Medical History (MH) and Substance Use (SU)
Physical Exam (PE) & Vital Signs (VS)

Collaborative Group Review

September 2007

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# Section 1. Collaborative Group Review Process and Instructions

## 1. CDASH Package-2

CDASH Package-2 contains basic data collection variables for the Inclusion& Exclusion (IE), Medical History (MH) and Substance Use (SU), and Physical Exam (PE) & Vital Signs (VS). Each Harmonized Version (HV) contains the following sections:

- Introduction and Background
- Table 1: Highly Recommended Data Collection Variables
- Table 2: Recommended
- Table 3: Optional Data Collection Variables
- Table 4: Examples of Data Collection Variables Generally Considered Not Necessary to Collect

### 1.1 Review Process

The review of the following basic data collection variable tables should answer at a minimum the following questions:

Do the proposed data variables cover the basic variables common to most clinical research?

Is the document, taking into account the above, appropriate for broader public review?

### 1.2 Comment Process

A package consisting of 3 HVs and an Excel comments spreadsheet will be sent to each CG member for distribution within their respective organizations.

Each Collaborative Group member is requested to consolidate all comments from their respective organization into one Excel spreadsheet. Please complete the Commenter Name, workstream and variable name you wish to comment on.

Consolidated comments spreadsheets should be returned to scamhi@cdisc.org no later **than 15 October 2007**.

Comments will be addressed and a "Reviewed Version" will be then achieved.

## 2. Introduction to this Document

This document contains the second of four Clinical Data Acquisition Standards Harmonization (CDASH) Packages to be submitted for Collaborative Group review. CDASH Package-2 consists of Harmonized Versions (HV) for the following domains: the Inclusion& Exclusion (IE), Medical History (MH) and Substance Use (SU), and Physical Exam (PE) & Vital Signs (VS).

As stated in the prior sections, the CDISC Operating Procedure (CDISC-COP-001 Standards Development) is the basis for the CDASH process. The Initial Consensus Versions or Harmonized Versions (HVs) were developed by the respective workstreams. The HVs included with this document have been reviewed internally by the CDISC Technical Leadership Committee (TLC), and all comments have been addressed to produce these HVs. The next step in the CDISC consensus-based standards development process is the external focused review or in this case the Collaborative Group review.

The comments from this Collaborative Group review will be collated and each will be addressed in a table that will be posted on the CDISC website. Once all of the HVs from each of the 14 domains have been reviewed by

the Collaborative Group and all comments have been addressed, the resulting 14 domains will be open for a public review. Again, comments will be addressed and the result will be CDASH Version 1.0.

# 3. General Recommendations and Observations Applicable to all Domains

## 3.1 Implementation of CDASH Recommendations

The CDASH project seeks to identify the basic data collection fields needed from a clinical, scientific and regulatory data collection perspective, to enable efficient data collection at the investigative sites. Clearly, the more data fields that are collected, the greater the chances of introducing and/or not identifying errors and the greater the resources needed for monitoring, auditing, conduct and management of the project. Hence, while SDTM provides a standard for a 'superset' of data that could potentially be collected or derived, CDASH intentionally identifies a basic set of highly recommended and recommended variables or data collection fields that are expected to be present on the majority of case report forms (CRFs). Although it is assumed that additional data fields will be needed to address the study requirements, this approach forces a thought process among sponsors to determine specifically which fields, if any, must be added to these CDASH recommendations based upon the protocol and the business practices of the sponsor. Specifically, until therapeutic area-specific (TA) data fields have been standardized, these variables will need to be added to the CDASH recommended fields to fulfill the protocol-specific requirements.

While SDTM and CDASH are clearly related, there are instances where they do not exactly match due to their varied purposes, (submission vs. data collection). For example, the SDTM standard may contain derived data while CDASH variables should not be derived at the data acquisition stage. Basic data collection fields identified by CDASH project teams (via the CDISC consensus process) are mapped into the SDTM and are compliant with the SDTM IG. As part of this mapping the SDTM core designation (e.g., required, expected, permissible) has also been provided where applicable as an aide to reviewers. All SDTM "required" data collection fields have been addressed in the CDASH recommendations. The CDASH workstreams have intentionally not reproduced other sections of the SDTM standard, and reviewers are asked to refer to the CDISC SDTM IG for full implementation guidelines.
(http://www.cancer.gov/cancertopics/terminologyresources/page6)

The CDASH project deliverables will ultimately provide essentially an Implementation Guide for the SDTM on the data collection end of the project. The goal to identify a list of basic data collection fields which Sponsors may use as needed to meet protocol specific and other data collection requirements, (e.g. therapeutic specific (TA) data fields and others as required per protocol, business practice and operating procedures).

## 3.2 CDASH Categories for Basic Data Collection Fields

In order to facilitate classification of the different types of data collection fields, the following categories were used:

Highly Recommended = A data collection field that should be on the CRF (e.g., a regulatory requirement (if applicable)).

Recommended/Conditional = A data collection field that should be collected on the CRF for specific cases (may be recorded elsewhere in the CRF or from other data collection sources).

Optional = A data collection fields that is available for use if needed (may be recorded elsewhere in the CRF or from other data collection sources).

Highly recommended and recommended/conditional data collection fields are expected to be present on the majority of CRFs, however, it is assumed that sponsors will determine which data fields will be collected based on TA specific data requirements, protocol and other considerations.

The SDTM core designation reflects the expectation of inclusion in an SDTM submission. As an aide to reviewers, SDTM Core Variables***** (Required, Expected and Permissible) are included in the CDASH tables.

See the CDISC SDTM Implementation Guide: Human Clinical Trials (Version 3.1.2)
(http://www.cancer.gov/cancertopics/terminologyresources/page6)

## 3.3 Explanation of Table Headers in the CDASH Packages

Following are explanations for column headers used in the tables:

CRF Data Collection Field – Provides descriptive text on the type of data to be collected on the CRF.

SDTM Variable Name – Lists the SDTM conforming variable name defined in the SDTM IG along with the SDTM "Core" designation.

CDASH Variable Name - This column provides suggested data collection field names (e.g. CMONG and CMTTM). These variable names are "SDTM-like variables" and can be used as a tool for deriving the SDTM variable needed for reporting.

Definition – Describes the purpose of the data collection field. The text may or may not mirror the text in the SDTM IG (under variable label or CDISC notes).

Instructions to Clinical Site –Contains information for the clinical site on how to enter collected information onto the CRF.

Implementation Guidelines –Contains further information on how to implement the CRF data collection fields.

Note: "Instructions for the Clinical Site" and "Implementation Guidelines" are provided only for those data collection fields that are considered "highly recommended" and "recommended/optional".

## 3.4 Examples of Data Collection Fields Generally Considered Not Necessary to Collect

This section contains a brief representation of examples of other fields (including SDTM variables) that were discussed by the workstreams and were generally not considered to be data collection fields that are applicable to most clinical research. This representative list is not exhaustive, and it is included to give the reviewer an idea of what data collection fields were discussed within the workstreams during their deliberations**.**

## 3.5 Placeholder – Recommendations for data cleaning "prompt questions".

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## 3.6 Recommended Date and Time Format

In order to reduce confusion between the different numeric date formats, the CDASH project recommends the use of a combination of numeric and characters (months) in the following in the DD/MMM/YYYY format on CRFs as best practice. The number of spaces for abbreviation of month (MMM) may be expanded to allow for abbreviation in the local language as needed.

Time should be recorded using a 24 hour clock in HH:MM:SS format, as needed. Midnight should be recorded as 00:00:00 and starts the new date. Date and time fields may be concatenated to form the needed submission variable, (e.g. DTC variable, using the ISO 8601 [YYYY-MM-DDTHH:MM:SS]).

## 3.7 Terminology

Terminology used by the CDASH project is developed through the CDISC Terminology Team and is published by the National Cancer Institute's Enterprise Vocabulary Services (NCI EVS). The CDASH final document, will only list the name of the code list stored in NCI's EVS.
(http://www.cancer.gov/cancertopics/terminologyresources/page6)

Terminology proposed by the CDASH project will be forwarded to the CDISC Terminology team for consideration and vetting via the consensus-based development process.

### 3.8 Basic Identifiers (Study, Site, Investigator, Subject)

These basic identifiers from the CDASH perspective are being addressed in the demographics domains (Site, Investigator and Patient/Subject identification data fields (e.g. STUDYID, COUNTRY, SITEID, INVID, and SUBJID) rather than duplicating these fields in all 14 domains. In the case of paper CRFs, these data collection fields may be collected on each case report form page as required, according to standard practice, local regulation, etc.

## 4. CDASH Project Background and Goals

The Clinical Data Acquisition Standards Harmonization (CDASH) project is addressing FDA's Critical Path Opportunity (#45) whose purpose is to facilitate standardized collection of clinical research data at investigative sites.

***#45 Consensus on Standards for Case Report Forms.*** *Clinical trial data collection, analysis, and submission can be inefficient and unnecessarily expensive. A wide array of different forms and formats are used to collect clinical trial information, and most data are submitted to the FDA on paper. Differences in case report forms across sponsors and trials creates opportunities for confusion and error. Standardization of the look and feel of case report forms could reduce these inefficiencies and also help accelerate progress toward electronic data capture and submission. (Critical Path Opportunities List (Innovation/Stagnation) link: http://www.fda.gov/oc/initiatives/criticalpath/opportunities06.html)*

*Placeholder: FDA BIMO workshop*

### 4.1 Benefits of Standardization for Data Collection

Standards can substantially reduce time and resource needs for clinical research studies, particularly when they are implemented in the start-up stage. (*Applied Clinical Trials, June 2007*). In addition, they have been reported to improve project team communication and resulting data quality.

Through standardization of basic data collection fields, efficiencies can be achieved that will result in less confusion across sponsors, investigators and research sites and will require less data cleaning and facilitate more efficient monitoring, audit, submission and review procedures.

### 4.2 CDASH Project History, Overarching Goal and Scope

The CDASH project continues the CRF standardization work initiated by the Association of Clinical Research Organizations (ACRO). It was recommended that CDISC take the leadership role during the January 2006 - DIA Open Forum "Creating Clinical Trial Efficiencies through Standard Data Collection" organized by CDISC, FDA, ACRO. CDISC has expertise in standards development demonstrated by former CDISC work, such as in the development of the Study Data Tabulation Model (SDTM) for reporting results in regulatory submissions to FDA, can be leveraged in the CDASH project.

In June 2006 the initial Collaborative Group was announced by Dr. Woodcock at the Annual DIA Meeting in Philadelphia "Human Subject Protection/Bioresearch Monitoring Initiative and Critical Path Update". CDASH strategy and resources are the responsibility of this Collaborative Group, which is comprised of 12 organizations:

- American Medical Informatics Association (AMIA)
- Association of Clinical Research Organizations (ACRO)
- Association of Clinical Research Professionals (ACRP)

- Baylor College of Medicine
- Biotechnology Industry Organization (BIO)
- Clinical Data Interchange Standards Consortium (CDISC)
- Clinical Research Forum; the Critical Path Institute (C-Path)
- Duke Clinical Research Institute (DCRI)
- Food and Drug Administration (FDA)
- National Institutes of Health (NIH)
- Pharmaceutical Research and Manufacturers Association (PhRMA)
- Society for Clinical Data Management (SCDM)).

A CDISC Project Kick-off meeting was held in October 2006 to initiate the first CDASH three project workstreams (sub-groups).

The primary goal of the CDASH project is the development of a set of 'content standards' for a basic set of global data collection fields that will support clinical research studies. These "content standards" consist of data collection fields, definitions, completion instructions and implementation instructions for a basic set of global data collection fields that will support clinical research studies.

The initial scope of the project is the development of 16 CRF content 'safety data/domains'

- Adverse Events
- (Prior and) Concomitant Medications
- Comments
- Demographics
- Disposition/End of Study
- Drug Accountability
- ECG
- Exposure
- Inclusion and Exclusion Criteria
- Lab
- Medical History
- Physical Examination
- Protocol Violations
- Subject Characteristics
- Substance Use

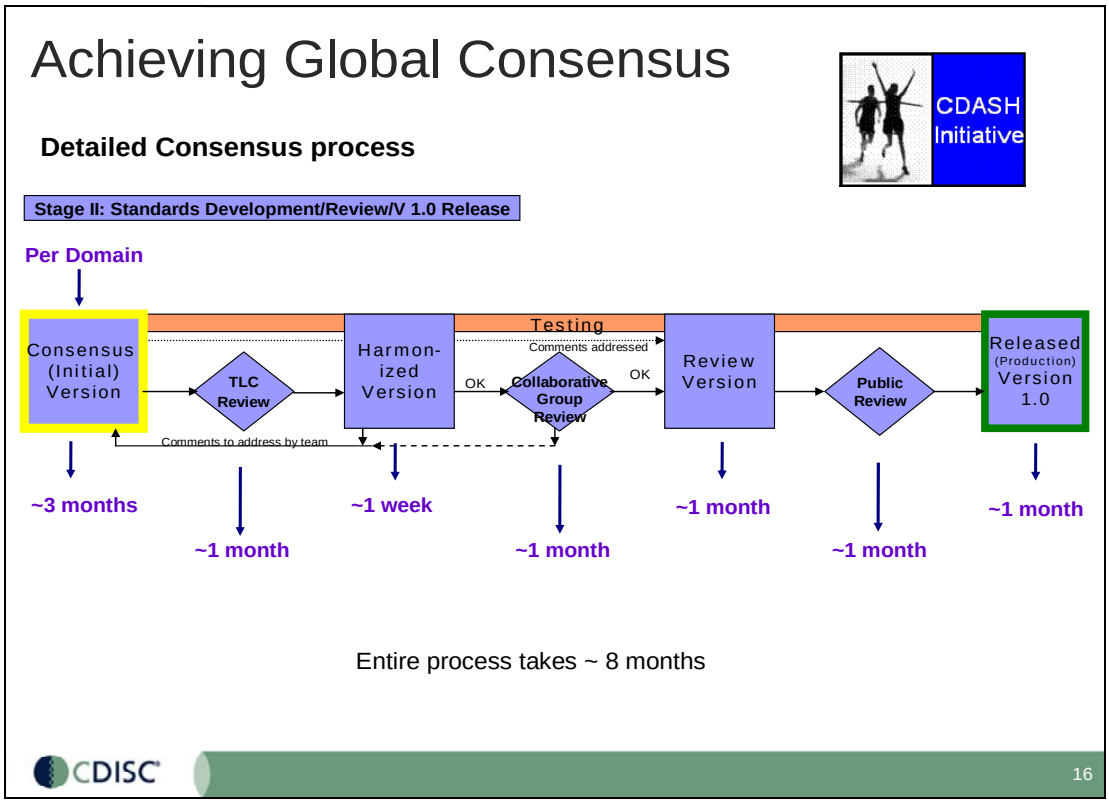
- Vital Signs

These safety domains are common to all therapeutic areas. The initial scope is on CRF content not the physical layout of CRFs. Terminology is out of scope for the CDASH workstream; rather, terminology is incorporated through collaboration with the CDISC Terminology Team. See section 4.6 for more information.

Basic data collection fields identified by CDASH project workstreams (via the CDISC consensus process) are mapped into the Study Data Tabulated Model (SDTM) and are compliant with the SDTM Implementation Guide (SDTM IG). SDTM "required" data collection fields have been addressed in the CDASH recommendations. See section 4.2 for more information.

## 5. CDASH Project Process

The CDASH Project follows the CDISC Operating Procedure (COP-001) for Standards Development (http://www.cdisc.org/about/bylaws_pdfs/CDISC-COP-001-StandardsDevelopment-Feb2006.pdf). Following is flow diagram that describing the Stage II: Standards Development/Revision/Release of Version 1.0.




To develop the Harmonized Version (HV), the CDISC SDTM variable tables served as a starting/reference point. The CDASH and SDTM variables may differ in certain cases, however, because SDTM is a standard for standardizing results for regulatory submissions whereas CDASH variables are used in the collection of data. Another difference is that the CDASH project is designed to encourage collection of a minimal or basic set of required and necessary data fields whereas SDTM represents more of a 'superset' of variables for reporting results.

In addition to referring to the CDISC SDTM standard, CDASH volunteers were asked to collect CRF samples currently used by industry and to evaluate commonalities and/or differences of CRF samples and the SDTM standard. Workstreams were also asked to document data points that they recommended be including or excluding in the CDASH domains, along with their justifications for these decisions.

## 5.1 CDASH Guiding Principles

The following *Guiding principles were provided to the workstreams in developing their domains. Variables should –

- Ensure that SDTM "required" elements are addressed directly or indirectly
- Be "standard" yet flexible to allow customization within defined limits
- Limit fields to required and necessary
- Comply with regulatory requirements
- Reduce redundancies; not duplicate information found elsewhere in CRFs
- Increase collection of meaningful data
- Facilitate use of standards by all users
- Be appropriate for use in both pre- and post- approval studies
- Allow consistent and efficient data collection/storage/transmission and analysis

**ACRO presentation: 2006-10-18 CDASH Kick-off Meeting*

## 5.2 CDASH Volunteers: Workstreams and workstreams Procedures

The CDASH project work is performed primarily by volunteers, who are representing biopharmaceutical companies, contract research organizations, academia and government. Each workstream is responsible for one or more domains.

The CDASH Core Team, a qualified, multidisciplinary team of 10 members, leads each of the safety domain workstream listed above. The following table lists the members of the CDASH Core Team and their respective workstreams (domains). The Core Team executes the project plan, holding regular conference calls and face-to-face meetings, as appropriate, to achieve the objectives. Each Core Team member led one or more workstreams (or sub-group) of volunteer participants. Volunteers for each workstream were recruited via open invitation. Effort was made to ensure that representation on each workstream was from diverse companies, with various functional areas represented and that there was multinational representation whenever possible.

| Workstream Leader | Affiliation | Email address | Workstreams |
|---|---|---|---|
| Gary Walker | Quintiles | gary.walker@quintiles.com | Demographics and Subject Characteristics<br>Lab & ECG |
| Dorothy Dorotheo | Intermune | DDorotheo@intermune.com | Prior and Concomitant Medications |
| David Tatum | Lilly | tatum4@comcast.net | Adverse Events |
| Shannon Labout | CSS Informatics and SCDM | shannon.labout@csscomp.net | Inclusion/Exclusion |
| Trisha Simpson | Schwarz Biosciences/UCB | Trisha.Simpson@ucg-group.com | Medical History and Substance Use |
| Paul Bukoweic | Millennium Pharmaceuticals | Paul.Bukoweic@mpi.com | Physical Exam and Vital Signs |
| Liz Nulton-Bodiford | GlaxoSmithKline | liz.m.nulton-bodiford@gsk.com | Drug Accountability and Exposure |
| Jay Leeka | AstraZeneca | Jay.Leeka@astrazeneca.com | Comments and Protocol Deviations |

| Workstream Leader | Affiliation | Email address | Workstreams |
|---|---|---|---|
| Alec Vardy | CV Therapeutics | Alec.Vardy@cvt.com | Disposition/ End of Study |
| Kim Truett | KCT Data, Inc. | Kim.Truett@kctdm.com | Co-Workstreams Leader<br>Dm & SC, Inclusion & Exclusion, Lab & ECG |
| Rhonda Facile | CDISC | rfacile@cdisc.org | Project Director |

Workstreams volunteers were recruited, and there were typically resulting in 10-40 members per workstreams. An effort was made to ensure that there were various functional areas represented and that there was multinational representation whenever possible.

Workstream volunteers were asked to agree on basic data collection fields, map these fields to SDTM, to add definitions and to write instructions for investigative sites and to write implementation guidelines /rationales for study sponsors.

The workstreams began by reviewing CRF samples supplied by ACRO (where available), as well as other CRF samples collected that are currently used by industry. Within each workstream, sub-groups were assigned and given the action items of scanning CRF samples and quality control (QC) of CRF examples and establishing the administrative procedures for the workstreams. Weekly or bi-weekly teleconferences provided a communication forum to review and discuss the identification of basic data collection fields for a given domain.

The workstreams collected feedback from numerous functional areas within their respective companies (including ex-US affiliates) to identify the purpose for their respective workstreams' data collection focus (i.e., their domain). The workstreams then focused the group discussions per the Guiding Principles (listed above). For each variable, a category was assigned (highly recommended/recommended/optional, variable labels and definitions were developed. The SDTM submission fields served as a target for deliverable data. Data collection fields were mapped to the SDTM variables as applicable.

### 5.3 CDASH Domain Review Process

The CDISC Standards Development Process calls for a minimum of three reviews to build consensus towards the Version 1.0 standard (see section 2.0). The CDASH domain-specific recommendations from the workstreams are first reviewed by an internal CDISC Technical Leadership Committee (TLC) to ensure that they do not diverge from the other relevant CDISC standards. They are then combined into 'review packages' for external review by the Collaborative Group, an external focus group in the case of this Project. The entire set of domains will be reviewed together in an open public review process. This procedure is further described in Section 3.

## 6. Placeholder - Intellectual Property

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# INCLUSION EXCLUSION STREAM

Harmonized Version

Stream Leader: Shannon Labout, CCDM

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# Section 2. Inclusion Exclusion Stream Harmonized Version

## 1. Introduction and Background

The Inclusion and Exclusion (IE) Stream was composed of 15 volunteer members representing diverse job functions from across the pharmaceutical, biotech, CRO industries, and academia.

The IE case report form (CRF) samples submitted by stream members were compared, consistently collected variables were identified, the necessity of each variable was determined, and regulatory and safety compliance were evaluated and confirmed.

The potential for using adaptive trial design was also considered and discussed, and the recommended approach is designed to more efficiently accommodate changing criteria as the study progresses.

The IE Stream collected Entry Criteria CRFs from participating organizations, and compiled all of the variables from those CRFs into a table. The Stream then reviewed all of the variables in the table, and came to a consensus on which ones should be included in the ICV. The reasons for excluding specific variables from the standard are documented in the Notes section. The Stream then worked to develop appropriate CRF completion instructions and implementation guidelines for the variables included in the standard.

Mapping to the SDTM

The IE Stream noted that some of the variables collected may have either a one-to-one mapping to SDTM variables, or a many-to-one mapping depending on a particular Sponsor company's data collection standards. The IE CRF standard recommended in this document is flexible enough to allow a variety of data collection methods that will all map to a single SDTM standard.

Since the SDTM variables served as the target for collected data, the IE Stream referred to the current version of the CDISC SDTM Implementation Guide, and incorporated the assumptions regarding the IE Domain from that Guide into the development of this data collection standard.

The first SDTM IG assumption is that the intent of the IE domain model is to only collect those criteria that cause the subject to be in violation of the Inclusion/Exclusion criteria, not to collect a response to each criterion.

The second assumption is that the IE domain is intended to collect only eligibility information for the inclusion and exclusion criteria for entry into a study; not protocol deviations/violations incurred during the course of the study. Any of the CRF fields that were reviewed and determined to be related to protocol deviations or violations were deferred to the Protocol Deviation Stream for consideration.

The last assumption that was used in the development of this standard was that enough data needed to be collected to satisfy regulatory requirements and to collect or derive the required SDTM submission variables. Thus all SDTM variables that are required for submission are either explicitly collected in the CRF, or may be derived (e.g., IEORRES, IESTRESC) from the data collected using the recommended standard presented in Table 1a.

## 2. Highly Recommended Data Collection Fields

The approach given in Table 1a will provide the most flexible and efficient approach to collecting IE data in studies utilizing adaptive trial design where IE criteria may change based on interim analyses or other factors.

The alternative approach provided in Table 1b provides a standard data collection method for organizations that choose to print the Inclusion Exclusion criteria on the Case Report Form, or for those organizations that do not provide a unique identifier to the site for each criterion. An example of this would be a protocol with a bulleted (rather than a numbered) list of entry criteria.

## 3. Table 1a: Preferred Approach

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instructions to Clinical Site | Implementation/ Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Met Eligibility | *not applicable* | IEYN | Response for whether the subject met all the eligibility requirements for this study | *not applicable* | Yes/No:<br><br>Record "yes" if all eligibility criteria were met for the study. Record "No" if subject did not meet all criteria. If "No", enter the identifying code for each criterion not met.<br><br>Checkbox:<br><br>Check here if the subject met all eligibility requirements for the study. | This is intended to be used as a data management tool to verify the investigator/site reported any entry criteria that were not met.<br><br>May be a "yes/no" question, or may be a checkbox.<br><br>May be used to derive data into IEORRES. |
| 2 | Criterion Identifier | IETESTCD (*required*) | | The identifier associated with the criterion that the subject did not meet. This must be a unique identifier that corresponds to a specific entry criterion. | *not applicable* | Record the criterion identifier from the list of inclusion/ exclusion criteria provided by the Sponsor.<br><br>Record this *only* for the criterion / criteria that this subject did not meet | **This field is required on the CRF, but may be null. Multiple responses should be allowed on CRF.**<br><br>This variable is only populated in SDTM for those criteria that are not met, and it will only be recorded on the CRF for those criteria that are not met.<br><br>If inclusion and exclusion criteria lists are independently numbered, then this identifier must include the TYPE of criterion.<br><br>This identifier may be used to derive values into IETEST and IECAT from a protocol definition or other source external to the clinical database, and into IEORRES. |

## 4. Table 1b:Alternative Approach

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instructions to Clinical Site | Implementation/ Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Criterion type | IECAT (*required*) | | Is this criterion Inclusion or Exclusion | *not applicable* | Record whether the criterion that this subject did not meet was "Inclusion" or "Exclusion", if this information is not pre-printed on the CRF, or indicated by a unique identifier. | Required to be identified on the CRF for unmet criteria when there is no unique identifier provided in the protocol or source documents for each criterion.<br><br>May be pre-printed on the CRF, or the site may indicate the category by checking a box or writing it on the CRF. |
| 2 | Criterion | IETEST (*required*) | | The wording of an inclusion or exclusion criterion. | *not applicable* | Record the wording of this criterion, if not pre-printed on the CRF. | Required on the CRF when the criteria cannot be uniquely identified (e.g., when a bulleted list of criteria is used in the protocol and source documents).<br><br>May be pre-printed on the CRF, or the site may write in the criterion verbatim from the protocol or source documents. |
| 3 | Met Eligibility | IEORRES (*required*) | | Response for whether the subject met each of the eligibility requirements for this study | ICH E6 Good Clinical Practice; US 21 CFR Part 312 | Record "yes" for each inclusion criterion met by this subject. Record "No" for each inclusion criterion not met by this subject.<br><br>For exclusion criterion, record "no" if the subject does not qualify for the exclusion criterion, and "yes" if the subject does qualify for the exclusion. | Required on the CRF for each entry criterion when there is no unique criterion identifier provided to the site in the protocol or source documents. |

## 5. Table 2: IE: Recommended/Conditional Data Collection Fields

There are no Recommended/Conditional data collection fields.

## 6. Table 3: IE: Optional Data Collection Fields

When the Preferred Approach presented in Table 1a above is used, the following fields are not needed, but are optional on the CRF:

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instructions to Clinical Site | Implementation/ Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Met Eligibility? | *not applicable* | IEYN | Response for whether the subject met the eligibility requirements for this study | *not applicable* | Record "yes" if all eligibility criteria were met for the study. Record "no" if subject did not meet all criteria. If "no", enter the identifying code for each criterion not met | May be derived from other response data (e.g., IETESTCD).<br><br>On the CRF this is primarily a data management monitoring tool, to verify the site reported any criteria not met. |
| 2 | Criterion | IETEST (*required*) | | The wording of an inclusion or exclusion criterion. | ICH E6 Good Clinical Practice; US 21 CFR Part 312 | Record the wording of this criterion, if not pre-printed on the CRF. | Required on the CRF only when the criteria cannot be uniquely identified (e.g., when a bulleted list of criteria is used in the protocol and source documents).<br><br>May be pre-printed on the CRF, or the site may write in the criterion verbatim from the protocol or source documents. |
| 3 | Criterion type | IECAT (*required)* | | Is this criterion Inclusion or Exclusion? | *not applicable* | Record whether the criterion that this subject did not meet was "Inclusion" or "Exclusion" | Must be populated in SDTM for those criteria that are not met. May be collected on the CRF, or derived from TI trial inclusion/exclusion criteria dataset, or other protocol definition external to the database.<br><br>May be null. |

## 7. Table 4: IE: Examples of Data Collection Fields Generally Considered Not Necessary to Collect on the IE CRF

| | SDTM Variable Name (*SDTM Core*) | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 1 | *not applicable* | Consent Date | The date that this subject signed the Informed Consent Form | *not applicable* | This variable is not required for any purpose in the entry eligibility data. If collected in the CRF, it should be mapped to the Disposition Domain. |
| 2 | *not applicable* | Consent Time | The time that this subject signed the Informed Consent Form | *not applicable* | This variable is not required for any purpose in the entry eligibility data. If collected in the CRF, it should be mapped to the Disposition Domain. |
| 3 | *not applicable* | ICF Signed? | Did the subject sign the Informed Consent Form? | ICH E6<br>Good Clinical Practice;<br>US 21 CFR Part 312 | This variable is not required for any purpose in the entry eligibility data. If collected in the CRF, it should be mapped to the Disposition Domain. |
| 4 | *not applicable* | Optional Consent Signed? | Some organizations use separate consent forms to obtain research samples, or medical histories that will be included in a separate study database (e.g., natural history of a disease) | *not applicable* | This variable is not required for any purpose in the entry eligibility data. If collected in the CRF, it should be mapped to the Disposition Domain. |
| 5 | *not applicable* | Written or Oral Fluency? | Is the subject fluent in written or oral English? | *not applicable* | This is usually included as an entry criterion, or verified through monitoring practices. |
| 6 | *not applicable* | Exception<br>**or**<br>Waiver | A description of the reason this subject did not meet all of the entry criteria. | *not applicable* | The Stream discussed this and decided that no references to “exceptions” or “waivers” should be recorded on the IE CRF. Only the specific criteria that are not met should be recorded. |
| 7 | *not applicable* | Exception Approved?<br>**or**<br>Waiver Granted? | This is used to verify that a Sponsor-authorized individual approved the subject to be enrolled in a study, in spite of the subject not meeting all entry criteria. | *not applicable* | The Stream discussed this and decided that no references to “exceptions” or “waivers” should be recorded on the IE CRF. Only the specific criteria that are not met should be recorded. |

| | SDTM Variable Name (*SDTM Core*) | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 8 | *not applicable* | Date exception approved?<br>**or**<br>Date waiver granted? | This variable collected the date on which a Sponsor-authorized individual approved a subject to be enrolled in a study, in spite of the subject not meeting all entry criteria. | *not applicable* | The Stream discussed this and decided that no references to "exceptions" or "waivers" should be recorded on the IE CRF. Only the specific criteria that are not met should be recorded. |
| 9 | *not applicable* | Exception approved by<br>**or**<br>Waiver granted by | This variable collected the name of the Sponsor-authorized individual who approved a subject to be enrolled in a study, in spite of the subject not meeting all entry criteria. | *not applicable* | The Stream discussed this and decided that no references to "exceptions" or "waivers" should be recorded on the IE CRF. Only the specific criteria that are not met should be recorded. |
| 10 | IESPID (*permissible)* | Criterion Number | The number that corresponds to a protocol-defined entry criterion. | *not applicable* | Since not all Sponsors use a numeric value to identify each criterion, the more flexible term "Criterion Identifier" was included in the standard. |

# MEDICAL HISTORY & SUBSTANCE USE STREAM

Harmonized Version

Stream Leader: Trisha D. Simpson

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# Section 3. Medical History / Substance Use Stream Harmonized Version

## 1. Introduction and Background

The Medical History/Substance Use Stream has volunteers from pharmaceutical/biotech, software development and academia. While there is a great deal of Data Management representation, the group is also fortunate to have several programming and standards maintenance representatives.

We reviewed over 30 examples of Medical History and Substance Use CRFs. All of the forms were quite similar in nature; making our task relatively easy.

Medical History

For the purposes of this effort, only General Medical History was considered. Indication specific History such as Oncology though not expressly addressed, were considered in the definitions of such variables as MHCAT. The rationale for addressing only General Medical History was that a higher degree of detail may be required for the indication specific histories. It may well be possible to record indication specific history on these forms if the protocol does not require more information than are addressed by the optional variables.

Example CRFs and Regulatory requirements for the recording and coding of Medical History were reviewed. Though varied, it was determined that not only relevant Medical History, but additionally the disease under study may be recorded as General Medical History. Dependent upon protocol requirements, an exhaustive list of conditions is not required, but rather focus should be on particular diseases or conditions of concern.

The Regulatory requirements affecting the coding of Medical History were also reviewed. Coding using MedDRA, though not required by the FDA, is recommended, therefore no specific recommendation on what to code is being made. A strategy for classifying/organizing uncoded Medical History utilizing conditional variables is being recommended. For un-coded Medical History, a sponsor defined categorization of Medical History Events will be required. This categorization will be achieved using the MHSCAT variable. Sponsors who code Medical History will use the dictionary variables for the coded terms.

Substance Use

At the request of CDASH, the Substance Use standard CRF was also addressed. After reviewing example Substance Use CRFs, it was determined that a wide variety of detail may be required for substance use based upon the sponsor or protocol requirements. A standard set of minimal requirements in which the category of substance and a response pertaining to usage were defined.

The primary recommendation was to not limit by category the initial response to a Yes/No flag question, but rather use a more descriptive response for substance use. The prompt variable, stored as SUPPSU QNAM SUNCF, would require a response to ‘Never, Current, or Former’. Again, based on the wide variability of protocol definitions of use, the specific definitions for this response would be sponsor/protocol defined. By using these categories for usage, a number of questions about use and frequency can be collapsed, in turn decreasing the number of data points required in the Substance Use Domain. More detailed information about duration, amount, start and stop dates are optionally captured.

For both the Medical History and Substance Use standard, the variables were named to be consistent with the CDISC standard.

## 2. Table 1: MH: Highly Recommended Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Reported Term | MHTERM *(required)* | | Verbatim or preprinted CRF term for the medical condition or event. | *not applicable* | Record all past and / or concomitant medical conditions and past surgeries. Record only one condition or surgery per line. When recording a condition and surgery related to that condition, use one line for the condition and one line for the surgery. Ensure that any of the conditions listed on the Medical History page do not meet any of the exclusion criteria. | Note that if Sponsors need to capture more detailed surgery information (e.g., VNS implantation for Epilepsy trials), an additional CRF module should be used, modeled as an Interventions domain. |
| 2 | Ongoing / Resolved | *not applicable* | MHONG | Identifies the end of the event as being ONGOING or RESOLVED. | *not applicable* | Select the most appropriate response. | Note that MHONG is **not** defined in the SDTM MH domain. If collected, it should map to MHENRF. The visit date or completion date recorded in the CRF header, should be used as a reference point. |

## 3. Table 2: MH: Recommended/Conditional Data Collection Fields

There are no Recommended/Conditional Data Collection Fields.

## 4. Table 3: MH: Optional Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Medical History Flag | *not applicable* | MHYN | Lead prompt for the Medical History.<br><br>*Example: "Has the subject experienced any past and / or concomitant diseases or past surgeries?"* | *not applicable* | If the subject has experienced any past and / or concomitant diseases or has had any type of surgery, select Yes and provide the requested information. Otherwise, select No and leave the page blank. | Note that MHYN is **not** defined in the SDTM MH domain. Some sponsors may find this data point useful from an administrative perspective. ***It should <u>not</u> be included in the submission.*** |
| 2 | Pre-printed row number (e.g., 1, 2, 3) | MHSPID *(permissible)* | | Optional sponsor-defined reference number. *Example: Preprinted line number.* | *not applicable* | *not applicable* | Some sponsors may pre-number the rows used to capture the data. If these identifiers are submitted, MHSPID should be used. |
| 3 | Type of Medical History being collected | MHCAT *(permissible)* | | Used to define a category of related records. *Examples: CARDIAC or GENERAL.* | *not applicable* | *not applicable* | The sponsor may or may not pre-print on the CRF the type of medical history being captured. If specific medical history (e.g., disease diagnosis) is captured in addition to the general medical history, it may be helpful to pre-print the history type on the CRF. Regardless, MHCAT may be populated in the database.<br><br>Note that MHCAT must be in the database if MHSCAT is used. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 4 | Category of Medical History being collected | MHSCAT *(permissible)* | | A categorization of the condition or event pre-printed on the CRF or instructions. | *not applicable* | *Note: the CRF instructions will depend upon the format of the CRF. Some sponsors ask the sites to use a numeric code (e.g., "123") to designate a particular category (e.g., "cardiovascular") while other sponsors will simply pre-print the categories on the CRF and provide space for the site to record the ailment, disease or surgery.*<br><br>*Instruction examples:*<br><br>Use the *(sponsor-defined)* code list to group the past and / or concomitant medical conditions or surgeries. For example, if the subject has a history of high blood pressure, use code "123" for "cardiovascular".<br><br>*OR*<br><br>Record the concomitant medical conditions or past surgeries under the appropriate category. For example, "high blood pressure" should be recorded under "cardiovascular". | The pre-printed groupings should be used if the sponsor will not code medical history. The categories should be sponsor-defined as sponsors may have different needs. *(Code "123" used in the instructions is simply an example.)* The MedDRA SOCs should not be used as categories on the CRF for several reasons. Sites are probably not familiar with the SOCs. It would be cumbersome to include the 26 organ classes on the CRF, entry screen or completion instructions. The reviewers expect this information to be stored in MHBODSYS. Finally, the sponsor may only wish to inquire about particular groupings or specific diseases; not actual *body systems.*<br><br>Note that "123" would not be stored in MHSCAT. In this example, "cardiovascular" is the MHSCAT. Numeric codes used on the CRF as an operational tactic to facilitate data entry must be removed prior to submission as they provide no meaning to the reviewer.<br><br>Also Note that MHCAT must be in the database if MHSCAT is used. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 5 | Pre-printed prompt for a specific condition/surgery<br><br>*Example:*<br><br>Does the subject have high blood pressure? | MHOCCUR *(permissible)* | | A pre-printed prompt used to indicate whether or not a medical condition has occurred. | *not applicable* | Please indicate if *"xyz"* has occurred by ticking "Yes" or "No". | MHOCCUR should only be used if the condition pre-printed on the CRF elicits a Yes or No response. MHOCCUR should not be used if the conditions are collected on the CRF in a manner that requires a free-flow text response. |
| 6 | Onset Date | MHSTDTC *(permissible)* | | Start Date/Time of Medical History Event | *not applicable* | Record the onset date. | The sponsor may choose to capture a complete date, or any variation thereof (month & year or year, etc.). |
| 7 | End Date | MHENDTC *(permissible)* | | End Date/Time of Medical History Event | *not applicable* | Record the end/resolution date. | The sponsor may choose to capture a complete date, or any variation thereof (month & year or year, etc.). |

## 5. Table 4: MH: Examples of Data Collection Fields Generally Considered Not Necessary to Collect on CRF

| | SDTM Variable Name *(SDTM Core)* | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 1 | STUDYID *(required)* | Study Identifier | Unique identifier for a study within the submission. | *not applicable* | Collected in header or derived. |
| 2 | USUBJID *(required)* | Unique Subject Identifier | Unique subject identifier within the submission. | *not applicable* | Collected in header or derived. |
| 3 | DOMAIN *(required)* | Domain Abbreviation (MH) | Two-character abbreviation for the domain most relevant to the observation. | *not applicable* | Derived. |
| 4 | MHSEQ *(required)* | Sequence Number | Sequence number given to ensure uniqueness within a dataset for a subject. Can be used to join related records. | *not applicable* | Derived. |
| 5 | MHGRPID *(permissible)* | Group ID | Used to tie together a block of related records in a single domain to support relationships within the domain and between domains. | *not applicable* | Derived. |
| 6 | MHREFID *(permissible)* | Reference ID | Optional internal or external medical history identifier. | *not applicable* | Derived. |
| 7 | MHMODIFY *(permissible)* | Modified Reported Term | If MHTERM is modified, then MHMODIFY will contain the modified text. | *not applicable* | Derived. |
| 8 | MHDECOD *(permissible)* | Dictionary-Derived Term | Dictionary-derived text description of MHTERM or MHMODIFY. Equivalent to the Preferred Term (PT in MedDRA). The sponsor should specify the dictionary name and version in the Sponsor Comments column of the Define data definition document. | *not applicable* | Derived. |
| 9 | MHPRESP (permissible) | Medical History Event Pre-specified | Medical history events that are pre-specified on the CRF. | *not applicable* | MHPRESP should only be derived if MHOCCUR is needed. The use of this variable is pending approval of 3.1.2. |
| 10 | MHSTAT (permissible) | Medical History Status | The status that the question was not asked. | *not applicable* | Not needed for the MH CRF. If the response to MHOCCUR is missing, MHSTAT may be derived to NOT DONE. |
| 11 | MHREASND (permissible) | Reason Medical History Not Collected | Describes the reason medical history was not collected. Used in conjunction with MHSTAT when value is NOT DONE. | *not applicable* | Not needed on the MH CRF as we are not recommending the use of MHSTAT. |
| 12 | MHBODSYS (permissible) | Body System or Organ Class | Body system or organ class (Primary SOC) that is involved in an event or measurement from the standard hierarchy (e.g., MedDRA). | *not applicable* | Derived. MHBODSYS should be reserved for the body system categories (SOCs) used in the sponsor's coding dictionary. |

| | SDTM Variable Name *(SDTM Core)* | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 13 | VISIT *(permissible)* | Visit name | 1. Protocol-defined description of clinical encounter.<br>2. May be used in addition to VISITNUM and/or VISITDY. | *not applicable* | Collected in header or derived. |
| 14 | VISITNUM *(permissible)* | Visit Number | 1. Clinical encounter number.<br>2. Numeric version of VISIT, used for sorting. | *not applicable* | Collected in header or derived. |
| 15 | VISITDY *(permissible)* | Planned Study Day of Visit | | *not applicable* | Derived. |
| 16 | MHDTC *(permissible)* | Date / Time of History collection | | *not applicable* | Not needed on the CRF. |
| 17 | MHDY *(permissible)* | Study Day of History Collection | 1. Study day of medical history collection, measured as integer days.<br>2. Algorithm for calculations must be relative to the sponsor-defined RFSTDTC variable in Demographics. This formula should be consistent across the submission. | *not applicable* | Derived. |

## 6. Table 1: SU: Highly Recommended Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Type of substance | SUTRT *(required)* | | The type of substance.<br><br>*Examples: TOBACCO, ALCOHOL, CAFFEINE, etc.*<br><br>*OR*<br><br>*CIGARETTES, CIGARS, COFFEE, etc.* | *not applicable* | *not applicable* | Note that sponsors may require different types of substance use data (illicit drug use, dietary information, etc.); the value for category may be pre-printed on the CRF as a label for the Prompt for Substance Use.<br><br>If a more detailed type of substance appears on the CRF (e.g., cigarettes, cigars, rather than tobacco), SUCAT should be "tobacco" and SUTRT should be "cigarettes". If the sponsor does not specify a type of tobacco on the CRF, SUTRT should be "tobacco". |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 2 | Prompt for Substance Use | *not applicable* | SUNCF | Substance Use Occurrence | *not applicable* | Tick the appropriate box to indicate if the subject has never used/consumed *tobacco / alcohol / caffeine*, currently consumes *tobacco / alcohol / caffeine*, or used/consumed *tobacco / alcohol / caffeine*. | The stream recommends the use of NEVER, CURRENT and FORMER as responses.<br><br>The three options, NEVER, CURRENT and FORMER should be sponsor-defined. If the sponsor has specific definitions for the three, these definitions should be detailed in the instructions to the site.<br><br>As this type of response does not easily correspond to an SDTM variable. The Stream recommends using SUNCF as the variable name in the clinical database. Note that SUNCF is **not** defined in the SDTM and, generally, should be dropped prior to submission. If submitted, it should be stored in SUPPSU.<br><br>Note that NEVER maps to SUOCCUR as "N". CURRENT and FORMER map to SUOCCUR as "Y". |

## 7. Table 2: SU: Recommended/Conditional Data Collection Fields

There are no Recommended/Conditional Data Collection Fields.

## 8. Table 3: SU: Optional Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Type of substance | SUCAT *(permissible)* | | Used to define a category of related records. *Examples: TOBACCO, ALCOHOL, CAFFEINE, etc.* | *not applicable* | *not applicable* | Note that sponsors may require different types of substance use data (illicit drug use, dietary information, etc.); the value for category may be pre-printed on the CRF as a label for the Prompt for Substance Use.<br><br>If a more detailed type of substance appears on the CRF (e.g., cigarettes, cigars, rather than tobacco), SUCAT should be "tobacco" and SUTRT should be "cigarettes". If the sponsor does not specify a type of tobacco on the CRF, SUTRT should be "tobacco". |
| 2 | Amount | SUDOSTXT *(permissible)* | | Substance use consumption amounts or a range of consumption information collected in text form. *Examples: 1-2 (packs), 8 (ounces), etc.* | *not applicable* | Tick the appropriate box to indicate the amount of *tobacco / alcohol / caffeine* the subject consumes on a regular basis. | Where possible, the options for dose/amount should be pre-printed on the CRF.<br><br>Note that in example given in the Definition, "(packs)" and "(ounces)" have been included as a point of reference. They would, of course, be stored as SUDOSU.<br><br>If the dose is part of a planned analysis, then the use of SUDOSE, a numeric field, should be considered. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 3 | Unit | SUDOSU *(permissible)* | | Units for SUDOSTXT. *Examples, PACKS, OUNCES, etc.* | *not applicable* | *not applicable* | Where possible, the options for dose/amount units should be pre-printed on the CRF. |
| 4 | Frequency | SUDOSFRQ *(permissible)* | | Usually expressed as the number of uses consumed per a specific interval. *Examples: PER DAY, PER WEEK, OCCASIONAL* | *not applicable* | *not applicable* | Where possible, the options for dose/amount frequency should be pre-printed on the CRF. |
| 5 | Start Date | SUSTDTC *(permissible)* | | Date substance use started. | *not applicable* | Record the start date. | The sponsor may choose to capture a complete date, or any variation thereof (month & year or year, etc.). |
| 6 | End Date | SUENDTC *(permissible)* | | Date substance use ended. | *not applicable* | Record the end date. | The sponsor may choose to capture a complete date, or any variation thereof (month & year or year, etc.). |
| 7 | Duration | SUDUR *(permissible)* | | The duration of the substance use. | *not applicable* | *Example:* Record how long the subject has *smoked.* | This should only be collected on the CRF if this level of detail is needed and if SUSTDTC & SUENDTC are **not** collected on the CRF.<br><br>The sponsor-defined options (e.g., weeks, months, years, etc.) should be pre-printed on the CRF to avoid making this a free text field. This will allow the response to be translated into ISO 8601 format. |

## 9. Table 4: SU: Examples of Data Collection Fields Generally Considered Not Necessary to Collect on CRF

| | SDTM Variable Name *(SDTM Core)* | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 1 | STUDYID (required) | Study Identifier | Unique identifier for a study within the submission. | not applicable | Collected in header or derived. |
| 2 | USUBJID (required) | Unique Subject Identifier | Unique subject identifier within the submission. | not applicable | Collected in header or derived. |
| 3 | DOMAIN (required) | Domain Abbreviation (SU) | Two-character abbreviation for the domain most relevant to the observation. | not applicable | Derived. |
| 4 | SUSEQ (required) | Sequence Number | Sequence number given to ensure uniqueness within a datasets for a subject. Can be used to join related records. | not applicable | Derived. |
| 5 | SUSPID (permissible) | Sponsor-Defined Identifier | Optional sponsor-defined reference number. | not applicable | Not needed for SU CRF. |
| 6 | SUGRPID (permissible) | Group ID | Used to tie together a block of related records in a single domain to support relationships within the domain and between domains. | not applicable | Derived. |
| 7 | SUSCAT (permissible) | Subcategory for Substance Use | A further categorization of substance use. | not applicable | Not needed on the SU CRF. |
| 8 | SUPRESP (permissible) | Substance Pre-specified | Substances that are pre-specified on the CRF. | not applicable | Derived. |
| 9 | SUOCCUR (permissible) | Substance Use Occurrence | Used when the use of specific substances is solicited to indicate whether a substance was taken or not. Examples: Tobacco Consumption, Alcohol Consumption. | not applicable | Derived. See Implementation/Rationale for SUNCF. |
| 10 | SUDOSE (permissible) | Substance use Consumption | Amount of SUTRT consumed | not applicable | If the dose is part of a planned analysis, then the use of SUDOSE should be considered. |
| 11 | SUDOSFRM (permissible) | Dose Form | Dose form for SUTRT. Examples: INJECTABLE, LIQUID, POWDER | not applicable | Not needed for SU CRF. |
| 12 | SUROUTE (permissible) | Route of Administration | Route of administration for SUTRT. Examples: ORAL, INTRAVENOUS, INHALATION | not applicable | Not needed for SU CRF. |

| | SDTM Variable Name *(SDTM Core)* | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 13 | SUMODIFY (permissible) | Modified Reported Term | If SUTRT is modified, then the modified text is placed here. | not applicable | Not needed for SU CRF. Note that none of the stream volunteers are currently coding their substance use. If sponsors code substance use information, SUMODIFY and SUDECOD may be necessary. |
| 14 | SUDECOD (permissible) | Standardized Substance Name | Standardized or dictionary-derived text description of SUTRT or SUMODIFY if a sponsor chooses to code the substance use. The sponsor should specify the dictionary name and version in the Sponsor Comments column or the Define data definition document. | not applicable | Not needed for SU CRF. Note that none of the stream volunteers are currently coding their substance use. If sponsors code substance use information, SUMODIFY and SUDECOD may be necessary. |
| 15 | SUSTAT (permissible) | Substance Use Status | Used to indicate the question was not asked. | not applicable | Not needed for SU CRF. If the response to SUOCCUR is missing, SUSTAT may be derived to NOT DONE. |
| 16 | SUREASND (permissible) | Reason Substance Use Not Collected | Describes the reason substance use was not collected. Used in conjunction with SUSTAT when value is NOT DONE. | not applicable | Not needed on the SU CRF. |
| 17 | SUCLAS (permissible) | Substance Use Class | May be used when coding substance use such as alcoholism or drug abuse. | not applicable | Not needed for SU CRF. |
| 18 | SUCLASCD (permissible) | Substance Use Class Code | May apply when coding substance abuse use cases. | not applicable | Not needed for SU CRF. |
| 19 | SUDOSTOT (permissible) | Total Daily Consumption using SUDOSU | Total daily use of SUTRT using the units SUDOSU | not applicable | Derived. |
| 20 | VISIT *(permissible)* | Visit name | 1. Protocol-defined description of clinical encounter.<br>2. May be used in addition to VISITNUM and/or VISITDY. | *not applicable* | Collected in header or derived. |
| 21 | VISITNUM *(permissible)* | Visit Number | 1. Clinical encounter number.<br>2. Numeric version of VISIT, used for sorting. | *not applicable* | Collected in header or derived. |
| 22 | VISITDY *(permissible)* | Planned Study Day of Visit | | *not applicable* | Derived. |
| 23 | SUSTDY *(permissible)* | Study Day of Start of Substance Use | Study day of start of substance use relative to the sponsor-defined RFSTDTC. | *not applicable* | Derived. |
| 24 | SUENDY *(permissible)* | Study Day of End of Substance Use | Study day of end of substance use relative to the sponsor-defined RFSTDTC. | *not applicable* | Derived. |

| | SDTM Variable Name *(SDTM Core)* | Variable Label | Definition | Applicable Regulations | Rationale |
|---|---|---|---|---|---|
| 25 | SUSTRF *(permissible)* | Start Relative to Reference Period | Identifies the start of substance use period with respect to the sponsor-defined reference period. | *not applicable* | Derived. |
| 26 | SUENRF *(permissible)* | End Relative to Reference Period | Identifies the end of substance use period with respect to the sponsor-defined reference period. | *not applicable* | Derived. |


# PHYSICAL EXAM AND VITAL SIGNS STREAM

Harmonized Version

Stream Leader: Paul Bukowiec

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# Section 4. Physical Exam and Vital Signs Stream Harmonized Version

## 1. Introduction and Background

The PE & VS Stream was comprised of 11 members representing data management, clinical systems, and statistical programming functions from across the pharmaceutical and biotech industry. Physical examinations (PE) and vital signs (VS) fall in to the findings observation class, which is why they were grouped under the same work stream. However, due to the differences in how the data elements are collected, the team decided to address them separately and develop two variable definition tables.

The team focused on physical examinations first, by reviewing the Case Report Forms (CRFs) used by the companies represented by the team members. A complete set of data collection items was compiled and reviewed by the team. The same approach was used for vital signs. A more detailed overview for physical examination and vital signs variables can be found in sections 2 and 3, respectively.

The team regularly referred to the SDTM model and used it for guidance during discussion. However, decisions on the importance of a field from a data collection perspective were made independent of SDTM. The end result suggests that the findings domain models defined by SDTM for PE and VS meet the requirements of the CRF data elements.

## 2. Physical Examination Overview

After reviewing the different Physical Examination (PE) forms, the team organized them into 3 usage categories:

1. Use of a PE form at baseline and post baseline visits.

2. Use of a PE form at baseline, but not at post baseline visits. Sites are instructed to record any post baseline abnormalities or baseline conditions that worsened post baseline on the Adverse Event (AE) form.

3. Use of a PE form only to record whether or not the exam was performed, and if so, the date of the examination. Sites are instructed to record baseline abnormalities on medical history form, targeted medical history form (e.g. study specific form requesting assessment of a pre-defined set of medical and/or surgical history events) or baseline conditions form. Sites are instructed to record any post baseline abnormalities or baseline conditions that worsened post baseline on the Adverse Event (AE) form or other sponsor derived form.

In options 1 and 2, similar variables were captured; date of exam, body system/code, normal/abnormal, and description of abnormality. As the team discussed the options, factors supporting option 3 began to outweigh the traditional methods incorporated in options 1 and 2. The primary factors include:

- Eliminates collection and reconciliation of duplicate data by capturing abnormal data in one central location. Abnormalities identified during a physical examination must also be recorded on an AE form, a medical history form, or other similar form.

- Reduces number of queries, thus reducing workload for data managers and site personnel.

- Supports consistency/standardization for data reporting purposes. Team members polled their medical writing and biostatistics departments and it was found that physical examination data is rarely summarized, only tabulated in listing format. Any trend analysis or summarization of abnormalities is performed on AE data, possibly medical history.

- Reduces coding needs (if PE abnormalities are coded)

**As option 3 represents a radical change from the more traditional approach for collection of physical examination data, two sets of variable definition tables are being presented. The tables presented in section 5 reflect the traditional approach to physical examination data collection. The table/approach outlined in section 6 is being proposed by the team as an alternative to the traditional approach and recommended as best practice.**

## 3. Vital Signs Overview

The review of vital signs data elements was more straightforward as all sponsor reviewed CRFs captured similar data and the items were consistent with the SDTM VS domain. The key topic for discussion and consideration was how to link the collected elements to the SDTM defined fields. For example, many VS CRFs collect each unique result in its own field and the resulting values are stored as separate variables in the clinical data management system. The SDTM VS domain utilizes a normalized data structure, i.e. one field, VSTESTCD, is used to capture the test name and another field, VSORRES, is used to capture the result. The team thought of providing two options for the VS variable definition table, one mapping directly to SDTM and the other suggesting unique variables for each test. The latter format is being offered for consistency with other findings domains.

## 4. Table 1: PE: Highly Recommended Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Body System Examined | PETEST *(required)* | | Verbatim term for the body system. | | Per protocol, perform physical examinations of specified body systems. | Sponsor should pre-populate CRF with all body systems to be examined. The use of a complete list of body systems eliminates the need for an other/specify category as any abnormalities identified should fall under one of the pre-specified categories.<br><br>Even if the sponsor does not require all body systems to be examined at a given time point, the complete list should still be used. Instructions should be given to the site to record 'Not Done' in Exam Result field for any systems not examined. |
| 2 | Examination Result | PEORRES *(expected)*<br><br>PESTAT *(permissible)* | PERSLT | Overall assessment of examined body system | | For each body system listed, record the overall result of the examination (Normal or Abnormal). If the examination is not performed or not required select Not Done. | For each body system listed on the CRF, provide the following options for results: Normal, Abnormal and Not Done. Sites should be directed to complete overall assessment for each exam category/body system listed.<br><br>If examination result is Normal then the value in PEORRES should be NORMAL. If the examination is not done, then the value in PEORRES should be Null and the value in PESTAT should be Not Done. If the exam result is abnormal, then the value of PEORRES should contain the text of the abnormal findings. |
| 3 | Abnormal Findings | PEORRES *(expected)* | PEDESC | Text description of any abnormal findings | | Record all abnormal findings for the given body system in the space provided. | Text entered under abnormal findings (PEDESC) should be mapped to PEORRES. |

## 5. Table 2: PE: Recommended/Conditional/Optional Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Sponsor ID (O) | PESPID *(permissible)* | | Sponsor defined reference number | | N/A | May be pre-printed on the CRF as an explicit line identifier or defined in the sponsor's operational database. |
| 2 | Date of Examination (C) | PEDTC *(expected)* | PEDT | Date of examination | | Record complete date of examination, day, month and year | The date of examination may be derived from the date of visit and therefore there will not be a separate field.<br><br>Date and Time should be converted to ISO 8601 format and mapped to PEDTC |
| 3 | Time of Examination (O) | PEDTC *(expected)* | PETM | Time of examination | | Record military time of examination | Date and Time should be converted to ISO 8601 format and mapped to PEDTC |
| 4 | Overall Examination Status (O) | PESTAT *(permissible)* | PEDONE | Used to indicate if exam was performed at this visit. | | Record whether or not the physical examination was performed at visit. | A subject/page level question can be used asking the site if the physical exam was performed at the specified time point. If the result is no, then the value of PESTAT should be Not Done. |

## 6. Table 3: PE: Variable Definition Tables (Alternate Proposal)

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Overall Examination Status (O) | PESTAT *(permissible)* | PEDONE | Used to indicate if exam was performed at this visit. | | Record whether or not the physical examination was performed. | BASELINE: If Yes, CRF and CRF Instructions will direct to report all abnormal findings/conditions on appropriate CRF (e.g. Medical History, Baseline Findings, and Adverse Events).<br><br>POST-BASELINE: If Yes *and* abnormality new or worsened, CRF and CRF Instructions will direct to capture all changes on appropriate CRF (e.g. Post-baseline Assessment, Adverse Events). |
| 2 | Date of Examination (C) | PEDTC *(expected)* | PEDT | Date of examination | | Record complete date of examination, day, month and year | The date of examination may be derived from the date of visit and therefore there will not be a separate field.<br><br>Date and Time should be converted to ISO 8601 format and mapped to PEDTC |
| 3 | Time of Examination (O) | PEDTC *(expected)* | PETM | Time of examination | | Record military time of examination | Date and Time should be converted to ISO 8601 format and mapped to PEDTC |

As specified via each study's protocol, physical exams will be given to a subject based on protocol schedule. At the time of the exam, we propose to use the PE CRF page to collect only the status of whether or not the exam was done (yes/no) and, if done, the date (time optional) of the exam. Any abnormalities identified during the exam will be recorded on appropriate CRF pages e.g. for Baseline visits, sites will be directed to report abnormal findings/conditions on a CRF such as Baseline Assessment, Medical History or Adverse Event. For post-baseline visits, sites may be directed to use a CRF such as Post-Baseline Assessment or Adverse Event.

## 7. Table 1: VS: Highly Recommended Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Weight | VSORRES *(expected)*<br>VSTEST *(required)* | VSWGHT | Result of weight measurement as originally received or collected | | Record the subject's weight | The value recorded in the weight field should be mapped to VSORRES. The value in VSTEST should be Weight. |
| 2 | Systolic Blood Pressure | VSORRES *(expected)*<br>VSTEST *(required)* | VSSYSBP | Result of systolic blood pressure measurement as originally received or collected | | Record the subject's systolic blood pressure. | The value recorded in the systolic blood pressure field should be mapped to VSORRES. The value in VSTEST should be Systolic Blood Pressure. |
| 3 | Diastolic Blood Pressure | VSORRES *(expected)*<br>VSTEST *(required)* | VSDIABP | Result of diastolic blood pressure measurement as originally received or collected | | Record the subject's diastolic blood pressure. | The value recorded in the diastolic blood pressure field should be mapped to VSORRES. The value in VSTEST should be Diastolic Blood Pressure. |
| 4 | Pulse Rate | VSORRES *(expected)*<br>VSTEST *(required)* | VSPULSE | Result of pulse rate measurement as originally received or collected | | Record the subject's pulse rate. | The value recorded in the pulse rate field should be mapped to VSORRES. The value in VSTEST should be Pulse Rate. |
| 5 | Heart Rate | VSORRES *(expected)*<br>VSTEST *(required)* | VSHR | Result of heart rate measurement as originally received or collected | | Record the subject's heart rate. | The value recorded in the heart rate field should be mapped to VSORRES. The value in VSTEST should be Heart Rate. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 6 | Blood Pressure Position | VSPOS *(expected)* | VSBPPOS | Position of the subject during blood pressure measurement | | Record the position of subject during blood pressure test. | Position may be pre-defined as part of CRF label or site may be given one or more options to select from.<br><br>Note: If position of subject applies to all vital sign measurements, sponsor may collect position once as opposed to separate fields for each test. In this case CDASH field name would be the same as SDTM variable name, otherwise CDASH field name is to be mapped to VSPOS. |
| 7 | Weight Units | VSORRESU *(expected)* | VSWGHTU | Original units in which weight was captured | | Record or select the unit of measure associated with the subject's weight measurement | If possible, to avoid conversion errors, request that weight be measured in same units across sites. If not possible, then provide check boxes for the two options (lb and kg). The value of VSORRESU will be the result recorded in the weight unit field. |
| 8 | Blood Pressure Units | VSORRESU *(expected)* | VSBPU | Original units in which blood pressure was measured | | | Blood pressure units, mmHg, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the blood pressure unit field (mmHg). |
| 9 | Pulse Units | VSORRESU *(expected)* | VSPULSU | Original units in which pulse was measured | | | Pulse units, beats/min, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the pulse unit field (beats/min). |
| 10 | Heart Rate Units | VSORRESU *(expected)* | VSHRU | Original units in which heart rate was measured | | | Heart Rate units, beats/min, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the heart rate unit field (beats/min). |

## 8. Table 2: VS: Recommended/Conditional/Optional Data Collection Fields

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core*) | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 1 | Height (R) | VSORRES *(expected)*<br>VSTEST *(required)* | VSHGHT | Result of height measurement as originally received or collected | | Record the subject's height | It is recommended that height be captured, however, it would only be captured at baseline visit.<br>The value recorded in the height field should be mapped to VSORRES. The value in VSTEST should be Height. |
| 2 | Respiratory Rate (O) | VSORRES *(expected)*<br>VSTEST *(required)* | VSRR | Result of respiratory rate measurement as originally received or collected | | Record the subject's respiratory rate. | The value recorded in the respiratory rate field should be mapped to VSORRES. The value in VSTEST should be Respiratory Rate. |
| 3 | Temperature (O) | VSORRES *(expected)*<br>VSTEST *(required)* | VSTEMP | Result of temperature measurement as originally received or collected | | Record the subject's temperature. | The value recorded in the temperature field should be mapped to VSORRES. The value in VSTEST should be Temperature. |
| 4 | Body Mass Index (O) | VSORRES *(expected)*<br>VSTEST *(required)* | VSBMI | Result of Body Mass Index calculation as originally received or collected | | Record the subject's body mass index. | The value recorded in the body mass index field should be mapped to VSORRES. The value in VSTEST should be Body Mass Index.<br>Sponsor may decide to derive using height and weight and not collect on CRF. |
| 5 | Body Surface Area (O) | VSORRES *(expected)*<br>VSTEST *(required)* | VSBSA | Result of Body Surface Area calculation as originally received or collected | | Record the subject's body surface area. | The value recorded in the body surface area field should be mapped to VSORRES. The value in VSTEST should be Body Surface Area.<br>Sponsor may decide to derive using height and weight and not collect on CRF. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 6 | Heart Rate Position (O) | VSPOS *(expected)* | VSHRPOS | Position of the subject during heart rate measurement | | Record the position of subject during heart rate test. | Position may be pre-defined as part of CRF label or site may be given one or more options to select from.<br><br>Note: If position of subject applies to all vital sign measurements, sponsor may collect position once as opposed to separate fields for each test. In this case CDASH field name would be the same as SDTM variable name, otherwise CDASH field name is to be mapped to VSPOS. |
| 7 | Height Units (R) | VSORRESU *(expected)* | VSHGHTU | Original units in which height was captured | | Record or select the unit of measure associated with the subject's height measurement | If possible, to avoid conversion errors, request that height be measured in same units across sites. If not possible, then provide check boxes for the two options (in and cm). The value of VSORRESU will be the result recorded in the height unit field. |
| 8 | Respiratory Rate Units (C) | VSORRESU *(expected)* | VSRRU | Original units in which respiratory rate was measured | | | Respiratory Rate units, breaths/min, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the respiratory rate unit field (breaths/min). |
| 9 | Temperature Units (C) | VSORRESU *(expected)* | VSTEMPU | Original units in which temperature was measured | | Record or select the unit of measure associated with the subject's temperature | If possible, to avoid conversion errors, request that temperature be measured in same units across sites. If not possible, then provide check boxes for the two options (degF and degC). The value of VSORRESU will be the result recorded in the temperature unit field. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 10 | Body Mass Index Units (C) | VSORRESU *(expected)* | VSBMIU | Original units in which body mass index was calculated | | | Body Mass Index units, $kg/m^2$, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the body mass index unit field ($kg/m^2$). |
| 11 | Body Surface Area Units (C) | VSORRESU *(expected)* | VSBSAU | Original units in which body surface area was calculated | | | Body Surface Area units, $m^2$, may be pre-populated on CRF. The value of VSORRESU will be the result captured in the body surface area unit field ($m^2$). |
| 12 | Weight Status (O) | VSSTAT *(permissible)* | VSWGHTND | Used to indicate that the weight measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the weight field, then value of VSSTAT is Not Done, otherwise if numeric value exists in weight field and VSORRES then value of VSSTAT is Null. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 13 | Height Status (O) | VSSTAT *(permissible)* | VSHGHTND | Used to indicate that the height measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the height field, then value of VSSTAT is Not Done, otherwise if numeric value exists in height field and VSORRES then value of VSSTAT is Null. |
| 14 | Heart Rate Status (O) | VSSTAT *(permissible)* | VSHRND | Used to indicate that the heart rate measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the heart rate field, then value of VSSTAT is Not Done, otherwise if numeric value exists in heart rate field and VSORRES then value of VSSTAT is Null. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 15 | Pulse Status (O) | VSSTAT *(permissible)* | VSPULSND | Used to indicate that the pulse measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the pulse field, then value of VSSTAT is Not Done, otherwise if numeric value exists in pulse field and VSORRES then value of VSSTAT is Null. |
| 16 | Systolic Blood Pressure Status (O) | VSSTAT *(permissible)* | VSSBPND | Used to indicate that the systolic blood pressure measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the systolic blood pressure field, then value of VSSTAT is Not Done, otherwise if numeric value exists in systolic blood pressure field and VSORRES then value of VSSTAT is Null. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 17 | Diastolic Blood Pressure Status (O) | VSSTAT *(permissible)* | VSDBPND | Used to indicate that the diastolic blood pressure measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the diastolic blood pressure field, then value of VSSTAT is Not Done, otherwise if numeric value exists in diastolic blood pressure field and VSORRES then value of VSSTAT is Null. |
| 18 | Respiratory Rate Status (O) | VSSTAT *(permissible)* | VSRRND | Used to indicate that the respiratory rate measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the respiratory rate field, then value of VSSTAT is Not Done, otherwise if numeric value exists in respiratory rate field and VSORRES then value of VSSTAT is Null. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 19 | Temperature Status (O) | VSSTAT *(permissible)* | VSTEMPND | Used to indicate that the temperature measurement was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the temperature field, then value of VSSTAT is Not Done, otherwise if numeric value exists in temperature field and VSORRES then value of VSSTAT is Null. |
| 20 | Body Mass Index Status (O) | VSSTAT *(permissible)* | VSBMIND | Used to indicate that the body mass index calculation was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the body mass index field, then value of VSSTAT is Not Done, otherwise if numeric value exists in body mass index field and VSORRES then value of VSSTAT is Null. |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 21 | Body Surface Area Status (O) | VSSTAT *(permissible)* | VSBSAND | Used to indicate that the body surface area calculation was not done. | | If measurement not taken please indicate on CRF by selecting Not Done. | If CRF design provides for individual status check boxes where site can indicate Not Done for the given parameter, information would be stored as Not Done in VSSTAT. If value exists in VSORRES then the result in VSSTAT is Null.<br><br>If CRF guidelines direct site to enter Not Done (or similar text) in the body surface area field, then value of VSSTAT is Not Done, otherwise if numeric value exists in body surface area field and VSORRES then value of VSSTAT is Null. |
| 22 | Blood Pressure Location (O) | VSLOC *(permissible)* | VSBPLOC | Location on body where blood pressure measurement was performed | | Select location from options provided. | Location may be pre-defined as part of CRF label. If options are provided on CRF, e.g. left arm or right arm, then value in VSLOC will be the result recorded in blood pressure location field. |
| 23 | Date of Vital Sign Measurements (C) | VSDTC *(expected)* | VSDT | Date of measurements | | Record complete date of measurements, day, month and year | Some sponsors may refer to date of measurements as the date of visit on the CRF.<br><br>Date and Time should be converted to ISO 8601 format and mapped to VSDTC |

| | CRF Data Collection Fields | SDTM Variable Name (*SDTM Core)* | CDASH Data Collection Field Name | Definition | Applicable Regulations | Instruction to Clinical Site | Implementation/Rationale |
|---|---|---|---|---|---|---|---|
| 24 | Time of Vital Sign Measurements (O) | VSDTC *(expected)* | VSTM | Time of measurements | | Record military time of measurements | Date and Time should be converted to ISO 8601 format and mapped to PEDTC<br><br>It is assumed that one start time will be recorded for all measurements. If specific start time of each measurement is required then additional fields should be added to capture each measurements actual time (e.g. VSBPTM) |
| 25 | Study Day of Vital Signs (O) | VISITDY *(permissible)* | | Study day of measurements, measured as integer days | | | This may be a pre-printed field on the CRF, or more likely, a derived field. |
| 26 | Planned Time Point (O) | VSTPT *(permissible)* | | Text description of time when measurement should be taken | | | If applicable, this will be pre-printed on CRF when measurements are required at multiple time points within a visit day. |
| 27 | Sponsor ID (O) | VSSPID *(permissible)* | | Sponsor defined reference number. | | | Pre-printed on the CRF as an explicit line identifier or defined in the sponsor's operational database. |

## Vital Signs Usage Guidelines:

Table 1 represents the vital sign measurements and supportive information (units, position) that are highly recommended to be captured on a Case Report form. Table 2 recommends other vital sign measurements (and units) that could be captured or at a minimum are optional fields. Table 2 also provides other optional fields that could be captured on a vital signs CRF. It should be noted that unit and position fields for measurements identified as optional on table 2 are categorized as conditional. This is due to the fact that they are conditioned on the collection of the optional measurement field.

Fields for location and position are only given for a subset of vital sign measurements. If it is determined that these fields are required for measurements not identified in these tables then similar nomenclature and definitions should be used. Finally, this does not represent a complete list of vital measurements. If a measurement is required for body fat, for example, then similar naming conventions to those outlined in these tables should be used.