Manual for the Completion of CDISC Aligned NCI Standard Case Report Form (CRF) Modules

Introduction

In 2006, members of the National Cancer Institute's Center for Biomedical Informatics and Information Technology (NCI CBIIT) in conjunction with the cancer Data Standards Registry and Repository (caDSR) user community initiated a Case Report Form (CRF) harmonization activity. CRFs submitted from the community were reviewed and inventoried. The Harmonization group then reviewed all questions on the CRF and partitioned them into four categories:

- Mandatory – A data collection variable that must be on the CRF (e.g., a regulatory requirement (if applicable)).
- Conditional – A data collection variable that must be collected on the CRF for specific cases that may be dictated by local or sponsor defined business rules.
- Optional – A data collection variable that is available for use if needed. There is no regulatory or business requirement for inclusion of this element on the CRF; if the design and scientific questions posed in the study dictate the need to collect this type of data; this is the element to include on the CRF.
- Non-harmonized – A data collection variable that is, by consensus, to primarily belong to a different CRF module or is not belonging to any defined module.

A template form with modules that contain questions or variables representing data to be collected and a companion electronic CRF instruction manual was developed. These CRF modules were vetted and adopted by the caDSR stakeholder community as metadata standards.

Since the original CRFs and manuals were adopted, the Food & Drug Administration (FDA) published guidelines for submission of clinical trial study data using the Clinical Data Interchange Standards Consortium (CDISC) Study Data Tabulation Model (SDTM) for Investigational New Drug (IND) trials starting after December 2017. In response, NCI CBIIT has aligned the NCI Standard CRF modules with the CDISC data collection standard, Clinical Data Acquisition Standards Harmonization (CDASH) where data is expected to be submitted to FDA in SDTM format.

The instruction manual is a set of directions to guide data collection in each module template. Specific implementation instructions are not present; various groups may wish to implement the contents of a module in a variety of software applications.

The instructions include the field name, description or definition of each field, and any special formatting notes that apply to entries – such as the inclusion of full dates, use of values from a choice list only, etc. Finally, each question (or data item) is noted as Mandatory (m), Conditional (c), or Optional (o).

Study Agent Administration CDISC Aligned NCI Standard Template Module Definitions

Mapping to the CDASH:

This NCI Standard Template Form maps to the following domains in the CDASHIG v2.0 metadata table:

- DA – Drug Accountability (v2.0)
- EX – Exposure (v2.0)

Mapping to the SDTM:

This NCI Standard Template Form maps to the following domains in the SDTMIG v3.3 metadata table:

- DA – Drug Accountability (v3.3)
- EX – Exposure (v3.3)

Study Agent Administration CDISC Aligned NCI Standard Template Module Template Instructions

Field Descriptions and Instructions

Field Name (Partition Status) CDE ID # Short Name	Definition CDISC Mapping and Instruction	Format
Treatment Name (m) 6390051 EXTRT	Name of the study treatment or intervention given per single administration or during the "constant dosing interval" for the observation. CDASH: EXTRT (6390051); SDTM: EXTRT (No CDE)	CHARACTER
Drug Accountability Treatment Dispensation Date (c) 7008652 DADIPDT	The date of drug dispensation represented in an unambiguous date format (e.g., DD-MON-YYYY). CDASH: DADAT (6414190) where DATEST (6407486) = "DRUG DISPENSED"; SDTM: DADTC (No CDE); Conditionality Rule: based on the need to collect study agent compliance data.	DATE

Field Name (Partition Status) CDE ID # Short Name	Definition CDISC Mapping and Instruction	Format
Drug Accountability Treatment Return Date (c) 7008653 DARTNDT	The date of drug return represented in an unambiguous date format (e.g., DD-MON-YYYY). CDASH: DADAT (6414190) where DATEST (6407486) = "DRUG RETURNED"; SDTM: DADTC (No CDE); Conditionality Rule: based on the need to collect study agent compliance data.	DATE
Protocol Agent Patient Noncompliance Text (c) 7008654 DANCOMPX	The description of the reason for a patient's protocol deviation. CDASH: No Match; SDTM: No Match; Conditionality Rule: based on the need to collect study agent compliance data.	CHARACTER
Protocol Agent Administered Code (o) 7008655 EXAGNTCD	The code that represents the protocol agent administered. CDASH: No Match; SDTM: No Match	NUMBER
Lot Number (o) 6390920 EXLOT	Lot Number of the EXTRT product. CDASH: EXLOT (6390920); SDTM: EXLOT (No CDE)	CHARACTER
Protocol Agent Pharmaceutical Dosage Form Type (o) 7008656 EXAGFORM	The pharmaceutical dosage form of the protocol agent. CDASH: EXDOSFRM (6400393); SDTM: EXDOSFRM (No CDE)	CHARACTER. Use choice list.
Exposure Dose Frequency Schedule Term Name (o) 7275580 EXDSFRQ	The number of doses given/administered/taken during a specific interval. CDASH: EXDOSFRQ (6401113); SDTM: EXDOSFRQ (No CDE)	CHARACTER. Use choice list.

Field Name (Partition Status) CDE ID # Short Name	Definition CDISC Mapping and Instruction	Format
Exposure Route of Administration Code (o) 7275583 EXROUT	The route of administration of the study treatment. CDASH: EXROUTE (6400509); SDTM: EXROUTE (No CDE)	CHARACTER. Use choice list.
Exposure Infusion Rate (o) 6399755 EXFLRT	The flow rate for the total amount of drug + vehicle administered to the subject. CDASH: EXFLRT (6399755); SDTM: No Match, Can be a supplemental qualifier	CHARACTER
Exposure Infusion Rate Unit (o) 6400573 EXFLRTU	The unit of measure for the flow rate for the total amount of drug + vehicle administered to the subject. CDASH: EXFLRTU (6400573); SDTM: No Match, Can be a supplemental qualifier in SDTM	CHARACTER. Use choice list.
Intended Dose Regimen (o) 6399659 EXDOSRGM	The text description of the (intended) schedule or regimen for the Intervention. CDASH: EXDOSRGM (6399659); SDTM: EXDOSRGM (No CDE)	CHARACTER
Protocol Agent Total Course Administered (o) 7008657 EXTOTCSN	The numeric representation of the total number of rounds of therapeutic treatment administered. CDASH: No Match; SDTM: No Match	NUMBER
Exposure Category Therapy Type (o) 7008658 EXTHPYTP	The category of therapy administered per protocol. CDASH: EXSCAT (6390012); SDTM: EXSCAT (No CDE)	CHARACTER. Use choice list.

Field Name (Partition Status) CDE ID # Short Name	Definition CDISC Mapping and Instruction	Format
Exposure Subcategory Text (o) 7008659 EXTHPTPX	The category of therapy administered per protocol not previously listed. CDASH: No Match; SDTM: EXSCAT (No CDE)	CHARACTER
Exposure Vehicle Amount (o) 6399752 EXVAMT	The amount of the prepared product (treatment + vehicle) administered or given. CDASH: EXVAMT (6399752); SDTM: No Match	CHARACTER
Exposure Vehicle Amount Units (o) 6400551 EXVAMTU	The unit of measure for the prepared product (treatment + vehicle). CDASH: EXVAMTU (6400551); SDTM: EXVAMTU (No CDE)	CHARACTER. Use choice list.
Exposure Start Date (o) 6341137 EXSTDAT	The [start] date of study treatment represented in an unambiguous date format (e.g., DD-MON-YYYY). CDASH: EXSTDAT (6341137); SDTM: EXSTDTC (No CDE)	DATE
Exposure End Date (o) 6341398 EXENDAT	The end date of study treatment represented in an unambiguous date format (e.g., DD-MON-YYYY). CDASH: EXENDAT (6341398); SDTM: EXENDTC (No CDE)	DATE
Exposure Dose Description (o) 6341146 EXDSTXT	Dose per administration. CDASH: EXDSTXT (6341146); SDTM: EXDOSE (6642895)	CHARACTER
Exposure Dose Unit (o) 6400428 EXDOSU	The unit for intended dose per administration for EXDOSE, EXDOSTOT, or EXDOSTXT. CDASH: EXDOSU (6400428); SDTM: EXDOSU (No CDE)	CHARACTER. Use choice list.

Field Name (Partition Status) CDE ID # Short Name	Definition CDISC Mapping and Instruction	Format
Exposure Start Time (o) 6390926 EXSTTIM	The [start] time of the study treatment represented in an unambiguous time format (e.g., hh:mm:ss). CDASH: EXSTTIM (6390926); SDTM: EXSTDTC (No CDE)	CHARACTER
Exposure End Time (o) 6390927 EXENTIM	The end time of treatment represented in an unambiguous time format (e.g., hh:mm:ss). CDASH: EXENTIM (6390927); SDTM: EXENDTC (No CDE)	CHARACTER

Annotated CRF: Study Agent Administration CDISC Aligned NCI Standard Template

This annotated CRF is ONLY used to show CDISC mapping without consideration of the CRF layout. CDASH mapping is in **Blue**, and SDTM mapping is in **Red**.

Form Name: Study Agent Administration CDISC Aligned NCI Standard Template

Mandatary Questions

CRF Question	Value Domain
Agent Name (6390051) **CDE Short Name:** EXTRT CDASH: EXTRT (6390051) SDTM: EXTRT (No CDE)	CHARACTER – Maximum Length = 200

Conditional Questions

CRF Question	Value Domain
Dispense Date (7008652) **CDE Short Name:** DADIPDT CDASH: DADAT (6414190) where DATEST (6407486) = "DRUG DISPENSED" SDTM: DADTC (No CDE)	DATE – Maximum Length = 11
Date Study Agent Returned (7008653) **CDE Short Name:** DARTNDT CDASH: DADAT (6414190) where DATEST (6407486) = "DRUG RETURNED" SDTM: DADTC (No CDE)	DATE – Maximum Length = 11
Specify Reason for Noncompliance (7008654) **CDE Short Name:** DANCOMPX CDASH: No Match SDTM: No Match	CHARACTER – Maximum Length = 200

Optional Questions

CRF Question	Value Domain
Agent Code (7008655) **CDE Short Name:** EXAGNTCD CDASH: No Match SDTM: No Match	NUMBER – Maximum Length = 15
Study Treatment Identification Number (6390920) **CDE Short Name:** EXLOT CDASH: EXLOT (6390920) SDTM: EXLOT (No CDE)	CHARACTER – Maximum Length = 40

CRF Question	Value Domain
Formulation (7008656) **CDE Short Name:** EXAGFORM CDASH: EXDOSFRM (6400393) SDTM: EXDOSFRM (No CDE)	CHARACTER – Maximum Length = 50 ☐ Aerosol – Aerosol Dosage Form ☐ Caplet – Caplet ☐ Capsule – Capsule ☐ Capsule/Liquid-filled – Capsule/Liquid-filled ☐ Capsule/Micronized Powder – Capsule Dosage Form Micronization Powder Dosage Form ☐ Cartridge – Cartridge ☐ Cream – Cream ☐ Depot – Extended Release Depot Dosage Form ☐ Device – Device ☐ Gas – Gas Dosage Form ☐ Gel – Gel Dosage Form ☐ Injection – Injection ☐ Liquid – Liquid ☐ Lotion – Lotion ☐ Ointment – Ointment ☐ Patch – Patch ☐ Powder – Powder ☐ Sachet – Sachet Dosing Unit ☐ Spray – Spray Dosage Form ☐ Suppository – Suppository Dosage Form ☐ Suspension – Suspension Dosage Form ☐ Tablet – Tablet
Frequency (7275580) **CDE Short Name:** EXDSFRQ CDASH: EXDOSFRQ (6401113) SDTM: EXDOSFRQ (No CDE)	CHARACTER – Maximum Length = 24 List of 41 PVs

CRF Question	Value Domain
Route (7275583) **CDE Short Name:** EXROUT CDASH: EXROUTE (6400509) SDTM: EXROUTE (No CDE)	CHARACTER – Maximum Length = 25 List of 39 PVs
Flow Rate (6399755) **CDE Short Name:** EXFLRT CDASH: EXFLRT (6399755) SDTM: No Match, Can be a supplemental qualifier	CHARACTER – Maximum Length = 40
(Infusion Rate) Unit (6400573) **CDE Short Name:** EXFLRTU CDASH: EXFLRTU (6400573) SDTM: No Match, Can be a supplemental qualifier in SDTM	CHARACTER – Maximum Length = 50 ☐ mL/min – Milliliter per Minute ☐ ug/day – Microgram per Day ☐ mmol/day – Millimole per 24 Hours ☐ ug/min – Microgram per Minute ☐ umol/day – Micromole per 24 Hours
Regimen Name (6399659) **CDE Short Name:** EXDOSRGM CDASH: EXDOSRGM (6399659) SDTM: EXDOSRGM (No CDE)	CHARACTER – Maximum Length = 200
Total # of Courses Received (7008657) **CDE Short Name:** EXTOTCSN CDASH: No Match SDTM: No Match	NUMBER – Maximum Length = 10

CRF Question	Value Domain
Therapy Type (7008658) **CDE Short Name:** EXTHPYTP CDASH: EXSCAT (6390012) SDTM: EXSCAT (No CDE)	CHARACTER – Maximum Length = 50 ☐ A type of chemotherapy – Type Chemotherapy ☐ Antibiotic – Antibiotic ☐ Antidiarrheal – Antidiarrheal Agent ☐ Antiemetic – Antiemetic Agent ☐ Antifungal – Antifungal Agent ☐ Antiretroviral – Antiretroviral Therapy ☐ Blood and Blood Products – Blood and Blood Products ☐ Bone Marrow Transplantation – Bone Marrow Transplantation ☐ Cell Therapy – Cellular Therapy ☐ Chemotherapy – Chemotherapy ☐ Chemotherapy/Radiation – Chemoradiotherapy ☐ Cytokine Therapy – Cytokine Therapy ☐ Endocrine therapy – Endocrine therapy ☐ Hormonal therapy – Hormonal therapy ☐ Immunotherapy – Immunotherapy ☐ Other – Other ☐ Radiation therapy – Radiation therapy ☐ Radiopharmaceutical Therapy – Radiopharmaceutical Compound Therapy ☐ Stem Cell Transplant – Stem Cell Transplantation ☐ Surgery – Surgery ☐ Systemic therapy – Systemic therapy ☐ Targeted Therapy – Targeted Therapy ☐ Unknown – Unknown ☐ Vitamin – Vitamin
Therapy type other specify (7008659) **CDE Short Name:** EXTHPTPX CDASH: No Match SDTM: EXSCAT (No CDE)	CHARACTER – Maximum Length = 200

CRF Question	Value Domain
What was the total amount (Drug + Vehicle)(of study treatment) administered? (6399752) **CDE Short Name:** EXVAMT CDASH: EXVAMT (6399752) SDTM: No Match	CHARACTER – Maximum Length = 200
Unit (6400551) **CDE Short Name:** EXVAMTU CDASH: EXVAMTU (6400551) SDTM: EXVAMTU (No CDE)	CHARACTER – Maximum Length = 50 ☐ mg – Milligram ☐ mL – Milliliter ☐ ug – Microgram
Start Date (6341137) **CDE Short Name:** EXSTDAT CDASH: EXSTDAT (6341137) SDTM: EXSTDTC (No CDE)	DATE – Maximum Length = 11
Stop Date (6341398) **CDE Short Name:** EXENDAT CDASH: EXENDAT (6341398) SDTM: EXENDTC (No CDE)	DATE – Maximum Length = 11
Dose (6341146) **CDE Short Name:** EXDSTXT CDASH: EXDSTXT (6341146) SDTM: EXDOSE (6642895)	CHARACTER – Maximum Length = 200
Unit (6400428) **CDE Short Name:** EXDOSU CDASH: EXDOSU (6400428) SDTM: EXDOSU (No CDE)	CHARACTER – Maximum Length = 100 List of 750 PVs

CRF Question	Value Domain
Start Time (6390926) **CDE Short Name:** EXSTTIM CDASH: EXSTTIM (6390926) SDTM: EXSTDTC (No CDE)	CHARACTER – Maximum Length = 8
Stop Time (6390927) **CDE Short Name:** EXENTIM CDASH: EXENTIM (6390927) SDTM: EXENDTC (No CDE)	CHARACTER – Maximum Length = 8