Common Data Model (CDM) Specification, Version 3.0

Note to programmers: The separate "CDM parseable file" is more helpful for direct use in implementation, and contains the complete table specifications. All documentation is available here: http://www.pcornet.org/resource-center/pcornet-common-data-model/ (Guidance added in v3.0.)

1. Table of Contents

2. Overview of the PCORnet Common Data Model (CDM)

2.1. License and Use

The PCORnet data model is freely available for use. An open-source license will be selected by PCORI. The PCORnet Distributed Research Network (DRN) and its infrastructure, including the Common Data Model (CDM), is overseen and guided by the PCORnet Data Standards, Security, and Network Infrastructure Task Force (DSSNI) Task Force.

The PCORnet CDM is based on the Mini-Sentinel Common Data Model (MSCDM; www.mini-sentinel.org) and has been informed by other distributed initiatives such as the HMO Research Network, the Vaccine Safety Datalink, various AHRQ Distributed Research Network projects, and the ONC Standards & Interoperability Framework Query Health Initiative. The PCORnet CDM is positioned within healthcare standard terminologies (including ICD, SNOMED, CPT, HCPCS, and LOINC) to enable interoperability with and responsiveness to evolving data standards.

The PCORnet CDM documentation can be accessed online at: http://www.pcornet.org/resource-center/pcornet-common-data-model/

2.2. Overview

PCORnet is developing the PCORnet DRN design to be a "…functional distributed research network that facilitates multi-site patient–centered research across the Clinical Data Research Networks (CDRNs), Patient-Powered Research Networks (PPRNs), and other interested contributors. The distributed network will enable the conduct of observational research and clinical trials while allowing each participating organization to maintain physical and operational control over its data." [DSSNI charter, 2014]

The PCORnet CDM is the foundation of the PCORnet DRN. Guiding Principles for the PCORnet DRN and CDM are included in the DSSNI Charter. The audience for this document includes current and future partners, and other stakeholders.

For more information about PCORnet, please visit http://pcornet.org

The glossary of terms for this document can be accessed online at: http://www.pcornet.org/resource-center/other-resources/

Incorporation of data associated with medical devices will be an important area for the next stage of CDM assessment. As the FDA establishes its new unique device identification system[1], which will be phased in over the next few years, assessment of this and other potential device-related data streams, including the relationship to the Global Unique Device Identification Database (GUDID)[2], will be incorporated in the CDM. (Comments added in v3.0.)

[1] http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/
[2] http://accessgudid.nlm.nih.gov/

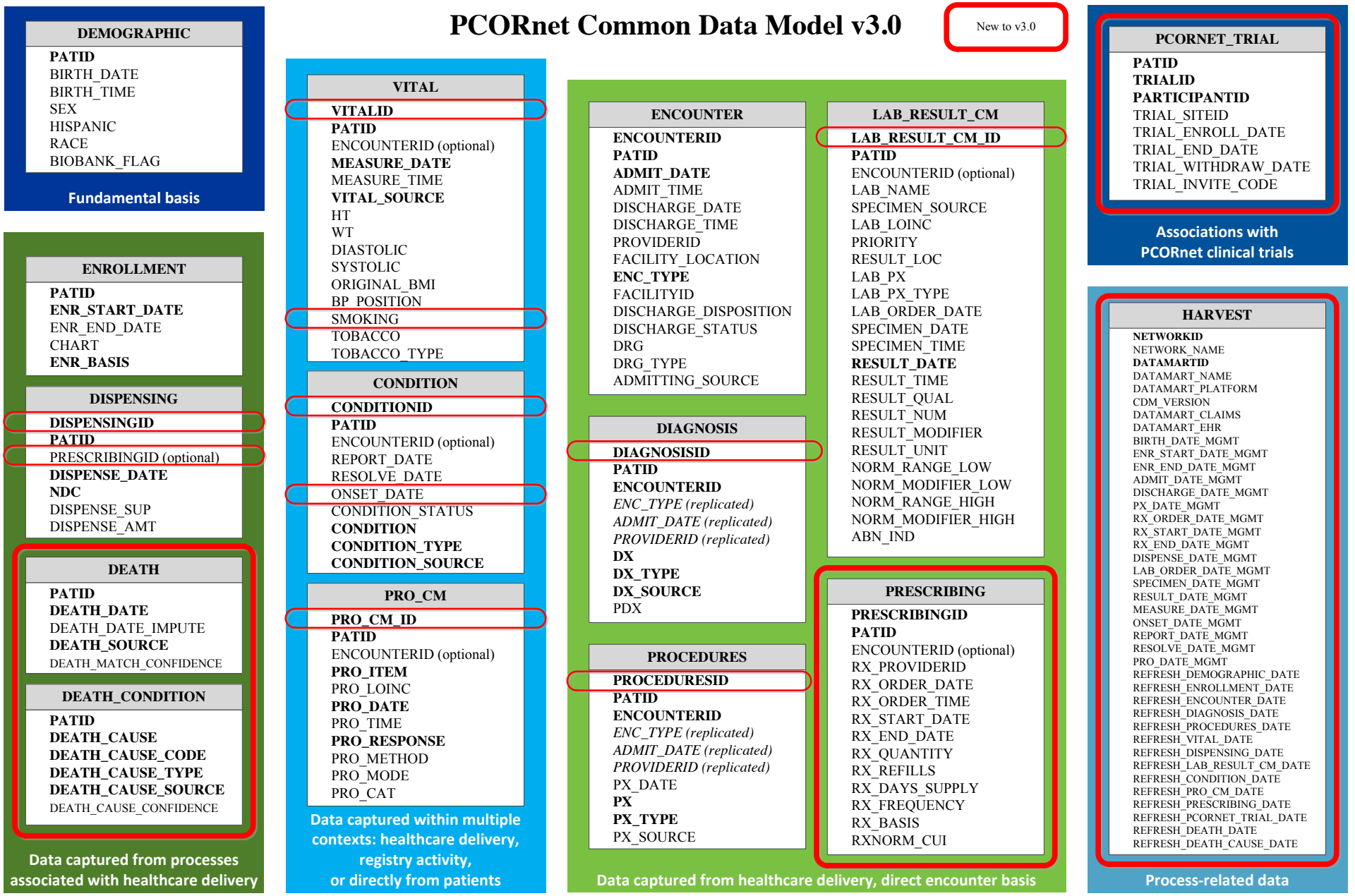
2.3. History of Releases and Modifications

Note on version conventions: Major releases are denoted with whole number incrementation (eg, v1.0, v2.0, v3.0). Minor releases are denoted with decimal incrementation (eg, v1.1, v1.2) and will be used for bug fixes and minor adjustments.

Reference Table: History of Releases

Version	*Date of Release*	*Description of Release*
v1.0	2014-05-30	The DSSNI Task Force thanks the many individuals who provided thoughtful feedback, comments, and suggestions for this first release of the PCORnet CDM. A special thanks to members of the task force who volunteered to serve on the CDM working group.
v2.0	2015-02-27	The v2.0 release includes: • Four new tables (DISPENSING, CONDITION, PRO_CM, LAB_RESULT_CM) • Four new fields in existing tables (VITAL.TOBACCO, VITAL.TOBACCO_TYPE, PROCEDURE.PX_TYPE, PROCEDURE.PX_SOURCE) • Additional guidance and descriptions
v3.0	2015-06-01	Please note: New and modified fields have been indicated in blue to assist with visually scanning the document (in addition to the descriptive comments). The v3.0 release includes: • Five new tables (PRESCRIBING, PCORNET_TRIAL, DEATH, DEATH_CAUSE, and HARVEST) • Ten new fields in existing tables (DISPENSING.DISPENSINGID, DISPENSING.PRESCRIBINGID, VITAL.VITALID, VITAL.SMOKING, CONDITION.CONDITIONID, CONDITION.ONSET_DATE, PRO_CM.PRO_CM_ID, DIAGNOSIS.DIAGNOSISD, PROCEDURES.PROCEDURESID, LAB_RESULT_CM.LAB_RESULT_CM_ID) • Modification to relational integrity specifications • Modification to date formatting practices • New specifications specific to SAS data types • Additional guidance, clarifications, and descriptions

2.4. Overview Diagram



Bold font indicates fields that cannot be null due to primary key definitions or record-level constraints.

2.5. Implementation Expectations (new to v3.0)

CDM Table	*CDRN Expectation**	*PPRN Expectation**
DEMOGRAPHIC	Expected	Expected
ENROLLMENT	Expected	Optional
ENCOUNTER	Expected	Optional
DIAGNOSIS	Expected	Optional
PROCEDURES	Expected	Optional
VITAL	Expected	Optional
DISPENSING	Optional	Optional
LAB_RESULT_CM	Optional	Optional
CONDITION	Optional	Expected
PRO_CM	Optional	Optional
PRESCRIBING	Optional	Optional
PCORNET_TRIAL	Expected for PCORnet trials	Optional
DEATH	Optional	Optional
DEATH_CAUSE	Optional	Optional
HARVEST	Expected	Expected

*Any table may be required for a given PCORnet study or trial.

3. Design of the CDM

3.1. Special Topics for CDM Modeling

Prioritization of Analytic Functionality

> PCORnet CDM Guiding Principle #5 states,
>
> "Documentation will be clear and transparent so that its contents are understandable to all contributors. The CDM will be intuitive and easy for analysts and investigators to use. **Investigators and analysts with prior experience using research data will not need additional skills or knowledge to use the CDM."** [emphasis added]

This guiding principle is expressed in the CDM design through prioritization of **analytic** functionality, and a parsimonious approach based upon analytic utility. At times, this results in decisions that are not based in relational database modeling principles such as normalization. The model is designed to facilitate routine and rapid execution of distributed complex analytics. To meet this design requirement, some fields are duplicated across multiple tables to support faster analytic operations for distributed querying. The PCORnet CDM is based on the FDA Mini-Sentinel CDM. This allows PCORnet to more easily leverage the large array of analytic tools and expertise developed for the MSCDM, including data characterization approaches and the various tools for complex distributed analytics.

~~Primary/Foreign Keys~~ Relational Integrity (section modified in v3.0)

Database programmers will notice that fields used as primary/foreign keys, especially PATID and ENCOUNTERID, are specified as text instead of numbers. This approach, informed by prior experience in developing large-scale multi-site distributed networks, makes it easier to implement than requiring new key generation that could impact database management within source systems. ~~Each organization is encouraged to use a consistent format for primary keys and foreign keys based upon their existing source data. Not all tables in the PCORnet CDM have a primary key specified (such as the DIAGNOSIS and PROCEDURE tables), but data partners are permitted to include their own primary or surrogate keys in implementation of the CDM. For example, this might include the INSTANCE_NUM in the i2b2 Data Repository Cell.~~

Please note that all tables must be present in an instantiation of the CDM, even if data are not populated in every table.

Date Formatting
Because the PCORnet CDM is intended to support multiple Relational Database Management Systems (RDBMS), date format consistency is an issue, given that most RDBMS's have platform-specific native date representation. ~~To address this issue, the PCORnet CDM will adopt the ISO 8601 standard of date and time representation, which is platform-agnostic.~~ (Guidance removed in v3.0.)

To address this issue, each RDBMS will be expected to implement its own native date data type for dates, which will be supported by the Entity Framework technology stack[3]. (Guidance added in v3.0.) The CDM will always separate date fields and time fields for consistency, and employ a naming convention of suffix "_DATE" or "_TIME".

All times should be recorded within the local time zone. A uniform time stamp or GMT offset is not expected. (Guidance added to v2.0)

Missing or Unknown Data Values
The PCORnet CDM will use the HL7 conventions of "Null Flavors" (http://hl7.org/implement/standards/fhir/v3/NullFlavor/) as a basis for representing missing or unknown values. Specifically, for fields where an enumeration is present (i.e., a categorical set of values), we will populate null values as follows (clarification added in v3.0):

1. **A data field is not present** in the source system. (populate with null)
2. A data field for an enumeration is present in the source system, **but the source value is null or blank**. (populate with NI=No Information)
3. A data field for an enumeration is present in the source system, but the source value **explicitly denotes an unknown value**. (populate with UN=Unknown)
4. A data field for an enumeration is present in the source system, but the source value **cannot be mapped to the CDM**. (populate with OT=Other)

This guidance is only applicable for categorical text fields, not for numbers or dates (clarification added in v3.0).

Source Data Consistency
The CDM does not include data consistency rules or edits, such as upper and lower limits of numeric values. The value recorded in the originating source system should be the value populated in the CDM, even if the value is outside a normally acceptable limit. Inclusion of all originating data, without modification, supports data characterization and better data provenance.

Decisions about inclusion (or censoring) of outlier values will be made as part of each analysis or query, allowing for these decisions to be driven by appropriateness for each individual analysis.

> PCORnet CDM Guiding Principle #7 states,
> "**The CDM will reflect variables and values found in the local data**. If some data are coded in a way that is unique to a site, mapping the data to a standardized format will be necessary. **Values in the source data before mapping will also be included in the CDM**. Derived variables should be avoided." [emphasis added]

[3] https://msdn.microsoft.com/en-us/data/ef.aspx

"Raw" Fields
The data model uses a convention for "raw data fields." These are optional fields for storing the originating source value of a field, prior to mapping into PCORnet CDM value set. It may also be used for source-specific ontologies.

The "RAW" fields are intended to support data provenance and facilitate quality control checking by local implementation, if desired. These fields will have a naming convention of prefix "RAW_". We will not include these fields in the Entity-Relationship (ER) diagram.

Case Sensitivity (modifications made to v3.0)
~~The PCORnet CDM recognizes that some relational database management systems (RDBMS) do not have case sensitive object naming. However, if the CDM is implemented in a platform that is case sensitive, please always name objects in UPPERCASE (for example TABLE_NAME and FIELD_NAME). Distributed programs will assume that all table names and field names are in UPPERCASE. Categorized value sets will also use UPPERCASE.~~

All RDBMS implementations of the PCORnet Common Data Model should be case-insensitive.

Avoidance of Padding
Numbers should not be "padded" with extra zeroes. Text fields should not be "padded" with spaces before or after the actual textual values. (Guidance added to v2.0.)

Additional Fields
PCORnet sites are welcome to include additional fields in their local CDM implementation that will assist with transformation or clarity.

> As stated in PCORnet CDM Guiding Principle #8,
> "CDRNs and PPRNs may include additional domains and data elements in localized versions of the PCORnet CDM."

~~**Incomplete Date Guidance (new to v2.0)**~~
~~For situations where the source system does not include full date precision, the CDM will permit incomplete dates to be populated in a manner compatible with the ISO 8601 date format. If the year and month is known, but day is not, the value would be entered as YYYY-MM (eg, "2014-10"). If only the year is known, the value would be entered as YYYY (eg, "2014"). No padding or placeholders should be used. The only exception to this guidance is in the ENROLLMENT table, as specified in the field definitions.~~

~~This approach results in the following considerations, as discussed by the CDM Working Group:~~
- ~~This approach results in better data provenance practices because of the clarity within the CDM where exact date precision is not known~~
  - ~~This clarity is not present where defaults are chosen for the entire data model (for example, if day is unknown, default to the first day of the month)~~
- ~~Individual analyses choose how to handle date defaults, allowing analyses requiring temporal precision to exclude incomplete dates if appropriate, or to determine appropriate default approaches that will not bias the results~~
  - ~~However, this does result in the need for analytic programs to incorporate additional logic to handle these situations~~

Incomplete Date Guidance (modified in v3.0 due to changes to support native RDBMS dates)

In situations where the exact day or month is unknown or not available, it is still necessary to have a valid date for native RDBMS and SAS date data types. In this situation, please use this specific imputation strategy:

- If the day is missing, use the **first day of the month** to create a valid date value with the existing month and year.
- In the uncommon situation where a month is missing, **use January 1** to create a value date value with the existing year.

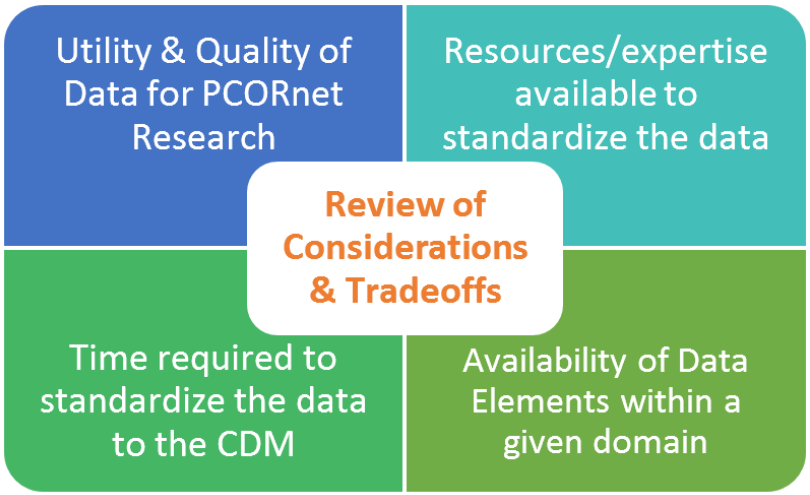
The HARVEST table indicators of DATE_ fields are used to indicate the presence of incomplete dates within the data, and the specific details of imputation would be described in the ETL Annotated Data Dictionary (ADD). The convention of the RAW_ fields can also be deployed to indicate the presence and original value of incomplete dates, if desired.

3.2. Development Notes

PCORnet CDM Guiding Principle #2 states,

> "**It is expected that <u>not all</u> CDRNs and PPRNs will have data needed to populate all parts of the PCORnet CDM.** It is the responsibility of the CDRNs and PPRNs to communicate availability of each data domain and element." [emphasis added]

The PCORnet CDM will be implemented in phases. This will allow incorporation of new data domains and fields throughout the life of the project, building based on PCORnet needs, lessons learned from use, and data availability. The assessment of considerations and tradeoffs is an integral part of decision-making based on pragmatism and analytic value.



Because the PCORnet DRN has independent objectives and priorities, the PCORnet CDM will not reuse an existing data model, but will develop a stand-alone PCORnet CDM based on existing data models, as appropriate.

> PCORnet CDM Guiding Principle #6 states,
>
> "Other common data elements and common data model initiatives exist. PCORnet will draw from the experience of others within and outside of PCORI, leveraging existing successful approached and data model definitions wherever possible."

The model was initially informed by results from the PCORnet DSSNI Preliminary Partner Survey (also known as the "Tech Survey") completed in December 2013 and January 2014. Recommendations from the PCORnet CDM Working Group have been a basis for strategy and decisions. The PCORnet CDM priority data domains and implementation approach are based on PCORI needs, planned future capabilities, and the data sources and expertise of the PCORnet partners.

> As stated in PCORnet CDM Guiding Principle #4,
>
> "The PCORnet CDM will be developed in a **modular, incremental, and extensible fashion.** New types of data will be needed, or newly available, during the life of PCORnet. Data domains and data elements will be added, revised, and deprecated throughout an iterative CDM lifecycle. Personnel from the CDRNs and PPRNs will work with the DSSNI Task Force (and other Task Forces as appropriate) to assist in these efforts." [emphasis added]

The implementation process for each PCORnet data mart will be documented for review by the DSSNI Task Force in the form of the ETL Annotated Data Dictionary (ETL ADD). The DSSNI Task Force has provided templates for this documentation, and also provides support and consultation as implementation questions arise.

3.3. Comments on Protected Health Information (PHI)

The CDM will contain some of the 18 elements that define PHI under HIPAA, including encounter dates and date of birth. However, these dates will remain under the control of the institutions that already maintain PHI. To maximize analytic flexibility and allow for all types of analyses, complete and exact dates should be included in the CDM. Distributed analytic programs will use the date fields for analysis, but will generate results that contain the minimum necessary information to address the question. The results returned to the requester will typically be aggregated and not include any PHI. Queries that generate results sets with PHI (eg, a person-level analysis under an IRB, with all necessary data agreements in place) will be clearly flagged as such and will only be distributed with the appropriate approvals clearly documented. As with all distributed queries, sites should review all results before release.

PCORnet Distributed Research Network Guiding Principle #2 states,

"**CDRNs and PPRNs will control how their data are used as allowed by internal governance policies**. Data resources developed for PCORnet will stay within the CDRNs and PPRNs and under their control." [emphasis added]

The necessary "cross-walks" between the arbitrary identifiers included in the CDM and their originating data are not specified in the scope of the CDM, but are expected to be maintained by each data partner.

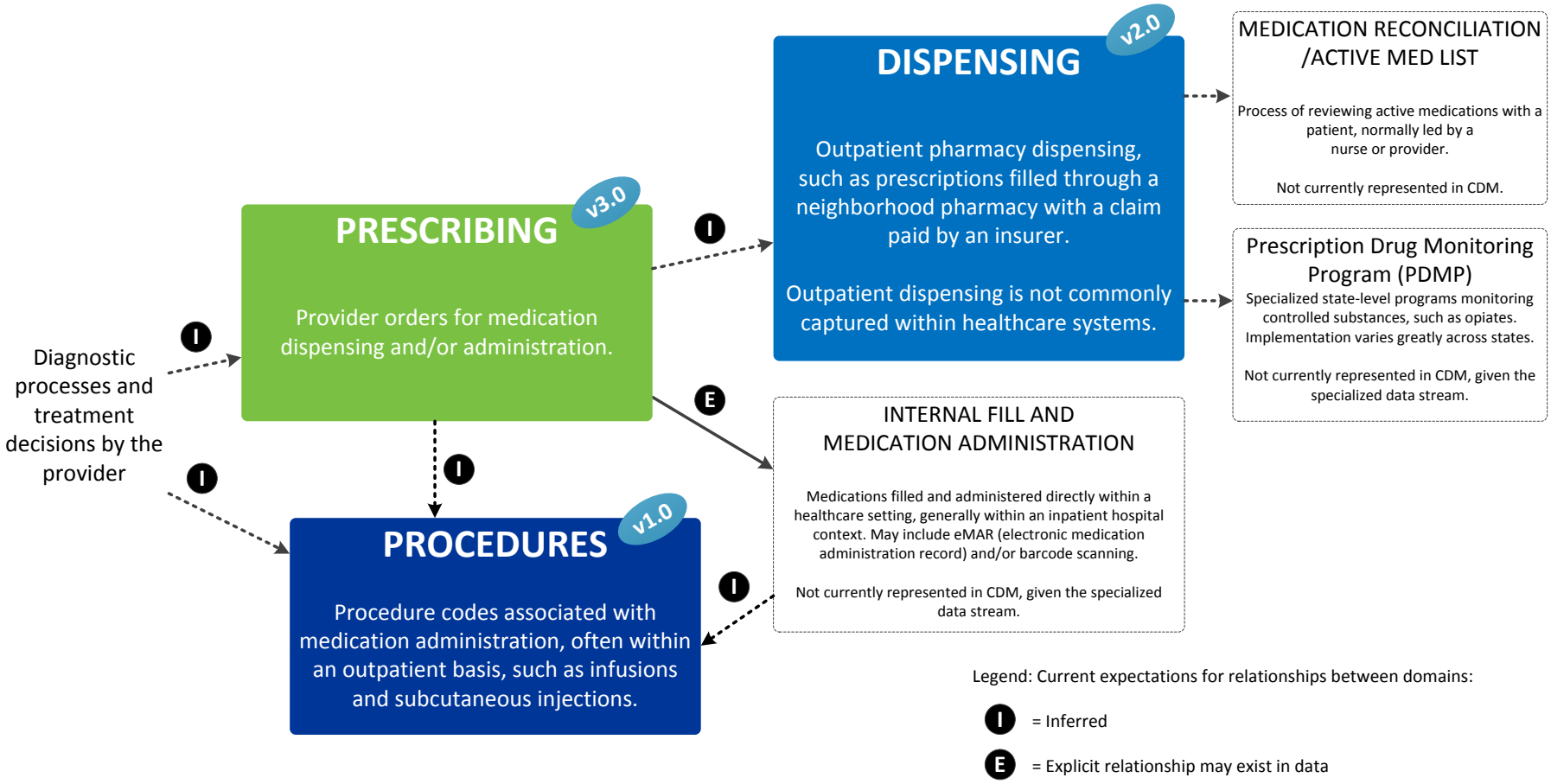
- PATID is a pseudoidentifier with a consistent crosswalk to the true identifier retained by the source site. For analytical data sets requiring patient-level data, only the pseudoidentifier is used to link across all information belonging to a patient.
- The PATID pseudoidentifier should not be a true identifier. It is not appropriate to use Medical Record Identifiers (MRNs) for this purpose because MRN is a direct patient identifier.
- Locally maintained "mapping tables" are tables necessary to implement so that each data partner has the ability to map arbitrary identifiers back to the originating data and patient.
- These mapping tables are not part of the PCORnet DRN.

Mapping tables for implementation of the CDM should include (but are not limited to):

- PATID crosswalk
- PROVIDER crosswalk

3.4. The Continuum of Medication-related Data Domains (new to v3.0)

This diagram represents our expectations for the **current state** of medication-related data stores in clinical systems, and is meant to assist in the assessment of data availability for PCORnet CDM implementation.



4. Individual Table Specifications

4.1. Table: DEMOGRAPHIC

DEMOGRAPHIC Domain Description:
Demographics record the direct attributes of individual patients.

Relational Integrity (guidance added in v3.0):
The DEMOGRAPHIC table contains one record per patient.

Primary Key: PATID

Constraints:
PATID (unique, required, not null)

Additional Notes:

- The most recently available information should be populated for BIRTH_DATE, SEX, and other characteristics. If these attributes have been updated in the patient record, please use the most recent value.

DEMOGRAPHIC Table Specification

Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables. PATID is a pseudoidentifier with a consistent crosswalk to the true identifier retained by the source data partner. For analytical data sets requiring patient-level data, only the pseudoidentifier is used to link across all information belonging to a patient. The PATID must be unique within each PCORnet data mart. Creating a unique identifier within a network would be beneficial and acceptable. The PATID is not the basis for linkages across data partners.	MSCDM

DEMOGRAPHIC Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
BIRTH_DATE	RDBMS Date	SAS Date (Numeric)	.	Date of birth.	MSCDM
BIRTH_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Time of birth.	PCORnet Source of time format: ISO 8601
SEX	RDBMS Text(2)	SAS Char(2)	A=Ambiguous F=Female M=Male NI=No information UN=Unknown OT=Other	Administrative sex. v2.0 guidance added: The "Ambiguous" category may be used for individuals who are physically undifferentiated from birth. The "Other" category may be used for individuals who are undergoing gender re-assignment.	MSCDM with modified field size and value set Source: Administrative Sex (HL7) http://phinvads.cdc.gov/vads/ViewValueSet.action?id=06D34BBC-617F-DD11-B38D-00188B398520
HISPANIC	RDBMS Text(2)	SAS Char(2)	Y=Yes N=No R=Refuse to answer NI=No information UN=Unknown OT=Other	A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. v2.0 amendment: The new categorical value of "Refuse to answer" has been added.	MSCDM with modified field size and value set Compatible with "OMB Hispanic Ethnicity" (Hispanic or Latino, Not Hispanic or Latino)

DEMOGRAPHIC Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RACE	RDBMS Text(2)	SAS Char(2)	01=American Indian or Alaska Native 02=Asian 03=Black or African American 04=Native Hawaiian or Other Pacific Islander 05=White 06=Multiple race 07=Refuse to answer NI=No information UN=Unknown OT=Other	Please use only one race value per patient. **Details of categorical definitions:** American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment. Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam. Black or African American: A person having origins in any of the black racial groups of Africa. Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands. White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.	MSCDM with modified field size and value set Original value set is based upon U.S. Office of Management and Budget (OMB) standard, and is compatible with the 2010 U.S. Census
BIOBANK_FLAG	RDBMS Text(1)	SAS Char(1)	Y=Yes N=No	Flag to indicate that one or more biobanked specimens are stored and available for research use. Examples of biospecimens could include blood, urine, or tissue (eg, skin cells, organ tissues). If biospecimens are available, locally maintained "mapping tables" would be necessary to map between the DEMOGRAPHIC record and the originating biobanking system(s). If no known biobanked specimens are available, this field should be marked "No".	PCORnet
RAW_SEX	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_HISPANIC	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_RACE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.2. Table: ENROLLMENT

ENROLLMENT Domain Description:

Enrollment is a concept that defines a period of time during which all medically-attended events are expected to be observed. This concept is often insurance-based, but other methods of defining enrollment are possible.

Relational Integrity (guidance added in v3.0):
The ENROLLMENT table contains one record per unique combination of PATID, ENR_START_DATE, and BASIS.

Composite Primary Key: PATID, ENR_START_DATE, ENR_BASIS

Foreign Key:
ENROLLMENT.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)

Constraints:
PATID (required, not null)
ENR_START_DATE (required, not null)
ENR_BASIS (required, not null)
PATID + ENR_START_DATE + ENR_BASIS (unique)

Additional Notes:

- The ENROLLMENT table has a start/stop structure that contains records for continuous enrollment periods.
- For partners that do not have insurance-based enrollment information for some of their patients, other approaches for identifying periods during which complete medical capture is expected can be used.
- This table is designed to identify periods during which a person is expected to have complete data capture.
- Members with medical coverage, drug coverage, or both should be included.
- A break in enrollment (of at least one day) or a change in the chart abstraction flag should generate a new record.
- The ENROLLMENT table provides an important analytic basis for identifying periods during which medical care should be observed, for calculating person-time, and for inferring the meaning of unobserved care (ie, if care is not observed, it likely did not happen).

ENROLLMENT Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
ENR_START_DATE	RDBMS Date	SAS Date (Numeric)	.	Date of the beginning of the enrollment period. If the exact date is unknown, use the first day of the month. For implementation of the CDM, a long span of longitudinal data is desirable; however, especially for historical data more than a decade old, the appropriate beginning date should be determined by the data partner's knowledge of the validity and usability of the data. More specific guidance can be provided through implementation discussions.	MSCDM with modified field name
ENR_END_DATE	RDBMS Date	SAS Date (Numeric)	.	Date of the end of the enrollment period. If the exact date is unknown, use the last day of the month.	MSCDM with modified field name
CHART	RDBMS Text(1)	SAS Char(1)	Y=Yes N=No	Chart abstraction flag is intended to answer the question, "Are you able to request (or review) charts for this person?" This flag does not address chart availability. Mark as "Yes" if there are no contractual or other restrictions between you and the individual (or sponsor) that would prohibit you from requesting any chart for this patient. Note: This field is most relevant for health insurers that can request charts from affiliated providers. This field allows exclusion of patients from studies that require chart review to validate exposures and/or outcomes. It identifies patients for whom charts are **never** available and for whom the chart can never be requested.	MSCDM

ENROLLMENT Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
ENR_BASIS	RDBMS Text(1)	SAS Char(1)	I=Insurance G=Geography A=Algorithmic E=Encounter-based	When insurance information is not available but complete capture can be asserted some other way, please identify the basis on which complete capture is defined. Additional information on the approach identified will be required from each data partner. ENR_BASIS is a property of the time period defined. A patient can have multiple entries in the table. **Details of categorical definitions:** Insurance: The start and stop dates are based upon the concept of enrollment with health plan insurance Geography: An assertion of complete data capture between the start and end dates based upon geographic characteristics, such as regional isolation Algorithmic: An assertion of complete data capture between the start and end dates, based on a locally developed or applied algorithm, often using multiple criteria Encounter-based: The start and stop dates are populated from the earliest-observed encounter and latest-observed encounter.	PCORnet Based upon the HMORN VDW

4.3. Table: ENCOUNTER

ENCOUNTER Domain Description:
Encounters are interactions between patients and providers within the context of healthcare delivery.

Relational Integrity (guidance added in v3.0):
The ENCOUNTER table contains one record per unique encounter.

Primary Key: ENCOUNTERID

Foreign Key:
ENCOUNTER.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)

Constraints:
ENCOUNTERID (unique, required, not null)
PATID (required, not null)
ADMIT_DATE (required, not null)
ENC_TYPE (required, not null)

Additional Notes:

- Each record will generally reflect a unique combination of PATID, ADMIT_DATE, PROVIDERID and ENC_TYPE.
- Each diagnosis and procedure recorded during the encounter should have a separate record in the Diagnosis or Procedure Tables.
- Multiple visits to the **same** provider on the same day may be considered one encounter (especially if defined by a reimbursement basis); if so, the ENCOUNTER record should be associated with all diagnoses and procedures that were recorded during those visits.
- Visits to **different** providers on the same day, such as a physician appointment that leads to a hospitalization, would generally be considered multiple encounters in the source system.
- Rollback or voided transactions and other adjustments should be processed before populating this table.
- Note: Although "Expired" is represented in both DISCHARGE_DISPOSITION and DISCHARGE_STATUS, this overlap represents the reality that both fields are captured in hospital data systems but there is variation in which field is best populated.

Guidance on the Encounter Type Classification (v2.0 guidance added):

- For the situation where an Emergency Department (ED) encounter leads to a hospital admission
  - The optimal, preferred state is to have one record for the ED (ENC_TYPE=ED), and a separate record for the hospital admission (ENC_TYPE=IP)
  - However, this separation does not always exist in source data records. If the source system combines the ED and IP basis into one concept, a permissible substitution is to use ENC_TYPE=EI
  - Never merge separate ED and IP records together.
- Generally, a reimbursement basis will determine the source system classification, instead of physical location. For example, a patient may occupy a hospital bed during an observation that is not classified as an inpatient hospital stay.
- Please note that stand-alone urgent care facilities are usually not established as Emergency Departments.

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier. Used to link across tables, including the ENCOUNTER, DIAGNOSIS, and PROCEDURES tables.	MSCDM
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
ADMIT_DATE	RDBMS Date	SAS Date (Numeric)	.	Encounter or admission date.	MSCDM with modified field name
ADMIT_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Encounter or admission time.	PCORnet Source of time format: ISO 8601
DISCHARGE_DATE	RDBMS Date	SAS Date (Numeric)	.	Discharge date. Should be populated for all Inpatient Hospital Stay (IP) and Non-Acute Institutional Stay (IS) encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for ambulatory visit (AV or OA) encounter types. (Additional guidance added in v3.0 for the EI encounter type.)	MSCDM with modified field name

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DISCHARGE_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Discharge time.	PCORnet Source of time format: ISO 8601
PROVIDERID	RDBMS Text(x)	SAS Char(x)	.	Provider code for the provider who is most responsible for this encounter. For encounters with multiple providers choose one so the encounter can be linked to the diagnosis and procedure tables. As with the PATID, the provider code is a pseudoidentifier with a consistent crosswalk to the real identifier.	MSCDM
FACILITY_LOCATION	RDBMS Text(3)	SAS Char(3)	.	Geographic location (3 digit zip code). Should be null if not recorded in source system (modification made from “blank” to “null” in v3.0).	MSCDM

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
ENC_TYPE	RDBMS Text(2)	SAS Char(2)	AV=Ambulatory Visit ED=Emergency Department EI=Emergency Department Admit to Inpatient Hospital Stay (permissible substitution) IP=Inpatient Hospital Stay IS=Non-Acute Institutional Stay OA=Other Ambulatory Visit NI=No information UN=Unknown OT=Other	Encounter type. v2.0 amendment: The new categorical value of EI has been added. **Details of categorical definitions:** Ambulatory Visit: Includes visits at outpatient clinics, physician offices, same day/ambulatory surgery centers, urgent care facilities, and other same-day ambulatory hospital encounters, but excludes emergency department encounters. Emergency Department (ED): Includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care facility visits. ED claims should be pulled before hospitalization claims to ensure that ED with subsequent admission won't be rolled up in the hospital event. Emergency Department Admit to Inpatient Hospital Stay: Permissible substitution for preferred state of separate ED and IP records. Only for use with data sources where the individual records for ED and IP cannot be distinguished (new to v2.0). Inpatient Hospital Stay: Includes all inpatient stays, including: same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date. Non-Acute Institutional Stay: Includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis, and other non-hospital stays. Other Ambulatory Visit: Includes other non-overnight AV encounters such as hospice visits, home health visits, skilled nursing visits, other non-hospital visits, as well as telemedicine, telephone and email consultations. May also include "lab only" visits (when a lab is ordered outside of a patient visit), "pharmacy only" (e.g., when a patient has a refill ordered without a face-to-face visit), "imaging only", etc.	MSCDM with modified value set

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
FACILITYID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary local facility code that identifies the hospital or clinic. Used for chart abstraction and validation. FACILITYID can be a true identifier, or a pseudoidentifier with a consistent crosswalk to the true identifier retained by the source data partner.	MSCDM with modified field name
DISCHARGE_DISPOSITION	RDBMS Text(2)	SAS Char(2)	A=Discharged alive E=Expired NI=No information UN=Unknown OT=Other	Vital status at discharge. Should be populated for Inpatient Hospital Stay (IP) and Non-Acute Institutional Stay (IS) encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for ambulatory visit (AV or OA) encounter types. (Additional guidance added in v3.0 for the EI encounter type.)	MSCDM with modified field size and value set

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DISCHARGE_STATUS	RDBMS Text(2)	SAS Char(2)	AF=Adult Foster Home AL=Assisted Living Facility AM=Against Medical Advice AW=Absent without leave EX=Expired HH=Home Health HO=Home / Self Care HS=Hospice IP=Other Acute Inpatient Hospital NH=Nursing Home (Includes ICF) RH=Rehabilitation Facility RS=Residential Facility SH=Still In Hospital SN=Skilled Nursing Facility NI=No information UN=Unknown OT=Other	Discharge status. Should be populated for Inpatient Hospital Stay (IP) and Non-Acute Institutional Stay (IS) encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for ambulatory visit (AV or OA) encounter types. (Additional guidance added in v3.0 for the EI encounter type.)	MSCDM with modified value set
DRG	RDBMS Text(3)	SAS Char(3)	.	3-digit Diagnosis Related Group (DRG). Should be populated for IP and IS encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for AV or OA encounters. Use leading zeroes for codes less than 100. (Additional guidance added in v3.0 for the EI encounter type.) The DRG is used for reimbursement for inpatient encounters. It is a Medicare requirement that combines diagnoses into clinical concepts for billing. Frequently used in observational data analyses.	MSCDM

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DRG_TYPE	RDBMS Text(2)	SAS Char(2)	01=CMS-DRG (old system) 02=MS-DRG (current system) NI=No information UN=Unknown OT=Other	DRG code version. MS-DRG (current system) began on 10/1/2007. Should be populated for IP and IS encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for AV or OA encounters. (Additional guidance added in v3.0 for the EI encounter type.)	MSCDM with modified field size and value set
ADMITTING_SOURCE	RDBMS Text(2)	SAS Char(2)	AF=Adult Foster Home AL=Assisted Living Facility AV=Ambulatory Visit ED=Emergency Department HH=Home Health HO=Home / Self Care HS=Hospice IP=Other Acute Inpatient Hospital NH=Nursing Home (Includes ICF) RH=Rehabilitation Facility RS=Residential Facility SN=Skilled Nursing Facility NI=No information UN=Unknown OT=Other	Admitting source. Should be populated for Inpatient Hospital Stay (IP) and Non-Acute Institutional Stay (IS) encounter types. May be populated for Emergency Department (ED) and ED-to-Inpatient (EI) encounter types. Should be missing for ambulatory visit (AV or OA) encounter types. (Additional guidance added in v3.0 for the EI encounter type.)	MSCDM with modified value set

ENCOUNTER Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RAW_SITEID	RDBMS Text(x)	SAS Char(x)	.	This field is new to v2.0. Optional field for locally-defined identifier intended for local use; for example, where a network may have multiple sites contributing to a central data repository. This attribute may be sensitive in certain contexts; the intent is for internal network use only, and not to enable site quality comparisons.	PCORnet
RAW_ENC_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_DISCHARGE_DISPOSITION	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_DISCHARGE_STATUS	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_DRG_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_ADMITTING_SOURCE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.4. Table: DIAGNOSIS

DIAGNOSIS Domain Description:
Diagnosis codes indicate the results of diagnostic processes and medical coding within healthcare delivery.

Relational Integrity (guidance added in v3.0):
The DIAGNOSIS table contains one record per DIAGNOISID.

Primary Key: DIAGNOSISID

Foreign Keys:
DIAGNOSIS.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
DIAGNOSIS.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (one-to-many relationship)

Constraints:
DIAGNOSISID (unique, required, not null)
PATID (required, not null)
ENCOUNTERID (required, not null)
DX (required, not null)
DX_TYPE (required, not null)
DX_SOURCE (required, not null)

Additional Notes:

- This table should capture all uniquely recorded diagnoses for all encounters.
- Diagnoses from problem lists will be captured in the separate CONDITION table.
- If a patient has multiple diagnoses associated with one encounter, then there would be one record in this table for each diagnosis.
- ENCOUNTERID is not optional for DIAGNOSIS and PROCEDURES. The definitions of the DIAGNOSIS and PROCEDURES tables are dependent upon a healthcare context; therefore, the ENCOUNTER basis is necessary.
- Data in this table are expected to be from healthcare-mediated processes and reimbursement drivers. This can include both technical/facility billing and professional billing.
- We recognize that, in many cases, these diagnoses may only be related to the **treatment** of the patient during the specific encounter. For example, chronic conditions may not be pertinent to the treatment of a specific encounter, and would not be expected to be present.
- If a local ontology is used, but cannot be mapped to a standard ontology such as ICD-9-CM, DX_TYPE should be populated as “Other”.

DIAGNOSIS Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DIAGNOSISID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. New field added in v3.0.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier. Used to link across tables.	MSCDM
ENC_TYPE	RDBMS Text(2)	SAS Char(2)	AV=Ambulatory Visit ED=Emergency Department EI=Emergency Department Admit to Inpatient Hospital Stay (permissible substitution) IP=Inpatient Hospital Stay IS=Non-Acute Institutional Stay OA=Other Ambulatory Visit NI=No information UN=Unknown OT=Other	Please note: This is a field replicated from the ENCOUNTER table. See the ENCOUNTER table for definitions.	MSCDM with modified value set
ADMIT_DATE	RDBMS Date	SAS Date (Numeric)	.	Please note: This is a field replicated from the ENCOUNTER table. See the ENCOUNTER table for definitions.	MSCDM with modified field name
PROVIDERID	RDBMS Text(x)	SAS Char(x)	.	Please note: This is a field replicated from the ENCOUNTER table. See the ENCOUNTER table for definitions.	MSCDM

DIAGNOSIS Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DX	RDBMS Text(18)	SAS Char(18)	.	Diagnosis code. Leading zeroes and different levels of decimal precision are permissible in this field. Please populate the exact textual value of this diagnosis code, but remove source-specific suffixes and prefixes. Other codes should be listed as recorded in the source data.	MSCDM
DX_TYPE	RDBMS Text(2)	SAS Char(2)	09=ICD-9-CM 10=ICD-10-CM 11=ICD-11-CM SM=SNOMED CT NI=No information UN=Unknown OT=Other	Diagnosis code type. We provide values for ICD and SNOMED code types. Other code types will be added as new terminologies are more widely used. Please note: The "Other" category is meant to identify internal use ontologies and codes.	MSCDM with modified field name
DX_SOURCE	RDBMS Text(2)	SAS Char(2)	AD=Admitting DI=Discharge FI=Final IN=Interim NI=No information UN=Unknown OT=Other	Classification of diagnosis source. We include these categories to allow some flexibility in implementation. The context is to capture available diagnoses recorded during a specific encounter. It is not necessary to populate interim diagnoses unless readily available. Ambulatory encounters would generally be expected to have a source of "Final."	PCORnet

DIAGNOSIS Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PDX	RDBMS Text(2)	SAS Char(2)	P=Principal S=Secondary X=Unable to Classify NI=No information UN=Unknown OT=Other	Principal discharge diagnosis flag. Relevant only on IP and IS encounters. For ED, AV, and OA encounter types, mark as X=Unable to Classify. (Billing systems do not require a primary diagnosis for ambulatory visits (eg, professional services).) One principle diagnosis per encounter is expected, although in some instances more than one diagnosis may be flagged as principal. (Modification made in v3.0 to specify "per encounter.")	MSCDM with modified field size and value set
RAW_DX	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_DX_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_DX_SOURCE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_PDX	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.5. Table: PROCEDURES

Modification in v3.0: The table previously named "PROCEDURE" (singular) has been renamed to "PROCEDURES" (plural) to ensure compatibility with all RDBMS's.

PROCEDURES Domain Description:
Procedure codes indicate the discreet medical interventions and diagnostic testing, such as surgical procedures, administered within healthcare delivery.

Relational Integrity (guidance added in v3.0):
The PROCEDURES table contains one record per PROCEDURESID.

Primary Key: PROCEDURESID

Foreign Keys:
PROCEDURES.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
PROCEDURES.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (one-to-many relationship)

Constraints:
PROCEDURESID (unique, required, not null)
PATID (required, not null)
ENCOUNTERID (required, not null)
PX (required, not null)
PX_TYPE (required, not null)

Additional Notes:

- This table should capture all uniquely recorded procedures for all encounters.
- If a patient has multiple procedures ordered during one encounter, then there would be one record in this table for each procedure.
- ENCOUNTERID is not optional for DIAGNOSIS and PROCEDURES. The definitions of the DIAGNOSIS and PROCEDURES tables are dependent upon a healthcare context; therefore, the ENCOUNTER basis is necessary.
- Healthcare mediated process and reimbursement driver.
- Can include both technical/facility billing and professional billing.
- ~~Only billed procedures should be included in the PROCEDURES table. The ORDER concept may be incorporated into future phases of the CDM.~~ (guidance removed in v3.0)
- If a local ontology is used, but cannot be mapped to a standard ontology such as ICD-9-CM, PX_TYPE should be populated as "Other".

PROCEDURES Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PROCEDURESID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. New field added in v3.0.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier. Used to link across tables.	MSCDM
ENC_TYPE	RDBMS Text(2)	SAS Char(2)	AV=Ambulatory Visit ED=Emergency Department EI=Emergency Department Admit to Inpatient Hospital Stay (permissible substitution) IP=Inpatient Hospital Stay IS=Non-Acute Institutional Stay OA=Other Ambulatory Visit NI=No information UN=Unknown OT=Other	Please note: This is a field replicated from the ENCOUNTER table. See ENCOUNTER table for definitions.	MSCDM with modified field name and value set
ADMIT_DATE	RDBMS Date	SAS Date (Numeric)	.	Please note: This is a field replicated from the ENCOUNTER table. See ENCOUNTER table for definitions.	MSCDM with modified field name
PROVIDERID	RDBMS Text(x)	SAS Char(x)	.	Please note: This is a field replicated from the ENCOUNTER table. See ENCOUNTER table for definitions.	MSCDM
PX_DATE	RDBMS Date	SAS Date (Numeric)	.	New to v2.0. Date the procedure was performed.	PCORnet
PX	RDBMS Text(11)	SAS Char(11)	.	Procedure code.	MSCDM

PROCEDURES Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PX_TYPE	RDBMS Text(2)	SAS Char(2)	09=ICD-9-CM 10=ICD-10-PCS 11=ICD-11-PCS C2=CPT Category II C3=CPT Category III C4=CPT-4 (i.e., HCPCS Level I) H3=HCPCS Level III HC=HCPCS (i.e., HCPCS Level II) LC=LOINC ND=NDC RE=Revenue NI=No information UN=Unknown OT=Other	Procedure code type. We include a number of code types for flexibility, but the basic requirement that the code refer to a medical procedure remains. Revenue codes are a standard concept in Medicare billing and can be useful for defining care settings. If those codes are available they can be included. Medications administered by clinicians can be captured in billing data and Electronic Health Records (EHRs) as HCPCS procedure codes. Administration (infusion) of chemotherapy is an example. We are now seeing NDCs captured as part of procedures because payers are demanding it for payment authorization. Inclusion of this code type enables those data partners that capture the NDC along with the procedure to include the data. Please note: The "Other" category is meant to identify internal use ontologies and codes.	MSCDM with modified field name and value set
PX_SOURCE	RDBMS Text(x)	SAS Char(x)	OD=Order BI=Billing CL=Claim NI=No information UN=Unknown OT=Other	New to v2.0. Source of the procedure information. Order and billing pertain to internal healthcare processes and data sources. Claim pertains to data from the bill fulfillment, generally data sources held by insurers and other health plans.	PCORnet
RAW_PX	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_PX_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.6. Table: VITAL

VITAL Domain Description:
Vital signs (such as height, weight, and blood pressure) directly measure an individual's current state of attributes.

Relational Integrity (guidance added in v3.0):
The VITAL table contains one record per VITALID.

Primary Key: VITALID

Foreign Keys:
VITAL.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
VITAL.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (zero-to-many relationship)

Constraints:
VITALID (unique, required, not null)
PATID (required, not null)
MEASURE_DATE (required, not null)
VITAL_SOURCE (required, not null)

Additional notes:

- The VITAL table contains one record per result/entry. Multiple measurements may exist in source data (for example, 3 blood pressure readings on the same day); each measurement would be a separate record. This table should be populated with all available measures.
- This table includes both healthcare and non-healthcare settings.
- v2.0 amendment: direct feeds from devices are no longer excluded; please see guidance on VITAL_SOURCE field

Figure 1. Example of populated VITAL table (guidance added in v2.0 and updated with v3.0).

VITALID	PATID	ENCOUNTERID	MEASURE_DATE	MEASURE_TIME	VITAL_SOURCE	HT	WT	DIASTOLIC	SYSTOLIC	ORIGINAL_BMI	BP_POSITION	TOBACCO	TOBACCO_TYPE
f5a9a07a-f910-11e4-a322-1697f925ec7b	123	98765	1/5/2014	13:51	HC	67							
f5a9a2be-f910-11e4-a322-1697f925ec7b	123	98765	1/5/2014	13:52	HC		150						
f5a9a3fe-f910-11e4-a322-1697f925ec7b	123	98765	1/5/2014	13:55	HC			120	80		01		
f5a9a52a-f910-11e4-a322-1697f925ec7b	123	98765	1/5/2014		HC							01	NI
f5a9a822-f910-11e4-a322-1697f925ec7b	123	98765	1/5/2014	14:02	HC			122	86		01		
f5a9a94e-f910-11e4-a322-1697f925ec7b	123		3/22/2014		PR		145.6						
f5a9aa7a-f910-11e4-a322-1697f925ec7b	123	65432	11/30/2014		HC	67							
f5a9ab9c-f910-11e4-a322-1697f925ec7b	123	65432	11/30/2014		HC		149.3						

The encounter basis is optional.

Measurements on the same date are recorded in different records; however, it is permissible to consolidate into one record if none of the measures were repeated.

In this example, no time was recorded for several of the measures. Although preferable to capture time, we recognize that some source data may not include time precision.

More than one blood pressure reading was collected during this encounter on January 5.

Note: Completely fake data example created de novo, not from existing data.

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
VITALID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique VITAL record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. (New field added to v3.0.)	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier. This is an optional relationship; the ENCOUNTERID should generally be present if the vitals were measured as part of healthcare delivery captured by this datamart (guidance added in v3.0).	PCORnet
MEASURE_DATE	RDBMS Date	SAS Date (Numeric)	.	Date of vitals measure.	MSCDM

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
MEASURE_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Time of vitals measure.	MSCDM with modified data type Source of time format: ISO 8601
VITAL_SOURCE	RDBMS Text(2)	SAS Char(2)	PR=Patient-reported PD=Patient device direct feed HC=Healthcare delivery setting HD=Healthcare device direct feed NI=No information UN=Unknown OT=Other	Please note: The "Patient-reported" category can include reporting by patient's family or guardian. v2.0 amendment: The new categorical value of PD and HD have been added. v2.0 guidance added with slight modification in v3.0: If unknown whether data are received directly from a device feed, use the more general context (such as patient-reported or healthcare delivery setting).	PCORnet
HT	RDBMS Number(8)	NUMERIC(8)	.	Height (in inches) measured by standing. Only populated if measure was taken on this date. If missing, this value should be null. Decimal precision is permissible. (Modification of wording made from "blank" to "null" in v3.0).	MSCDM
WT	RDBMS Number(8)	NUMERIC(8)	.	Weight (in pounds). Only populated if measure was taken on this date. If missing, this value should be null. Decimal precision is permissible. (Modification of wording made from "blank" to "null" in v3.0).	MSCDM
DIASTOLIC	RDBMS Number(4)	NUMERIC()	.	Diastolic blood pressure (in mmHg). Only populated if measure was taken on this date. If missing, this value should be null. (Modification of wording made from "blank" to "null" in v3.0).	MSCDM

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
SYSTOLIC	RDBMS Number(4)	NUMERIC(4)	.	Systolic blood pressure (in mmHg). Only populated if measure was taken on this date. If missing, this value should be null. (Modification of wording made from "blank" to "null" in v3.0).	MSCDM
ORIGINAL_BMI	RDBMS Number(8)	NUMERIC(8)	.	BMI if calculated in the source system. Important: **Please do not calculate BMI during CDM implementation**. This field should only reflect originating source system calculations, if height and weight are not stored in the source.	PCORnet
BP_POSITION	RDBMS Text(2)	SAS Char(2)	01=Sitting 02=Standing 03=Supine NI=No information UN=Unknown OT=Other	Position for orthostatic blood pressure. This value should be null if blood pressure was not measured. (Modification of wording made from "blank" to "null" in v3.0).	MSCDM with modified field name, field size, and value set

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
SMOKING	RDBMS Text(2)	SAS Char(2)	01=Current every day smoker 02=Current some day smoker 03=Former smoker 04=Never smoker 05=Smoker, current status unknown 06=Unknown if ever smoked 07=Heavy tobacco smoker 08=Light tobacco smoker NI=No information UN=Unknown OT=Other	This field is new to v3.0. Indicator for any form of tobacco **that is smoked**. Per Meaningful Use guidance, "…smoking status includes any form of tobacco that is smoked, but not all tobacco use." "'Light smoker' is interpreted to mean less than 10 cigarettes per day, or an equivalent (but less concretely defined) quantity of cigar or pipe smoke. 'Heavy smoker' is interpreted to mean greater than 10 cigarettes per day or an equivalent (but less concretely defined) quantity of cigar or pipe smoke." "…we understand that a "current every day smoker" or "current some day smoker" is an individual who has smoked at least 100 cigarettes during his/her lifetime and still regularly smokes every day or periodically, yet consistently; a "former smoker" would be an individual who has smoked at least 100 cigarettes during his/her lifetime but does not currently smoke; and a "never smoker" would be an individual who has not smoked 100 or more cigarettes during his/her lifetime." http://www.healthit.gov/sites/default/files/standards-certification/2014-edition-draft-test-procedures/170-314-a-11-smoking-status-2014-test-procedure-draft-v1.0.pdf [retrieved May 11, 2015]	PCORnet Meaningful Use Core Measures 9 of 13, Stage 1 (2014 definition) http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/9_Record_Smoking_Status.pdf [retrieved January 11, 2015]

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
TOBACCO	RDBMS Text(2)	SAS Char(2)	01=Current user 02=Never 03=Quit/former user 04=Passive or environmental exposure 06=Not asked NI=No information UN=Unknown OT=Other	This field is new to v2.0 with revised value set and field definition in v3.0. Indicator for **any form of tobacco**.	MSCDM with modified field name, field size, and value set
TOBACCO_TYPE	RDBMS Text(2)	SAS Char(2)	01=Smoked tobacco only 02=Non-smoked tobacco only 03=Use of both smoked and non-smoked tobacco products 04=None 05=Use of smoked tobacco but no information about non-smoked tobacco use NI=No information UN=Unknown OT=Other	This field is new to v2.0, with revised value set in v3.0. Type(s) of tobacco used.	MSCDM with modified field size and value set
RAW_DIASTOLIC	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to formatting into the PCORnet CDM.	PCORnet
RAW_SYSTOLIC	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to formatting into the PCORnet CDM.	PCORnet
RAW_BP_POSITION	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_SMOKING	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set. New to v3.0.	PCORnet
RAW_TOBACCO	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set. New to v2.0.	PCORnet

VITAL Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RAW_TOBACCO_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set. New to v2.0.	PCORnet

4.7. Table: DISPENSING

DISPENSING Domain Description:
Outpatient pharmacy dispensing, such as prescriptions filled through a neighborhood pharmacy with a claim paid by an insurer. Outpatient dispensing is not commonly captured within healthcare systems.

Relational Integrity (guidance added in v3.0):
The DISPENSING table contains one record per DISPENSINGID.

Primary Key: DISPENSINGID

Foreign Keys:
DISPENSING.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
DISPENSING.PRESCRIBINGID is a foreign key to PRESCRIBING.PRESCRIBINGID (zero-to-many relationship)

Constraints:
DISPENSINGID (unique, required, not null)
PATID (required, not null)
DISPENSE_DATE (required, not null)
NDC (required, not null)

Additional notes:

- Each record represents an outpatient pharmacy dispensing.
- This domain is commonly available in claims data, but may not be available in many EHR data sources.
- Medications administered in outpatient settings, such as infusions given in medical practices, would be expected to be present in the PROCEDURES table. Medications administered in inpatient settings may be captured in the PROCEDURES table if that level of detail is available in the source data.
- Dispensing is different from medication orders, prescribing, administration, and medication reconciliation of the active medication list.
- Rollback transactions and other adjustments that are indicative of a dispensing being canceled or not picked up by the member should be processed before populating this table. This may be handled differently by Data Partners and may be affected by billing cycles.
- In the uncommon situation where one NDC is dispensed more than once for a given patient on a given day, it is acceptable to aggregate the days supply and number of units. (Guidance added in v3.0.)

DISPENSING Table Specification

Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DISPENSINGID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. New field added in v3.0.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
PRESCRIBINGID	RDBMS Text(x)	SAS Char(x)	.	This is an optional relationship to the PRESCRIBING table, and may not be generally available. One prescribing order may generate multiple dispensing records. New field added in v3.0.	PCORnet
DISPENSE_DATE	RDBMS Date	SAS Date (Numeric)	.	Dispensing date (as close as possible to date the person received the dispensing).	MSCDM with modified field name
NDC	RDBMS Text(11)	SAS Char(11)	.	National Drug Code in the 11-digit, no-dash, HIPAA format. Please expunge any place holders (such as dashes or extra digits). If needed, guidance on normalization for other forms of NDC can be found: http://www.nlm.nih.gov/research/umls/rxnorm/docs/2012/rxnorm_doco_full_2012-1.html (see section 6)	MSCDM with additional guidance

DISPENSING Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DISPENSE_SUP	RDBMS Number(8)	Numeric(8)	.	Days supply. Number of days that the medication supports based on the number of doses as reported by the pharmacist. This amount is typically found on the dispensing record. Integer values are expected. Important: Please do not calculate during CDM implementation. This field should only reflect originating source system calculations.	MSCDM with modified field name
DISPENSE_AMT	RDBMS Number(8)	Numeric(8)	.	Number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing. This amount is typically found on the dispensing record. Positive values are expected. Important: Please do not calculate during CDM implementation. This field should only reflect originating source system calculations.	MSCDM with modified field name
RAW_NDC	RDBMS Text(x)	Numeric(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	

4.8. Table: LAB_RESULT_CM

LAB_RESULT_CM Domain Description:
Laboratory result Common Measures (CM) use specific types of quantitative and qualitative measurements from blood and other body specimens. These standardized measures are defined in the same way across all PCORnet networks.

Relational Integrity (guidance added in v3.0):
The LAB_RESULT_CM table contains one record per LAB_RESULT_CM_ID

Primary Key: LAB_RESULT_CM_ID

Foreign Keys:
LAB_RESULT_CM.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
LAB_RESULT_CM.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (zero-to-many relationship)

Constraints:
LAB_RESULT_CM_ID (unique, required, not null)
PATID (required, not null)
RESULT_DATE (required, not null)

Additional Notes:

- The LAB_RESULT_CM table contains one record per result/entry.
- Only records with actual lab results should be included in this table. If the result suggests that the test was run (e.g., result is "borderline" or "inconclusive") include it. But if the test is not resulted for any reason (specimen not sufficient, patient did not show) then do not include it.
- The MSCDM concept of subcategory is not included in PCORnet v2.0 because of the subset of lab categories included
- Please note that each source system's laboratory coding terminology should be carefully assessed against the LAB_NAME common measures. The LOINC codes listed in the reference table are generally part of the top 2000+ lab test subset (for more information, please see http://loinc.org/usage/obs), and may not represent all codes used by the source system. The CPT code reference table also may not reflect local practices.

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
LAB_RESULT_CM_ID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique LAB_RESULT_CM record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. (New field added to v3.0.)	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier used to link across tables. This is an optional field, and should only be populated if the lab was collected as part of a healthcare encounter.	PCORnet (modeled upon VITAL table)
LAB_NAME	RDBMS Text(10)	SAS Char(10)	A1C=Hemoglobin A1c CK=Creatine kinase total CK_MB=Creatine kinase MB CK_MBI=Creatine kinase MB/creatine kinase total CREATININE=Creatinine HGB=Hemoglobin LDL=Low-density lipoprotein INR=International normalized ratio TROP_I=Troponin I cardiac TROP_T_QL=Troponin T cardiac (qualitative) TROP_T_QN=Troponin T cardiac (quantitative)	Laboratory result common measure, a categorical identification for the type of test, which is harmonized across all contributing data partners. Please note that it is possible for more than one LOINC code, CPT code, and/or local code to be associated with one LAB_NAME.	MSCDM with modified field name and subset of categorical values

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
SPECIMEN_SOURCE	RDBMS Text(10)	SAS Char(10)	BLOOD=blood CSF=cerebrospinal fluid PLASMA=plasma PPP=platelet poor plasma SERUM=serum SR_PLS=serum/plasma URINE=urine NI=No information UN=Unknown OT=Other	Specimen source. All records will have a specimen source; some tests have several possible values for SPECIMEN_SOURCE. Please see the reference tables for additional details.	MSCDM with subset of categorical values
LAB_LOINC	RDBMS Text(10)	SAS Char(10)	.	Logical Observation Identifiers, Names, and Codes (LOINC) from the Regenstrief Institute. Results with local versions of LOINC codes (e.g., LOINC candidate codes) should be included in the RAW_ table field, but the LOINC variable should be set to missing. Current LOINC codes are from 3-7 characters long but Regenstrief suggests a length of 10 for future growth. The last digit of the LOINC code is a check digit and is always preceded by a hyphen. All parts of the LOINC code, including the hyphen, must be included. Do not pad the LOINC code with leading zeros. Please see the LOINC reference table for known LOINC codes for each LAB_NAME.	MSCDM
PRIORITY	RDBMS Text(2)	SAS Char(2)	E=Expedite R=Routine S=Stat NI=No information UN=Unknown OT=Other	Immediacy of test. The intent of this variable is to determine whether the test was obtained as part of routine care or as an emergent/urgent diagnostic test (designated as Stat or Expedite).	MSCDM with modified value set and modified field name

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RESULT_LOC	RDBMS Text(2)	SAS Char(2)	L=Lab P=Point of Care NI=No information UN=Unknown OT=Other	Location of the test result. Point of Care locations may include anticoagulation clinic, newborn nursery, finger stick in provider office, or home. The default value is 'L' unless the result is Point of Care. There should not be any missing values.	MSCDM with modified value set
LAB_PX	RDBMS Text(11)	SAS Char(11)	.	Optional variable for local and standard procedure codes, used to identify the originating order for the lab test.	MSCDM with modified field name
LAB_PX_TYPE	RDBMS Text(2)	SAS Char(2)	09=ICD-9-CM 10=ICD-10-PCS 11=ICD-11-PCS C2=CPT Category II C3=CPT Category III C4=CPT-4 (i.e., HCPCS Level I) H3=HCPCS Level III HC=HCPCS (i.e., HCPCS Level II) LC=LOINC ND=NDC RE=Revenue NI=No information UN=Unknown OT=Other	Procedure code type, if applicable.	MSCDM with modified field name and value set
LAB_ORDER_DATE	RDBMS Date	SAS Date (Numeric)	.	Date test was ordered.	MSCDM with modified field name
SPECIMEN_DATE	RDBMS Date	SAS Date (Numeric)	.	Date specimen was collected.	MSCDM with modified field name

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
SPECIMEN_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Time specimen was collected.	MSCDM with modified field name
RESULT_DATE	RDBMS Date	SAS Date (Numeric)		Result date.	MSCDM with modified field name
RESULT_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)		Result time.	MSCDM with modified field name
RESULT_QUAL	RDBMS Text(12)	SAS Char(12)	BORDERLINE POSITIVE NEGATIVE UNDETERMINED NI=No information UN=Unknown OT=Other	Standardized result for qualitative results. This variable should be NI for quantitative results. Please see the reference tables for additional details and information on acceptable values for each qualitative LAB_NAME.	MSCDM with modified field name,value set, and field length
RESULT_NUM	RDBMS Number(8)	SAS Char(8)	.	Standardized/converted result for quantitative results. This variable should be null for qualitative results. Please see the reference tables for additional details. (Modification of wording made from “blank” to “null” in v3.0).	MSCDM with modified field name

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RESULT_MODIFIER	RDBMS Text(2)	SAS Char(2)	EQ=Equal GE=Greater than or equal to GT=Greater than LE=Less than or equal to LT=Less than TX=Text NI=No information UN=Unknown OT=Other	Modifier for result values. Any symbols in the RAW_RESULT value should be reflected in the RESULT_MODIFIER variable. For example, if the original source data value is "<=200" then RAW_RESULT=200 and RESULT_MODIFIER=LE. If the original source data value is text then RESULT_MODIFIER=TX. If the original source data value is a numeric value then RESULT_MODIFIER=EQ.	MSCDM with modified field name and value set
RESULT_UNIT	RDBMS Text(11)	SAS Char(11)	.	Converted/standardized units for the result. Please see the standard abbreviations reference table for additional details.	MSCDM with modified field name
NORM_RANGE_LOW	RDBMS Text(10)	SAS Char(10)	.	Lower bound of the normal range assigned by the laboratory. Value should only contain the value of the lower bound. The symbols >, <, >=, <= should be removed. For example, if the normal range for a test is >100 and <300, then "100" should be entered.	MSCDM
NORM_MODIFIER_LOW	RDBMS Text(2)	SAS Char(2)	EQ=Equal GE=Greater than or equal to GT=Greater than NO=No lower limit NI=No information UN=Unknown OT=Other	Modifier for NORM_RANGE_LOW values. v3.0 modification made to field name. For numeric results one of the following needs to be true: 1) Both MODIFIER_LOW and MODIFIER_HIGH contain EQ (e.g. normal values fall in the range 3-10) 2) MODIFIER_LOW contains GT or GE and MODIFIER_HIGH contains NO (e.g. normal values are >3 with no upper boundary) 3) MODIFIER_HIGH contains LT or LE and MODIFIER_LOW contains NO (e.g. normal values are <=10 with no lower boundary)	MSCDM with modified value set and field name

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
NORM_RANGE_HIGH	RDBMS Text(10)	SAS Char(10)	.	Upper bound of the normal range assigned by the laboratory. Value should only contain the value of the upper bound. The symbols >, <, >=, <= should be removed. For example, if the normal range for a test is >100 and <300, then "300" should be entered.	MSCDM with modified field length
NORM_MODIFIER_HIGH	RDBMS Text(2)	SAS Char(2)	EQ=Equal LE=Less than or equal to LT=Less than NO=No higher limit NI=No information UN=Unknown OT=Other	Modifier for NORM_RANGE_HIGH values. v3.0 modification made to field name. For numeric results one of the following needs to be true: 1) Both MODIFIER_LOW and MODIFIER_HIGH contain EQ (e.g. normal values fall in the range 3-10) 2) MODIFIER_LOW contains GT or GE and MODIFIER_HIGH contains NO (e.g. normal values are >3 with no upper boundary) 3) MODIFIER_HIGH contains LT or LE and MODIFIER_LOW contains NO (e.g. normal values are <=10 with no lower boundary)	MSCDM with modified value set and field name
ABN_IND	RDBMS Text(2)	SAS Char(2)	AB=Abnormal AH=Abnormally high AL=Abnormally low CH=Critically high CL=Critically low CR=Critical IN=Inconclusive NL=Normal NI=No information UN=Unknown OT=Other	Abnormal result indicator. This value comes from the source data; do not apply logic to create it.	MSCDM with modified value set
RAW_LAB_NAME	RDBMS Text(x)	SAS Char(x)	.	Local code related to an individual lab test. This variable will not be used in queries, but may be used by local programmers to associate a record with a particular LAB_NAME.	PCORnet

LAB_RESULT_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RAW_LAB_CODE	RDBMS Text(x)	SAS Char(x)	.	Local code related to an individual lab test. This variable will not be used in queries, but may be used by local programmers to associate a record with a particular LAB_NAME.	PCORnet
RAW_PANEL	RDBMS Text(x)	SAS Char(x)	.	Local code related to a battery or panel of lab tests. This variable will not be used in queries, but may be used by local programmers to associate a record with a particular LAB_NAME.	PCORnet
RAW_RESULT	RDBMS Text(x)	SAS Char(x)	.	The original test result value as seen in your source data. Values may include a decimal point, a sign or text (e.g., POSITIVE, NEGATIVE, DETECTED). The symbols >, <, >=, <= should be removed from the value and stored in the Modifier variable instead.	PCORnet
RAW_UNIT	RDBMS Text(x)	SAS Char(x)	.	Original units for the result in your source data.	PCORnet
RAW_ORDER_DEPT	RDBMS Text(x)	SAS Char(x)	.	Local code for ordering provider department.	PCORnet
RAW_FACILITY_CODE	RDBMS Text(x)	SAS Char(x)	.	Local facility code that identifies the hospital or clinic. Taken from facility claims.	PCORnet

Reference Table 1: Laboratory Results and LOINC Codes

This table is intended to be a guide and does not represent a complete list of codes for each laboratory test. Regenstrief Institute, the organization that has developed and maintains the LOINC system, has completed a partial mapping of LOINC to CPT codes. The mapping is publicly available on the US National Library of Medicine's webpage at the following link (valid as of October 15, 2014):
http://www.nlm.nih.gov/research/umls/mapping_projects/loinc_to_cpt_map.html

LAB_NAME	*SPECIMEN_SOURCE*	*LOINC*	*Comments*
A1C	BLOOD	4548-4	Hemoglobin A1c/Hemoglobin total in blood
A1C	BLOOD	17856-6	Hemoglobin A1c/Hemoglobin total in blood by high-performance liquid chromatography HPLC
CK	SERUM, PLASMA, or SR_PLS	2157-6	
CK	BLOOD	50756-6	This code is "discouraged"
CK_MB	SERUM, PLASMA, or SR_PLS	13969-1	

Reference Table 1: Laboratory Results and LOINC Codes

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http://www.nlm.nih.gov/research/umls/mapping_projects/loinc_to_cpt_map.html

LAB_NAME	*SPECIMEN_SOURCE*	*LOINC*	*Comments*
CK_MB	SERUM, PLASMA, or SR_PLS	2154-3	
CK_MB	SERUM, PLASMA, or SR_PLS	32673-6	
CK_MB	BLOOD	49551-5	
CK_MBI	SERUM, PLASMA, or SR_PLS	12187-1	
CK_MBI	SERUM, PLASMA, or SR_PLS	12189-7	
CK_MBI	SERUM, PLASMA, or SR_PLS	20569-0	
CK_MBI	SERUM, PLASMA, or SR_PLS	49136-5	Rarely used
CK_MBI			Do not use LOINC code 15049-0, as this is a ratio for CK-MM instead of CK-MB.
CREATININE	SERUM, PLASMA, or SR_PLS	14682-9	
CREATININE	BLOOD	21232-4	
CREATININE	SERUM, PLASMA, or SR_PLS	2160-0	
CREATININE	SERUM, PLASMA, or SR_PLS	35203-9	This code is "discouraged" (guidance added in v3.0)
CREATININE	BLOOD	38483-4	
CREATININE	SERUM, PLASMA, or SR_PLS	44784-7	
CREATININE	SERUM	54052-6	HEDIS 2009 code.
CREATININE	BLOOD	59826-8	
HGB	BLOOD	14775-1	
HGB	BLOOD	20509-6	
HGB	BLOOD	24360-0	HGB and HCT panel - keep only the HGB results, e.g., those with units "g/dl" instead of "%".
HGB	BLOOD	30313-1	
HGB	BLOOD	30350-3	
HGB	BLOOD	30351-1	
HGB	BLOOD	30352-9	
HGB	BLOOD	55782-7	
HGB	BLOOD	59260-0	
HGB	BLOOD	718-7	
LDL	SERUM, PLASMA, or SR_PLS	47213-4	
INR	BLOOD	34714-6	
INR	BLOOD	46418-0	

Reference Table 1: Laboratory Results and LOINC Codes

This table is intended to be a guide and does not represent a complete list of codes for each laboratory test. Regenstrief Institute, the organization that has developed and maintains the LOINC system, has completed a partial mapping of LOINC to CPT codes. The mapping is publicly available on the US National Library of Medicine's webpage at the following link (valid as of October 15, 2014):
http://www.nlm.nih.gov/research/umls/mapping_projects/loinc_to_cpt_map.html

LAB_NAME	*SPECIMEN_SOURCE*	*LOINC*	*Comments*
INR	PPP	6301-6	
TROP_I	SERUM, PLASMA, or SR_PLS	10839-9	
TROP_I	SERUM, PLASMA, or SR_PLS	16255-2	This code maps to 10839-9 and should not be used (guidance added to v3.0)
TROP_I	BLOOD	42757-5	
TROP_I	SERUM, PLASMA, or SR_PLS	49563-0	
TROP_T_QL	SERUM, PLASMA, or SR_PLS	33204-9	
TROP_T_QL	BLOOD	48426-1	
TROP_T_QN	BLOOD	48425-3	
TROP_T_QN	BLOOD	6597-9	
TROP_T_QN	SERUM, PLASMA, or SR_PLS	6598-7	

Reference Table 2: Laboratory Results and CPT Codes

This table is intended to be a guide and does not represent a complete list of codes for each laboratory test.

LAB_NAME	*CPT Code*	*Comments*
A1C	*83036*	
CK	82550	
CK_MB	82553	
CK_MBI	82550	
CK_MBI	82553	
CREATININE	80047	Panel
CREATININE	80048	Panel
CREATININE	80050	Panel
CREATININE	80053	Panel
CREATININE	80069	Panel
CREATININE	82565	
CREATININE	82575	
HGB	80050	Panel
HGB	80053	Panel
HGB	83026	
HGB	85018	
HGB	85025	Panel
HGB	85027	Panel

Reference Table 2: Laboratory Results and CPT Codes		
This table is intended to be a guide and does not represent a complete list of codes for each laboratory test.		
LAB_NAME	*CPT Code*	*Comments*
A1C	*83036*	
INR	85610	This code is for prothrombin time but includes INR.
LDL	83721	
TROP_I	84484	
TROP_T_QL	84512	
TROP_T_QN	84484	

Reference Table 3: Laboratory Standard Abbreviations		
Unit Type	*Standard Abbreviation*	*Comments*
Billion	BIL	Billion is often written as "10*9".
Cells	CELL	
Decigram	DG	
Deciliter	DL	
Gram	G	
International Units	IU	Do not confuse "1U" (one unit) or "/U" (per unit) with "IU" (international units).
Thousand	K	Thousand is often written as "10*3".
Liter	L	
Milligram	MG	
Milli-international units	MIU	
Milliliter	ML	
Nanogram	NG	Nanogram per milliliter is equivalent to microgram per liter (i.e., NG/ML=UG/L).
Nanoliter	NL	
Percent	PERCENT	
Ratio	RATIO	
Units	U	
Microgram	UG	Microgram is often written as "MCG".
Cubic Millimeter	UL	One cubic millimeter of blood is equivalent to one microliter. Cubic millimeter is often written as "MM*3" or "CU MM".
Microliter	UL	Do not confuse "UL" (microliter) with "U/L" (units per liter).
	NI	No Information (the source value is null or blank)
	UN	Unknown (the source value explicitly denotes an unknown value)
	OT	Other (the source value cannot be mapped)

4.9. Table: CONDITION

CONDITION Domain Description:
A condition represents a patient's diagnosed and self-reported health conditions and diseases. The patient's medical history and current state may both be represented.

Relational Integrity (guidance added in v3.0):
The CONDITION table contains one record per CONDITIONID.

Primary Key: CONDITIONID

Foreign Keys:
CONDITION.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
CONDITION.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (zero-to-many relationship)

Constraints:
CONDITIONID (unique, required, not null)
PATID (required, not null)
CONDITION (required, not null)
CONDITION_TYPE (required, not null)
CONDITION_SOURCE (required, not null)

Additional Notes:
- This table includes both healthcare and non-healthcare settings.
- Rollback or voided transactions and other adjustments should be processed before populating this table.

CONDITION Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
CONDITIONID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. New field added in v3.0.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier used to link across tables. This is an optional field, and should only be populated if the item was collected as part of a healthcare encounter. If more than one encounter association is present, this field should be populated with the ID of the encounter when the condition was first entered into the system. However, please note that many conditions may be recorded outside of an encounter context. (Guidance added in v3.0.)	PCORnet (modeled upon VITAL table)
REPORT_DATE	RDBMS Date	SAS Date (Numeric)	.	Date condition was noted, which may be the date when it was recorded by a provider or nurse, or the date on which the patient reported it. Please note that this date may not correspond to onset date. (Additional guidance added in v3.0.)	PCORnet (informed by ESP model)
RESOLVE_DATE	RDBMS Date	SAS Date (Numeric)	.	Date condition was resolved, if resolution of a transient condition has been achieved. A resolution date is not generally expected for chronic conditions, even if the condition is managed.	PCORnet
ONSET_DATE	RDBMS Date	SAS Date (Numeric)	.	New field added in v3.0. Please note that onset date is a very precise concept. Please do not map data unless they precisely match this definition. The REPORT_DATE concept may be a better fit for many systems.	PCORnet

CONDITION Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
CONDITION_STATUS	RDBMS Text(2)	SAS Char(2)	AC=Active RS=Resolved IN=Inactive NI=No information UN=Unknown OT=Other	Condition status corresponding with REPORT_DATE. Guidance: The value of IN=Inactive may be used in situations where a condition is not resolved, but is not currently active (for example, psoriasis).	PCORnet (informed by ESP model)
CONDITION	RDBMS Text(18)	SAS Char(18)	.	Condition code. Leading zeroes and different levels of decimal precision are permissible in this field. Please populate the exact textual value of this diagnosis code, but remove source-specific suffixes and prefixes. Other codes should be listed as recorded in the source data.	PCORnet (modeled upon DIAGNOSIS table)
CONDITION_TYPE	RDBMS Text(2)	SAS Char(2)	09=ICD-9-CM 10=ICD-10-CM 11=ICD-11-CM SM=SNOMED CT HP=Human Phenotype Ontology AG=Algorithmic NI=No information UN=Unknown OT=Other	Condition code type. Please note: The "Other" category is meant to identify internal use ontologies and codes. v3.0 amendment: The new categorical value of AG has been added.	PCORnet (modeled upon DIAGNOSIS table)

CONDITION Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
CONDITION_SOURCE	RDBMS Text(2)	SAS Char(2)	PR=Patient-reported medical history HC=Healthcare problem list RG=Registry cohort PC=PCORnet-defined condition algorithm NI=No information UN=Unknown OT=Other	Please note: The "Patient-reported" category can include reporting by a proxy, such as patient's family or guardian. Guidance: "Registry cohort" generally refers to cohorts of patients flagged with a certain set of characteristics for management within a health system. "Patient-reported" can include self-reported medical history and/or current medical conditions, not captured via healthcare problem lists or registry cohorts. v3.0 amendment: The new categorical value of PC has been added.	PCORnet (modeled upon VITAL table)
RAW_CONDITION_STATUS	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_CONDITION	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_CONDITION_TYPE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_CONDITION_SOURCE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.10. Table: PRO_CM

PRO_CM Domain Description:
Patient-reported outcome Common Measures are standardized measures that are defined in the same way across all PCORnet networks. Each measure is recorded at the individual item level: an individual question/statement, paired with its standardized response options.

Relational Integrity (guidance added in v3.0):
The PRO_RESPONSE table contains one record per PRO_CM_ID.

Primary Key: PRO_CM_ID

Foreign Keys:
PRO_CM.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
PRO_CM.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (zero-to-many relationship)

Constraints:
PRO_CM_ID (unique, required, not null)
PATID (required, not null)
PRO_ITEM (required, not null)
PRO_DATE (required, not null)
PRO_RESPONSE (required, not null)

Additional Notes:

- This table supports the PCORnet Common Measures established by the PCORnet PRO Task Force. Please see the Common Measures Reference Table for information about these measures.

PRO_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PRO_CM_ID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID. New field added in v3.0.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier for the patient for whom the PRO response was captured. Used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier used to link across tables. This is an optional field, and should only be populated if the item was collected as part of a healthcare encounter.	PCORnet (modeled upon VITAL table)
PRO_ITEM	RDBMS Text(7)	SAS Char(7)	PN_0001=GLOBAL01 PN_0002=GLOBAL02 PN_0003=GLOBAL06 PN_0004=PFA53 PN_0005=EDDEP29 PN_0006=HI7 PN_0007=SLEEP20 PN_0008=SRPPER11_CAPS PN_0009=PAININ9 PN_0010=3793R1 PN_0011=28676R1 PN_0012=EOS_P_011 PN_0013=PEDSGLOBAL2 PN_0014=PEDSGLOBAL5 PN_0015=PEDSGLOBAL6 PN_0016=GLOBAL03 PN_0017=GLOBAL04 PN_0018=EDANX53 PN_0019=SAMHSA PN_0020=CAHPS 4.0 PN_0021=PA070	PCORnet identifier for the specific Common Measure item. Please see the Common Measures reference table for more details.	PCORnet

PRO_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PRO_LOINC	RDBMS Text(10)	SAS Char(10)	.	LOINC code for item context and stem. Please see the reference table for known LOINC codes for each common measure. Logical Observation Identifiers, Names, and Codes (LOINC) from the Regenstrief Institute. Results with local versions of LOINC codes (e.g., LOINC candidate codes) should be included in the RAW_ table field, but the PRO_LOINC variable should be set to missing. Current LOINC codes are from 3-7 characters long but Regenstrief suggests a length of 10 for future growth. The last digit of the LOINC code is a check digit and is always preceded by a hyphen. All parts of the LOINC code, including the hyphen, must be included. Do not pad the LOINC code with leading zeros.	PCORnet (modeled on LAB_RESULT_CM table)
PRO_DATE	RDBMS Date	SAS Date (Numeric)	.	The date of the response.	PCORnet
PRO_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	The time of the response.	PCORnet Source of time format: ISO 8601
PRO_RESPONSE	NUMBER(8)	Numeric(8)	.	The numeric response recorded for the item. Please see the Common Measures reference table, “Value List” column, for the list of numeric valid values for each item.	PCORnet

PRO_CM Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PRO_METHOD	RDBMS Text(2)	SAS Char(2)	PA=Paper EC=Electronic PH=Telephonic IV=Telephonic with interactive voice response (IVR) technology NI=No information UN=Unknown OT=Other	Method of administration. Electronic includes responses captured via a personal or tablet computer, at web kiosks, or via a smartphone.	PCORnet
PRO_MODE	RDBMS Text(2)	SAS Char(2)	SF=Self without assistance SA= Self with assistance PR=Proxy without assistance PA=Proxy with assistance NI=No information UN=Unknown OT=Other	The person who responded on behalf of the patient for whom the response was captured. A proxy report is a measurement based on a report by someone other than the patient reporting as if he or she is the patient, such as a parent responding for a child, or a caregiver responding for an individual unable to report for themselves. Assistance excludes providing interpretation of the patient's response.	PCORnet
PRO_CAT	RDBMS Text(2)	SAS Char(2)	Y=Yes N=No NI=No information UN=Unknown OT=Other	Indicates whether Computer Adaptive Testing (CAT) was used to administer the survey or instrument that the item was part of. May apply to electronic (EC) and telephonic (PH or IV) modes.	PCORnet
RAW_PRO_CODE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating code, such as LOINC candidate codes that have not yet been adopted	PCORnet
RAW_PRO_RESPONSE	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

Reference Table 4: PRO Common Measures

This table is based upon the Final Report from the PCORnet Patient-reported Outcomes (PRO) Common Measures Working Group (CMWG), October 25, 2014.

Domain	*Item Text*	*Value Set*	*PCORnet Unique Identifier*	*Item Code*	*Item Bank*	*PCORnet PRO TF Recommendation*	*LOINC # for Item Bank / Domain*	*LOINC # for Item Context + Stem (2014)*	*SNOMED SCTID for domain (2010)*
General Health	In general, would you say your health is	5=Excellent 4=Very good 3=Good 2=Fair 1=Poor	PN_0001	GLOBAL 01	PROMIS Global	Core Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75421-8	61577-3	406221003
Quality of Life	In general, would you say your quality of life is	5=Excellent 4=Very good 3=Good 2=Fair 1=Poor	PN_0002	GLOBAL 02	PROMIS Global	Core Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75421-8	61578-1	406221003
Physical Function (alternate)	To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?	5=Completely 4=Mostly 3=Moderately 2=A little 1=Not at all	PN_0003	GLOBAL 06	PROMIS Global	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61582-3	Not available
Physical Function	Are you able to run errands and shop?	5=Without any difficulty 4=With a little difficulty 3=With some difficulty 2=With much difficulty 1=Unable to do	PN_0004	PFA53	PROMIS Physical Function	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61635-9	364665006
Depression	In the past 7 days…I felt depressed	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	PN_0005	EDDEP29	PROMIS Emotional Distress-Depression	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61967-6	405049007

Reference Table 4: PRO Common Measures

This table is based upon the Final Report from the PCORnet Patient-reported Outcomes (PRO) Common Measures Working Group (CMWG), October 25, 2014.

Domain	*Item Text*	*Value Set*	*PCORnet Unique Identifier*	*Item Code*	*Item Bank*	*PCORnet PRO TF Recommendation*	*LOINC # for Item Bank / Domain*	*LOINC # for Item Context + Stem (2014)*	*SNOMED SCTID for domain (2010)*
Fatigue	During the past 7 days…I feel fatigued	1=Not at all 2=A little bit 3=Somewhat 4=Quite a bit 5=Very much	PN_0006	HI7	PROMIS Fatigue	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61878-5	440398005
Sleep Disturbance	In the past 7 days…I had a problem with my sleep	1=Not at all 2=A little bit 3=Somewhat 4=Quite a bit 5=Very much	PN_0007	SLEEP20	PROMIS Sleep Disturbance	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61998-1	248254009
Social Roles & Activities	I have trouble doing all of my regular leisure activities with others	5=Never 4=Rarely 3=Sometimes 2=Usually 1=Always	PN_0008	SRPPER11_CaPS	PROMIS Social Role Participation	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	75417-6	405073004
Pain Interference	In the past 7 days…How much did pain interfere with your day to day activities?	1=Not at all 2=A little bit 3=Somewhat 4=Quite a bit 5=Very much	PN_0009	PAININ9	PROMIS Pain Interference	Core Adult Item	Parent panel: 75418-4 Panel: 75421-8	61758-9	405160001
Pain Interference	In the past 7 days…I had trouble sleeping when I had pain	0=Never 1=Almost Never 2=Sometimes 3=Often 4=Almost Always	PN_0010	3793R1	PROMIS Peds - Pain Interference	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	62144-1	405160001
Fatigue	In the past 7 days…I got tired easily	0=Never 1=Almost Never 2=Sometimes 3=Often 4=Almost Always	PN_0011	2876R1	PROMIS Peds - Fatigue	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	62104-5	440398005

Reference Table 4: PRO Common Measures

This table is based upon the Final Report from the PCORnet Patient-reported Outcomes (PRO) Common Measures Working Group (CMWG), October 25, 2014.

Domain	*Item Text*	*Value Set*	*PCORnet Unique Identifier*	*Item Code*	*Item Bank*	*PCORnet PRO TF Recommendation*	*LOINC # for Item Bank / Domain*	*LOINC # for Item Context + Stem (2014)*	*SNOMED SCTID for domain (2010)*
Stress	In the past 7 days…I felt stressed	1=Never 2=Almost Never 3=Sometimes 4=Often 5=Almost Always	PN_0012	EOS_P_011	PROMIS Peds - Stress	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	62095-5	73595000
Depression	How often do you feel really sad	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	PN_0013	PEDGLOBAL2	PROMIS Peds - Global	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	75416-8	35489007
Peer Relationships	How often do you have fun with friends	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	PN_0014	PEDGLOBAL5	PROMIS Peds - Global	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	75415-0	225598002
Family Relationships	How often do your parents listen to your ideas?	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	PN_0015	PEDGLOBAL6	PROMIS Peds - Global	Core Pediatric Item	Parent panel: 75418-4 Panel: 75420-0	75414-3	225598002
Global Physical Health	In general, how would you rate your physical health?	5=Excellent 4=Very good 3=Good 2=Fair 1=Poor	PN_0016	GLOBAL03	PROMIS Global	Recommended Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75419-2	61579-9	406221003
Global Mental Health	In general, how would you rate your mental health including your mood and your ability to think?	5=Excellent 4=Very good 3=Good 2=Fair 1=Poor	PN_0017	GLOBAL04	PROMIS Global	Recommended Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75419-2	61580-7	406221003

Reference Table 4: PRO Common Measures

This table is based upon the Final Report from the PCORnet Patient-reported Outcomes (PRO) Common Measures Working Group (CMWG), October 25, 2014.

Domain	*Item Text*	*Value Set*	*PCORnet Unique Identifier*	*Item Code*	*Item Bank*	*PCORnet PRO TF Recommendation*	*LOINC # for Item Bank / Domain*	*LOINC # for Item Context + Stem (2014)*	*SNOMED SCTID for domain (2010)*
Anxiety	In the past 7 days…I felt uneasy	1=Never 2=Rarely 3=Sometimes 4=Often 5=Always	PN_0018	EDANX53	PROMIS Emotional Distress-Anxiety	Recommended Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75419-2	61949-4	405051006
Medication Adherence	In the past 7 days…"People often miss a dose of their medicines from time to time. How many days in the past week did you miss taking one or more of your medications?"	Range between 0-7	PN_0019	SAMHSA	Core Psychosocial & Behavioral	Recommended Item (Adult)	Parent panel: 75418-4 Panel: 75419-2	68513-1	418633004
Experience of Care (Evaluation of Care/"Treatment Satisfaction")	Past 12 months…Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?	Range between 0-10	PN_0020	CAHPS 4.0	CAHPS Experience of Care	Recommended Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75419-2	75412-7	Not available
Life Satisfaction	I have a good life	1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree	PN_0021	PA070	Toolbox Psychological Well-Being – Life Satisfaction	Recommended Item (Adult and Pediatric)	Parent panel: 75418-4 Panel: 75419-2	75413-5	405152002

4.11. Table: PRESCRIBING (new to v3.0)

PRESCRIBING Domain Description:
Provider orders for medication dispensing and/or administration.

Relational Integrity:
The PRESCRIBING table contains one record per PRESCRIBINGID.

Primary Key: PRESCRIBINGID

Foreign Keys:
PRESCRIBING.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)
PRESCRIBING.ENCOUNTERID is a foreign key to ENCOUNTER.ENCOUNTERID (zero-to-many relationship)

Constraints:
PRESCRIBINGID (unique, required, not null)
PATID (required, not null)

Additional Notes:
- The PRESCRIBING table contains one record per prescription.
- If a medication cannot be mapped to RxNorm, it should still be present

PRESCRIBING Table Specification

Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PRESCRIBINGID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary identifier for each unique PRESCRIBING record. Does not need to be persistent across refreshes, and may be created by methods such as sequence or GUID.	PCORnet
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
ENCOUNTERID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary encounter-level identifier. This is an optional relationship; the ENCOUNTERID should be present if the prescribing activity is directly associated with an encounter.	MSCDM

PRESCRIBING Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RX_PROVIDERID	RDBMS Text(x)	SAS Char(x)	.	Provider code for the provider who prescribed the medication. The provider code is a pseudoidentifier with a consistent crosswalk to the real identifier.	PCORnet, based upon ENCOUNTER table
RX_ORDER_DATE	RDBMS Date	SAS Date (Numeric)	.	Order date of the prescription by the provider.	MSCDM
RX_ORDER_TIME	RDBMS Text(5): Format as HH:MI using 24-hour clock and zero-padding for hour and minute	SAS Time (Numeric)	.	Order time of the prescription by the provider.	PCORnet
RX_START_DATE	RDBMS Date	SAS Date (Numeric)	.	Start date of order. This attribute **may not** be consistent with the date on which the patient actually begin taking the medication.	Based on ESP
RX_END_DATE	RDBMS Date	SAS Date (Numeric)	.	End date of order (if available).	Based on ESP
RX_QUANTITY	RDBMS Number(8)	Numeric(8)	.	Quantity ordered.	Based on OMOP and ESP
RX_REFILLS	RDBMS Number(8)	Numeric(8)	.	Number of refills ordered (not including the original prescription). If no refills are ordered, the value should be zero.	Based on OMOP and ESP
RX_DAYS_SUPPLY	RDBMS Number(8)	Numeric(8)	.	Number of days supply ordered, as specified by the prescription.	Based on OMOP

PRESCRIBING Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RX_FREQUENCY	RDBMS Text(2)	SAS Char(2)	01=Every day 02=Two times a day (BID) 03=Three times a day (TID) 04=Four times a day (QID) 05=Every morning 06=Every afternoon 07=Before meals 08=After meals 09=As needed (PRN) NI=No information UN=Unknown OT=Other	Specified frequency of medication.	PCORnet
RX_BASIS	RDBMS Text(2)	SAS Char(2)	01=Dispensing 02=Administration NI=No information UN=Unknown OT=Other	Basis of the medication order	PCORnet
RXNORM_CUI	RDBMS Number (8)	Numeric(8)	.	Where an RxNorm mapping exists for the source medication, this field contains the RxNorm concept identifier (CUI) at the highest possible specificity. If more than one option exists for mapping, the following ordered strategy may be adopted: 1)Semantic generic clinical drug 2)Semantic Branded clinical drug 3)Generic drug pack 4)Branded drug pack	PCORnet
RAW_RX_MED_NAME	RDBMS Text(x)	SAS Char(x)	.	Optional field for originating, full textual medication name from the source.	PCORnet
RAW_RX_FREQUENCY	RDBMS Text(x)	SAS Char(x)		Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet
RAW_RXNORM_CUI	RDBMS Text(x)	SAS Char(x)		Optional field for originating value of field, prior to mapping into the PCORnet CDM value set.	PCORnet

4.12. Table: PCORNET_TRIAL (new to v3.0)

PCORNET_TRIAL Domain Description:
Patients who are enrolled in PCORnet clinical trials.

Relational Integrity (guidance added in v3.0):
The PCORNET_TRIAL table contains one record per unique combination of PATID, TRIALID, and PARTICIPANTID.

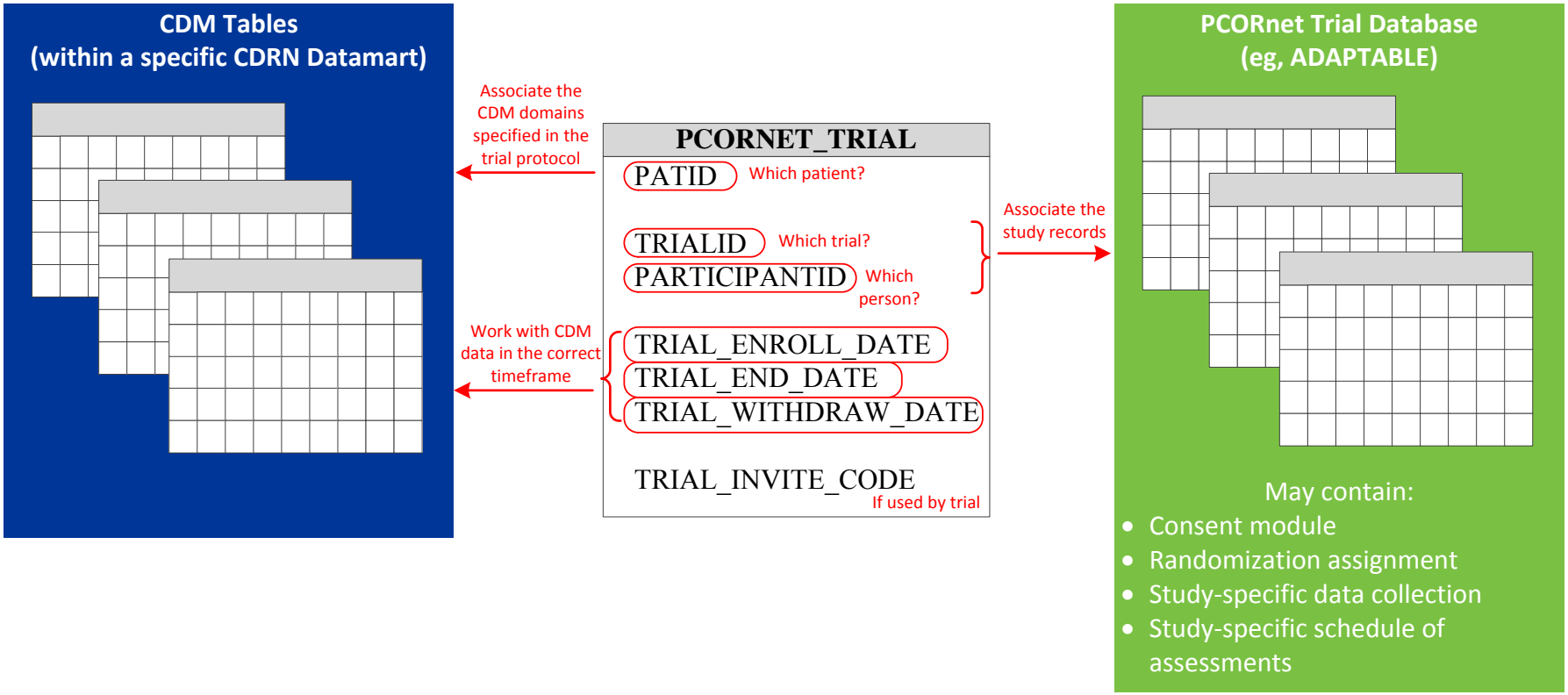
Composite Primary Key: PATID, TRIALID, PARTICIPANTID

Foreign Key:
PCORNET_TRIAL.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many)

Constraints:
PATID (required, not null)
TRIALID (required, not null)
PARTICIPANTID (required, not null)
PATID + TRIALID + PARTICIPANTID (unique)

Additional Notes:
- This table is only used for clinical trials, not for observational studies
- One patient participating in multiple trials will have multiple records
- Each PCORnet trial will define its parameters for enrollment
  - Patients who decline to participate in a trial or do not meet eligibility criteria should not be included in this table
  - Patients who enroll in a trial but later withdraw should be included in this table so that their withdraw state is appropriately recognized and any prior data are appropriate managed
- In most cases, trials will be expected to have a separate trial database that is separate from the CDM
- A PCORnet trial may include (but is not limited to) both randomized and non-randomized studies
  - Randomization arms are not included in this table due to the issue of potentially unblinding the patient assignments. Randomization assignment will instead be present in the separate trial database.
- PATID is not generally appropriate for use as a PARTICIPANTID because it is not disambiguated across networks.

The PCORNET_TRIAL table serves as a connector and filter for CDM data within the parameters of a given trial protocol:



PCORNET_TRIAL Table Specification					
Field Name	*RDBM Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
TRIALID	RDBMS Text(20)	SAS Char(20)	.	Each TRIALID is assigned by the PCORnet trial's coordinating center.	PCORnet
PARTICIPANTID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to uniquely identify a participant in a PCORnet trial. PARTICIPANTID is never repeated or reused for a specific clinical trial, and is generally assigned by trial-specific processes. It may be the same as a randomization ID.	PCORnet
TRIAL_SITEID	RDBMS Text(x)	SAS Char(x)	.	Each TRIAL_SITEID is assigned by the PCORnet trial coordinating center.	PCORnet
TRIAL_ENROLL_DATE	RDBMS Date	SAS Date (Numeric)	.	Date on which the participant enrolled in the trial (generally coincides with trial consent process).	PCORnet
TRIAL_END_DATE	RDBMS Date	SAS Date (Numeric)		Date on which the participant completes participation in the trial.	
TRIAL_WITHDRAW_DATE	RDBMS Date	SAS Date (Numeric)	.	If applicable, date on which the participant withdraws consent from the trial.	PCORnet
TRIAL_INVITE_CODE	RDBMS Text(20)	SAS Char(20)	.	Textual strings used to uniquely identify invitations sent to potential participants, and allows acceptances to be associated back to the originating source. Where used, there should generally be a unique combination of PATID, TRIAL_NAME, and INVITE_CODE within each datamart. For example, this might include "co-enrollment ID strings" for e-mail invites or "verification codes" for letter invites.	PCORnet

4.13. Table: DEATH (new to v3.0)

DEATH Domain Description:
Reported mortality information for patients.

Relational Integrity:
The DEATH table contains one record per unique combination of PATID, DEATH_DATE, and DEATH_SOURCE.

Composite Primary Key: PATID, DEATH_DATE, DEATH_SOURCE

Foreign Key:
DEATH.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)

Constraints:
PATID (required, not null)
DEATH_DATE (required, not null)
DEATH_SOURCE (required, not null)
PATID + DEATH_DATE + DEATH_SOURCE (unique)

Additional Notes:
- One patient may potentially have multiple records in this table because their death may be reported by different sources.
- Deaths represented in the ENCOUNTER.DISCHARGE_DISPOSITION and ENCOUNTER.DISCHARGE_STATUS would generally be expected to be present in this table (see guidance for DEATH_SOURCE).

DEATH Table Specification

Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
DEATH_DATE	RDBMS Date	SAS Date (Numeric)		Date of death.	MSCDM with modified field name and data type

DEATH Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DEATH_DATE_IMPUTE	RDBMS Text(2)	SAS Char(2)	B=Both month and day imputed D=Day imputed M=Month imputed N=Not imputed NI=No information UN=Unknown OT=Other	When date of death is imputed, this field indicates which parts of the date were imputed.	MSCDM with modified field name and valueset
DEATH_SOURCE	RDBMS Text(2)	SAS Char(2)	L=Other, locally defined N=National Death Index D=Social Security S=State Death files T=Tumor data NI=No information UN=Unknown OT=Other	Guidance: "Other, locally defined" may be used to indicate presence of deaths reported from EHR systems, such as in-patient hospital deaths or dead on arrival.	MSCDM with modified field name and additional guidance
DEATH_MATCH_CONFIDENCE	RDBMS Text(2)	SAS Char(2)	E=Excellent F=Fair P=Poor NI=No information UN=Unknown OT=Other	For situations where a probabilistic patient matching strategy is used, this field indicates the confidence that the patient drawn from external source data represents the actual patient. Should not be present where DEATH_SOURCE is L (locally-defined). May not be applicable for DEATH_SOURCE=T (tumor registry data)	MSCDM with modified field name and additional guidance

4.14. Table: DEATH_CAUSE (new to v3.0)

DEATH_CAUSE Domain Description:
The individual causes associated with a reported death.

Relational Integrity:
The DEATH_CAUSE table contains one record per unique combination of PATID, DEATH_CAUSE, DEATH_CAUSE_CODE, DEATH_CAUSE_TYPE, and DEATH_CAUSE_SOURCE.

Composite Primary Key: PATID, DEATH_CAUSE, DEATH_CAUSE_CODE, DEATH_CAUSE_TYPE, DEATH_CAUSE_SOURCE

Foreign Key:
DEATH_CAUSE.PATID is a foreign key to DEMOGRAPHIC.PATID (one-to-many relationship)

Constraints:
PATID (required, not null)
DEATH_CAUSE (required, not null)
DEATH_CAUSE_CODE (required, not null)
DEATH_CAUSE_TYPE (required, not null)
DEATH_CAUSE_SOURCE (required, not null)
PATID + DEATH_CAUSE + DEATH_CAUSE_CODE + DEATH_CAUSE_TYPE + DEATH_CAUSE_SOURCE (unique)

Additional Notes:

- When legacy data have conflicting reports, please make a local determination as to which to use. There is typically a 1-2 year lag in death registry data.

DEATH_CAUSE Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
PATID	RDBMS Text(x)	SAS Char(x)	.	Arbitrary person-level identifier used to link across tables.	MSCDM
DEATH_CAUSE	RDBMS Text(8)	SAS Char(8)	.	Cause of death code. Please include the decimal point in ICD codes (if any).	MSCDM with modified field name
DEATH_CAUSE_CODE	RDBMS Text(2)	SAS Char(2)	09=ICD-9 10=ICD-10 NI=No information UN=Unknown OT=Other	Cause of death code type.	MSCDM with modified field name
DEATH_CAUSE_TYPE	RDBMS Text(2)	SAS Char(2)	C=Contributory I=Immediate/Primary O=Other U=Underlying NI=No information UN=Unknown OT=Other	Cause of death type. There should be only one underlying cause of death.	MSCDM with modified field name
DEATH_CAUSE_SOURCE	RDBMS Text(2)	SAS Char(2)	L=Other, locally defined N=National Death Index D=Social Security S=State Death files T=Tumor data NI=No information UN=Unknown OT=Other	Source of cause of death information. Guidance: “Other, locally defined” may be used to indicate presence of deaths reported from EHR systems, such as in-patient hospital deaths or dead on arrival.	MSCDM with modified field name
DEATH_CAUSE_CONFIDENCE	RDBMS Text(2)	SAS Char(2)	E=Excellent F=Fair P=Poor NI=No information UN=Unknown OT=Other	Confidence in the accuracy of the cause of death based on source, match, number of reporting sources, discrepancies, etc.	MSCDM with modified field name

4.15. Table: HARVEST (new to v3.0)

HARVEST Domain Description:
Attributes associated with the specific PCORnet datamart implementation.

Relational Integrity:
The HARVEST table contains one record per unique combination of NETWORKID and DATAMARTID.

Composite Primary Key: NETWORKID, DATAMARTID

Constraints:
NETWORKID (required, not null)
DATAMARTID (required, not null)
NETWORKID + DATAMARTID (unique)

Additional Notes:

- The HARVEST table contains information about the network, datamart, and data refreshes. This allows these data to be included in query activity, which can include considerations of data latency.
- Imputation refers to the practice of adding day or month precision for incomplete dates (ie, where a specific day or specific month is not present). Please see section 3.1 for further details.
- Obfuscation, also known as date shifting, is a technique not recommended within PCORnet. However, where this practice exists, this table allows the situation to be recognized for analytic consideration.
- The details of incomplete data imputation and/or obfuscation can be quite complex, and would be described in the ETL Annotated Data Dictionary (ADD) on a field-by-field basis
- Definitions of imputation and obfuscation for dates:
  - "No imputation or obfuscation": For any and every date value that is present, no methods of imputation and/or obfuscation have been applied. This does not imply that every record has a date value.
  - "Imputation for incomplete dates": Some or all date values were imputed from incomplete dates, but no obfuscation was performed.
  - "Date obfuscation": Some or all date values were obfuscated, but no imputation of incomplete dates was performed. Obfuscation can also be called "shifting" or "masking."
  - "Both imputation and obfuscation": Some or all date values were imputed, and some or all date values were obfuscated (does not necessarily need to be on the same record).

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
NETWORKID	RDBMS Text(10)	SAS Char(10)	.	This identifier is assigned by DSSNI operations	PCORnet
NETWORK_NAME	RDBMS Text(20)	SAS Char(20)	.	Descriptive name of the network	PCORnet
DATAMARTID	RDBMS Text(10)	SAS Char(10)	.	This identifier is assigned by DSSNI operations	PCORnet
DATAMART_NAME	RDBMS Text(20)	SAS Char(20)	.	Descriptive name of the datamart	PCORnet
DATAMART_PLATFORM	RDBMS Text(2)	SAS Char(2)	01=SQL Server 02=Oracle 03=PostgreSQL 04=MySQL 05=SAS NI=No information UN=Unknown OT=Other		
CDM_VERSION	NUMBER(8)	Numeric(8)	.	Version currently implemented within this datamart (for example, 1.0, 2.0, 3.0).	PCORnet
DATAMART_CLAIMS	RDBMS Text(2)	SAS Char(2)	01=Not present 02=Present NI=No information UN=Unknown OT=Other	Datamart includes claims data source(s)	PCORnet
DATAMART_EHR	RDBMS Text(2)	SAS Char(2)	01=Not present 02=Present NI=No information UN=Unknown OT=Other	Datamart includes EHR data source(s)	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
BIRTH_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the BIRTH_DATE field on the DEMOGRAPHIC table Please see notes for additional definitions.	PCORnet
ENR_START_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the ENR_START_DATE field on the ENROLLMENT table Please see notes for additional definitions.	PCORnet
ENR_END_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the ENR_END_DATE field on the ENROLLMENT table Please see notes for additional definitions.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
ADMIT_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the ADMIT_DATE field on the ENCOUNTER table Please see notes for additional definitions.	PCORnet
DISCHARGE_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the DISCHARGE_DATE field on the ENCOUNTER table Please see notes for additional definitions.	PCORnet
PX_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the PX_DATE field on the PROCEDURES table Please see notes for additional definitions.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RX_ORDER_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the RX_ORDER_DATE field on the PRESCRIBING table Please see notes for additional definitions.	PCORnet
RX_START_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the RX_START_DATE field on the PRESCRIBING table Please see notes for additional definitions.	PCORnet
RX_END_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the RX_END_DATE field on the PRESCRIBING table Please see notes for additional definitions.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
DISPENSE_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the DISPENSE_DATE field on the DISPENSING table Please see notes for additional definitions.	PCORnet
LAB_ORDER_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the LAB_ORDER_DATE field on the LAB_RESULT_CM table Please see notes for additional definitions.	PCORnet
SPECIMEN_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the SPECIMEN_DATE field on the LAB_RESULT_CM table Please see notes for additional definitions.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
RESULT_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the RESULT_DATE field on the LAB_RESULT_CM table Please see notes for additional definitions.	PCORnet
MEASURE_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the MEASURE_DATE field on the VITAL table Please see notes for additional definitions.	PCORnet
ONSET_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the ONSET_DATE field on the CONDITION table Please see notes for additional definitions.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
REPORT_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the REPORT_DATE field on the CONDITION table Please see notes for additional definitions.	PCORnet
RESOLVE_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the RESOLVE_DATE field on the CONDITION table Please see notes for additional definitions.	PCORnet
PRO_DATE_MGMT	RDBMS Text(2)	SAS Char(2)	01=No imputation or obfuscation 02=Imputation for incomplete dates 03=Date obfuscation 04=Both imputation and obfuscation NI=No information UN=Unknown OT=Other	Data management strategy currently present in the PRO_DATE field on the PRO_CM table Please see notes for additional definitions.	PCORnet
REFRESH_DEMOGRAPHIC_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the DEMOGRAPHIC table. This date should be null if the table does not have records.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
REFRESH_ENROLLMENT_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the ENROLLMENT table. This date should be null if the table does not have records.	PCORnet
REFRESH_ENCOUNTER_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the ENCOUNTER table. This date should be null if the table does not have records.	PCORnet
REFRESH_DIAGNOSIS_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the DIAGNOSIS table. This date should be null if the table does not have records.	PCORnet
REFRESH_PROCEDURES_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the PROCEDURES table. This date should be null if the table does not have records.	PCORnet
REFRESH_VITAL_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the VITAL table. This date should be null if the table does not have records.	PCORnet
REFRESH_DISPENSING_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the DISPENSING table. This date should be null if the table does not have records.	PCORnet
REFRESH_LAB_RESULT_CM_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the LAB_RESULT_CM table. This date should be null if the table does not have records.	PCORnet
REFRESH_CONDITION_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the CONDITION table. This date should be null if the table does not have records.	PCORnet
REFRESH_PRO_CM_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the PRO_CM table. This date should be null if the table does not have records.	PCORnet

HARVEST Table Specification					
Field Name	*RDBMS Data Type*	*SAS Data Type*	*Predefined Value Sets and Descriptive Text for Categorical Fields*	*Definition / Comments*	*Source*
REFRESH_PRESCRIBING_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the PRESCRIBING table. This date should be null if the table does not have records.	PCORnet
REFRESH_PCORNET_TRIAL_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the PCORNET_TRIAL table. This date should be null if the table does not have records.	PCORnet
REFRESH_DEATH_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the DEATH table. This date should be null if the table does not have records.	PCORnet
REFRESH_DEATH_CAUSE_DATE	RDBMS Date	SAS Date (Numeric)	.	Most recent date on which the present data were loaded into the DEATH_CAUSE table. This date should be null if the table does not have records.	PCORnet