**20 January 2022**

Comprehensive Ancillary Data Record Extract (CADRE) Radiology Basic

for the

MHS Data Repository (MDR)

(Version 1.00.05)

Current Specification

Revision History

| Version | Date | Originator | Para/Tbl/Fig | Description of Change |
| --- | --- | --- | --- | --- |
| 1.00.00 | 02/04/2013 | S. Keane |  | Initial document. |
| 1.00.01 | 06/19/2013 | S. Keane | Section VI and VII | Split Current Procedural Terminology (CPT) code and modifier of the laboratory test or radiology exam performed into two separate fields. Make key consistent.  |
| 1.00.02 | 09/06/2013 | S. Keane | Sections II, III, IV | Clarify that data are for Radiology services that occur on or after 1 October 2002, i.e., FY2003. |
| 1.00.03 | 01/29/2014 | S. Keane | Sections IV, VI, VII, Appendix A | Update Key variables. Arrange source data by output tables. Rename source variables (47-48). Add variables: Sponsor SSN (raw) Type Code, Patient SSN Type Code, CBER Change Date, andCBER Change Flag. Add table of omitted source variables. Add Appendix A: CBER Required Fields. |
| 1.00.04 | 02/28/2014 | S. Keane | Section VII Table 1, Appendix A | Remove Variables: CBER Change Date and CBER Change Flag. Delete Appendix A: CBER Required Fields.  |
| 1.00.05 | 01/20/2022 | S. Keane | Section III | Update Frequency of processing and updates. |

# CADRE Radiology Basic for the MDR

1. Source

Data capture system: Composite Health Care System (CHCS).

1. Input Feed

Transmission of the feeds occurs daily from the CHCS to the EI/DS Feed Node, where they are batched and submitted for MDR processing. The feed contains ASCII format with the caret (^) delimiter between fields.

ICD 1300-xxxx-xx describes the feed which contains Comprehensive Ancillary Data Record Extract (CADRE) records for Laboratory and Radiology services that occur on or after 1 October 2002.

1. Organization and batching
* Time slicing: Data are organized into fiscal year files.[[1]](#footnote-1) The Fiscal Year is determined by the Date of Service (SERVDATE) field.
* Frequency of processing: Data are harvested weekly. Raw data batches are harvested, processed, and appended/updated to the master file. If data are received from a fiscal year not being processed that month, they will be held to batch with all other data received prior to that fiscal year’s next update batch.
* Frequency of updates:
	+ Current FY: Weekly.
	+ Prior FY: Weekly for one quarter (October, November, and December) then semiannually (April, October).
	+ All years prior to prior FY: Annually (October) or on an as needed basis when data corrections or updates are required.
* Archiving (APUB): Use routine archiving rules and procedures of the MDR.
1. Receiving Filters

The feed contains records for Radiology (RECTYPE = R) services, where Date of Service (SERVDATE) is valid and on or after 1 October 2002, CHCS Host Platform DMIS ID (CHCSDMIS) is not blank or equal to “0000”, Accession Number (ACCESSNO) is not blank or missing.

1. Field Transformations and Deletions for MDR Database

Refer to Section VII.

1. Updating the Master Tables

To apply an update: append new records to the CADRE Radiology Basic Table. The unique identifier or Record Key is defined as the combination of CHCS Host DMIS ID, Accession Number, Order ID, CPT Code, and CPT Code Modifier. That is, **CHCSDMIS || ACCESSNO || ORDERID || CPT || CPTMOD.** In the event of duplicate records, e.g., those with the same unique identifier or Record Key: CHCSDMIS || ACCESSNO || ORDERID || CPT || CPTMOD, retain the record with the newest Extract File Date (FILEDATE) [extracted from the File Name]. Delete duplicates before updating CADRE Radiology Basic Table.

This Record Key: CHCS Host DMIS ID (CHCSDMIS), Accession Number (ACCESSNO), Order ID (ORDERID), CPT Code (CPT), and CPT Code Modifier (CPTMOD) can be used to link this data to legacy Ancillary Laboratory and Radiology data. The CADRE Radiology Basic variables have the same SAS names as legacy Ancillary Laboratory and Radiology variables.

1. File Layout and Content

MDR CADRE Radiology Basic Table has one core file. It contains most raw fields from the source data, as well as appended fields described below. A list of omitted variables/fields appears in Table 2.

**Table 1: MDR CADRE Radiology Basic Table**

| MDR Field Name | SAS Name | SAS Format | Source Position | Transformation |
| --- | --- | --- | --- | --- |
| Record Number | recno | 9.0 | 1 | No Derivation. Numeric. |
| CHCS Host Platform DMIS ID | chcsdmis | $4 | 2 | No Derivation. |
| Patient IEN | patien | $20 | 5 | No Derivation. |
| Patient Age | patage | $3 | 6 | No Derivation. If "0Y" then change to 0. Else, leave as is. |
| Patient Category Code | patcat | $3 | 7 | No Derivation. |
| Patient HCDP Code (raw) | hcdpr | $3 | 8 | No Derivation. |
| Inpatient Record ID | prn | $12 | 9 | No Derivation. |
| Appointment Record ID | apptno | $20 | 10 | No Derivation. |
| Appointment Match Indicator | apptmatch | $3 | 11 | No Derivation. |
| Order ID | orderid | $12 | 12 | No Derivation. |
| Date of Order | orddate | yyyymmdd | 13 | Change MMDDYYYYHHMM to YYYYMMDD. Store as SAS date. |
| Ordering Provider IEN | opien | $20 | 14 | No Derivation. |
| Ordering DMIS ID | orddmis | $4 | 15 | No Derivation. |
| Ordering MEPRS Code | meprscd | $4 | 16 | No Derivation. |
| Date of Collection/Exam | examdate | yyyymmdd. | 17 | Change MMDDYYYY to YYYMMDD. Store as SAS date. |
| Accession Number | accessno | $17 | 18 | No Derivation. |
| CPT Code | cpt | $5 | 19 | CPT Code (CPT) = substr(cpt,1,5). |
| CPT Code Modifier  | cptmod | $2 | 19 | CPT Code Modifier (cptmod) = substr(cpt,6,2). |
| Inactive CPT Code Indicator | nactcpt | $1 | 20 | No Derivation. |
| Record Type Modifier | mod | $2 | 21 | No Derivation. |
| Number of Services | count | comma | 22 | No Derivation. Numeric. |
| Date Of Service | servdate | yyyymmdd. | 23 | Change MMDDYYYY to YYYMMDD. Store as SAS date. |
| Treatment DMIS ID | tmtdmis | $4 | 25 | No Derivation. |
| Treatment Group/Parent DMIS ID | pgrpdmis | $4 | 26 | No Derivation. |
| Performing CMAC Locality Code | cmaccd | $3 | 27 | No Derivation. |
| Certifying Provider IEN | cpien | $20 | 28 | No Derivation. |
| External Name | xname | $60 | 30 | No Derivation. |
| External Address1 | xadd1 | $60 | 31 | No Derivation. |
| External Address2 | xadd2 | $60 | 32 | No Derivation. |
| External City | xcity | $40 | 33 | No Derivation. |
| External State | xstate | $2 | 34 | No Derivation. |
| External Zip | xzip | $5 | 35 | No Derivation. |
| External Country | xcountry | $2 | 36 | No Derivation. |
| External Phone | xphone | $20 | 37 | No Derivation. |
| Purchased Service Facility ID Type Code | psfidtyp | $2 | 47 | No Derivation. The type (IEN/SSN) of the Purchased Service Facility Identifier. Valid values: 24 = IEN, 34 = SSN. Previously named External Indicator (external). |
| Purchased Service Facility ID | psfid | $12 | 48 | No Derivation. Purchased Service Facility IEN. Previously named IEN/SSN (ienssn). |
| Patient Family Member Prefix | fmp | $2 | 49 | No Derivation. |
| Sponsor SSN (raw) | rsponssn | $9 | 50 | No Derivation. |
| Patient EDIPN (raw) | redipn | $10 | 51 | No Derivation. |
| OHI Indicator | ohi | $1 | 52 | No Derivation. |
| PATCAT subcategory | patcat2 | $1 | 53 | No Derivation. |
| Patient SSN | patssn | $9 | 54 | No Derivation. |
| Ordering Provider NPI | opnpi | $10 | 55 | No Derivation. |
| Ordering Provider SSN | opssn | $9 | 56 | No Derivation. |
| Ordering Provider EDIPN | opedipn | $10 | 57 | No Derivation. |
| Ordering Provider HIPAA Taxonomy | ophipaa | $10 | 58 | No Derivation. |
| Certifying Provider NPI | cpnpi | $10 | 59 | No Derivation. |
| Certifying Provider SSN | cpssn | $9 | 60 | No Derivation. |
| Certifying Provider EDIPN | cpedipn | $10 | 61 | No Derivation. |
| Certifying Provider HIPAA Taxonomy | cphipaa | $10 | 62 | No Derivation. |
| Date Report Verified | verfdate | yyyymmdd | 70 | Change MMDDYYYYHHMM to YYYYMMDD. Store as a SAS date. |
| Sponsor SSN (raw) Type Code | rsponssntyp | $1 | 71 | No Derivation. Type code describing the Sponsor SSN (raw). Valid values: D = Temporary Identification Number (TIN)F = Foreign Identification Number (FIN)I = Provider Tax ID (ITIN)P = US military personnel code prior to SSNsR = Special Code assigned to a DOD contractorS = Social Security Number (SSN)U = Pseudo SSN |
| Patient SSN Type Code | patssntyp | $1 | 72 | No Derivation. Type code describing the Patient SSN. Valid values: D = Temporary Identification Number (TIN)F = Foreign Identification Number (FIN)I = Provider Tax ID (ITIN) P = US military personnel code prior to SSNs R = Special Code assigned to a DOD contractorS = Social Security Number (SSN)U = Pseudo SSN |
| ***Internally Derived Fields*** |  |  |  |  |
| Extract File Date | filedate | yyyymmdd. |   | Extract Creation Date/Time from the File Name used by CHCS. Position 21-32 from left of 50 character field. For example, given CADRE\_1070\_0124\_PHR\_201203121054.20120312\_20120312, extract “201203121054”. Store as SAS date. Will keep the most recent record using this date. |
| Initial Processing Date | procdate | yyyymmdd. |   | Set to the initial date that this record was processed for the MDR. Store as SAS date. |
| Calendar Year | cy | $4 |   | Derived from Date of Service. CY of Date of Service. |
| Calendar Month | cm | $2 |   | Derived from Date of Service. CM of Date of Service. |
| Fiscal Year | fy | $4 |   | Derived from CY of Date of Service. If CM is 10, 11, 12 then FY=CY+1. Else FY=CY. |
| Fiscal Month | fm | $2 |   | Derived from CM of Date of Service. If CM is 10, 11, 12 then FM=CM-9. Else FM=CM+3. |
| Master Change Code | chgcode | $1 |   | Record type after processing. N = a newly added record; U= a record that was modified/updated since the last processing cycle; X= a new cancellation record; blank = a record that was not modified since the last processing cycle, e.g. record already exists. |
| Master Change Date | chgdate | yyyymmdd |   | Set to the most recent date that any data element was changed. For records that never change, this will be equal to the initial processing date. Store SAS date. |

**Table 2: Omitted Source Variables from the MDR CADRE Radiology Basic**

| MDR Field Name | SAS Name | SAS Format | Source Position | Transformation |
| --- | --- | --- | --- | --- |
| Record Type | rectype | $1 | 3 | No Derivation. Valid values: R = Radiology. |
| Process Flag | procflag | $1 | 4 | No Derivation. Valid values: N = New Record. |
| Date of Cancellation | cancdate | yyyymmdd. | 24 | No Derivation. Not populated. Note: If populated, Change MMDDYYYY to YYYMMDD. Store as SAS date. |
| External LAB Type | extype | $1 | 29 | No Derivation. Not populated. |
| ICD9 Diagnosis Code 1 | dx1 | $6 | 38 | No Derivation. Not populated.  |
| Diagnosis Priority 1  | dx1p | 1 | 39 | No Derivation. Not populated. |
| ICD9 Diagnosis Code 2 | dx2 | $6 | 40 | No Derivation. Not populated. |
| Diagnosis Priority 2  | dx2p | 1 | 41 | No Derivation. Not populated. |
| ICD9 Diagnosis Code 3 | dx3 | $6 | 42 | No Derivation. Not populated. |
| Diagnosis Priority 3  | dx3p | 1 | 43 | No Derivation. Not populated. |
| ICD9 Diagnosis Code 4 | dx4 | $6 | 44 | No Derivation. Not populated. |
| Diagnosis Priority 4  | dx4p | 1 | 45 | No Derivation. Not populated. |
| CLIA Number | clia | $15 | 46 | No Derivation. Not populated. |
| Lab Test name | labtest | $30 | 63 | No Derivation. Not populated. |
| Lab Test Resulted Name | labtestr | $30 | 64 | No Derivation. Not populated. |
| Certification Date | certdate | yymmdd8. | 65 | No Derivation. Not populated. |
| Lab Result Value | labvalue | $20 | 66 | No Derivation. Not populated. |
| Abnormal Flags Alert | abnormal | $80 | 67 | No Derivation. Not populated. |
| LOINC | loinc | $7 | 68 | No Derivation. Not populated. |
| Lab Results Long | lablong | $80 | 69 | No Derivation. Not populated. |

The processor should flag variables (listed in Table 2) if their values differ from the expected/valid values.

1. Data Marts

M2: This data will not be visible in M2.

1. Quality Assurance

The processor should conduct routine quality assurance checks to ensure input and output data are valid, complete, and reliable. At a minimum, the processor should:

* Compare current raw data row counts to ensure data are consistent with previous raw data feeds.
* Ensure pre-processing data subtotals equal post-processing data subtotals.
* Evaluate post-processing values for data that appear out of the ordinary, or not consistent with SME expected values (face validity).
1. The current files begin with FY03. [↑](#footnote-ref-1)