North American Association of Central Cancer Registries, Inc. (NAACCR)

2023 Implementation Guidelines and Recommendations

(For NAACCR Data Standards and Data Dictionary, Version 23, effective with cases diagnosed on or after January 1, 2023)

Version 1.0

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1 Introduction

The North American Association of Central Cancer Registries, Inc. (NAACCR), works with the American College of Surgeons (ACoS) Commission on Cancer (CoC), American Joint Committee on Cancer (AJCC), National Cancer Institute (NCI) Surveillance Epidemiology and End Results (SEER) Program, Centers for Disease Control and Prevention (CDC) National Program of Cancer Registries (NPCR), Canadian Council of Cancer Registries (CCCR), National Cancer Registrars Association (NCRA), central cancer registries, and cancer registry software vendors to develop an implementation plan for NAACCR Standards for Cancer Registries Volume II, Data Standards and Data Dictionary, Version 23 (referred to as Data Standards and Data Dictionary, Version 23). The 2023 data standards are developed in response to requested revisions from a broad set of constituents.

This Implementation Guidelines document (IG) provides an overview regarding changes in cancer surveillance reporting standards the various stakeholders need to consider for 2023 diagnoses. There are links to source documents that are referenced throughout this IG, each being maintained by either the relevant standard setter or NAACCR. The NAACCR website continues to be an essential destination for the latest version of this Implementation Guide and for standards documents including the Data Standards and Data Dictionary, Version 23, and its log of changes. Given the complexity and dynamics involved in the changes for 2023, the sources referred to in the IG are the most up-to-date and the most granular information.

This document is a collaborative effort, in the true NAACCR spirit, to inform the many stakeholders of the changes that are expected to be incorporated in training materials, software, and databases so that cancer data will continue to be defined, collected, and transmitted in a standardized manner. The standardized data collection facilitates the amazing sharing of data that has characterized cancer surveillance in North America since the inception of the American Association of Central Cancer Registries in 1987.

2 New Data Items

See Appendix A for the new data items table with the XML specifics.

2.1 Site-Specific Data Items

Two new site-specific data items (SSDIs) are added to capture information related to prognosis and/or treatment planning and reflect changes in clinical guidelines. These are required by some standard setters starting in 2023. All new SSDI information is incorporated into the Staging APIs. Please see the SSDI Manual, Version 3.0 (https://apps.naaccr.org/ssdi/list/).

Item #	SSDI Name	Schema
3960	Histologic Subtype	Appendix V9
3961	Clinical Margin Width	Melanoma Skin

2.2 Surgery Primary Site Data Items

Two new data items are added by CoC, RX Hosp--Surg Prim Site 2023 [671] and RX Summ--Surg Prim Site 2023 [1291]. These four-digit alphanumeric data items will replace RX Summ--Surg Prim Site [1290] and RX Hosp--Surg Prim Site [670] for cases diagnosed January 1, 2023, and forward. For cases diagnosed prior to January 1, 2023, RX Hosp--Surg Prim Site 2023 [671] and RX Summ--Surg Prim Site 2023 [1291] data items must be left blank.

Codes starting with A indicate no significant change to the surgery code validation list. Codes starting with B indicates changes to the surgery code(s).

The existing data items, RX Summ--Surg Prim Site [1290] and RX Hosp--Surg Prim Site [670], should be left blank for cases diagnosed January 1, 2023, and forward.

2.3 Information Release Data Items

There are two new central cancer registry data items to capture when patient information is allowed to be released for research or other purposes, No Patient Contact Flag [1854] and Reporting Facility Restriction Flag [1856].

No Patient Contact Flag is used to flag when a patient, family member, or provider notifies the central registry that the patient is not to be contacted for research purposes. This data item is assigned at the person-level and may be collected by the central registry.

Reporting Facility Restriction Flag is used to flag tumor records that the central cancer registry may not be allowed to release for research and certain other types of uses due to the type of reporting facility (e.g., VA or DoD). This data item may be collected by the central registry.

If a registry currently uses the CRS Plus defined codes for Unusual Follow Up Method, then the registry will need to work with their software vendor to convert existing data into the new field for Reporting Facility Restriction Flag, as well as the affiliated data item No Patient Contact Flag. If a registry has another user-defined field to capture potentially non-releasable records, they will need to work with their software vendor to establish the conversion logic and possibly update their user dictionary (see section 10.3 for more information).

3 Changed Data Items

3.1 Name Changes

The following two data item names changed to avoid confusion with the new data items in section 2.2:

RX Hosp--Surg Prim Site [670] to RX Hosp--Surg Prim Site 03-2022 [670]
RX Summ--Surg Prim Site [1290] to RX Summ--Surg Prim Site 03-2022 [1290]

Note: the XML NAACCR ID did not change.

3.2 Race 1 – 5

The following code labels changed for Race 1 through 5 [160, 161, 162, 163 and 164]:

Race Code Label Changes		
Code	**Current Label**	**New Label**
02	Black	Black or African American
03	American Indian, Aleutian, or Alaska Native (includes all indigenous populations of the Western hemisphere)	American Indian or Alaska Native
07	Hawaiian	Native Hawaiian
13	Kampuchean (Cambodian)	Cambodian
15	Asian Indian or Pakistani, NOS	Asian Indian, NOS or Pakistani, NOS
21	Chamorro/Chamoru	Chamorro
32	New Guinean	Papua New Guinean
98	Other	Some other race
99	Unknown	Unknown by patient

Label changes for Race 1 through 5 align with the U.S. Office of Management and Budget (OMB) Guidelines (Federal Register Vol. 62, No 210, 10/30/1997), 2020 U.S. Census coding guidelines (Appendix F. Hispanic Origin and Race Code List), and other federal government standards.

These label changes are not considered sufficient to warrant a new coding system value, so there will be no new codes for Race Coding Sys--Current [170] or Race Coding Sys--Original [180].

Note: These code label changes are also made in Race—NAPIIA (Derived API) [193].

3.3 Site-Specific Data Items

Some SSDI codes and code descriptions are changed to reflect changes in clinical management and/or staging and to improve clarity or to address questions that were raised in the various forums. Code changes for SSDIs are applicable to cases diagnosed January 1, 2018, and forward, but registrars will not be required to update previously coded information.

p16 [3956], which is an existing SSDI for the cervix V9 schema (09520), is added to the Anus V9 schema (09210) (see section 5.8). For cases diagnosed prior to January 1, 2023, p16 should be left blank for Anus V9.

New SSDIs and code changes are incorporated in the AJCC Cancer Surveillance DLL and the SEER Staging RSA API/library. Other than updating the staging API that you use, there is no need for action for these types of changes. They are documented in the change log which can be accessed on https://apps.naaccr.org/ssdi/list/. Also, the SSDI Manual, Version 3.0 (https://apps.naaccr.org/ssdi/list/) provides the changes to existing notes, codes, and code descriptions.

3.4 Tobacco Use Smoking Status

For Tobacco Use Smoking Status [344], the code label "1 Current Some Day Smoker" changed to "1 Current Smoker".

3.5 Coding System Data Items

- Morph Coding Sys--Current [470] and Morph Coding Sys—Original [480]: Code D is added for ICD-O-3.2, plus WHO new terms used for conditions effective January 1, 2023***

- Schema ID Version Current [2117] and Schema ID Version Original [2118]: Code 3.0 is added. Schema ID Version Current should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to include the new EOD 2018 version. Schema ID Version Original should be set to the version in use when the case is collected. While this version is required for the 2023 diagnosis year, if a 2018-2022 case is collected after the system is updated, the schema ID Version Original should be set to 3.0.
- AJCC Cancer Surveillance DLL Version Current [2158] and AJCC Cancer Surveillance DLL Version Original [2159]: Code 09.01.00.0001 is added. AJCC Cancer Surveillance DLL Version Current [2158] should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to NAACCR V23. AJCC Cancer Surveillance DLL Version Original [2159] should be set to the version in use when the case is collected. While this version is required for the 2023 diagnosis year, if a 2018-2022 case is collected after the system is updated, the AJCC Cancer Surveillance DLL Version Original [2159] should be set to 09.01.00.0001.
- AJCC API Version Current [2156] and AJCC API Version Original [2157]: Code 09.01.00 is added. AJCC API Version Current [2156] should be updated to the new value for all cases in the database diagnosed January 1, 2018, or later when the system is updated to NAACCR V23. AJCC API Version Original [2157] should be set to the version in use when the case is collected. While this version is required for the 2023 diagnosis year, if a 2018-2022 case is collected after the system is updated, the AJCC API Version Original [2157] should be set to 09.01.00.

3.6 Text Data Items

The allowUnlimitedText attribute is retired in NAACCR XML Data Exchange Standard v1.6. Instead, the following text field lengths changed from 1,000 to 4,000 characters.

Data Items with Text Field Length Changes	
Item #	**Item Name**
2508	EHR Reporting
2520	Text--Dx Proc--PE
2530	Text--Dx Proc--X-ray/Scan
2540	Text--Dx Proc--Scopes
2550	Text--Dx Proc--Lab Tests
2560	Text--Dx Proc--Op
2570	Text--Dx Proc--Path
2600	Text--Staging
2610	RX Text--Surgery
2620	RX Text--Radiation (Beam)
2630	RX Text--Radiation Other
2640	RX Text--Chemo
2650	RX Text--Hormone
2660	RX Text--BRM
2670	RX Text--Other
2680	Text--Remarks

4 Retired Data Items

Several data items are retired in v23. SEER retired five data items, the grouped data items (the grouped data items not the specific data items within the groups) and all date flag fields are retired.

The NAACCR Data Standards and Data Dictionary, Appendix H, HL7 Flavors of Null table is deleted due to the retirement of the Date Flag data items.

For the Date data items the retirement of the Date Flag data items does not mean to transmit 0s, 8s, or 9s. Transmit a full date or a partial date. If a full date is unknown or missing, nothing is transmitted. For additional information on the date fields see section 6.1.

NAACCR Data Standards and Data Dictionary v23 Retired Data Items			
	Item #	**Item Name**	**Source of Standard**
Grouped Data Items	351	GeoLocation ID 1970/80/90	NAACCR
	352	GeoLocationID 2000	NAACCR
	353	GeoLocation ID 2010	NAACCR
	354	GeoLocation ID 2020	NAACCR
	419	Morph--Type&Behav ICD-O-2	
	521	Morph--Type&Behav ICD-O-3	
	779	Extent of Disease 10-Dig	
	1670	Subsq RX 2nd Course Codes	
	1690	Subsq RX 3rd Course Codes	
	1710	Subsq RX 4th Course Codes	
	1970	Morph (73-91) ICD-O-1	
Date Flags	241	Date of Birth Flag	NAACCR
	391	Date of Diagnosis Flag	NAACCR
	439	Date of Mult Tumors Flag	NAACCR
	448	Date Conclusive DX Flag	NAACCR
	581	Date of 1st Contact Flag	NAACCR
	591	Date of Inpt Adm Flag	NAACCR
	601	Date of Inpt Disch Flag	NAACCR
	683	Date Regional Lymph Node Dissection Flag	NAACCR
	833	Date of Sentinel Lymph Node Biopsy Flag	SEER
	1201	RX Date Surgery Flag	NAACCR
	1211	RX Date Radiation Flag	NAACCR
	1221	RX Date Chemo Flag	NAACCR
	1231	RX Date Hormone Flag	NAACCR
	1241	RX Date BRM Flag	NAACCR
	1251	RX Date Other Flag	NAACCR
	1261	Date Initial RX SEER Flag	NAACCR
	1271	Date 1st Crs RX CoC Flag	NAACCR
	1281	RX Date DX/Stg Proc Flag	NAACCR
	1661	Subsq RX 2ndCrs Date Flag	NAACCR
	1681	Subsq RX 3rdCrs Date Flag	NAACCR
	1701	Subsq RX 4thCrs Date Flag	NAACCR

NAACCR Data Standards and Data Dictionary v23 Retired Data Items			
	Item #	**Item Name**	**Source of Standard**
	1751	Date of Last Contact Flag	NAACCR
	1756	Date of Death--CanadaFlag	NAACCR
	1773	Date of Last Cancer (Tumor) Status Flag	NAACCR
	1861	Recurrence Date--1st Flag	NAACCR
	3171	RX Date Mst Defn Srg Flag	NAACCR
	3181	RX Date Surg Disch Flag	NAACCR
	3221	RX Date Rad Ended Flag	NAACCR
	3231	RX Date Systemic Flag	NAACCR
SEER	1980	ICD-O-2 Conversion Flag	SEER
	2120	SEER Coding System-Current	SEER
	2130	SEER Coding System-Original	SEER
	2180	SEER Type of Follow-up	SEER
	2190	SEER Record Number	SEER

5 Other Changes

5.1 LN Status Femoral-Inguinal, Para-Aortic, Pelvic [3884]

LN Status Femoral-Inguinal, Para-Aortic, Pelvic [3884] (Cervix 8th, Cervix V9, Vagina, Vulva) is removed from all applicable schemas - no data changes are necessary.

5.2 ICD-O-3

The Guidelines for 2023 ICD-O-3.2 Histology Code and Behavior, effective January 1, 2023, developed by the NAACCR ICD-O-3 Implementation Work Group and approved by the High-Level Strategic Group (HLSG), address implementation of updated histology terms and new codes for cases diagnosed on or after January 1, 2023. Members of the work group represent standard setting organizations, central registries, hospital registries, and cancer registry software vendors.

The 2023 ICD-O-3.2 update includes changes identified during review of recently published World Health Organization's International Histological Classification of Tumors 5th Edition books (WHO "Blue Books"). This series covers all principal sites of cancer and includes ICD-O morphology codes for each neoplasm. Each new edition underwent thorough review to identify new histologies and ICD-O codes, behavior changes to existing ICD-O codes, and new terminology. The ICD-O-3 Implementation Work Group recommended adopting the changes for 2023 and implementation of the changes was approved by the standard setting agencies.

The 2023 ICD-O-3.2 histology code and behavior update includes comprehensive tables listing all changes made after the 2022 update and is effective for cases diagnosed January 1, 2023, and forward. As introduced in 2022, the 2023 update tables include columns for each standard setter which indicates if that code and/or term are required for data collection and submission.

The ICD-O-3 Implementation Work Group created a guide for users which provides important information on the background and issues for this update along with how to use the tables. The 2023

guidelines have been modified to include only two tables, numeric and alpha, listing new ICD-O codes, terminology, behavior changes, and required status. The Work Group strongly recommends that users read the guidelines to efficiently use ICD-O-3.2 and the 2023 Update tables.

Note: Use of these guidelines is required for determining reportability and accurate coding.

The following histologies are approved by the Mid-Level Tactical Group for use with primaries of the cervix (C53.X) for diagnosis year 2021. Previously, registrars had been instructed to use these histologies for cervical primaries for cases diagnosed January 1, 2022, and forward.

- 8085 Squamous cell carcinoma, HPV-associated C51.9; C52.9; C53.X_
- 8086 Squamous cell carcinoma, HPV-independent C51.9; C52.9; C53.X_
- 8483 Adenocarcinoma, HPV-associated
- 8484 Adenocarcinoma, HPV-independent, NOS
- 8482 Adenocarcinoma, HPV-independent, gastric type
- 8310 Adenocarcinoma, HPV-independent, clear cell type
- 9110 Adenocarcinoma, HPV-independent, mesonephric type C53.X; C56.9

See section 13.4 for instructions to manually review the cervix cases diagnosed January 1, 2021, and forward.

Following the release of the 2022 Guidelines for ICD-O-3.2 Histology Code and Behavior Update, the ICD-O-3 Implementation Work Group reviewed the recent 5th Ed WHO Blue Books published after the creation of ICD-O-3.2. The Work Group submitted their implementation recommendations to the Mid-Level Technical Group (MLTG) and High-level Strategic Group (HLSG) in March 2022. The MLTG and HLSG reviewed the recommendations and accepted them for implementation in 2023.

The ICD-O-3 Implementation Work Group is charged with developing the implementation documents and acting as the clearinghouse for the review and resolution of new histology code implementation questions. If there are any questions, they are to be submitted through Ask A SEER Registrar. Implementation guidelines and updates will be posted on NAACCR's website. The Work Group will also be communicating updates via email using the NAACCR listserv and mailing lists of all organizations.

5.3 Site/Histology Validation List

The SEER Site/Histology Validation List is updated to reflect new ICD-O-3.2 histology codes and behaviors identified in the 2023 ICD-O-3 Update guidelines and is posted on the SEER website.

5.4 Solid Tumor Rules

The 2018 Solid Tumor Rules are a comprehensive revision to the 2007 site specific Multiple Primary and Histology Rules (MP/H), which were developed to promote consistent and standardized coding for cancer surveillance. In 2018, eight site groups were revised: Malignant and Non-malignant CNS, Breast, Colon, Head & Neck, Kidney, Lung, and Urinary. Since their implementation in 2018, these site groups continue to be updated to reflect changes in histology coding. In 2021, Cutaneous Melanoma MP/H site rules were revised as Solid Tumor Rules and became effective for cases diagnosed January 1, 2021, and forward. Beginning January 1, 2022, the 2018 Solid Tumor Rules are now called "Solid Tumor Rules" and no longer include year. The General Instructions and each site-specific module include instructions on which rules to use depending on diagnosis date.

General: The addition of new terminology, clarifications to equal/equivalent terms, and clarifications to terms that are not equal/equivalent comprise most of the changes for 2023.

CNS: Both the malignant and non-malignant CNS rules include new instructions for Pilocytic Astrocytoma.

Breast: There are clarifications to Breast rule M10 and the applicable H rules for coding lobular/ductal tumors.

Head and Neck: Table 9 in the H&N module has been redesigned for easier use.

Other Sites: The Other Sites rules are completely revised and now follow the same format, histology coding requirements, and timing instructions as the current site-specific solid tumor rules. Site-specific histology tables have been added to Other Sites to assist with accurate histology coding, similar to the H&N tables.

5.5 Solid Tumor Revision History

The Solid Tumor download page includes a section for revision history which includes comprehensive change logs for each update. The change logs are for reference only and should not be used in place of the rules.

Questions regarding the Solid Tumor Rules should be directed to Ask A SEER Registrar.

5.6 Reportability

Reportability for cases diagnosed in 2023 is based on the ICD-O Third Edition, Second Revision Morphology (ICD-O-3.2) plus the ICD-O-3.2 updates posted on the NAACCR website.

The 2023 ICD-O update tables have columns for each standard setter (SEER, NPCR, CoC, and Canada) to indicate reportability for each of the new codes, terms, etc.

5.7 Surgery Codes

For cases diagnosed January 1, 2003 – December 31, 2022, use RX Hosp--Surg Prim Site 03-2022 [670] and RX Summ--Surg Prim Site 03-2022 [1290].

For cases diagnosed January 1, 2023, and forward use RX Hosp--Surg Prim Site 2023 [671] and RX Summ--Surg Prim Site 2023 [1291].

The Site-Specific Surgery Codes for Skin C44 are updated to align with the Synoptic Operative Report and revised to a four-digit, alphanumeric code for cases diagnosed January 1, 2023, and forward. These surgery codes are in Appendix A of the STORE Manual and Appendix C of the SEER Manual.

The CoC-specific breast surgery and reconstruction codes [10104, 10105, 10106, 10107] introduced in 2022 as user-defined fields will continue to be collected as user-defined fields in 2023 effective with diagnosis January 1, 2022. The rules and instructions are in STORE v2022 and v2023.

5.8 AJCC Version 9 Protocols

AJCC Cancer Staging System will release three Version 9 Protocols to go into effect with cases diagnosed January 1, 2023, and forward:

- Anus Version 9
- Appendix Version 9
- Brain and Spinal Cord Version 9

These Version 9 protocols replace the current AJCC 8th edition chapters for these disease sites. The Brain and Spinal Cord Version 9 contain staging for all medulloblastomas. This staging consists of assigning the M category only.

5.9 Extent of Disease (EOD)

For cases diagnosed January 1, 2023, and forward, new schemas are added to align with changes in AJCC version 9 (V9):

- Appendix [V9: 2023+] (09210)
- Anus [V9: 2023+] (09190)
- Brain [V9: 2023+] (09721)
- CNS Other [V9: 2023+] (09722)
- Intracranial Gland [V9: 2023+] (09723)

The existing related schemas are "[8th: 2018-2022]" appended to the name (for example, Anus [8th: 2018-2022]) and their schema IDs remain unchanged. The 8th schemas continue to be used for cases diagnosed from January 1, 2018, through December 31, 2022.

Additional histologies for behavior /3 are added to the new version 9 schemas for Brain, CNS Other and Intracranial Gland. These histologies continue to be included in the original schemas for cases diagnosed from January 1, 2018, through December 31, 2022, so no conversions are necessary. The original schema include:

- Soft Tissue Head & Neck (00400)
- Soft Tissue Other (00459)
- Orbital Sarcoma (00700)
- Lymphoma (00790)
- Plasma Cell Disorder (00822)
- HemeRetic (00830)

One new schema is added

- Medulloblastoma [V9: 2023+] (09724)

Medulloblastoma includes site and histology combinations that used to be part of the Brain, CNS Other and Intracranial Gland Schema. It is for cases diagnosed on or after January 1, 2023, and therefore no conversion is required.

The following schemas had codes added to EOD Primary Tumor [772], but no conversion of older data is necessary:

- Bile Duct Intrahepatic: Code 400
- Lymphoma, Lymphoma CLL/SLL: Code 575
- Pleural Mesothelioma: Code 000

Some Extent of Disease fields changed to improve clarity or to address questions that were raised in the various forums. These changes are applicable to cases diagnosed January 1, 2018, and forward, but registrars are not required to update previously coded information. The new information is incorporated in the SEER Staging REST API/library. Other than updating the staging API that you use, there is no need for action for these types of changes. They are documented in the change log which can be accessed on https://seer.cancer.gov/tools/staging/eod/.

5.10 Summary Stage 2018

A new Summary Stage 2018 chapter for Medulloblastoma is added which will apply to cases diagnosed from January 1, 2023, and forward. Modifications to Prostate Summary Stage was made (mostly to the notes) based on changes to the notes for EOD Primary Tumor [772] and EOD Prostate Pathologic Extension [3919]. Code 0 is added to Pleural Mesothelioma for in situ cases. Also, the Summary Stage 2018 [764] notes and code descriptions for some schemas are updated similarly to the EOD fields to improve clarity. Registrars are not required to update previously coded information. Again, this information is incorporated in the SEER Staging REST API/library and will be available once the staging API has been updated.

5.11 Hematopoietic and Lymphoid Neoplasms Manual and Database

The Hematopoietic and Lymphoid Neoplasms Manual and Database (Heme manual) is effective for cases diagnosed 2010+.

There are some minor changes to the Heme manual, for example some notes are modified; however, there are no changes to histologies or rules. There is no change log for these minor changes.

5.12 AJCC Plasma Cell Myeloma

For cases diagnosed January 1, 2022, and forward, AJCC ID 82.1 Plasma cell myeloma RISS stage group is updated to include unknown, AJCC TNM Clin Stage Group [1004] code 99.

Some registrars may not have been able to manually enter in code 99 since it was not in the validation list. They would have encountered an edit as clinical stage group cannot be left blank.

6 XML

The NAACCR XML Data Exchange Work Group continues to develop the *NAACCR Data Exchange Standard, XML Specifications for Cancer Registry Records*. The latest standard, the base dictionary, sample data, and software tools are available to registries and software vendors. The XML website provides links to these documents and products.

6.1 Date Fields

In the original NAACCR fixed-width file format, column position and field length for each data item was explicitly defined to ensure that information from one item did not encroach into another. To maintain this structure, a strict set of rules were established with empty spaces used as placeholders to ensure correct positioning within a fixed-width record. The migration to eXtensible Markup Language (XML) removes the necessity for these strict column requirements. Instead, the XML format only restricts the maximum length of a variable.

NAACCR XML data items are populated with non-space characters from left to right, up to, but not exceeding the maximum length. In XML v23, left-to-right storage of data – without spaces – is the default for all variables except those involving free-form text or in rare cases where standard-setter requirements require alternative rules to conform with edits.

As example, the structure for all date fields in NAACCR XML is:

1. a maximum of eight (8) numeric characters/digits
2. left justified
3. formatted from left to right as YYYYMMDD

This format is defined for transmission of cancer registry data using the NAACCR XML data exchange standard, it is not meant to inform how data should be stored in a registry database or viewed on a screen. The order of components - year, then month, then day - follows a left-to-right transmission priority which ensures that the minimum allowable information is listed first and to the left. With this structure, only valid portions of the date are transmitted while missing/unknown portions of dates are not transmitted. Below are transmission examples for dates when only certain components are known:

- YYYYMMDD – when a date is complete, known, and valid, then all eight (8) numeric characters are transmitted from left-to-right as a 4-digit year, then 2-digit month, then 2-digit day
- YYYYMM – when the year and month are known and valid, but the day is unknown, then the first 6 digits are transmitted
- YYYY – when the year is known and valid, but the month and day are unknown, then the first 4 digits are transmitted
- If the date is fully unknown, then the date field should not be filled with anything – this includes the space character (i.e., any whitespace such as the space bar entry). Such date fields are not included in a transmitted NAACCR XML file.

6.2 Updated Data Exchange Standard

The NAACCR Data Exchange Standard specification is updated to version 1.6. The changes include a new value "none" that will be allowed as a padding value in preparation for the retirement of “trim” and some of the existing values for “padding” in a future version. The dictionary item attribute “allowUnlimitedText” was retired and support for defining grouped data items in base dictionaries was removed.

6.3 XML Software Utilities

This section highlights several XML software tools. Software vendors should use a standard software tool or NAACCR XML library to validate XML files.

Registry Plus XML Exchange Plus software by NPCR is an aid for central registries that want to collect their own data items. It produces a valid user dictionary that can be distributed to cancer registry software vendors. XML Exchange Plus can be used for: 1) dictionary maintenance; 2) convert flag and NAACCR XML files; 3) produce flat and delimited files; 4) run EDITS, producing edit reports similar to GenEDITS Plus; 5) import, view, update, export NAACCR data; and 6) record validation.

File*Pro by SEER provides a variety of useful functions for central registries. It can be used to view, edit, and manage data in text files. The NAACCR XML Dictionary Editor creates and validates XML dictionaries.

The NAACCR XML Utility Tool translates fixed-width NAACCR files to NAACCR XML files and back. It also validates XML files and creates and validates user-defined NAACCR XML dictionaries.

6.4 Other Considerations

Software that still requires the fixed-width or other flat file formats will not be able to process data files created using the new NAACCR XML standard. In addition to the software requirement(s), other operations may require fixed-width or flat file formats. Therefore, software vendors should continue to offer flat file export options.

Contact the NAACCR XML Data Exchange WG with any questions. Valerie Yoder (valerie.yoder@hsc.utah.edu) and Isaac Hands (isaac.hands@uky.edu) are the work group co-chairs.

7 EDITS

7.1 V23 NAACCR Edits Metafile

A beta version of the v23 edits metafile was made available in mid-July. The beta version is available upon request (see contact info below). The initial release of the v23 metafile is scheduled to be made available online August 31 at https://www.naaccr.org/standard-data-edits/

Changes to edits for cases diagnosed 2018 through 2022 address fixes to edit logic as well as updates necessary to accommodate changes to existing data items for 2023. The NAACCR v23 Change Spreadsheet includes:

- "Corrections" page that lists corrected edits
- "Updates" page that lists existing edits modified to accommodate 2023 changes in data items
- "New Edits" page that lists all new edits for both existing and new data items
- "Review Updates" page that lists changes to existing edits based on review of coding documents and instructions
- "Categories" page that groups new and changed edits by the types of changes that were made
- "SEER Skips" page identifies corrections to changes that were made in the v22B metafile, adding skips to certain edits for the SEER registries, Texas, and Illinois, for specified dates

Corrections to edits include changes to edit names, edit descriptions, and edit logic. Changes were prompted by problem reports from users as well as review of edits when considering required updates for 2023. Some edits were deleted as redundant or not required, and these should be deleted from any customized metafiles as well. Several edits from which treatment date flags had previously been removed are updated to match the logic used in the larger number of edits with date flags removed for v23. Previously these edits had required either date be blank if no treatment rendered, or treatment coded if treatment date not blank. The edits are updated to include both requirements.

The "Updates" to edits were necessitated by the following:

a) AJCC Version 9 staging for Appendix, Anus, Brain/CNS/Intracranial Gland, and Medulloblastoma. AJCC IDs remain the same for Appendix (19) and Anus (21). There are two new AJCC IDs for Brain (72.1) and Medulloblastoma (72.2). Corresponding Schema IDs are

09190, 09210, 09721, 09722, 09723, and 09724 (Medulloblastoma). New histologies have been added to 72.1, and Medulloblastoma histologies are moved into the new AJCC ID with staging for metastatic disease. For the Schema IDs, some histologies that have been assigned to the Version 9 schemas for brain, CNS, intracranial gland, and medulloblastoma were previously included in other schemas. They will continue to be valid in these other schemas for 2018-2022: 00400 (Soft Tissue Head and Neck), 00459 (Soft Tissue Other), 00700 (Orbital Sarcoma), 00790 (Lymphoma), 00822 (Plasma Cell Disorders), and 00830 (HemeRetic). All edits relating to these 8th Edition and Version 9 AJCC IDs and Schema IDs have been updated where necessary.

b) New data items, RX Hosp--Surg Prim Site 2023 and RX Summ--Surg Prim Site 2023. The existing data items are renamed RX Hosp--Surg Prim Site 03-2022 and RX Summ--Surg Prim Site 03-2022. All edits with these data items are updated with the changed data item names and are now skipped for diagnosis date > 2022. The edits for diagnosis date 2018 and later are duplicated using the new data items and start with diagnosis date 2023. These edits all reflect the new format for the data item – all existing surgery codes in the STORE and SEER Program Code Manual (except for skin) will appear as "A", current code, "0"; so, a surgery code entered as "20" for 2003-2022 in the 03-2022 surgery item will be entered as "A200" in the 2023 surgery item. The codes for surgery of skin are new and will appear as "B" followed by three digits.
c) Other new data items. Two new SSDIs have been defined. Clinical Margin Width codes the margins for Melanoma of Skin wide excision. Histologic Subtype distinguishes between low-grade appendiceal mucinous neoplasm (LAMN) and high-grade appendiceal mucinous neoplasm (HAMN) for Appendix. Edits check valid values, required by Schema ID, and some interfield relations for these SSDIs. p16 was added to the Anus schema for 2023.
d) Date flag data items retired. Date flags will no longer be transmitted in the NAACCR record, all edits with date flags have either been deleted or modified. Customized metafiles should be similarly updated. Three dates will be required – Date of Birth, Date of Diagnosis, and Date of Last Contact. All other dates may be blank, to indicate no date applicable or unknown date. As noted above, for treatment fields, blank date will be required if no treatment rendered; treatment code will be required if date is not blank.
e) Grouped data items retired. Some combinations of data items had been identified with a single data item number, such as Histologic Type ICD-O-3 (522) and Behavior Code ICD-O-3 (523), identified as Morph--Type&Behav ICD-O-3 (521). GeolocationID-1970/80/90 (351), GeolocationID-2000 (352), GeolocationID-2010 (353), GeolocationID-2020 (354), Extent of Disease 10-Dig (779), Morph--Type&Behav ICD-O-2 (419), and Morph--Type&Behav ICD-O-3 have all been retired and relevant edits updated accordingly. Other grouped items have also been retired, but without any related edits to update.
f) Other retired data items. Five SEER data items have been retired, all related edits have either been deleted from the standard metafile or modified accordingly. They should be treated similarly in any customized data files: ICD-O-2 Conversion Flag, SEER Coding Sys--Current, SEER Coding Sys--Original, SEER Record Number, SEER Type of Follow-up.

The "Review Updates" page identifies a number of edits that have been updated based on reviews of instructions for coding SEER EOD data items, SSDIs, and Radiation data items. A change across a number

of SSDIs was the identification of a specific code to use with Behavior Code ICD-O-3 of 2, for in situ tumors. Modifications to the radiation edits are in line with the *CTR Guide to Coding Radiation Therapy Treatment in the STORE*.

The "New" page lists all new fields, tables, and edits for this metafile. All new edits are in the range N6700-N6899.

The "Categories" page groups both new and existing edits according to their purpose or reason for modification or updating.

The v23 edits metafile was developed in EditWriter v5 (EW5) and will only be available in a .smf format.

Contact Jim Hofferkamp at jhofferkamp@naaccr.org with any questions or concerns about the NAACCR edits metafile. For NPCR EDITS technical support via email contact cancerinformatics@cdc.gov.

7.2 Running Edits on XML Files

Edits can be run directly on XML files using GenEDITS Plus beta when released and XML Exchange Plus. The Edit Engine 5.1 no longer requires the flat buffer with data items in fixed column positions for processing the version 23 metafile. The NAACCR edit metafile will be published without the layout object that has been required for previous versions of the Edit Engine.

Registries with defined local data items are instructed to add the local items to the user-defined data dictionary. To run edits on local data items, these same registry-specific data items must also be added to the Fields object when creating a customized edit metafile in EditWriter 5. It is very important that the same NAACCR item numbers are assigned in the user-defined dictionary and in a customized edit metafile. With the change to the Edit Engine 5.1 that no longer requires a layout, NAACCR item numbers are used to locate the data items instead of data item column positions.

Note that the current version of EditWriter5 cannot edit XML files when running Edits to test Edit Sets and when using the Data Wizard within the Test Bench. The interactive testing tool known as the Test Bench within EditWriter5 can still be used to test individual edits using the Test button with the user entering values for each of the fields involved in the edit to determine the test result.

8 Standard Setters Reporting Requirements for 2023

Each standard setting agency provided their respective information for this section.

8.1 CoC Reporting Requirements

Beginning with cases diagnosed January 1, 2023, and forward, all CoC accredited programs should follow the rules and instructions in STORE v2023. A summary of the STORE 2023 changes is included in the STORE Manual. Two new data items are added RX Hosp Surg-- Prim Site 2023 [671] and RX Summ--Surgery Prim Site 2023[1291] replacing data items RX Summ--Surg Prim Site [1290] and RX Hosp--Surg Prim Site [670] effective with diagnosis January 1, 2023. All surgical codes in Appendix A of STORE 2023 are now a four-digit alphanumeric character, [starting with letter A or B and followed with a three-digit number] effective with diagnosis January 1, 2023.

CoC Accredited programs will collect the following SSDIs effective with cases diagnosed January 1, 2023, and forward:

- Histology Subtype [3960] - Low Grade appendiceal mucinous neoplasm (LAMN) in Appendix V9
- p16 [3956] - in Anus V9
- Clinical Margin Width [3961] in Melanoma Skin.

CoC Accredited programs will collect Tobacco Use Smoking Status [344] effective with cases diagnosed January 1, 2023, and forward.

The following data items are removed from STORE 2023:

Data Items Removed from STORE 2023		
Item #	**CoC Item Name**	**NAACCR Item Name**
241	Date of Birth Flag	Date of Birth Flag
581	Date of First Contact Flag	Date of 1st Contact Flag
670	Surgical Procedure of Primary Site at this Facility	RX Hosp--Surg Prim Site
1201	RX Date Surgery Flag	RX Date Surgery Flag
1221	RX Date Chemo Flag	RX Date Chemo Flag
1231	RX Date Hormone Flag	RX Date Hormone Flag
1241	RX Date BRM Flag	RX Date BRM Flag
1281	RX Date Dx/Stg Proc Flag	RX Date DX/Stg Proc Flag
1290	Surgical Procedure of Primary Site	RX Summ--Surg Prim Site

CoC will continue to collect custom data items RX Hosp--Surg Breast [10104], RX Summ--Surg Breast [10105], RX Hosp--Recon Breast [10106] and RX Summ--Recon Breast [10107] effective with cases diagnosed January 1, 2022, for breast primary sites only. These custom data items will be submitted to NCDB/RCRS.

Questions related to STORE can be submitted to the CA Forum. The STORE Manual 2023 will be released to the NCDB Call for Data website in August 2022.

8.2 CDC NPCR Reporting Requirements

Beginning with cases diagnosed January 1, 2023, and forward, CDC-NPCR will adopt the new record format and data collection requirements as published in the Data Standards and Data Dictionary, Version 23. Refer to the CDC-NPCR requirements listed in the Data Standards and Data Dictionary, Version 23, Chapter VIII Required Status Table. Share these requirements with your software vendors and key stakeholders.

CDC is following the NAACCR Guidelines for 2023 ICD-O-3.2 Histology Code and Behavior Update (published for 2023).

8.2.1 Staging Requirements for 2023 Diagnosis

CDC-NPCR continues to require directly assigned Summary Stage 2018 [764] (most current version). NPCR requirements for Summary Stage 1977 [760], Summary Stage 2000 [759], and CS Derived Summary Stage 2000 [3020] have not changed. If voluntarily capturing AJCC TNM and/or SEER EOD stage data items, rules and requirements provided by those sources should be followed.

Central registries will inform state reporters of their individual state requirements.

Questions related to CDC-NPCR Stage requirements can be submitted to: **cancerstaging@cdc.gov**.

8.3 NCI SEER Reporting Requirements

Beginning with cases diagnosed January 1, 2023, SEER registries will follow the instructions in the 2023 SEER Manual and the most recent Solid Tumor Rules, Hematopoietic Manual, Grade Manual, SSDI Manual, SEER*RSA, EOD, Summary Stage, and ICD-O-3.2 updates.

COVID-19 data collection is discontinued for cases diagnosed in 2023.

All date flags are retired and are no longer required by SEER. These flags and their coding instructions have been removed from the SEER Program Manual.

RX Summ--Surg Prim Site [1290] is replaced by RX Summ--Surg Prim Site 2023 [1291].

The following data items are required for cases diagnosed January 1, 2023, or later, they were not previously required.

Data Items Required for v23 or Later, Not Previously Required	
Item #	**Item Name**
671	RX Hosp--Surg Prim Site 2023
1291	RX Summ--Surg Prim Site 2023
1854	No Patient Contact Flag
1856	Reporting Facility Restriction Flag
2110	Date Case Report Exported
2111	Date Case Report Received
2112	Date Case Report Loaded
2113	Date Tumor Record Availbl
3780	Secondary Diagnosis 1
3782	Secondary Diagnosis 2
3784	Secondary Diagnosis 3
3786	Secondary Diagnosis 4
3788	Secondary Diagnosis 5
3790	Secondary Diagnosis 6
3792	Secondary Diagnosis 7
3794	Secondary Diagnosis 8
3796	Secondary Diagnosis 9
3798	Secondary Diagnosis 10
3960	Histologic Subtype (Appendix 8480)
3961	Clinical Margin Width

p16 [3956] which was required for Cervix V9 for 2021-2022 if CoC Accredited Flag [2152] = 1, will be required for all Cervix V9 and Anus V9 cases diagnosed from January 1, 2023, forward.

The following data items are no longer required for cases diagnosed January 1, 2023, or later:

- Estrogen Receptor Total Allred Score [3828]
- Progesterone Receptor Total Allred Score [3916]

See the Required Status Table in NAACCR Data Standards and Data Dictionary, V23 for more information.

Submit questions about SEER requirements to Ask A SEER Registrar.

8.4 CCCR Reporting Requirements

Beginning with cases diagnosed on or after January 1, 2023, the Canadian Council of Cancer Registries (CCCR) will implement the data collection and submission requirements as published in the NAACCR Data Standards and Data Dictionary, Version 23, Chapter VIII, Required Status Table.

For cases diagnosed January 1, 2023, and forward, Canada will continue to collect TNM stage data using the AJCC Cancer Staging Manual 8th Edition and Version 9. For 2023, stage data will be collected using AJCC V9 for the following schemas: appendix, anus, brain, and spinal cord other, CNS other, intracranial gland, and brain and spinal cord medulloblastoma. Information regarding new and updated SSDIs is available in the NAACCR SSDI Manual. Refer to the Canadian SSDI spreadsheet and the 2023 Canadian Cancer Registry Variable Specifications for specific requirements.

Canada will follow the NAACCR ICD-O-3 Implementation Guidelines to adopt updates to ICD-O-3.2 for cases diagnosed January 1, 2023, onward. Refer to the 2023 Canadian Cancer Registry Reference Tables for more information.

Canada will follow any updates to the NAACCR Grade Manual and the SEER Solid Tumor Rules for cases diagnosed January 1, 2023, onward.

Cases will be submitted to the Canadian Cancer Registry during Statistic Canada's Call for Data. Provincial/Territorial cancer registries can reference the 2023 CCR Record Layout and supporting data provider documentation for a more comprehensive listing.

9 Summary for Central Cancer Registries

Each central cancer registry should review this entire document to determine which revisions will affect their operations. Central registries must consider the revisions that will be necessary to meet the different requirements of national standard setters. These determinations should be communicated to reporting facilities and registry software vendors as soon as possible.

9.1 Central Registry XML User Dictionary

NAACCR established the User Dictionary Clearinghouse website to share examples of XML User Dictionaries from central registries. Central registries with state-specific data items are encouraged to upload their XML User Dictionary along with the MS Excel data items workbook describing their user dictionary. Software vendors can acquire the documents, and all registries benefit from learning from each other's state-specific data field requirements.

With each new NAACCR version, central registries should review their XML User Dictionary and MS Excel data items workbook, or decision not to create one, and update their entry accordingly on the Clearinghouse. XML User Dictionaries may include a NAACCR version attribute that must be updated with each new NAACCR version.

9.2 Central Registry Edits

Central registries should carefully review section 7 for information regarding the NAACCR v23 edits metafile. Also, the updated SEER*Edits will be released after the NAACCR v23 edits metafile. It is expected that all SEER registries will run all the SEER edits. If central registries wish to write their own edits, create new edit sets, or develop customized metafiles, EditWriter 5 should be utilized. It is important to remember that state-specific data items need to be defined in an XML User Dictionary so that edits can be incorporated in metafiles.

With a major metafile release, and some minor releases, NAACCR hosts Edit Metafile Workshops for central registries. In these virtual sessions changes to the metafile are discussed and instructions for creating new and updating existing custom metafiles are provided. Metafile administrators, central registry staff managing the central registry metafile, are encouraged to attend. Recordings of past workshops, along with metafile documentation and how-to guides can be found on the NAACCR Edits Webpage.

Central registries should review the new NAACCR edits metafile, associated documentation, and the data items required by their standard setters in the Required Status Table (Chapter VIII) of the Data Standards and Data Dictionary when developing edit sets for incoming abstracts and consolidated records in their metafile. Edits in the metafile may need to be revised to accommodate central registry-specific or state-specific reporting requirements, and custom edits may need to be developed for any non-standard or custom data items. Implementation, testing, and distribution of metafiles to reporting facilities and registry software vendors should be considered as central registries develop their requirements for reporting.

Metafiles and associated documentation, including instructions for use and changelogs, should be uploaded to the NAACCR Edits Clearinghouse. The Clearinghouse allows central registries to easily share their metafiles with other registries, software vendors, and users of their metafile. Any MyNAACCR user may download metafiles, but only designated central registry users are authorized to upload. Central registries that choose not to upload or utilize standard edit sets and have no custom edits or edit sets, are still encouraged to upload an instructional document.

Central registries should evaluate the time required to correct errors in previous years' data that appear retrospectively when applying new edits, particularly when there are no guidelines that limit diagnosis years to which the new edits are applied. This can be done by running the new edit metafile on the central registry database and reviewing edit summary reports, and subsequently reviewing detailed edit errors for edits with a high number of error records. When reviewing edits errors, the relative importance of the affected data items and the amount of time required to fix the error records should be considered. For large edit impacts, global data fixes can be developed to automatically correct data as applicable and decrease manual work efforts.

Keep in mind that not all reporting facilities are able to implement the newest NAACCR metafile at the same time as the central registry throughout the year. Cases received from reporting facilities using the previous NAACCR metafile may fail edits upon receipt at the central registry. Registries should proactively communicate metafile expectations for facilities as new versions are released.

9.3 Software Implementation Plan

Central registries that receive submissions from facilities using commercial vendor software to generate their files should pay close attention to the new releases of these products and coordinate their own v23 implementation plan accordingly. Every new vendor software version should be reviewed to ensure compliance with the NAACCR XML data transmission format and with registry requirements. This review should be completed before files are added to the central registry's database. Various methods can be used to test a submission for compliance with standards, such as running edits and performing visual reviews of abstracts. The use of a test environment into which submissions can be loaded and reviewed is recommended.

When implementing a new version of the NAACCR base dictionary or user dictionary, some central registries may require a "test file" from each software vendor and/or reporting facility. Regardless of whether a registry requires an initial test file, a reporting facility's first transmission file following the change should be tested as thoroughly as possible to identify format or code problems before additional records are accepted from that facility.

The central registry should be alert to directives from their software vendor about any conversion logs. Only minimal manual review is anticipated to be needed, see Appendix B.

9.4 Communication with Reporting Facilities and Software Vendors

Central registries will need to distribute their implementation plan and timeline to reporting facilities and software vendors as early as possible, including metafile expectations. The communication should include an updated list of reportable tumors and required data items with explicit instructions for state/province/territory-specific data items. Changes to the implementation plan or timeline should be forwarded immediately to all affected parties. Reporting facilities that are not CoC-accredited may be less aware of upcoming changes and may need more transition time. Facilities that do not use a commercial vendor for their reporting software will need extra attention.

Communication to reporting facilities and software vendors is especially critical when it comes to transmission of cases in the new NAACCR format. There may be times when the central registry is unable to process the newest NAACCR format but facilities using vendor software are ready to upgrade or vice versa. The central registry must use discretion when deciding when they will begin accepting cases in the newest NAACCR version, particularly if they are unable to process or run appropriate edits on received files. Once the timeline or criteria for transmission has been established it should be communicated to reporting facilities and software vendors. Note that each central registry, software vendor, and reporting facility may have different implementation timelines. Being clear and concise about when the central registry will begin accepting cases in the new format is imperative.

Central registries relying on vendor software for their own systems or for their reporting facilities should be aware that delays in the communication of this information or customizations to software vendors may result in a delay receiving and processing cases in the new format.

Central registries must continue to support the reporting and processing of v22 records for diagnosis years 2022 and earlier until all reporting facilities are converted to v23.

9.5 Education and Training

Central registries will need to facilitate training to their reporting facilities on changes identified in this document. Trainings should focus on new required data items and new or revised coding manuals.

It is anticipated that education and training opportunities will be offered by AJCC, NCRA, and all national standard setters, which should be utilized by central registries as appropriate. Information on education and training resources will be available on the v23 Reference Page. Organizations may also be open to suggestions for training and education needs.

Central registry staff must also be trained on rules for consolidation of newly required information coming from multiple sources for the same tumors. The NAACCR Data Item Consolidation Manual prescribing best practices for many standard data items should have been distributed to central registry staff, with the rules followed manually until they can be implemented automatically in the central registry software.

10 Summary for Software Developers and Vendors

Until a state registry is fully converted to Data Standards and Data Dictionary, Version 23 software vendors will need to provide continued support for reporting and processing of records for 2022 and earlier diagnoses.

Regarding 2023 data changes, software vendors will be responsible for identifying required software changes; accommodating new and changed data items; providing support for the implementation of revised staging systems; performing data conversions; and providing access to updated supplementary coding resources such as updated and new manuals. Vendors will also need to address testing and implementation issues, as well as technical support and training. Instructions to development staff should address the additions/updates needed to registry software.

It is recommended that software vendors include new version 23 data fields in their Version 22 software for those facilities in states that are not ready to receive version 23 records early in 2023. While the fields may not have updated edit and help support, it will allow facilities that practice concurrent abstracting the ability to partially abstract 2023 cases.

10.1 Identify Software Changes

Each vendor will need to review published documentation of changes and generate appropriate specifications for their software, based on their user base (hospital or central registries; U.S. or Canadian registries), their software capabilities, and standard-setter requirements. Specifically, vendors will need to accommodate the following changes and additions documented in this guide:

Section #	Section Contents
2.1	New SSDI data items: Consider only displaying fields appropriate for the year of diagnosis. These are schema specific and should be blank for diagnosis years prior to the initial year. There are two new fields.
2.2	Two new Surgery Primary Site data items added.
2.3	Two new data items about information release added.

Section #	Section Contents
3.1	RX Summ Surg Prim Site [1290] and RX Hosp Surg Prim Site [670] names are being changed to include 03-2022.
3.2	Several Race code definitions have changed.
3.3	Several SSDIs had modifications to notes and code text. One SSDI is being added to a new schema.
3.4	Tobacco Use Smoking Status [344] code 1 definition has changed.
3.5	Versioning data items are incremented.
3.6	Text field lengths are being changed to 4000.
4	Five SEER data items are being retired. Grouped data items are being retired. The component items will be retained. Date Flags are being retired. Nothing would be transmitted for unknown or missing dates.
5.1	LN Status Femoral-Inguinal, Para-aortic, Pelvic [3884] has been removed from the staging API/DLLs.
5.2	ICD-O-3.2 changes
5.3	SEER Site/Histology Validation List
5.4	2018 Solid Tumor Rules
5.6	Reportability
5.7	Surgery codes. The new surgery codes for Skin are being implemented. These will start with B. The surgery codes for all other sites have a simple translation of the existing valid codes from the 2003-2022 fields into a new coding structure which will start with A and end with 0. This is a change to the validation lists; it does not impact existing data.
5.8	AJCC changes
5.9	EOD 2018 changes
5.10	Summary Stage 2018 changes
5.11	Hematopoietic and Lymphoid Neoplasms Manual and Database

10.2 Tracking Versions

Vendor software should store the original and current versions for any included components such as APIs or DLLs as system-generated fields (vendor-specific).

The SEER Staging APIs TNM and EOD versions are listed on the SEER*RSA website and can be acquired from the API. The AJCC Cancer Surveillance Staging DLL includes version fields for the DLL as well as for TNM and EOD. The AJCC API has a version field to designate whether the disease site is using 8th or 9th. All three Original staging API/DLL version fields should be set when the case is initially collected and not changed thereafter. All three Current staging API version fields should be set to the current version of the API/DLL in use.

NAACCR Record Version [50] will have a new value of '230' meaning '2023 Version 23'.

10.3 Data Conversion

The CDC will provide a NorthCon 230 Registry Plus Utility Program conversion utility for the conversions below and for the changes going from v22 to v23. Manual review logs will be provided where applicable. The conversions are listed in Appendix B, with a section for each one. Manual review may be necessary for one of the conversions.

The radiation fields, RX Summ--Radiation [1360], Rad Regional RX Modality [1570], which were replaced in 2018 by the Phase I, Phase II and Phase III radiation fields, will be blanked out for cases diagnosed on January 1, 2018, and later. If the radiation fields are in agreement, the conversion can be automated. If the radiation fields disagree, manual review is necessary, see section 13.1. Vendors should supply lists of patients/cancers which need to be reviewed to the registries.

There is a conversion for Schema ID and AJCC ID for some Soft Tissue – Unusual Sites and Histologies that were misclassified, see section 13.3.

There are reviews for Cervix V9 to determine if a new histology is more appropriate. Also, if p16 [3956] is blank, the case should be reviewed and p16 should be set. See section 13.4.

There are reviews for Vulva and Vagina when Histology ICD-O-3 [522] = 8070 to determine if a new histology is more appropriate, see section 13.5. And once these cases have been reviewed, there is a conversion if the Histology ICD-O-3 = 8085 or 8086, as these histologies are now AJCC eligible. A review of these will be necessary for those requiring AJCC TNM staging to set the AJCC related fields, see section 13.6.

The conversions for the Staging API/DLL Version Current fields have been added to the appendix, see section 13.2.

Vendors may also be requested to aid in the conversion of Unusual Follow Up Method or other user-defined fields that capture information release restrictions, into the new standard fields, No Patient Contact Flag and the Reporting Facility Restriction Flag (see section 2.3). As the initial fields are not standardized, no conversion logic is provided in the appendix.

Details for all these conversions are provided in Appendix B.

10.4 XML Repository and Edits Clearinghouse

Refer to section 6 for XML updates. The NAACCR User Dictionary Clearinghouse allows central registries to upload their XML User Dictionary along with the MS Excel data items workbook describing their dictionary, or their decision not to create one.

Refer to section 7 for general EDITS information. The NAACCR Standards for Cancer Registries, Standard Data Edits, Volume IV (naaccr.org) Clearinghouse will be maintained to allow central registries to post their registry specific metafile and supporting documentation. Individuals will be able to register to get notifications from specific registries each time a new file is posted.

10.5 Staging

CoC (section 8.1), NPCR (section 8.2), and SEER (section 8.3) specified that hospital facilities are not required to submit derived stage groups. CoC requires physician AJCC staging.

10.6 Programming, Testing, and Implementation

Clear communication with standard setters, central cancer registries, and reporting facility customers is critical to avoid delays in delivering software that can meet the requirements for 2023 cases. Software vendors should provide programming instructions to their developers to support the necessary changes for the Data Standards and Data Dictionary, Version 23, as well as testing (if time allows beta site testing) and implementing the items listed elsewhere in this document. Software vendors, to the best of

their ability, need to revise/develop, test, distribute, and install software prior to implementation dates set by standard setting organizations and central cancer registries.

Central cancer registries may require software vendors to submit test files prior to reporting in the Version 23 format. Testing should determine that appropriate values are validated within the software. Testing should also accommodate verification of revisions for data import and export, revisions to the software interface, addition of lookups for new and changed data items where applicable, data entry verifications internal to the software (if available within the software), data item consolidation where applicable, data item conversion where applicable, and standard as well as ad hoc report writing. Any changes to the implementation timeline should be immediately reported to all involved parties. If there are delays to the standards or errata that have not yet been identified, the software vendor programs will be at risk of delay. States must communicate individual changes to state-specific data items, as well as correction record triggering fields, early in the coding and implementation period to accommodate the software release. State-specific edit metafiles which address the state-specific data items must be provided in a timely manner.

10.7 Help Files

Changes to any software's online help system (if available) will need to be made in conjunction with Data Standards and Data Dictionary, Version 23-related changes made to the software.

10.8 Technical Support and Training

Software vendors are expected to support the data changes in the Data Standards and Data Dictionary, Version 23 in the software and provide their clients with training and documentation appropriate to use the updated software. For reporting-facility-level applications, this will include instruction regarding export of records for transmission to their respective central registries in the correct format with correctly coded and error-free data, as well as import from their previously supported casefinding interface. Documentation to support the updated software may include information presented via the software's online help system and/or training or tutorial guides. Training and support on new coding rules should be referred to the appropriate standard setting organization.

10.9 Communication with Central Cancer Registries and Hospital Registries

Software vendors should provide a timeline to the central registries, as well as their registry clients, for plans to release registry software that is able to process and export NAACCR v 23 case records in the XML format. Vendors and central registries need to communicate expectations for the delivery of state-specific changes in required data reporting including data fields, metafiles, and XML dictionaries for state-specific data items. Delays in providing state specific changes to vendors may result in delay of facility reporting capabilities. Vendors should work with central registries to accommodate test files in their state-specific export version as may be required by individual central registries. Central registries should be aware that delays in communication of this information from central registry clients to the software vendor may result in further delays in reporting 2023 cases.

11 Summary for Hospital Cancer Registrars and Reporting Facilities

11.1 Case Abstracting Considerations

Registrars should pay particular attention to the requirements of national standard setters, the state central registry to which they submit cases, and the Commission on Cancer (if applicable) for cases diagnosed January 1, 2023, and forward. Often these requirements will be similar, but occasionally data fields may be required by only one entity. Registrars should consult their reporting manuals and state central registry for instructions and updates on reportable and reportable-by-agreement cases. Hospital Registries should also be aware of any completeness and timeliness guidelines established by their state central registry.

11.2 Communication with Central Cancer Registries and Software Vendors

Several new developments for 2023 will affect cancer reporting software requirements. New edits have been developed and updates to existing edits were necessitated by changes to data item names, changes in code structure in existing data items, and changes to coding instructions for the v23 NAACCR Edits Metafile. Use the v23 Edits Detail Report and the Changes Spreadsheet located on the NAACCR Volume IV (Standard Data Edits) webpage as a resource to resolve edits.

Registrars should maintain open communications with their software vendor and state central registry to ensure their registry software is up to date with current edit files and guidelines. Dates and timelines should be communicated to all parties. Registrars should include their IT Departments in communications if needed.

11.3 Education and Training

Continuing education is necessary to maintain a high level of knowledge and skills in cancer registry practice. New data field requirements for 2023 and the implementation of these new fields will likely enhance the education and training opportunities for registrars. Registrars should register for standard setter ListServs including NAACCR and NCI SEER. NAACCR, CoC, AJCC and NCRA, as well as state and regional professional organizations, regularly post educational opportunities on their websites and notify members of upcoming events. Consider following these organizations on social media to be aware of current training opportunities. Registrars should also check with their state central registry for additional opportunities or make suggestions for needed subjects. Many organizations offer a great deal of online training.

12 Appendix A New Data Items

New Data Items for 2023					
Length	**Item #**	**Item Name**	**XML NAACCR ID**	**PARENT XML ELEMENT**	**Section**
4	671	RX Hosp--Surg Prim Site 2023	rxHospSurgPrimSite2023	T	Hospital-Specific
4	1291	RX Summ--Surg Prim Site 2023	rxSummSurgPrimSite2023	T	Treatment-1st Course
1	1854	No Patient Contact Flag	noPatientContactFlag	P	Follow-up/ Recurrence/Death
2	1856	Reporting Facility Restriction Flag	reportingFacilityRestrictionFlag	T	Follow-up/ Recurrence/Death
1	3960	Histologic Subtype	histologicSubtype	T	Stage/Prognostic Factors
4	3961	Clinical Margin Width	clinicalMarginWidth	T	Stage/Prognostic Factors

13 Appendix B Conversions, Recalculations and Manual Review Logs

13.1 Rad Regional RX Modality [1570] and RX Summ--Radiation [1360]

The older radiation fields are not collected for newer cancers as they have been replaced by the Phase I, II and III fields. Automated changes are only made if all three radiation fields, RX Summ--Radiation [1360], Rad Regional RX Modality [1570], and Phase I Radiation Treatment Modality [1506], are in agreement (all indicate treatment, no treatment, or unknown). Manual review will be necessary if existing values are in conflict (see below).

If Date of Diagnosis on or after January 1, 2018 and RX-Summ--Radiation [1360] is not blank OR Rad Regional RX Modality [1570] is not blank:

If RX Summ--Radiation = 0, 7 (no radiation) or blank and Rad Regional RX Modality = 00 or blank and Phase I Radiation Treatment Modality = 00
Set RX Summ--Radiation to blank
Set Rad Regional RX Modality to blank

Else if RX Summ--Radiation = 1-4 (radiation modalities) or blank and Rad--Regional RX Modality = 20-62 (radiation modalities) or blank and Phase I Radiation Treatment Modality = 01-16 (radiation modalities)
Set RX Summ--Radiation to blank
Set Rad Regional RX Modality to blank

Else if RX Summ--Radiation = 5 (radiation NOS) or blank and Rad--Regional RX Modality = 98 (other NOS) or blank and Phase I Radiation Treatment Modality = 98 (modality unknown)
Set RX Summ--Radiation to blank
Set Rad Regional RX Modality to blank

Else if RX Summ--Radiation = 9 (unknown if radiation administered) or blank and Rad--Regional RX Modality = 99 (unknown) or blank and Phase I Radiation Treatment Modality = 99 (unknown)
Set RX Summ--Radiation to blank
Set Rad Regional RX Modality to blank

Manual review is necessary for all other combinations, which represent inconsistencies among radiation data items, to determine if radiation was received. After the above conversions, registries are to review all remaining cases diagnosed on or after January 1, 2018, where RX Summ--Radiation or Rad Regional RX Modality are not blank. After the review, Phase I Radiation Treatment Modality should reflect the most accurate information about radiation and RX Summ--Radiation and Rad Regional RX Modality should be set to blank.

13.2 Staging API/DLL Version Current fields

The Version Current for the staging API/DLLs in use must be updated to the latest version as part of the NAACCR 23 updates. No manual review is necessary.

For Date of Diagnosis on or after January 1, 2018
If Schema ID Version Current [2117] is not blank, set to v3.0
If AJCC API Version Current [2156] is not blank, set to 09.01.00
If AJCC Cancer Surveillance DLL Version Current [2158] is not blank, set to 09.01.00.0001

13.3 Schema ID [3800] = 00450 (Soft Tissue Rare), 00459 (Soft Tissue Other) and AJCC ID [995]

For the NAACCR 2022 Implementation Guide, section 13.3, Schema ID = 00450 was split into two schemas based on AJCC ID [995]. Due to a misclassification of some site and histologies combinations, some cases were inappropriately converted to have Schema ID = 00459 and AJCC ID = XX. This conversion will correct this situation.

For Date of Diagnosis on or after January 1, 2018, for the Primary Site [400] and Histology ICD-O-3 [522] combinations in the table,

Set Schema ID [3800] = 00450
Set AJCC ID [995] = 45

Primary Site [400]	Histology ICD-O-3 [522]
C000-C148, C150, C153, C158, C300-C329, C470, C490, C739, C750, C754-C759	8804-8806, 8910, 8920, 8930-8931, 8991, 9020, 9044, 9120, 9231, 9581
C151-C152, C154-C155, C159, C160-C269, C339-C388, C471-C472, C474, C476-C479, C491-C492, C496-C499, C500-C509, C529, C589-C689	8804-8806, 8930-8931, 8991, 9020, 9044, 9231, 9581

This issue was corrected in the 2022 API/DLLs so cases created in v22 after these were implemented would already be correct. Only Schema ID [3800] and AJCC ID [995] are impacted and no other data items need to be changed. No manual review is necessary.

13.4 AJCC Version 9 Cervix Uteri Histologies

The following histology terms and codes were used by pathologists in 2021 in the CAP Protocol, but registrars did not have access to these codes. Cervix (C530 – C539) cases diagnosed in 2021 should be flagged for review to identify when the pathology report used the following histologies so they can be recoded.

Recommend manual review for all cases where AJCC ID [995] = 52 (Cervix Uteri), all Histology ICD-O-3 [522] codes and Date of Diagnosis [390] on or after January 1, 2021. Review all cases to see if they should have been more appropriately coded to one of the following histologies:

8085 Squamous cell carcinoma, HPV-associated
8086 Squamous cell carcinoma, HPV-independent
8483 Adenocarcinoma, HPV-associated
8484 Adenocarcinoma, HPV-independent, NOS
8482 Adenocarcinoma, HPV-independent, gastric type
8310 Adenocarcinoma, HPV-independent, clear cell type
9110 Adenocarcinoma, HPV-independent, mesonephric type

As these are being reviewed, if p16 [3956] is blank, the text should also be reviewed and p16 must be set.

13.5 AJCC 8th Edition Vulva and Vagina Histologies

Similar to 13.4 above, registrars did not have access to two codes being used by pathologists in 2022.

Recommend manual review for all cases where Primary Site [400] = C510-C529 and Histology ICD-O-3 [522] = 8070 and Date of Diagnosis Year [390] on or after January 1, 2022. Review all cases to see if they should have been more appropriately coded to one of the following histologies:

8085 Squamous cell carcinoma, HPV-associated
8086 Squamous cell carcinoma, HPV-independent

13.6 AJCC 8th Edition Vulva and Vagina Histology and AJCC ID

The two histologies from Section 13.5 (8085 and 8086) are eligible for AJCC staging. Therefore, after the review from that section is completed, any cases with those histologies will need to be converted to adjust the AJCC fields.

If Primary Site [400] = C510-C519 and Histology ICD-O-3 [522] = 8085-8086, Date of Diagnosis Year [390] on or after January 1, 2022, and AJCC ID [995] = XX

- Change AJCC ID [995] to 50
- If TNM Edition Number [1060] is blank or 00 (indicating that TNM is NOT coded in the record), no additional changes are necessary.
- If TNM Edition Number [1060] is any value other than 00 TNM Edition Number will be changed to 08
    - All the AJCC TNM fields should be set as described below
        - Set AJCC TNM Clin T [1001] = blank
        - Set AJCC TNM Clin N [1002] = blank
        - Set AJCC TNM Clin M [1003] = blank
        - Set AJCC TNM Clin Stage Group [1004] = 99
        - Set AJCC TNM Path T [1011] = blank
        - Set AJCC TNM Path N [1012] = blank
        - Set AJCC TNM Path M [1013] = blank
        - Set AJCC TNM Path Stage Group [1014] = 99
- Because the AJCC ID changed, a manual review is necessary.

If Primary Site [400] = C529 and Histology ICD-O-3 [522] = 8085-8086 and Date of Diagnosis [390] on or after January 1, 2022, and AJCC ID [995] = XX

- Change AJCC ID [995] to 51
- If TNM Edition Number [1060] is blank or 00 (indicating that TNM is NOT coded in the record), no additional changes are necessary.
- If TNM Edition Number [1060] is any value other than 00 TNM Edition Number will be changed to 08
    - All the AJCC TNM fields should be set as described below
        - Set AJCC TNM Clin T [1001] = blank
        - Set AJCC TNM Clin N [1002] = blank
        - Set AJCC TNM Clin M [1003] = blank
        - Set AJCC TNM Clin Stage Group [1004] = 99

        - Set AJCC TNM Path T [1011] = blank
        - Set AJCC TNM Path N [1012] = blank
        - Set AJCC TNM Path M [1013] = blank
        - Set AJCC TNM Path Stage Group [1014] = 99
- Because the AJCC ID changed, a manual review is necessary.

14 Appendix E 2023 Source References

2023 SEER Program Manual: https://seer.cancer.gov/tools/codingmanuals/

> Questions regarding the SEER Program Coding and Staging Manual 2023 should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

AJCC 8th Edition and Version 9 Updates and Histologies: https://www.facs.org/quality-programs/cancer-programs/american-joint-committee-on-cancer/

> Questions regarding AJCC Cancer Staging should be directed to the CAnswer Forum at: http://cancerbulletin.facs.org/forums/

AJCC API: https://cancerstaging.org/Pages/Vendors.aspx

AJCC Cancer Staging Form Supplement: https://www.facs.org/quality-programs/cancer-programs/american-joint-committee-on-cancer/cancer-staging-systems/cancer-staging-form-supplement/

Cancer Surveillance DLL: AJCC licensees can request the licensed version of the library from Martin Madera, mmadera@facs.org. The version for unlicensed users will be available from the AJCC website, please contact Martin Madera (mmadera@facs.org) for access.

CAnswer Forum: http://cancerbulletin.facs.org/forums/help

Commission on Cancer STORE Manual: https://www.facs.org/quality-programs/cancer/ncdb/call-for-data/cocmanuals

Data Exchange Standard, XML Specifications for Cancer Registry Records: https://www.naaccr.org/xml-data-exchange-standard/

Data Standards and Data Dictionary (Volume II): https://www.naaccr.org/data-standards-data-dictionary/

EDITS: https://www.naaccr.org/standard-data-edits/

> Questions regarding the NAACCR edits metafile should be directed to Jim Hofferkamp at jhofferkamp@naaccr.org.

EOD 2018: https://seer.cancer.gov/tools/staging/rsa.html

> Questions regarding EOD 2018 should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Grade Manual: https://www.naaccr.org/wp-content/uploads/2021/03/Grade-Manual_v-2.01.pdf?v=1639490886

> Questions regarding the Grade Manual should be directed to the CAnswer Forum at: http://cancerbulletin.facs.org/forums/

Hematopoietic and Lymphoid Neoplasm Database: https://seer.cancer.gov/tools/heme/

Questions regarding the SEER Hematopoietic and Lymphoid Neoplasm Database should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

ICD-O-3.2: http://www.iacr.com.fr/index.php?option=com_content&view=article&id=149:icd-o-3-2&catid=80:newsflashes&Itemid=545

Questions regarding ICD-O-3 Histology changes should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

ICD-O-3 SEER Site/Histology Validation List: https://seer.cancer.gov/icd-o-3/

Questions regarding the SEER Site/Histology Validation List should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

NPCR Northcon 230 Registry Plus Utility Program:

https://www.cdc.gov/cancer/npcr/tools/registryplus/up.htm

NPCR Registry Plus Software: https://www.cdc.gov/cancer/npcr/tools/registryplus/index.htm

Radiation Conversion Specifications: https://www.naaccr.org/data-standards-data-dictionary/

SEER API: https://api.seer.cancer.gov/

SEER Registrar Staging Assistant (SEER*RSA): https://seer.cancer.gov/tools/staging/rsa.html

Questions regarding SEER*RSA should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

SEER*Rx: https://seer.cancer.gov/tools/seerrx/

Questions regarding SEER*Rx should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Site-Specific Data Items Manual: https://www.naaccr.org/SSDI/SSDI-Manual.pdf

Questions regarding SSDIs should be directed to the CAnswer Forum at: http://cancerbulletin.facs.org/forums/

Solid Tumor Rules: https://seer.cancer.gov/tools/solidtumor/

Questions regarding the Solid Tumor Rules should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

Summary Stage 2018: https://seer.cancer.gov/tools/ssm/

Questions regarding Summary Stage 2018 should be directed to Ask a SEER Registrar at: https://seer.cancer.gov/registrars/contact.html

15 Appendix F Revision Control

2023 Implementation Guidelines Revision Control			
Version Number	**Revision Date**	**Section**	**Revision Notes**