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

2015 Implementation Guidelines and Recommendations

(For NAACCR Standards Volume II, Data Standards and Data Dictionary, Version 15, effective with cases diagnosed on or after January 1, 2015)

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Table of Contents

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1 INTRODUCTION

The North American Association of Central Cancer Registries, Inc. (NAACCR), has been working with the American College of Surgeons' (ACoS) Commission on Cancer (CoC), National Cancer Institute's (NCI) Surveillance Epidemiology and End Results (SEER) Program, Centers for Disease Control and Prevention's (CDC) National Program of Cancer Registries (NPCR), Canadian Council of Cancer Registries (CCCR), 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 15* (Standards Volume II, Version 15). The 2015 data standards have been developed in response to requested revisions from a broad set of constituents. Data transmission standards should be consistently maintained among all hospital and central cancer registries and should be implemented in a planned and timely manner. Changes to the set of standards have potential consequences, and implementation must be evaluated by each program, central cancer registry, software vendor, and reporting facility during the planning process. Delays in implementation may result in inconsistent data collection.

Effective with Standards Volume II, Version 15, there are seven new survival-related data items, additional codes for four data items, and conversions for ~~two~~ country code values and for glucagonomas. There are multiple conversions of site, histology, and a few Collaborative Stage data items (necessitating re-derivation) for some hematopoietic malignancies, whose histology code conversions will be retroactive to 2010 diagnoses. There are also sixteen terms that are new to ICD-O-3, ten of which are reportable, based on standard reportability criteria with the following proviso: for Standards Volume II, Version 15 they must be coded using other, older codes that are recognized by the Collaborative Stage (CS) algorithm. Although neither the CoC nor the CCCR has made any changes to their reporting requirements for 2015, both NCI SEER and CDC NPCR have made changes. Edits will be written and/or modified to account for the coding and requirement changes and data conversions. Standard setters, central registries, and vendors will have to incorporate the information in this document in educational information and software updates for their respective stakeholders.

2 NEW DATA ITEMS

There are seven new data items in Standards Volume II, Version 15 (effective January 1, 2015).

2.1 Survival Data Items

Seven new data items are being added, which are designed to facilitate a common approach to survival analysis by NAACCR registries. The algorithms that calculate the survival times are available from standard setters or from NAACCR (in the NAACCR Prep application). The two items, Surv-Date Active Followup [1782] and Surv-Date Presumed Alive [1785], must be provided for the computations to succeed. The other five new survival data items are derived by the algorithm. Surv-Date Active Followup [1782] is defined as the earlier of the Date of Last Contact [1750] and the study cutoff date. The study cut-off date is a pre-determined date based on the year of data submission. Surv-Date Presumed Alive [1785] is the last date for which complete death ascertainment is available from the registry at the time a file is transmitted.

Standards Volume II, Version 15
New Survival Data Items

Data Item Name	Item #	Column	Source of Standard
Surv-Date Active Followup	1782	2292-2299	NAACCR
Surv-Flag Active Followup	1783	2300-2300	NAACCR
Surv-Mos Active Followup	1784	2301-2304	NAACCR
Surv-Date Presumed Alive	1785	2305-2312	NAACCR
Surv-Flag Presumed Alive	1786	2313-2313	NAACCR
Surv-Mos Presumed Alive	1787	2314-2317	NAACCR
Surv-Date DX Recode	1788	2318-2325	NAACCR

3 CHANGED DATA ITEMS

The following data items are changing in Standards Volume II, Version 15.

3.1 Sex [220]

Updated code 4 to Transsexual, NOS
Added code 5 Transsexual, natal male
Added code 6 Transsexual, natal female

3.2 RX Date Other Flag [1251]

Added code 15 Other Therapy is planned as part of the first course of therapy, but had not been started at the time of the most recent follow-up.

3.3 Over-ride Site/TNM-StgGrp [1989]

The description of this item was updated in Standards Volume II, Version 15 for usage changes that initially applied in 2010, but were not mentioned in earlier Standards Volume II editions. This over-ride flag is used for diagnoses among patients under age 25, whose stage will not be coded using AJCC stage groups. Specifically, the override is now used by 4 edits:

Primary Site, AJCC Stage Group – Ed 6 (NAACCR)
Primary Site, AJCC Stage Group – Ed 6 (CoC)
Primary Site, AJCC Stage Group – Ed 7 (CoC)
Primary Site, AJCC Stage Group – Ed 7 (NPCR)

3.4 SEER Coding Sys--Current [2120] and SEER Coding Sys--Original [2130]

Added code F 2015 SEER Coding Manual.

3.5 Country Codes: [102], [254], [1832], [1847], [1944]

The allowable values for Country data items have been modified. XYG must be converted to YUG, and XCZ must be converted to CSK. Prior to Standards Volume II, Version 15, Yugoslavia and Czechoslovakia were only supposed to be used as historic codes, and only used for Birthplace--Country [254]. This restriction has caused problems, so a decision was made to allow Yugoslavia and Czechoslovakia to be used for any of the country data items, and to replace the two historic-use-only ('X') codes with the ISO codes that refer to these former countries. Additionally, errors have been identified in the codes for Brunei, Slovakia and Vanuatu. The corrections for these countries are included in the table below, along with the changes for Czechoslovakia and Yugoslavia. The new country code, MAF is now allowable for Saint-Martin (French part).

Standards Volume II, Version 15 Revised Country Data Items			
Item #	**Data Item Name**	**Old Code**	**New Code**
102	Addr at DX--Country	XYG	YUG
102	Addr at DX--Country	XCZ	CSK
102	Addr at DX--Country	BND	BRN
102	Addr at DX-Country	SWK	SVK
102	Addr at DX-Country	VLT	VUT
254	Birthplace--Country	XYG	YUG
254	Birthplace--Country	XCZ	CSK
254	Birthplace--Country	BND	BRN
254	Birthplace--Country	SWK	SVK
254	Birthplace--Country	VLT	VUT
1832	Addr Current--Country	XYG	YUG
1832	Addr Current--Country	XCZ	CSK
1832	Addr Current--Country	BND	BRN
1832	Addr Current--Country	SWK	SVK
1832	Addr Current--Country	VLT	VUT
1847	FollowUp Contact--Country	XYG	YUG
1847	FollowUp Contact--Country	XCZ	CSK
1847	FollowUp Contact--Country	BND	BRN
1847	FollowUp Contact--Country	SWK	SVK
1847	FollowUp Contact--Country	VLT	VUT
1944	Place of Death--Country	XYG	YUG
1944	Place of Death--Country	XCZ	CSK
1944	Place of Death--Country	BND	BRN
1944	Place of Death--Country	SWK	SVK
1944	Place of Death--Country	VLT	VUT

3.6 NAACCR Record Version [50]

Added code 150 2015 Version 15

4 Other Changes

4.1 Hematopoietic Conversion/Edits

An updated version of the Hematopoietic & Lymphoid (Heme) Database will be released by NCI SEER in January 2015. At the time of the release, a document will be posted that details all the changes. For 2015, there are no changes to either the multiple primary (M) rules or the primary and histology (PH) rules. Registrars are to use the current manual and database, released in January 2014, until the new version is posted.

There are 24 histologies that are designated as obsolete [OBS] in the Heme Database and Manual. For 2010-2013, these histologies were still allowed for cases where there was limited information or a DCO. This instruction caused great confusion for some registries. Other registries restricted the use of these [OBS] codes for their state/province starting in 2010. NCI SEER decided to make these histology codes obsolete as of January 1, 2010 for all registries. During the review process, NCI SEER decided to develop a conversion document for the Heme data items that could be converted, and have it applied to all registries (hospital and central) consistently. The conversions will apply to ~~the following three data items~~histology, primary site, and grade, making data consistent across all registries without requiring extensive review by the registrar~~: Histology, Primary Site and Grade~~. The conversions are based on the rules in the database and manual. Changes to primary site and histology may also impact other fields and these fields, where known, are also converted. Changes to primary site and histology may also impact local site and histology recodes used for

analyses. These changes have not been documented. Refer to Appendix B for specifics. NCI SEER has also reviewed the edits for all Heme related data items, suggesting revisions where indicated based on the updates. These changes will be incorporated in the v15 metafile.

The Hematopoietic & Lymphoid Database will continue to be available in two formats: a web-based tool and stand-alone software. Vendors may want to consider inclusion of a link to the web-based format from within their software as updates are automatic: users do not have to install anything to access the latest revisions, and this option eliminates problems for users who do not have permission to install software on their work computers. However, vendors should give consideration to the fact that users may need the stand-alone software because they may not have access to the Internet.

4.2 ICD-O-3 Updates

4.2.1 Excerpt from the Guidelines for ICD-O-3 Update Implementation (December 2013)

The following are excerpts from the NAACCR Guidelines for ICD-O-3 Update Implementation (December 2013). The complete document can be found on the NAACCR web site: Guidelines for ICD-O-3 Update Implementation

Reportability and Recode Changes Effective in 2015

Reportability and Behavior Change

~~Effective with 2015, code 8240/1 for Carcinoid tumor, NOS, of appendix (C18.1) becomes obsolete.~~ Carcinoid tumor, NOS, of the appendix (C18.1) must be coded to 8240/3, effective with 2015. This is reportable and must be coded with a behavior 3. ~~If a registry has records coded 8240/1 with site C18.1, the morphology code will be changed to 8240/3.~~ This change was made effective in Canada in 2012. There is no conversion or recoding required of cases diagnosed prior to 2015 coded to C18.1 with a morphology code of 8240/1, if these tumors were reportable by agreement for local or central registries.

Recode Changes

~~Additionally, t~~Two pancreatic tumors, uncertain behavior and malignant enteroglucagonomas (8157/1 and 8157/3) must be recoded as uncertain behavior and malignant glucagonomas (8152/1 and 8152/3, respectively), effective for 2015 diagnoses. Code 8157 is obsolete effective in 2015.

Subsequent to the conversion of these pancreatic histology codes, all cases meeting the criteria described above will use the new codes, regardless of diagnosis year and the old codes become obsolete effective in 2015.

Term	Pre-2015 Codes (obsolete in 2015)	2015 and later Codes
~~Carcinoid tumor, NOS, of appendix~~	~~C18.1, 8240/1~~	~~C18.1, 8240/3~~
Enteroglucagonoma, NOS	8157/1	8152/1
Enteroglucagonoma, malignant	8157/3	8152/3

NOTE: It is important to understand that cancer registry reportability rules based on behavior code still apply. With the exception of primary intracranial and central nervous system benign and borderline tumors, the addition of a /0 or /1 coded term to ICD-O-3 does not imply that it is now reportable.

Many of the new codes cannot be used for 2015 diagnoses because they are not included among the acceptable histologies for the Collaborative Stage algorithms. If these new codes were used, schema could not be determined and stage could not be derived. See Appendix A for the ICD-O-3 Histology Code Crosswalk, which provides the codes that should be used Effective in 2015.

Remaining Issues
The review of other terms that were included in the WHO Updates List has not been completed. While the WHO "Blue Books" reflect current thinking and current terminology among pathologists and specialists, reportability to population-based cancer registries is not clear in many instances.

NAACCR is taking a close look at some of the terms and the potential challenges in implementing them as reportable neoplasms in the United States. Most of the problematic terms include the words "high grade neoplasia" or "high grade dysplasia" or "severe dysplasia" in digestive system sites and breast. These dysplasia terms are not included in most states' reporting legislation. In Canada, beginning with cases diagnosed on or after January 1, 2012 it was recommended that all provincial/territorial cancer registries begin collecting "high grade dysplasia" of the digestive system according to the WHO Classification of Tumors of the Digestive System, 4th Edition.

In addition, other issues regarding morphology coding have been identified. These issues were not within the original scope of the Work Group but should be addressed soon.

The WHO Classifications of Soft Tissue and Bone, Breast, and Female Genital Organs have been published since 2011. These pathology references include more new terms and codes but they have not been organized into updated lists for future adoption. More updated volumes of WHO Classification are planned, and WHO is planning further update lists as new editions of the classifications are published.

Although the new edition of the Lung WHO Classification is not expected until 2015, updated terms for bronchioloalveolar carcinoma – including changes in behavior codes – are already in use by pathologists around the United States and Canada.

Reportability guidelines for GIST tumors have been partially addressed in a sentence added to FORDS 2013 and the SEER 2013 Coding Manual, which indicate that GIST tumors and thymomas are reportable when there is evidence of multiple foci, lymph node involvement, or metastasis.

An online version of ICD-O-3 is available on the International Agency for Research on Cancer website: http://codes.iarc.fr/

This useful online tool should be used with the following important notes:

- For solid tumors, only use the original publication, ICD-O-3 (2000). Do not use the ICD-0-3.1 (2011) codes, as the new codes have not been approved for implementation in the United States and/or Canada.
- For non-solid tumors, use the histology rules in the Hematopoietic and Lymphoid Database.
- Refer to the NAACCR Guidelines for ICD-O-3 Update Implementation for the list of ICD-O-3 code changes effective 1/1/2015: Guidelines for ICD-O-3 Update Implementation
- Use the histology rules in the MP/H manual for solid tumors.

4.3 Prostate Grade Conversion

Coding instructions for Grade [440] were modified for cases diagnosed in 2014 and later. Under those instructions, and according to an edit added to the v15 metafile, the Grade code for prostate cancers should be consistent with the codes for Gleason score as coded in CS Site-Specific Factors 8 and 10. A conversion has been implemented to save registries the task of correcting grade errors manually. Table 2 shows the conditions being converted.

NOTE: **The conversion for prostate grade applies only to cases meeting the CS schema definition of Prostate and diagnosed in 2014 and later. If year of date of diagnosis is blank (unknown) the prostate grade conversion will not be performed in Northcon.**

Table 2. Prostate Grade Conversion			
Current Grade Code	SSF8 Code	SSF10 Code	Convert Grade to
Not 1	002-006	002-006, 998, 999	1
Not 1	998, 999	002-006	1
Not 2	002-006	007	2
Not 2	007	002-007, 998, 999	2
Not 2	998, 999	007	2
Not 3	002-006	008-010	3
Not 3	007	008-010	3
Not 3	008-010	002-010, 998, 999	3
Not 3	998, 999	008-010	3

4.4 SEER Reportability Clarifications

Reportable

1. Report solid pseudopapillary neoplasm of the pancreas and code the histology/behavior as 8452/3.
2. Report cystic pancreatic endocrine neoplasm (CPEN). Assign 8150/3 unless specified as a neuroendocrine tumor, Grade 1 (8240/3) or neuroendocrine tumor, Grade 2 (8249/3).
3. Report non-invasive mucinous cystic neoplasm (MCN) of the pancreas with high-grade dysplasia. For neoplasms of the pancreas, the term MCN with high-grade dysplasia replaces the term mucinous cystadenocarcinoma, non-invasive.
4. Report mature teratoma of the testes in adults as malignant, 9080/3. Report mature teratoma of the testis when diagnosed post puberty (malignant). Pubescence can take place over a number of years; review physical history and do not rely only on age.
5. Report LIN III (laryngeal intraepithelial neoplasia) (C320 - C329). LIN III is a specific instance of intraepithelial neoplasia, grade III which is listed in ICD-O-3 as /2.
6. Report SIN III (squamous intraepithelial neoplasia excluding cervix). SIN III is a specific instance of intraepithelial neoplasia, grade III which is listed in ICD-O-3 as /2.

Not reportable

1. Do not report noninvasive mucinous cystic neoplasm (MCN) of the pancreas with low or intermediate grade dysplasia.
2. Do not report mature teratoma of the testis when diagnosed before puberty (benign, 9080/0). Pubescence can take place over a number of years; review history and physical information and do not rely only on age. Do not report mature teratoma when it is not known whether the patient is pre- or post-pubescent.
3. Do not report mature ovarian teratoma. It is benign (9080/0).
4. Do not report SIN III of the cervix.
5. Do not report low-grade appendiceal mucinous neoplasm (LAMN). The WHO classification designates LAMN as /1 with uncertain malignant potential.

5 EDITS

The Standards Volume II, Version 15 metafile includes new edits for the new and modified data items as specified in Standards Volume II, Version 15. The edits and edit sets are consistent with the reporting requirements as specified in this document by CoC, NPCR, SEER, and CCCR.

The new metafile can be downloaded from the NAACCR Web site: http://www.naaccr.org/StandardsandRegistryOperations/VolumeIV.aspx. As additional changes are made to the metafile, NAACCR Listserv messages will be sent out to the cancer registry community.

6 STANDARD SETTERS REPORTING REQUIREMENTS FOR 2015

6.1 CoC Reporting Requirements for 2015

For submissions to the National Cancer Data Base (NCDB) and the Rapid Quality Reporting System (RQRS) made during 2015, data may be sent either in NAACCR record layout 14.0 or 15.0, consistent with the code usage for the respective layout. NAACCR record layout 13.0 will no longer be accepted.

There are no changes in the data items required to be abstracted by the Commission on Cancer (CoC) in 2015. The new items defined for computing survival (see section 2.1) are not required by CoC. The CoC encourages programs to upgrade to version 15.0 as early in 2015 as possible.

Two items have expanded coding options in 2015, Sex [220] and RX Date Other Flag [1251] (see section 3.1 and section 3.2).

- Existing cases from any diagnosis year that are currently coded Sex = 4 (Transsexual, NOS) may be recoded to 5 (Transsexual, natal male) or 6 (Transsexual, natal female) as appropriate, if desired after the upgrade. Transsexual cases diagnosed in 2015 and forward should be coded 5 or 6, unless the patient record does not provide that specificity.

- Version 15.0 now also includes the option of code 15 (Other Therapy is planned as part of the first course of therapy) for RX Date Other Flag [1251]. That value may be applied to pre-2015 diagnoses, if applicable.

The upgrade to version 15.0 includes the conversions required for hematopoietic and lymphatic cancers, changes in country codes (section 3.5), and ICD-O-3 changes. Submissions to NCDB or RQRS in version 15.0 will be expected to have these automated conversions in place. Section 8 describes the implementation requirements for software providers.

6.2 CDC NPCR Reporting Requirements for 2015

All 2015 changes to the Required Status Table are related to the stage transition from CS to directly assigned SEER Summary Stage 2000 and directly assigned AJCC TNM Clinical and Pathologic Stage. In addition to the staging data items, CDC NPCR has determined that it is necessary for NPCR funded registries to capture all modes of treatment and their associated dates for all cancers, not just breast, colon, and rectum (as was specified in the 2012 CDC NPCR Data Collection Requirements). Treatment dates are important for evaluating clinical versus pathologic AJCC stage.

During 2015, grantees should focus on building capacity for central cancer registries and reporting facilities to implement directly assigned AJCC TNM Staging. Capacity building includes developing data processing procedures, performing basic QA, evaluating completeness, and assessing readiness for full implementation in 2016. Because 2015 is a transition year for staging, a new symbol "RN" is being used in the Required Status Table, indicating that the requirements should be implemented according to the NPCR stage transition plan. The stage collection requirements for 2015 are as follows:

1. Collaborative Stage, Version 02.05 – Remains in use as primary staging system for all cancers

2. Directly assigned SEER Summary Stage 2000 - required from all facilities

3. Directly assigned AJCC TNM (clinical and pathologic)

a. Required from CoC-accredited hospitals
b. As available from non-CoC facilities and small providers

Specific changes to the 2015 Required Status Table include the following:

CDC NPCR 2015 Required Status Table Changes				
Item#	**Data Item Name**	**Required Status**	**Change(s)**	**Rationale**
759	SEER Summary Stage 2000	R	From R+ to R	Directly assigned and required from all facilities
880-920 940-980 1060	TNM Path T, N, and M; Path Stage Group; and Path Descriptor TNM Clin T, N, and M; Clin Stage Group; and Clin Descriptor TNM Edition Number	RN	Newly Required	Directly assigned and required from all CoC-accredited hospitals; "Required, When Available" from all other facilities
1210	RX Date Radiation	R	From RS to R	Evaluate clinical vs. pathologic stage
1211	RX Date Radiation Flag	R	From RS to R	Evaluate clinical vs. pathologic stage
1220	RX Date Chemo	R	From RS to R	Evaluate clinical vs. pathologic stage
1221	RX Date Chemo Flag	R	From RS to R	Evaluate clinical vs. pathologic stage
1230	RX Date Hormone	R	From RS to R	Evaluate clinical vs. pathologic stage
1231	RX Date Hormone Flag	R	From RS to R	Evaluate clinical vs. pathologic stage
1240	RX Date BRM	R	From RS to R	Evaluate clinical vs. pathologic stage
1241	RX Date BRM Flag	R	From RS to R	Evaluate clinical vs. pathologic stage
1250	RX Date Other	R	From RS to R	Evaluate clinical vs. pathologic stage
1251	RX Date Other Flag	R	From RS to R	Evaluate clinical vs. pathologic stage
1285	RX Summ--Treatment Status	R#	From RS to R#	Identifies whether any treatment was given
1380	RX Summ--Surg/Rad Seq	RN	From RS to R	Required from all CoC-accredited hospitals **for all cases;** "Required, When Available" from all other facilities.
1390	RX Summ--Chemo	R	From RS to R	Treatment associated with dates
1400	RX Summ--Hormone	R	From RS to R	Treatment associated with dates
1410	RX Summ--BRM	R	From RS to R	Treatment associated with dates
1420	RX Summ--Other	R	From RS to R	Treatment associated with dates
1430	Reason for No Radiation	R	From RS to R	Treatment associated with dates

CDC NPCR 2015 Required Status Table Changes				
Item#	**Data Item Name**	**Required Status**	**Change(s)**	**Rationale**
1570	Rad--Regional RX Modality	R	From RS to R	Treatment associated with dates
1639	RX Summ--Systemic/Sur Seq	RN	From RS to R	Required from all CoC-accredited hospitals **for all cases**; "Required, When Available" from all other facilities.
1989	Over-ride Site/TNM-StgGrp	R	Newly Required	This will allow central registries to receive edit overrides that may be set in the hospital and help resolve edits.
3170	RX Date Mst Defn Srg	R	Newly Required	Evaluate clinical vs. pathologic stage
3171	RX Date Mst Deft Srg Flag	R	Newly Required	Evaluate clinical vs. pathologic stage
3250	RX Summ--Transplnt/Endocr	R	RS to R	Treatment associated with dates

6.2.1 Collaborative Stage Data Collection System

The use of the Collaborative Stage Data Collection System (CSv0205) will continue as the primary staging method for cases diagnosed beginning January 1, 2015. CDC requires the collection of CSv2 data items needed to derive SEER Summary Stage (SSF1 for Lung, Pleura, and Retinoblastoma; SSF2 for CorpusAdenosarcoma, CorpusCarcinoma, and CorpusSarcoma; and, SSF3 for Prostate). It also requires prognostic SSFs (SSF1, SSF2, SSF8, SSF9, SSF11, and SSF13 – SSF16 for Breast and SSF1 for Brain/CNS/Intracranial), and the schema discriminator (SSF 25) for applicable sites. CDC NPCR requires, as available, the collection of CSv2 data items needed to derive AJCC TNM 7th Edition Stage.

Beginning with cases diagnosed January 1, 2016, CS will no longer be used as the primary stage data collection system for new cases. All new cases will be staged using directly assigned SEER Summary Stage 2000 and/or AJCC TNM, 7th Edition. It is important to note, however, that the CS Transition Group agreed to continue collecting Site Specific Factors using the current NAACCR data layout and definitions at least through 2016. This approach will continue to use the programming and logic structure established in Collaborative Stage to collect those variables.

6.3 NCI SEER Reporting Requirements for 2015

All 2015 changes to the Required Status Table are related to the stage transition from CS to directly assigned AJCC TNM Clinical and Pathologic Stage. In addition to the staging data items, SEER has determined that it is necessary for registries to capture treatment-associated dates for all cancers. Treatment dates are important for evaluating clinical versus pathologic AJCC stage (determining neoadjuvant therapy).

SEER's stage collection requirements for 2015 are as follows:

1. CS Version 02.05 – Remains in use as primary staging system for all cancers
2. Directly assigned AJCC TNM (clinical and pathologic)
    a. Required from CoC-accredited hospitals when available

Specific changes to the 2015 Required Status Table include the following:

NCI SEER 2015 Required Status Table Changes				
Item #	**Data Item Name**	**Required Status**	**Change(s)**	**Rationale**
880-930 940-990 1060	TNM Path T, N, M; Path Stage Group; Path Descriptor and Path Staged By TNM Clin T, N, M; Clin Stage Group; Clin Descriptor and Clin Staged By TNM Edition Number	RC	Newly required	Directly assigned from CoC hospitals (when available)
1200	RX Date Surgery	RC	Newly required	Evaluate clinical vs. pathologic stage
1201	RX Date Surgery Flag	RC	Newly required	Evaluate clinical vs. pathologic stage
1210	RX Date Radiation	RC	Newly required	Evaluate clinical vs. pathologic stage
1211	RX Date Radiation Flag	RC	Newly required	Evaluate clinical vs. pathologic stage
1220	RX Date Chemo	RC	Newly required	Evaluate clinical vs. pathologic stage
1221	RX Date Chemo Flag	RC	Newly required	Evaluate clinical vs. pathologic stage
1230	RX Date Hormone	RC	Newly required	Evaluate clinical vs. pathologic stage
1231	RX Date Hormone Flag	RC	Newly required	Evaluate clinical vs. pathologic stage
1240	RX Date BRM	RC	Newly required	Evaluate clinical vs. pathologic stage
1241	RX Date BRM Flag	RC	Newly required	Evaluate clinical vs. pathologic stage
1250	RX Date Other	RC	Newly required	Evaluate clinical vs. pathologic stage
1251	RX Date Other Flag	RC	Newly required	Evaluate clinical vs. pathologic stage

The CS Transition Group agreed to continue collecting Site Specific Factors using the current NAACCR data layout and definitions at least through 2016. This approach will continue to use the programming and logic structure established in CS to collect those variables.

6.4 CCCR Reporting Requirements for 2015

Beginning with cases diagnosed on or after January 1, 2015, the Canadian Council of Cancer Registries (CCCR) will implement the data collection, and submission requirements as published in the Standards Volume II, Version 15, Chapter VIII, Required Status Table CCCR column as updated in this document. The Canadian registries will not be implementing the new Survival data items [1782-1788] or the new codes for Sex [220] or for the RX Date Other Flag [1251] for 2015 diagnoses.

Canada will continue to use the Collaborative Staging System Version 02.05 to stage their new cases until the end of 2016 diagnosis year. Beginning with cases diagnosed January 1, 2017, Canada plans to implement AJCC TNM stage data collection to coincide with the expected release of 8th Edition TNM. Specific stage variables that will required for collection are not yet defined.

Cases will be submitted to the Canadian Cancer Registry during Statistics Canada's Canadian Cancer Registry Annual Call for Data. Provincial/Territorial registries can reference the Canadian Cancer Registry Input Record layout of the Canadian Cancer Registry System Guide for a more comprehensive listing.

7 SUMMARY FOR CENTRAL CANCER REGISTRIES

7.1 Record Length, New Data Items, and Changed Data Items

7.1.1 Record Length

The length of the data exchange record has not changed. The new data items have been mapped to reserved columns.

7.1.2 New Data Items

New Survival data items [1782-1788] were introduced in order to standardize the way survival statistics are calculated across cancer registries. Five of the items are derived values, computed based on the date of diagnosis, the date of last contact, vital status, and the two new items, Surv-Date Active Followup [1782] and Surv-Date Presumed Alive [1785]. The new survival data items have been preliminarily mapped to reserved columns in the v14 NAACCR Call-for-Data submission record layout that will officially become part of the NAACCR version 15 record layout beginning in 2015. The NAACCR Prep application derives the values and returns them in the designated columns of the version 15 record layout. The SEER*Edits program also derives these values: and NCI SEER has provided a Word document describing the logic as well as SAS programs that compute the derived values at http://seer.cancer.gov/survivaltime/. Some of these new data items might be required by standard setters as part of their calls for data, since they are all important for survival analysis. At the central registry level, the decision can be made to use the values to provide survival statistics on a state-or-provincial level. It is unlikely that registries will have to provide any training regarding these data items to reporting facilities.

7.1.3 Changed Data Items

Three data items had new codes added, and one existing over-ride flag has been revised in terms of associated edits and logic.

7.1.3.1 New Sex [220] Codes

These codes will not be implemented by Canadian registries for 2015 diagnoses. Two new sex codes, 5 Transsexual, natal male and 6 Transsexual, natal female are not part of the conversion program. However, these codes must be available and acceptable for newly reported tumors. Whether or not these codes can be applied for persons diagnosed prior to 2015 is up to the standard setters. If an individual was formerly reported with sex code 4, Transsexual NOS and a subsequent tumor is reported in 2015, it might be important to have agreement. However, it is also possible for a person to have been accurately reported as a male or female for an early cancer and to be diagnosed as a transsexual for a subsequent tumor. Central registries must include these new codes and their meanings in training

material. They must also make sure to update their edits metafiles to use the edits that include these codes among the allowable values.

7.1.3.2 New Rx Date Other Flag [1251] Code

This code will be allowed for CoC submissions for 2015 and earlier diagnoses, but it will not be implemented by Canadian registries for 2015 diagnoses. The new code 15 indicates that an alternative treatment was expected to be given, but it was not known to have been started when the abstract was prepared. There is no conversion needed for existing records. Effective with Standards Volume II, Version 15, the code will be available for incoming records and for records abstracted at the central cancer registry. Because this code and its meaning are analogous to the situation for the other treatment modalities, no specific training will be needed for the reporting facilities. However, central registries should inform their facilities of the addition of this code.

7.1.3.3 New SEER Coding Sys--Current [2120] and SEER Coding Sys--Original [2130] Code

These two data items had the code of F 2015 SEER Coding Manual added. Registries should take note for this new code and implement accordingly.

7.1.3.4 Over-ride Site/TNM-StgGrp [1989]

The description and logic of the edit(s) that use this over-ride should be reviewed by the central registry to determine inclusion in the central registry's edits metafile. NPCR has suggested including this flag among the data items collected from facilities, since NPCR will be requiring TNM stage groups for diagnosis year 2015.

7.1.3.5 Country Codes: [102], [254], [1832], [1847], [1944] (See section 3.5)

7.2 Hematopoietic and Lymphoid Neoplasm Rules (See section 4.1 and Appendix B)

The conversion program will replace histology codes that became obsolete effective for 2010 diagnoses, and it will assign accurate grade (cell lineage) and site codes consistent with the SEER Hematopoietic database. For several of these histologies, the conversions will result in shifts to a different collaborative stage schema that will necessitate changes in a few collaborative stage data items and re-derivation by the CS algorithm. Central registry staff will have to review and manually update a relatively small number of records that could not be automatically recoded by the conversion program.

7.3 ICD-O-3 Updates

These changes will be adopted for all North American registries. Effective for 2015 diagnoses, two histology codes became obsolete, 8157/1 Enteroglucagonoma, NOS and 8157/3 Enteroglucagonoma, malignant. The root of these codes has been replaced by histology code 8152/1 for enteroglucagonoma, NOS, and 8152/3 for enteroglucagonoma, malignant. Enteroglucagonoma is now a related term for glucagonoma. The conversion program will make all of these conversions on the database, effective for tumors diagnosed prior to 2015. Edits will have been modified to account for this change, so central registries must update their metafiles accordingly. Although the condition is extremely rare, central registries should inform their reporting facilities of this change.

Of more significance than the obsolete code above is the introduction of new histology terms and codes for ICD-O-3, many of which cannot be used for 2015 diagnoses because they are not included among the acceptable histologies for the CS algorithms. The central registries should provide their reporting facilities with the conversion table, see Appendix A, so that the acceptable histology codes will be used. Central registry staff must also be alerted to this issue, so that the valid codes will be used.

7.4 Staging

The standard setters will all be using CS Version 02.05, for 2015 diagnoses (with exceptions by NPCR, based on Type of Reporting Source [500]), for records that can be submitted using only SEER Summary Stage 2000

[759]. The SEER and NPCR programs will begin the transition to directly assigned TNM by requiring states to collect directly assigned clinical and pathologic staging based on the Cancer Staging Manual, Seventh Edition (AJCC TNM 7th Edition), from their CoC-accredited hospitals. Additionally, NPCR is requiring directly assigned SEER Summary Stage 2000 from all facilities for 2015 diagnoses. The CoC-accredited facilities, which have been reporting stage to the NCDB based on the AJCC's Cancer Staging Manual all along, should not require additional training in TNM; however, the NPCR-funded central registries that have not been collecting directly assigned Summary Stage will have to provide training on this staging system to their reporting facilities. They might also need to ensure that their central registry software is able to default-populate Summary Stage 2000 for records that were not submitted as complete hospital abstracts. Central registries will need to review their EDITS metafiles to make sure they include as many staging edits as are warranted by these new stage-related reporting requirements.

Canada will continue to use the CS System Version 02.05 to stage their new cases until the end of 2016 diagnosis year. Beginning with cases diagnosed January 1, 2017, Canada will be assigning AJCC TNM 8th Edition stage. Specific stage data items to be collected have not yet been determined.

7.5 Treatment

Effective for 2015 diagnoses, SEER and NPCR have each increased the number of treatment-related data items that they are requiring (Please note that NPCR and SEER treatment items are not identical). In addition to the codes for the modalities themselves, these standard setters are requiring central registries to collect, and SEER registries to transmit when available from CoC facilities, the dates of initiation of treatment for each treatment modality. Central registries will have to inform their reporting facilities of these changes and should plan to provide training. The central registries will have to include edits for all of the newly required data items. Please refer to your standard setters' requirements for details.

7.6 Central Registry Edits

The central cancer registry should review the EDITS metafile for Standards Volume II, Version 15 (the initial version is scheduled to be available online in the fall of 2014 at www.naaccr.org), to determine the edits that it will implement for incoming records as well as for consolidated items in the central registry's database. Central cancer registries should review the NAACCR v15 metafile documentation in parallel with the newly required data items and include every applicable edit in their state-specific EDITS metafile.

Central cancer registries should note that edits in the metafile may need to be revised to accommodate central registry-specific or state-specific reporting requirements, and that special edits may need to be developed for central registry-specific data items. Implementation, testing, and distribution of central registry-specific EDITS metafiles to reporting facilities and vendors should be considered as central cancer registries develop their Standards Volume II, Version 15 implementation plans. Central cancer registries that generate and distribute their own metafiles should have a plan to keep them updated.

The central cancer registry should evaluate the time required to correct errors in previous years' data that appear after retrospectively applying new edits, when there are no guidelines that limit diagnosis years to which the new edit(s) should be applied. Taking into account the relative importance of the affected data items and the amount of time required to edit the records, central registries should prioritize and fix these retrospective errors.

7.7 Software Implementation Plan

Central cancer registries that receive submissions from facilities that use commercial software to generate their files should pay close attention to the release dates of these products and coordinate their own Standards Volume II, Version 15 implementation plan accordingly. To ensure transmission in the appropriate record layout version, every data submission should be reviewed before being merged into the central cancer registry's database. Various methods can be used to test a data submission for compliance with standards,

including the application of an EDITS metafile; and, creating a test environment into which submissions can be loaded and viewed as they would appear in the active database.

A reporting facility's first transmission in Standards Volume II, Version 15 should be tested as thoroughly as possible for layout and code problems before further Standards Volume II, Version 15 records are accepted from that facility. Some registries may find it useful to require a "test file" from each software vendor or facility.

7.8 Communication with Reporting Facilities and Software Vendors

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

Central registry clients should be aware that delays in the communication of this information to their software vendors may result in a delay in reporting of 2015 cases.

Until each state/province/territory registry client is fully converted to Standards Volume II, Version 15, vendors will need to provide continued support for reporting and processing of records diagnosed 2014 and earlier in Standards Volume II, Version 14 record format.

7.9 Education and Training

Central cancer registries will have to provide training to their reporting facilities on all of the changes identified in this document. The most significant changes are related to the requirements for abstractors who have never reported either directly assigned Summary Stage or TNM stage. Training for the collection of all of the treatment modalities should be conducted as well. Trainings should focus on familiarizing the abstractors with appropriate uses of the coding manuals and reference material. At the central registry, staff will also have to be trained on all of the newly-required data items. In addition, central registry staff will need to consolidate newly required information coming from multiple sources for the same tumors. The soon-to-be released NAACCR Data Item Consolidation Manual prescribing best practices for many standard data items should be distributed to central registry staff, with the rules followed manually until they can be implemented automatically in the central registry software.

8 SUMMARY FOR SOFTWARE DEVELOPERS AND VENDORS

The magnitude of changes being implemented with Standards Volume II, Version 15 is relatively small. All software vendors will be responsible for identifying required software changes, accommodating new and changed data items; providing support for the gradual staging transition away from CS to TNM and directly-coded SEER Summary Stage; performing data conversion where necessary, and providing continued access to updated supplementary coding resources. Vendors will also need to address testing and implementation issues, as well as technical support and training. Instruction to development staff should address the following:

8.1 Identify Software Changes

Software specifications generated to adapt programs will be vendor-specific and will vary for hospital registry applications and central registry applications. Specifically, vendors will need to accommodate: conversions required for hematopoietic and lymphatic cancers and the ICD-O-3 changes as described in section 4.1 and section 4.2; conversion of the Country codes [102], [254], [1832], [1847], [1944] as described in section 3.5; new survival data items**;** newly added codes for the existing Sex [220], Rx Date Other Flag [1989], and SEER

Coding Sys--Current [2120] and SEER Coding Sys-Original [2130]; ensuring user access to Over-ride Site/TNM-StgGrp [1989] on user interfaces where applicable; potential software revisions to support staging transition; potential interface revisions for collection of treatment data for all primary sites; and continued access to supplemental coding resources (SEER Hematopoietic Database and SEER*Rx).

8.2 Conversion Consideration

As mentioned in section 4.1 and section 4.2, data conversion will be required for version 15 implementation due to revisions in coding of hematopoietic cases, as well as the introduction of new ICD-O-3 histology terms and codes. As mentioned in section 3.5, the allowable values for the Country data items have been modified. XYG must be converted to YUG, and XCZ must be converted to CSK. Additionally, errors have been identified in the codes for Brunei, Slovakia and Vanuatu. The conversions will require running the CDC NPCR's Northcon15 conversion program, or generation of in-house conversion utilities by vendors prior to implementation of their NAACCR version 15 compliant software. Vendors should also be aware of any new ICD-O-3 morphology codes that cannot be used for 2015 diagnoses, and may want to give consideration to adding additional labeling of morphology codes provided for selection from within the software's morphology look-up as "effective for 2015 and later", and "obsolete as of 2010" as appropriate, or perhaps displaying diagnosis-year specific morphology look-ups. Please refer to Appendix A for specific conversion information and acceptable histology codes. Conversion crosswalks and new valid values for data items are available on the NAACCR Web site, (http://www.naaccr.org/StandardsandRegistryOperations/VolumeII.aspx), and are incorporated into the CDC conversion program, Northcon15, to be released and available from the NPCR website in October/November 2014.

Coding instructions for Grade [440] were modified for cases diagnosed in 2014 and later. Under those instructions, and according to an edit added to the v15 metafile, the Grade code for prostate cancers should be consistent with the codes for Gleason score as coded in CS Site-Specific Factors 8 and 10. A conversion has been implemented to save registries the task of correcting grade errors manually. See section 4.3 for conversion details.

8.3 New Data Items

Seven new data items have been added which are designed to promulgate a standard approach to survival analysis. Software changes may or may not be needed to accommodate the new survival data items, described in section 2.1, as these fields are derived and are currently only required for inclusion in NAACCR call-for-data submission files. In support of its call-for-data, NAACCR offers the NAACCR Prep program which calculates the derived values and populates the data items in the specified positions in the version 15 record layout. The SEER*Edits program also performs the derivations, and SAS programs that compute the derived values as well as a Word document describing the derivation algorithms can be downloaded from http://seer.cancer.gov/survivaltime/.

Vendors should work with their users to determine if users require their software to support these new data items. Some users may want the software to offer the option to derive and store the values in the registry database. This might be accommodated by running registry data through one of the above-referenced mechanisms to perform derivation outside of the registry software, and then updating the registry database with the resulting values. Another avenue would be to build the algorithm into the software itself based on the algorithm documentation. However, it is important to note that registries may not necessarily require support within the software for either calculation or storage of these new data items, as they may just derive the values upon annual data submission to standard setters and not use the data locally. At a minimum, vendors will need to ensure that the data items are included in their software as available data items. This may include but is not limited to revisions for data collection, import and export, revisions to the software interface, data verifications internal to the software as well as options to re-calculate (if available within the software), data item consolidation where applicable, and reports.

8.4 Changed Data Items

Software changes are needed to accommodate the changed data items in the Standards Volume II, Version 15 layout. This includes but is not limited to revisions to look-ups for changed data items where applicable, data entry verifications internal to the software (if available within the software), data item consolidation where applicable, reports, and import and export of data in proper format. See section 3, for a complete listing of changed data items.

8.5 Staging Transition Support

No CS conversion is required for implementation of Standards Volume II, Version 15. The current version of CS, CSv02.05, will continue to be used in 2015. All standard setters will be collecting CS, Version 02.05 for 2015 diagnoses.

8.5.1 TNM and Directly Assigned SEER Summary Stage Support

In addition, SEER and NPCR will transition to collection of directly assigned TNM by requiring states to collect directly assigned clinical and pathologic TNM staging from their CoC-accredited hospitals for cases diagnosed 2015 and later. NPCR is additionally requiring directly assigned SEER Summary Stage 2000 from all facilities for 2015 diagnoses. As a result, vendors should consider carefully how they can facilitate the collection of and coding of TNM, as well as directly assigned Summary Stage (e.g., assistive look-ups, etc.). For registries reporting to NPCR, as directly assigned SEER Summary Stage will be required for all cases and NPCR is continuing to allow collection of only directly assigned SEER Summary Stage in lieu of CS for certain types of reporting sources (in particular, reporting via pathology reports, physician offices, and small hospitals) vendors must accommodate the inclusion of Over-Ride CS 20 [3769], which is a flag to identify cases that are submitted with only directly assigned SEER Summary Stage 2000 [759]. Special consideration should be given in terms of when to include the field Over-Ride CS 20 [3769] on the abstracting interface and make it available for editing, as well as when the data item should be defaulted.

8.5.2 Support of New Requirements for Treatment Data Items

Treatment dates are important for evaluating clinical versus pathologic AJCC stage (e.g., determining neoadjuvant therapy). As a result, in addition to the new staging data item requirements, CDC NPCR and NCI SEER have determined that it is necessary to capture all modes of treatment and their associated dates for all cancers (with some differences by standard setter; refer to the standard setters' requirements in section 6 for details). Vendors that selectively display treatment fields to be coded by primary site will need to revise their software interfaces accordingly.

8.6 Access to Supplemental Coding Resources

8.6.1 SEER Hematopoietic & Lymphoid Database

An updated version of the Hematopoietic & Lymphoid Database will be released by NCI SEER in January 2015. At the time of the release, a change document will also be posted that details all the changes. The Hematopoietic & Lymphoid Database is available in two formats: a web-based tool and as stand-alone software. Vendors may want to consider inclusion of a link to the web-based format from within their software as updates are automatic: users do not have to install anything to access the latest revisions, and this option eliminates problems for users who do not have permission to install software on their work computers. However, vendors should give consideration to the fact that users may need the stand-alone software because they may not have access to the Internet. NCI SEER has announced that they will be implementing a new feature that will automatically update the standalone version whenever the user accesses the Internet.

8.6.2 SEER *Rx Drug Database

The latest version of the SEER*Rx drug database was released in September 2014. SEER*Rx is available in two formats: a web-based tool and as stand-alone software. Vendors may want to consider inclusion of a link to the web-based format from within their software as updates are automatic: users do not have to install anything to access the latest revisions, and this option eliminates problems for users who do not have permission to install software on their work computers. However, vendors should give consideration to the fact that users may need the standalone software because they may not have access to the Internet.

8.7 Programming, Testing, and Implementation

Software vendors should provide programming instructions to support the necessary changes for Standards Volume II, Version 15, as well as testing (if time allows, beta site testing) and implementing the items listed elsewhere in this document. Software vendors 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 approval in reporting in the Standards Volume II, Version 15 format. Testing should determine that appropriate values are converted and stored, as well as validated, within the software. Testing should also accommodate verification of revisions for data import and export, revisions to the software interface, addition of look-ups 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, 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. Individual changes to the state-specific state requestor section must also be communicated early in the coding and implementation period in order to be accommodated for software release.

8.8 New Online Help Files

Changes to any software's online help system (if available) will need to be made in conjunction with Standards Volume II, Version 15-related changes made to the software. New Registry Plus Online Help for Standards Volume II, Version 15 will be made available from CDC. For vendors that do not use CDC's Registry Plus Online Help within their software, or those that supplement it with extra information, updates will need to be made to online help.

8.9 Technical Support and Training

Software vendors are expected to support the data changes in Standards Volume II, Version 15 in the software and provide their clients with training and documentation appropriate to use the updated software. For hospital 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.

8.10 Communication with Central Cancer Registries and Hospital Registries

Software vendors should provide a timeline to the central registries indicating when they will be able to produce software that is able to process and produce Standards Volume II, Version 15 case records. Vendors should have an avenue for timely communication from all central registry clients so that proper support of state-specific changes in required data reporting are made, including mapping of state-specific data items in the state/requestor section of the record. In addition, vendors should implement state edit sets as provided by the registries. Central registry clients should be aware that delays in communication of this information from state registry clients to the software vendor may result in a delay in reporting 2015 cases.

Until each state registry client is fully converted to Standards Volume II, Version 15, vendors will need to provide continued support for reporting and processing of records diagnosed 2014 and earlier in NAACCR Version 14.0 record format.

9 SUMMARY FOR HOSPITAL CANCER REGISTRARS AND REPORTING FACILITIES

The CoC, NPCR, SEER, and CCCR all express their deep gratitude to hospital registrars. It is the hospital registrars who are at the heart of all cancer registry activities, and their diligence is behind everything these organizations are able to do.

Because hospital registrars are so crucial to the collection and use of cancer data, it is important that they become familiar with the changes taking place in 2015. What follows is an overview of steps that hospital registrars can take to smooth the transition to the new and changed data items and the updated software.

Cases diagnosed on or after January 1, 2015, must be collected and reported in accordance with the standards and definitions of the Standards Volume II, Version 15.

9.1 Prioritize Case Abstracting

Registrars should prioritize their abstracting. Ideally, abstracting of cases diagnosed prior to January 1, 2015, should be completed before converting registry data or beginning to use Standards Volume II, Version 15 upgrades.

9.2 Communicate with Central Cancer Registries and Software Vendors

Hospital registries should be in contact with their software vendors to determine when the necessary software upgrade may be delivered, and then make a tentative schedule within the facility to have someone available for the upgrade installation. Make arrangements as early as possible to avoid delays when the software becomes available.

Registries that have an interest in being involved in early implementation of changes should consider offering to be a beta test site. This will allow them to receive software and software vendor support early in the process.

Hospital registries should also contact their central registries to find out when they may begin transmitting in the upgraded version.

9.3 Conversion Consideration

Registrars must review and clean their data prior to conversion, as this will ensure that registry data will be converted with greater ease. The initial focus should be on cases and items to be converted, especially hematopoietic and lymphatic neoplasms, and all items required for the first time by their central registries if they have been abstracted in the past (for example, for NCDB). No new items are required in 2015 by the NCDB or by the CCCR. However both CDC NPCR and NCI SEER do have new requirements that might affect the reporting facilities. Hospital registries should obtain updates from their respective central registries for changed requirements.

9.4 Education and Training

Registrars and abstractors should attend education and training provided by regional, state, or national programs. These may include any combination of webinars, face-to-face training sessions at meetings, self-instructional material, and making time to work slowly through coding while becoming familiar with the changes. Registrars and abstractors should seek training on all new and changed material. The following resources may be of assistance:

- http://training.seer.cancer.gov/
- http://seer.cancer.gov/registrars/
- https://www.facs.org/quality-programs/cancer
- http://www.cdc.gov/cancer/npcr/index.htm
- http://www.naaccr.org/
- http://www.ncra-usa.org/i4a/pages/index.cfm?pageid=1

9.5 Converted Data Items: Hematopoietic and Lymphatic Items, Other ICD-O-3 Histology and Behavior Codes, and Country

The registry software conversion for 2015 will replace obsolete hematopoietic and lymphatic histology codes for 2010 and later diagnoses, and will assign accurate grade (cell lineage) and site codes consistent with the SEER Hematopoietic database (section 4.1 and Appendix B). For several of these histologies, the conversions will result in shifts to a different CS schema that will necessitate changes in a few CS data items and re-derivation by the CS algorithm.

~~Effective with 2015, code 8240/1 for Carcinoid tumor, NOS, of appendix (C18.1) becomes obsolete.~~ Carcinoid tumors, NOS, of the appendix (C18.1) must be coded to 8240/3, effective with 2015. This is reportable and must be coded with a behavior 3. ~~If a registry has records coded 8240/1 with site C18.1, the morphology code will be changed to 8240/3.~~ This change was made effective in Canada in 2012. There is no conversion or recoding required of cases diagnosed prior to 2015 coded to C18.1 with a morphology code of 8240/1, if these tumors were reportable by agreement for local or central registries.

~~Additionally, t~~Two pancreatic tumors, uncertain behavior and malignant enteroglucagonomas (8157/1 and 8157/3) must be recoded as uncertain behavior and malignant glucagonomas (8152/1 and 8152/3, respectively), effective for 2015 diagnoses. Code 8157 is obsolete effective in 2015.

The conversion will also convert Country codes for Yugoslavia and Czechoslovakia to YUG and CSK respectively and allow these country codes to be used for country items other than Birthplace-Country [254], for which they are already in use. Additionally, errors have been identified in the codes for Brunei, Slovakia and Vanuatu.

Once the registry software conversion has been implemented, newly abstracted cases must use the updated codes.

Coding instructions for Grade [440] were modified for cases diagnosed in 2014 and later. Under those instructions, and according to an edit added to the v15 metafile, the Grade code for prostate cancers should be consistent with the codes for Gleason score as coded in CS Site-Specific Factors 8 and 10. A conversion has been implemented to save registries the task of correcting grade errors manually. See section 4.3 for conversion details.

9.6 New Histologies Not Yet Implemented

Several new histologies are in current use by pathologists that cannot be handled by CS v02.05. Therefore, those codes are not allowed in registry data for cases diagnosed in 2015 or earlier from U.S. and Canada hospitals. Use the crosswalk in Appendix A to replace the new, non-implemented codes with appropriate traditional histology codes.

9.7 Staging

CS v02.05 will remain in use for 2015 diagnoses. The NCI SEER and CDC NPCR programs will begin the transition to directly assigned TNM by requiring states to collect directly assigned clinical and pathologic staging based on the Cancer Staging Manual, Seventh Edition (AJCC TNM 7th Edition), from their CoC-

accredited hospitals. Additionally, NPCR will be requiring directly assigned SEER Summary Stage 2000 from all facilities for 2015 diagnoses.

CoC accredited programs will continue to record directly assigned TNM and Stage Group as in the past, as well as CS System v 02.05.

Canada will continue to use CS v 02.05 to stage new cases until the end of the 2016 diagnosis year. Beginning with cases diagnosed January 1, 2017, Canada will be assigning AJCC TNM 8th Edition stage. Any further data items to be collected have not yet been determined.

9.8 Treatment

Effective for 2015 diagnoses, NCI SEER and CDC NPCR have each increased the number of treatment-related data items that they are requiring, although they are not necessarily collecting the same data items. In addition to the codes for the treatment modality items, these two standard setters are now requiring central registries to collect, and SEER registries to transmit, the dates of initiation of treatment for each treatment modality. Refer to your central registry's requirements for details.

10 Appendix A:

New ICD-O-3 Histology Code Crosswalk for 2015:
The following table is an excerpt from the NAACCR Guidelines for ICD-O-3 Update Implementation (December 2013). The complete document can be found on the NAACCR web site: Guidelines for ICD-O-3 Update Implementation

ICD-O-3 Change	New ICD-O-3 Histology Code (do NOT use these codes in 2015)	Description	Comment	Use this Histology Code in 2015
New term and code	8158/1	Endocrine tumor, functioning, NOS	Not reportable	
New related term	8158/1	ACTH-producing tumor	Not reportable	
New term and code	8163/3	Pancreatobiliary-type carcinoma (C24.1)	DO NOT use new code	8255/3
New synonym	8163/3	Adenocarcinoma, pancreatobiliary-type (C24.1)	DO NOT use new code	8255/3
New term	8213/3	Serrated adenocarcinoma		8213/3*
New code and term	8265/3	Micropapillary carcinoma, NOS (C18._, C19.9, C20.9)	DO NOT use new code	8507/3*
New code and term	8480/1	Low grade appendiceal mucinous neoplasm (C18.1)	Not reportable	
New term and code	8552/3	Mixed acinar ductal carcinoma	DO NOT use new code	8523/3
New term and code	8975/1	Calcifying nested epithelial stromal tumor (C22.0)	Not reportable	
New term and code	9395/3	Papillary tumor of the pineal region	DO NOT use new code	9361/3*

ICD-O-3 Change	New ICD-O-3 Histology Code (do NOT use these codes in 2015)	Description	Comment	Use this Histology Code in 2015
New term and code	9425/3	Pilomyxoid astrocytoma	DO NOT use new code	9421/3
New term and code	9431/1	Angiocentric glioma	DO NOT use new code	9380/1*
New term and code	9432/1	Pituicytoma	DO NOT use new code	9380/1*
New term and code	9509/1	Papillary glioneuronal tumor	DO NOT use new code	9505/1
New related term	9509/1	Rosette-forming glioneuronal tumor	DO NOT use new code	9505/1
New term and code	9741/1	Indolent systemic mastocytosis	Not reportable	

***** ICD-O-3 rule F applies (code the behavior stated by the pathologist). If necessary, over-ride any advisory messages.

11 Appendix B

NAACCR 2015 Implementation Guidelines and Recommendations: The Hematopoietic Conversion Documentation

Revised Publication date: 1/26/15

This document contains detailed information regarding the Hematopoietic conversion program which is part of the 2015 NAACCR implementation. NCI SEER would like to take this opportunity to pass along thanks to the groups and individuals who provided assistance in developing this document.

- 2015 NAACCR Implementation Guidelines Group
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Submit questions regarding this document to "Ask a SEER Registrar" http://seer.cancer.gov/registrars/contact.html and choose subject: Hematopoietic Rules (database & manual).

HEMATOPOIETIC & LYMPHOID NEOPLASMS (HEME) CONVERSIONS FOR 2015

In January 2014, NCI SEER released a revised Hematopoietic Database and Manual (HEME) that combined all the changes from 2010 consolidated into one database and manual. Prior to this, registrars had to use the 2010 HEME manual and database for cases diagnosed 2010-2011 and the 2012 HEME manual and database for cases diagnosed 2012 and forward. An in depth review was made of all the changes since 2010 when the new rules/databases were first released. It was decided that combining all the changes and making one manual and database would not have a significant impact on incidence, histology, or multiple primaries. This information was documented in the "comparison documents" which were released in mid-2014. The comparison documents are on the SEER website http://www.seer.cancer.gov/tools/heme/comparison.html

WHY CHANGES NOW

After the consolidation of the 2010 and 2012 HEME Databases and Manuals into one, NCI SEER continued to explore other areas where improvements could be made. The next area was recommending that the 24 obsolete (OBS) histology codes be changed to their current histology code for 2010+ (See Appendix E in the HEME manual for a complete listing). Previously, the HEME database had instructions which stated the OBS histologies could still be used for cases where there was limited information or DCO cases. The reasons for deciding to no longer allow for them for 2010 and forward are

- OBS codes were not being used consistently because the instructions in the database about their use were not always followed or understood. These instructions were removed for the January 2014 update.
- Some states developed edits that would not allow the use of the OBS codes 1/1/2010 and after
- There were concerns about analyzing data over time with both OBS codes and current codes in use for the same diagnosis year

With these issues, NCI SEER recommended that all cases with an OBS code diagnosed 2010 and forward be changed to the current code. This would result in the HEME data being consistent across all registries. Additional review determined that two other data items must be reviewed and changed: grade and primary site. Once the recommendation was written up and reviewed by NCI SEER, it was shared with the NAACCR Edits committee. The Edits committee decided the best way to handle this was to run a conversion program when the 2015 software update was done. This would ensure that data would be converted consistently across all registries.

Both SEER and NPCR used the conversion criteria to get an idea of how many cases would be affected for years 2010-2012 (years 2013 and 2014 not available at the time, but will be part of the conversion). Based on the SEER and NPCR evaluation, the numbers are fairly low and will not be problematic for any hospital or central registry. SEER and NPCR numbers are included with most of the conversion tables.

Do NOT apply these changes or conversions to cases prior to 2010. Some histology codes changed definition between 2009 and 2010. Some of the conversions are to histology codes that were not in effect until 2010. Application of these conversions to earlier cases may cause problems and trigger edits.

GOING FORWARD
In addition to the histology code conversions, edits were also reviewed and revised for all HEME related data items. During this review process, it was decided to develop a conversion document for the HEME data items that could be converted and apply the conversion to all registries (hospital and central) consistently. The purpose of this conversion document is to make data consistent for several data items across all registries. After the conversions were developed, edits were revised to ensure that cases going forward would be coded correctly.

Conversions will be applied to three data items: Histology, Primary Site, and Grade. The conversions are based on the rules in the database and manual. Changes to primary site and histology may impact other fields and these fields are also converted when possible. Changes to primary site and histology may also impact local site and histology recodes used for analyses. These changes have not yet been documented.

These conversions only apply to malignant (/3) histologies 9590-9992 for case diagnosed 1/1/2010 and forward.

The computerized conversion program will make one pass of the data and perform all of the conversions. This documentation divides it up into specific sections and parts to explain the reasons for the conversions to the cancer registrar community.

In the conversion documentation, the histologies are converted first, including the reassignment of CS schema when applicable. In part II of the documentation, the newly converted histologies are used for the primary site and grade conversions.

CS algorithms and other conversions, recodes, or algorithms dependent on primary site, histology, or grade must be re-run after these changes are made.

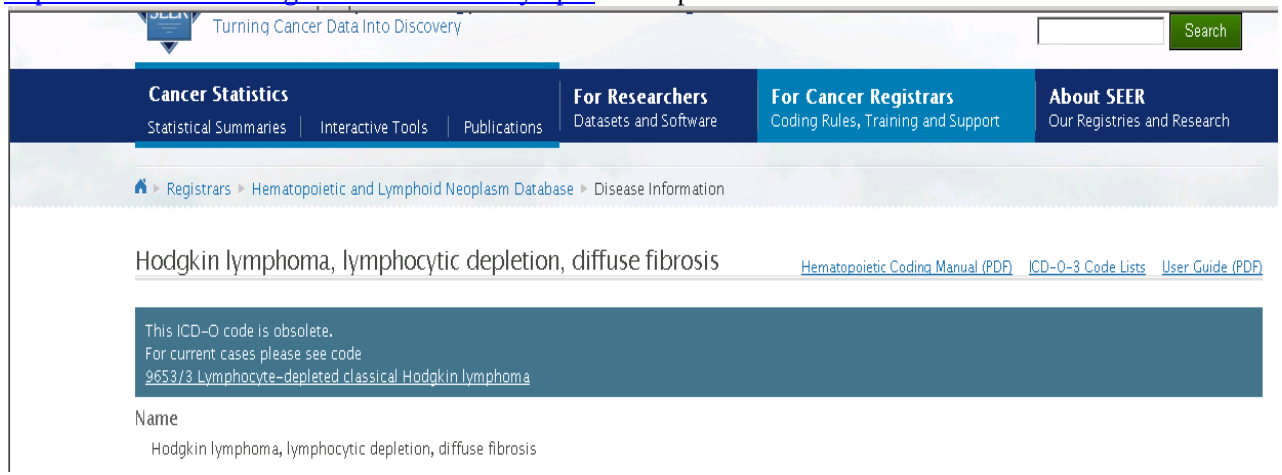
HEME CONVERSIONS:
This documentation of the Heme conversions is shown step-wise to give the registrar specific reasons as to why the conversion is necessary. Step 1 documents the histology conversions. Steps 2 and 3 document the grade and primary site conversions, respectively. The documentation of the grade and primary site conversions assumes that the histology conversions have already been completed. The documentation for the computer conversion program shows all of the changes for each histology, site, grade and surgery codes on a single row and is intended to document how the conversion program's logic is set up. While the two documents are formatted differently, they contain equivalent conversion specifications and are directed towards different audiences.

A companion spreadsheet **[insert title or file name or hyperlink here]** has been produced to show, for each histology code affected, all conversions needed. The spreadsheet should be useful to those programming a computer conversion.

STEP 1: HISTOLOGY CONVERSIONS

The first step of the conversion is for reassignment of obsolete [OBS] histologies to their current histology. This process will require four parts for ease of documentation as some of the conversions will result in a CS schema change. All 4 parts are done in one pass of the data.

These conversions are based on information found in the Hematopoietic & Lymphoid Neoplasm Database. http://www.seer.cancer.gov/seertools/hemelymph/. Example:



For each of the histologies listed in the tables below (except for those noted by *), a message similar to the message shown above will appear when you click on the histology in the HEME database. The conversions match these messages.

Part 1: Histology conversions not dependent on primary site

Note: These obsolete histologies are still defined in CSv0205; however, according to the Hematopoietic manual and database, these are no longer applicable for cases diagnosed 2010 and forward. Therefore, the documentation for CSv0205 will be slightly out of sync with these changes and an edit should prevent one from using the obsolete histologies for 2010+.

If Year of Diagnosis is 2010+:

OBS Histology	Current Histology	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9654	9653	3	3
9661	9650	0	1
9662	9650	0	61
9664	9663	19	232

OBS Histology	Current Histology	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9665	9663	60	212
9667	9663	63	78
9675	9690	19	342
9684	9680	70	6
9750	9751	1	0
9752*	9751	0	0
9753*	9751	0	0
9754	9751	15	70
9760**	9762	1	18
9764	9762	1	1
9805***	9809	37	121
9960	9975	0	1546
9984	9983	0	77
9987	9920	0	707

**Listed as /1 In ICD-O-3. Per the matrix concept in ICD-O-3, these histologies could be assigned behavior code /3 if a case had a malignant diagnosis that fit either code. These codes no longer exist and will be converted to 9751.*

*** Per the abstractor notes for 9760, this histology converts to 9761 or 9762. For the one time histology conversion ONLY, 9760 will be converted to 9762. To find this information, go to the Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/51f6cf59e3e27c3994bd545f/?q=9760. At the "Help me code for diagnosis year" choose 2009 and then scroll down to the Abstractor notes.*

**** Per the abstractor notes for 9805, this histology converts to 9806, 9807, 9808, or 9809. For the one time histology conversion ONLY, 9805 will be converted to 9809. To find this information, go to the Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/51f6cf59e3e27c3994bd543e/?q=9805. At the "Help me code for diagnosis year" choose 2009 and then scroll down to the Abstractor notes.*

Part 2: Histology conversion dependent on primary site with no change in schema

If Year of Diagnosis is 2010+:

OBS histology	Primary site(s)	Current histology	New primary site	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9670	NOT in (C420, C421, C423, C424)	9823	-	1514	5531
9728	NOT in (C420, C421, C423, C424)	9811	-	33	139
9729	NOT in (C420, C421, C423, C424)	9837	-	101	415

9835	Not in (C421, C441, C690, C695-C696)	9811	C421	823	3138
9835	C421	9811	-	See above	
9836	Not in (C421, C441, C690, C695-C696)	9811	C421	854	3362
9836	C421	9811	-	See above	

Part 3: Obsolete Histology and CS conversions dependent on primary site with change in schema

Several different schema changes will be going on in this conversion. These conversions are being done to align current Heme data (2010+) with the Primary Site Coding Instructions and Rules which are in the Hematopoietic Manual and Database. There are two parts to this conversion. Part 3 will handle the conversion for the obsolete histologies.

A. Schema conversions to HemeRetic

Lymphoma schema: http://web2.facs.org/cstage0205/lymphoma/Lymphomaschema.html
LymphomaOcularAdnexa schema**:** http://web2.facs.org/cstage0205/lymphomaocularadnexa/LymphomaOcularAdnexaschema.html
HemeRetic schema: http://web2.facs.org/cstage0205/hemeretic/HemeReticschema.html

If Year of Diagnosis is 2010+:

OBS histology	Current primary site	Current (new) histology	New Primary Site	New CS Extension	New TS/CS Ext eval	New CS Nodes	New CS LN Eval	New CS Mets	New CS Mets Eval	New CS SSF1	New CS SSF2	New CS SSF3	New CS SSF 4-13
9670	C420, C423, C424	9823	C421	800	9	-	-	-	-	999	988	988	988
9670	C421	9823	-	800	9		-	-	-	999	988	988	988
9728	C420, C423, C424	9811	C421	800	9	-	-	-	-	999	988	988	988
9728	C421	9811	-	800	9	-	-	-	-	999	988	988	988
9729	C420, C423, C424	9837	C421	800	9	-	-	-	-	999	988	988	988
9729	C421	9837	-	800	9	-	-	-	-	999	988	988	988
9835	C441, C690, C695-C696	9811	C421	800	9	988	9	98	9	999	988	988	988
9836	C441, C690, C695-C696	9811	C421	800	9	988	9	98	9	999	988	988	988

B. Schema Conversions to MyelomaPlasmaCellDisorder

LymphomaOcularAdnexa schema**:** http://web2.facs.org/cstage0205/lymphomaocularadnexa/LymphomaOcularAdnexaschema.html
HemeRetic schema: http://web2.facs.org/cstage0205/hemeretic/HemeReticschema.html
MyelomasPlasmaCellDisorder schema: http://web2.facs.org/cstage0205/myelomaplasmacelldisorder/MyelomaPlasmaCellDisorderschema.html

If Year of Diagnosis is 2010+:

OBS histology	Current primary site	Current (new) histology	New Primary Site	New CS Extension	New CS TS/Ext Eval	New CS Nodes	New CS LN Eval	New CS Mets	New CS Mets Eval	New CS SSF1	New CS SSF2	New CS SSF3	New CS SSF 4-13	# SEER Cases 2010-2012	# NPCR Cases 2010-2011
9733	C441, C690, C695-C696	9732	C421	810	9	987	9	98	9	988	999	999	988	70	386
9733	C421	9732	-	810	-	987	-	-	-	988	999	999	-	See above	
9733	All sites **except** C421, C441, C690, C695-C696	9732	C421	810	-	987	-	-	-	988	999	999	988	See above	

Part 4: Histology and CS conversions dependent on primary site with change in schema

This part handles the conversion for current histologies where a schema change will need to be done based on the change in primary site.

While the CS schema LymphomaOcularAdnexa (LOA) shows that sites C441, C690, C695-C696 can be used with the following histology codes in this table and 9733 above, these conversions will make them no longer LOA, so it will no longer agree with the schema index page for LOA. It will be an impossible combination for LOA.

A. LymphomaOcularAdnexa to HemeRetic

LymphomaOcularAdnexa schema**:** http://web2.facs.org/cstage0205/lymphomaocularadnexa/LymphomaOcularAdnexaschema.html
HemeRetic schema: http://web2.facs.org/cstage0205/hemeretic/HemeReticschema.html

The following histologies and 9733 above currently are allowed in the LymphomaOcularAdnexa schema in CS when primary site is C441, C690, and C695-C696. The primary sites for these histologies are being converted to bone marrow (C421) per the Hematopoietic Primary Site Coding

Instructions and Rules. Although CSv0205 will continue to allow sites of C441, C690, C695-C696 for these histologies, the edits will no longer allow these combinations and they will now be considered under HemeRetic based on the change of the site codes to C421.

If Year of Diagnosis is 2010+:

Histology	Current primary site	New Primary Site	New CS Extension	New CS TS/Ext eval	New CS Nodes	New CS LN Eval	New CS Mets	New CS Mets Eval	New CS SSF 1	New CS SSF2-SSF13
9820	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988
9826	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988
9831	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988
9832	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988
9833	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988
9834	C441,C690,C695-C696	C421	800	9	988	9	98	9	999	988

B. Lymphoma to HemeRetic

Lymphoma schema: http://web2.facs.org/cstage0205/lymphoma/Lymphomaschema.html
HemeRetic schema: http://web2.facs.org/cstage0205/hemeretic/HemeReticschema.html
Per Primary Site Coding Instructions and Rules in the Hematopoietic Manual (update for January 2015), primary site C423 (Reticuloendothelial system) will no longer be allowed as a primary site for Hematopoietic histologies. C423 will be converted to C421 (bone marrow). For the histologies listed in the table, this will result in a schema change from Lymphoma to HemeRetic. Although CSv0205 will continue to allow a primary site of C423 with these histologies, the edits will no longer allow these combinations.

If Year of Diagnosis is 2010+:

Histology	Current primary site	New Primary Site	New CS Extension	New CS TS/Ext Eval	New CS SSF 1	New CS SSF2-SSF5	# SEER Cases 2010-2012	# NPCR Cases 2010-2011
9811	C423	C421	800	9	999	988	Not available	
9812	C423	C421	800	9	999	988	Not available	
9813	C423	C421	800	9	999	988	Not available	

Histology	Current primary site	New Primary Site	New CS Extension	New CS TS/Ext Eval	New CS SSF 1	New CS SSF2-SSF5	# SEER Cases 2010-2012	# NPCR Cases 2010-2011
9814	C423	C421	800	9	999	988	Not available	
9815	C423	C421	800	9	999	988	Not available	
9816	C423	C421	800	9	999	988	Not available	
9817	C423	C421	800	9	999	988	Not available	
9818	C423	C421	800	9	999	988	Not available	
9823	C423	C421	800	9	999	988	Not available	
9827	C423	C421	800	9	999	988	Not available	
9837	C423	C421	800	9	999	988	Not available	

STEP 2: GRADE CONVERSIONS

The second step of the conversion is the reassignment of grade. This applies to histologies 9590-9992 with behavior code /3.

1. For those histologies that have a defined grade, cases that don't have that grade will be converted to the defined grade.
2. For those histologies that have more than one defined grade and the current grade is not one of them, a default grade will be assigned.
3. For the remaining histologies that do not have a defined grade, if the grade is equal to 1-4 (not hematopoietic grades), the grade will be converted to 9.
4. Information on grade for hematopoietic diseases can be found in the Hematopoietic and Lymphoid Neoplasm Database & Manual: http://seer.cancer.gov/seertools/hemelymph/.
5. Columns 1 & 2 are the criteria for the conversions. For example, if there are any cases of 9590/3 with grade 1-4, those cases will be converted to grade 9. Another example, if there are any cases of 9705/3 with a grade other than 5, those cases will be converted to grade 5.

If Year of Diagnosis is 2010+:

Histologies	If Grade is	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2011
9590, 9650, 9651, 9652, 9653, 9655, 9663, 9727, 9735, 9800, 9820, 9832, 9840, 9860, 9861, 9863, 9865-9867, 9869, 9870-9874, 9891, 9895-9898, 9910, 9911, 9920, 9930, 9931, 9965-9967, 9971	1-4	9	75	203
9591, 9596, 9597, 9659*, 9671, 9673, 9678, 9679, 9680, 9687, 9688, 9689, 9690, 9691, 9695, 9698, 9699, 9712, 9731, 9732, 9734, 9737, 9738, 9761, 9762, 9811-9818, 9823, 9826, 9833, 9940	1-5, 7-9	6	984	2162
9700-9702, 9705, 9708, 9709, 9716-9718, 9724-9726, 9827, 9834, 9837	1-4, 6-9	5	9	14
9714	1-4, 7-9	5	166	505
9719, 9948	1-7, 9	8	0	0
9740-9742, 9751, 9755-9759,9801, 9806-9809, 9875, 9876, 9945, 9946, 9950, 9961-9964, 9975, 9980, 9982, 9983, 9985, 9986, 9989, 9991, 9992	1-8	9	30	10
9831	1-4, 6-7	9	10	0

For the 2015 update, a default grade of 6 (B-cell) has been assigned for 9659 in the database and manual. This change applies to cases diagnosed 2010 and forward. The conversion program will automatically convert all cases from 2010 forward.

STEP 3: PRIMARY SITE CONVERSION

The third step of the conversion is the reassignment of primary site when needed. This applies to histologies 9590-9992 with behavior code /3. Three separate tables are listed below to handle the histologies.

TABLE 1: Conversions for Plasma Cell Myeloma (9732), Malignant mastocytosis (9741), Waldenstrom Macroglobulinemia (9761), Leukemias, Myeloproliferative diseases and Myeloproliferative neoplasms (9800-9920, 9931-9967, 9975-9992) (Reference: Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/).

1. Waldenstrom Macroglobulinemia (9761) must **always** have primary site C420. Remaining histologies in Table 1 must **always** have primary site C421.
2. The primary site for leukemia is C421 (bone marrow) even though it can be diagnosed by peripheral blood smear.
3. Edits have been revised to enforce the primary site for the histologies listed in **Table 1** and will be effective for cases diagnosed 1/1/2010.
4. Please note: The site and histology combinations listed in the table may not match the site/type list. The instructions and rules for Hematopoietic histologies are restricted to specific years. The site/type list is not restricted to specific years. Edits are developed to enforce the specific rules in the Heme manual and have been adapted to handle the site/type situation.
5. If surgery of primary site is not 98, it needs to be converted to 98 for these histologies. Scope of regional lymph node surgery should also be 9. **These changes will need to be done manually.**

For cases diagnosed 1/1/2010+

ICD-O code	Description	If Primary Site is NOT	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9732/3	Plasma cell myeloma *Note: Also includes converted cases for histology 9733*	C421	C421	11	14
9741/3	Malignant mastocytosis	C421	C421	0	1
9742/3	Mast cell leukemia	C421	C421	0	0
9761/3	Waldenstrom macroglobulinemia	C420	C420	5	29
9800/3	Leukemia, NOS	C421	C421	0	2
9801/3	Acute undifferentiated leukemia	C421	C421	0	3
9806/3	Mixed phenotype acute leukemia with t(9;22)(q34;q11.2);BCR-ABL1	C421	C421	0	0
9807/3	Mixed phenotype acute leukemia with t(v;11q23); MLL rearranged	C421	C421	1	0
9808/3	Mixed phenotype acute leukemia, B/myeloid, NOS	C421	C421	0	0
9809/3	Mixed phenotype acute leukemia, T/myeloid, NOS	C421	C421	0	1

ICD-O code	Description	If Primary Site is NOT	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
	Note: Also includes converted cases for histology 9805				
9820/3	Lymphoid, leukemia, NOS	C421	C421	0	0
9826/3	Burkitt cell leukemia	C421	C421	1	0
9831/3	T-cell large granular lymphocytic leukemia	C421	C421	0	1
9832/3	Prolymphocytic leukemia, NOS	C421	C421	0	1
9833/3	B-cell prolymphocytic leukemia	C421	C421	0	0
9834/3	T-cell prolymphocytic leukemia	C421	C421	0	0
9840/3	Acute erythroid leukemia	C421	C421	1	0
9860/3	Myeloid leukemia, NOS	C421	C421	1	8
9861/3	Acute myeloid leukemia, NOS	C421	C421	4	12
9863/3	Chronic myeloid leukemia, NOS	C421	C421	2	5
9865/3	Acute myeloid leukemia with t(6;9)(p23;q34);DEK-NUP214	C421	C421	0	0
9866/3	Acute promyelocytic leukemia (AML with t(15;17)(q22;q12)) PML/RARA	C421	C421	0	1
9867/3	Acute myelomonocytic leukemia	C421	C421	0	0
9869/3	Acute myeloid leukemia with inv(3)(q21;q26.2) or t(3;3)(q21;q26.2); RPN1-EVI1	C421	C421	0	0
9870/3	Acute basophilic leukemia	C421	C421	0	0
9871/3	Acute myeloid leukemia with inv(16)(p13.1q22) or t(16;16) (p13.1;q22), CBFB/MYH11	C421	C421	0	0
9872/3	Acute myeloid leukemia with minimal differentiation	C421	C421	0	0
9873/3	Acute myeloid leukemia without maturation	C421	C421	0	0
9874/3	Acute myeloid leukemia with maturation	C421	C421	0	0
9875/3	Chronic myelogenous leukemia, BCR/ABL1 positive	C421	C421	1	3
9876/3	Atypical chronic myeloid leukemia, BCR-ABL1 negative	C421	C421	0	0
9891/3	Acute monocytic leukemia	C421	C421	1	1
9895/3	Acute myeloid leukemia with myelodysplasia-related changes	C421	C421	0	1
9896/3	Acute myeloid leukemia, t(8;21)(q22;q22) RUNX1-RUNX1T1	C421	C421	0	0
9897/3	Acute myeloid leukemia with t(9;11)(p22;q23);MLLT3-ML	C421	C421	0	0

ICD-O code	Description	If Primary Site is NOT	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9898/3	Myeloid leukemia associated with Down Syndrome	C421	C421	0	0
9910/3	Acute megakaryoblastic leukemia	C421	C421	0	0
9911/3	Acute myeloid leukemia (megakaryoblastic) with t(1;22)(p13;q13);RBM15-MKL1	C421	C421	0	0
9920/3	Therapy related myeloid neoplasm *Note: Also includes converted cases for histology 9987*	C421	C421	0	0
9931/3	Acute panmyelosis with myelofibrosis	C421	C421	0	0
9940/3	Hairy cell leukemia	C421	C421	11	2
9945/3	Chronic myelomonocytic leukemia	C421	C421	0	2
9946/3	Juvenile myelomonocytic leukemia	C421	C421	0	0
9948/3	Aggressive NK-cell leukemia	C421	C421	0	0
9950/3	Polycythemia vera	C421	C421	0	12
9961/3	Myelosclerosis with myeloid metaplasia	C421	C421	0	16
9962/3	Essential thrombocythemia	C421	C421	0	13
9963/3	Chronic neutrophilic leukemia	C421	C421	0	0
9964/3	Chronic eosinophilic leukemia, NOS	C421	C421	0	1
9965/3	Myeloid and lymphoid neoplasms with PDGFRA rearrangement	C421	C421	0	1
9966/3	Myeloid neoplasms with PDGFRB rearrangement	C421	C421	0	0
9967/3	Myeloid and lymphoid neoplasms with FGFR1 abnormalities	C421	C421	0	0
9975/3	Myelodysplastic/myeloproliferative neoplasm, unclassifiable *Note: Also includes converted cases for histology 9960*	C421	C421	0	1
9980/3	Refractory anemia	C421	C421	0	5
9982/3	Refractory anemia with ring sideroblasts	C421	C421	0	2
9983/3	Refractory anemia with excess blasts *Note: Also includes converted cases for histology 9984*	C421	C421	0	18
9985/3	Refractory cytopenia with multilineage dysplasia	C421	C421	0	14
9986/3	Myelodysplastic syndrome associated with isolated del (5q)	C421	C421	0	0
9989/3	Myelodysplastic syndrome, unclassifiable	C421	C421	0	24
9991/3	Refractory neutropenia	C421	C421	0	0
9992/3	Refractory thrombocytopenia	C421	C421	0	0

TABLE 2: Conversions for Lymphoma/Leukemia histologies (9811-9818, 9823, 9827, 9837) and Heavy chain disease (9762) (Reference: Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/

1. For purposes of the **conversion only**, the primary site will be converted to C421 for any of these histologies coded to primary site C420 (blood), C423 (Reticuloendothelial system) or C424 (Hematopoietic, NOS).
2. According to SEER and NPCR data, most cases affected are coded to C420 (blood) indicating that they were probably diagnosed by peripheral blood smear. As stated for Table 1, primary site is C421 (bone marrow) even when diagnosed by peripheral blood smear.
3. Edits have been revised to enforce that primary sites C420, C423, and C424 are not allowed for the histologies listed in **Table 2** and will be effective for cases diagnosed 1/1/2010+.

For cases diagnosed 1/1/2010+

ICD-O code	Description	If Primary Site is	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9762/3	Heavy chain disease *Note: Also includes converted cases for histologies 9760 & 9764*	C420, C423, C424	C421	4	6
9811/3	B lymphoblastic leukemia/lymphoma, NOS *Note: Also includes converted cases for histologies 9728, 9835, 9836*	C420, C424	C421	4	5
9812/3	B Lymphoblastic leukemia/lymphoma with t(9;22)(q34;q11.2); BCR-ABL1	C420, C424	C421	0	0
9813/3	B Lymphoblastic leukemia/lymphoma with t(v;11q23); MLL rearranged	C420, C424	C421	0	0
9814/3	B Lymphoblastic leukemia/lymphoma with t(12;21)(p13;q22); TEL-AML1 (ETV6-RUNX1	C420, C424	C421	0	0
9815/3	B Lymphoblastic leukemia/lymphoma with hyperdiploidy	C420, C424	C421	0	0
9816/3	B Lymphoblastic leukemia/lymphoma with hypodiploidy (Hypodiploid ALL)	C420, C424	C421	0	0
9817/3	B Lymphoblastic leukemia/lymphoma with t(5;14)(q31;q32); IL3-IGH	C420, C424	C421	0	0
9818/3	B Lymphoblastic leukemia/lymphoma with t(1;19) (q23;p13.3);E2A-PBX1 (TCF3-PBX1	C420, C424	C421	0	0
9823/3	Chronic lymphocytic leukemia/small lymphocytic leukemia (CLL/SLL) *Note 1: Also includes converted cases for histology 9670*	C420, C424	C421	179	581

ICD-O code	Description	If Primary Site is	Convert to	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
	Note 2: CLL/SLL is the most common of all the leukemias that is diagnosed by peripheral blood smear, which is why these numbers are so high.				
9827/3	Adult T-cell leukemia/ lymphoma (HTLV-1 positive)	C420, C424	C421	1	4
9837/3	Adult T-cell leukemia/lymphoma *Note: Also includes converted cases for histology 9729*	C420, C424	C421	0	1

TABLE 3: Manual review for histologies: Reference: Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/
Note: Review may also include review of other CS fields if the change to site or histology changes the CS schema. After making changes, rerun the CS algorithms.

Note: The national standard setters are requiring this manual review. SEER and NPCR have provided the number of cases for 2010-2012 in the table below. A specific hospital or state/central registry may not have any cases. Due to the low numbers, this review will ordinarily not be time consuming. If the review/changes are not done, cases will fail the revised edits that will be in the NAACCRv15 Metafile.

1. The histologies in Table 3 (primarily lymphomas) must not have a primary site of C420 (Blood), C423 (Reticuloendothelial system) or C424 (Hematopoietic, NOS). These cases cannot be automatically converted and manual review is needed to determine the best primary site and histology. If no further information can be found, a "default" primary site is provided. This is to be used as a last resort. Additional information about each of the diseases can be found in the HEME database: http://seer.cancer.gov/seertools/hemelymph/
2. Several of the histologies in table 3 have specified primary site/histology combinations that are not correct based on the Hematopoietic database. Comments are provided to help determine the best primary site/histology combination.
3. For lymphomas that have primary sites that are listed as impossible based on the tables below, verify histology first. If the only information available is a peripheral blood smear, assign primary site C421 (bone marrow).
    a. Note: For the 2015 Hematopoietic Manual, the following note will be added to Rule PH26: *If there is a positive peripheral blood smear and no other information is available, assign primary site C421. (To be posted early January 2015).*
4. **Upon review, changes to the primary site or histology may cause the CS schema to change and other fields based on site and histology may also need to be updated such as surgery codes, and scope of regional lymph node surgery. It is very important to also review other affected data fields when changing primary site or histology.**
5. Edits are being revised for the histologies in Table 3. The edits will go into effect for diagnosis date 1/1/2010 and forward.

For cases diagnosed 1/1/2010+:

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9590	Malignant lymphoma, NOS	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	2	3
9591	Malignant lymphoma, non-Hodgkin, NOS	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	7	33
9596	Composite Hodgkin and non-Hodgkin, NOS	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9597	Primary cutaneous follicle center lymphoma	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C449 (Skin, NOS)***	1	0
9650	Hodgkin lymphoma, NOS *Note: Also includes converted cases for histologies 9661 & 9662.*	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	3
9651	Hodgkin lymphoma, lymphocytic	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9652	Hodgkin lymphoma, mixed cellularity, NOS	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	1
9653	Hodgkin lymphoma, lymphocytic depletion, NOS *Note: Also includes converted cases for histology 9654*	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9655	Hodgkin lymphoma, lymphocyte depletion, reticular	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9659	Hodgkin lymphoma, nodular lymphocyte predominance	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9663	Hodgkin lymphoma, nodular sclerosis, NOS *Note: Also includes converted cases for histologies 9664, 9665 & 9667*	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	3	0
9671	Malignant lymphoma, lymphoplasmacytic	C420, C423, C424	This histology is very similar to 9761, which is Waldenstrom Macroglobulinemia (WM) and is the only histology that has primary site C420. Confirm histology. If the diagnosis is WM, change histology to 9761 ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	7	36
9673	Mantle cell lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	4	12
9678	Primary effusion lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9680	Malignant lymphoma, large B-cell, diffuse, NOS *Note: Also includes converted cases for histology 9684*	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	5
9687	Burkitt lymphoma, NOS	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	2
9688	T-cell/histiocyte-rich large B-cell lymphoma	C420, C423, C424	Per Heme Database: primarily a nodal lymphoma (C770-C779) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9690	Follicular lymphoma, NOS *Note: Also includes converted cases for histology 9675.*	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	2
9691	Follicular lymphoma, grade 2	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	0
9695	Follicular lymphoma, grade 1	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9698	Follicular lymphoma, grade 3	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	1

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9699	Marginal zone B-cell lymphoma, NOS	C420, C422, C423, C424	Per Heme Database: this is **not** a splenic marginal zone lymphoma. Confirm histology. **If this is a splenic marginal zone lymphoma, change primary site to C422 and histology to 9689**. If this is not a splenic marginal zone lymphoma, change primary site (cannot be C422) ***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	75	207
9700	Mycosis Fungoides	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C449 (Skin, NOS)***	0	0
9701	Sezary syndrome	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C449 (Skin, NOS)***	0	0
9702	Mature T-cell lymphoma, NOS	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	5
9705	Angioimmunoblastic T-cell lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9708	Subcutaneous panniculitis-like T-cell lymphoma	C420, C423, C424	Per Heme Database: primarily a skin or subcutaneous tissue lymphoma (C440-C449, C490-C499, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C499 (Subcutaneous tissue, NOS)***	0	0
9709	Cutaneous T-cell lymphoma	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632)	0	0

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
			If no other information can be found to determine primary site, default to C449 (Skin, NOS)		
9712	Intravascular large B-cell lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	1
9714	Anaplastic large cell lymphoma, T cell and Null cell type	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	1
9717	Enteropathy-associated T-cell lymphoma	C420, C423, C424	Per Heme Database: primarily an intestinal lymphoma. Most common primary site jejunum (C171). Verify primary site/histology ***If no other information can be found to determine primary site, default to C171 (jejunum)***	0	0
9718	Primary cutaneous CD30-positive T-cell lymphoproliferative disorder	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C449 (Skin, NOS)***	0	1
9719	Extranodal NK/T cell lymphoma, nasal type	C420, C423, C424	Per Heme Database: primarily a nasal cavity (C300) lymphoma; however, can occur in several different head and neck sites. Verify histology first. Preferred primary sites include: C050-C059, C110-C119, C300-C301, C310-C319 ***If no other information can be found to determine primary site, default to C300***	0	0
9724	Systemic EBV-positive T-cell lymphoproliferative disease of childhood	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	1
9725	Hydro vacciniforme-like lymphoma	C420, C423, C424	Per Heme Database: primarily a skin lymphoma (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C449 (Skin, NOS)***	0	0

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9726	Primary cutaneous gamma delta T-cell lymphoma	C420, C423, C424	Per Heme Database: primarily a skin or subcutaneous tissue lymphoma (C440-C449, C490-C499, C510-C512, C518-C519, C600-C602, C608-C609, C632) ***If no other information can be found to determine primary site, default to C499 (Subcutaneous tissue, NOS)***	0	0
9727	Blastic plasmacytoid dendritic cell lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9734	Extraosseous plasmacytoma (not of bone)	C400-C419, C420, C423, C424	Per Heme Database: this is a plasmacytoma that does not occur in the bone. Review primary site/histology combination. If this is a bone plasmacytoma, change histology to 9731. If this is not a bone plasmacytoma, reassign primary site to something other than C400-C419.	4	9
9735	Plasmablastic lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9737	ALK-positive large B-cell lymphoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9738	Large B-cell lymphoma arising in HHV8 associated multicentric Castleman disease	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	0	0
9740	Mast cell sarcoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	1
9751	Langerhans cell histiocytosis *Note: Also includes converted cases for histology 9750, 9752, 9753, 9754*	C420, C423, C424	Per Heme Database: primarily a bone neoplasm (C400-C419); however other sites are possible. Preferred primary sites are: C340-C349, C400-C419, C421, C440-C449, and C770-C779. ***If not other information can be found to determine primary site, default to C419 (Bone, NOS)***	0	6

ICD-O code	Description	Primary Site must not be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9755	Histiocytic sarcoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	1
9756	Langerhans cell sarcoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	0
9757	Interdigitating dendritic cell sarcoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	1
9758	Follicular dendritic cell sarcoma	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	0
9759	Fibroblastic reticular cell tumor	C420, C423, C424	***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	0	0
9930	Myeloid Sarcoma	C420, C421, C423, C424	Per ICD-O-3 and the Heme DB: 9930 cannot have primary site C421. Most common primary sites for Myeloid Sarcoma are the soft tissues. ***If no other information can be found to determine primary site, default to C499 (Soft tissue, NOS)***	21	71
9971	Post-transplant lymphoproliferative disorder	C420, C423, C424	***If no other information can be found to determine primary site, default to C779 (lymph nodes, NOS)***	1	0

TABLE 4: Manual review for histologies: Reference: Hematopoietic Database, http://www.seer.cancer.gov/seertools/hemelymph/
Note: Review may also include review of other CS fields if the change to site or histology changes the CS schema. After making changes, rerun the CS algorithms.

Note: The national standard setters are requiring this manual review. SEER and NPCR have provided the number of cases for 2010-2012 in the table below. A specific hospital or state/central registry may not have any cases. Due to the low numbers, this review will ordinarily not be time consuming. If the review/changes are not done, cases will fail the revised edits that will be in the NAACCRv15 Metafile.

1. The histologies in table 4 have primary site/histology combinations based on the Hematopoietic database. Cases that do not meet the primary site specifications need to be changed. These cases cannot be automatically converted and manual review is needed.
2. For these cases, the histology may need to be changed instead of the primary site. Comments are provided to help determine the best primary site/histology combination. Additional information about each of the diseases can be found in the HEME database: http://seer.cancer.gov/seertools/hemelymph/

3. **Upon review a change to the primary site or histology may cause the CS schema to change and other fields based on site and histology may also need to be updated such as surgery codes and scope of regional lymph node surgery. It is very important to also review other affected data fields when changing primary site or histology.**
4. Edits are being revised for the histologies in Table 4. The edits will go into effect for diagnosis date 1/1/2010 and forward.

For cases diagnosed 1/1/2010+:

ICD-O code	Description	Primary Site MUST be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
9679	Mediastinal large B-cell lymphoma	C379, C381-C383	Per Heme Database: histology occurs either in the thymus (C379) or the mediastinum (C381-C383). *Do not assign this histology just because the mediastinum is involved. Only assign this histology when the diagnosis is stated as "primary mediastinal." Involvement of the mediastinum is common for other histologies, with DLBCL (9680/3) being the most common. This is also a large B-cell lymphoma.* ***If no other information can be found to determine primary site, default to C383 (Anterior Mediastinum) OR change histology to 9680.***	102	169
9689	Splenic marginal zone B-cell lymphoma	C422	Per Heme Database: this is a splenic lymphoma. Verify primary site/histology. If the lymphoma originated in the spleen, change primary site to **C422 (spleen).** If this is not a splenic marginal zone lymphoma, change histology to 9699. See Table 3 for more information on 9699.	1	19
9716	Hepatosplenic T-cell lymphoma	C422	Per Heme Database: this is a splenic lymphoma. Verify primary site/histology. If the lymphoma originated in the spleen, change primary site to C422 (spleen).	0	2
9731	Solitary plasmacytoma of bone	C400-C419	Per Heme Database: this is a plasmacytoma that occurs in the bone. Review primary site/histology combination. If this is a bone	0	131

ICD-O code	Description	Primary Site MUST be	Comments	# SEER Cases 2010-2012	# NPCR Cases 2010-2012
			plasmacytoma, change primary site to C400-C419 (assign C419 if specific bone site cannot be determined. See Rule PH4 in the Hematopoietic manual). If this is not a bone plasmacytoma, reassign histology to 9734. See Table 3 for more information on 9734.		

Revision of Hematopoietic Edits for Cases diagnosed 2010 and forward

In addition to cases in Tables 1-4, additional cases that have passed edits in the past may fail the revised Hematopoietic edits. This is due to the edits related to Hematopoietic & lymphoid neoplasms primary site have been tightened.

If year of diagnosis is 2010 or later, the following Primary Site codes are the **preferred** codes for use with the listed Histologic Type ICD-O-3 codes. If other Primary Site codes are coded and, after review, determined to be correct, the Over-ride Site/Type should be set to '1'.

1. Primary site Lymph nodes (C770-C779): 9650, 9651, 9652, 9653, 9655, 9659, 9663, 9688
    a. If there is confirmation that these histologies occur in a site other than lymphoma, apply the over-ride. Extranodal Hodgkin lymphomas are rare, but they are possible.
2. Primary site Skin (C440-C449, C510-C512, C518-C519, C600-C602, C608-C609, C632): 9597, 9700, 9701, 9718, 9725
    a. If there is confirmation that these histologies occur in a site other than skin, apply the over-ride. These are primarily skin lymphomas.
3. Primary site skin and soft tissue: (C440-C449, C490-C499, C510-C512, C518-C519, C600-C602, C608-C609, C632): 9708, 9726
    a. If there is confirmation that these histologies occur in a site other than skin or subcutaneous tissue, apply the over-ride. These are primarily skin or subcutaneous tissue.
4. Primary site aerodigestive tract: (C050-C059, C110-C119 C300-C301, C310-C319): 9719
    a. If there is confirmation that this histology occurs in a site other than those listed above, apply the over-ride. This histology is most commonly found in the nasal cavity; however, it can occur in other sites.
5. Primary sites (C340-C349, C400-C419, C421, C440-C449, C770-C779): 9751
    a. If there is confirmation that this histology occurs in a site other than those listed above, apply the over-ride. This histology is most commonly found in the bone and other sites.