

**Collaborative Stage Version 2:
020000/020001/020100/020200
to Collaborative Stage Version 2: 020300/020301/020302
Revised Conversion Specifications/Release Notes 2/15/2011
Revised Conversion Specifications/Release Notes 4/19/2011
Revised Conversion Specifications/Release Notes 5/12/2011**

05/12/2011 Revision:

Two additional clarifications have been made to this document. See the new note on page 3 and the revised description of the fifth spreadsheet on pages 14-15. The changes are marked in turquoise.

04/19/2011 Revision:

Application of these specifications to conversion of registry databases has revealed a problem in the determination of schemas for cases with codes in CS Site-Specific Factor 25 that have been made obsolete. Cases potentially affected are assigned to four schemas: EsophagusGEJunction, Stomach, LacrimalGland, and LacrimalSac. This document and the associated Excel file have been revised to eliminate this problem. Changes to this document are highlighted in yellow. Changed text on the Conversion 1 to 1 and OBSOLETE Changed spreadsheets for these schemas is shown in red.

02/15/2011 Revision:

Note: Subsequent to the first release of these conversion specifications, an analysis of codes to be reviewed revealed that the number of affected cases could be cut by about half without affecting data quality. Specifications for review of several schemas have been modified in the spreadsheets. The schemas affected are:

MyelomaPlasmaCellDisorder—review restricted to cases diagnosed in 2011 or later

Testis—expanded the values in SSF11 used to select review cases to include code 988 with year of diagnosis of 2010 and CS Version Input Original less than 020000.

All GIST and NET schemas—elimination of review of CS Tumor Size codes 011, 021, 051, 101, and 999

These changes are marked on the appropriate spreadsheets that accompany this document. Rows that are being deleted from the Data Reviewed spreadsheet are highlighted in yellow. Changed text on the Obsolete Reviewed and Obsolete Changed spreadsheets is shown in red.

In CS Site-Specific Factors 1-24, blanks may sometimes have been allowed in previous versions, but standard setter requirements no longer allow blanks. From CSv02.03 forward, code 988 should be used instead of blanks when information is not collected. These Conversion Specifications for 02.03 specify conversion of blank site-specific factors to 988 (with a few exceptions). See rules 19 and 21 below for details.

Additional changes were made to this document based on questions from users and to clarify the specifications. The revisions to the conversion of Collaborative Stage will be incorporated into the CDC's general program for converting cancer registry records from the NAACCR 12 layout to the NAACCR 12.1 layout.

These specifications are provided as part of the documentation for the release of Collaborative Stage version 2, revision 020302. They are provided in two parts:

1. This document, containing general background information and instructions, including rules-based conversion specifications
2. An Excel file, Conversion Specs V0203.xls, containing nine spreadsheets, described in more detail later in this document.

This document and the spreadsheets also serve as the release notes for V0203.

020302 is the CS Version number for the production release of V0203. This version number should be used in the CS Version Input Original field to stamp all cases newly coded in V0203, used in the CS Version Input Current field to stamp all cases with any codes manually updated using V0203 codes, and used in the CS Version Derived field to stamp all cases with stage derived using the V0203 algorithm. CS Version Input Current number 020300 is used to identify cases converted from CSv1 to CSv2 (any version lower than 020300), never updated since that conversion, and now converted to V0203 specifications. CS Version Input Current number 020301 is used to identify cases originally coded under CSv2 (any version lower than 020300) or cases originally coded under CSv1 converted to CSv2 and updated with CSv2 (any version lower than 020300) codes and then converted to V0203 specifications. See rule 24 below for using these version numbers in the CS Version Input Current field to stamp all cases which have been processed through a V0203 conversion program.

The conversion specifications/release notes for V0203 are sequential to and do not repeat the conversion specifications for the initial conversion from Collaborative Stage Version 1 to Collaborative Stage Version 2. The conversion from CSv1 to CSv2 must have taken place before converting to CSv0203. Any registry that has decided to convert data from CSv1 directly to V0203 must refer to the “Collaborative Stage Version 1 to Collaborative Stage Version 2 Revised Conversion Specifications” and the “Collaborative Stage Data Collection System Version 2: Implementation Guide for Registries and Vendors,” released March, 2010, for information about the first conversion. These documents can be accessed from the CS website at: <http://cancerstaging.org/cstage/index.html>.

Note that schema names used in this document and the conversion spreadsheets are based on definitions and schema names for CS V0203.

These specifications do include information for converting prostate data items that were initially specified for review and recode in the release of CSv1:V010200, when apex involvement was transferred from CS Extension and CS SSF 3 to CS SSF 4. Review of reported data has since identified a significant volume of cases that have not been recoded, and a conversion program for V0203 was requested by standard setters. Any review of the prostate cases, as discussed below in the “Cases to Review” section, must be done prior to this conversion.

Edits should be run on all CSv2 data plus Primary Site [NAACCR item 400], Histologic Type ICD-O-3 [NAACCR item 522], and Date of Diagnosis [NAACCR item 390] and all errors fixed prior to this conversion.

After conversion to V0203, all cases needing review should be reviewed and recoded and the CS calculation should be performed using the V0203 algorithm to re-derive the CS outputs. See the section, “After Conversion . . .” below for more details on this step.

Collaborative stage data for all cases with a diagnosis date of 1/1/2011 and later must be collected and stage derived using the V0203 revision. Once V0203 is installed, CS data for all new cases with a diagnosis date of 1/1/2004 and forward will be collected, updated, and stage calculated using the V0203 tables and algorithm.

V0203 Changes

A data validation review was performed after the initial release of CSv2, to confirm the mapping of CSv2 codes to AJCC 7 and AJCC 6 staging, Summary Stage 1977, and Summary Stage 2000, and to reinforce consistency in formatting, wording, code definition, and code placement across schemas. This review has resulted in new codes and in codes made newly obsolete. Table notes have been extensively revised and may include new information to guide use and interpretation of the CS codes.

Reasons for New Codes

There were multiple reasons for new codes in CS Extension, CS Lymph Nodes, and CS Mets at DX:

- Components of code descriptions were separated into new codes to correct mapping problems for any of the four stage systems.
- Codes were ordered based on AJCC 7 mapping; for example, a CS Extension code description mapping directly to AJCC 7 T3 was placed after all code descriptions mapping to AJCC 7 T2 and before all code descriptions mapping to AJCC 7 T4.
- Combination codes were added to allow coding to match previous order among components in code descriptions, so that V0203 data remain comparable with previously collected CS data.
- Codes with “stated as” descriptions were placed after codes with specific descriptions mapping to the same AJCC 7 T, N, or M value.

Reasons for new codes in Site-Specific Factors include:

- Consistency with site-specific factor template
- Consistency in site-specific factors collecting similar information across multiple schemas

New Schema and New Site-Specific Factors

One new schema was added; ten new site-specific factors were added; two site-specific factors have been made obsolete, and one site-specific factor was made Active, and is now used for staging.

- New schema: MyelomaPlasmaCellDisorder
- New Site-Specific Factors

MyelomaPlasmaCellDisorder, CS SSF 2, Durie-Salmon Staging System
 MyelomaPlasmaCellDisorder, CS SSF 3, Multiple Myeloma Terminology
 Testis, CS SSF 12, Post-Orchiectomy Alpha Fetoprotein (AFP) Lab Value
 Testis, CS SSF 13, Post-Orchiectomy Alpha Fetoprotein (AFP) Range
 Testis, CS SSF 14, Post-Orchiectomy Human Chorionic Gonadotropin (hCG) Lab Value
 Testis, CS SSF 15, Post-Orchiectomy Human Chorionic Gonadotropin (hCG) Range
 Testis, CS SSF 16, Post-Orchiectomy Lactate Dehydrogenase (LDH) Range
 KaposiSarcoma, CS SSF 2, Systemic Symptoms at Diagnosis
 KaposiSarcoma, CS SSF 3, Ulceration and Edema
 KaposiSarcoma, CS SSF 4, CD4 Cell Count

- **Obsolete Site-Specific Factors**
 MyelomaPlasmaCellDisorder CS SSF 1, Janus Kinase 2 (JAK2) (also known as JAK2 Exon 12)
 Testis, CS SSF 11, Persistence of Elevated Serum Tumor Markers
- **New Use for Site-Specific Factor**
 BileDuctsIntraHepat, CS SSF 10, Tumor Growth Pattern, now required for AJCC 7 T value

New Data Tags for Obsolete Codes

In most cases where a complete code description could be moved to a new code with no disruption to the order in which stage components would have been reviewed by a registrar and a CS value assigned, the original codes were marked for conversion. In cases where there was not a direct conversion from an existing code to a new code, codes have been marked for review. The codes for review are classified as either those which will generate a CS mapping error or those which will derive staging components. The data tags used in this release are:

- **OBSOLETE DATA CONVERTED V0203** – Code converted according to V0203 conversion specifications. Use of this code generates an ERROR for the AJCC 6 and 7 and SS77 and 2000 mappings and the code should not be available for use after conversion to V0203.
- **CONVERTED AND CODE REUSED V0203** – Code converted according to V0203 conversion specifications. All cases coded prior to V0203 with this code are converted to a different code and the new description or definition in V0203 is available for use in V0203.
- **OBSOLETE DATA REVIEWED AND CHANGED V0203** – Code must be reviewed and changed according to V0203 review specifications. Use of this code generates a CS ERROR for the AJCC 6 and 7 and SS77 and 2000 mappings and the code should not be available for use in V0203.
- **OBSOLETE DATA REVIEWED V0203** – Code should be reviewed and changed according to V0203 review specifications. The review is optional but strongly recommended. This code will map according to CS table specifications, but fails an edit on OBSOLETE codes for new cases (CS Version Input Original of V0203) if edit included in metafile used by registry. The code should not be used for new cases.

- **OBSOLETE DATA RETAINED AND REVIEWED V0203** – Code should be reviewed and changed according to V0203 review specifications. The review is optional but strongly recommended for cases originally coded in CSv2 (CS Version Original 020001, 020100, 020200) OR cases with year of diagnosis 2010+. This code will map according to CS table specifications, but fails an edit on OBSOLETE codes for new cases (CS Version Input Original of V0203) if edit included in metafile used by registry. The code should not be used for new cases.
- **OBSOLETE DATA RETAINED V0203** – This tag was used for two situations with different meanings. In one situation, the codes require review for year of diagnosis 2010+; these codes will be found on the spreadsheets with review instructions. The other situation does not require review. For both situations, codes with this tag will map according to CS table specifications for AJCC 6, Summary Stage 1977 and Summary Stage 2000, but will not map for AJCC 7. They should fail an edit on OBSOLETE codes for new cases (CS Version Input Original of V0203) or year of diagnosis 2010+ (only 2011+ for MyelomaPlasmaCellDisorder, CS Extension) if edit included in metafile used by registry.

In addition to the codes marked with the above tags, review and possible recoding is recommended for certain other codes listed on a separate spreadsheet in the accompanying Excel file. These codes are not tagged, but the reason for review may be referenced in a table note.

General Conversion Guidelines

Prior Conversions and Case Reviews

A few data conversions and required reviews of cases were specified as part of CSv1 releases, and many more were included in the first release of CSv2. Some users may have completed the conversions and case reviews while other users may not have. The CSv1-to-CSv2 conversion specifications assumed that CSv1 conversions and reviews had been carried out. The CSv1-to-CSv2 review specifications did identify codes that had been made obsolete and marked for review in a CSv1 release. As noted, these specifications for V0203 are not cumulative and only include information about the conversion from CSV2:020000/020001/020100/020200 to V0203, with the exception for prostate as noted above and explained more fully under the section Cases Needing Review and the description of spreadsheet number 7 below. The CS version in which a code was made obsolete is included in the “OBSOLETE” tag in the CS table.

Running Edits and Handling Invalid Data in Conversion

It is very strongly recommended that all CSv2 data to be converted be run through all relevant standard edits, and that all errors be corrected, prior to conversion. This is especially important for critical fields such as Primary Site [NAACCR item 400], Histologic Type ICD-O-3 [NAACCR item 522], and Date of Diagnosis [NAACCR item 390], since these fields are referenced by the conversion algorithms. Invalid codes in Primary Site or Histologic Type will not allow successful determination of the CS schema, and the case may not convert. Unless errors in these two

critical fields are resolved prior to running the conversion, cases with errors may need to be converted manually at a later time.

Important Note:

If the automated conversion fails to determine a schema, the specification is for the conversion program to copy all CS values without change, including copying of CS Version Input Current [NAACCR item 2937]. A search of converted data for CS Version Input Current less than 020300 and year of diagnosis 2004+ can then identify the cases needing manual review and/or conversion.

Conversions by Diagnosis Year

These conversion specifications are generally written without reference to diagnosis year. Exceptions are specified in the text. Any data in any CS field for which conversions are specified will be converted without regard to year of diagnosis. When desired, further restrictions of the data by diagnosis year can be imposed by edits or local programming. As an example, if a registry wishes to enforce that only cases diagnosed in 2004 and later should have any CS fields populated, that restriction will need to be programmed locally.

Which Data to Convert?

It is assumed that all records are in the NAACCR 12 format and CS data are already in CSv2 (CS Version Input Current of 020000 or 020001 or 020100 or 020200).

Blanks

The specifications convert some codes which were defined as “blank” in the first conversion to new codes. The “blanks” should have been implemented by storing a string of blank characters equal in length to the field length as established in the NAACCR standards. The specifications assume that “blanks” were stored as characters rather than as null characters. Again it is recommended that any remaining “blanks” in CS fields be stored as blank characters rather than as null characters. (However, null characters may be used as display codes in derived descriptors.)

Unknown Year of Diagnosis

Any references to an unknown year of Date of Diagnosis, a valid value used when the year is not known, either in the specifications or within the CS HTML tables, assume the date to be in the NAACCR 12 standard. In the NAACCR 12 standard, an unknown Date of Diagnosis is represented as eight blanks with the Date of Diagnosis Flag [NAACCR item 391] set to "12".

Cases Needing Review

Data conversions are performed programmatically by computer. Other recommended changes must be performed manually, by a registrar reviewing the abstract and determining the correct destination or replacement code. A greater proportion of codes are marked for review in the conversion to V0203 than were marked for review in the conversion from CSv1 to CSv2. Specifications for identifying the cases needing review are provided in the accompanying spreadsheets. The spreadsheets also include instructions for choosing a new code, and identification of the staging components that are affected by the change in code.

The spreadsheet named Prostate Conversion specifies a two-step conversion of some values in CS Extension and CS Site-Specific Factor 3 to a value in CS Site-Specific Factor 4. Once these conversions are applied, the values of 310, 330, or 340 in CS Extension and 031, 033, 034 in CS Site-Specific Factor 3 will be replaced by code 300. If there is any local interest in manual review of cases with these codes, the review must be carried out before the conversion program to CSV0203 is performed.

Also before conversion, any SSF 25 with a value of 100 for cases diagnosed 2010+, should be reviewed and fixed before the conversion program to CSV0203 is performed.

For all other review cases, software providers should provide each user with a list of cases meeting the review criteria after the conversion, so the registrar can complete the conversion of these cases manually. The spreadsheets list the codes needing review, suggested codes for recoding, and notes describing why codes were changed and what the reviewer should be looking for in selecting new codes. The reviewer should always verify the accuracy of the original codes, and consider other codes than those suggested if appropriate for the case information. Note that in many cases two data fields must be recoded if the change in code involves a data description that has been moved to a different data item; for example, certain nodes have been reclassified from regional to distant nodes. Note also that in many cases a combination code may be the appropriate choice, and the reviewer must consider the meaning of other codes involved in the combination that may not be tagged for review. The spreadsheets indicate which derived AJCC 6, AJCC 7, Summary Stage 1977, and Summary Stage 2000 components may be changed by the codes selected during the review process.

Important Notes:

- Codes that are marked OBSOLETE DATA REVIEWED AND CHANGED V0203 must be reviewed and changed - AJCC and Summary Stage values will not be derived for these codes.
- Codes that are marked OBSOLETE DATA REVIEWED V0203 or OBSOLETE DATA RETAINED AND REVIEWED V0203 will continue to derive AJCC and Summary Stage values if they are not changed, but they will produce edit errors if they are used on new cases and the OBSOLETE edits are included in the metafile used by the registry.

Rules-Based Conversions

Item-specific rules are listed in NAACCR item number order.

1. **Blank Fields.** Except for blanks in CS SSFs , any fields that are blank in CSv2: V0200/V0201/V0202 should remain blank after conversion.. The fields should be filled with blank characters equal in number to the field length in CSv2. Exceptions for CS SSFs 1-24 are shown in Rules 19 and 21 below. Exceptions for CS SSF 25 are shown in Rule 20 below.
2. **Grade Path Value [NAACCR item 441].** Copy existing value.
3. **Grade Path System [NAACCR item 449].** Copy existing value.
4. **Lymph-vascular Invasion [NAACCR item 1182]:** Copy existing value.
5. **PreRx and PostRx items [NAACCR items 2730, 2735, 2740, 2750, 2755, 2760, 2765, 2770, 2775, 2780, and 2785].** Copy existing values (these should all be blank.)
6. **CS Tumor Size [NAACCR item 2800].** Copy existing value. Note that the values may change when the spreadsheet conversions are applied.
7. **CS Extension [NAACCR item 2810].** Copy existing value. Note that the values may change when the spreadsheet conversions are applied.
8. **CS Tumor Size/Ext Eval [NAACCR item 2820].** Copy existing value.
9. **Regional Nodes Positive [NAACCR item 820].** For IntracranialGland schema only, convert 00, 01-89, 90, 95, 97, 98 to 99. For all other cases, copy existing value.
10. **Regional Nodes Examined [NAACCR item 830].** For IntracranialGland schema only, convert 00, 01-89, 90, 95, 96, 97, 98 to 99. For all other cases, copy existing value.
11. **CS Lymph Nodes [NAACCR item 2830].** Copy existing value. Note that the values may change when the spreadsheet conversions are applied.
12. **CS Lymph Nodes Eval [NAACCR item 2840].** Copy existing value.
13. **CS Mets at DX [NAACCR item 2850].** Copy existing value. Note that the values may change when the spreadsheet conversions are applied.
14. **CS Mets at Dx-Bone [NAACCR item 2851].** Copy existing value.
15. **CS Mets at Dx-Brain [NAACCR item 2852].** Copy existing value.
16. **CS Mets at Dx-Liver [NAACCR item 2853].** Copy existing value.

17. **CS Mets at Dx-Lung [NAACCR item 2854]**. Copy existing value.
18. **CS Mets Eval [NAACCR item 2860]**. Copy existing value.
19. **Site-Specific Factors 7-24 [NAACCR items 2861-2878]**: If blank and year of Date of Diagnosis 2004+, convert to 988, else copy existing value. Note that the values may change when the spreadsheet conversions are applied.
20. **a. Site-Specific Factor 25 [NAACCR item 2879]**: The schema discriminator is used in CSv2 when site and histology alone cannot identify a schema. Note that for cases diagnosed in 2010 and later that were originally coded with CSv1 codes, a code of 100 should have been put in this field in the conversion from CSv1 to CSv2. Cases diagnosed in 2010 and with code 100 in the field should have been reviewed and code 100 recoded to a schema discriminator CS SSF 25 code other than 100.

“Blanks” were required in the conversion specifications for CSv1 to CSv2 with certain combinations of site and histology. “Blanks” have been eliminated as a valid value for this field in V0203. Convert CS SSF 25 as follows, replacing blanks with a valid value:

IF ((year of Date of Diagnosis [NAACCR item 390] is a valid year greater than or equal to 2004) OR (year of Date of Diagnosis is unknown and CS Extension is not blank))

AND IF CS SSF25 is blank,

THEN

- For combinations of Primary Site [NAACCR item 400] and Histologic Type ICD-O-3 [NAACCR item 522] codes as shown in the table below, convert the blank to the value in the third column and enter it into the converted record.

Primary Site Codes [Schema Names]	Histologic Type ICD-O-3 Codes	New Value for CS SSF 25
C11.0, C11.2, C11.3, C11.8, C11.9 [Nasopharynx]	8000-8713, 8800-9136, 9141-9582, 9700-9701	981
C16.0 [EsophagusGEJunction]	8000-8152,8154-8231,8243-8245, 8247,8248,8250-8934,8940-9136, 9141-9582,9700-9701	982

Primary Site Codes [Schema Names]	Histologic Type ICD-O-3 Codes	New Value for CS SSF 25
C16.3, C16.4, C16.5, C16.6, C16.8, C16.9 [Stomach]	8000-8152,8154-8231,8243-8245, 8247,8248,8250-8934,8940-9136, 9141-9582,9700-9701	981
C48.1, C48.2, C48.8 [Peritoneum]	8580-8589,8680-8921,9120-9136, 9141-9582,9700-9701	981

- For all other combinations of Primary Site and Histologic Type ICD-O-3 codes, fill with code 988

ELSE /*for cases diagnosed before 2004 or when SSF25 is not blank*/ for all other cases, copy existing value into the converted record.

20 b. Site-Specific Factor 25 [NAACCR item 2879]: For the site, histology, and SSF25 codes in the following table, convert the CSV0202 code to the corresponding CS V0203 code.

SSF25 code 050 for EsophagusGEJunction/Stomach and SSF25 code 020 for LacrimalGland/LacrimalSac are included in the Conversion 1 to 1 spreadsheet. Rule 20b replaces the 1-1 conversion for these codes, as noted on the spreadsheet. This conversion must be performed before the schema-based conversions in the spreadsheets, as the CSV0202 codes return ERROR in the CSV0203 DLL and prevent the selection of a CS schema for the cases.

Site	Histology	CSV0202 SSF25 code, obsolete in CS V0203	SSF25 code converted to in CS V0203
C161, C162 [EsophagusGEJunction or Stomach]	8000-8152, 8154-8231, 8243-8245, 8247, 8248, 8250-8934, 8940-9136, 9141-9582, 9700-9701	050 – Stomach	000 – Stomach
C695 [LacrimalGland or LacrimalSac]	8000-8713, 8800-9136, 9141-9508, 9520-9582, 9700-9701	010 – Lacrimal Gland (Lacrimal Duct)	015 – Lacrimal Gland (All CS codes subject to manual

			review after conversion)
C695 [LacrimalGland or LacrimalSac]	8000-8713, 8800-9136, 9141-9508, 9520-9582, 9700-9701	020 – Lacrimal Sac	025 – Lacrimal Sac (Lacrimal Duct)

Further Discussion:

CS V0202 SSF25 code 050 for EsophagusGEJunction/Stomach and CS V0202 SSF25 code 020 for LacrimalGland/LacrimalSac are marked as OBSOLETE DATA CONVERTED V0203. The schema assignment does not change when these codes are converted. Cases need no further review based on the change in the SSF25 code.

CS V0202 SSF25 code 010 for LacrimalGland/LacrimalSac is marked as OBSOLETE DATA REVIEWED V0203. Code 015 is included on the OBSOLETE Changed spreadsheet with review instructions; the conversion program will flag for manual review all cases with CS SSF 25 code 015. Upon manual review after conversion, SSF25 code 015 must be manually recoded to 025 for any lacrimal duct cases that were originally coded in the LacrimalGland schema. All CS codes must be reviewed and recoded for any case that is manually reassigned from the LacrimalGland to the LacrimalSac schema after the conversion program has been run.

21. **CS Site-Specific Factors 1-6 [NAACCR items 2880-2930]:** For Prostate schema SSF3, MelanomaSkin SSF1, and for Retinoblastoma SSF 1, if blank, copy existing value. (See further discussion under Data Reviewed spreadsheet below.) For all other schemas and SSFs 1-6, if blank and year of Date of Diagnosis 2004+, convert to 988, else if not blank, copy existing value. Note that the values may change when the spreadsheet conversions are applied.
22. **CS Version Input Original [NAACCR item 2935].** Copy existing value.
23. **CS Version Derived [NAACCR item 2936].** Fill with blanks.
24. **CS Version Input Current [NAACCR item 2937].** If the site and histology plus SSF 25 do not yield a schema, copy the CS Version Input Current from the incoming record into the new record. See important Note on page 6. If any CS input data element [any of NAACCR item numbers 2800-2936 ONLY] in the record being converted is not blank, fill as noted below, ELSE leave blank.

Values in NAACCR version 12 record being converted

Value to fill in

CS Version Input Original	CS Version Input Current	new NAACCR record, version 12.1
Any version 1	020000	020300
Any version 1 or 2	> 020000	020301

Important Note:

In rules 25-27 below, a code of '2' in the referenced flag indicates that the registry has derived the referenced stage information from EOD and not from the CS input fields.

25. **Derived AJCC-6 fields [NAACCR items 2940, 2950, 2960, 2970, 2980, 2990, 3000].** If Derived AJCC—Flag [NAACCR item 3030] = 2, copy existing values, ELSE fill with blanks.
26. **Derived SS1977 [NAACCR item 3010].** If Derived SS1977—Flag [NAACCR item 3040] = 2, copy existing value, ELSE fill with blanks.
27. **Derived SS2000 [NAACCR item 3020].** If Derived SS2000—Flag [NAACCR item 3050] = 2, copy existing value, ELSE fill with blanks.
28. **Derived AJCC--Flag [NAACCR item 3030].** Copy existing value.
29. **Derived SS1977--Flag [NAACCR item 3040].** Copy existing value.
30. **Derived SS2000--Flag [NAACCR item 3050].** Copy existing value.
31. **Derived AJCC-7 fields [NAACCR items 3400, 3402, 3410, 3412, 3420, 3422, 3430].** Leave blank.
32. **Derived PreRx and PostRx fields [NAACCR items 3440, 3442, 3450, 3452, 3460, 3462, 3470, 3480, 3482, 3490, 3492].** Fill with blanks.
33. **Derived Neoadjuv Rx Flag [NAACCR item 3600].** Fill with blanks.
34. **SEER Site-Specific Factors 1-6 [NAACCR items 3700, 3702, 3704, 3706, 3708, 3710].** Copy existing value.

About the Spreadsheets

The spreadsheets contain specifications for conversions from CSv2: V0200/V0201/V0202 to V0203 that cannot be described by the general rules above. The conversions in the spreadsheets assume that the above conversion rules 1 through 34 have already been applied.

Note that the conversions in the spreadsheets need not be applied to any record that has no data in any of the CS input items with NAACCR item numbers 2800-2936.

There are nine worksheets in the Excel file.

1. Conversion 1 to 1. This sheet contains specifications for all conversions FROM one code, marked with the data tag OBSOLETE DATA CONVERTED V0203, TO one code. The rows are ordered by schema name in V0203, by NAACCR item number, and by code being converted. Columns A through F describe the code being converted FROM, and columns G through J describe the code being converted TO. Descriptions of the codes and table subtitles are included to facilitate review of the specifications by a registrar or other person.
2. Conversion 1 to Many. This sheet provides specifications for the one instance where a single code must convert to one of two codes based on the primary site code. No review is required for this conversion. The columns are similar to those in the first sheet, with the addition of a column for primary site code.
3. Converted and Reused. This sheet provides specifications for conversions FROM code 1 TO code 2, and FROM code 2 TO code 3 where applicable. The codes are in the same data item and no review is required for this conversion. Two data tags may be involved: OBSOLETE DATA CONVERTED V0203 and CONVERTED AND CODE REUSED V0203. These are listed on a separate sheet to draw attention to the codes that are being reused with a different meaning. Such codes must be handled carefully in data entry. If both data tags are involved, the conversion must be done in the order on this spreadsheet.
4. OBSOLETE CHANGED. This sheet provides specifications for identifying cases which require review and recoding by a registrar, marked with the data tag OBSOLETE DATA REVIEWED AND CHANGED V0203. Columns A through F describe the codes needing review. Columns G through L explain how to recode the cases once they have been identified. Columns M through V identify the AJCC and Summary Stage components that may be affected by the change in coding. Note that after conversion any use of the original code values on this spreadsheet will map to ERROR for AJCC 6 and 7 and Summary Stages 1977 and 2000.

The conversion program should generate lists of the affected cases for subsequent manual review.

5. OBSOLETE REVIEWED. This sheet provides specifications for identifying cases for which review and recoding by a registrar is recommended. Columns A through E describe the codes needing review. The codes on this spreadsheet marked OBSOLETE DATA REVIEWED V0203 were new with CSV2. For codes on the spreadsheet marked

~~OBSOLETE DATA RETAINED AND REVIEWED V0203~~ or ~~OBSOLETE DATA RETAINED V0203~~, review is only recommended for cases originally coded in CSv2 or diagnosed in 2010+. For codes on the spreadsheet marked OBSOLETE DATA RETAINED V0203, review is only recommended for cases diagnosed in 2011 + (this tag only appears on the fifth spreadsheet with MyelomaPlasmaCellDisorder, CS Extension). Columns F through K explain how to recode the cases once they have been identified. Columns L through U identify the AJCC and Summary Stage components that may be affected by the change in coding. Note that use of codes on this spreadsheet will derive stage values if not changed, but they will generate edit errors if used in new cases, if the metafile used by the registry includes the OBSOLETE edits. Edits applied may vary by registry and standard setter.

The conversion program should generate lists of the cases from this spreadsheet for which review is recommended, defined as follows:

- a. Tagged as OBSOLETE DATA REVIEWED V0203
- b. Tagged as OBSOLETE DATA RETAINED AND REVIEWED V0203 and ((CS Version Input Original greater than or equal to 020000) or (year of date of diagnosis = 2010 or later))
- c. Tagged as OBSOLETE DATA RETAINED V0203 and year of date of diagnosis = 2011 or later. [Note that this tag only appears on the fifth spreadsheet with MyelomaPlasmaCellDisorder, CS Extension codes.]

The decisions about which of the listed cases to review may be made by individual registries based on local interests, standard setter requirements, edits, and available resources.

6. DATA REVIEWED. This sheet provides specifications for identifying cases that require review and possible recoding by a registrar; the codes are not tagged, but the rationale for review may be described in table notes. Columns A through G describe the codes needing review. Columns H through L explain how to recode the cases once they have been identified. Columns M through V identify the AJCC and Summary Stage components that may be affected by the change in coding.

As of February 14, 2011, three additional codes were added to this sheet. For the Retinoblastoma schema CS SSF 1, MelanomaSkin CS SSF1, and Prostate schema CS SSF 3, if blank, the case must be reviewed. See the spreadsheet for a more detailed explanation.

The conversion program should generate lists of the affected cases for subsequent manual review.

7. Prostate Conversion. This sheet contains specifications for converting CS Extension codes and CS SSF 3 codes for apex involvement, made obsolete in CSv1:0102, to non-obsolete CS Extension and CS SSF 3 codes and to CS SSF 4 codes. The sheet contains a three-way table, based on CS Extension, CS SSF 3, and CS SSF 4, used to first determine the converted value for CS SSF4. Once this conversion is made, the obsolete values in CS Extension and CS SSF 3 are converted to code 300. Any locally desired manual review of the prostate cases coded with the obsolete values 310, 330, or 340 in CS Extension or 031, 033, 034 in CS Site-Specific Factor 3 must have been done **prior to conversion to v0203** (this conversion) since these codes will cease to exist after conversion.

Note that the table shows that if a Prostate schema record does not contain one of the target obsolete codes, the value in CS SSF4 will remain unchanged post-conversion to CSv0203.

8. Minimal 1 to 1. This sheet contains a condensed version of the data in sheet 1. The conversions are shown with minimal information needed to implement automated conversions, and the descriptive columns have been removed.
9. New Codes. This sheet lists all the codes which are new in V0203. Columns A through G describe the codes.

Important Note:

The code descriptions in columns labeled "Description from CSv2: V0203" reflect the descriptions in the V0203 tables. In some cases the code references in the descriptions are incomplete or incorrect. The code references and descriptions in columns labeled "Recode to Code/Value" and "Recode to CSv2: V0203 Description" are correct.

After Conversion: Re-Run All Calculations, Store Appropriate Values, Update CS Version Derived, and Run EDITS

After data are converted according to the guidelines and rules above, re-calculate and store values for all derived fields that are collected/stored in your registry, following the instructions below.

V0203 includes many corrections to the AJCC and Summary Stage derived stage values. Re-deriving these fields will correct stage data collected and derived previously. If records have been reviewed and recoded manually as part of the conversion, re-calculate the derived fields on those records after they have been recoded.

Cases which fail any derivation after conversion can be identified by a blank value in the derived component field and a value of 020300 or 020301 in the CS Version Input Current field.

After the conversion is complete and CS values are derived, EDITS should be run on all cases which have gone through the conversion process. All EDITS errors should be reviewed and EDITS failures corrected. Note that all cases with codes marked OBSOLETE DATA REVIEWED AND CHANGED will fail EDITS until the records are reviewed and coding updated.

Important Note:

Note that the CS Version Input Current value for converted cases is to be set by the conversion program as specified in Rule 24 above. The value in this field should be updated to the same value in the CS Version Derived field ONLY if any of the CS input codes in the record are actually reviewed and the codes are confirmed as valid for V0203 or are updated to V0203 codes.

Instructions for Deriving and Storing Stage Values:

The instructions below presuppose that the CS algorithm as supplied in the CS DLL is being applied as written, and the instructions refer to successful calculation of the various outputs. The algorithm will calculate or not calculate various outputs depending on the year of diagnosis and CS Version Input Original. The detailed logic of how the algorithm makes these decisions can be found in section 2.2 of the CSv2 Implementation Guide.

Obtain the new derived fields in the data card. Decide which new derived values to store in the converted record, based on the values of the Derived flags and on which derived stages the registry wants to store. Note that in each case described below, a code of '2' in the referenced flag indicates that the registry has derived the referenced stage information from EOD and not from the CS input fields. When this is the case, CS Version Derived should be left blank. Note that this may contradict the published NAACCR standards, but we think this is correct behavior when a flag is '2'.

1. Derived SS1977 [NAACCR item 3010]
 - a. If Derived SS1977—Flag is not '2' and if the registry wants to store SS1977 and the calculation of SS1977 is successful, store the newly derived SS1977 from the data card, set Derived SS1977—Flag to '1', and set the CS Version Derived to 020302.
 - b. If Derived SS1977—Flag is not '2' and if the registry wants to store SS1977 but the calculation of SS1977 is not successful, set Derived SS1977 and Derived SS1977—Flag to blanks, and set the CS Version Derived to 020302.
 - c. If Derived SS1977—Flag is not '2' and if the registry does not want to store SS1977, set Derived SS1977 and Derived SS1977—Flag to blanks.
2. Derived SS2000 [NAACCR item 3020]

- a. If Derived SS2000—Flag is not '2' and if the registry wants to store SS2000 and the calculation of SS2000 is successful, store the newly derived SS2000 from the data card, set Derived SS2000—Flag to '1', and set the CS Version Derived to 020302.
 - b. If Derived SS2000—Flag is not '2' and if the registry wants to store SS2000 but the calculation of SS2000 is not successful, set Derived SS2000 and Derived SS2000—Flag to blanks, and set the CS Version Derived to 020302.
 - c. If Derived SS2000—Flag is not '2' and if the registry does not want to store SS2000, set Derived SS2000 and Derived SS2000—Flag to blanks.
3. Derived AJCC 6 and 7 [NAACCR items 2940-3000 and items 3400, 3402, 3410, 3412, 3420, 3422, and 3430]
- a. If Derived AJCC—Flag is not '2' and if the registry wants to store AJCC and the calculation of AJCC 6 and AJCC 7 has any successful parts, store the newly derived AJCC fields from the data card, set Derived AJCC—Flag to '1', and set the CS Version Derived to 020302.
 - b. If Derived AJCC --Flag is not '2' and if the registry wants to store AJCC but no part of the calculation of AJCC 6 or AJCC 7 is successful, set the derived AJCC fields and Derived AJCC—Flag to blanks, and set the CS Version Derived to 020302.
 - c. If Derived AJCC—Flag is not '2' and if the registry does not want to store AJCC, set the derived AJCC fields and Derived AJCC—Flag to blanks.