CODEBOOK FOR CANCER REGISTRY VARIABLES

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SUMMARY OF CANCER REGISTRY DATA

The Southern Community Cohort Study (SCCS) has received data from the population-based cancer registries in the following twelve states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. Each registry uses the North American Association of Central Cancer Registries (NAACCR) data dictionary. The SCCS obtains an updated linkage when a new year of data is available from the registry. The most recently returned record for a case is given priority in the creation of analytic datasets.

The SCCS has attempted to collect the same variables from all registries, but this is not always possible since each registry has different regulations for releasing data items to researchers.

The coding for many NAACCR variables varies by primary site. The SCCS has developed codebooks with the site-specific coding schemes for breast, lung, prostate, colorectal, esophagus and gastrointestinal stromal tumors of the esophagus, pancreas, and kidney, renal pelvis, and ureter cancers. These supplemental codebooks are available on the ORS codebooks and documentation page. Additional site-specific codebooks are currently being developed for cancers of the oral cavity and pharynx, liver and biliary tract, larynx, and lymphoma. The coding for all other sites must be found in the reference manual for the variable of interest, specified in the "Comments" column for that variable. Please contact datause@southerncommunitystudy.org for additional information.

TUMOR REPORTING

All health care providers are required to report newly diagnosed cancer cases to their state's cancer registry. Death certificates and pathology laboratory reports are used to help identify cases that are missed in the routine reporting. Most population-based registries, at a minimum, follow the standards set by the Surveillance, Epidemiology and End Results (SEER) or the National Program of Cancer Registries (NPCR).

Standards for tumor reportability are defined by the following criteria: reference date, residency, reportable tumor list, *in situ*/invasive classification and multiple primary reporting rules

REFERENCE DATE

The reference date is the date after which all reportable tumors diagnosed within the state must be included in the state registry. The reference dates for the state cancer registries with which the SCCS has linked are listed below.

Registry	Reference Date
Alabama Statewide Cancer Registry	1/1/1996
Arkansas Central Cancer Registry	1/1/1996
Florida Cancer Data System	1/1/1981
Georgia Comprehensive Cancer Registry	1/1/1995
Kentucky Cancer Registry	1/1/1991
Louisiana Tumor Registry	1/1/1988
Mississippi Central Cancer Registry	1/1/1996*
North Carolina Central Cancer Registry	1/1/1990
South Carolina Central Cancer Registry	1/1/1996
Tennessee Cancer Registry	1/1/1999
Virginia Cancer Registry	1/1/1996
West Virginia Cancer Registry	1/1/1995

*May be incomplete through 2002

RESIDENCY

All tumors occurring in the at-risk population must be included in the population-based registry. See the SEER Program Code Manual for additional information. In the event the SCCS received information on a cancer from more than one state, priority was given to the record returned from the participant's state of residence.

REPORTABLE TUMOR LIST

For all tumors diagnosed from January 1, 1992 through December 31, 2000, the Commission on Cancer (CoC), SEER, and NPCR all require the inclusion of every neoplasm in ICD-O-2 with a behavior code of 2 or 3 (*in situ* or malignant), with the exception of squamous and basal cell carcinomas of the skin and carcinoma *in situ* of the cervix uteri since 1996. For all tumors diagnosed on or after January 1, 2001, all three organizations require the inclusion of every neoplasm in ICD-O-3 with a behavior code of 2 or 3 (*in situ* or malignant), with the exception of: squamous cell and basal cell carcinoma of the skin, prostatic intraepithelial neoplasia (PIN) III, carcinoma *in situ* (CIS) of the cervix and cervical intraepithelial neoplasia (CIN) III. Additionally, the inclusion of all non-malignant primary intracranial and central nervous system (CNS) tumors diagnosed on or after January 1, 2004 is required.

IN SITU/INVASIVE

In situ tumors are not usually included in published incidence rates, except for bladder tumors. Unless otherwise requested, incident cancer data for SCCS participants will include invasive and *in situ* bladder cancers and invasive cancers only for all other primary sites.

MULTIPLE PRIMARY RULES

SEER rules have been the *de facto* standard for determining the number of primary cancers in the U.S. for both central and hospital-based registries. For more details, refer to the SEER Program Coding and Staging Manuals.

Incident cancer datasets provided by the SCCS will generally include one record per case. In the event of metachronous bilateral cancer diagnoses, if the first diagnosis is prevalent (i.e., diagnosed prior to enrollment), and the second diagnosis is incident, the second diagnosis is kept. For metachronous bilateral diagnosis where both diagnoses are incident, the earlier diagnosis is kept. Multiple records will be provided per case for synchronous bilateral cancers unless otherwise requested.

CANCER STAGING

Historically, four major staging schemes have been widely used in cancer registries in the United States. The schemes-AJCC TNM, SEER Extent of Disease, SEER Historic Stage, and SEER Summary Stage-differ in complexity, purpose, structure, rules, and definitions. AJCC TNM staging provides forward flexibility and clinical utility. SEER EOD provides longitudinal stability for epidemiological studies. And, SEER Historic and Summary Stage provide population surveillance staging capability. Several oncology subspecialties have developed staging systems applying to a limited number of cancer sites.

The SCCS has summary stage variables (SCCS_SummStage, SCCS_SummAJCCStage, SCCS_SummAJCCStageGroup) derived from the NAACCR summary stage variables and the Collaborative Stage algorithm.

A summary of the major staging schemes is provided below.

The American Joint Committee on Cancers TNM System (AJCC TNM)

The AJCC Cancer Staging Manual is a site-specific staging system that consists of separate categories for the tumor, nodes, and metastases; the TNM categories then are grouped by stage, from 0 to IV. See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions for more information.

SEER Extent of Disease (SEER EOD)

SEER EOD is a site-specific 10-digit coding scheme required for SEER registries until December 31, 2003. EOD was designed to allow collapse of the codes into the stage groupings of several different staging systems, including AJCC stage group. *See SEER Extent of Disease, 1988: Codes and Coding Instructions, Third Edition* for more information.

SEER Summary Stage

Cancers diagnosed on or after January 1, 2001 were assigned a summary stage according to the SEER Summary Staging Manual 2000, reported in the SEER Summary Stage 2000 [NAACCR 759] data item. Cancers diagnosed before January 1, 2001 were assigned a summary stage according to Summary Stage Guide, Cancer Surveillance Epidemiology and End Results Reporting, SEER Program, April 1977, reported in the SEER Summary Stage 1977 [760] data item. This site-specific single-digit coding scheme was required for NPCR registries until December 31, 2003, and it was also used by some SEER registries.

For cases diagnosed on or after January 1, 2004, the SEER Summary Stage is contained in derived variables from the CS algorithm: Derived SS1977 [3010] and Derived SS2000 [3020] for SEER Summary Stage 1977 and SEER Summary Stage 2000, respectively. See the *SEER Program Coding and Staging Manuals* for more information.

Collaborative Stage

In January 2004, Collaborative Stage was introduced to reduce duplication of effort and provide a common staging schema for registry use and from which the other major staging categories could be electronically derived. All participating registries require the use of the CS version 1 for cases diagnosed from January 1, 2004 through December 31, 2009, but not every registry required every data element. CS version 2 is effective for cases diagnosed on and after January 1, 2010.

The Collaborative Stage data set is a combination of data items that includes tumor size, extension, lymph node status, metastatic status, evaluation fields describing the hierarchy of the data collected and relevant site-specific information. The systems for which staging currently can be derived include AJCC TNM 6th Edition, AJCC TNM 7th Edition, SEER Summary Stage 1977, and SEER Summary Stage 2000. See *CS Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-) for more information

FOR ADDITIONAL INFORMATION

For additional information on the NAACCR Standards for cancer registry data, see: Thornton ML, (ed). Standards for Cancer Registries Volume II: Data Standards and Data Dictionary, Record Layout Version 14, 18th ed. Springfield, Ill.: North American Association of Central Cancer Registries, September 2013.

REQUIRED ACKNOWLEDGMENT FOR MANUSCRIPTS USING SCCS CANCER REGISTRY LINKAGE DATA

Data on SCCS cancer cases used in this publication were provided by the Alabama Statewide Cancer Registry; Kentucky Cancer Registry, Lexington, KY; Tennessee Department of Health, Office of Cancer Surveillance; Florida Cancer Data System; North Carolina Central Cancer Registry, North Carolina Division of Public Health; Georgia Comprehensive Cancer Registry; Louisiana Tumor Registry; Mississippi Cancer Registry; South Carolina Central Cancer Registry; Virginia Department of Health, Virginia Cancer Registry; Arkansas Department of Health, Cancer Registry, 4815 W. Markham, Little Rock, AR 72205. The Arkansas Central Cancer Registry is fully funded by a grant from National Program of Cancer Registries, Centers for Disease Control and Prevention (CDC). Data on SCCS cancer cases from Mississippi were collected by the Mississippi Cancer Registry which participates in the National Program of Cancer Registries (NPCR) of the Centers for Disease Control and Prevention (CDC). The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of the CDC or the Mississippi Cancer Registry. Cancer data for SCCS cancer cases from West Virginia have been provided by the West Virginia Cancer Registry. The opinions expressed are those of the authors and do not necessarily represent those of the CDC or the West Virginia Cancer Registry.

SCCS Variables

VARIABLE NAME	DESCRIPTION AND CODING	COMMENTS
YEAR_DX	Year of cancer diagnosis	
AgeDx	Age at cancer diagnosis (years), determined by date of cancer diagnosis and date of birth. Numeric value (integer)	Priority is given to the date of diagnosis reported by the cancer registry. If identified through NDI only, the date of diagnosis is the date of death.
AgeDxMo	Age at cancer diagnosis (months), determined by date of cancer diagnosis and date of birth. Numeric value (integer)	Priority is given to the date of diagnosis reported by the cancer registry. If identified through NDI only, the date of diagnosis is the date of death.
REGISTRYSTATE	Registry State providing cancer information. AL Alabama AR Arkansas FL Florida GA Georgia LA Louisiana KY Kentucky MS Mississippi NC North Carolina SC South Carolina TN Tennessee VA Virginia WV West Virginia	
INCIDENCE_MONTHS	Number of months between participant's SCCS enrollment date and date of diagnosis, rounded to the nearest month. Numeric value (integer)	

INCIDENCE_FLAG	Indicates an incident cancer diagnosis. 0 Date of cancer diagnosis is on or before SCCS enrollment date 1 Date of cancer diagnosis is after SCCS enrollment date	
BREAST_CANCER	Flag indicating cancer was a breast cancer. 1 ICD-O-3 Primary Site of C50.0-C50.6, C50.8, C50.9; excluding the following histologies: 9590-9989, 9050-9055, 9140+; invasive behavior (behavior_icdo3 = 3)	
COLORECTAL_CANCER	Flag indicating cancer was a colorectal cancer. 1 ICD-O-3 Primary Site of C18.0-C18.9, C19.9, C20.9; excluding the following histologies: 9590-9989, 9050-9055, 9140+; invasive behavior (behavior_icdo3 = 3)	
LUNG_CANCER	Flag indicating cancer was a lung cancer. 1 ICD-O-3 Primary Site of C34.0-C34.3, C34.8-C34.9; excluding the following histologies: 9590-9989, 9050-9055, 9140+; invasive behavior (behavior_icdo3 = 3)	
PROSTATE_CANCER	Flag indicating cancer was a prostate cancer. 1 ICD-O-3 Primary Site of C61.9; excluding the Following histologies: 9590-9989, 9050-9055, 9140+; invasive behavior (behavior_icdo3 = 3)	
SCCS_SUMMSTAGE	SCCS summary stage variable. 0 In situ 1 Localized 2 Regional, direct extension 3 Regional, lymph nodes only 4 Regional, extension and nodes 5 Regional, NOS 7 Distant 8 Not applicable 9 Unknown/Unstaged	Derived from SEER SS2000 (759) , Derived SS2000 (3020), SEER SS1977 (760), Derived SS1977 (3010) and variables contributing to the CS staging scheme
SCCS_SummAJCCStage	SCCS AJCC Stage variable. Cases of cancer with similar prognosis are grouped based on the clinical and/or pathologic T, N, and M categories. These form a reproducible and easily communicated summary of staging information. Criteria for stages vary by site. 0 Stage 0 (carcinoma in situ) I Stage I II Stage II III Stage III IV Stage IV	Derived from AJCC 6th (3000) Edition Stage Group, AJCC 7th Edition Stage Group (3430), and variables contributing to the CS staging scheme. See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions and *Collaborative Staging*

		(*CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).
SCCS_SummAJCCStageGroup	SCCS AJCC Stage Group variable. Expanded groupings for more refined prognostic information. 000 Stage 0 010 Stage 0a 020 Stage 0is 100 Stage I 110 Stage I NOS 120 Stage IA 130 Stage IA1 140 Stage IA2 121 Stage IA NOS 150 Stage IB 160 Stage IB1 170 Stage IB2 151 Stage IB NOS 180 Stage IC 190 Stage IS 230 Stage ISA (lymphoma only) 240 Stage ISB (lymphoma only) 200 Stage IEA (lymphoma only) 210 Stage IEB (lymphoma only) 220 Stage IE (lymphoma only) 300 Stage II 310 Stage II NOS 320 Stage IIA 321 Stage IIA NOS 322 Stage IIA1 323 Stage IIA2 330 Stage IIB 340 Stage IIC 350 Stage IIEA (lymphoma only) 380 Stage IISA (lymphoma only) 390 Stage IISB (lymphoma only) 400 Stage IIS (lymphoma only) 410 Stage IIESA (lymphoma only) 420 Stage IIESB (lymphoma only) 430 Stage IIES (lymphoma only) 500 Stage III 510 Stage III NOS 520 Stage IIIA 530 Stage IIIB 540 Stage IIIC 541 Stage IIIC1 542 Stage IIIC2 550 Stage IIIEA (lymphoma only) 560 Stage IIIEB (lymphoma only) 570 Stage IIIE (lymphoma only) 580 Stage IIISA (lymphoma only) 590 Stage IIISB (lymphoma only) 600 Stage IIIS (lymphoma only) 610 Stage IIIESA (lymphoma only) 620 Stage IIIESB (lymphoma only) 630 Stage IIIES (lymphoma only) 700 Stage IV 710 Stage IV NOS 720 Stage IVA 721 Stage IVA1 722 Stage IVA1 730 Stage IVB 740 Stage IVC	Derived from AJCC 6th Edition Stage Group (3000), AJCC 7th Edition Stage Group (3430), and variables contributing to the CS staging scheme. See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions and *Collaborative Staging* (*CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).

	360 Stage IIEB (lymphoma only) 370 Stage IIE (lymphoma only) 888 Not applicable 900 Stage occult 999 Stage unknown	
BILATERAL_FLAG	Flag indicating a bilateral cancer, cancer that occurs in both pair of organs (e.g., breast, lung, kidney, etc.) at the same time. 1 Bilateral cancer	

Cancer Identification Variables

VARIABLE NAME	DESCRIPTION AND CODING	COMMENTS
SEQ_NO_CENTRAL	Sequence Number – Central: Sequence of all reportable neoplasms over person's lifetime (based on year of diagnosis). *In Situ/*Malignant tumors: 00 One primary in patient's lifetime 01-59 Sequence of this primary for a patient with two or more primaries 99 Unspecified or unknown sequence number Non-malignant tumors: 60 Benign brain/One non-malignant tumor 61 First of two or more non-malignant tumors 62 Second of two or more non-malignant tumors … 88 Unspecified or unknown sequence number 98 Cervix carcinoma *in situ* (CIS)/CIN III (Diagnosis years 1996-2002)	NAACCR VARIABLE 380
PRIMARY_SITE	Primary site. Location of tumor, coded according to the International Classification of Diseases for Oncology, 3rd edition (ICD-O-3).	NAACCR VARIABLE 400 *Will not be released for all participants. Specify code ranges of interest.*
PRIMARY_SITE_DESC	Primary site description. Text label corresponding to the ICD-O-3 primary site.	*Will not be released for all participants. Specify code ranges of interest.*
SITE_GROUP	Primary site group of reported tumor. A text label corresponding to the primary site/histology groupings commonly use in the reporting of cancer data by SEER. See appendix for the complete definition of each grouping.	SCCS derived variable *Will not be released for all participants. Specify code ranges of interest.*

LATERALITY	Laterality. Side of a paired organ or side of body on which tumor originated. 0 Not a paired site 1 Right: origin of primary 2 Left: origin of primary 3 Only one side involved, right or left origin unspecified 4 Bilateral involvement at time of diagnosis, lateral origin unknown for a single primary; Both ovaries involved simultaneously, single histology; Bilateral retinoblastomas; Bilateral Wilms tumors 5 Paired site: midline tumor 9 Paired site, but no information concerning laterality	NAACCR VARIABLE 410
HIST_ICDO2	Histologic type. The microscopic composition of tumor cells and/or tissue coded according to International Classification of Diseases for Oncology, 2nd edition (ICD-O-2). Histology is the first component of the morphology code.	NAACCR VARIABLE 420 For cases diagnosed from January 1, 1992 through December 31, 2000
BEHAVIOR_ICDO2	Behavior type. Behavior of tumor coded according to ICD-O-2. Behavior code is the second component of the morphology code. 0 Benign 1 Uncertain whether benign or malignant; Borderline malignancy; Low malignant potential; Uncertain malignant potential 2 Carcinoma in situ; Intraepithelial; Noninfiltrating; Noninvasive 3 Malignant, primary site	NAACCR VARIABLE 430 For cases diagnosed from January 1, 1992 through December 31, 2000
GRADE	Grade. Degree of differentiation or origin of tumor (for lymphomas and leukemias, field also indicates T-, B-, Null, or NK cell origin). 1 Grade I; well-differentiated; differentiated, NOS 2 Grade II; moderately differentiated; moderately well-differentiated; intermediate differentiation 3 Grade III; poorly differentiated; dedifferentiated 4 Grade IV; undifferentiated; anaplastic 5 T-cell; T-precursor 6 B-cell; pre-B; B-precursor 7 Null cell 8 NK (natural killer) cell (Diagnosis years 1995+) 9 Unknown; Not stated; Not applicable	NAACCR VARIABLE 440

DX_CONFIRMATION	Diagnostic confirmation. Best method used to confirm presence of cancer being reported. Microscopically confirmed: 1 Positive histology 2 Positive cytology 3 Positive histology PLUS positive immunophenotyping AND/OR positive genetic studies 4 Positive microscopic confirmation, method not specified Not microscopically confirmed: 5 Positive laboratory test/marker study 6 Direct visualization without microscopic confirmation 7 Radiography and/or other imaging techniques without microscopic confirmation 8 Clinical diagnosis only (other than 5, 6, or 7) Confirmation unknown: 9 Unknown whether or not microscopically confirmed or a death certificate only case	NAACCR VARIABLE 490 Code 3 is used only for hematopoietic and lymphoid neoplasms diagnosed on or after January 1, 2010
TYPE_REPORT_SOURCE	Type of reporting source. Records source used to abstract the majority of tumor information. 1 Hospital inpatient; Managed health plans with comprehensive, unified medical records 2 Radiation Treatment Centers; Medical Oncology Centers 3 Laboratory only 4 Physician's office; Private medical practitioner 5 Nursing; Convalescent home; Hospice 6 Autopsy only 7 Death certificate only 8 Other hospital outpatient units; Surgery centers	NAACCR VARIABLE 500
HIST_ICDO3	Histologic type. The microscopic composition of tumor cells and/or tissue coded according to ICD-O-3. Histology is the first component of the morphology code.	NAACCR VARIABLE 522 For cases diagnosed on or after January 1, 2001

BEHAVIOR_ICDO3	Behavior code. Behavior of tumor coded according to ICD-O-3. Behavior is the second component of the morphology code. 0 Benign 1 Uncertain whether benign or malignant; Borderline malignancy; Low malignant potential; Uncertain malignant potential 2 Carcinoma in situ; Intraepithelial; Noninfiltrating; Noninvasive 3 Malignant, primary site	NAACCR VARIABLE 523 For cases diagnosed on or after January 1, 2001
MORPHOLOGY_ICDO3	Morphology. Cell type and behavior of tumor being reported coded according to ICD-O-3. Derived from HIST_ICDO3 and BEHAVIOR_ICDO3 as: "[Hist_ICDO3] / [Behavior_ICDO3]"	

Hospital Administrative Variables

VARIABLE NAME	DESCRIPTION AND CODING	COMMENTS
SEQ_NO_HOSP	Sequence number – hospital. Sequence of all malignant and non-malignant neoplasms over lifetime of patient. If two or more tumors are diagnosed at the same time, the lowest sequence number is assigned to the diagnosis with the worst prognosis. In situ/Malignant Tumors: 00 One malignant primary only in patient's lifetime 01-58 Sequence of this primary for a patient with two of more primaries 59 Fifty-ninth or higher of fifty-nine or more malignant primaries ... 99 Unspecified sequence number of a primary malignant tumor or unknown Non-malignant Tumors: 60 Only one non-malignant tumor in patient's lifetime 61 First of two or more non-malignant tumors 62 Second of two or more non-malignant tumors … 88 Unspecified number of non-malignant tumors	NAACCR VARIABLE 560
CLASS_OF_CASE	Class of case. Primary reporting facility's (See TYPE_REPORT_SOURCE) role in managing patient's cancer. Coding is presented as NAACCR v 11/NAACCR v 12. When the NAACCR version 11 code is stated as "NA," this code is new to version 12 and did not exist in version 11. Analytic cases: *Initial diagnosis at reporting facility* 0/00 Initial diagnosis at reporting facility AND all treatment or decision not to treat was done elsewhere 1/10 Initial diagnosis at reporting facility AND part or all of first course treatment or decision not to treat was at reporting facility, NOS NA/11 Initial diagnosis in staff physician's office AND part of first course treatment was done at reporting facility NA/12 Initial diagnosis in staff physician's office AND all first course treatment or decision not to treat was done at reporting facility NA/13 Initial diagnosis at reporting facility AND part of first course treatment was done at reporting facility	NAACCR VARIABLE 610

	NA/14 Initial diagnosis at reporting facility AND all first course treatment or decision not to treat was done at reporting facility *Initial diagnosis elsewhere* 2/20 Initial diagnosis elsewhere AND all or part of first course treatment was done at reporting facility, NOS NA/21 Initial diagnosis elsewhere AND part of first course treatment was done at reporting facility NA/22 Initial diagnosis elsewhere AND all first course treatment or a decision not to treat was done at reporting facility Non-analytic cases: *Patient appears in person at reporting facility* NA/30 Initial diagnosis and all first course treatment elsewhere AND reporting facility participated in diagnostic workup (i.e., consult only or staging workshop) NA/31 Initial diagnosis and all first course treatment elsewhere AND reporting facility provided in-transit case 3/32 Diagnosis AND all first course treatment provided elsewhere AND patients presents at reporting facility with disease recurrence or persistence NA/33 Diagnosis AND all first course treatment provided elsewhere AND patient presents at reporting facility with disease history only NA/34 Type of case not required by CoC to be accessioned AND initial diagnosis AND part or all of first course of treatment by reporting facility 4/35 Case diagnosed before program's reference date AND initial diagnosis AND all or part of first course treatment by reporting facility NA/36 Type of case not required by CoC to be accessioned AND initial diagnosis elsewhere AND all or part of first course treatment by reporting facility NA/37 Case diagnosed before program's reference date AND initial diagnosis elsewhere AND all or part of first course treatment by facility 5/38 Initial diagnosis established by autopsy at reporting facility, cancer not suspected prior to death *Patient does not appear in person at reporting facility* 6/40 Diagnosis AND all first course treatment given at same staff physician's office NA/41 Diagnosis and all first course treatment given in 2 or more different staff physician's offices NA/42 Non-staff physician or non-CoC accredited clinic or other facility, not part of reporting facility, accessioned by reporting facility for diagnosis and/or treatment by that entity (i.e., hospital abstracts cases from an independent radiation facility)	

	7/43 Pathology or other lab specimens only 8/49 Death certificate only 9/99 Non-hospital cases abstracted by cancer registry	
PRIMARY_PAYER_DX	Primary payer at diagnosis. Primary payer or insurance carrier at time of initial diagnosis and/or treatment. 01 Not insured 02 Not insured, self-pay 10 Insurance, NOS 20 Private insurance: Managed care, HMO, PPO 21 Private insurance: Fee-for-Service 31 Medicaid 35 Medicaid – Administered through a Managed Care plan 60 Medicare/Medicare, NOS 61 Medicare with supplement, NOS 62 Medicare – Administered through a Managed Care plan 63 Medicare with private supplement 64 Medicare with Medicaid eligibility 65 TRICARE 66 Military 67 Veterans Affairs 68 Indian/Public Health Service 99 Unknown	NAACCR VARIABLE 630

Stage/Prognostic Factors

VARIABLE NAME	DESCRIPTION AND CODING	COMMENTS
SEER_SS2000	SEER Summary Stage 2000: Summary stage at initial diagnosis or treatment of reportable tumor. Includes all information available through completion of surgery(ies) in the first course of treatment or within 4 months of diagnosis in the absence of disease progression, whichever is longer. 0 In situ 1 Localized 2 Regional, direct extension only 3 Regional, regional lymph nodes only 4 Regional, direct extension and regional lymph nodes 5 Regional, NOS 7 Distant 8 Not applicable 9 Unstaged	NAACCR VARIABLE 759 For cases diagnosed on or after January 1, 2001 For additional information, see the *SEER Program Coding and Staging Manuals*.
SEER_SUMM_STAGE_1977	SEER Summary Stage 1977: Summary stage at initial diagnosis or treatment of reportable tumor. Limited to information available within 2 months of the date of diagnosis. 0 In situ 1 Localized 2 Regional, direct extension only 3 Regional, regional lymph nodes only 4 Regional, direct extension and regional lymph nodes 5 Regional, NOS 7 Distant 8 Not applicable 9 Unstaged	NAACCR VARIABLE 760 For cases diagnosed before January 1, 2001. For additional information, see the *SEER Program Coding and Staging Manuals*.

EOD_TUMOR_SIZE	EOD - Tumor size. Largest dimension of primary tumor in millimeters. General guidelines are listed here, but coding varies by primary site. 000 No mass or tumor found (for example, tumor of primary site is not found but tumor has metastasized) 001 Microscopic focus or foci of tumor only 002 For breast cancer, a non-palpable tumor discovered or diagnosed on mammography/xerography only with no size given is coded as '002'; A breast tumor 2 millimeters in size would be coded to '003' 009 In general, if a tumor is described as less than 1 cm, code as '009' 019 In general, if a tumor is described as less than 2 cm, code as '019' 999 Unknown size; Not applicable (e.g., hematopoietic neoplasms)	NAACCR VARIABLE 780 For cases diagnosed from January 1, 1988 through December 31, 2003. *See SEER Extent of Disease, 1988: Codes and Coding Instructions, Third Edition* for more information.
EOD_EXTENSION	EOD - Extension. Farthest documented extension of tumor away from primary site, either by contiguous extension or distant metastases. A higher number generally documents farther extension, but coding varies by primary site. 00 In situ 01-84 Varies by site 85 Distant metastases 99 Unknown if extension or metastasis	NAACCR VARIABLE 790 For cases diagnosed from January 1, 1988 through December 31, 2003 *See SEER Extent of Disease, 1988: Codes and Coding Instructions, Third Edition* for more information.
EOD_EXTENSION_PROST_PATH	EOD - Extension Prost Path (Pathologic Extension). Extension of tumor for prostate cancer cases. Reflects information from radical prostatectomy. This field is left blank for all other primaries. 00 In situ 20 Involvement of one lobe, NOS 23 More than one lobe involved 30 Localized, NOS 31 Into prostatic apex/arising in prostatic apex, NOS 33 Arising in prostatic apex 34 Extending into prostatic apex 40 No extracapsular extension but margins involved 41 Extension to periprostatic tissue; extension, NOS; through capsule, NOS 42 Unilateral extracapsular extension 43 Bilateral extracapsular extension 45 Extension to seminal vesicle(s)	NAACCR VARIABLE 800 For cases diagnosed from January 1, 1995 through December 31, 2003 *See SEER Extent of Disease, 1988: Codes and Coding Instructions, Third Edition* for more information.

	48 Extracapsular extension and margins involved 50 Extension to or fixation to adjacent structures other than seminal vesicles 60 Extension to or fixation to pelvic wall or pelvic bone 70 Further extension to bone, soft tissue, or other organs 85 Metastasis, not further specified 90 Unknown if extension or metastasis 98 Prostatectomy done within first course of treatment, but there was disease progression 99 Prostate case without prostatectomy	
EOD_LYMPH_NODE	EOD – lymph node involvement. Highest specific lymph node chain involved by tumor. A higher number generally means more distant lymph nodes are involved, but coding varies by primary site. 0 No nodes involved 1-8 Varies by site 9 Unknown whether nodes involved	NAACCR VARIABLE 810 For cases diagnosed from January 1, 1988 through December 31, 2003 *See SEER Extent of Disease, 1988: Codes and Coding Instructions, Third Edition*.
REG_NODES_POS	Regional nodes positive. Exact number of regional nodes examined by pathologist and found to contain metastases 00 All nodes examined are negative 01-89 Exact number of nodes positive 90 90 or more nodes are positive 97 Positive nodes documented but number unspecified 98 No nodes were examined 99 Unknown whether nodes are positive; Not applicable; Not stated in patient record	NAACCR VARIABLE 820 For tumors diagnosed from 1988 through 2003, this item was part of 10-digit EOD [779]; For cases diagnosed on or after January 1, 2004, item is part of Collaborative Stage (CS) System
REG_NODES_EXAMINE	Regional nodes examined. Total number of regional lymph nodes removed and examined by pathologist. Quality measure of the pathologic and surgical evaluation. 00 No nodes were examined 01-89 Exact number of regional lymph nodes examined 90 90 or more nodes examined 95 No regional nodes removed, but aspiration of regional nodes performed 96 Regional lymph node removal was a sample and number of lymph nodes is unknown/not stated	NAACCR VARIABLE 830 For tumors diagnosed from 1988 through 2003, this item was part of 10-digit EOD [779]; For cases diagnosed on or after January 1, 2004, item is part of Collaborative Stage

	97 Regional lymph node removal was a dissection and number of lymph nodes is unknown/not stated 98 Regional lymph nodes surgically removed, but number of lymph nodes is unknown/not stated and not a sample or dissection; Nodes were examined, but number unknown 99 Unknown if nodes were examined; Not applicable or negative; Not stated in patient record	(CS) System
TNM_PATH_T	TNM pathologic T code. Site-specific codes for pathologic tumor (T) as defined by AJCC and recorded by physician. Reflects extent of disease through completion of definitive surgery. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 880 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_PATH_N	TNM pathologic N code. Site-specific codes for pathologic lymph nodes (N) as defined by AJCC and recorded by physician. Reflects extent of disease through completion of definitive surgery. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 890 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_PATH_M	TNM pathologic M code. Site-specific codes for pathologic metastases (M) as defined by AJCC and recorded by physician. Reflects extent of disease through completion of definitive surgery. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 900 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_PATH_DESCR	TNM pathologic stage descriptor. AJCC pathologic stage prefix/suffix descriptor as recorded by physician. Identifies special cases that need separate data analysis. 0 None 1 E (Extranodal, lymphomas only) 2 S (Spleen, lymphomas only) 3 M (Multiple primary tumors in a single site) 4 Y (Classification during or after initial multimodality therapy) – pathologic staging only 5 E & S (Extranodal and spleen, lymphomas only) 6 M & Y (Multiple primary tumors and initial multimodality therapy) 9 Unknown; Not stated in patient record	NAACCR VARIABLE 920 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.

TNM_CLIN_T	TNM clinical T code. Site-specific codes for clinical tumor (T) as defined by AJCC and recorded by physician. Reflects extent of disease before any treatment. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 940 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_CLIN_N	TNM clinical N code. Site-specific codes for clinical lymph nodes (N) as defined by AJCC and recorded by physician. Reflects extent of disease before any treatment. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 950 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_CLIN_M	TNM Clinical M Code: Site-specific codes for clinical metastases (M) as defined by AJCC and recorded by physician. Reflects extent of disease before any treatment. Coding varies by primary site. 88 Not applicable; No code assigned for this case in the current AJCC Staging Manual	NAACCR VARIABLE 960 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TNM_CLIN_DESCR	TNM Clinical Stage Descriptor: Identifies AJCC clinical stage descriptor as recorded by physician. Identifies special cases that need separate data analysis. Descriptors do not change the stage group. 0 None 1 E (Extranodal, lymphomas only) 2 S (Spleen, lymphomas only) 3 M (Multiple primary tumors in a single site) 5 E & S (Extranodal and spleen, lymphomas only) 9 Unknown; Not stated in patient record	NAACCR VARIABLE 980 See *AJCC Cancer Staging Manual* 6th (2003-2009) and 7th (2010-) editions.
TUMOR_MARKER1	Tumor Marker #1. Prognostic indicators for specific sites or morphologies. This variable is collected for the following primary sites and morphologies: **Site/Morphology** — **Marker #1** Breast (C50.0-C50.9) — Estrogen Receptor Assay (ERA) Colorectal (C18.0-C18.9, C19.9, C20.9) — Carcinoembryonic Antigen (CEA) Liver (C22.0, C22.1) — Alpha Fetoprotein (AFP) Neuroblastoma (9500/3) — Urine catecholamine Ovary (C56.9) — Carbohydrate Antigen 125 (CA-125) Prostate (C61.9) — Acid Phosphatase (PAP) Testis (C62.0, C62.1, C62.9) — Alpha Fetoprotein (AFP) Range 1 <1,000 ng/ml Range 2 1,000-10,000 ng/ml Range 3 >10,000 ng/ml ----------	NAACCR VARIABLE 1150 For cases diagnosed from January 1, 1996 through December 31, 2002 See *COC Registry Operations and Data Standards (ROADS) 1998 manual* for additional information.

	0 None done (not ordered and not performed) 1 Positive/elevated 2 Negative/normal; Within normal limits (S0) 3 Borderline; Cannot be determined Three-tiered system (testis only): 4 Range 1 5 Range 2 6 Range 3 8 Ordered, but results not in chart 9 Unknown; No information For sites where Tumor Marker #1 is not collected: 9 Not applicable	
TUMOR_MARKER2	Tumor marker #2. Prognostic indicators for specific sites or morphologies. This variable is collected for the following primary sites: **Site/Morphology** — **Marker #2** Breast (C50.0-C50.9) — Progesterone Receptor Assay (PRA) Prostate (C61.9) — Prostatic Specific Antigen (PSA) Testis (C62.0, C62.1, C62.9) — Human Chorionic Gonadotropin (hCG) Range 1 <5,000 mIU/ml Range 2 5,000-50,000 mIU/ml Range 3 >50,000 mIU/ml --- 0 None done (SX) 1 Positive/elevated 2 Negative/normal; within normal limits (S0) 3 Borderline; Cannot be determined Three-tiered system (testis only): 4 Range 1 (S1) 5 Range 2 (S2) 6 Range 3 (S3) 8 Ordered, but results not in chart 9 Unknown or no information For sites where Tumor Marker #2 is not collected: 9 Not applicable	NAACCR VARIABLE 1160 For cases diagnosed from January 1, 1996 through December 31, 2002 See *COC Registry Operations and Data Standards (ROADS) 1998 manual* for additional information.

TUMOR_MARKER3	Tumor marker #3. Prognostic indicators for testicular cancer. **Site/Morphology** **Marker #3** Testis (C62.0, C62.1, C62.9) LDH Range 1 <1.5 x N* Range 2 1.5-10 x N* Range 3 >10 x N* *N = upper limit of normal for LDH --- 0 None done (SX) 1 Positive/elevated 2 Negative/normal; Within normal limits (S0) 3 Borderline; Cannot be determined Three-tiered system: 4 Range 1 (S1) 5 Range 2 (S2) 6 Range 3 (S3) 8 Ordered, but results not in chart 9 Unknown or no information For sites where Tumor Marker #3 is not collected: 9 Not applicable	NAACCR VARIABLE 1170 For cases diagnosed from January 1, 1996 through December 31, 2002 See *COC Registry Operations and Data Standards (ROADS) 1998 manual* for additional information.
CS_TUMOR_SIZE	CS tumor size. Largest dimension or diameter of the primary tumor in millimeters. Coding varies by primary site. 000 No mass or tumor found 001-988 Exact size in millimeters 989 989 millimeters or larger 990 Microscopic focus or foci only, no size given 991 Described as less than 1 cm 992 Described as less than 2 cm, greater than 1 cm, or between 1 cm and 2cm 993 Described as less than 3 cm, greater than 2 cm, or between 2 cm and 3cm 994 Described as less than 4 cm, greater than 3 cm, or between 3 cm and 4 cm 995 Described as less than 5 cm, greater than 4 cm, or between 4 cm and 5cm 996-998 Varies by site 999 Unknown, size not stated	NAACCR VARIABLE 2800 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).

CS_EXTENSION	CS extension. Identifies contiguous growth of primary tumor within organ of origin or its direct extension into surrounding tissues. Coding varies by primary site and CS version.	NAACCR VARIABLE 2810 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).
CS_TUMOR_SIZE_EXT_EVAL	CS tumor size/extension evaluation. Records how codes for *Tumor Size* [2800] and *Extension* [2810] were determined. 0 No surgical resection done. Evaluation based on physical examination, imaging examination, other non-invasive clinical evidence. No autopsy evidence used 1 No surgical resection done. Evaluation based on endoscopic examination, diagnostic biopsy, including fine needle aspiration biopsy, or other invasive techniques. No autopsy evidence used. 2 No surgical resection done, but tumor was suspected or diagnosed prior to autopsy 3 Surgical resection performed *without* pre-surgical systemic treatment or radiation OR surgical resection performed, unknown if pre-surgical systemic treatment or radiation performed. Evaluation based on evidence acquired before treatment, supplemented or modified by additional evidence acquired during and from surgery, particularly from pathologic examination of resected specimen 5 Surgical resection performed *with* pre-surgical systemic treatment or radiation; Tumor size/extension based on clinical evidence 6 Surgical resection performed *with* pre-surgical systemic treatment or radiation, *but* tumor size/ extension based on pathologic evidence 8 Evidence from autopsy only (tumor was unsuspected or undiagnosed prior to autopsy) 9 Unknown/Not available/Not recorded/Not applicable	NAACCR VARIABLE 2820 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).

CS_LYMPH_NODES	CS lymph nodes. Identifies lymph nodes involved with cancer at the time of diagnosis. Coding varies by primary site and CS version. Coding is presented as [CS version 1/CS version 2]. 00/000 None, no regional lymph node involvement 05/500-80/800 Varies by site 99/999 Unknown, not stated	NAACCR VARIABLE 2830 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).
CS_REG_NODES_EVAL	CS lymph nodes evaluation. Records how codes for Lymph Nodes [2830] were determined based on diagnostic methods employed. Identifies if lymph nodes were clinically or pathologically diagnosed.	NAACCR VARIABLE 2840 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).
CS_METS_DX	CS metastases at diagnosis. Identifies distant sites of metastatic involvement at time of diagnosis. Coding varies by primary site.	NAACCR VARIABLE 2850 For cases diagnosed on or after January 1, 2004 See *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).
CS_METS_EVAL	CS metastases evaluation. Records how code for data item CS Mets at DX [2850] was determined based on diagnostic methods employed. 0 No pathologic examination of metastatic tissue performed. Evaluation of distant metastasis based on physical examination, imaging examination, and/or other non-invasive clinical evidence. No autopsy evidence used 1 No pathologic examination of metastatic tissue performed. Evaluation of distance metastasis based on endoscopic examination, or other invasive technique. No autopsy evidence used	NAACCR VARIABLE 2860 Codes 0, 1, 5, and 9 indicate a clinical staging basis. Codes 2 and 3 indicate a pathologic staging basis. Code 6 is the intercurrent (y) staging basis, and code 8 is reserved for cases diagnosed at autopsy (the

<table>
<tr><td></td><td>2 No pathologic examination of metastatic tissue done prior to death, but evidence derived from autopsy (tumor was suspected or diagnosed prior to autopsy)
3 Pathologic examination of metastatic tissue performed without pre-surgical systemic treatment or radiation OR pathologic examination of metastatic tissue performed, unknown if pre-surgical systemic treatment or radiation performed
5 Pathologic examination of metastatic tissue performed with pre-surgical systemic treatment or radiation, and extension based on clinical evidence
6 Pathologic examination of metastatic tissue performed with pre-surgical systemic treatment or radiation, but extension based on pathologic evidence.
8 Evidence from autopsy; Tumor unsuspected or undiagnosed prior to autopsy
9 Not assessed; Cannot be assessed; Unknown if assessed; Not documented in patient record; For sites with no TNM staging - Not applicable</td><td>"a" staging basis).

For cases diagnosed on or after January 1, 2004

See Collaborative Staging (CS) Data Collection System Manual and Coding Instructions versions 1 (2004-2009) and 2 (2010-).</td></tr>
<tr><td>CS_SITE_SPEC_FACTOR_1 - CS_SITE SPEC_FACTOR_25</td><td>CS Site-Specific Factors: Identifies additional information needed to generate stage or prognostic factors that have an effect on stage or survival. Coding varies by primary site and CS version.

CS Site-Specific Factors 1-6 are coded for cases diagnosed on or after January 1, 2004.

CS Site-Specific Factors 7-25 are coded for cases diagnosed on or after January 1, 2010.</td><td>NAACCR VARIABLE 2880 - NAACCR VARIABLE 2879

See Collaborative Staging (CS) Data Collection System Manual and Coding Instructions versions 1 (2004-2009) and 2 (2010-)</td></tr>
<tr><td>DERIVED_AJCC_STAGE_GROUP</td><td>Derived AJCC 6th Edition Stage Group. To more easily handle the combinations of characters, numbers, and/or special characters in the AJCC T, N, M, plus descriptors variables, a numeric code was assigned to each unique category for each T, N, M plus descriptors and AJCC stage for 6th and 7th editions. This field contains the numeric representation for the AJCC 6th edition “Stage Group” and is derived from CS coded fields using the CS algorithm.
00 Stage 0
01 Stage 0a
02 Stage 0is
10 Stage I
11 Stage I NOS
12 Stage IA
13 Stage IA1
14 Stage IA2
15 Stage IB
16 Stage IB1
17 Stage IB2
39 Stage IISB (lymphoma only)
40 Stage IIS (lymphoma only)
41 Stage IIESA (lymphoma only)
42 Stage IIESB (lymphoma only)
43 Stage IIES (lymphoma only)
50 Stage III
51 Stage III NOS
52 Stage IIIA
53 Stage IIIB
54 Stage IIIC
55 Stage IIEA (lymphoma only)</td><td>NAACCR VARIABLE 3000

For cases diagnosed January 1, 2004- December 31, 2009

See AJCC Cancer Staging Manual 6th (2004-2009) edition and Collaborative Staging (CS) Data Collection System Manual and Coding Instructions versions 1 (2004-2009) and 2 (2010-).</td></tr>
</table>

	18 Stage IC 19 Stage IS 23 Stage ISA (lymphoma only) 24 Stage ISB (lymphoma only) 20 Stage IEA (lymphoma only) 21 Stage IEB (lymphoma only) 22 Stage IE (lymphoma only) 30 Stage II 31 Stage II NOS 32 Stage IIA 33 Stage IIB 34 Stage IIC 35 Stage IIEA (lymphoma only) 36 Stage IIEB (lymphoma only) 37 Stage IIE (lymphoma only) 38 Stage IISA (lymphoma only) 56 Stage IIIEB (lymphoma only) 57 Stage IIIE (lymphoma only) 58 Stage IIISA (lymphoma only) 59 Stage IIISB (lymphoma only) 60 Stage IIIS (lymphoma only) 61 Stage IIIESA (lymphoma only) 62 Stage IIIESB (lymphoma only) 63 Stage IIIES (lymphoma only) 70 Stage IV 71 Stage IV NOS 72 Stage IVA 73 Stage IVB 74 Stage IVC 88 Not applicable 90 Stage occult 99 Stage unknown	
DERIVED_SS1977	Derived SEER Summary Stage 1977. The value of SEER Summary Stage 1977 as generated by the Collaborative Staging algorithm. 0 In situ 1 Localized 2 Regional, direct extension only 3 Regional, regional lymph nodes only 4 Regional, direct extension and regional lymph nodes 5 Regional, NOS 7 Distant 8 Not applicable 9 Unstaged	NAACCR VARIABLE 3010 For cases diagnosed before January 1, 2001 For additional information, see the *SEER Program Coding and Staging Manuals*.

DERIVED_SS2000	Derived SEER Summary Stage 2000. The value of SEER Summary Stage 2000 as generated by the Collaborative Staging algorithm. 0 In situ 1 Localized 2 Regional, direct extension only 3 Regional, regional lymph nodes only 4 Regional, direct extension and regional lymph nodes 5 Regional, NOS 7 Distant 8 Not applicable 9 Unstaged	NAACCR VARIABLE 3020 For cases diagnosed on or after January 1, 2001 For additional information, see the *SEER Program Coding and Staging Manuals*.
DERIVED_AJCC_7_STAGE_GROUP	Derived AJCC 7th Edition Stage Group. To more easily handle the combinations of characters, numbers, and/or special characters in the AJCC T, N, M, plus descriptors variables, a numeric code was assigned to each unique category for each T, N, M plus descriptors and AJCC stage for 6th and 7th editions This field contains the numeric representation for the AJCC 7th edition "Stage Group" and is derived from CS coded fields using the CS algorithm. 000 Stage 0 010 Stage 0a 020 Stage 0is 100 Stage I 110 Stage I NOS 120 Stage IA 130 Stage IA1 140 Stage IA2 121 Stage IA NOS 150 Stage IB 160 Stage IB1 170 Stage IB2 151 Stage IB NOS 180 Stage IC 190 Stage IS 230 Stage ISA (lymphoma only) 240 Stage ISB (lymphoma only) 200 Stage IEA (lymphoma only) 380 Stage IISA (lymphoma only) 390 Stage IISB (lymphoma only) 400 Stage IIS (lymphoma only) 410 Stage IIESA (lymphoma only) 420 Stage IIESB (lymphoma only) 430 Stage IIES (lymphoma only) 500 Stage III 510 Stage III NOS 520 Stage IIIA 530 Stage IIIB 540 Stage IIIC 541 Stage IIIC1 542 Stage IIIC1 550 Stage IIIEA (lymphoma only) 560 Stage IIIEB (lymphoma only) 570 Stage IIIE (lymphoma only) 580 Stage IIISA (lymphoma only) 590 Stage IIISB (lymphoma only)	NAACCR VARIABLE 3430 For cases diagnosed on or after January 1, 2010 See *AJCC Cancer Staging Manual* 7th (2010-) edition and *Collaborative Staging (CS) Data Collection System Manual and Coding Instructions* versions 1 (2004-2009) and 2 (2010-).

	210	Stage IEB (lymphoma only)	600	Stage IIIS (lymphoma only)	
	220	Stage IE (lymphoma only)	610	Stage IIIESA (lymphoma only)	
	300	Stage II	620	Stage IIIESB (lymphoma only)	
	310	Stage II NOS	630	Stage IIIES (lymphoma only)	
	320	Stage IIA	700	Stage IV	
	321	Stage IIA NOS	710	Stage IV NOS	
	322	Stage IIA1	720	Stage IVA	
	323	Stage IIA2	721	Stage IVA1	
	330	Stage IIB	722	Stage IVA1	
	340	Stage IIC	730	Stage IVB	
	350	Stage IIEA (lymphoma only)	740	Stage IVC	
	360	Stage IIEB (lymphoma only)	888	Not applicable	
	370	Stage IIE (lymphoma only)	900	Stage occult	
			999	Stage unknown	

First Course of Treatment Variables

Users of treatment data should be aware that registries differ in the amount of treatment data collected in terms of the types of treatment included, non-hospital treatment locations surveyed, items covered, and the use of all codes provided for each item. Thus, treatment data are likely to be inconsistent among registries and to have varying levels of completeness, especially for treatment given in physicians' offices or other non-hospital settings. For additional information, see Chapter V, "Unresolved Issues", in the NAACCR documentation.

VARIABLE NAME	DESCRIPTION AND CODING	COMMENTS
RXSUMM_TRT_STATUS	Treatment summary - treatment status. Summary of status for all treatment modalities; also indicates active surveillance (watchful waiting). 0 No treatment given 1 Treatment given 2 Active surveillance (watchful waiting) 9 Unknown if treatment was given	NAACCR VARIABLE 1285 For cases diagnosed on or after January 1, 2010
RXSUMM_SURG_PRIME_SITE	Surgery of primary site. Type of surgery to primary site performed as part of first course of treatment. Coding varies by primary site. 00 None 10-19 Site-specific codes; tumor destruction 20-80 Site-specific codes; resection 90 Surgery, NOS 98 Site-specific codes; special 99 Unknown	NAACCR VARIABLE 1290 *Refer to COC FORDS Appendix B for primary site-specific codes.*
RXSUMM_SCOPE_REG_LN_SUR	Scope of regional lymph node surgery. Describes removal, biopsy or aspiration of regional lymph node(s) at time of surgery of primary site or during a separate surgical event. Useful for evaluating quality-of-care and treatment practices. 0 None 1 Biopsy or aspiration of regional lymph node, NOS 2 Sentinel lymph node biopsy 3 Number of regional lymph nodes removed unknown, not stated; Regional lymph nodes removed, NOS 4 1 to 3 regional lymph nodes removed 5 4 or more regional lymph nodes removed 6 Sentinel node biopsy and code 3, 4, or 5 at same time or timing not noted 7 Sentinel node biopsy and code 3, 4, or 5 at different times 9 Unknown; Not applicable	NAACCR VARIABLE 1292

RXSUMM_SURG_OTH_REG_DIS	Surgery of other regional site, distant sites or distant lymph nodes. Records surgical removal of distant lymph nodes or other tissue(s)/organ(s) beyond primary site. Documents the extent of surgical treatment and is useful in evaluating the extent of metastatic involvement. 0 None; diagnosed at autopsy 1 Non-primary surgical procedure performed 2 Non-primary surgical procedure to other regional sites 3 Non-primary surgical procedure to distant lymph nodes 4 Non-primary surgical procedure to distant site 5 Any combination of codes 2, 3, or 4 9 Unknown; Death certificate only	NAACCR VARIABLE 1294
RXSUMM_REG_LN_EXAM	Number of regional lymph nodes examined or removed. Number of regional lymph nodes examined in conjunction with surgery performed as part of first-course treatment. 00 No regional lymph nodes examined 01-89 Actual number of regional lymph nodes examined 90 90 or more regional lymph nodes examined 95 No regional lymph nodes removed, but aspiration of regional lymph nodes was performed 96 Regional lymph node removal documented as a sampling, and number of lymph nodes unknown 97 Regional lymph node removal documented as a dissection, and number of lymph nodes unknown 98 Regional lymph nodes surgically removed, but number of lymph nodes unknown and not documented as sampling or dissection 99 Unknown; Not stated; Death certificate-only	NAACCR VARIABLE 1296 Data item not required for cases diagnosed after January 1, 2003
RXSUMM_SURG_APPROACH	Codes for method used to approach the surgical field for the primary site. 0-9 Varies by primary site.	NAACCR VARIABLE 1310 *Refer to COC ROADS 1998 Supplement for primary site-specific codes.*

RXSUMM_SURG_MARGINS	Surgical margins. Final status of surgical margins after resection of primary tumor. 0 No residual tumor 1 Residual tumor, NOS 2 Microscopic residual tumor 3 Macroscopic residual tumor 7 Margins not evaluable 8 No primary site surgery 9 Unknown; Not applicable	NAACCR VARIABLE 1320
RXSUMM_RECONSTRUCT_1ST	Reconstruction/restoration-first course. Surgical procedures done to reconstruct, restore or improve shape and appearance or function of body structures that are missing, defective, damaged or misshapen by cancer or therapies. 0 Reconstruction performed 1 Reconstruction was not part of first-course treatment 2 Reconstruction was contraindicated due to patient risk factors 5 Patient died prior to planned or recommended surgery 6 Reconstruction recommended by patient's physician but not performed. No reason was stated in record 7 Reconstruction recommended by patient's physician, but refused by patient, family member, or guardian 8 Reconstruction recommended, but unknown if performed 9 Unknown if reconstruction was recommended or performed; Death certificate- or autopsy-only cases	NAACCR VARIABLE 1330 Data item not required for cases diagnosed after January 1, 2003
REASON_NO_SURG	Reason for no surgery to primary site. Reason no surgery was performed on primary site. 0 Surgery performed 1 Surgery was not part of planned first-course treatment 2 Surgery was contraindicated due to patient risk factors 5 Patient died prior to planned or recommended surgery 6 Surgery was recommended by patient's physician but not performed. No reason was stated in record 7 Surgery recommended by patient's physician but refused by patient, family member, or guardian and noted in record 8 Surgery was recommended, but unknown if performed. Further follow-up recommended 9 Unknown if surgery of primary site was recommended or performed; Death certificate- or autopsy-only cases	NAACCR VARIABLE 1340

RXSUMM_DX_STG_PROC	Non cancer-directed surgery surgical diagnostic and staging procedure. Surgical procedures performed to diagnose and/or stage disease. 00 No surgical diagnostic/staging procedure performed 01 Biopsy done to a site other than primary site. No exploratory procedure was done 02 Biopsy done of primary site 03 Surgical exploratory only. Patient not biopsied or treated 04 Surgical procedure with a bypass performed, but no biopsy done 05 Exploratory procedure performed and biopsy of either primary site or another site done 06 Bypass procedure performed, and a biopsy of either primary site or another site done 07 Procedure done, but type is unknown 09 No information about whether diagnostic/staging procedure performed	NAACCR VARIABLE 1350 For tumors diagnosed between 1996 and 2002, field may have described palliative care. For tumors diagnosed on or after January 1, 2003, palliative care is coded in field RXSUMM_PALLIAT_PROC [3270].
RXSUMM_RADIAT	Radiation therapy. Type of radiation therapy performed as part of first course of treatment. 0 None 1 Beam radiation 2 Radioactive implants 3 Radioisotopes 4 Combination of 1 with 2 or 3 5 Radiation, NOS; Method or source not specified 6 For historical cases only 7 Patient or patient's guardian refused 8 Radiation recommended, but unknown if administered 9 Unknown if radiation administered	NAACCR VARIABLE 1360 Radiation to brain and central nervous system for leukemia and lung cases is coded as radiation in this field
RXSUMM_CNS_RADIAT	Radiation therapy to brain/central nervous system. For lung and leukemia cases only, radiation given to the brain or central nervous system. For lung and leukemia cases only: 0 No radiation to the brain/central nervous system 1 Radiation 7 Patient or patient's guardian refused 8 Radiation recommended, unknown if administered 9 Unknown For all other cases (other than lung/leukemia): 9 Not applicable	NAACCR VARIABLE 1370

RXSUMM_SURGRAD_SEQ	Radiation sequence with surgery. Sequencing of radiation and surgery given as part of the first course of treatment. 0 No radiation and/or no surgery; unknown if surgery and/or radiation given 2 Radiation before surgery 3 Radiation after surgery 4 Radiation both before and after surgery 5 Intraoperative radiation 6 Intraoperative radiation with other radiation given before or after surgery 9 Sequence unknown, but both surgery and radiation were given	NAACCR VARIABLE 1380
RXSUMM_CHEMO	Treatment summary - chemotherapy. Chemotherapy given as part of first course of treatment or reason chemotherapy was not given 00 None, chemotherapy not part of first course of therapy 01 Chemotherapy, NOS 02 Chemotherapy, single agent 03 Chemotherapy, multiple agents 82 Chemotherapy not recommended/ administered. It was contraindicated due to patient risk factors 85 Chemotherapy not administered because patient died prior to planned or recommended therapy 86 Chemotherapy recommended by patient's physician but not administered. No reason was stated in record 87 Chemotherapy recommended by patient's physician but refused by patient, family member, or guardian 88 Chemotherapy recommended but unknown if administered 99 Unknown if chemotherapeutic agents recommended or administered because not stated in patient record; Death certificate-only cases	NAACCR VARIABLE 1390
RXSUMM_HORMONE	Hormone or endocrine therapy. Records if systemic hormonal agents were administered as first-course treatment at any facility or reason they were not given. 00 Hormone therapy not part of first course of therapy 01 Hormone therapy administered as part of first course of therapy 82 Hormone therapy not recommended/administered. It was contraindicated due to patient risk factors 85 Hormone therapy not administered because patient died prior to planned or recommended therapy 86 Hormone therapy recommended by patient's physician but not administered. No reason was stated in record	NAACCR VARIABLE 1400

	87 Hormone therapy recommended by patient's physician but refused by patient, family member or guardian 88 Hormone therapy recommended but unknown if administered 99 Unknown if hormonal agents recommended or administered because not stated in patient record; Death certificate-only cases	
RXSUMM_BRM	Immunotherapy/biological response modifiers. Records if immunotherapeutic/biologic response modifiers agents were administered as first-course treatment at all facilities or reason they were not given. 00 Immunotherapy not part of first course of therapy 01 Immunotherapy administered as part of first course of therapy 82 Immunotherapy not recommended/ administered. It was contraindicated due to patient risk factors 85 Immunotherapy not administered because patient died prior to planned or recommended therapy 86 Immunotherapy recommended by patient's physician but not administered. No reason was stated in record 87 Immunotherapy recommended by patient's physician, but refused by patient, family member or guardian 88 Immunotherapy recommended but unknown if administered 99 Unknown if immunotherapeutic agents recommended/administered and not stated in patient record; Death certificate-only cases	NAACCR VARIABLE 1410
RXSUMM_OTHER	Other cancer-directed treatment. Other treatment given at all facilities that cannot be defined as surgery, radiation or systemic therapy 0 None 1 Other 2 Other Experimental 3 Other-Double Blind 6 Other-Unproven 7 Refusal 8 Recommended 9 Unknown if administered	NAACCR VARIABLE 1420
REASON_NO_RADIAT	Reason for no regional radiation therapy. Reason patient did not receive radiation as part of first course of therapy 0 Radiation therapy administered 1 Radiation therapy not part of planned first course treatment 2 Radiation therapy was contraindicated due to patient risk factors	NAACCR VARIABLE 1430

	5 Radiation therapy not administered because patient died prior to planned or recommended treatment 6 Radiation therapy recommended by patient's physician but not administered for reasons not noted in record 7 Radiation therapy recommended by patient's physician but refused by patient, family member or guardian 8 Radiation therapy recommended but unknown if administered 9 Unknown if radiation therapy recommended or administered; Death-certificate- or autopsy-only cases	
RADIAT_REG_RX_MODALITY	The dominant modality of radiation therapy used to deliver the most clinically significant regional dose to the primary volume of interest during the first course of treatment. 00 No radiation treatment 20 External beam, NOS 21 Orthovoltage 22 Cobalt-60, Cesium-137 23 Photons (2-5 MV) 24 Photons (6-10 MV) 25 Photons (11-19 MV) 26 Photons (> 19 MV) 27 Photons (mixed energies) 28 Electrons 29 Photons and electrons mixed 30 Neutrons, with or without photons/electrons 31 IMRT 32 Conformal or 3-D therapy 40 Protons 41 Stereotactic radiosurgery, NOS 42 Linac radiosurgery 43 Gamma Knife 50 Brachytherapy, NOS 51 Brachytherapy, Intracavitary, Low Dose Rate (LDR) 52 Brachytherapy, Intracavitary, High Dose Rate (HDR) 53 Brachytherapy, Interstitial, Low Dose Rate (LDR) 54 Brachytherapy, Interstitial, High Dose Rate (HDR)	NAACCR VARIABLE 1570 For tumors diagnosed prior to January 1, 2003, these codes describe any radiation administered as part or all of the first course of therapy Codes 80 and 85 apply only to tumors diagnosed prior to January 1, 2003. See *Volume II ROADS*, and *DAM* rules for more information.

	55 Radium 60 Radio-isotopes, NOS 61 Strontium - 89 62 Strontium - 90 80 Combination modality, specified 85 Combination modality, NOS 98 Other, NOS 99 Unknown	
RXSUMM_SYSTEMIC_SUR_SEQ	Systemic/surgery sequence. Sequencing of systemic therapy (Chemo, Hormone, BRM, Transplant/Endocrine Procedures) and surgical procedures given as part of the first course of treatment. 0 No/Unknown systemic therapy and/or surgical procedures 2 Systemic therapy before surgery 3 Systemic therapy after surgery 4 Systemic therapy both before and after surgery 5 Intraoperative systemic therapy 6 Intraoperative systemic therapy with other therapy administered before or after surgery 9 Sequence unknown, but both surgery and systemic therapy given	NAACCR VARIABLE 1639
RXSUMM_TRANSPLNT_ENDOCR	Hematologic transplant and endocrine procedures. Systemic therapeutic procedures administered as part of first course of treatment. If none of these procedures were administered, item records reason they were not performed. 00 No transplant procedure or endocrine therapy; Diagnosed at autopsy 10 Bone marrow transplant procedure but type not specified 11 Bone marrow transplant – autologous 12 Bone marrow transplant – allogeneic 20 Stem cell harvest and infusion 30 Endocrine surgery or endocrine radiation therapy 40 Combination of endocrine surgery/radiation with transplant procedure (codes 30 + 10, 11, 12 or 20) 82 Hematologic transplant and/or endocrine surgery or radiation not recommended or administered because it was contraindicated due to patient risk factors 85 Hematologic transplant and/or endocrine surgery/ radiation not administered because patient died prior to therapy 86 Hematologic transplant and/or endocrine surgery/ radiation recommended but not administered because of unknown reason	NAACCR VARIABLE 3250

	87 Hematologic transplant and/or endocrine surgery/ radiation recommended by physician but was refused and not administered 88 Hematologic transplant and/or endocrine surgery/ radiation recommended but unknown if administered 99 Unknown if hematologic transplant and/or endocrine surgery/radiation recommended/ administered; Death certificate-only cases	
RXSUMM_PALLIAT_PROC	Palliative procedure/care. Any care provided to relieve symptoms, including surgery, radiation therapy, systemic therapy and/or pain management therapy. 0 No palliative care provided; Diagnosed at autopsy 1 Surgery 2 Radiation therapy 3 Chemotherapy, hormone therapy or systemic drugs 4 Received/referred for pain management therapy only 5 Codes 1, 2, and/or 3 without code 4 6 Codes 1, 2, and/or 3 with code 4 7 Palliative care performed/referred but type unknown 9 Unknown if palliative care was performed/referred	NAACCR VARIABLE 3270

Appendix - SEER Site Recode ICD-O-3 (1/27/2003) Definition

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)
Oral Cavity and Pharynx		
Lip	C000-C009	excluding 9590-9989, 9050-9055, 9140
Tongue	C019-C029	
Salivary Gland	C079-C089	
Floor of Mouth	C040-C049	
Gum and Other Mouth	C030-C039, C050-C059, C060-C069	
Nasopharynx	C110-C119	
Tonsil	C090-C099	
Oropharynx	C100-C109	
Hypopharynx	C129, C130-C139	
Other Oral Cavity and Pharynx	C140, C142-C148	
Digestive System		
Esophagus	C150-C159	excluding 9590-9989, 9050-9055, 9140
Stomach	C160-C169	
Small Intestine	C170-C179	
Colon and Rectum		
Colon excluding Rectum		
Cecum	C180	excluding 9590-9989, 9050-9055, 9140
Appendix	C181	
Ascending Colon	C182	
Hepatic Flexure	C183	
Transverse Colon	C184	
Splenic Flexure	C185	
Descending Colon	C186	
Sigmoid Colon	C187	
Large Intestine, NOS	C188-C189, C260	
Rectum and Rectosigmoid Junction		
Rectosigmoid Junction	C199	excluding 9590-9989, 9050-9055, 9140
Rectum	C209	
Anus, Anal Canal and Anorectum	C210-C212, C218	
Liver and Intrahepatic Bile Duct		
Liver	C220	excluding 9590-9989, 9050-9055, 9140
Intrahepatic Bile Duct	C221	
Gallbladder	C239	
Other Biliary	C240-C249	
Pancreas	C250-C259	
Retroperitoneum	C480	
Peritoneum, Omentum and Mesentery	C481-C482	
Other Digestive Organs	C268-C269, C488	
Respiratory System		
Nose, Nasal Cavity and Middle Ear	C300-C301, C310-C319	excluding 9590-9989, 9050-9055, 9140
Larynx	C320-C329	
Lung and Bronchus	C340-C349	
Pleura	C384	
Trachea, Mediastinum and Other Respiratory Organs	C339, C381-C383, C388, C390, C398, C399	
Bones and Joints	**C400-C419**	**excluding 9590-9989, 9050-9055, 9140**
Soft Tissue including Heart	**C380, C470-C479, C490-C499**	**excluding 9590-9989, 9050-9055, 9140**

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)
Skin excluding Basal and Squamous		
Melanoma of the Skin	C440-C449	8720-8790
Other Non-Epithelial Skin	C440-C449	excluding 8000-8005, 8010-8046, 8050-8084, 8090-8110, 8720-8790, 9590-9989, 9050-9055, 9140
Breast	**C500-C509**	**excluding 9590-9989, 9050-9055, 9140**
Female Genital System		
Cervix Uteri	C530-C539	excluding 9590-9989, 9050-9055, 9140
Corpus and Uterus, NOS		
Corpus Uteri	C540-C549	excluding 9590-9989, 9050-9055, 9140
Uterus, NOS	C559	
Ovary	C569	
Vagina	C529	
Vulva	C510-C519	
Other Female Genital Organs	C570-C589	
Male Genital System		
Prostate	C619	excluding 9590-9989, 9050-9055, 9140
Testis	C620-C629	
Penis	C600-C609	
Other Male Genital Organs	C630-C639	
Urinary System		
Urinary Bladder	C670-C679	excluding 9590-9989, 9050-9055, 9140
Kidney and Renal Pelvis	C649, C659	
Ureter	C669	
Other Urinary Organs	C680-C689	
Eye and Orbit	**C690-C699**	**excluding 9590-9989, 9050-9055, 9140**
Brain and Other Nervous System		
Brain	C710-C719	excluding 9530-9539, 9590-9989, 9050-9055, 9140
Cranial Nerves Other	C710-C719	9530-9539
Nervous System	C700-C709, C720-C729	excluding 9590-9989, 9050-9055, 9140
Endocrine System		
Thyroid	C739	excluding 9590-9989, 9050-9055, 9140
Other Endocrine including Thymus	C379, C740-C749, C750-C759	
Lymphoma		
Hodgkin Lymphoma		
Hodgkin - Nodal	C024, C098-C099, C111, C142, C379, C422, C770-C779	9650-9667
Hodgkin - Extranodal	All other sites	
Non-Hodgkin Lymphoma		
NHL - Nodal	C024, C098, C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729, 9823, 9827
NHL - Extranodal	All sites except C024, C098-C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729
	All sites except C024, C098-C099, C111, C142, C379, C420-C422,	9823, 9827

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)
	C424, C770-C779	
Myeloma		**9731-9732, 9734**
Leukemia		
Lymphocytic Leukemia		
Acute Lymphocytic Leukemia		9826, 9835-9837
Chronic Lymphocytic Leukemia	C420, C421, C424	9823
Other Lymphocytic Leukemia		9820, 9832-9834, 9940
Myeloid and Monocytic Leukemia		
Acute Myeloid Leukemia		9840, 9861, 9866, 9867, 9871-9874, 9895-9897, 9910, 9920
Acute Monocytic Leukemia		9891
Chronic Myeloid Leukemia		9863, 9875, 9876, 9945, 9946
Other Myeloid/Monocytic Leukemia		9860, 9930
Other Leukemia		
Other Acute Leukemia		9801, 9805, 9931
Aleukemic, Subleukemic and NOS		9733, 9742, 9800, 9831, 9870, 9948, 9963, 9964
	C420, C421, C424	9827
Mesothelioma		**9050-9055**
Kaposi Sarcoma		**9140**
Miscellaneous		**9740-9741, 9750-9758, 9760-9769, 9950, 9960-9962, 9970, 9975, 9980, 9982-9987, 9989**
	C760-C768, C809	**excluding 9590-9989, 9050-9055, 9140**
	C420-C424	
	C770-C779	
Invalid	**Site or histology code not within valid range or site code not found in this table.**	

Source: U.S. National Institutes of Health, National Cancer Institute, Surveillance Epidemiology and End Results (http://seer.cancer.gov/siterecode/icdo3_d01272003/)