SECTION IV - TUMOR and STAGING DATA

Primary Site Code

NAACCR Version 11.1 field "Primary Site", Item 400, columns 291-294

It is unclear how the 2007 MP/H rules may alter rules for assigning the best Primary Site Code to each primary. Continue to use the following rules until new rules are issued.

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Enter the code for the site of origin from the Topography section of ICD-O-3. [Note that ICD-O-2 code C14.1, laryngopharynx, should not be used for diagnoses made on or after January 1, 1995. "Laryngopharynx" became an equivalent term under C13.9 (hypopharynx, NOS) as of this diagnosis date. Code C14.1 is not an ICD-O-3 code.]

Enter the site code that matches the narrative primary site indicated in the medical record, or the site code most appropriate for the case. Site codes are found in ICD-O-3's Numerical Lists - Topography section (pages 45-65) and in its Alphabetic Index (pages 105-218).

In ICD-O-3 primary site codes consist of the letter "C" followed by two digits, a decimal point, and a third digit. "**C**" should be entered but the decimal point should *not* be entered.

Example: The primary site is "cardia of stomach". Look this up in the Alphabetic Index of ICD-O-3 under "stomach" or "cardia", and the corresponding code "C16.0" is found. Enter **C160**.

Most sites include a third digit of "8" to be used for single tumors that overlap the boundaries of two or more anatomically contiguous subsites and whose exact point of origin cannot be determined, unless the combination of sites is specifically indexed elsewhere. For example, a tumor *originating* in the breast upper inner quadrant (C50.2) that has grown into the lower inner quadrant (C50.3) is assigned to the point of origin, **C502**; a tumor overlapping those two subsites whose exact origin is *not* determined would be assigned to **C508**. But a carcinoma of the esophagus and stomach may be assigned to **C160** (esophagogastric junction) rather than a ".8" site. The exception is C77.8 -- **C778** is assigned for lymph node lymphomas involving multiple lymph node regions; it does not indicate an overlapping lesion.

Some ".8" sites cover a single tumor overlapping multiple primary sites rather than just subsites; for example, **C218** is used for a lesion overlapping the rectum (C20.9), anus (C21.0) and anal canal (C21.1), and **C148** covers the lip, oral cavity and pharynx; see Table 17 on page 25 of ICD-O-3 for more of these codes. Use Table II.1 on page 17 in this MCR manual to assign the primary site for a single tumor overlapping adjacent sites in the same "site grouping" in Table II.1. The MCR believes that this remains true for *single* tumors in all diagnosis years, even given the 2007 MP/H rules.

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Example: A single lesion overlaps the base of tongue (C019) and another unspecified part of the tongue (C029), and the point of origin can't be determined. Assign **C029** per Table II.1.

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Most sites also include a third digit of "9" to be used when a subsite is not specified, and for multiple tumors originating in different subsites of the organ. Sites C14, C21, C22, C30, C38, C42, C48 and C76 do not have ".9" codes. Not all "NOS" site terms have codes ending in ".9", however; for example, "bile duct, NOS" is assigned to C24.0 with the *extra*hepatic bile ducts, and "pharynx, NOS" is C14.0. Some sites have *only* a ".9" code to define them (C01, C07, C12, C19, C20, C23, C33, C37, C52, C55, C56, C58, C61, C64, C65, C73, C80).

Site-Associated Morphologies

Some types of neoplasms are normally associated with certain primary sites by default. For example, hepatocellular carcinoma (8170/3) arises in the liver (C22.0); therefore, "hepatocellular carcinoma", with no other statement about topography, should be coded to primary site **C220**. If the patient's medical record contains a morphologic term which has an associated site code in ICD-O-3, use this site code if no definite site is given or if only a metastatic site is given. If the site specified by a physician differs from the associated site in ICD-O-3, report the site specified by the physician.

Examples: A medical record describes infiltrating duct carcinoma (8500/3) of the pancreas. Assign site code **C259** (or a more specific portion of the pancreas, if possible) even though ICD-O-3 suggests that the site breast (C50._) is most ordinarily associated with this morphology.

A patient has metastatic duct carcinoma (8500/3) in the right axillary nodes, but no primary tumor can be found in the right breast or elsewhere. Assign the primary site associated with ductal carcinoma in ICD-O-3 (**C509**) rather than an unknown primary site.

For a more extensive discussion of site-associated morphologies, see "Rule H" in "Summary of Principal Rules for Using ICD-O" and "Coding Guidelines for Morphology" (page 21 and pages 32-33) in ICD-O-3.

Pseudo-topographic Morphology Terms

Some *morphology* terms contain, or seem to contain, primary site terminology; but do not let these terms confuse your choice of primary site code when the medical record indicates otherwise. Examples are "adenocarcinoma, intestinal type" (8144/3) with an associated site of stomach (C16._) rather than an intestine site, and "adenoid basal carcinoma" (8098/3) with an associated site of cervix uteri (C53._) rather than adenoid. See specific examples on page 33 in ICD-O-3. Also, do not confuse histologic adjectives like "endometrioid" with similar sounding site terms like "endometrium".

Primary-Versus-Secondary (Metastatic) and Ill-Defined Sites

A primary site should always be reported to the MCR, rather than a metastatic or secondary site. If the place of origin cannot be identified exactly, use the following guidelines:

- NOS subcategory (usually ends with ".9"): Use these codes when an organ subsite is not specified. Do *not* use the NOS code if a more descriptive term is available.
- Other and Ill-Defined Sites (C76.0-C76.8): These may be used for diagnoses that refer to ill-defined sites or body regions, such as "pelvis", "arm" or "head". These sites contain many types of tissue (bone, skin, soft tissue). If the type of tissue in which the cancer originated can be identified or inferred, you may be able to use a more specific site than C76._. Watch for diagnoses like "basal cell carcinoma of the arm" because this probably refers to skin of arm (therefore not a reportable case).
- Unknown Primary Site (C80.9): If the primary site is unknown and the only available information is from a metastatic/secondary site, enter **C809** [but see also the sections **Site-Associated Morphologies** (above) and **Special Primary Site Conditions** (below)]. Please notify the MCR (617-624-5680 or 617-624-5653) if a primary site is later identified for the case. If a primary site is not definitely identified but strongly suggested (as in "probably ovarian origin" or "most likely from lung"), assign the suggested primary site. If there are two possible primary sites and the treatment plan corresponds to only one of them, assign that site (for example, it's unclear if a patient has melanoma metastatic to the brain or a benign pigmented schwannoma of an intracranial nerve, but the treatment is for metastatic disease: assign **C449**).

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Special Primary Site Conditions

Special rules apply to the following cases.

- Breast Duct and Lobular Carcinomas: See pages 24-25 for a discussion of certain mixed lesions of the breast. If such lesions occur separately but simultaneously in different quadrants (subsites) of the same breast, enter site code **C509**.
- Subareolar / Retroareolar Tumors: Code to central portion of breast (**C501**) to indicate that the tumor arose in tissue beneath the nipple and not in the nipple (C50.0) itself.
- Familial Polyposis: When multiple carcinomas arising from familial polyposis involve multiple segments of colon (or colon and rectum), code colon, NOS (**C189**).
- Kaposi Sarcoma (9140/3): Code the primary site in which the tumor arises. If Kaposi sarcoma arises in skin and another site simultaneously, assign the skin site. If no primary site is stated, code to skin, NOS (**C449**) rather than C809.
- Leukemias (*except* myeloid sarcomas) (9800-9920, 9931-9948): Code to bone marrow (**C421**). See "Rule E" on pages 20 and 26 in ICD-O-3.
- Myeloid sarcomas (9930): Code to the site of the leukemic deposit (see also page 89 in this MCR Manual).
- Cross-Indexed Lymphomas/Leukemias: ICD-O-3/ICD-10 introduced some new wrinkles in assigning primary site for some closely related hematologic diseases. See details on pages 88-89 in this MCR Manual.

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- Nodal Lymphomas (originate in lymph nodes): *If no primary site is given* but the lymphoma is described as nodal in origin (or suspected of being nodal in origin), enter **C779** (lymph node, NOS) rather than C809. If a nodal lymphoma involves multiple lymph node regions at diagnosis and the nodes where the disease *originated* cannot be determined, code to **C778**. A lymphoma with a *mass* described only as "retroperitoneal", "inguinal", "mediastinal" or "mesentery/mesenteric" should be coded as if originating in the corresponding lymph nodes (retroperitoneal nodes **C772**, inguinal nodes **C774**, mediastinal nodes **C771**, mesenteric nodes **C772**) when there is no more specific information for the primary site.

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- Extranodal Lymphomas (originate in tissue or organs other than lymph nodes): See "Rule D" on p. 26 in ICD-O-3, and "ICD-O-3 Errata and Clarifications, 5/22/01, Rule D: coding extranodal lymphomas". Extranodal lymphomas may include those arising in non-node lymphatic tissues, such as spleen (**C422**), thymus (**C379**), tonsil (**C07_**), Waldeyer ring (**C142**), and Peyer's patches. Code to the appropriate extranodal site (e.g., stomach) when there is *no nodal involvement* of any kind, or if it is recorded that the origin was a specific none-nodal site. If a lymphoma is described as extranodal in origin (or is suspected of being extranodal in origin) and lymph nodes are *not* involved but the exact primary site cannot be determined, assign an unknown primary site (**C809**) rather than C77.9; but if lymph nodes *are* involved, an extranodal lymphoma may be coded to a lymph node primary site (**C77_**) if the specific extranodal point of origin cannot be determined. If an extranodal lymphoma involves *both* an extranodal site and that site's regional lymph nodes (such as stomach plus gastric nodes), assign the extranodal site (**C16_** in the example); but if *non*-regional nodes are involved and the site of origin cannot be identified, use lymph nodes, NOS (**C779**).

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- Cutaneous Lymphomas: If no primary site is specified for mycosis fungoides or another cutaneous lymphoma, enter **C449** or a specific skin site (**C44_**) to which the disease is limited.
- Lymphoreticular Process: For malignancies of the lymphoreticular process classified as *myeloproliferative* (arising in bone marrow), code to bone marrow (**C421**). For lymphoreticular process malignancies classified as *lymphoproliferative* (arising in lymph tissue), code to lymph node, NOS (**C779**). Code *unspecified* malignancies of the lymphoreticular process to reticuloendothelial system, NOS (**C423**).
- Melanomas (8720-8790): If the primary site is unknown, code to skin, NOS (**C449**) unless a non-skin associated primary site is given in ICD-O-3 [for example, a spindle cell melanoma of type A (8773) would be assigned to **C69_** unless a different site is specified in the record]. Assign **C449** if metastatic melanoma is found but no primary site is specified.
- Neuroblastomas (9500): Code neuroblastomas of ill-defined sites to the most likely site for each case. [Medulla of adrenal gland (**C741**) is a common site.] If the primary tumor's location is unknown, enter **C499** (connective, subcutaneous and other soft tissues, NOS).

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- Prefixes: If a topographic term is modified by a prefix like "peri", "para", "pre", "supra", "infra" or similar modifiers, and the modified term is not specifically listed in ICD-O-3, assign the corresponding ill-defined site if the histology does not have an associated site. This rule also applies when tumors are described as originating "in the area of" or "in the region of" a specific site. (See Rule B on pages 20 and 25 in ICD-O-3.) For example, a tumor only described as arising "in the area of the rectum" should be assigned to **C763** (pelvis, NOS) because the type of tissue in which the tumor originated is not specified; "perirenal tissue" is assigned code **C480** in ICD-O-3, but a "perigastric" tumor should be assigned to **C762** (abdomen, NOS).
- Sarcomas except Kaposi Sarcoma: If no primary site is identified for a sarcoma, assign **C499** (connective, subcutaneous and other soft tissues, NOS) rather than C809. Sarcomas usually originate in mesenchymal or connective tissues in the musculo-skeletal system. But when a sarcoma originates in the wall of a hollow organ (like the uterus) or in the viscera covering an organ, assign the primary site code for that organ.

Inferred Primary Site and Experience

Lastly, text from the medical record cannot always be taken *literally* in assigning a primary site code. The need to assign a Primary Site Code to each cancer case is not always on the mind of individuals writing descriptions in the medical record. The general location of a tumor may be described rather than the specific type of tissue in which it arose, and sometimes a primary site must be *inferred* from information in the record. If your common sense and experience as a cancer registrar tell you that the medical record is indicating a very unusual primary site for a given diagnosis, be sure to verify this. For example, for simplicity a medical record may contain a phrase like "carcinoma of the mandible", "uterine sarcoma", "cholangiocarcinoma of the liver", "brain meningioma", "skull meningioma" or "lymphoma of the mediastinum" to describe the *general* current anatomic location of a tumor rather than its exact organ or tissue of origin. Consult a physician whenever possible if the site of origin is unclear.

If the combination of morphology and primary site for a particular case is unusual enough to trip an automated edit, and if you have verified the information, please note in the Comments/Narrative Remarks field (or other MCR-collected narrative) that this combination was verified, and indicate how it was verified.

If the primary site is unclear or doubtful in the medical record, document this in the Comments/Narrative Remarks field (or other MCR-collected narrative) and indicate why you chose the site code that you're reporting. For example, you might say, "probable lung primary", or "ovarian or lung primary? treatment as for ovary", or "MD favors lung primary".

Additional Terms for Breast Subsites

In addition to what appears in ICD-O-3, the following terminology and diagram are provided by SEER to help assign the best Primary Site Code for breast cancers (*SEER Program Coding and Staging Manual 2007*, pages C-653 - C-654).

This rule first appeared in the 2004 *SEER Manual*: When there is invasive tumor(s) in one breast subsite and *in-situ* tumor(s) in other breast subsite(s) being reported as one primary, assign the subsite where the invasive tumor originated. Use **C509** for invasive tumors in multiple subsites being reported as a single primary. Use **C509** for *in-situ* tumors in multiple subsites being reported as a single primary.

Examples: invasive ductal carcinoma in the upper outer quadrant and DCIS in the lower inner quadrant -- Assign 8500/3, UOQ **C504**.

two invasive ductal carcinomas, UOQ and LIQ -- Assign 8500/3, **C509**.

C500 (Nipple; Areola)
areolar
Paget disease with*out* underlying tumor

C501 (Central portion)
infra-areolar
next to areola, NOS
Paget disease with underlying tumor
retroareolar
subareolar area extending 1 cm around areolar complex
behind, beneath, under, underneath, next to, above, cephalad to, or below nipple

C502 (Upper-inner quadrant) (UIQ)
superior inner
superior medial
upper medial

C503 (Lower-inner quadrant) (LIQ)
inferior inner
inferior medial
lower medial

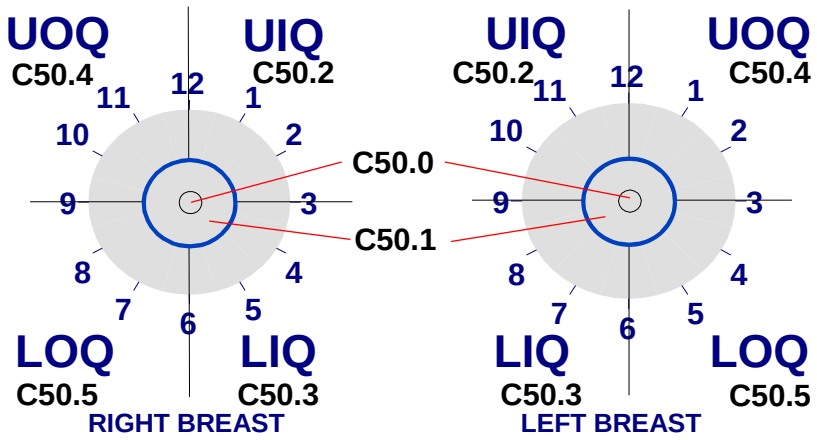
C504 (Upper-outer quadrant) (UOQ)
superior lateral
superior outer
upper lateral

C505 (Lower-outer quadrant) (LOQ)
inferior lateral
inferior outer
lower lateral

C506 (Axillary tail; Tail, NOS)
tail of Spence

C508 (Overlapping lesion; Inner; Lower; Midline; Outer; Upper)
inferior, NOS
lateral, NOS
medial, NOS
superior, NOS
3:00 (3 o'clock)
6:00
9:00
12:00
single tumor overlapping at least two subsites and the point (subsite) of origin is unknown

C509 (Breast, NOS; Mammary gland)
entire
multiple tumors in different subsites being reported as a single primary, except when only one is invasive
inflammatory cancer without palpable mass
3/4 or more of breast involved with tumor
diffuse involvement



This diagram appears in the *SEER Program Coding and Staging Manual 2007*, p. C-654.

page inserted October 2005

Additional Terms for Bladder Subsites

In addition to what appears in ICD-O-3, the following terminology and diagram are provided by SEER to help assign the best Primary Site Code for urinary bladder cancers (*SEER Program Coding and Staging Manual 2007*, pages C-909 - C-910).

The following rule first appeared in the 2004 *SEER Manual*: For multifocal bladder tumors being reported as a single primary, when there is invasive tumor(s) in one bladder subsite and *in-situ* tumor(s) in other bladder subsite(s), assign the subsite where the invasive tumor originated. Otherwise, use **C679** when there are multiple tumors in multiple bladder subsites being reported as a single primary (*in-situ* tumors in multiple subsites being reported as a single primary; invasive tumors in multiple subsites being reported as one primary; and both invasive and *in-situ* tumors in multiple subsites being reported as a single primary, unless all the invasive disease is in one subsite only).

The following rule first appeared in the 2007 *SEER Manual*: If there is conflicting information about the bladder subsite involved by tumor, give priority to subsite information from a TURB's operative report over subsite information from the pathology report.

C670 (Trigone)
base
floor

C671 (Dome)
(term appeared in 2004 *SEER Manual*, but absent from its *Revision 1*)
vertex
roof
vault

Deleted: fundus

C672 (Lateral wall)
right wall
left wall
lateral to ureteral orifice
side wall

C673 (Anterior wall) (no additional terms)

C674 (Posterior wall) (no additional terms)

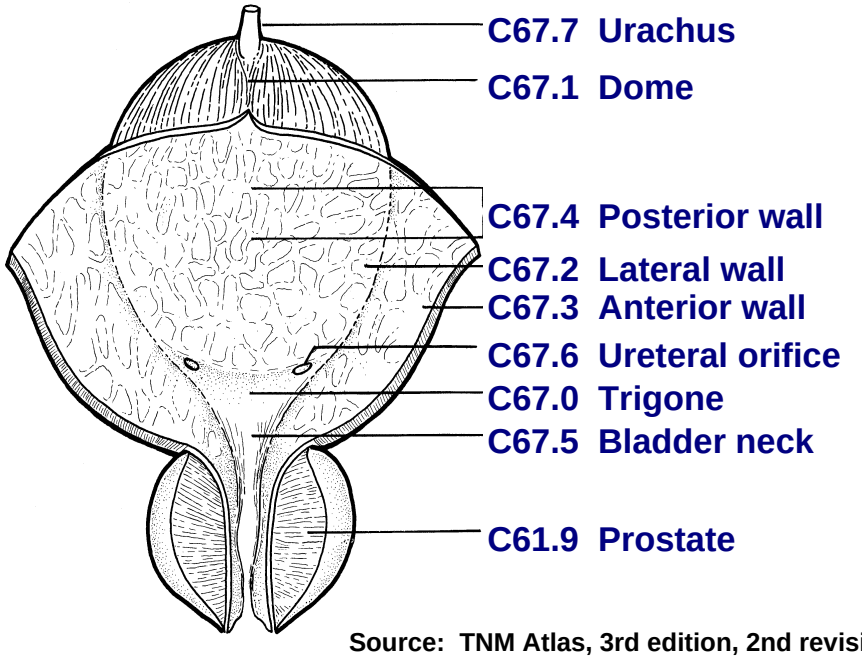
C675 (Neck; Internal urethral orifice)
vesical neck

C676 (Ureteric orifice)
just above ureteric orifice

C677 (Urachus)
mid-umbilical ligament

C678 (Overlapping lesion)
lateral-posterior wall (words must be hyphenated)

C679 (Bladder, NOS; Wall, NOS; Urinary bladder, NOS)
lateral posterior wall (unhyphenated)
multifocal cancer (separate invasive tumors in multiple subsites; or only *in-situ* tumors in multiple subsites)



Source: TNM Atlas, 3rd edition, 2nd revision

This diagram appears in the *SEER Program Coding and Staging Manual 2007*, p. C-910.

Laterality

NAACCR Version 11.1 Item 410, column 295

Laterality must be coded for each case reported. Use the following codes to classify the Laterality *of the primary site* at diagnosis:

Laterality	Code
not a paired site, including unknown primary	**0**
Right side is origin of cancer.	**1**
Left side is origin of cancer.	**2**
only one side involved, right or left not specified	**3**
bilateral involvement, but origin unknown -- and stated to be a single primary (including bilateral ovarian primaries of the same histologic type diagnosed within 2 months of each other; bilateral retinoblastomas, 9510-9513; and bilateral Wilms tumors or nephroblastomas, 8960)	**4**
paired site, but no information concerning Laterality; midline tumor in a singular "paired" site	**9**

For an unknown primary site (C80.9), always enter code **0**.

Code **4** should not be used for bilateral primaries for which separate abstracts are prepared, nor when the origin side is *known*, nor when both sides have metastatic disease except as noted. The rules for code **4** do not at this time seem inconsistent with the 2007 MP/H rules; use the M rules to determine the number of primaries as appropriate, and use the usual Laterality rules to assign the most appropriate Laterality code to each primary.

Example: a left ovarian primary with metastasis to the right ovary -- enter code **2** (not **4**) because the origin of the disease was stated to be on the left

Codes **1**-**9** are used for the sites in **Table IV.1** (next page) *except as noted*. Only "preferred" terms are listed in the table, but Laterality must be coded for all terms at these sites unless specifically excluded in the table's text; the exclusions are unpaired subsites to be coded **0**.

Examples: Primary Site is carina (unpaired), C34.0 - enter Laterality code **0**.
Primary Site is main bronchus (paired), C34.0 - enter a Laterality code **1**-**9**.

Note that beginning with diagnoses made in 2004, the number of primary sites to be coded **1**-**9** increases. Some CNS sites have been added to Table IV.1. Some are truly paired, while others are single organs for which tumor origin on the right/left side of the midline (right/left hemisphere) is being captured in Laterality. Although these "new" paired sites were coded unpaired (**0**) in the past, the standard-setters are allowing them to be coded unpaired *or* paired for pre-2004 diagnoses. That is, once your software has been updated for abstracting 2004 diagnoses, when coding a pre-2004 diagnosis you may code Laterality for the "newly paired" sites **0** or **1**-**9**; but for diagnoses beginning in 2004 you MUST code **1**-**9** for these sites.

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SEER rules allow a non-zero Laterality to be coded for unpaired primary sites, but the MCR prefers the rule appearing in the *FORDS* Manual on its pages 11 and 92 -- all unpaired sites should be coded with **0** (with the CNS primary site exception noted above). The MCR wants *only* sites listed in Table IV.1 to be entered with Laterality codes **1 - 9**. Do NOT use codes **1 - 9** when *unpaired* sites are described with left/right terms (such as right colon, left lobe of thyroid or right celiac nodes). Note that lymph nodes (C77._) are NOT considered to be paired (use code **0**).

For paired primary sites, the narrative field for Primary Site MUST include text that will verify the Laterality (see page 86). It is very common for the MCR to receive Laterality codes which do not match their narrative descriptions, and this can cause single primaries to appear to be multiple primaries.

Table IV.1 **Paired Organ Sites** -- sorted by Primary Site Code

ICD-O-3 Code	Site
C07.9	Parotid gland
C08.0	Submandibular gland
C08.1	Sublingual gland
C09.0	Tonsillar fossa
C09.1	Tonsillar pillar
C09.8	Overlapping lesion of tonsil
C09.9	Tonsil, NOS
C30.0	Nasal cavity (excluding nasal cartilage, nasal septum)
C30.1	Middle ear
C31.0	Maxillary sinus
C31.2	Frontal sinus
C34.0	Main bronchus (excluding carina)
C34.1-C34.9	Lung
C38.4	Pleura, NOS
C40.0	Long bones of upper limb, scapula and associated joints
C40.1	Short bones of upper limb and associated joints
C40.2	Long bones of lower limb and associated joints
C40.3	Short bones of lower limb and associated joints
C41.3	Rib, clavicle and associated joints (excluding sternum)
C41.4	Pelvic bones and associated joints (excluding sacrum, coccyx and symphysis pubis)
C44.1	Skin of eyelid
C44.2	Skin of external ear
C44.3	Skin of other and unspecified parts of face (midline code **9**)
C44.5	Skin of trunk (midline code **9**)
C44.6	Skin of upper limb and shoulder
C44.7	Skin of lower limb and hip
C47.1	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C47.2	Peripheral nerves and autonomic nervous system of lower limb and hip
C49.1	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C49.2	Connective, subcutaneous, and other soft tissues of lower limb and hip

Table continued on next page….

Table IV.1 Paired Organ Sites -- sorted by Primary Site Code

C50.0-C50.9	Breast
C56.9	Ovary
C57.0	Fallopian tube
C62.0-C62.9	Testis
C63.0	Epididymis
C63.1	Spermatic cord
C64.9	Kidney, NOS
C65.9	Renal pelvis
C66.9	Ureter
C69.0-C69.9	Eye and adnexa
C70.0*	Cerebral meninges (midline code **9**)
C71.0*	Cerebrum (midline code **9**)
C71.1*	Frontal lobe (midline code **9**)
C71.2*	Temporal lobe (midline code **9**)
C71.3*	Parietal lobe (midline code **9**)
C71.4*	Occipital lobe (midline code **9**)
C72.2*	Olfactory nerve
C72.3*	Optic nerve
C72.4*	Acoustic nerve
C72.5*	Cranial nerve, NOS
C74.0-C74.9	Adrenal gland
C75.4	Carotid body

* considered "paired" for diagnoses made beginning in 2004

Table IV.1 Paired Organ Sites -- sorted by preferred primary site term

ICD-O-3 Code	Site
C72.4*	Acoustic nerve
C74.0-C74.9	Adrenal gland
C50.0-C50.9	Breast
C75.4	Carotid body
C70.0*	Cerebral meninges (midline code **9**)
C71.0*	Cerebrum (midline code **9**)
C49.2	Connective, subcutaneous, and other soft tissues of lower limb and hip
C49.1	Connective, subcutaneous, and other soft tissues of upper limb and shoulder
C72.5*	Cranial nerve, NOS
C63.0	Epididymis
C69.0-C69.9	Eye and adnexa
C57.0	Fallopian tube
C71.1*	Frontal lobe (midline code **9**)
C31.2	Frontal sinus

* considered "paired" for diagnoses made beginning in 2004

Table continued on next page….

Table IV.1 **Paired Organ Sites** -- sorted by preferred primary site term

C64.9	Kidney, NOS
C40.2	Long bones of lower limb and associated joints
C40.0	Long bones of upper limb, scapula and associated joints
C34.1-C34.9	Lung
C34.0	Main bronchus (excluding carina)
C31.0	Maxillary sinus
C30.1	Middle ear
C30.0	Nasal cavity (excluding nasal cartilage, nasal septum)
C71.4*	Occipital lobe (midline code **9**)
C72.2*	Olfactory nerve
C72.3*	Optic nerve
C56.9	Ovary
C09.8	Overlapping lesion of tonsil
C71.3*	Parietal lobe (midline code **9**)
C07.9	Parotid gland
C41.4	Pelvic bones and associated joints (excluding sacrum, coccyx and symphysis pubis)
C47.2	Peripheral nerves and autonomic nervous system of lower limb and hip
C47.1	Peripheral nerves and autonomic nervous system of upper limb and shoulder
C38.4	Pleura, NOS
C65.9	Renal pelvis
C41.3	Rib, clavicle and associated joints (excluding sternum)
C40.3	Short bones of lower limb and associated joints
C40.1	Short bones of upper limb and associated joints
C44.2	Skin of external ear
C44.1	Skin of eyelid
C44.7	Skin of lower limb and hip
C44.3	Skin of other and unspecified parts of face (midline code **9**)
C44.5	Skin of trunk (midline code **9**)
C44.6	Skin of upper limb and shoulder
C63.1	Spermatic cord
C08.1	Sublingual gland
C08.0	Submandibular gland
C71.2*	Temporal lobe (midline code **9**)
C62.0-C62.9	Testis
C09.9	Tonsil, NOS
C09.0	Tonsillar fossa
C09.1	Tonsillar pillar
C66.9	Ureter

* considered "paired" for diagnoses made beginning in 2004

Narrative Primary Site

NAACCR Version 11.1 field "Text--Primary Site Title", Item 2580, columns 4095-4134

Describe the exact primary site in narrative, using up to forty characters. (If you need more space, continue in another text field.) A primary -- not metastatic -- site must be identified.

Information on primary site can be found in several sections of the medical record, and care should be taken to locate the most specific and accurate site. This is most often in the pathology report. If the record contains conflicting primary site information, a pathology report should take precedence over other information. If the primary site is still unclear, consult a physician.

Do not use an inappropriate automatic text label for the Primary Site Code (such as "skin of upper limb and shoulder" instead of "**skin right wrist**") to complete this field unless your data system does not allow direct text entry. This text is used to verify Primary Site Codes and help identify multiple reports received for the same case with different site codes. It often provides more specific site information than is conveyed by default/preferred terms and Primary Site Code alone (for example, "**carina**" is more specific than the default term "main bronchus" for Primary Site Code C340). NAACCR specifies that information from the medical record should be entered here manually and should NOT be generated from codes.

Remember that Laterality is tightly bound to Primary Site because different sides of paired organs are separate primary sites.* When a paired primary site is involved, *different* Laterality codes may be sent in by different facilities for the *same* case, making these appear to be reports of separate primaries. Important: We need text to verify the Laterality as well as the Primary Site Code for paired sites. Always add text like "**right**" or "**lt**" to verify the Laterality for paired sites. NAACCR also recommends verifying Laterality in this field.

For colorectal primaries, if the exact location of the cancer is described by a distance measurement from the anal verge, please include this measurement with your text. This is important because: *each* code C18.0-C20.9 (twelve codes) represents a separate primary site; because some facilities/pathologists never use the site C19.9 (rectosigmoid junction); and because it is very common for a single colorectal primary to be reported by different facilities under different Primary Site Codes, causing these reports to look like separate primaries.

If the combination of primary site and morphology is unusual enough to trip an edit, include a note that the information has been verified and how it was verified. The note could be in this field, the Narrative Histology/Behavior/Grade field, or Comments/Narrative Remarks.

If the primary site was unclear or doubtful in the record, indicate that here. If the primary site is truly unknown, enter "**unk primary site**" or some text that explains your choice of the code **C809**, such as "**liver mets found**", "**bx abdominal mass**" or "**possible lung or GI?**". (See page 81 in the "Primary Site Code" section.)

* except for malignancies of the "newly paired" CNS sites, C70.0, C71.0-C71.4, C72.2-C72.5

Histology / Behavior / Grade

ICD-O-2 Histologic Type Code

NAACCR Version 11.1 field "Histology (92-00) ICD-O-2", Item 420, columns 296-299

Refer to this Manual's Third Edition for coding diagnoses made before 2001. This field must be filled for pre-2001 diagnoses; it may remain empty for diagnoses made in 2001 and later.

ICD-O-3 Histologic Type Code

NAACCR Version 11.1 field "Histologic Type ICD-O-3", Item 522, columns 301-304

Enter the Histologic Type Code from the Morphology section of ICD-O-3. Histology codes appear in the Numerical Lists--Morphology (pages 69-104 in ICD-O-3) and in the Alphabetic Index (pages 105-218). Histologic Type need not be obtained from just the primary site.

Note: Both topography and morphology terms are included in the Alphabetic Index. Morphology codes are identified with "M" preceding the code but do not enter "M" in this field. Leukemias and lymphomas are *not* listed in the index under every possible wording of their associated terms; look first for these diseases in the index under "leukemia" (pages 158-162) and "lymphoma (malignant)" (pages 166-171). Compound morphology terms may be listed in the index with only one order of terms, but the reverse order of terms is also implied; for example, "fibromyxosarcoma" appears in the index and "myxofibrosarcoma" does not, but the same code would be applied to both.

The histology is represented by a five-digit code consisting of two parts: the Histologic Type (4 characters) and the Behavior Code (1 character). (Behavior is discussed on pages 95-98.) The MCR uses ICD-O and MP/H rules for coding morphologies.

If a reportable histologic term is listed in ICD-O-3 followed by the notation "[obs]" (obsolete), that term may still be used and coded.

Use the rules in the 2007 MP/H Manual in conjunction with ICD-O-3 for assigning Histologic Type Codes for primaries diagnosed beginning in 2007 as appropriate.

Old rules for pre-2007 diagnoses follow:

When coding Histologic Type from a pathology report, information in the final diagnosis is usually sufficient. The microscopic description or comments may have more specific information, however. If the final diagnosis only provides an "NOS" histologic description (such as just "carcinoma") but a more definitive statement (like "adenocarcinoma") can be found elsewhere in the report, the more definitive information should be used.

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Specific cytogenetic data may take precedence over other terms for hematologic malignancies. For example, different codes are assigned to acute myeloid leukemias exhibiting different cytogenetic abnormalities. When a laboratory report specifies such cytogenetic data, this takes precedence over different descriptions of the morphology in the pathology report (see page 15 in ICD-O-3).

Lymphomas may be described under several classification schemes -- Rappaport, Working Formulation, Revised European-American, French-American-British, WHO, Kiel and Lukes-Collins -- which may use different terms to describe the same disease. The WHO classification is most parallel to ICD-10 and ICD-O-3 coding. If a WHO term is absent, and if both Rappaport and Working Formation classifications are recorded, the *FORDS* Manual (on its page 93) specifies that the Working Formulation term should take precedence.

Cross-Indexed Lymphomas / Leukemias

Some lymphomas and leukemias are understood to be the same disease presenting differently (in different places, at different stages of development). In ICD-O-3 these diseases are listed with different codes and terms, but they have cross-referencing notes saying "(see also M-9###/3)" to denote that they are considered the same disease. The assignment of Histology (and primary site) for these cases is important for registries trying to group cases as lymphomas or leukemias.

If one of these diseases is diagnosed only in the blood or bone marrow, assign the leukemia morphology (and primary site C42.1, bone marrow).

If one of these diseases is diagnosed only in any other tissue, assign the lymphoma morphology (and primary site corresponding to the involved tissue -- usually lymph nodes, lymphatic structures or other lymph tissues).

If one of these diseases is diagnosed in both blood/bone marrow and some other type of tissue, use the lymphoma morphology and code primary site to the non-blood/bone marrow tissue involved.

Examples: "Burkitt lymphoma" diagnosed only in bone marrow -- Assign the Burkitt cell *leukemia* code **9826** and primary site bone marrow, C421.

"Precursor B-cell lymphoblastic leukemia" found only in lymph nodes -- Assign the precursor B-cell lymphoblastic *lymphoma* code **9727**, with the primary site of the involved nodes.

"Precursor T-cell lymphoblastic leukemia" diagnosed in bone marrow cells and lymph nodes -- Assign the precursor T-cell lymphoblastic *lymphoma* code **9729** and the lymph node primary site.

The order of biopsies is *not* important in deciding the morphology and primary site. For example, if a positive lymph node biopsy is performed at one facility, and then a bone marrow biopsy at another facility also finds the disease there, the third category above applies. Obtaining diagnostic information from all facilities involved in the work-up of these cases may be especially important.

The cross-referenced ICD-O-3 lymphomas/leukemias (using just the "preferred" terms) are:

9670/3 malignant lymphoma, small B lymphocytic, NOS
and 9823/3 B-cell chronic lymphocytic leukemia/small lymphocytic lymphoma (C42.1)

9687/3 Burkitt lymphoma, NOS
and 9826/3 Burkitt cell leukemia (C42.1)

9727/3 precursor cell lymphoblastic lymphoma, NOS
and 9835/3 precursor cell lymphoblastic leukemia, NOS (C42.1)

9728/3 precursor B-cell lymphoblastic lymphoma
and 9836/3 precursor B-cell lymphoblastic leukemia (C42.1)

9729/3 precursor T-cell lymphoblastic lymphoma
and 9837/3 precursor T-cell lymphoblastic leukemia (C42.1)

The following terms and codes are also cross-referenced in ICD-O-3:

9671/3 malignant lymphoma, lymphoplasmacytic
and 9761/3 Waldenstrom macroglobulinemia (C42.0)

Assign **9761** if diagnosed only in blood; assign **9671** if diagnosed only elsewhere; assign **9671** if both blood and other tissue(s) are involved.

9675/3 malignant lymphoma, mixed small and large cell, diffuse [obsolete term]
and 9690/3 follicular lymphoma, NOS

We don't understand this pair. They don't follow the pattern of the other "cross-indexed" diseases as they're both lymphomas. Their ICD-10 codes are in C83 and C82. Follicular (nodular) lymphoma is a type of mature B-cell neoplasm from the WHO* lymphoma classification, and ICD-10 notes that it may or may not be diffuse. WHO notes that some terms listed in ICD-O-3 under 9675 are essentially older synonyms for follicular lymphoma from other classification schemes (like the Kiel), and that a 9675 term is sometimes assigned to a follicular lymphoma because no areas with characteristic follicular cells happened to be sampled for pathologic examination.

Guidance from SEER has been that if these two diagnoses are made within two months of each other, assign **9690**. Primary sites and involved tissues do not seem crucial as both are lymphomas and neither has a default primary site.

9861/3 acute myeloid leukemia, NOS (FAB or WHO type not specified) (C42.1)
and 9930/3 myeloid sarcoma

Assign **9861** if diagnosed only in bone marrow; assign **9930** if diagnosed only elsewhere; assign **9930** if both bone marrow and other tissue are involved.

* WHO Classification of Tumours "blue book" series, *Tumours of Haematopoietic and Lymphoid Tissues*, 2001

Assigning the Best Histologic Type

General Rule: Before coding Histologic Type, a determination should be made as to whether this is a single primary or multiple primaries (because this determines whether or not you'll need to assign a single Histologic Type). (See pages 15-33 for a detailed discussion of pre-2007 rules.) Use the MP/H Manual for solid malignancies diagnosed beginning in 2007.

Old rules for pre-2007 diagnoses follow:

All pathology reports for the primary under consideration should be used. Although the pathology report from the most representative tissue (or largest amount of cancer tissue removed) usually provides the best information, sometimes all of the cancerous tissue may be removed at biopsy; in such cases, the biopsy report must be used.

The Histologic Type described in a pathology report's Final Diagnosis section is usually definitive. But if a definitive statement of a more specific histologic type is found in the Microscopic Description or in Comments, the more specific histologic diagnosis should be coded; in ICD-O-3 this is *not necessarily* the higher code number.

Example: microscopic description -- mucinous adenocarcinoma
final diagnosis -- adenocarcinoma
Assign mucinous adenocarcinoma, **8480**/3.

Note that "mixed", "combined" and "complex" are usually used as synonyms when describing histology. The terms "adenocarcinoma" and "carcinoma" are often used interchangeably.

Except for breast cancers, when coding Histologic Type when there are multiple cell types or terms used, or when there are multiple tumors with different histologies being counted as a single primary, also use the following rules adapted from SEER's 2002 document "Coding Complex Morphologic Diagnoses" and the *SEER Program Coding and Staging Manual 2004*. Follow the rules in the order shown, and stop as soon as one applies to the particular situation in question.

Note: Separate rules for **breast** primaries begin on page 92.

Single Lesion, Multiple Morphologies, Same Behavior: If a tumor contains multiple morphologies or a "mixed" morphology, proceed in the following order to assign the Histologic Type Code:

A. Assign a mixed or combination code that includes all the histologies documented.

A1. Use a mixed code that includes all the histologies, if one exists. ICD-O-3 contains many codes for describing single tumors containing mixed histologic types. (Look up "mixed" in the ICD-O-3 alphabetic index, pp. 175-176, but some of these terms may be intended for specific tumors found in certain primary sites rather than mixes of different cell types.) Note that SEER cautions against using **8323**/3 (mixed cell adenocarcinoma) *except for* mixed cell carcinomas of gynecologic primary sites and mixed pancreatic islet cell carcinomas.

Pre-2007 rules continued:

Examples: **8855** (mixed liposarcoma)
8940 (mixed tumor, malignant, NOS; mixed tumor, salivary gland type, malignant)
8950 (Mullerian mixed tumor)
8951 (mesodermal mixed tumor)
8990 (mesenchymoma, malignant; mixed mesenchymal sarcoma)
9081 (teratocarcinoma; mixed embryonal carcinoma and teratoma)
9085 (mixed germ cell tumor; mixed teratoma and seminoma)
9362 (pineoblastoma; mixed pineal tumor; mixed pineocytoma-pineoblastoma)

A2. Use a combination code that includes all the histologies, if one exists. ICD-O-3 contains many codes for describing single tumors with multiple histologic types, usually using one compound term (like "adenosquamous") or "with" or "and".

Examples: **8045** (combined small cell carcinoma; combined small cell-large cell carcinoma)
8255 (adenocarcinoma with mixed subtypes)
8523 (infiltrating duct carcinoma with other types of carcinoma)
8524 (infiltrating lobular carcinoma with other types of carcinoma)
8560 (adenosquamous carcinoma)

B. If there is no mixed or combination code for the histologies reported, compare the specificity of the terms. If one term is more specific than the other, assign that one. If one of the histologies appears in ICD-O-3 as an "NOS term" (e.g., "adenocarcinoma, NOS") and the other term is more specific, use the more specific term.

Example: invasive carcinoma, probably squamous cell type -- Code squamous cell carcinoma (**8070**/3) as it's more specific than "carcinoma, NOS" (8010/3).

C. Code the histology of the majority of the tumor if there is no mixed/combination code and if none of the terms is much more specific than the others.

C1. If the pathology report clearly identifies the histology found in the majority of the tumor (for example, "80% of tumor is spindle cell carcinoma"), assign that Histologic Type. (Be certain that the majority of the *tumor* is being described rather than the majority of the entire tissue *sample*.)

C2. If the majority of the tumor is not described clearly, look for terms that may be used to indicate the majority of the tumor:

...major... ...type with features of...
predominately... with...differentiation

Presume that the following two terms indicate the majority of the tumor ONLY if the term is included in the appropriate College of American Pathologists Anatomic Protocol (http://www.cap.org/apps/docs/cancer_protocols/protocols_index.html):

...architecture ...pattern

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Pre-2007 rules continued:

(Examples of phrases which do not identify the majority of the tumor:
...component with elements of...
with areas of... with foci/focus of...)

Example: predominately leiomyosarcoma (8890/3) associated with a focus of well-developed chondrosarcoma (9220/3) -- Code the histology of the majority of the tumor -- **8890**/3.

D. If the situations above (A-C) do not apply, code the term with the highest code number in ICD-O-3. This is the easiest rule to remember but it's the last choice you should make! These are usually cases of very different morphologies appearing together.

Examples: adenosquamous carcinoma (8560/3) and mixed small cell carcinoma (8045/3) -- There is not a mixed or combination code for these histologies, both are specific, and the majority histology is not identified. Assign the higher code number, **8560**/3.

malignant mesothelioma (9050/3) and neuroendocrine carcinoma (8246/3) -- Assign the higher code number, **9050**/3.

Single **Breast** Lesion, Complex Histology: Breast tumors have special detailed instructions for choosing the best histology. Again, follow the rules in the order listed and stop at the first situation that applies. Fall back on following the general rules (A-D) if the specific rules 1-5 do not apply to a particular case.

1. If the diagnosis involves both ductal AND lobular (infiltrating, *in situ*, or both), use the combination code for duct and lobular carcinoma (**8522**). (Assign invasive behavior if either term is invasive; assign *in situ* behavior if the entire tumor is noninvasive.)

2. If the diagnosis involves invasive and *in situ* terms, code just the invasive histology. The noninvasive histology is not captured in the Histologic Type assigned.

   Examples: infiltrating ductal carcinoma with extensive cribriform DCIS -- Code just the invasive histology, **8500**/3.

   foci of ductal carcinoma with DCIS of solid, cribriform and comedo types -- Code the only invasive histology, **8500**/3.

   mucinous carcinoma in a background of DCIS -- Assign **8480**/3.

3. If the diagnosis involves ductal OR lobular carcinoma mixed with another type of carcinoma, use combination codes **8523** [duct mixed with other types of carcinoma (except lobular)] or **8524** [lobular mixed with other types of carcinoma (except duct)]. The words "mixed" or "and" should be used in the description between the histologies.

   Examples: duct carcinoma and tubular carcinoma -- Code **8523**/3.

   DCIS mixed with cribriform carcinoma *in situ* -- Code **8523**/2.

   lobular and adenoid cystic carcinoma -- Code **8524**/3.

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Pre-2007 rules continued:

4. Code a specific type, subtype or variant of duct carcinoma, or look for terms denoting the majority of the tumor (e.g., "*predominantly*..." or "*with features of*...").

   Examples: duct carcinoma, tubular type -- Code as tubular carcinoma (**8211**/3).
   duct carcinoma with apocrine features -- Code apocrine carcinoma (**8401**/3).

5. If there are multiple subtypes, assign a combination code.

   Examples: duct carcinoma, cribriform and comedo types -- Assign **8523**/3.
   DCIS showing both solid and cribriform features -- Assign **8523**/2.

Multiple Lesions in the Same **Breast** Reported as One Primary: For different histologies in separate tumors in one breast, apply the single-vs.-multiple primaries rules. If it is one primary, use a combination code for duct and lobular carcinoma (**8522**), or duct (/intraductal) carcinoma and Paget disease (**8541**, **8543**). SEER does *not* endorse using **8523** and **8524** to combine separate simultaneous breast lesions into one primary.

Single Lesion, Multiple Histologies, Different Behaviors: If the ICD-O-3 Behavior Codes are different, select the morphology code with the highest Behavior Code. If there is an invasive component and an *in-situ* component to the tumor, for example, code ONLY the invasive Histologic Type. The noninvasive histology is considered far less important and is not captured in the histology assigned. Use the breast cancer rules (1-5) starting on page 92 for breast cases.

Example: squamous cell carcinoma *in situ* (8070/2) with papillary squamous cell carcinoma (8052/3) - Code the invasive histology only, **8052**/3.

Exception: If the invasive histology has a non-specific "NOS term" (e.g., carcinoma, adenocarcinoma, melanoma), and the noninvasive component is more specific, enter invasive behavior with the more specific Histologic Type.

Example: squamous cell carcinoma *in situ* with areas of invasive carcinoma (8010/3) - Code as squamous cell carcinoma (**8070**/3).

Mixed Germ Cell Tumors: SEER gave detailed rules for assigning the best Histologic Type for a single germ cell tumor of mixed/multiple morphologies, based on the relative rarity and severity of the common germ cell types. If one of the histologies is...

choriocarcinoma (9100), then assign **9101** (choriocarcinoma with other germ cell elements);

embryonal cell carcinoma (9070) or teratoma (9080), then assign **9081** (mixed embryonal carcinoma and teratoma);

a seminoma (9061-9064) with any non-seminoma (9070-9084, 9100), then assign **9085** (mixed germ cell tumor).

If none of the cell types is seminoma (9061-9064), assign **9065** (germ cell tumor, nonseminomatous).

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Pre-2007 rules continued:

Multiple Lesions (with multiple histologies) Considered a Single Primary: When multiple tumors are considered a single primary, use the following rules in the order listed (there are also notes for breast cancers on the preceding page):

1. For colon and rectum primaries:

   When both an adenocarcinoma (8140) and an adenocarcinoma in an adenomatous polyp (8210) or an adenocarcinoma in (tubulo)villous adenoma (8261, 8263) arise in the same segment of the colon or rectum, code as adenocarcinoma, NOS (*in situ* or invasive, as appropriate), **8140**.

   When both a carcinoma (8010) and a carcinoma in an (adenomatous) polyp (8210) arise in the same segment of the colon or of the rectum, code as carcinoma, NOS (*in situ* or invasive, as appropriate), **8010**.

2. Assign one of the following four combination codes if the histologies of multiple lesions in the given primary site can be represented by one of these.
   for the same breast (C50.): **8522** (duct and lobular carcinoma) or **8543** (Paget disease and duct carcinoma)
   for bladder (C67.): **8130** (papillary and transitional cell carcinoma)
   for thyroid (C73.9): **8340** (follicular and papillary carcinoma)

3. If one lesion is described with a non-specific "NOS" term (e.g., carcinoma, adenocarcinoma, sarcoma), and the other lesion is described with a more specific term (e.g., *large cell* carcinoma, *mucinous* adenocarcinoma, *spindle cell* sarcoma), code to the more specific term.

Code all other multiple tumors with different histologies as multiple primaries. Do not assign mixed or combination histology codes other than those covered by rules 1 and 2 to combine multiple simultaneous tumors in the same site into a single primary. Do not use **8523** (duct mixed with other carcinomas) or **8524** (lobular mixed with other carcinomas) to combine separate tumors into a single primary; only use **8523** and **8524** when appropriate to combine multiple histologic types within a single tumor.

ICD-O-2 Behavior Code

NAACCR Version 11.1 field "Behavior (92-00) ICD-O-2", Item 430, column 300

Refer to the Third Edition of this manual for coding diagnoses made before 2001. This field must be filled for diagnoses made before 2001; it may be left empty for diagnoses made in 2001 and later.

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ICD-O-3 Behavior Code | NAACCR Version 11.1 field "Behavior Code ICD-O-3", Item 523, column 305

The fifth digit of the ICD-O-3 morphology code (after the slash) is the Behavior Code. Use the best information from the entire pathology report to code behavior. *Any* amount of disease invasion makes the behavior invasive (/**3**).

Behavior is integral to case reportability requirements. The MCR requires that all cancers with a Behavior Code of **2** or **3** (malignancies) be reported, with certain exceptions noted below. If a histology appears in ICD-O-3 with *only* a Behavior Code of **0** or **1** but a pathologist has described the cancer as "malignant", you may change the Behavior Code to **3** and report the case (for example, a confirmed "malignant tumorlet" would be reportable as 8040/**3**; a carcinoid tumor of the appendix, if specified as invasive, would be reportable as 8240/**3** even though "NOS" carcinoid tumor of the appendix appears as 8240/1). (See "Rule F" on pages 20 and 29 of ICD-O-3.) Pilocytic astrocytomas, although appearing in ICD-O-3 with /**1**, are to be coded with /**3** Behavior as a standard practice in North America (9421/**3**). As also noted on page 11 in this MCR Manual, the following are MCR malignancy reportability exceptions:

Morphology	
8000-8005	malignant neoplasms, NOS, of the skin (C44.0-C44.9)
8010-8046	epithelial carcinomas of the skin (C44.0-C44.9)
8050-8084	papillary and squamous cell carcinomas of the skin (C44.0-C44.9)
8090-8110	basal cell carcinomas of the skin (C44.0 - C44.9)

Note: The above morphologies of *any* non-C44 primary site will be reportable to the MCR as of January 1, 2004. For diagnoses made before 2004 SEER phrasing pointed out that these cancers were reportable for skin of the genital sites, and some interpreted this as meaning that they were *only* reportable for these sites.

In addition to malignancies, the MCR requires that cases with ICD-O Behavior Codes **0** or **1** of primary sites meninges, brain and central nervous system (C70._, C71._ and C72._) be reported for all diagnosis years beginning in 1982. Beginning with diagnoses made in 2004, cases with sites C75.1-C75.3 (pituitary gland, craniopharyngeal duct and pineal gland) also become reportable with any ICD-O-3 Behavior Code, including **0** and **1**. Remember that non-malignant diseases must have an ICD-O code to be reportable.

For diagnoses made between 1998 and the end of 2003 the MCR does not require cases of anal, vaginal or vulvar intraepithelial neoplasia, Grade III (AIN, VAIN, VIN, histology 8077/**2**) because of uncertainty in the descriptions of these diagnoses. (This "Grade III" does not refer to the histopathologic grade/differentiation; it refers to the highest category of dysplasia in the Bethesda system for non-invasive lesions.) Per CDC/NPCR requirements, AIN, VAIN and VIN III become reportable to the MCR with diagnoses beginning in 2004.

Beginning with cases diagnosed on or after January 1, 1998, the MCR no longer requires reporting facilities to submit cases of carcinoma *in situ* (CIS) of the uterine cervix (Primary Site C53._ with Histologic Type Codes 8000-8110 and Behavior Code **2**). This includes cervical intraepithelial neoplasia, Grade III (CIN III, histology 8077/2), pre-invasive cervical neoplasia, and squamous intraepithelial neoplasia. Invasive carcinomas of the cervix (Behavior Code **3**) are reportable and must not be overlooked in casefinding. Prostatic intraepithelial neoplasia, Grade III (PIN, histology 8148/2) also became non-reportable to the MCR for diagnoses made as of January 1, 1998. Please note that SEER has recently clarified the concept of non-reportable CIS of the cervix, now excluding *all* histologies of the cervix with Behavior Code **2** from reportability (rather than just the simple carcinoma range). This was apparently always SEER's intent, so the MCR will begin observing this rule now and will in effect extend it back in time. Thus, for primary site C53._, *only* invasive cancers (Behavior Code **3**) are reportable to the MCR for diagnoses made as of 1998.

The codes for classifying Behavior are shown here:

Behavior	**Code**
benign	**0**
uncertain whether benign or malignant *borderline malignancy *low malignant potential *uncertain malignant potential	**1**
carcinoma *in situ* intraepithelial non-infiltrating non-invasive	**2**
malignant/invasive, primary site	**3**
malignant/invasive, metastatic site malignant/invasive, secondary site	** 6
malignant, uncertain whether a primary or metastatic site	** 9

* but pilocytic astrocytomas (9421/1) are coded as if malignant (**3**) in North America by agreement

** This is a reportable behavior, but enter code **3** for the MCR. Code "6" indicates behavior at a metastatic site. If the only specimen is from a metastatic site, code the Histologic Type from this site but use **3** for Behavior Code.

Example: A patient had a liver biopsy showing metastatic adenocarcinoma (8140), and the primary site is unknown (C80.9). Code the histology as adenocarcinoma (8140/**3**).

Each Behavior Code appears in ICD-O-3 next to a number of histologic type codes:
about 290 histology codes appear with a /**0** benign behavior;
about 150 histology codes appear with a /**1** uncertain behavior;
only 30 histology codes appear with a /**2** *in situ* behavior;
about 550 histology codes appear with a /**3** malignant behavior;
only 6 codes appear with /**6** metastatic behavior (8000, 8010, 8070, 8140, 8480, 8490);
only 3 codes appear with /**9** primary/secondary uncertainty behavior (8000, 8010, 8800).

Remember that the Behavior Code shown next to a histologic type in ICD-O-3 may be changed to reflect the cancer's true behavior; for example, not every histology which could be metastatic is shown with /**6**, and not all histologies which may be *in situ* are shown with /**2**.

In Situ -- The following terms indicate *in situ* /**2** behavior (ICD-O-3):

- adenocarcinoma in an adenomatous polyp with no invasion of stalk (8210/2)
- Bowen disease (8081/2) (C44._) (reportable for non-C44._ sites)
- Clark's Level 1 for melanoma, limited to epithelium (8720/2)
- comedocarcinoma, noninfiltrating (8501/2) (C50._)
- confined to epithelium
- Hutchinson melanotic freckle, NOS (8742/2) (C44._)
- intracystic, noninfiltrating (for example, a carcinoma 8504/2)
- intraductal*
- intraepidermal, NOS (except intraepidermal epithelioma of Jadassohn 8096/0; intraepidermal nevus 8740/0)
- intraepithelial, NOS
- intraepithelial neoplasia, grade III [Lower grades (I, II) do not warrant /**2** behavior.] (See the **REPORTABILITY** section to determine whether the case is reportable to the MCR.)
- intratubular malignant germ cells; intratubular germ cell neoplasia (9064/2) (C62._)
- involvement up to but not including the basement membrane
- lentigo maligna (8742/2) (C44._)
- lobular neoplasia (C50._) (There are differing opinions about whether only "grade III" lobular neoplasias should be recorded with /**2** behavior. SEER rules seem to have changed over time. COC advises checking if your pathologist considers the term equivalent to /2 behavior. See also p. 14 in this MCR Manual.)
- lobular, noninfiltrating (C50._)

Deleted: The MCR follows SEER rules that the term "lobular neoplasia" is synonymous with /**2** behavior.

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* except in these terms:

8453/0	intraductal papillary-mucinous adenoma (C25._)
8453/1	intraductal papillary-mucinous tumor with moderate dysplasia (C25._)
8453/3	intraductal papillary-mucinous carcinoma, invasive (C25._)
8503/0	intraductal papilloma
8503/3	intraductal papillary adenocarcinoma with invasion (C50._)
8505/0	intraductal papillomatosis, NOS; diffuse intraductal papillomatosis
8543/3	Paget disease and intraductal carcinoma of breast (C50._)

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- noninfiltrating
- noninvasive
- no stromal involvement (except squamous cell carcinoma *in situ* with questionable stromal invasion 8076/2)
- papillary, noninfiltrating or intraductal
- precancerous melanosis (8741/2) (C44._)
- Queyrat erythroplasia (8080/2) (C60._)
- squamous intraepithelial neoplasia, grade III (8077/2) [Grades < III) do not warrant /2.] (See the **REPORTABILITY** section to determine if the case is reportable to the MCR.)
- Stage 0 (except applied to Paget disease of breast (8540/3), and colon or rectum tumors confined to the lamina propria)

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Microinvasion

Code microinvasion (the earliest stage of invasion) as malignant (**3**), not *in situ*. For the diagnosis "microinvasive squamous cell carcinoma" (a common form of cervical cancer), use the morphology code provided by ICD-O-3 (8076/**3**). Even if the final diagnosis only describes "*in situ*" or "noninvasive" disease, code invasive behavior (**3**) if there is microinvasion documented anywhere in the pathology report.

Malignant Terms

Forms of the terms "invasive", "leukemia", "malignant" and "metastatic" are generally synonymous with Behavior Code **3** (or /6 reported as /**3**). The following ICD-O-3 terms are exceptions: metastasizing leiomyoma (8898/1); invasive hydatidiform mole or invasive mole, NOS (9100/1) (C58.9); and T-cell large granular lymphocytic leukemia (9831/1).

Behavior and Staging Differences

It may be difficult to distinguish descriptions of a tumor's behavior from descriptions of its stage. "*In situ*" can describe behavior, extent of disease, or both. The Behavior Code collected by the MCR is the WHO (ICD-O-3) behavior. The behavior of a case reflected in its staging codes may differ. For example, mammary Paget disease with no underlying tumor found (8540/**3**) is AJCC-staged *in situ*; mammary Paget disease with an underlying intraductal carcinoma (8543/**3**) is also AJCC-staged *in situ*; the *in-situ* staging and Behavior Code **3** are compatible for these cases. If a pathologist specifically describes "Paget disease, *in situ*" and wants the *ICD-O Behavior* coded /**2**, this is permissible under ICD-O's "matrix" rule (Rule F, pp. 20 and 29-30 in ICD-O-3), but this is not the same as a physician describing AJCC *staging* of Paget disease as *in situ*. Another example is invasion of the lamina propria for colorectal cancers: AJCC pTis and Behavior Code **3**. If the behavior is unclear or not stated in the record, use the default ICD-O-3 Behavior Code. Note from *SEER Manual* 2007 (p. C-912): for bladder primaries, if the only surgery is a TURB and the depth of invasion cannot be measured because no muscle is found in the specimen, use a /**3** Behavior Code.

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ICD-O-2 Conversion Flag

NAACCR Version 11.1 Item 1980, column 1147

This field identifies the origin of any ICD-O-2 codes in a case record. Now that ICD-O-3 coding is firmly established, it is possible that the ICD-O-2 codes required for pre-2001 diagnoses are produced from the automatic conversion of ICD-O-3 codes. (For pre-1992 diagnoses, there may have even been conversion from ICD-O-1 codes.) The codes that refer to ICD-O-2 and ICD-O-3 morphologies follow; (the complete set of codes, including those describing ICD-O-1 conversions, is available in the *FORDS* Manual, p. 232):

Conversion Circumstances	**Code**
Case was originally (manually) coded in ICD-O-2.	**0**
ICD-O-2 codes produced by software conversion from ICD-O-3 morphologies without registrar review	**5**
As for code **5**, but a registrar has reviewed the ICD-O-2 codes.	**6**

ICD-O-3 Conversion Flag

NAACCR Version 11.1 Item 2116, column 1243

This coded field describes the origin of any ICD-O-3 codes (Histologic Type Code and Behavior Code) within a case record. Your data system may fill this field automatically, but you should also be able to change this field manually when appropriate (as when you have visually reviewed and corrected an automatic code conversion for a case diagnosed before 2001). It is impossible for us to describe exactly how each hospital data system may be handling the ICD-O-2 and ICD-O-3 fields. The codes for the ICD-O-3 Conversion Flag follow:

Conversion Circumstances	**Code**
No conversion took place. (ICD-O-3 fields are empty.)	leave empty
Case was originally coded in ICD-O-3.	**0**
Case was coded in ICD-O-2; ICD-O-3 fields were filled automatically by software and the ICD-O-3 codes have not been reviewed by a registrar.	**1**
As for code **1**, but a registrar has reviewed the ICD-O-3 codes.	**3**

Grade / Differentiation / Immunophenotype Code

NAACCR Version 11.1 field "Grade", Item 440, column 306

The Grade or Differentiation of a tumor describes the tumor's resemblance to normal tissue. A well differentiated (Grade I) tumor is the most like normal tissue, and *un*differentiated (Grade IV) cells are the most abnormal. The immunophenotype of a lymphoma or leukemia describes the type of cell (cell lineage) in which the disease developed. This field corresponds to the sixth digit of ICD-O morphology codes.

Grade / Differentiation

The MCR uses ICD-O/*FORDS* Manual rules for assigning Grade as the sixth digit of the ICD-O morphology code -- not AJCC rules. In the *AJCC Cancer Staging Manual, Sixth Edition* there are rules for assigning a "grade" code of "G1", "G2", "G3", "G4" or "G3-4"; but these are AJCC staging-related grade codes and are not the same type of Grade code collected by the MCR and described on page 67 of ICD-O-3 or pages 14-15 and 96-97 of *FORDS*.

Examples: The *AJCC Cancer Staging Manual, Sixth Ed*. staging grade for prostate cancer with Gleason score 7 is "G3-4"; the Grade code reported to the MCR is **3** (see page 108 herein, or p. 15 in the *FORDS* Manual).

Page 7 of the *AJCC Cancer Staging Manual, Sixth Ed*. lists certain histologies that "…are by definition listed as G4 for staging purposes…" (small cell carcinoma, large cell carcinoma of lung, Ewing sarcoma of bone or soft tissue, and rhabdomyosarcoma of soft tissue); other such diagnoses include glioblastoma multiforme and astrocytoma. These morphologies should be reported to the MCR with the ICD-O-3 Grade that is indicated in the medical record (most likely in a pathology report). That is, a "poorly differentiated small cell carcinoma" would have Grade code **3**; the same diagnosis with *no* indication of grade or differentiation should have Grade code **9**. This coding rule also appears on page 7 of the *AJCC Cancer Staging Manual, Sixth Edition*.

The term "grade" in a medical record does *not* always describe cell Differentiation and thus should *not* always be coded here. It can be very confusing. For example, in describing some diseases, pathologists use "grade" as a synonym for "type" or "category" (as in different "grades" of nodular sclerosing Hodgkin lymphoma, follicular lymphoma, or intraepithelial neoplasia). "Grade" may also be used to refer to specific tissue or cellular characteristics that do not directly correlate with the ICD-O-3 Grade field. The word "differentiation" is a more reliable indicator of the morphology code's sixth digit Grade (as in "poorly differentiated lymphocytic lymphoma", code **3**). Terms like "high grade" or "low grade", when describing lymphomas or leukemias, are *not* coded in this field, but if a histologic term is listed in ICD-O-3 with the words "high grade" or "low grade" incorporated into the term (as in 8931/3, "endometrial stromal sarcoma, low grade"), then that *should* be coded here (code **2** for "low grade", code **4** for "high grade").

Code the Grade or Differentiation from the pathologic examination of the primary tumor site only -- NOT from metastatic sites (because cells at a metastatic site may have a different amount of Differentiation than those in the primary site). If the primary site is unknown, always code the Grade/Differentiation as unknown (**9**).

Example: A metastatic liver lesion is specified as "poorly differentiated carcinoma" and the primary site cannot be identified. Enter code **9** because the Differentiation *at the primary site* cannot be determined.

A Grade recorded in a histopathology report takes precedence over one in a cytology report, but if the histopathology report lacks information on Grade/Differentiation then information from cytology may be used. Grade/Differentiation information from a cytology or histopathology report's final diagnosis is usually used for coding Grade; but if Differentiation is NOT stated in the final diagnosis, check the entire report for any relevant information.

Examples: A cytology report finds moderately differentiated carcinoma cells, but the histopathology report identifies *poorly* differentiated carcinoma. Use code **3** because the histopathology information takes precedence.

A cytology report describes well differentiated carcinoma, and the histopathology report has *no* documentation of a Grade/Differentiation. The information from the cytology report must be used, so assign code **1**.

Microscopic Description: moderately differentiated squamous cell carcinoma with poorly differentiated areas
Final Diagnosis: *moderately* differentiated squamous cell carcinoma
Code Moderately Differentiated (**2**) from the final diagnosis.

Microscopic Description: moderately differentiated squamous cell carcinoma with *poorly* differentiated areas
Final Diagnosis: (no mention of Grade/Differentiation)
Lacking information from the Final Diagnosis, code Poorly Differentiated (**3**) -- the highest Grade documented in the Microscopic Description.

If a primary site surgical pathology report lacks information on Grade/Differentiation, then information from a primary site incisional biopsy may be used. If there is a difference between the Grade reported from the primary site biopsy and that reported for the resected primary site surgical specimen, use the higher Grade found, regardless of the tissue source.

Example: Histopathology report, incisional biopsy of neck mass, June 8th:
well differentiated carcinoma;
Histopathology report, tumor excision, June 11th:
moderately differentiated carcinoma;
Code moderately differentiated (**2**) because it represents the higher grade.

When a report specifies more than one Grade, code to the highest Grade given, even if it does not represent the majority of the lesion. If a tumor of mixed behavior (partly invasive, partly *in situ*) has Grades recorded for both the invasive and non-invasive components, record the Grade of the invasive component only.

Examples: moderately to poorly differentiated -- Code as poorly differentiated (**3**).

combination of Grades I and II carcinoma -- Code as Grade II (**2**).

predominantly Grade I, focus of Grade II -- Code as Grade II (**2**).

carcinoma, moderately differentiated, with well-differentiated carcinoma *in situ* -- Code the invasive component's Grade (moderately differentiated, **2**).

carcinoma with well-differentiated carcinoma *in situ* -- The invasive component's Grade is not stated, so code as unknown (**9**).

Code the Grade for purely *in-situ* lesions if available. Because it is not usually considered to be of importance in *in-situ* cases, Grade is seldom recorded; but do not automatically make the Grade **9** if a degree of Differentiation *is* specified for an *in-situ* case. The *FORDS* Manual, since its 2004 revisions, specifies that code **9** should be used for diagnoses of "high-grade dysplasia"; this diagnosis would be considered reportable only when this term is being used by a physician synonymously with (adeno)carcinoma *in situ*. Do not confuse *this* use of "high grade" with Grade code **4**.

A nuclear grade may be recorded (often for breast or renal cancers, as in Fuhrman or Van Nuys nuclear grades.) The *FORDS* Manual has now provided code conversions for nuclear grades that may be considered comparable with the sixth digit ICD-O Grade/ Differentiation code. The MCR *will* now accept nuclear grade information in accordance with the *FORDS* rules.

In addition to the prioritizing rules for pathology/cytology/other reports, for primary sites other than breast, prostate and kidney, use information to determine Grade in the following order: 1) terminology (word descriptions, such as "poorly differentiated" or "low grade"), 2) histologic grade, and 3) nuclear grade. Detailed rules for breast, prostate and kidney cancers are presented in separate sections below. For all other primary sites, when there is no grade terminology or histologic grade reported but a nuclear grade is available, use the following code conversions for two- and three-tiered nuclear grade classifications:

Nuclear Grade	Code
1/3, 1/2	**2**
2/3	**3**
3/3, 2/2	**4**

Grade / Immunophenotype (Phenotype)

Codes **5**-**8** define cell origins for leukemias and lymphomas. (Code **9** may now be used for "combined T and B cell" lymphomas.) For these cancers cell classifications have precedence over grade and differentiation (e.g., "poorly differentiated T-cell lymphoma" is coded **5** rather than **3**). *Ignore* lymphoma descriptions of "high grade", "low grade", "intermediate grade", "Grade 1", "Grade 2" or "Grade 3" when coding this field.

In ICD-O-3 "…the cell lineage is implicit in the four-digit morphology code" (see p. 14 in ICD-O-3). Some *terms* in ICD-O-3 have an implied cell type origin; but note that not *all* terms listed with the same morphology code in ICD-O-3 necessarily should be assigned the same immunophenotype. For example, the preferred term for 9680/3 is "malignant lymphoma, large B-cell, diffuse, NOS" but not all of the other terms listed for that code should necessarily be assigned B-cell origin. If the medical record does *not* indicate an immunophenotype for lymphomas and leukemias, use code **9**.

The Grade/Differentiation/Immunophenotype (phenotype) codes follow:

Description	Grade/Cell Type	Code
well differentiated; differentiated, NOS	Grade I	**1**
moderately (or mid) differentiated; moderately (or fairly) well differentiated; intermediate differentiation; relatively (or generally) well differentiated	Grade II	**2**
poorly (or slightly) differentiated; relatively undifferentiated; dedifferentiated	Grade III	**3**
anaplastic; undifferentiated	Grade IV	**4**
for lymphomas and leukemias: T-cell; T-precursor; gamma-delta T-cell; γδ T-cell; Pre-T	T-cell origin	**5**
for lymphomas and leukemias: B-cell; Pre-B; B-precursor	B-cell origin	**6**
for lymphomas and leukemias: null cell; non T-non B; common cell	Null cell origin	**7**
for lymphomas and leukemias*: NK cell; nasal NK/T cell lymphoma	Natural killer cell origin	**8**
Grade/Differentiation/Cell Type not determined, not stated, or not applicable; unknown primary site; high-grade dysplasia**; non-malignant disease (Behaviors /0, /1); for lymphomas: combined T and B cell	unknown; can't be assigned	**9**

* Code **8** should only be used for diagnoses made beginning in 1995.

** when being reported because it is being used as a synonym for (adeno)carcinoma *in situ*

MRI / PET / Brain Tumor Grading

It may be possible to establish tumor Grade through magnetic resonance imaging (MRI) or positron emission tomography (PET) when there is no tissue diagnosis. (Brain/CNS tumors may be graded using these methods.) If there is *no* tissue diagnosis, but the Grade or Differentiation is indicated on an MRI or PET report, use that Grade; if there *is* a tissue diagnosis, however, do not use Grade information from any other source. Note that only malignancies (behaviors /2, /3) are Graded with codes **1**-**8** -- for benign disease and tumors of uncertain behavior (/0, /1), always assign code **9**.

WHO developed a malignancy scale for central nervous system tumors that includes a "WHO grade" (of I - IV). See the explanation on pages 39-40 of ICD-O-3. This "WHO grade" reflects the relative malignancy of a tumor. The "WHO grade" is not recorded in the sixth digit ICD-O Grade field that we collect. For example, an anaplastic meningioma has a "WHO grade" III but would be coded **4** in the ICD-O Grade field because of the term "anaplastic". If a CNS tumor is described only by its "WHO grade" it should be assigned ICD-O Grade code **9**. Look for terminology in the medical record describing the tumor's ICD-O Grade, such as the terms shown in the table below. (The WHO grade for central nervous system tumors is captured in the field CS Site-Specific Factor 1 for diagnoses made beginning in 2004.)

Other Grade / Differentiation Terminology

When there is variation in the usual terms for Grade or Differentiation, use the following conversions:

Terminology	Grade	Code
low grade partially well differentiated	I-II	**2**
medium grade intermediate grade	II-III	**3**
moderately undifferentiated	III	**3**
high grade	III-IV	**4**

A Grade may be recorded as "2/3" (Grade II in a three-tiered grade system) or "II/IV" (Grade II of a four-grade system). Some cancers may be categorized based on a simple two-grade system (low/high). Two-tier grading systems may be used for colorectal and heart tumors; three-grade classifications may be used for peritoneum, breast, endometrium, fallopian tube, prostate, kidney and CNS. For these types of classification, with the exception of the three-tiered Bloom-Richardson breast scheme (described on the next pages), use the following codes:

Two-Tier System		
Grade	**Grade**	**Code**
I / II	1 / 2	**2**
II / II	2 / 2	**4**

Three-Tier System*		
Grade	**Grade**	**Code**
I / III	1 / 3	**2**
II / III	2 / 3	**3**
III / III	3 / 3	**4**

Four-Tier System		
Grade	**Grade**	**Code**
I / IV	1 / 4	**1**
II / IV	2 / 4	**2**
III / IV	3 / 4	**3**
IV / IV	4 / 4	**4**

* Do NOT use this three-tiered coding for breast cancers. See the following pages for breast cancer Grade codes.

Thus, simply specifying "Grade II" or "Grade 2" in narrative is not enough information for the MCR to determine if the correct Grade code has been assigned -- if this is Grade II in a three-tier system the correct code is **3**; but if from a four-tier system, the correct code would be **2**. Please specify whenever possible if a two-, three- or four-tiered classification has been used (for example "2/3" or "2/4").

Coding Grade for Breast Cancers

The following exception (paraphrased) to usual Grade coding rules was approved by the NAACCR Uniform Data Standards Committee:

> Effective with breast cancer cases diagnosed 1/1/96 and later, when the terms "low", "intermediate" and "high" grade are used and the grading system is specified as (Scarff-) Bloom-Richardson, code [the ICD-O sixth digit] Grade as **1**, **2** and **3**, respectively. This is an exception to the usual rule for all other grading systems that "low", "intermediate" and "high" [grade] are coded **2**, **3** and **4**, respectively [except for lymphomas]. In the (Scarff-) Bloom-Richardson system, if Grades 1, 2 and 3 are specified, these should be coded **1**, **2** and **3**, respectively.

Prioritize Grade/Differentiation information from a breast cancer pathology report in this order:

1. Bloom-Richardson (BR) score (range 3-9, converted to Grade as shown on the next page)
2. Bloom-Richardson (BR) grade (low, intermediate or high, converted to ICD-O Grade as shown on the next page)
3. Nuclear grade only (conversion to Grade shown on the next page)
4. Differentiation or Grade Terminology (such as "well differentiated", "moderately undifferentiated", "anaplastic", "Grade i", "Grade ii", "Grade 3", etc.)
5. Histologic grade (such as Grade I, Grade II/III, Grade II-III, etc.)

Examples: well differentiated, nuclear grade 2/3 -- Record code **2** because the nuclear grade has priority over the terminology.

nuclear grade 2/3, BR low grade -- Use code **1** because the Bloom-Richardson grade has precedence.

The Bloom-Richardson grading scheme is a semi-quantitative grading method based on three morphologic features of "invasive no-special-type" breast cancers. These morphologic features are the percentage of tumor tubule formation, tumor mitotic activity (mitotic count in a defined area), and degree of tumor cell nuclear pleomorphism (nuclear grade). Each of these three features is assigned a score of 1-3 (1=favorable, 3=unfavorable). The three scores are added together to produce the combined Bloom-Richardson score.

If the combined Bloom-Richardson score or grade is not recorded in the medical record but scores for the three morphologic features listed above are included, sum up those three scores. The resulting combined BR scores (3-9) then correspond to the three BR grade categories (low, intermediate or high). Each of these three grades corresponds to a degree of differentiation (well, moderate or poor) and ICD-O sixth digit Grade codes of **1**, **2** or **3**.

Conversion Table for Bloom-Richardson Score and Grade, and Breast Nuclear Grade

Bloom-Richardson Score (combined)	**Bloom-Richardson Grade**	**Nottingham Grade**	**Differentiation**	**Nuclear Grade**	**Code**
3, 4, 5	low grade	favorable	well differentiated	1/2, 1/3	**1**
6, 7	intermediate grade	moderately favorable	moderately differentiated	2/3	**2**
8, 9	high grade	unfavorable	poorly differentiated	2/2, 3/3	**3**

Note: Bloom-Richardson score may also be called Nottingham combined histologic grade, modified Bloom-Richardson, Scarff-Bloom-Richardson, SBR Grading, BR grading, Elston-Ellis modification of Bloom-Richardson score, Nottingham modification of Bloom Richardson score, Nottingham-Tenovus or Nottingham grade.

Coding Grade for Kidney Cancers

(except nephroblastoma/Wilms tumor, 8960; use the general prioritizing rules on p. 102 for 8960)

In addition to the prioritizing rules for pathology/cytology reports and other types of information, code Grade for primary site kidney (C64.9, except histology 8960/3) based on information in the following order: 1) Fuhrman Grade, 2) other nuclear grade, 3) terminology, and 4) histologic grade. The *FORDS* Manual does not present special Grade code conversions for kidney cancers, so the MCR is presuming at this time that the Fuhrman and nuclear grade codes convert to ICD-O Grade codes in the standard way (that is, do NOT use the special breast or prostate code conversions). Fuhrman grading is a four-tier system (Fuhrman Grades I - IV, corresponding to ICD-O Grade codes **1-4**) based on the size and appearance of tumor cell nuclei and nucleoli.

Prostate Tumors and Gleason's Score or Pattern

In addition to the prioritizing rules for pathology/cytology/other reports, code Grade for the primary site prostate based on information in the following order: 1) Gleason Score, 2) terminology, 3) histologic grade, and 4) nuclear grade (seldom used now for prostate).

Prostate cancers are usually graded using the Gleason Score or Pattern. The Gleason's classification is based on five basic histologic patterns found in prostate tumors. Prostate cancers generally exhibit two main histologic patterns -- a primary/predominant pattern (how more than half of the cells look) and a secondary pattern. Two numbers (1-5) representing these two patterns are added together to create the Gleason Score. Use the first table on page 108 to convert the Gleason Score to a sixth-digit ICD-O Grade/Differentiation code. Gleason Score information may be recorded in different ways in a record, so use the following guidelines to help identify it if you're uncertain:

If there is only one number or score recorded for a prostate cancer and that number is greater than 5, assume that this is the Gleason Score.

If there is only one number and it's between 1 and 5, assume that this is the primary/predominate Gleason Pattern. If the secondary pattern cannot be found, use the second table below to convert the pattern to the proper Grade code.

If there are two numbers recorded -- each less than 5 (for example, "3+4", "3, 4" or "3-4") -- assume that these represent the primary and secondary patterns. Add the numbers together to produce the Gleason Score.

If there are two numbers but the second one is 10, or if there is a number recorded as being "out of a possible 10" (for example, "3/10"), assume that the smaller number is the Gleason Score. (The maximum possible Gleason Score is 10.) If two numbers out of 10 are recorded ("1+3/10"), add the first two numbers to obtain the Gleason Score.

If a Gleason Score and a primary/predominate Pattern are recorded, use just the Score to determine the correct Grade code.

Gleason Score	Grade and Differentiation	Code
2, 3, 4	I well differentiated; slight anaplasia	**1**
5, 6	II moderately differentiated; moderate anaplasia	**2**
7*, 8, 9, 10	III poorly differentiated; undifferentiated; marked anaplasia	**3**

* Gleason's Score 7 should be sent to the MCR coded **3** in accordance with COC (*FORDS* Manual) coding rules. These will be changed as necessary at the MCR so that our data adhere to SEER rules for the given diagnosis year. SEER rules coincide with the COC's for diagnoses made as of 2003.

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If only the primary or predominate pattern (1-5) is recorded, use the following conversions:

Gleason's Pattern	Grade and Differentiation	Code
1, 2	I well differentiated	**1**
3	II moderately differentiated	**2**
4, 5	III poorly differentiated	**3**

page updated for 2004

Narrative Histology / Behavior / Grade

NAACCR Version 11.1 field "Text--Histology Title", Item 2590, columns 4135-4174

Enter the histology, behavior and grade/differentiation/immunophenotype in narrative form, using up to 40 characters. If you run out of room, continue the text in another Narrative field; the Text--Pathology field will usually be the most appropriate.

Do not use an automatic text label to complete this field; instead, this field should contain histology, behavior and grade/differentiation information as derived from the medical record. Information in this field is used to verify the Histologic Type, Behavior and Grade Codes.

Information regarding histology, behavior and grade is primarily found in the pathology report. Use the most accurate information. If the medical record contains conflicting information regarding behavior or grade, information in the pathology report should take precedence. If behavior or grade is still unclear, a physician should be consulted. If the diagnosis you are documenting here was uncertain or doubtful, indicate this here (space permitting) or in the Comments/Narrative Remarks field. Use the 2007 MP/H Manual histology-related rules for solid malignancies diagnosed beginning in 2007, including rules for choosing which information from which part of the medical record should have priority when coding histology. Referring to a specific MP/H rule (such as "H4") in your text should help us understand why you chose the reported histology.

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If the combination of primary site and morphology is unusual enough to trip an edit, include a note that this unusual combination has been verified by you as correct, and note how you verified it. These remarks could be in this field, the Primary Site Narrative, or the Comments/Narrative Remarks field.

Date of Diagnosis

NAACCR Version 11.1 Item 390, columns 283-290

Enter the date, in MMDDCCYY format, on which a recognized medical practitioner first stated that the patient had the reported cancer, whether or not the diagnosis was ever histologically confirmed, and whether or not the diagnosis was made at the reporting hospital or before admission there. Remember to use the "ambiguous" terms for a cancer diagnosis on page 14 of the **REPORTABILITY** section ("suspicious", "probable", etc.) to help determine when the initial diagnosis was made. Date of Diagnosis is fundamental for determining the coding and reportability rules that apply to the case, the time period for all of the "at-diagnosis" fields, and the diagnosis year is key for the central registry in reporting statistics.

Use **9**'s to code unknown parts of the date (such as 06**99**2001 or **9999**2001).

For a diagnosis made *in utero*, use the eventual date of birth as the Date of Diagnosis.

For cases of Class 5 (first diagnosed at autopsy), enter the date of death as the Date of Diagnosis, even if the autopsy was actually performed on a later date.

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For cases of Class 7 (pathology-only), enter the date on which the pathologist identified cancer -- not necessarily the date on which the specimen was taken -- unless you are aware that a clinical diagnosis had been made previously outside the reporting facility.

If a patient receives treatment before a definitive cancer diagnosis, use the date on which treatment started as the Date of Diagnosis.

Do not change the Date of Diagnosis if a diagnosis was simply confirmed at a later date. If, however, a physician reports that, in retrospect, a patient had cancer at an earlier date, use that earlier date as the Date of Diagnosis (i.e., backdate the diagnosis).

Examples: A mammogram on September 14, 2005 reveals a mass in the lower inner quadrant "compatible with carcinoma". On September 20 the patient has an excisional biopsy that confirms infiltrating duct carcinoma. The Date of Diagnosis is **09142005** because of the clinical diagnosis made that day.

In June 2005 a patient has a total abdominal hysterectomy for endometriosis. She is admitted October 2005 with abdominal pain and distension. A laparoscopy with omental biopsy reveals metastatic adenocarcinoma. Pathology reviews the hysterectomy slides and identifies adenocarcinoma in the left ovary. Backdate the diagnosis to June.

Vague Dates

Estimate the Date of Diagnosis if you don't know the exact date, and mention in the Comments/Narrative Remarks that this important date was estimated. Approximation is preferable to entering an unknown date (see *FORDS* Manual, p. 89). The MCR cannot determine if a particular case is reportable to us without at least a year of diagnosis being estimated. Use the following guide if information is limited to descriptive terms:

Descriptive Term	Date Coded
early in the year	January (**0199CCYY**)
late in the year	December (**1299CCYY**)
spring	April (**0499CCYY**)
middle of the year; summer	July (**0799CCYY**)
fall / autumn	October (**1099CCYY**)
winter	Try to determine if this refers to the beginning or end of the year; then code January (**0199**) or December (**1299**).
a couple years ago	2 years earlier
a few years ago	3 years earlier

If a patient receives some first-course treatment at your facility but you have no information about the Date of Diagnosis, use the admission date as Date of Diagnosis if the patient was admitted, or use the date treatment started if there was no admission.

Class of Case

NAACCR Version 11.1 Item 610, column 440

Class of Case divides registry data into analytic and nonanalytic categories. Analytic cases are Class **0**, **1** and **2**. Cases of Class **1** and **2** are those included in treatment and survival analyses. Nonanalytic cases (**3**, **4**, **5**, **6**, **7**, **8**, **9**) and analytic cases of Class **0** are those that are not included in treatment and survival analyses. The code **6** became valid for the MCR for diagnoses made as of 1996; the ACoS requirements pertaining to Class 6 cases have undergone several revisions since that time; they are now considered nonanalytic (for diagnoses made in 2000 and thereafter). The code **7** has become valid for diagnoses made beginning in 2003. The MCR requires hospital registries to report nonanalytic cases (Class 6 and Class 7 cases are optional), but only in an abbreviated fashion (see p. 7); but if your facility chooses to *not* report abstracted cases of Class 6 and 7 then you must forward copies of the pathology reports to us (see pages 12 and 35).

Code **7** only applies when the patient is NEVER seen at the reporting facility for treatment of this cancer nor for further diagnostic work. If a case begins as a pathology-only Class 7 case for you but the patient later comes to your facility for this cancer, then the Class of Case code must be changed to reflect your facility's later contact with the patient. Also update Date of First Contact to reflect your first contact with the *patient* rather than the initial pathology contact (so that your reporting of the later case information does not appear to have been reported late). In the Class descriptions below, Palliative Care planned and given during the First Course of Therapy is considered in the same way that First-Course Treatment is.

In accordance with *FORDS* Manual instructions (*FORDS* p. 5), when determining Class of Case you should consider a "network clinic" or "outpatient center" belonging to your facility to be part of your facility. Include these wherever the Class examples which follow say "reporting institution" or "reporting facility". As always, a staff physician's office is also considered part of your facility when determining Class of Case.

Note that the COC has made changes in its requirements for approved cancer programs for Class 0 cases diagnosed beginning in 2006, but these changes do not alter the choice of Class code assigned. (See also p. 35 in this manual.)

Code	Class	Description
0	Class 0	First diagnosed at reporting institution since its reference date, and all of the first course of therapy given elsewhere. Cases include: • patients who choose to be treated elsewhere • patients who are referred elsewhere for treatment for any reason (e.g., lack of special equipment, proximity of a patient's residence to the treatment center, or financial, social or rehabilitative considerations) • patients who have a treatment plan developed at the reporting facility but have all treatment carried out elsewhere (if the facility chooses to collect these)

page updated for 2006

Code	Class	Description
1	Class 1	First diagnosed at reporting facility since its reference date, and either (a) received all or part of the first course of therapy at the reporting facility, or (b) was never treated. Includes: • patients who received all or part of their first course of therapy at the reporting institution • patients who refused any treatment • patients whose only first-course treatment is "watchful waiting" • patients who were untreatable or were only given palliative care because of age, advanced disease or other medical conditions • Specific treatment was recommended but not received at the reporting institution, and it is unknown if treatment was ever administered. • It is unknown if treatment was recommended or administered. • patients diagnosed at the reporting institution prior to the reporting institution's reference date, and all or part of the first course of therapy was received at the reporting institution after the reporting institution's reference date • patients who were first diagnosed and had staging workup at the reporting institution, and all or part of the first course of therapy was received in a staff physician's office • patients who were first diagnosed in a staff physician's office and then treated at the reporting institution • patients who were diagnosed and whose treatment was planned at the reporting institution, and treatment was delivered elsewhere in accordance with the reporting institution's treatment plan
2	Class 2	First diagnosed elsewhere, and either (a) received all or part of the first course of therapy or first-course palliative care at the reporting facility after its reference date, or (b) planning of the first course of therapy was done primarily at the reporting hospital. Cases include: • patients diagnosed at another hospital but not treated until admission to the reporting hospital, regardless of the interval between diagnosis and treatment • patients diagnosed and surgically treated at another hospital, then admitted to the reporting hospital for radiation therapy that completes planned first course of treatment • any cases the reporting hospital considered to be analytic (i.e., the planning/-management decisions were made at the hospital, even if treatment was administered elsewhere, when the planning facility chooses to collect such cases)
3	Class 3	First diagnosed at another institution, and either (a) entire first course of therapy was given elsewhere, (b) patient was never treated, or (c) unknown if treated. Cases include: • patients diagnosed and first course of therapy completed elsewhere, later admitted to the reporting hospital with disease persistence, progression or recurrence • no information available on patient's first course of therapy, and patient is now treated or managed at the reporting institution • The reporting institution is treating or managing the recurrence, progression, or subsequent treatment of a previously diagnosed malignancy. • patients whose treatment plan was developed at the reporting hospital, but the treatment was given elsewhere • patients who received a second opinion on treatment at the reporting hospital, but the treatment was given elsewhere *Note*: Class 3 cases are not reportable to the MCR if originally diagnosed before 1995.

Code	Class	Description
4	Class 4	First diagnosed and first course of therapy at reporting institution before its reference date. Cases include: • cases where the reporting facility manages or treats a recurrence or progression of the disease after the facility's reference date • cases where it is unknown whether the reporting facility delivered the first course of treatment before its reference date *Note*: Class 4 cases are reportable to the MCR only if the reporting institution's reference date is later than the MCR's reference date of January 1, 1982.
5	Class 5	First diagnosed at autopsy in the reporting facility. (The patient did not necessarily die at the reporting facility.) Cases include: • incidental finding of cancer at autopsy (no prior diagnosis/suspicion of cancer) • cancer found during postmortem organ procurement
6	Class 6	Patients who were diagnosed and received all of first course of treatment in a staff physician's office. The patient may subsequently be seen at the reporting facility. Cases include: • cancer is diagnosed in the physician's office and that physician plans watchful waiting or "no treatment" as the first-course treatment *Note:* Class 6 cases refer only to active staff physicians with admitting privileges at the reporting facility. If a physician holds multiple staff appointments, s/he must assign reporting responsibility to one institution. *Note*: Class 6 cases are not required for the MCR, but if your facility collects them we do want them to be reported as for any nonanalytic case. Any Class 6 case originally diagnosed before 1996 is not reportable to the MCR. A physician office may report its cases directly to the MCR rather than having a facility registry report them.
7	Class 7	Pathology-only cases. The patient is NEVER seen at the reporting facility for diagnosis or treatment of this cancer, but a pathology report is generated at the reporting facility. [The source of the pathology specimen (such as a staff physician's office) does not alter this Class.] Pathology-only *autopsy* cases are Class 5 and NOT Class 7. Cases include: • Reporting facility provides a pathology report only. • Reporting facility reviews pathology slides/specimens only. • Reporting facility provides only some other type of pathology consult.
8	Class 8	By death certificate only. This code is for MCR use only.
9	Class 9	Unknown. Cases include: • unknown if previously diagnosed or treated • previously diagnosed, but date unknown

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Institution Referred From — NAACCR Version 11.1 Item 2410, columns 2485-2494

This coded field helps the MCR understand the interactions a patient has had with multiple facilities and where we could look for further information about a case.

This field records where a patient was diagnosed or received any initial treatment for this case before being seen at your facility. If you know that a patient was seen at another facility for this case prior to your contact with the patient, please report that information even if the patient did not have a *formal referral* to your hospital. If a patient was seen at more than one facility before yours, record just the hospital where s/he was seen most recently.

If this case was diagnosed at your facility, was seen first at your facility, or has been seen only at your facility (cases of Class 0, 1, 4, 5), this field should be filled with zeroes.

This field should contain a ACoS/COC Facility Identification Number (FIN), but the special code assigned to a Massachusetts facility by the MCR (usually four digits) is also acceptable if your data system can produce it. See page 38 and Appendix G for FINs and MCR codes; the COC's website shows FINs at www.facs.org/cancer/coc/fin.html.

For patients previously seen at a U.S. facility outside Massachusetts, this field should contain a FIN. [The ACoS website (http://web.facs.org/cpm) has a "search feature" for FIN codes of facilities with approved cancer programs.] If you know that the patient came to you from another state but you can't identify or code the particular institution, please enter the other state's central registry code number (see Appendix G for these codes).

If you know that a patient was referred to your hospital but you cannot identify that facility (or its code number), fill this field with **0099999999**. This includes patients coming to you from a facility in a foreign country or a physician office/private practice.

If the facility a patient was referred from is now closed or no longer seeing cancer patients, there may still be a code for the facility in Appendix G that you may fill in here.

NPI--Inst Referred From — NAACCR Version 11.1 Item 2415, columns 2505-2514

This code, assigned by the Centers for Medicare and Medicaid Services, is equivalent to the FIN code for Institution Referred From (above) for the MCR. This field is not required until 2008.

NPI--Inst Referred To — NAACCR Version 11.1 Item 2425, columns 2515-2524

This code, assigned by the Centers for Medicare and Medicaid Services, is equivalent to the FIN code for Institution Referred To (following) for the MCR. This field is not required until 2008.

fields added for 2007

Institution Referred To

NAACCR Version 11.1 Item 2420, columns 2495-2504

This coded field helps the MCR understand the interactions a patient has had with multiple facilities and where we could look for further information about a case.

This field records where a patient was referred by your facility for this case. This does not include just *formal referrals*; if you know that the patient was seen elsewhere after being seen at your hospital, code that facility. If the patient went to multiple facilities after yours, code just the one to which s/he went first after yours.

For patients not being seen later at any other facility (cases of Class 4, 5; possibly 1 and 3), this field should be filled with zeroes.

This field should contain a ACoS/COC Facility Identification Number (FIN), but the special code assigned to a Massachusetts facility by the MCR (usually four digits) is also acceptable if your data system can produce it. See page 38 and Appendix G for FINs and MCR codes; the COC's website shows FINs at www.facs.org/cancer/coc/fin.html.

For patients seen later at a U.S. facility outside Massachusetts, this field should contain a FIN. [The ACoS website (http://web.facs.org/cpm) has a "search feature" for FIN codes of facilities with approved cancer programs.] If you know that the patient is going to another state but you can't identify or code the particular institution, please enter the other state's central registry code number (see Appendix G for these codes).

If you know that a patient was referred elsewhere but you cannot identify that facility (or its code number), fill this field with **0099999999**. This includes patients going to a facility in a foreign country or a physician office/private practice.

If the facility a patient was referred to is now closed or no longer seeing cancer patients, there may still be a code for the facility in Appendix G that you may fill in here.

EOD--Tumor Size

NAACCR Version 11.1 Item 780, columns 531-533

The MCR collected Tumor Size using *FORDS* Manual rules for diagnoses made in 2003. We changed the codes as necessary at the MCR so that the field conformed to SEER data standards. For diagnoses made beginning in 2004, this field is replaced by the corresponding Collaborative Staging field. **ONLY code this field for diagnoses made before 2004.** All of the following rules apply to pre-2004 diagnoses. (The conversions are always good.)

This field records the pre-treatment diameter or maximum dimension of the primary tumor in millimeters (mm) for non-melanomas, using three digits. Do not record the size of a metastatic tumor, cyst, ulcer or polyp.

Example: A breast duct carcinoma is 2.5 cm (25 mm) in diameter. Enter code **025**.

For melanomas of the skin, vulva, penis, scrotum or conjunctiva (primary site C44._, C51._, C60._, C63.2 or C69.0 with Histologic Type Codes 8720-8790), this field records the primary tumor's depth of invasion or thickness in hundredths of millimeters to a maximum size of 9.89 mm. For a melanoma depth of invasion exceeding 9.89 mm, use code **989**.

Example: A melanoma on a finger invades to a depth of 1.23 mm. Record **123**.

For completely *in situ* (noninvasive) melanomas of the sites above (including lentigo maligna 8742/2 and precancerous melanosis 8741/2), there is no "depth of invasion". *FORDS* does not specify what to do in such cases, so we believe the best code to use may be **999** ("depth of invasion" not applicable). Record the tumor *thickness* if available, in hundredths of a millimeter.

To convert centimeters to millimeters, move the decimal point one digit to the right (i.e., multiply the number of centimeters by 10).

Example: 2.1 centimeters is equivalent to 21 millimeters, so **021** would be entered.

The following are millimeter equivalents of centimeters and inches:

1.0 mm	=	0.1 cm	1.0 cm	≈	0.394 inch			
10.0 mm	=	1.0 cm	1.0 inch	≈	25.0 mm	1.0 inch	≈	2.5 cm

Round off to the nearest millimeter (for non-melanomas) or hundredth of a millimeter (for melanomas of the sites listed above) (MCR rule), unless this would round a measured size down to "zero"; see the paragraph on code **001** on page 118.

Examples: Tumor size 2.19 cm (= 21.9 mm) -- Round to the nearest mm and enter **022**.
Melanoma of the conjunctiva, depth of invasion 0.033 mm -- Record **003**.

Code the largest size when a tumor has multiple measurements.

Examples: 2 x 3.3 x 2.5 cm tumor -- Record **033**. 4.5 x 3.5 cm tumor -- Record **045**.

If the patient received *any* neoadjuvant therapy that changed or may have changed the Tumor Size (radiation, chemotherapy, hormone therapy or immunotherapy given before surgery), record the pre-treatment clinical Tumor Size; if that's unavailable, record code **999** only.

Examples: A breast cancer patient had a mammogram revealing a tumor of approximately 3.7 cm in diameter. Chemotherapy reduces the Tumor Size and when she later has the tumor excised, the pathology report states 0.8 cm. Record the pre-treatment size, **037**.

A breast cancer patient has chemotherapy before coming to the reporting facility for surgery. The pathology report documents a tumor size of 0.8 cm. No information on size before treatment began can be found. Use code **999**.

The most accurate Tumor Size information is usually in the pathology report from the primary tumor's excision. (An exception is the case of neoadjuvant therapy described above.) Do not calculate a tumor's size by adding the sizes of pieces or chips of tissue. Do not add measurements recorded in biopsy and resection reports. Use the report that documents the largest size. If an excisional biopsy is performed and residual tumor is found during a wider resection, base Tumor Size on the excisional biopsy report alone *unless* the residual tumor is found to be larger than the portion excised. Note that pathologists and other physicians *may* violate the rules above and use their judgment to estimate a Tumor Size -- and the registrar is supposed to appropriately code the Tumor Size recorded by the physician in such cases.

Example: A large tumor is surgically removed in three parts, and the pathologist adds their sizes to "reconstruct" the entire tumor's size. The Tumor Size recorded by the pathologist is 6.8 cm. Code **068**. If the pathologist had not reconstructed the tumor, the registrar could NOT add together the sizes of the three tumor pieces; code **999** would be used unless there were operative or clinical information on the whole tumor's size.

There are times when a pathologic Tumor Size is not available and clinical information must be used. The pathology report may not identify Tumor Size, or the tumor may not have been surgically excised. In these cases, use the Tumor Size documented in the following reports (listed in order of preference): 1. Operative reports; 2. Scans; 3. X-rays; 4. Physical exams.

Do not use the size of the entire surgical specimen for Tumor Size.

Example: A patient has an excisional breast biopsy. The pathology report records a specimen size of 2 cm x 3 cm, but does not state the actual size of the tumor. Do not use the specimen size; rather, code Tumor Size based on information from the operative report, mammography or physical exam, or **999** if no information can be found.

If only an inexact estimate involving a size range is available, code the larger size mentioned. For example, if "3 to 4 cm" is the best information you have, code **040**.

Code **000** is used when no primary tumor can be found but cancer is detected elsewhere (such as metastatic melanoma where the origin is never found). This rule applies only to solid tumors. Don't confuse **000** (no primary tumor found) with **999** (primary tumor's size not evaluated).

Code **001** is used for a microscopic focus where the tumor's size is stated, for non-melanoma tumors 1 mm in size, and for measured non-melanoma tumors smaller than 1 mm in size. It is also used for a melanoma (of the primary sites listed on page 116) that invades to a depth of 0.01 mm or less. When a microscopic focus is identified but no tumor measurement is given, use code **990** rather than **001**.

Examples: 1.3 cm *in-situ* tumor with a microscopic focus of invasion -- Record **001** because the invasive component is microscopic and the tumor's whole size is recorded.

In-situ tumor with a microscopic focus -- Record **990** because the tumor's size is unknown but the invasive component is known to be microscopic.

For multiple tumors being reported as one primary, record the size of the largest tumor.

Example: A patient has a 1 cm nodule in the upper lobe of the right lung and a 1.5 cm nodule with the same histology in the right middle lobe. Enter Tumor Size as **015**.

When a primary tumor has both *in situ* and invasive components, record the size of the invasive component only. When a primary tumor is completely *in situ* (has no invasive component), record the entire Tumor Size.

Examples: The pathology report describes a breast mass consisting of a 1.8 x 1.3 cm intraductal carcinoma, and a 0.7 cm nodule of infiltrating duct carcinoma. Enter **007**.

The only information available is that a 3-cm breast tumor had both non-invasive and invasive components. The size of the invasive component is unknown, so enter **999**.

The pathology report describes a breast mass consisting of a 1.8 x 1.3 cm intraductal carcinoma. Enter Tumor Size as **018**.

Code **998** is reserved for certain diagnoses, and when certain terms are used at certain sites:

"entire circumference" for esophageal cancers (C15._);

linitis plastica (8142/3), "diffuse", "widespread" or "3/4 or more" for gastric cancers (C16._);

familial/multiple polyposis (8220-8221) for colorectal cancers (C18.0-C20.9);

"diffuse", "entire lobe" or "entire lung" for lung cancers (C34._);

inflammatory carcinoma (8530/3), "diffuse", "widespread" or "3/4 or more" for breast cancers (C50._).

Record **999** for all of the following cases:

- ill-defined primary site (C76._)
- unknown primary site (C80.9)
- multiple myeloma (9732)
- Letterer-Siwe disease (9754)
- hematopoietic, reticuloendothelial, immunoproliferative and myeloproliferative diseases (Histologic Type Codes 9750, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9964, 9980-9989 or primary sites C42.0, C42.1, C42.3, C42.4)
- no Tumor Size recorded
- size of primary tumor not evaluated

Note that lymphomas are NOT included in the types of case that should automatically be coded **999** in the *FORDS* Manual. Record the primary Tumor Size for extranodal lymphomas when it is available. Record a primary Tumor Size for nodal lymphomas when it is (rarely) available, and use **999** whenever it is not available.

Descriptive Terms

Physicians sometimes use various terms to describe the size of a tumor instead of giving an actual measurement, especially in clinical descriptions. The following table converts such terms into millimeters.

Table IV.2
Millimeter Equivalents of Descriptive Terms

Fruit:

Object	mm	Object	mm
Apple	**070**	Lemon	**080**
Apricot	**040**	Olive	**020**
Cherry	**020**	Orange	**090**
Date	**040**	Peach	**060**
Fig, dried	**040**	Pear	**090**
Grape	**020**	Plum	**030**
Grapefruit	**100**	Tangerine	**060**
Kumquat	**050**		

Nuts:

Object	mm
Almond	**030**
Chestnut	**040**
Hazelnut	**020**
Hickory nut	**030**
Horse chestnut	**040**
Peanut	**010**
Pecan	**030**
Walnut	**030**

Vegetables:

Object	mm
Bean	**010**
Lima bean	**020**
Pea	**009**
Pea, split	**009**

Table IV.2 continued
Millimeter Equivalents of Descriptive Terms

Eggs and Miscellaneous Foods:

Object	mm	Object	mm
Doughnut	**090**	Egg, Pigeon	**030**
Egg, NOS	**050**	Egg, Robin	**020**
Egg, bantam	**040**	Lentil	**009**
Egg, goose	**070**	Millet	**009**
Egg, hen	**030**		

Coins:

Object	mm
Dime	**010**
Half dollar	**030**
Nickel	**020**
Penny	**010**
Quarter	**020**
Silver Dollar	**040**

Other:

Object	mm
Baseball	**070**
Eraser, pencil	**009**
Fist	**090**
Golf ball	**040**
Marble	**010**
Match head	**009**
Pencil eraser	**009**
Ping-pong ball	**030**
Tennis ball	**060**

Codes for non-melanomas follow:

Tumor Size	Code
no primary tumor found	**000**
rounds to 1 mm (0.1 cm) or less; microscopic focus/foci with tumor size recorded	**001**
rounds to 2 mm (0.2 cm)	**002**
. . .	. . .
rounds to 988 mm (98.8 cm)	**988**
rounds to 989 mm (98.9 cm) or more	**989**
microscopic focus/foci with tumor size not recorded	**990**
certain diagnoses/terms*	**998**
unknown; not stated; death certificate-only case; primary site C42.0, C42.1, C42.3, C42.4, C76._, C80.9; histology 9732, 9750, 9754, 9760-9764, 9800-9820, 9826, 9831-9920, 9931-9964, 9980-9989	**999**

* C15._: tumor fills the entire circumference;

C16._: linitis plastica (8142/3), "diffuse", "widespread" or "3/4 or more" of stomach;

C18.0-C20.9: familial/multiple polyposis (8220-8221);

C34._: "diffuse", tumor fills entire lobe or entire lung;

C50._: inflammatory carcinoma (8530/3), "diffuse", "widespread" or "3/4 or more of breast".

Codes for melanomas follow. (Note: Code **990** is no longer used for melanomas of 9.9 mm or more in depth; it is *only* used for microscopic foci with no size specified.)

Tumor Thickness / Depth of Invasion	Code
no primary tumor found	**000**
up to 0.01 mm; 0.01 mm	**001**
. . .	. . .
0.10 mm (0.01 cm)	**010**
. . .	. . .
1.00 mm (0.1 cm)	**100**
. . .	. . .
2.00 mm (0.2 cm)	**200**
. . .	. . .
9.89 mm (0.989 cm) or more	**989**
unknown; not stated; primary tumor size not evaluated	**999**

Diagnostic Confirmation

NAACCR Version 11.1 Item 490, column 311

The Diagnostic Confirmation method indicates whether cancer was confirmed microscopically at any time during the course of the disease, and indicates the best type of confirmation that was ever obtained. It is a priority coding scheme with the lower code number taking priority over higher codes. The most conclusive method -- microscopic examination of tissue -- is therefore coded **1**. Consider the entire disease course for this field. Change the code to a lower number if a preferable method later confirms a cancer diagnosis. Do not confuse microscopic confirmation with other concepts related to pathology results. Microscopic confirmation does not necessarily mean that a surgical procedure was done, and it does not necessarily mean that pathologic staging requirements were met.

The codes for this field follow:

Microscopic Confirmation (codes **1**, **2**, **4**)

1 Positive histology

Microscopic confirmation based on tissue specimens from biopsy (such as punch biopsy and needle biopsy, including fine needle biopsy and fine needle aspiration *biopsy*), frozen section, surgery, autopsy with pathology specimens, or dilation and curettage. This applies to tumor tissue from the primary or a metastatic site. It also applies to bone marrow biopsy and bone marrow aspirations. Hematologic confirmation of leukemia and other hematopoietic diseases (e.g., peripheral blood smear) should also be coded **1**.

2 Positive (exfoliative) cytology, with no positive histology

Diagnosis by cytology is based on the microscopic examination of cells rather than tissue. Code **2** should not be used if cancer is ruled out by histologic findings. Include fine-needle cell aspiration, sputum smear, bronchial brushing/washing, tracheal washing, prostatic or breast secretion, gastric or spinal fluid, peritoneal or pleural fluid, urinary sediment, cervical or vaginal smear, and diagnostic paraffin-block specimen from concentrated spinal, pleural or peritoneal fluid. Peripheral blood smear that diagnoses a cancer *other* than leukemia is coded **2**.

4 Positive microscopic confirmation, method not specified

These are cases that must have been microscopically confirmed, but you have no information about the method (histology vs. cytology).

No Microscopic Confirmation (codes **5**-**8**)

5 Positive laboratory test or marker study

This includes diagnoses of cancer based on certain laboratory tests or marker studies that are clinically diagnostic for cancer. Examples are the presence of alpha-fetoprotein for primary liver cancer and an abnormal electrophoretic spike for multiple myeloma or Waldenstrom macroglobulinemia. Note that an elevated PSA test alone is NOT clinically diagnostic for prostate cancer, but if a physician uses PSA results as a basis for diagnosing or treating prostate cancer with no other work-up, the PSA test may be coded here as **5**.

6 Direct visualization without microscopic confirmation

This includes diagnoses of cancer by direct visualization and/or palpation during physical examination (for example, retinoblastoma), during surgical exploration, or by endoscopy or gross autopsy. Use this code only in the absence of positive histology or cytology.

7 Radiography or other imaging technique without microscopic confirmation

This includes all cases diagnosed only by radiology, including ultrasound, computerized (axial) tomography (CT or CAT scans), sonography, and magnetic resonance imaging (MRI). Use this code only in the absence of positive histology or cytology confirmation.

8 Clinical diagnosis only (other than **5**, **6** or **7**)

This includes cases diagnosed by clinical methods not covered above. Use this code only in the absence of positive histology or cytology. For example, if a physician records a clinical diagnosis of "suspicious for malignancy" (or other ambiguous diagnostic term, see page 14) without specifying the clinical basis for the diagnosis, use code **8**.

9 Unknown whether or not microscopically confirmed

Use this code when the method of confirmation (microscopic vs. clinical) is unknown. (includes death certificate-only cases)