Collaborative Staging Overview
Collaborative Staging General Rules

Collaborative staging items are collected on all cases regardless of whether or not they are microscopically confirmed.

Data is collected on all sites and all histologies.

Summary Stage 1977 and Summary Stage 2000 are derived for all sites and histologies. TNM Stage and Stage Group are only derived for cases that meet TNM staging criteria. For Example: there is no TNM schema for brain, so the TNM Stage cannot be derived for this site.

For excluded sites and site histology combinations the computer algorithm returns values representing “Not Applicable”, meaning the TNM Stage and Stage Group are not generated for that site or site histology combination.
Collaborative Staging General Rules

Timing rule (same as EOD, TNM 6th Ed., Summary Stage 2000)

- includes all information gathered through completion of surgery(ies) in first course of treatment OR
- within four months of diagnosis in the absence of disease progression.
- Whichever is LONGER.
Collaborative Staging General Rules

Site-specific guidelines take precedence over general guidelines.

For each field, code the highest applicable number.

The codes are hierarchal so that the higher the number generally indicates increasing degrees of tumor involvement. Combination codes have been assigned only when using higher numbers does not result in the appropriate mapping for all three staging systems. Codes for Unknown, Not Applicable and NOS categories Do Not take precedence over more specific codes with lower numbers.
Record greatest extent of disease based on combined clinical and operative/pathologic assessment.

If *no* pre-operative neo-adjuvant treatment was performed, pathologic information takes priority.

If pre-operative neo-adjuvant treatment *was* performed, clinical information takes priority in most cases.
If the patient does not receive any preoperative treatment and the operative/pathology information disagrees with the clinical information, code the operative/pathology information.

If the patient does receive preoperative treatment, such as radiation to shrink a tumor prior to surgery, then the greatest extent of disease prior to the initiation of any cancer directed treatment should be recorded.

Preoperative treatment is defined as any systemic therapy (Chemotherapy, hormonal therapy or immunotherapy) or radiation therapy that is administered in an attempt to shrink the tumor, improve resectability or control symptoms before the patient undergoes surgery.

In the rare event that post operative disease is more extensive despite preoperative treatment, this can be coded in the method of evaluation fields for extension, regional lymph nodes or metastases.
Gross observation at surgery is particularly important when surgical margins are positive or not all malignant tissue is removed at surgery.

In the event of a discrepancy between the pathology report and the operative report, priority is given to the pathology report.

Clinical information including the size of the primary lesion and any nodal or metastatic involvement can alter the stage, therefore clinical information needs to be reviewed carefully to assure accurate recording of the Collaborative Staging data set.
Information formerly coded as Tumor Markers such as Estrogen and Progesterone Receptors for breast cancer is now coded under Site Specific Factors.

For sites or histologies where some or all Site Specific Factors are not used, they are coded as 888, Not Applicable.

Site Specific Factors are included in every schema.

They are incorporated into the staging algorithm when additional information is needed to derive the TNM Stage or Stage Group, or when the factor is considered to be of clinical or prognostic relevance.
This Table reflects the six Site Specific Factors and the sites and histologies to which they each pertain.

<table>
<thead>
<tr>
<th>SSF</th>
<th>SITES/HISTOLOGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Head and neck, colon, rectum, liver, pleura, melanoma, mycosis fungoides, breast, ovary, placenta, prostate, testis, retinoblastoma, brain, other CNS, thyroid, other endocrine, Kaposi sarcoma, lymphoma</td>
</tr>
<tr>
<td>2</td>
<td>Head and neck, liver, melanoma, breast, prostate, testis, lymphoma</td>
</tr>
<tr>
<td>3</td>
<td>Head and neck, melanoma, breast, prostate, testis, lymphoma</td>
</tr>
<tr>
<td>4</td>
<td>Head and neck, melanoma, breast, prostate, testis</td>
</tr>
<tr>
<td>5</td>
<td>Head and neck, breast, prostate, testis</td>
</tr>
<tr>
<td>6</td>
<td>Head and neck, breast, prostate</td>
</tr>
</tbody>
</table>
Disease progression is excluded when determining extent of disease.

Metastases known to have developed after the initial extent of disease was established should be excluded when determining the farthest extent of disease at the time of diagnosis.
Autopsy Reports are used in coding the CS System in the same way as pathology reports with the same rules for inclusion and exclusion.

If there is a discrepancy between documentation in the medical record and the physician’s assignment of TNM Stage, the documentation takes precedence. These cases should always be discussed with the physician who assigned the TNM Stage.
Cancers of certain primary sites are not easily examined by physical examination, observation, palpation, or other clinical methods.

A new coding rule in the Collaborative Staging System applies to these inaccessible sites, primarily for local or early stage cancers.

Examples of Inaccessible sites are bladder, kidney, prostate, esophagus, stomach, lung, liver, corpus, ovary, and pancreas.
New Rule For ‘Inaccessible’ Sites

For inaccessible primary sites, meaning sites that cannot be easily examined by palpation, observation, physical examination or other clinical methods, Collaborative Staging allows data collectors to record Regional Lymph Nodes as negative rather than unknown when:

- there is no mention of regional lymph node involvement in the physical examination, pre-treatment diagnostic testing or surgical exploration, and
- the patient receives usual or standard treatment to the primary site.
Collaborative Staging also permits data collectors to record distant metastasis clinically as negative rather than unknown when there is no mention of metastatic involvement in the physical exam, diagnostic testing, or surgical exploration and the physician proceeds with the usual standard treatment of the primary site.

The reasoning behind this decision is that evidence of metastatic disease or regional lymph node involvement would alter the treatment approach chosen by the physician in the care of the patient.
New Rule For ‘Inaccessible’ Sites

Inaccessible rules apply to early stage (T1, T2, localized) tumors.

For example, when there is clinical evidence that a prostate cancer has spread through the capsule into surrounding tissues, and no mention is made of regional lymph node or metastatic involvement, it would be correct to code regional lymph node involvement and metastases at diagnosis as unknown in the absence of any specific information regarding nodes or metastases.

Unknown should be coded when there is reasonable doubt that the tumor is no longer localized.
For accessible primary sites that can be observed, palpated or examined without the use of instruments such as Breast, oral cavity, salivary gland, skin, and other organs, there is No rule change.

Code regional lymph node and metastatic status as negative if there is a statement in the chart such as remainder of examination negative or remainder of work up negative.
Most Collaborative Staging schemas apply to cases defined by their ICD-O-3 primary site codes.

A few schemas apply to cases defined by their ICD-O-3 histologic type codes.

Histology specific schemas take precedence over site specific schemas.
A case with any one of these histologic types must be coded using the schema for that histologic type group.

- Melanoma (8720-8790)
- Kaposi Sarcoma (9140)
- Retinoblastoma (9510-9514)
- Lymphoma (9590-9699 & 9702-9729)
- Mycosis Fungoides (9700-9701)
- Hematopoietic and Reticuloendothelial System
- (9731-9989)
For cases with all other histologic types use the schema as determined by the primary site code.

Each schema clearly identifies the applicable primary site codes and histologic type codes at the beginning of the schema.
For the following Sites, Melanomas are divided by Primary Site code

<table>
<thead>
<tr>
<th>Site</th>
<th>Primary Site Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant melanoma of skin, vulva, penis and scrotum</td>
<td>C44.0-C44.9, C51.0-C51.2, C51.8-C51.9, C60.0-C60.1, C60.8-C60.9, C63.2</td>
</tr>
<tr>
<td>Malignant melanoma of conjunctivia</td>
<td>C69.0</td>
</tr>
<tr>
<td>Malignant melanoma of iris and ciliary body</td>
<td>C69.4</td>
</tr>
<tr>
<td>Malignant melanoma of choroid</td>
<td>C69.3</td>
</tr>
<tr>
<td>Malignant melanoma of other eye</td>
<td>C69.1, C69.2, C69.5, C69.8-C69.9</td>
</tr>
</tbody>
</table>
## Schemas Requiring Tumor Size for AJCC Staging

<table>
<thead>
<tr>
<th>Lip &amp; Oral Cavity</th>
<th>Carcinoma of the Eyelid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oropharynx/ Hypopharynx</td>
<td>Breast</td>
</tr>
<tr>
<td>Major Salivary Glands</td>
<td>Vulva</td>
</tr>
<tr>
<td>Thyroid</td>
<td>Cervix Uteri</td>
</tr>
<tr>
<td>Anal Canal</td>
<td>Kidney</td>
</tr>
<tr>
<td>Liver/Intrahepatic Bile Ducts</td>
<td>Carcinoma of the Conjunctivia</td>
</tr>
<tr>
<td>Exocrine Pancreas</td>
<td>Malignant Melanoma of the Uvea (ciliary body, choroid)</td>
</tr>
<tr>
<td>Lung</td>
<td>Carcinoma of the Lacrimal Gland</td>
</tr>
<tr>
<td>Bone</td>
<td>Sarcoma of the Orbit</td>
</tr>
<tr>
<td>Soft Tissue Sarcoma</td>
<td>Carcinoma of the Skin</td>
</tr>
</tbody>
</table>
Schemas Not Requiring Tumor Size for AJCC Staging

- Nasopharynx
- Larynx
- Nasal Cavity/Paranasal Sinuses
- Esophagus
- Stomach
- Small Intestine
- Colon/Rectum
- Gallbladder
- Extrahepatic Bile Ducts
- Ampulla of Vater
- Pleural Mesothelioma
- Melanoma of Skin
- Vagina
- Corpus Uteri

- Ovary
- Fallopian Tube
- Gestational Trophoblastic Tumor
- Penis
- Prostate
- Testis
- Renal Pelvis/Ureter
- Urinary Bladder
- Urethra
- Malignant Melanoma of Conjunctivia
- Malignant Melanoma of Uvea (iris)
- Retinoblastoma
- Lymphoid Neoplasm
Schemas for Which AJCC Staging is Not Applicable

- Other Pharynx
- Other Digestive
- Middle Ear
- Other Sinus
- Trachea
- Other Respiratory
- Other Adnexa
- Other Female Genital
- Other Male Genital
- Other Urinary
- Brain
- Other CNS
- Other Endocrine

- Other Eye
- Melanoma of other Eye
- Kaposi Sarcoma
- Hematopoietic, Reticuloendothelial, Immunoproliferative, Myeloproliferative Neoplasms
- Other Ill Defined/Unknown Primary Sites
CS Tumor Size

Code the **largest dimension or diameter** of the **primary tumor**, and it is **always recorded in millimeters**.

Remember to convert cm to mm, multiply the dimension x 10.

If tumor size is given in tenths of millimeters, record size as 001 if largest dimension or diameter of tumor is between 0.1 and 0.9 mm.

**Example:**
- XM shows 2.5 cm breast malignancy. Code as 025 (2.5 cm = 25 millimeters).

*Code the size of invasive component if given.*
CS Tumor Size

Code tumor size from the pathology report, if it is available, when the patient receives no radiation or systemic treatment prior to surgery.

- Example:
  - Chest x-ray shows 2.5 cm mass; the pathology report from the surgery states that the same mass is malignant and measures 2 cm. Record tumor size as 020.
Code the largest size of tumor prior to treatment if preoperative (neoadjuvant) systemic therapy (chemotherapy, hormone therapy, immunotherapy or radiation therapy) was given.

- **Example:**
  - Patient has a 3.5 cm mass in the oropharynx; fine needle aspiration of mass confirms squamous cell carcinoma. Patient received courses of neoadjuvant combination chemotherapy. Total resection revealed a pathologic size of tumor of 1 cm. *Record tumor size as 035.*
Information on size from imaging/radiographic techniques can be used to code size when there is no more specific size information from a pathology or operative report, but it should be taken as low priority, just above a physical exam.

Always code the size of the primary tumor, not the size of the polyp, ulcer, cyst, or distant metastasis.

Code the largest dimension or diameter of tumor, whether it is from an excisional bx specimen or the complete resection of the primary tumor.

Code the size of the invasive component, if given.
If there is a difference in reported tumor size among imaging and radiographic techniques, record the largest size of tumor reported in the record.

In the infrequent event that the tumor does not respond to neoadjuvant treatment and is, in fact, more extensive after preoperative treatment as determined by the operative or pathology report, code the farthest extension and code CS Tumor Size/Ext Eval as 6, based on pathology/operative report after treatment.
Code the size of the invasive component even if it is smaller.

If both an *in situ* and an *invasive component* are present, then the invasive component is measured.

*Example:*
- Tumor is mixed in situ and invasive adenocarcinoma, total 2.5 cm in size, of which 1.5 cm is invasive. 
*Record tumor size as 015.*
For purely *in situ* lesions, code the size as stated.

Microscopic residual tumor does not affect overall tumor size.
CS Tumor Size

Do not add pieces or chips together to create a whole; they may not be from the same location, or they may represent only a very small portion of a large tumor.

Unless the pathologist states an aggregate or composite size (determined by fitting the tumor pieces together and measuring the total size) record that size.
Code 999, for incisional biopsy in the absence of clinical size.

For Melanoma record the tumor size (lateral dimension). Remember the depth of invasion is coded in the site-specific factor.

Code the size of the largest tumor if the tumor is multifocal or there are multiple tumors being reported as a single primary.
## CS Tumor Size

### Special Codes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>990</td>
<td>Microscopic focus or foci only; no size is given, should be used when no gross tumor is seen and tumor is only identified microscopically</td>
</tr>
<tr>
<td>999</td>
<td>If size is not reported, which means unknown size or not documented in the patient record</td>
</tr>
<tr>
<td>991 - 995</td>
<td>Are non-specific size descriptions that, for some sites stated as (less than ___ cm)</td>
</tr>
<tr>
<td>996 - 997</td>
<td>Site specific as needed</td>
</tr>
</tbody>
</table>
CS Tumor Size

998 code takes precedence over actual size for the following sites:

- Esophagus (C15.0-C15.5, C15.8-C15.9): Entire circumference
- Stomach (C16.0-C16.6, C16.8-C16.9): Diffuse, widespread or more, linitis plastica
- Colorectal (M-8220/8221 with /2 or /3): Familial/multiple polyposis
- Lung and main stem bronchus (C34.0-C34.3, C34.8-C34.9): Diffuse, entire lobe or lung
- Breast (C50.0-C50.6, C50.8-C50.9): Diffuse
CS Tumor Size

Code 888

- Disseminated Langerhans cell histiocytosis (Letterer-Siwe disease)
- Hematopoietic neoplasms
- Immunoproliferative diseases
- Leukemia
- Malignant lymphoma (Hodgkin lymphoma and non-Hodgkin lymphoma)
- Mast cell tumors
- Multiple myeloma and other plasma cell tumors
- Myelodysplastic syndromes
- Myeloproliferative diseases
CS Extension

Identifies contiguous growth (extension) of the primary tumor within the organ of origin or its direct extension into neighboring organs.

For certain sites such as ovary, discontinuous metastasis is coded in the CS Extension field.

Code the farthest documented extension of the primary tumor.

Generally, extension must be direct or contiguous.

Do not include discontinuous metastases to distant sites (these are coded in CS Mets at Dx) except for ovary and corpus uteri.
CS Extension

If no pre-op treatment, code extension from the pathology report, if it is available.

If pre-op treatment, code pre-op (clinical ext).

Code extension from imaging/radiographic techniques when there is no more specific extension information from a pathology or operative report, but it should be taken as low priority, just above a physical exam.

If an involved organ or tissue is not mentioned in the schema, approximate the location and code it with listed organs or tissues in the same anatomic area.
With the exception of corpus uteri and ovary, all codes represent contiguous (direct) extension of tumor from the site of origin to the organ/structure/tissue represented in the code.

**Examples:**
- Carcinoma of the prostate with extension to pubic bone would be coded 60.
- Carcinoma of the prostate with metastases to thoracic spine would be coded in CS.
- Extension to the appropriate code for tumor extension and the metastases to the thoracic spine would be coded in the CS Mets at Dx field.
Very rarely, use port-op path may be more extensive.

Imaging takes priority over physical exam.

Remember to disregard microscopic residual or positive margins when coding extension.

If involved organ is not listed, approximate the location and code with similar tissue.
CS Extension

If in situ with evidence of nodal or distant mets involvement, code as Localized, NOS, if there is no better information.

Example:

• Excisional biopsy of breast tumor shows extensive DCIS. Sentinel node biopsy revealed one positive axillary node. Code CS Extension as 10, localized, NOS, because an in situ tumor theoretically cannot metastasize and apparently an area of invasion was missed by the pathologist.
CS TS/Ext Eval Linked to CS Ext and CS Tumor size records how the codes for the two items CS Tumor Size and ACS Extension were determined, based on the diagnostic methods employed.
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 5</td>
<td>If the size or extension of the tumor determined prior to treatment was the basis for neo-adjuvant therapy.</td>
</tr>
<tr>
<td>Code 6</td>
<td>If the size or extension of the tumor was greater after pre-surgical treatment than before treatment.</td>
</tr>
<tr>
<td>Code 2</td>
<td>If the patient had an autopsy and the diagnosis was known or suspected prior to death.</td>
</tr>
<tr>
<td>Code 8</td>
<td>If the malignancy was not known or suspected prior to death.</td>
</tr>
<tr>
<td>Code 9</td>
<td>To sites and histologies for which no TNM schema defined, such as brain or Kaposi sarcoma.</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Code 0</td>
<td>Includes imaging studies such as standard radiography, special radiographic projections, tomography, computerized tomography (CT), ultrasonography (US), lymphography, angiography, scintigraphy (nuclear scans), magnetic resonance imaging (MRI), positron emission tomography (PET) scans, spiral scanning (CT or MRI) and other non-invasive methods of examining tissues.</td>
</tr>
<tr>
<td>Code 1</td>
<td>Includes microscopic analysis of tissue that is insufficient to meet the requirements for pathologic staging in the TNM system. Example TURBT or TURP code = 1</td>
</tr>
<tr>
<td>Code 3</td>
<td>Code 3 is considered pathologic staging.</td>
</tr>
</tbody>
</table>
CS Lymph Nodes

Identifies the regional lymph nodes involved with cancer at the time of diagnosis.

Assign the highest applicable code.

If there is a discrepancy between clinical information and pathologic information about the same lymph nodes, the pathologic information takes precedence if no preoperative treatment was administered.
Disregard distant nodes (code in Mets at Dx field).

If no pre-op, use pathology report.

If pre-op rx use pre-op clinical information.
For inaccessible sites, record CS Lymph Nodes as Code 00 (None) rather than Code 99.

If there is direct extension of the primary tumor into a regional lymph node, record the involved node in this field.

If In-situ and no nodes removed, lymph nodes can be coded as 00.
For solid tumors, the terms fixed or A matted and mass in the hilum, mediastinum, retroperitoneum, and/or mesentery (with no specific information as to tissue involved) are considered involvement of lymph nodes.
Solid tumors, the terms “fixed” or matted and “mass in the hilum, mediastinum, retroperitoneum, and/or mesentery” (with no specific information as to tissue involved) are considered involvement of lymph nodes.

For lymphomas, *any positive mention of lymph nodes indicates involvement of those lymph nodes.*

Unless there is a statement of involvement by the clinician, any other terms, such as palpable, enlarged, visible swelling, shotty, or lymphadenopathy should be ignored.
Accessible sites look for statement that mention negativity such as: remainder of the exam is negative.

For colon, rectosigmoid and rectum primaries, if there is a statement about tumor nodule(s) in the pericolic or perirectal fat, use the following guidelines for coding regional lymph node involvement:

- Code as regional lymph node involvement if the nodule has a smooth contour.
- Code as tumor extension if the nodule has an irregular contour.
For head and neck sites, regional lymph node information is coded in several fields.

CS Lymph Nodes field contains information about the nodes involved, their number, and laterality.

Site-Specific Factors 1 and 2 are used to code the size of involved lymph nodes and the presence of extracapsular extension.

Site-Specific Factors 3 through 6 are used to code the presence or absence of lymph node involvement in each of 7 different levels and other groups defined by AJCC.
For head and neck sites, regional lymph node, cont.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 9</td>
<td>If Site-Specific Factors 3-6 for lymph node levels is unknown.</td>
</tr>
</tbody>
</table>
CS Lymph Nodes

NOS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 0</td>
<td>In all digits of Site-Specific Factors 3-6 when the only information available is regional nodes, NOS or Cervical nodes, NOS or internal jugular lymph nodes, NOS@ or ALymph nodes, NOS.</td>
</tr>
</tbody>
</table>
Breast: Coding regional lymph node involvement for breast cancers is more complex than for many other sites especially when coding the CS Lymph Nodes and Site-Specific Factors 3-5.
Isolated Tumor Cells (ITCs) Pathologists can detect isolated tumor cells (ITCs) spread from a breast cancer into regional lymph nodes. These are very small deposits of tumor cells, so small that they are not considered significant for assigning stage. They usually do not show evidence of malignant activity in the nodes, such as proliferation or stromal reaction. To be considered ITCs, they must be single tumor cells or small clusters not more than 0.2 mm.
As more data are collected about these ITCs, their prognostic significance may be better understood.

At this time, nodes with only these ITCs are NOT considered positive nodes.

These ITCs are most often found using immunohistochemistry tests on sentinel lymph node specimens.

The ITCs may sometimes also be seen on routine H&E-stained sections.
Hematoxylin and Eosin (H & E). (from AHematoxylin & Eosin@: (The Routine Stain)), by H. Skip Brown, BA, HT(ASCP), from: http://www.sigmaaldrich.com/img/assets/7361/Primer-H&Emay04.pdf

In histology, the standard or routine stain is the hematoxylin and eosin stain, better known as the AH&E@ stain.

With rare exceptions, every specimen being examined will first receive an H&E stain to give the laboratorian a visible look at the nucleus of the cells and their present state of activity.

With most disease states there is abnormal growth and/or division in the nucleus of the cells.
The hematoxylin and eosin stain uses two separate dyes, one staining the nucleus and the other staining the cytoplasm and connective tissue.

Hematoxylin is a dark purplish dye that will stain the chromatin (nuclear material) within the nucleus, leaving it a deep purplish-blue color.

Eosin is an orangish-pink to red dye that stains the cytoplasmic material including connective tissue and collagen, and leaves an orange-pink counterstain.

This counterstain acts as a sharp contrast to the purplish-blue nuclear stain of the nucleus, and helps identify other entities in the tissues such as cell membrane (border), red blood cells, and fluid.
Rarely, will first receive an H&E in histology, the standard or routine stain is the hematoxylin and eosin stain, better known as the H&E stain.
**Micrometastasis.** When the tumor deposits in the lymph nodes are larger than 0.2 mm but not larger than 2.0 mm, they are defined as micrometastasis.

Nodes with micrometastasis ARE considered positive for staging.
Identifies the distant site(s) of metastatic involvement at time of diagnosis.

Assign the highest applicable code, whether the determination was clinical or pathological and whether or not the patient had any preoperative systemic therapy.

Disregard mets that develop after ext of disease was established (also referred as progression of disease).
Record CS Mets at Dx as Code oo (None) rather than Code 99 (Unknown) when the clinician proceeds with standard treatment of the primary site for clinically localized or early.

- Code structures, nodes, and tissue not listed in Extension or Lymph nodes.
- Code as specifically as possible.

Record only discontinuous, blood-borne or implantation metastases or distant lymph node involvement.
Inaccessible primary site code coded negative if there is no mention of distant mets in:

- Physical exam
- Diagnostic imaging
- Surgical exploration, and
- Patient receives usual treatment to primary site
If tumor is no longer localized, Mets as DX may be coded Unknown.

For accessible sites, look for statement of negative remarks, such as remainder of exam is negative.