



# Using the

# Collaborative Staging System



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Cancer Registry  
Boot Camp  
Basic Training**

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# Collaborative Staging (CS) version 01.04.00

- Currently registrars should be using, Collaborative Staging (CS) version 01.04.00
- Released on October 31, 2007.
- Changes in the new version affect most of the schemas & some derived fields
- Replacement pages to update your version 01.03.00 manual are available on the CS web page
- <http://cancerstaging.org/cstage/index.html>



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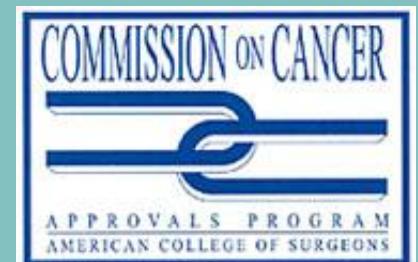
# Objectives

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- To review and understand:
  - General rules and instructions
  - CS data elements
  - CS revision and update process

# CS Reporting Requirements

- Commission on Cancer-Approved Programs
  - Registrars code all 15 CS data items
  - Per FORDS 2004, physicians are required to record Clinical and Pathologic T, N, M and Stage Group
    - Registrars should enter the staging into the abstract
    - Registrar may complete Stage Group if physician has recorded T, N, M
  - NCDB submission includes
    - all CS data items for deriving stage
    - physician-reported staging



# CS Reporting Requirements

- SEER

- All CS items except eval fields
- ACCR – requires collection of eval fields.

*Surveillance Epidemiology and End Results*

- NPCR

- Required: CS Extension, CS Lymph Nodes, CS Mets at Dx, Prostate SSF3 and Pleura SSF1
- Collection of all fields recommended



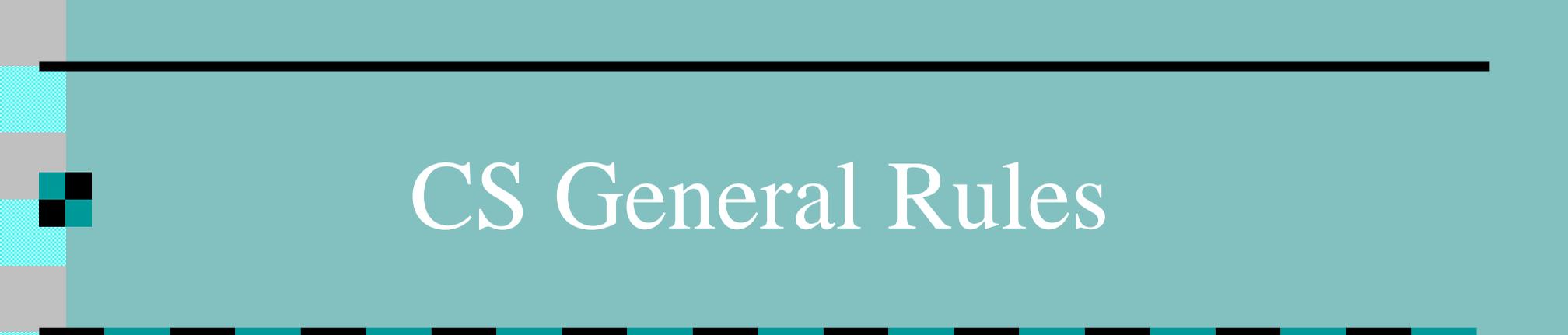


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# CS General Rules

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- Code all sites, all histologies
  - Computer algorithm sorts data into stages
  - All sites summary staged
  - Only applicable cases stage-grouped for TNM
- Microscopic confirmation useful but not required for collaborative staging.



# CS General Rules

- Timing rule
  - Includes all information gathered through completion of surgery (ies) in first course of treatment OR
  - within four months of diagnosis in absence of disease progression
  - whichever is LONGER.

# CS General Rules

- Code farthest extent
  - Record greatest extent of disease based on combined clinical and operative/pathologic assessment
  - Applies to tumor size, extension, lymph nodes, mets at diagnosis
  - If no pre-op treatment: path info takes priority
  - If pre-op treatment, imaging/clinical info takes priority in most cases
  - Site-specific guidelines apply where needed

# CS General Rules

- Inaccessible sites
  - Record regional and distant metastases as **NEGATIVE** (rather than unknown) when
    - no mention of LN or mets involvement in PE, Dx testing or surgical exploration
  - AND
  - patient receives ‘usual’ treatment to primary
- Applies to CS Lymph Nodes, CS Mets at Dx

# CS General Rules

- Inaccessible sites, cont'd
  - Inaccessible sites examples: bladder, kidney, prostate, esophagus, stomach, lung, liver, corpus, ovary
  - Applies to early stage (T1, T2, localized) tumors
  - Code unknown if reasonable doubt that tumor is not localized
- Accessible sites
  - Examples: breast, oral cavity, salivary gland, skin, etc.
  - Code regional and distant mets as negative if general statement in chart '**remainder of exam negative.**'

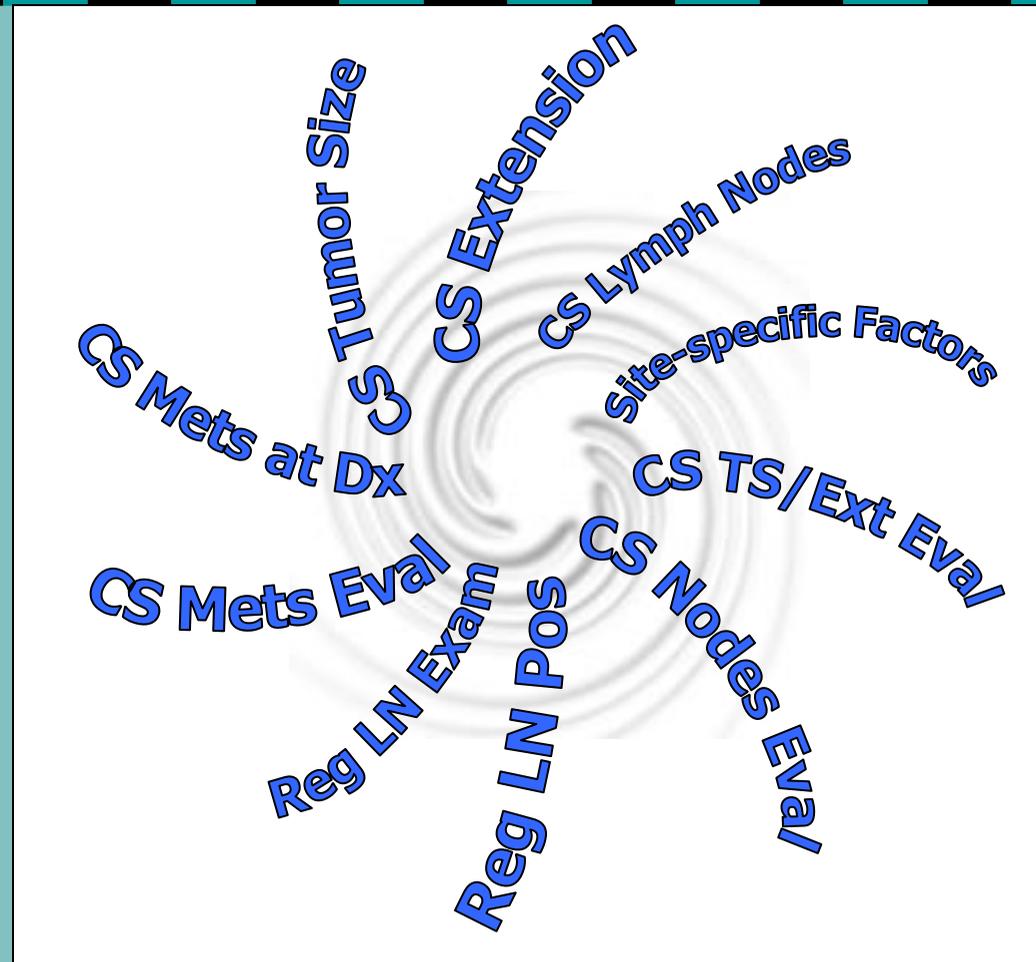
# CS General Rules - Eval Fields

- Explain how tumor size/extension, lymph nodes or mets at dx was determined
  - associated with fields
  - identifies cases with pre-op treatment
  - validates when clinical information used rather than pathologic
  - allows mixed staging of TNM, such as
    - pT2 cN0 cM0 Stage II
    - cTX pN1 cM0 Stage IIIB

# CS General Rules - Eval Fields, cont'd

- General structure
  - 0 clinical only
  - 1 invasive techniques, no bx; or needle bx
    - bx does not meet criteria for pathologic T
  - 2 autopsy (known or suspected dx)
  - 3 pathology
    - meets criteria for pathologic T
  - 5 pre-op tx, clinical eval
  - 6 pre-op tx, path eval
  - 8 autopsy (dx not suspected)
  - 9 unknown, not assessed

# CS Data Elements



# CS Tumor Size

- Largest dimension or diameter of tumor

Example: 2.4 x **5.1** x 1.8 cm (code tumor size as **5.1** cm)

- No size given code 999

- Always recorded in millimeters

Example: 5.1 cm x 10 = 51. (code as 051 millimeters)

- Code the largest size of tumor prior to treatment

Example: CT scan reveal a 2.2 cm mass, patient receives neoadjuvant chemo & radiation. Pathologic size of tumor after total resection is 0.8 cm. Record tumor size as 022.

- Tumor size can be taken from imaging & radiographic techniques

# CS Data Elements: Tumor Size -- Rules

- Refer to site/histology-specific instructions for additional information.
- Code size of invasive component, if given
- Do not add pieces together unless aggregate size stated by pathologist
- Code the size of primary tumor, not the size of polyp, ulcer, cyst or distant metastasis.



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## CS Data Elements: Tumor Size -- Rules

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- For an incisional needle bx, code tumor size as 999
- Do not code the tumor size from a needle bx, unless no residual tumor is found on further resection.
- Record tumor size (lateral dimension) for malignant melanoma, depth of invasion is coded in a site-specific factor.

# CS Data Elements: Tumor Size -- Rules, cont'd

- Special codes
  - 990 microscopic focus--use only when tumor identified microscopically
  - 991-995 'stated as less than \_ cm'
  - Code as precisely as possible
    - Example: size reported as 2.5 cm
    - Code as 025 rather than 993 (less than 3 cm)
  - 996-997 site-specific as needed
  - 998 takes precedence over actual size

# CS Data Elements: CS Extension -- Rules

- Code farthest direct & contiguous extension
- Code using the following order:
  - Pathology report/Operative report
  - Imaging & radiographic techniques
- Code the farthest extension prior to preoperative (neoadjuvant) treatment.
- The presence of microscopic residual disease or positive tumor margins does not increase the extension code.
- If 'in situ' with nodal or distant mets, code as Localized, NOS when no other info



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# CS Data Elements: CS TS/Ext Eval -- Rules

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- Record how CS Tumor Size & Extension were determined
- Document farthest extension clinically or pathologically  
May not be highest eval code

# Types of Staging

- *Clinical staging* is an estimate of how much cancer there is based on the results of the physical exam, imaging tests (x-rays, CT scans, etc.) and sometimes biopsies of affected areas. For certain cancers the results of other tests, such as blood tests, are also used in staging.
- *Pathologic staging* can only be done on patients who have had surgery to remove or explore the extent of the cancer. It combines the results of clinical staging (physical exam, imaging tests, etc.) with the results from the surgery. In some cases, the pathologic stage may be different from the clinical stage (for example, if the surgery shows the cancer has spread more than it was thought to have spread before surgery.)

# CS Data Elements: Tumor Size, Extension, Eval Codes

## ■ Case 1

- Breast cancer, 2.5 cm size on physical exam.  
Mammogram tumor size 1.8 cm.

Lumpectomy: no involved margins, tumor size  
1.5 cm.

Codes: Tumor size	015	path size (no pre-op tx)
Extension	10	confined to breast
TS/Ext Eval	3	pathology

# CS Data Elements: Tumor Size, Extension, Eval Codes

## ■ Case 2

- Head of pancreas cancer involving common bile duct on abdominal CT. At laparotomy, unresectable tumor size 4.5 cm. No biopsy, no resection.

Codes: Tumor size      045    surgical observation   
         Extension        44    extrahepatic bile duct  
         TS/Ext Eval        0    imaging

⊗ Extension is more important than size for pancreas staging. The bile duct involvement was noted on imaging (eval code 0), not on laparotomy (eval code 1).

# CS Data Elements: Tumor Size, Extension, Eval Codes

## ■ Case 3

- Breast cancer, 3.2 cm size on PE; deep in breast, attached to pectoral fascia

Chemotherapy followed by modified radical mastectomy: tumor size less than 2 cm; no involvement of chest wall.

Codes:	Tumor size	032	clinical pre-op
	Extension	30	pectoral fascia invasion
	TS/Ext Eval	5	clinical eval pre-op

# CS Data Elements: Tumor Size, Extension, Eval Codes

## ■ Case 4

- Lung cancer, CXR shows mass no larger than 3 cm in RUL. Mediastinoscopy shows tumor wrapped around trachea (not biopsied).

Patient referred for radiation therapy.

Codes:	Tumor size	993	clinical (CXR)
	Extension	70	extension to trachea
	TS/Ext Eval	1	endoscopic, no bx.

# CS Data Elements:

## CS Lymph Nodes -- Rules

- Code regional nodes only
  - Distant lymph nodes coded in Mets at Dx
  - Some exceptions
  - Field not used for some sites
- Code farthest involved regional nodes clinically or pathologically
- It is strongly recommended that regional nodes involvement is documented in the text.

# CS Data Elements:

## CS Lymph Nodes -- Rules

- Inaccessible sites: code as negative when:
  - low/early stage primary (localized)  
AND
  - no mention of LN involvement in PE, Dx testing or surgical exploration  
AND
  - patient receives ‘usual’ treatment to primary
  - OK to code nodes as unknown (if tumor is no longer localized)
- Accessible sites:
  - look for statement of non-involvement such as “remainder of exam normal”

# CS Data Elements: CS Nodes Eval -- Rules

- Records how the CS lymph nodes was determined
- Document farthest involved nodes clinically or pathologically
  - May not be highest eval code
  - Some site allow biopsy of just one positive node for code 3

# CS Data Elements: Reg LN Positive

- Count number examined by pathologist
  - Only positive regional nodes
  - Cumulative through first course procedures
    - With or without pre-op treatment
  - Special codes
    - 95 Positive aspiration
    - 97 Number unspecified
      - Includes combinations of positive aspirated, biopsied, sampled and dissected nodes
    - 98 No nodes examined
    - 99 Unknown, not documented

# CS Data Elements: Reg LN Examined -- Rules

- Count number examined by pathologist
  - Total number of regional nodes examined
  - Cumulative through first course procedures
    - With or without pre-op treatment
  - Special codes
    - 00 No nodes examined, no nodes in specimen
    - 95 Aspiration only
    - 96 Sampling, number unknown
    - 97 Dissection, number unknown
    - 98 Procedure unknown, number unknown
      - Includes combinations of positive aspirated, biopsied, sampled and dissected nodes
    - 99 Unknown, not documented

# CS Data Elements: Lymph Nodes, LN Eval, Nodes Pos/Exam

## ■ Case 5

- Lung cancer, CXR shows mass in medial RUL, nothing seen in mediastinum.

Mediastinoscopy shows enlarged, hard paratracheal node. Bx confirms metastatic adenoca.

Patient referred for radiation therapy.

Codes:

Lymph nodes	20	paratracheal, NOS
LN Eval	3	removal of 1 node
Nodes pos	01	1 node pos
Nodes exam	01	1 node removed

## CS Data Elements:

# Lymph Nodes, LN Eval, Nodes Pos/Exam

### ■ Case 6

- Stomach cancer dx'd on endoscopy.

At laparotomy, celiac nodes were enlarged and hard (not biopsied). At gastrectomy, 7/10 lesser curvature nodes were involved.

Codes:

Lymph nodes	40	celiac nodes
LN Eval	1	surgical observation, no biopsy
Nodes pos	07	7 nodes removed and pos
Nodes exam	10	10 nodes removed

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# CS Data Elements: CS Mets at Dx Rules

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- Field generally used for discontinuous, blood-borne, or fluid-borne mets and involved distant lymph nodes
- Code the farthest documented metastasis
  - Usually clinical or inferred
  - If no pre-op tx: path when available; if pre-op tx: clinical

# CS Data Elements: CS Mets at Dx Rules

- Not intended for mets found after diagnostic workup completed (disease progression)
  - Guideline: include mets found after treatment started if
    - dx procedure planned before treatment
    - pt was asymptomatic at time of dx procedure
    - within timing rules
  - If pt goes from unknown mets status to positive mets within timing rules, code in Mets at Dx

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# CS Data Elements: CS Mets at Dx Rules

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- Disease progression...
  - Guidelines:
    - If pt becomes symptomatic and mets are found, disregard for Mets at Dx
    - If pt goes from known negative mets status to positive mets, disregard for Mets at Dx

# CS Data Elements: CS Mets at Dx Rules

- Mets at dx or disease progression?
  - Example 1: Asymptomatic pt had lumpectomy. 3 wks post-op and still asymptomatic, planned bone scan positive for mets
    - Code bone mets in Mets at Dx because bone scan timing was planned in advance
  - Example 2: Asymptomatic pt had lumpectomy. 2 months post-op, pt had back pain and had bone scan that was positive for mets
    - Do not code in Mets at Dx -- this is disease progression (development of symptoms)

# CS Data Elements: CS Mets at Dx Rules

- Inaccessible sites: code as negative when:
  - low/early stage primary  
AND
  - no mention of distant mets in PE, Dx testing or surgical exploration  
AND
  - patient receives ‘usual’ treatment to primary
  - OK to code mets as unknown if primary not localized
- Accessible sites:
  - look for statement of non-involvement such as “remainder of exam normal”



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# CS Data Elements: CS Mets Eval Rules

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- Linked to CS Mets at Dx
- Document farthest involved mets clinically or pathologically
  - May not be highest eval code
  - Bx of metastasis sufficient to code as 3

# CS Data Elements: Mets, Eval Codes

## ■ Case 7

- Descending colon cancer based on colonoscopy and biopsy.

Laparotomy and colectomy: tumor nodules seen in liver (not biopsied). Colon carcinoma: T3.

Codes:

Mets at dx	40	distant mets, NOS
Mets Eval	1	surg. observation, no bx.

# CS Data Elements: Mets, Eval Codes

## ■ Case 8

- Bladder tumor dx'd as PTCC on TURBT and biopsy. CXR clear. Pt told to return in 3 months for follow-up cystoscopy.

Codes:

Mets at dx	00	no distant mets
Mets Eval	0	clinical info only

⊕ OK to code mets as 00 if no statement of distant involvement on PE or workup and pt had 'usual' treatment for primary



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# CS Data Elements: Site-Specific Factors

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- Replace “tumor marker” fields
- Enhance data necessary for TNM6 staging
- Used only as needed

# CS Data Elements: Site-Specific Factors

- Examples (Part 1, Appendix 4)
  - SSF1 Melanoma--Thickness
    - actual Breslow depth of invasion
  - SSF2 Melanoma--Ulceration
    - adds 'a' or 'b' to T1 - T4
  - SSF5 Prostate--Gleason Patterns
    - records actual pattern values, 3+2, 4+4, etc.



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# Site-Specific Factors

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- SSF1 Breast--Estrogen Receptors
  - former tumor marker
- SSF1 Brain--WHO Grade
  - different from ICD-O-3 6th digit grade

# Codes Made “Obsolete”

- Based on revisions needed
- Occurs when a single code needs to be split into other codes
- When a structure is moved from one table to another table
- Codes in CS will not be deleted

# Summary

- Same information, different format
- Consistent coding rules
- Registrar records facts
- Computer derives the stage(s)
- Registry stores specific facts, not a range or category
- Flexible for future revisions
- Maintains independent objectives of registry standards setters

# Acknowledgments

