LTR 2017 Reabstraction Audit

Meichin Hsieh, PhD, MSPH, CTR
Lisa Pareti, BS, RHIT, CTR
Nektarios Pappas, MD, CTR
Lisa Peterson, BS, RHIT, CTR
Brent Mumphrey, BS
Yong Yi, PhD, MS
Xiaocheng Wu, MD, MPH, CTR

LCRA 2017 Annual Conference, October 13th, 2017

Acknowledgments

- Regional Directors/Managers
  - Regions 1/3
    - Angela Crossgrow, Manager
  - Regions 2/5
    - Nicole Magee, Director
    - Brigitte Shows
  - Region 4
    - Lea Guidry, Director
  - Regions 6/7/8
    - Nadine Johnston, Director
    - Ramona Rachal
    - Candace Crowe
    - Melanie Byargeon
- Hospital Registrars
  - East Jefferson MC: Cynthia Boudreaux
  - UMC – NO: Mercedes Hollingsworth & Loretta Lauson
  - Ochsner Clinic Foundation – NO: Cynthia Boudreaux
  - Slidell Memorial Hospital: Cynthia Boudreaux
  - Baton Rouge General MC: Linda Lee
  - Ochsner Baton Rouge: Deidre Arnaud
  - UHC Lafayette: Gary Kuykendall
  - Our Lady of Lourdes: Dawn Duplantis
  - Lake Charles Memorial Hosp: Fran Freedlund
  - Christus St Patricks: Cheri Babineaux & Ginger Ledoux
  - Rapides Regional MC: Lakerisha Winn
  - Christus St. Francis Cabrini: Amy Young
  - University Health Shreveport: Carrie Porter
  - Willis Knighton MC: Amber Mandino
  - St. Francis MC: Brenda Turner & Casey Walker
  - Glenwood Regional MC: Amanda Brasher

Purposes

- To evaluate the quality of data abstracted by hospital cancer registrars
  - ✓Accuracy and completeness of coding on reportable canc er cases
- To identify the areas that need additional training
  - ✓Develop LTR training materials
  - ✓Present in the LCRA annual conference
  - ✓Share major coding issues identified with standard setters for training

Approach

- Select two large facilities from each region
- Include reportable analytic cases (class of case 00-22).
- Randomly select a set of sample cases from each cancer site for each selected hospital.
- Notify selected hospitals to send the LTR medical charts or allow remote access to their EMR.
- Perform reabstracting
  - ✓Based on all medical charts
  - ✓Blind study

Approach cont'd

- Conduct data item comparisons
  - ✓Create a list of cases with coding discrepancies for reconciliation
- Perform reconciliation
  - ✓LTR Auditors
  - ✓Hospital Registrars
- Accuracy rate (%):

  100- (# of discrepancies/# of data items)x100
- Send audit report to hospitals
  - ✓Accuracy rates
  - ✓Major coding issues

Case Selection

- Diagnosis Year: 2015
- Selected hospitals: 16
- Cancer sites
  - ✓Colorectal
  - ✓Lung
  - ✓Breast
  - ✓Prostate
  - ✓Kidney, Renal Pelvis or bladder
- Randomly selected 4 analytic cases per site
  - ✓A total of 320 cases (16x5x4)

Data Items Selected

- Demographic information: 9
  - ✓Patient name (last name, first name, maiden name)
  - ✓SSNO
  - ✓Date of birth (mm/dd/yyyy)
  - ✓Sex
  - ✓Race1
  - ✓Address at diagnosis
  - ✓Primary payer at diagnosis
  - ✓Height
  - ✓Weight
- Tumor characteristics: 6
  - ✓Primary site
  - ✓Date of diagnosis (mm/dd/yyyy)
  - ✓Histology
  - ✓Behavior
  - ✓Grade
  - ✓Laterality

Data Items Selected cont'd

- CS Staging: 7
  - ✓CS Tumor Size
  - ✓CS Extension
  - ✓CS TS/Ext Eval
  - ✓CS Lymph Nodes
  - ✓CS Lymph Nodes Eval
  - ✓CS Mets at Dx
  - ✓CS Mets Eval
- SSFs
  - ✓Breast: 15
    - SSFs 1-9, 11, 13-15, 22, 23
  - ✓Prostate: 9
    - SSFs 1-3, 7-10, 12, 13
  - ✓Colorectum: 6
    - SSFs 1, 2, 4, 6, 8, 9
  - ✓Lung: 2
    - SSFs 1, 2
  - ✓Kidney/Renal pelvis/Bladder: 6/1/3
    - Kidney: SSFs 1-4, 6, 8
    - Renal pelvis: SSF 1
    - Bladder: SSFs 1, 2, 3

Data Items Selected cont'd

- Treatment: 20
  - ✓Date Initial RX-SEER
  - ✓Date 1st RX - CoC
  - ✓Surgery
    - Date of surgery
    - Surg Prim Site
    - Scope Reg LN Surg
    - Surg Oth Reg/Dis
  - ✓Radiation
    - Radiation start date
    - Radiation
    - Rad – Regional Rx Modality
  - ✓Systemic Treatment
    - Systemic date
    - Date of chemo
    - Chemo
    - Date of hormone
    - Hormone
    - Date of BRM
    - BRM
    - Date of Transplnt/Endocr
    - Transplnt/Endocr
  - ✓Other
    - Other treatment
    - Date of other Tx

Why Reconciliation by Hospital Registrar Is Important?

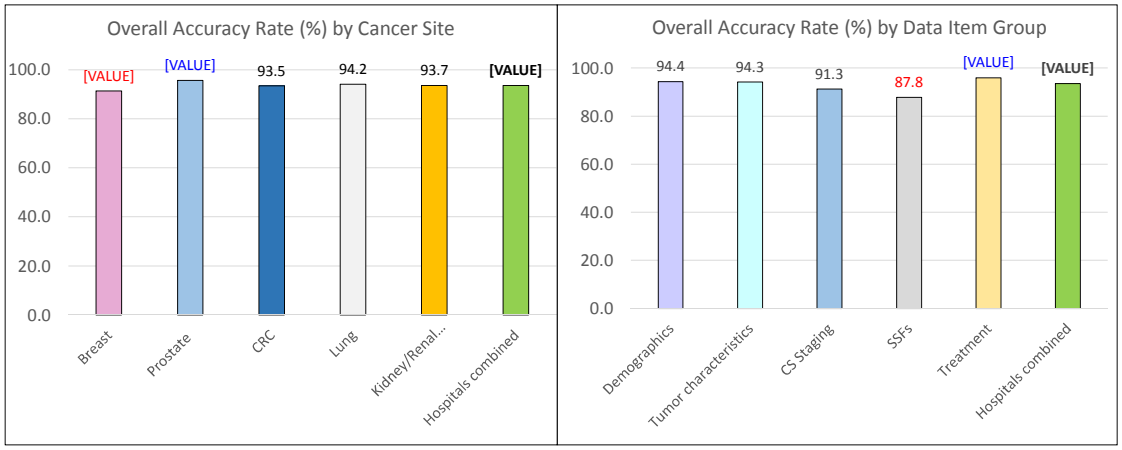
- Auditors received incomplete medical charts
  - Did not print out all required sections from EMR
  - Did not scan properly: missed pages
- Information was obtained from other facilities (not included in the internal charts)
  - Chemotherapy
- Information was in your EMR, but not in the copy of medical charts
  - Height/weight
- Information was updated in your database after initial abstracts were transmitted to the LTR

Results of Data Comparison

- Number of cases included
  - ✓6 cases with inadequate medical charts had to be excluded:
    - 1 prostate, 1 lung, 3 kidney, and I bladder
  - ✓314 cases included
- Number of data items

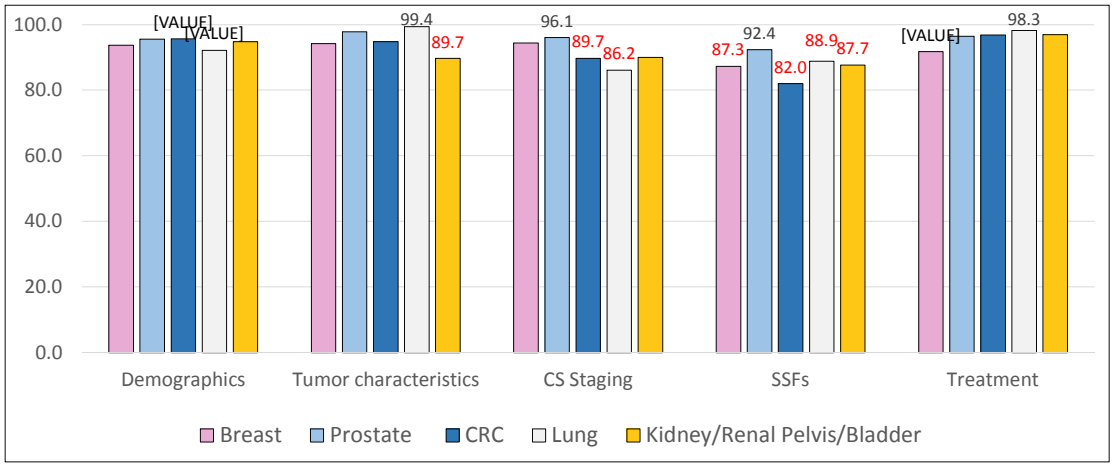
Case and Data Items	Breast	Prostate	CRC	Lung	Kidney /Renal pelvis /Bladder			Total
					Kidney	Renal pelvis	Bladder	
# of Cases	64	63	64	63	30	1	29	314
# of Common Data items	42	42	42	42	42			210
# of SSFs	15	9	6	2	6	1	3	42
Total data items	3648	3213	3072	2772	1440	43	1305	15493

Overall Accuracy Rate (%): 16 Hospitals Combined

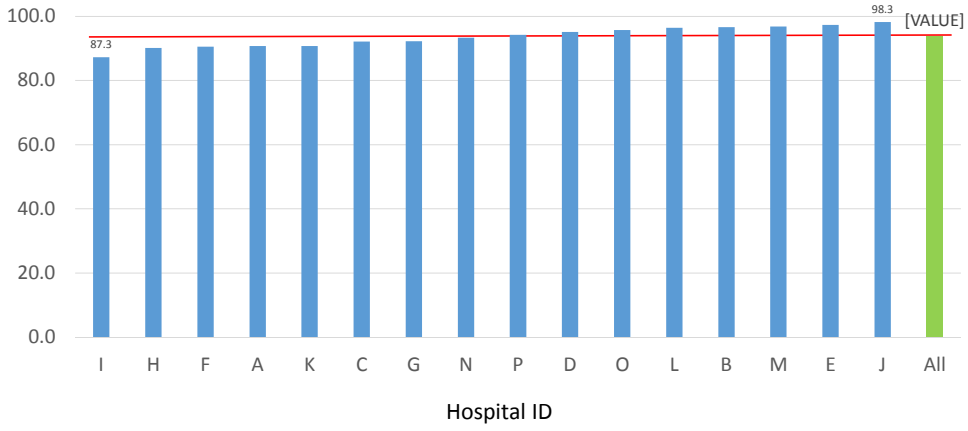


Data accuracy rate for all hospitals combined: 93.6%

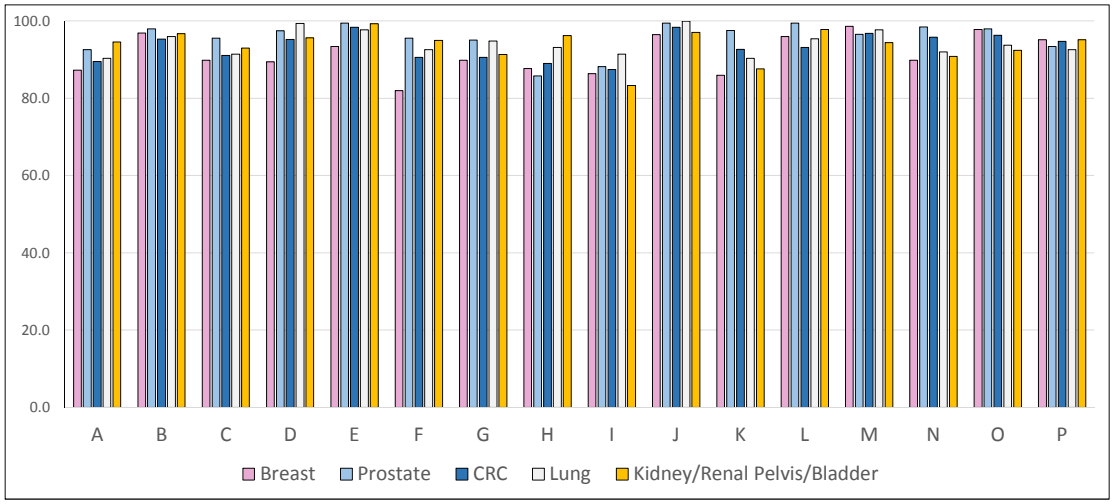
Accuracy Rate (%) by Cancer Site and Data Item Group: 16 Hospitals Combined



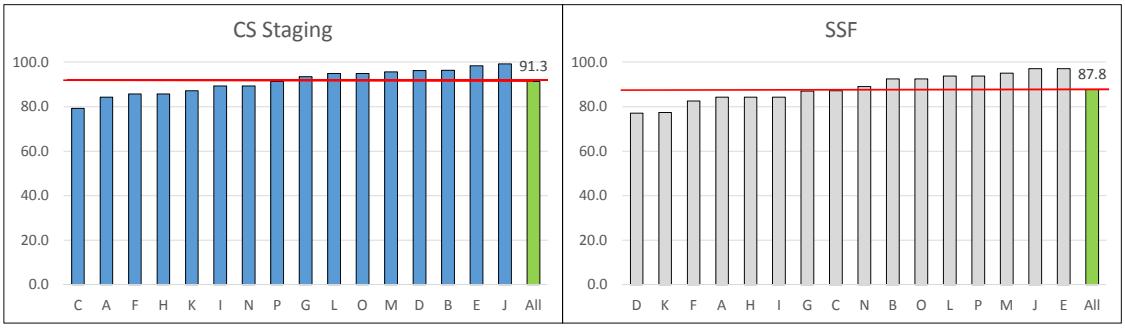
Accuracy Rate (%) by Hospital



Accuracy Rate by Cancer Site and Hospital



Accuracy Rate (%): CS Staging and SSFs by Hospital



- CS Staging
  - ✓ Average: 91.3%
  - ✓ Range: 79.3% to 99.2%
- SSFs
  - ✓ Average: 87.8%
  - ✓ Range: 77.1% to 97.2%

Audit Summary

- Accuracy rate
  - ✓15 hospitals have overall accuracy rate > 90%
  - ✓8 hospitals have overall accuracy rate higher than the all hospitals combined (93.6%)
  - ✓Accuracy rates on treatment related data items are great followed by demographics and tumor characteristics.
  - ✓ Coding SSFs remains an issue, particularly for CRC.

Audit Summary, Continued

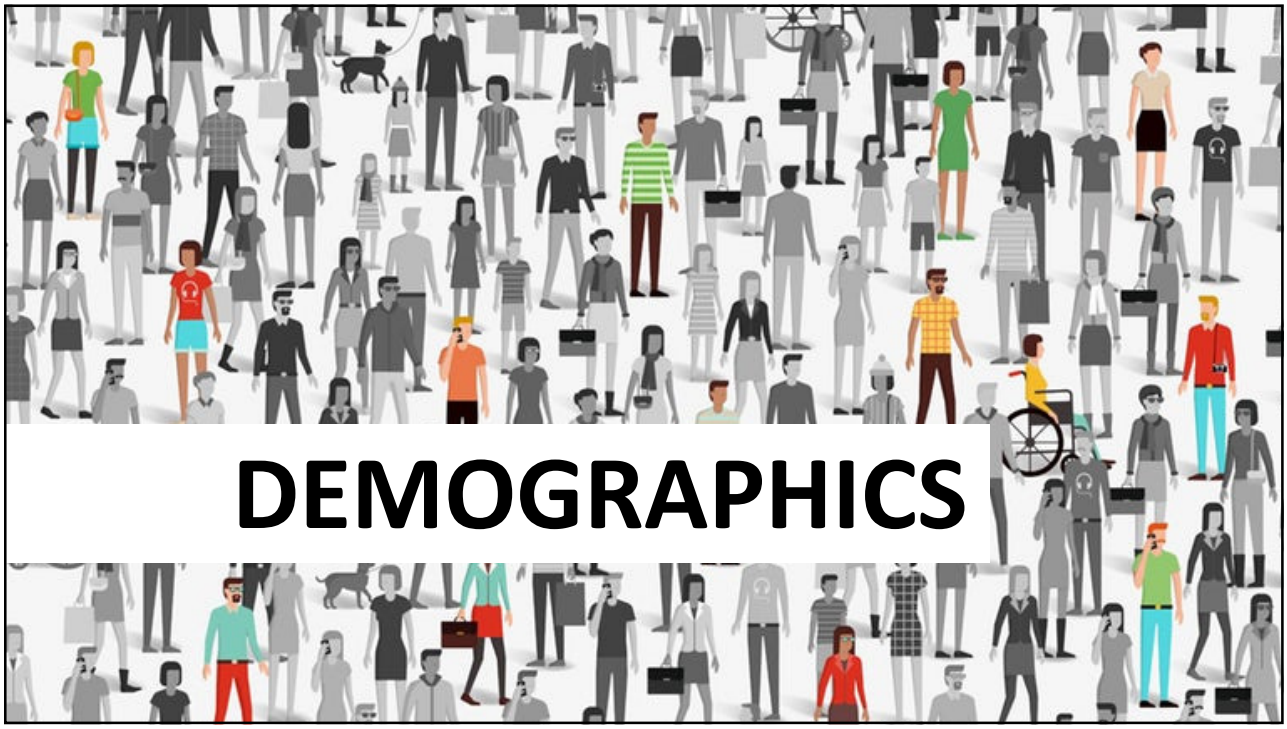
- Demographics
  - ✓Typos: Name, address
    - Example 1: Lname—Raferty vs Rafferty
    - Example 2: Address--Anchord Lane vs Achord Lane
  - ✓Primary payer at diagnosis
    - Insurance NOS vs Private Insurance vs Medicare
  - ✓Height/weight
    - Unknown height/weight vs documented height/weight near diagnosis or prior to treatment
- Tumor characteristics
  - ✓Primary site
    - Most specific primary subsite not selected—C509 vs C504
  - ✓Grade
    - Kidney case—Fuhrman nuclear grade 3 with Grade/Differentiation incorrectly coded to 2

Audit Summary, Continued

- CS staging
  - ✓ CS extension
    - Most specific or furthest extension of tumor was not selected
- SSFs
  - ✓Breast: SSFs 6, 7, 14, 22, 23
  - ✓Prostate: SSF 1
  - ✓CRC: SSFs 2, 6, 9
    - Example: CRC—SSF 6: Circumferential Margin—codes 999 vs 998
- Treatment
  - ✓Surgery on primary site
    - Simple Mastectomy w/AXLND = MRM per CAnswers
  - ✓Breast cancer: scope of regional LN surgery
    - Sentinel bx vs AXLND—codes 2 vs 4/5;
    - Sentinel bx + AXLND—codes 4/5 vs codes 6/7

Major Issues Found

Nektarios Pappas, MD, CTR
Lisa Pareti, BS, RHIT, CTR



DEMOGRAPHICS

- HEIGHT:
  - Conversion of feet to inches. 1 foot = 12 inches
  - **EXAMPLE 1:** 5'5", [(5' x 12") + 5"=**65**"]
  - **EXAMPLE 2:** 6' 2" = [(6 feet x 12 inches) +2 inches] = **74 inches**

- WEIGHT:
  - **don't forget the ounces**
  - **EXAMPLE:** 168lbs 9oz should be entered **169 pounds**

    [168 lbs + (**9oz**/16oz=0.5625)= 168.5625, rounds to 169]

- PAYER AT DX:
  - Use codes **10 / 20** VS **60-63 (Medicare codes):**
    - **Code 10 (INSURANCE NOS)--**basically all you know is **patient has "insurance"** but you **DO NOT KNOW** whether it is:
      - Managed Care, HMO, PPO (network based)
      - *Fee-for-service—where patient is free to go to any doctor or any hospital in any city/state—no networks involved*
      - Medicaid; Medicare; Tricare; military, VA OR PHS

      In other words, the patient has a type of insurance that you cannot code to 20, 21, 31, 35, 60-68.
    - **Code 20 (PRIVATE INSURANCE: Managed Care, HMO/PPO)--**used ONLY when you know the patient had private insurance that was a **network model**—HMO, PPO etc

- PAYER AT DX cont'd:
  - Use codes **10 / 20** VS **60-63 (Medicare codes)** cont'd
    - **Code 60 (MEDICARE NOS)--**used when all you know is patient has "Medicare" **unk if patient had supplement or not.**
    - **Code 61 (MEDICARE w/SUPPLEMENT NOS)--**used when you know patient had some other form of **secondary** insurance in addition to Medicare (**Medicare has to be the primary insurance**) but it is unknown whether it is a managed care plan—HMO/PPO (code 62) OR a private pay/medicare gap supplement (the more costlier option) [code 63]
    - **Code 62 (MEDICARE ADM THRU MANAGED CARE)--**used when patient has Medicare administered through a managed care plan—HMO/PPO like Humana Gold or Peoples Health etc—this is the more popular option due to little to no premium costs
    - **Code 63 (MEDICARE w/PRIVATE SUPPLEMENT)--**used when patient has Medicare plus a **secondary** private pay (Medicare-gap) supplement from an insurance company such as BCBS, UHC or AARP/UHC etc. This supplement could either be a fee for service or a managed care product.

      NOTE: This would also include the situation where a retired spouse on Medicare is **also covered as a dependent on an employed spouses' company insurance plan.** This would fall into the secondary insurance category which would pay any expenses NOT covered by Medicare.

Colorectal Cancer

- Tumor characteristics:
  - ✓PRIMARY SITE SUBSITE:
    - SEER priority order for subsite selection:
      - **Resected cases:** operative report w/surgeon's description over pathology report
      - **Polypectomy or Excision w/o resection:** endoscopy report over pathology report
    - Use of **c18x vs c189**
      - Please select the **most specific subsite** when known
      - Per SEER Colon Coding Guidelines, when **tumor overlaps two subsites**:
        - Code the subsite containing the **majority** of the tumor
        - Code **C188** when both subsites are *equally involved* or it is *unknown which subsite contains the majority of the tumor*

✓HISTOLOGY

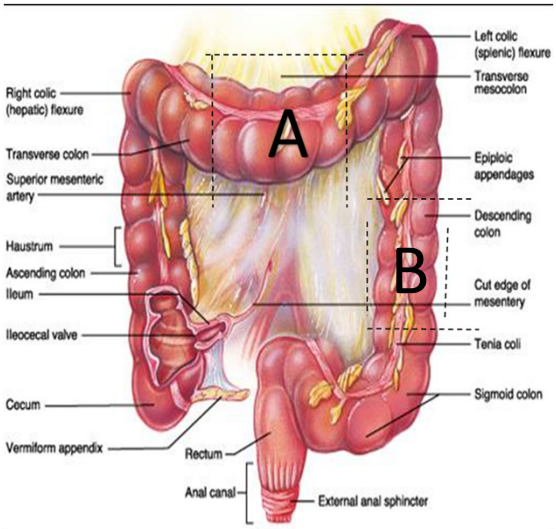
- Please refer to MPHR:
  - **8140/3** (adenoca) **VS [8210/3** (adenoca arising in a polyp) OR **8261/3** (adenoca in a villous adenoma OR **8263/3** (adenoca in a tubulovillous adenoma)**]**
    - **EXAMPLE:** During a screening colonoscopy, a patient was found to have multiple polyps that were removed via snare technique. Pathology report indicates the one of the polyps has a focus of adenocarcinoma.
      - **Histology= 8210/3** (adenocarcinoma arising in a polyp) per **MPH Rule H4.**
    - Per SEER it is important to know the adenocarcinoma ***originated in a polyp***

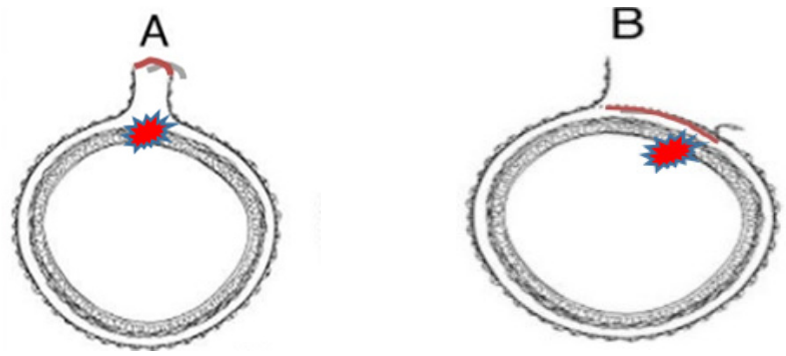
✓HISTOLOGY Cont'd

- **[8480/3** (mucinous/colloid adenoca) OR **8490/3** (signet ring cell ca)**] VS 8140/3** (adenoca)
  - Per MPH Rule H5, if **final diagnosis on pathology report** is:
    - Mucinous/colloid adenoca OR Signet ring cell ca, code histology to **8480/3 OR 8490/3** respectively
    - **Adenoca +** microscopic description that **50% or more** of tumor was either **Mucinous/colloid adenoca OR Signet ring cell ca**, code histology to **8480/3 OR 8490/3** respectively
      - **EXAMPLE:** Patient was found to have a large sigmoid mass on colonoscopy. Biopsy of mass returned **adenocarcinoma**. Hemicolectomy revealed a 10cm sigmoid mass c/w **adenocarcinoma**. It was also noted that **60% of the tumor contained signet ring cell ca**.
        - **Histology= 8490/3** (Signet ring cell ca) per **MPH Rule H5**

- CS Staging:
  - ✓EXTENSION
    - Deficiencies in adding <u>all</u> clinical or <u>all</u> pathologic classification values to derive clinical or pathologic extension
    - Operative report findings not used for pathologic classification/ extension

- SSFs:
  - ✓000 Vs 999, each SSF has unique parameters stated in CS manual
  - ✓SSF6, **Circumferential Resection Margin**





The CRM is the distance between the tumor and the surgically dissected nonperitonealized surface of the specimen. It corresponds to any aspect of the colorectum that is not covered by a serosal layer of mesothelial cells and must be dissected from the retroperitoneum or subperitoneum in order to remove the viscus.

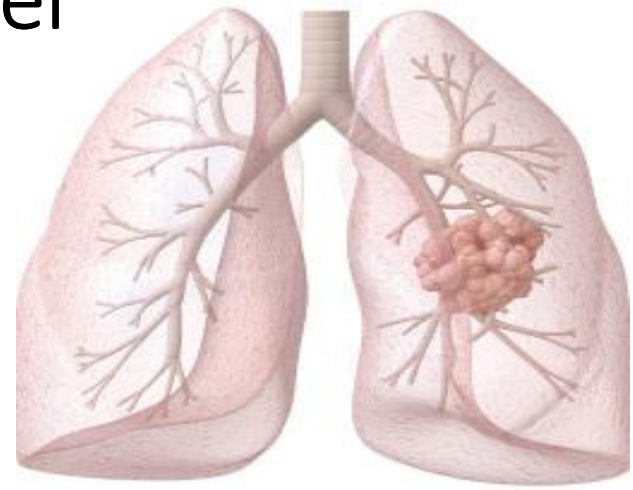
- SSFs cont'd:
  - ✓**SSF6: CIRCUMFERENTIAL RESECTION MARGIN (CRM)**
    - Also known as **Radial Margin** OR **Mesenteric Resection Margin**
    - Important prognostic factor for local or systemic recurrences and survival after surgery
    - Coding SSF6: **(990 / 991)** VS **(998 / 999)**
      - **Code 990—**used when there is **NO RESIDUAL COLON TUMOR found on resection**; meaning **tumor was completely removed** either via excisional bx OR polypectomy
      - **Code 991—**used when **margins are clear, distance** from tumor **not stated**; CRM negative, NOS
      - **Code 998**—used when there is **NO RESECTION of primary site** OR **Surgical procedure did not remove enough tissue to measure the CRM**, *including* ***polypectomy only, excision of tumor only or excisional biopsy only***
      - **Code 999—**used when:
        - CRM **not** mentioned
        - Pathology report *describes only* **distal and proximal margins**, **or margins, NOS**
        - Unknown or no information

- Treatment:
  - ✓SURGERY
    - Matching most accurate procedure from operative report with surgery code
      - **Codes 26/28 (Polypectomy):**
        - Polypectomy is the removal of a colon polyp
        - Can be coded as *either* Dx/Staging Procedure OR surgery depending on margin status:
          - Code as **02 DX/Staging Procedure** when:
            - Polyp was **NOT removed in its entirety** where the ***margin status*** is **grossly positive** OR
            - Polypectomy followed by a more definitive resection
          - Code as **SURGERY** *only* when:
            - polyp **was removed in its entirety** where there are either **clear margins**, **microscopically involved margins** OR **unknown margins**

              AND
            - *Polypectomy was the only stated treatment provided rendering the patient disease free*

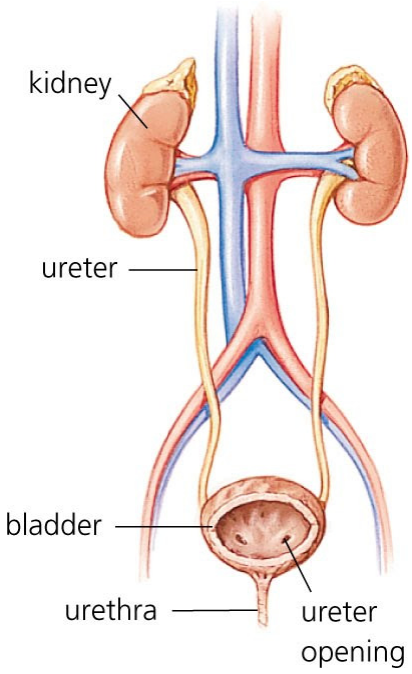
- **Codes 26/28 (Polypectomy) cont'd:**
  - **Code 26—Polypectomy NOS** is used only when you know patient had a polypectomy but do not know if the polypectomy was performed via endoscopy (code 28) or surgical excision (code 29)
    - *Always code to the more specific code 28 or 29 when known*
  - **Code 28—Polypectomy—endoscopic**
    - Used to code polypectomy of colon/rectum via endoscopy; ie colonoscopy
    - Most common procedure
  - **Code 29—Polypectomy—surgical excision**
    - Used to code surgical excision of a polyp located inside the rectum near the anus
- **Codes 30/32 (Partial Colectomy/Segmental Resection):**
  - Less then a hemicolectomy
  - **Code 30**--includes but is not limited to the following procedures:
    - Appendectomy (for an appendix primary only), enterocolectomy, ileocolectomy, partial colectomy, NOS, partial resection of transverse colon and flexures, and segmental resection (such as cecectomy or sigmoidectomy). Note that the removal of a short portion of the distal ileum is not "removal of a contiguous organ
  - **Code 32—Segmental resection + resection of contiguous organ**; example: small bowel, bladder, omentum, etc
    - *NOTE: removal of a short portion of the distal ileum is NOT "removal of a contiguous organ".*
- **Code 40 (Subtotal colectomy/Hemicolectomy)**
  - Total right or left colon along with a portion of transverse colon

Lung Cancer



- CS Staging:
  - ✓CS TS/Extension Eval
    - Codes 0 vs 1 vs 3:
      - Code 0, for imaging only
      - Code 1, for lesions biopsied only
      - Code 3 for lesions surgically removed
- SSFs
  - ✓SSF2 **Visceral Pleural Invasion (PL)/Elastic Layer (Lung)**
    - Coded from pathology report
    - Codes; 998 vs 999:
      - **Code 998—**when there is NO histologic examination of pleura to assess pleural layer invasion
        - *An FNA is not a histologic specimen and is not adequate to assess pleural layer invasion. If only an FNA is available, use code 998.*
      - **Code 999 when:**
        - Unknown if PL present
        - PL/elastic layer cannot be assessed
        - No mention of pleural/elastic layer invasion (PL) on the pathology report

Kidney/Bladder Cancer

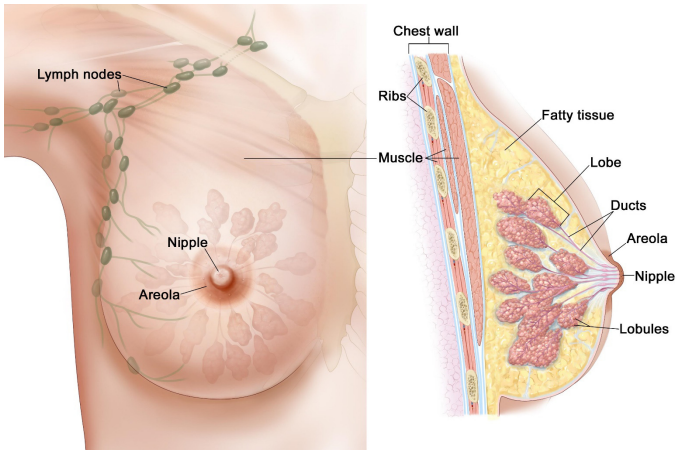


- Tumor characteristics:
  - ✓BLADDER
    - ✓PRIMARY SITE:
      - **C67x vs C678 vs C679**
        - SEER priority order for subsite **(C67x)** selection—operative (TURB) report over pathology report
        - **Code C678 for:**
          - Overlapping lesion of bladder
          - *Lateral-posterior wall* lesion **documented WITH hyphen**
          - Fundus lesion
        - **Code C679 for:**
          - Bladder, NOS lesion
          - *Lateral posterior wall* lesion **documented WITHOUT hyphen**
          - **Multifocal tumors** (separate tumors in more than one subsite of the bladder)
    - ✓GRADE:
      - Conversion of Low/High grade to grade 2/4

Term	Description	Grade code
1/2	Low grade	2
2/2	High grade	4

- KIDNEY SSF3—Ipsilateral Adrenal Gland Involvement
  - ✓Code 000 vs 999
    - Record ipsilateral adrenal gland involvement as **documented in the pathology report**
      - Do not include clinical findings in this field
    - **Code 000** when:
      - Pathology report states that ipsilateral adrenal gland involvement is NOT PRESENT OR NOT IDENTIFIED OR
      - Resected specimen ***includes tissue from the adrenal gland*** AND the pathology report DOES NOT MENTION adrenal gland involvement
    - **Code 998** when there is **NO histologic examination** of the adrenal gland to prove or disprove involvement.
    - **Code 999** when:
      - There is NO information in the patient record about ipsilateral adrenal gland involvement

Breast Cancer



- Tumor characteristics:
  - PRIMARY SITE SUBSITE
    - ✓Please select proper subsite when presented with conflicting subsite information (C50x)
    - ✓Per SEER Breast Coding Subsite Guidelines:
      - Use the information from reports in the following **priority** order to code a subsite when there is conflicting information:
        - Pathology report
        - Operative report
        - Physical examination
        - Mammogram, ultrasound

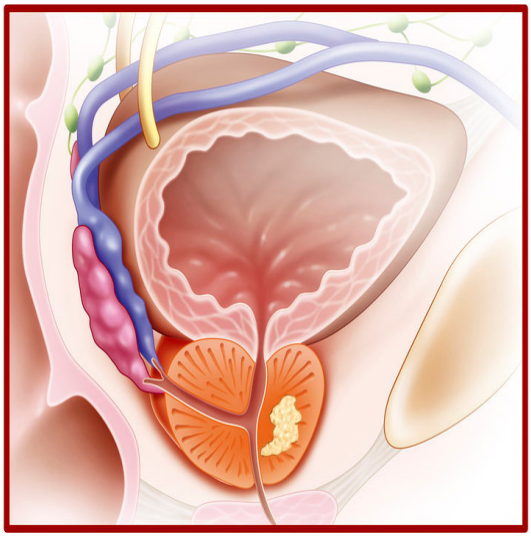
- PRIMARY SITE SUBSITE cont'd
  - ✓Per SEER Breast Coding Subsite Guidelines:
    - Code **C508** when:
      - there is a single tumor in two or more subsites and the subsite in which the tumor originated is unknown OR
      - there is a single tumor located at the 12, 3, 6, or 9 o'clock position on the breast
    - Code **C509** when there are multiple tumors (two or more) in at least two quadrants of the breast.

- HISTOLOGY:
  - ✓Code to more specific type of Ductal Carcinoma when pathology states, ductal carcinoma ***with features of:***
    - ***Per MPH Breast Histology Rule H3*** the specific histology may be identified as "with features of" and you are instructed to **code the more specific histological term**.
      - Ex 1) Ductal Ca with tubular features, ***8523***
      - Ex 2) Ductal Ca with micropapillary features ***8507***

- **SSF 7: Nottingham or Bloom-Richardson (BR) Score/Grade**
  - ✓ Grade was sometimes coded based on stated grade over actual BR score when both systems were provided
  - ✓ SSF 7 Rule: **BR Score takes precedence over grade**; only code to grade when BR score NOT given
    - Ex) PD INVASIVE DUCTAL CA, NST; GR3/3--3+3+3
      - **SSF7 was coded to 130 (High Grade, BR grade 3, score not given) instead of code 090 [Score of 9 (3 + 3 + 3)]**
      - **REMINDER:** Per CS SSF 7 Notes 2/6 & grade coding rule#1, Neither Nottingham/BR Score/Grade NOR grade/ differentiation field may be coded **s/p neoadjuvant treatment** even if they are higher.

        Always code these fields from specimens taken PRIOR to neoadjuvant even if they are unknown as systemic treatmentx and XRT can alter a tumor's grade

Prostate Cancer



- CS Staging:
  - ✓CLINICAL EXTENSION
    - CS Ext **code 150** was slightly overused (Tumor identified by needle biopsy [clinically inapparent] for elevated PSA---*perhaps* ***not fully considering DRE findings regarding tumor presentation upon palpation.***
    - This impacts T1/T2 tumor staging, so carefully review how the patient presents at diagnosis:
      - **T1C= clinically inapparent** tumor; meaning **NOT palpable or "reliable" visible by imaging.**
      - By contrast, a **clinically apparent** tumor **IS** palpable or "reliable" visible by imaging. If MD documents a "tumor", "mass", "nodule/nodular" by physical examination (DRE), this can be inferred as clinically **apparent**. This DOES NOT INDICATE A T1C TUMOR—but rather it indicates at least a T2 tumor
      - MD stage assignment of T1C OR T2 is a **clear statement of inapparent vs apparent respectively—code 150 vs (200-240)**

- CS Staging:
  - ✓CLINICAL EXTENSION cont'd
    - ✓**Example 1:** PT presents with elevated PSA. DRE WNL. TRUS bx reveals LT lobe adenoca; GL7.
      - ✓**CS Ext: 150; TNM: cT1C** [Tumor identified by needle biopsy (clinically inapparent) for elevated PSA]
    - ✓**Example 2:** Pt presents with LUTS and PSA 8 (stated to be elevated). DRE: RT Apex Nodule. Bx reveals bilateral adenoca; GL8
      - ✓**CS Ext: 210; TNM: cT2A** [Involves one half of one lobe/side or less]
    - ✓**Example 3:** Pt presents with nocturia and elevated PSA. Bx reveals LT sided adenoca; GL6. No DRE documented only MD cT2C stage.
      - ✓**CS Ext: 230; TNM: cT2C** [Stated as cT2C with no other information on clinical extension--involves both lobes per MD stage]

Thank You!