Thyroid and Adrenal Gland

NAACCR 2011-2012 Webinar Series
12/1/11

Q&A

- Please submit all questions concerning webinar content through the Q&A panel.

Reminder:
- If you have participants watching this webinar at your site, please collect their names and emails.
  - We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.

Fabulous Prizes
Agenda

• Coding moment
  – Submitting questions to the standard setters
• Thyroid
  – Overview
  – Collaborative Stage Data Collection System (CS)
  – Quiz
  – Exercise
• Adrenal Gland
  – Overview
  – CS
  – Quiz
  – Exercise

Coding Moment

SUBMITTING QUESTIONS TO STANDARD SETTERS

Who do I submit questions to?

• That depends on the question!
Questions for SEER

- Questions concerning the following topics should go to Ask a SEER Registrar
  http://seer.cancer.gov/registrars/contact.html
  - Multiple primary rules
  - ICD-0-3
  - ICD-10

Question for CAnswer Forum

- Questions concerning the following topics should go to the CAnswer Forum
  http://cancerbulletin.facs.org/forums/content.php
  - AJCC TNM Staging
  - Collaborative Stage

Submitting Questions to SEER

1. Search the SEER Inquiry System
2. If you don’t find an answer to your question, submit your question to Ask A SEER Registrar
   - http://seer.cancer.gov/registrars/contact.html
SEER Inquiry System - Search

Search for questions of specific topics:

- Type:
  - Breast

- Topic:
  - Multiple primaries

From Years:
- From: 2010
- To: 2011

Quick Search

Detailed Search Options

- Fields To Display:
  - Status
  - Reference
  - Question
  - Discussion

Output Format:
- List Questions Individually
- List Questions in Table
- List Unanswered

Question: 201101011

Add to Report

Question

MPH Rule 4: Multiple primaries - Breast: Right breast DCIS diagnosed 2007, followed by bilateral mastectomies with neg lymph nodes and neg margins (patient refused tamoxifen at that time). In 2009, right chest wall mass was excised and revealed infiltrating ductal ca with neg axillary lymph nodes. Physician is stating recurrence but per breast rule (LII), the invasive tumor must be a new primary. However the patient had previous mastectomy so would the primary site be coded to breast or chest wall?

Answer

This is a recurrence, not a new primary. This second tumor would be coded as a new primary ONLY if the pathology report states that it originated in breast tissue that was still present on the chest wall. When there is no mention of breast tissue, the second tumor is a regional metastasis to the chest wall (this is a recurrence of the original tumor).

In turn, this means that there was at least a focus of invasion present in the original tumor that was not identified by the pathology lab. You need to change the behavior code on the original abstract from a 0 to a 1 and change the stage from in situ to localized.
Observations

**History**

Last Updated
07/31/11
Submitting Questions to the CAnswer Forum

• To search or submit questions on the CAnswer Forum go to
• http://cancerbulletin.facs.org/forums/content.php
The Numbers

- Estimated new cases and deaths from thyroid cancer in the United States in 2011:
  - New cases: 48,020
  - Deaths: 1,740
- Fifth most frequently occurring malignancy among women
- Fastest increasing cancer in both men and women

Endocrine Glands

[Diagram of Endocrine Glands]

Thyroid Gland C73.9

Parathyroid Gland C75.0
Thyroid Nodules

- Hot nodule
  - Absorbs iodine on thyroid scan
- Cold Nodule
  - Does not absorb iodine on thyroid scan

Goiter

- Goiter
  - An enlarged thyroid gland that may be diffuse or nodular
Thyroid Histology

- Follicular cells
  - Thyroid hormone (thyroxine + triiodothyroxine)
- C cells (parafollicular cells)
  - Calcitonin
- Lymphocytes
- Stromal cells

Thyroid Histology

- Four Major Histologic Types
  - Papillary carcinoma (includes follicular variant of papillary carcinoma)
  - Follicular (includes Hurthle cell carcinoma)
  - Medullary Carcinoma
  - Undifferentiated or anaplastic carcinoma

MPH Rules-Other

<table>
<thead>
<tr>
<th>Required Histology</th>
<th>Combined with...</th>
<th>Combination Term</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papillary and follicular</td>
<td></td>
<td>Papillary carcinoma, follicular variant</td>
<td>8340</td>
</tr>
<tr>
<td>Medullary</td>
<td>Follicular</td>
<td>Mixed medullary follicular carcinoma</td>
<td>8340</td>
</tr>
<tr>
<td>Medullary</td>
<td>Papillary</td>
<td>Mixed medullary papillary carcinoma</td>
<td>8347</td>
</tr>
</tbody>
</table>
Question

• A pathology report shows the right lobe of the thyroid with “papillary microcarcinoma”. Does microcarcinoma describe the size of the tumor or should this be coded to a different histology?

Answer

• For thyroid cancer only, the term micropapillary does not refer to a specific histologic type. It means that the papillary portion of the tumor is minimal or occult.

Question

• How is histology coded for a thyroid tumor described as “predominantly papillary carcinoma, tall cell variant, follicular type”? 
Answer

• For cases diagnosed 2007-2011, assign code 8340 [Papillary carcinoma, follicular variant] according to rule H15 for Other Sites.
  – "Predominantly" and "type" indicate specific histologies. "Variant" does not.
  – See rule H13. The histology in this case is papillary and follicular. Tall cell variant is ignored.

Diagnosing Thyroid Cancer

• Physical exam
• Blood tests
  – Check levels of thyroid-stimulating hormone (TSH)
  – Check levels of calcitonin

Diagnosing Thyroid Cancer

• Imaging
  – Ultrasound
  – Radioiodine (thyroid) scan
  – Positron emission tomography (PET) scan
  – Octreotide scan
• Biopsy
  – Fine-needle aspiration
  – Surgical
Treatment for Papillary and Follicular Carcinoma

• Surgery
  – Lobectomy plus isthmusectomy (23)
  – Thyroidectomy (50)
• Radioactive Iodine Treatment ($^{131}$ I)
  – Unresectable tumors
  – Post thyroidectomy

Treatment for Papillary and Follicular Carcinoma

• External Beam Radiation
  – May be done with $^{131}$ I treatment for locoregional recurrence
  – May be used as adjuvant therapy if tumor does not show uptake of iodine
• Thyroxin suppression of thyroid stimulating hormone (TSH)

Question

• If a patient is taking Synthroid prior to being diagnosed with thyroid cancer and having total thyroidectomy, is Synthroid still coded as hormone therapy 1st course of treatment after cancer directed surgery?
Answer

• Yes, it is still considered 1st course treatment and the date of treatment would be the date of the patient’s diagnosis of the thyroid malignancy.

Treatment

• Medullary Carcinoma
  – Total thyroidectomy and bilateral central neck dissection (level VI)
• Anaplastic Carcinoma
  – Surgery if localized

Thyroid

COLLABORATIVE STAGE DATA COLLECTION SYSTEM V02.03
CS Tumor Size: Thyroid

- Assignment of T1 and T2 categories is based on tumor size.
- Physician's assignment of T category may be used to code CS Tumor Size if no other information is available.
  - Code 991
    - Stated as T1a with no other information on size
  - Code 992
    - Stated as T1b or T1 NOS with no other information on size
  - Code 994
    - Stated as T2 with no other information on size

CS Extension: Thyroid

- All anaplastic thyroid carcinomas are considered T4 by AJCC.
  - Intrathyroidal: T4a
  - Gross extrathyroid extension: T4b

<table>
<thead>
<tr>
<th>CS Extension</th>
<th>TNM Map</th>
</tr>
</thead>
<tbody>
<tr>
<td>000 (In situ)</td>
<td>T4NOS</td>
</tr>
<tr>
<td>200 (Multiple foci thyroid)</td>
<td>T4a</td>
</tr>
<tr>
<td>405 (Stated as T1a)</td>
<td>ERROR</td>
</tr>
<tr>
<td>450 (Extension to strap muscle)</td>
<td>T4b</td>
</tr>
</tbody>
</table>
CS Extension: Thyroid

- In situ code (000) maps to unknown AJCC stage and in situ summary stage
- Assignment of T1 and T2 categories is based on tumor size
- Physician’s assignment of T category may be used to code CS Extension if no other information is available
  - Use codes 405, 410, 415, 420, 490, 560, 810, or 815 to code CS Extension based on a statement of T with no other extension information available

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CS Extension: Thyroid

- Assign code 300, localized NOS, only if info is not available to assign codes 100, 200, 400, 405, 410, 415, 420, or 490
- CS Extension codes 405, 410, 415, 420, and 490 are not compatible with anaplastic carcinoma of the thyroid

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CS Extension: Thyroid

- Extension or invasion into tumor capsule
  - Measure of tumor aggressiveness but tumor is still confined to thyroid
  - Do not use code 400 (into thyroid capsule but not beyond)
- Extension or invasion into thyroid capsule
  - Indicates extrathyroidal extension
  - Assign code that describes the type of extrathyroidal extension
Final diagnosis: Multifocal papillary follicular carcinoma confined to right thyroid; pT1a

What is the code for CS Tumor Size?
- 991: Stated as T1a with no other info on size
- 999: Unknown

What is the code for CS Extension?
- 200: Multiple foci confined to thyroid
- 405: Stated as T1a with no other info on extension

Right lobectomy, thyroid
- Tumor size: 1.7 x 1.2 cm
- Tumor focality: Single tumor
- Histologic type: Papillary carcinoma, predominantly follicular subtype
- Margins: Negative; closest 2 mm
- Tumor capsular invasion: Focally present
- Lymphatic invasion: None
- Extrathyroidal extension: None
- Tumor location: Center of right lobe
- Lymph nodes: None identified
- Stage I; pT1b cN0 cM0

What is the code for CS Tumor Size?
- 017
- 992: Stated as T1b or T1 NOS with no other info on size

What is the code for CS Extension?
- 100: Single tumor confined to thyroid
- 400: Into thyroid capsule, but not beyond
- 410: Stated as T1b with no other info on extension
CS Lymph Nodes: Thyroid

- Includes lymph nodes defined as Levels I-VI and Other by AJCC
  - All node levels are regional for AJCC
  - Nodes are divided into regional and distant for summary stage
- Involvement includes ipsilateral, bilateral, contralateral, and midline nodes

CS Lymph Nodes: Thyroid

- Prognostic influence of nodal involvement
  - Less in patients with well differentiated tumors (papillary, follicular)
    - Some observed adverse prognosis in older age group
  - Ominous prognosis for patients with medullary carcinoma

CS Lymph Nodes: Thyroid

- Progression of lymph node involvement
  - Code 120: Level VI – anterior compartment
  - Code 135: Levels II – upper jugular; III – middle jugular; IV – lower jugular; V – posterior triangle; VA – spinal accessory; parapharyngeal; retroauricular; retropharyngeal; and suboccipital
  - Code 155: Level VB – transverse cervical
  - Code 158: Level VII – superior mediastinal
  - Code 160: Levels IA – submental; IB – submandibular; facial; and parotid
CS Mets at DX: Thyroid

- Involvement of submental or submandibular nodes is coded in CS Lymph Nodes
- Distant metastasis occurs by hematogenous spread
  - Most commonly to lungs and bones

Pop Quiz: CS Lymph Nodes; CS Mets at DX

- FNA of nodule in right lobe of thyroid: well differentiated Hurthle cell carcinoma
- CT scan of neck: Malignant adenopathy to nodes including right anterior compartment nodes, right and left retropharyngeal nodes, and right submandibular nodes
- CT scan of chest: 3 metastatic nodules in the upper lobe of the right lung

Pop Quiz: CS Lymph Nodes; CS Mets at DX

- What is the code for CS Lymph Nodes?
  - 120: Level VI nodes (anterior compartment group)
  - 135: Retropharyngeal nodes
  - 160: Level IB (submandibular nodes)
- What is the code for CS Mets at DX?
  - 12: Distant lymph nodes
  - 40: Distant metastasis except distant lymph nodes
  - 51: Distant metastasis plus distant lymph nodes
SSF1: Solitary vs. Multifocal Tumor

- Code 000
  - No evidence of primary tumor
- Code 010
  - Solitary tumor
    - Physician assigns ‘s’ suffix or descriptor to T category
    - Tumor described as solitary, single, a single focus, or unifocal
- Code 020
  - Multifocal tumor
    - Physician assigns ‘m’ suffix or descriptor to T category
    - Tumor described as multifocal or multicentric, or as having multiple foci

Pop Quiz: SSF1

- Thyroidectomy: Multiple foci of follicular carcinoma of right lobe; no nodules in left lobe
- What is the code for SSF1?
  - 000: No evidence of primary tumor
  - 010: Solitary tumor
  - 020: Multifocal tumor

Standard Setters SSF Requirements CS v02.03: Thyroid

- SSF1: Solitary vs. Multifocal Tumor
  - CoC, SEER, Canadian Council of Cancer Registries
    - Required
  - NPCR
    - Not required
Adrenal Gland

OVERVIEW

The Numbers

• Adrenal gland primaries are rare
  – Adrenocortical carcinoma affects 1 to 2 persons per million population.
  – Median age at diagnosis is 44 years.

National Institute on Health
www.cancer.gov
Overview

Adrenal Gland

- Regional lymph nodes
  - Aortic (para and peri aortic)
  - Retroperitoneal, NOS
- Common metastatic sites
  - Liver
  - Lung
  - Retroperitoneum
Adrenal Tumors

• Adrenal adenoma (8140/0)
  – Typically asymptomatic
  – May be referred to as “incidentalomas” if found incidentally on imaging
  – Tumors larger than 5-6 cm are most likely malignant

• Metastasis
  – Most common malignant tumors found in the adrenal gland are metastasis from other primaries
    • Lung
    • Melanoma
    • Breast

Primary Adrenal Malignancies

• Adrenocortical carcinoma (8370/3)
  – Functioning tumors excrete excess steroid hormones
  – Non-functioning tumors do not excrete steroid hormones

Adrenocortical Carcinoma

• Adrenocortical carcinoma can be classified as follows:
  – Differentiated: Functioning tumors are usually differentiated
  – Anaplastic: Production of hormones by anaplastic tumors is rare
  – Hormonal: Approximately 60% of adrenocortical carcinomas produce hormones
**Adrenocortical Carcinoma**

- **Treatment**
  - Surgery
    - Excisional biopsy
    - Radical Nephrectomy
    - Lymph node dissection
  - Chemotherapy
    - Mitotane
  - External Beam Radiation
    - For patients with localized disease that are not surgical candidates

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**Medullary Primaries**

- **Malignant Pheochromocytoma (8700/3)**
  - Can release high levels of epinephrine
  - Symptoms may include
    - Headache
    - Sweating
    - Palpitations
  - Surgery is treatment of choice
  - Radiation and chemotherapy
    - If disease is advanced or patient is not surgical candidate

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**Neuroblastoma**

- **Neuroblastoma (9500/3)**
  - Arises from nerve tissue of adrenal glands
  - Common pediatric cancer
    - Usually in children under 5 years
  - Often metastasis present at the time of diagnosis
  - Treatment
    - Surgery
    - Radiation
    - Chemotherapy
    - BRM
    - Targeted therapy
Adrenal Gland

COLLABORATIVE STAGE DATA COLLECTION SYSTEM V02.03

CS Tumor Size: Adrenal Gland

• Assignment of T1 and T2 categories is based on tumor size
• Physician’s assignment of T category may be used to code CS Tumor Size if no other information is available
  – Code 995
    • Stated as T1 with no other information on tumor size
  – Code 996
    • Stated as T2 with no other information on tumor size

CS Extension: Adrenal Gland

• In situ code (000) maps to unknown AJCC stage and in situ summary stage
• Assignment of T1 and T2 categories is based on tumor size
  – CS Extension code = 100-300
    • T category is based on value of CS Tumor Size as shown in Extension Size Table

<table>
<thead>
<tr>
<th>CS Ext</th>
<th>CS TS 000</th>
<th>CS TS 001-050</th>
<th>CS TS 051-989</th>
<th>CS TS 990-994</th>
<th>CS TS 995</th>
<th>CS TS 996</th>
<th>CS TS 997-998</th>
<th>CS TS 999</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Error</td>
<td>T1</td>
<td>T2</td>
<td>T1</td>
<td>T1</td>
<td>T2</td>
<td>Error</td>
<td>TX</td>
</tr>
</tbody>
</table>
CS Extension: Adrenal Gland

- Physician’s assignment of T category may be used to code CS Extension if no other information is available
  - Use codes 200, 250, 400, or 810 to code CS Extension based on a statement of T with no other extension information available
- Assign code 300, localized NOS, only if info is not available to assign codes 100, 200, or 250

CS Extension: Adrenal Gland

Code 400
- Adjacent connective tissue
- Gerota’s fascia

CS Extension: Adrenal Gland

Code 605
- Adjacent organs/structures:
  - Kidney
  - Retroperitoneal structures including:
    - Great vessels: aorta; inferior vena cava
Pop Quiz: CS Tumor Size; CS Extension

- Final diagnosis: Adrenal cortical adenocarcinoma, 4.8 cm, confined to adrenal gland; pT1
- What is the code for CS Tumor Size?
  - 048: 4.8 cm (48 mm)
  - 995: Stated as T1 with no other info on size
- What is the code for CS Extension?
  - 100: Invasive carcinoma confined to adrenal gland
  - 200: Stated as T1 with no other info on extension

CS Lymph Nodes: Adrenal Gland

Components of the Urinary System

110: Pericaval node
105: Aortic node

Image source: SEER Training Website

CS Mets at DX: Adrenal Gland

- Standard table for CS Mets at DX is used
- Common metastatic sites include liver, lung, and retroperitoneum
SSF2: Tumor Weight

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>No mass/tumor found</td>
</tr>
<tr>
<td>001-979</td>
<td>1-979 grams (exact tumor weight including gland)</td>
</tr>
<tr>
<td>980</td>
<td>980 grams or greater</td>
</tr>
<tr>
<td>988</td>
<td>Not applicable</td>
</tr>
<tr>
<td>998</td>
<td>No surgical resection of primary site</td>
</tr>
<tr>
<td>999</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Pop Quiz: SSF2

- Adrenalectomy: Adrenal gland with small focus of adrenal cortical carcinoma; weight is 45.2 grams
- What is the code for SSF2?
  - 045
  - 452
  - 999

SSF3: Vascular Invasion

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Vascular invasion not present/not identified</td>
</tr>
<tr>
<td>010</td>
<td>Invasion of adrenal vein only</td>
</tr>
<tr>
<td>020</td>
<td>Invasion of renal vein only</td>
</tr>
<tr>
<td>030</td>
<td>Invasion of inferior vena cava (IVC) only</td>
</tr>
<tr>
<td>040</td>
<td>Invasion of renal vein (020) + adrenal vein (010)</td>
</tr>
<tr>
<td>050</td>
<td>Invasion of IVC (030) + adrenal vein (010)</td>
</tr>
<tr>
<td>060</td>
<td>Invasion of IVC (030) + renal vein (020)</td>
</tr>
<tr>
<td>070</td>
<td>Invasion of IVC (030) + renal vein (020) + adrenal vein (010)</td>
</tr>
<tr>
<td>988</td>
<td>Not applicable</td>
</tr>
<tr>
<td>991</td>
<td>Large vessel venous invasion, vein not specified</td>
</tr>
<tr>
<td>998</td>
<td>No surgical resection of primary site</td>
</tr>
<tr>
<td>999</td>
<td>Unknown</td>
</tr>
</tbody>
</table>
Pop Quiz: SSF3

- Adrenalectomy: Adrenal gland with adrenal cortical carcinoma; lymph vascular invasion is present; no large vessel invasion
- What is the code for SSF3?
  - 000: Vascular invasion not present/not identified
  - 991: Large vessel venous invasion, vein not specified
  - 999: Unknown

Standard Setters SSF Requirements CS v02.03: Adrenal Gland

- SSF2: Tumor Weight
  - CoC, SEER, NPCR
    - Not required
  - Canadian Council of Cancer Registries
    - Collect if in pathology report
- SSF3: Vascular Invasion
  - CoC, SEER, NPCR
    - Not required
  - Canadian Council of Cancer Registries
    - Collect if in pathology report
Questions?

Coming up!

- 1/5/12
  Collecting Cancer Data: Pancreas
- 2/2/12
  Collecting Cancer Data: Lung

And the winners of the fabulous prizes are....

Thank You!