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.
**ANATOMY**

- Site
  - Supraglottis
  - Subsite
    - Suprahyoid epiglottis
    - Infrayroid epiglottis
    - False Vocal Cords
    - Ventricles
    - Aryepiglottic folds (laryngeal aspect)
    - Arytenoids

- Site
  - Glottis
  - Subsite
    - True Vocal Cords
    - Anterior Commissures
    - Posterior Commissures

- Site
  - Subglottis
  - Subsite
  - None

![Image](http://en.wikipedia.org/wiki/Pharynx#/media/File:Il%20lu01_head_neck.jpg)
SQUAMOUS CELL CARCINOMA

- Nearly all laryngeal carcinomas of the larynx are epithelial
- Primarily squamous cell carcinoma
- Other types of epithelial carcinoma's of the larynx include
  - Basaloid squamous carcinomas
  - Spindle-cell (i.e., sarcomatoid) carcinomas
  - Small-cell carcinomas
  - Nasopharyngeal-type undifferentiated carcinomas (i.e., lymphoepitheliomas)
  - Carcinomas of the minor salivary gland

- Nearly all laryngeal carcinomas of the larynx are epithelial
- Primarily squamous cell carcinoma
- Other types of epithelial carcinoma's of the larynx include
  - Basaloid squamous carcinomas
  - Spindle-cell (i.e., sarcomatoid) carcinomas
  - Small-cell carcinomas
  - Nasopharyngeal-type undifferentiated carcinomas (i.e., lymphoepitheliomas)
  - Carcinomas of the minor salivary gland
MUCOSAL MELANOMA OF THE HEAD AND NECK
- Occur in mucosal sites of the head and neck
  - Two thirds occur in nasal cavity and paranasal sinuses
  - One quarter occur in oral cavity
  - Remainder occur in other sites of the head and neck
- Highly Aggressive
  - Cancers limited to the mucosa are assigned T3 N0 M0 Stage III
  - In situ mucosal melanoma’s very rare and are excluded from staging

REGIONAL LYMPH NODES TERMINOLOGY
- Ipsilateral
  - Same side as tumor
- Contralateral
  - Opposite side as the tumor
- Bilateral
  - Same side and opposite side

Illustration courtesy of the American Society of Clinical Oncology.
Level I / submental or submandibular

Level IV / Lower Deep Cervical

Level III / Middle Deep Cervical

Level V / Posterior Triangle group

Level VII / Superior mediastinal (below the suprasternal notch)

Facial/parotid

Cricoid Cartilage

Upper Cervical

Lower Cervical

Illustration courtesy of the American Society of Clinical Oncology.
AJCC CANCER STAGE: LARYNX

- ICD-O-3 Topography Codes
  - C10.1 Anterior (lingual) surface of epiglottis
  - C32.0 Glottis
  - C32.1 Supraglottis (laryngeal surface)
  - C32.2 Subglottis
  - C32.8 Overlapping lesion of larynx
  - C32.9 Larynx NOS

- ICD-O-3 Histology Code Ranges
  - 8000-8576, 8940-8950, 8980-8981

AJCC CANCER STAGE: LARYNX
CLASSIFICATION

- Clinical staging
  - Evidence prior to treatment
  - Nasolaryngoscopy
  - Laryngeal tumor biopsy
  - Radiologic nodal staging to supplement clinical exam
  - Microlaryngoscopy

- Pathologic staging
  - Evidence obtained in clinical staging and in histologic study of surgically resected specimen
  - Lymphadenectomy description describes size, number, and position of involved nodes and presence or absence of extracapsular spread (ECS)
AJCC CANCER STAGE: LARYNX

- **T Category**
  - TX: Primary tumor cannot be assessed
  - T0: No evidence of primary tumor
  - Tis: Carcinoma in situ

AJCC CANCER STAGE: LARYNX

- **T Category Supraglottis**
  - T1: Limited to 1 subsite of supraglottis with normal vocal cord mobility
  - T2: Invades mucosa of more than 1 adjacent subsite of supraglottis or glottis or region outside the supraglottis without fixation of larynx

AJCC CANCER STAGE: LARYNX

- **T Category Supraglottis**
  - T3: Limited to larynx with vocal cord fixation and/or invades any of the following: postcricoid area, preepiglottic space, paraglottic space, and/or inner cortex of thyroid cartilage
  - T4a: Moderately advanced local disease. Invades through the thyroid cartilage and/or invades tissues beyond the larynx
  - T4b: Very advanced local disease. Invades prevertebral space, encases carotid artery, or invades mediastinal structures
AJCC CANCER STAGE: LARYNX

- **T Category Glottis**
  - T1: Limited to vocal cords with normal mobility
  - T1a: Limited to 1 vocal cord
  - T1b: Involves both vocal cords
  - T2: Extends to supraglottis and/or subglottis, and/or with impaired vocal cord mobility

AJCC CANCER STAGE: LARYNX

- **T Category Glottis**
  - T3: Limited to larynx with vocal cord fixation and/or invasion of paraglottic space, and/or inner cortex of thyroid cartilage
  - T4a: Moderately advanced local disease. Invades through outer cortex of thyroid cartilage and/or invades tissues beyond the larynx
  - T4b: Very advanced local disease. Invades prevertebral space, encases carotid artery, or invades mediastinal structures

AJCC CANCER STAGE: LARYNX

- **T Category Subglottis**
  - T1: Limited to 1 subglottis
  - T2: Extends to vocal cord(s) with normal or impaired mobility
  - T3: Limited to larynx with vocal cord fixation
AJCC CANCER STAGE: LARYNX

• T Category: Subglottis
  • T4a: Moderately advanced local disease, invades through cricoid or thyroid cartilage and/or invades tissues beyond the larynx
  • T4b: Very advanced local disease, invades prevertebral space, encases carotid artery, or invades mediastinal structures

AJCC CANCER STAGE: LARYNX

• N Category:
  • NX: Regional lymph nodes cannot be assessed
  • N0: No regional lymph node metastasis
  • N1: Metastasis in single ipsilateral lymph node, 3 cm or less in greatest dimension
  • N2: Metastasis in single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension, or in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension, or in bilateral or contralateral lymph nodes, none more than 6 cm in dimension

AJCC CANCER STAGE: LARYNX

• N Category:
  • N2a: Metastasis in single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension
  • N2b: Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension
  • N2c: Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in dimension
  • N3: Metastasis in a lymph node, more than 6 cm in greatest dimension
AJCC CANCER STAGE: LARYNX

- M Category
  - M0: No distant metastasis
  - M1: Distant metastasis

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POP QUIZ

- 1/8/15 Nasolaryngoscopy with biopsy: Small tumor of left vocal cord, confined to vocal cord, squamous cell carcinoma
- 1/14/15 CT of neck and chest: No lymphadenopathy; lungs within normal limits
- 1/28/15 Hemilaryngectomy: Squamous cell carcinoma in situ, right vocal cord; squamous cell carcinoma, left vocal cord

What is the AJCC clinical stage?
- cT1a cN0 cM0 Stage I

What is the AJCC pathologic stage?
- pT1b pN_ pM_ Stage 99

LARYNX: GLOTTIS
C32.0

Summary Stage 2000
http://seer.cancer.gov/tools/ssm/
SUMMARY STAGE 2000: GLOTTIS

0 In situ
  - Noninvasive; intraepithelial

1 Localized only
  - Confined to glottis
    - Intrinsic larynx
      - Laryngeal commissure(s); anterior; posterior
      - Vocal cord(s); true cord(s), true vocal cord(s)
  - Invasive tumor WITH or WITHOUT normal vocal cord mobility
    - One vocal cord; both vocal cords

1 Localized only
  - Tumor involves adjacent region(s) of larynx
    - Subglottis; supraglottis [false vocal cord(s)]
  - Tumor limited to larynx WITH vocal cord fixation
  - Involvement of intrinsic muscle(s)
    - Aryepiglottic
      - Corniculate tubercle; cuneiform tubercle
    - Arytenoid; cricoarytenoid; cricothyroid; thyroarytenoid; thyroepiglottic; vocalis
    - Localized NOS

2 Regional by direct extension only
  - Extension to:
    - Base of tongue
    - Hypopharynx NOS
    - Postcricoid area
    - Pre-epiglottic tissues
    - Pyriform sinus [pyriform fossa]
    - Vallecula
SUMMARY STAGE 2000: GLOTTIS

- 3 Regional lymph node(s) involved only
  - Anterior deep cervical (laterotracheal) (recurrent laryngeal)
    - Paralaryngeal
    - Paratracheal
    - Prelaryngeal: Delphian node
    - Pretracheal
    - Cervical NOS

SUMMARY STAGE 2000: GLOTTIS

- 3 Regional lymph node(s) involved only
  - Internal jugular, NOS:
    - Deep cervical, NOS:
      - Lower NOS
      - Jugulo-omohyoid (supraomohyoid)
      - Middle
      - Upper NOS
      - Jugulodigastric (subdigastric)

SUMMARY STAGE 2000: GLOTTIS

- 3 Regional lymph node(s) involved only
  - Mandibular NOS
    - Submandibular (submaxillary)
    - Submental
    - Retropharyngeal
    - Regional lymph node(s) NOS
SUMMARY STAGE 2000: GLOTTIS

• 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  • Codes 2 + 3
• 5 Regional NOS

SUMMARY STAGE 2000: GLOTTIS

• 7 Distant site(s)/lymph node(s) involved
  • Distant lymph node(s)
    • Mediastinal
    • Supraclavicular (transverse cervical)
    • Other distant lymph node(s)

SUMMARY STAGE 2000: GLOTTIS

• 7 Distant site(s)/lymph node(s) involved
  • Extension to/through
    • Cervical (upper) esophagus; cricoid cartilage; extrinsic (strap) muscles (omohyoid, sternohyoid, sternothyroid, thyrohyoid); oropharynx; skin; soft tissues of neck; thyroid cartilage; thyroid gland; trachea
    • Further contiguous extension
    • Metastasis
  • 9 Unknown if extension or metastasis
SUMMARY STAGE 2000: SUPRAGLOTTIS

• 0 In situ
  • Noninvasive; intraepithelial

• 1 Localized only
  • Invasive tumor with normal vocal cord mobility
    confined to
    • Supraglottis (1 subsite): Aryepiglottic fold; arytenoid
cartilage; coniculate cartilage; cuneiform cartilage;
epiarynx NOS; false cord(s); ventricular band(s); ventricular
cavity; vestibular fold; infrahyoid epiglottis; laryngeal
cartilage NOS; laryngeal (posterior) surface of epiglottis;
suphyoid epiglottis; [including tip, lingual (anterior) and
laryngeal surfaces]

• 1 Localized only
  • Impaired vocal cord mobility
  • Tumor involves adjacent region(s) of larynx
  • Tumor involves more than one subsite of supraglottis
    WITHOUT fixation or NOS
  • Tumor limited to larynx WITH vocal cord fixation
  • Localized NOS
SUMMARY STAGE 2000: SUPRAGLOTTIS

• 2 Regional by direct extension only
  • Extension to
    • Base of tongue including mucosa
    • Cricoid cartilage
    • Hypopharynx NOS
    • Postcricoid area
    • Pre-epiglottic tissues
    • Pyriform sinus (pyriform fossa)
    • Vallecula

SUMMARY STAGE 2000: SUPRAGLOTTIS

• 3 Regional lymph node(s) involved only
  • Anterior deep cervical (laterotracheal) (recurrent laryngeal)
  • Paralaryngeal
  • Paratracheal
  • Prelaryngeal: Delphian node
  • Pretracheal
  • Cervical NOS

SUMMARY STAGE 2000: SUPRAGLOTTIS

• Internal jugular, NOS:
  • Deep cervical, NOS:
    • Middle
    • Upper NOS
    • Jugulodigastric (subdigastric)
SUMMARY STAGE 2000: SUPRAGLOTTIS

• 3 Regional lymph node(s) involved only
  • Mandibular NOS
  • Submandibular (submaxillary)
  • Submental
  • Retropharyngeal
  • Regional lymph node(s) NOS

SUMMARY STAGE 2000: SUPRAGLOTTIS

• 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  • Codes 2 + 3
  • 5 Regional NOS

SUMMARY STAGE 2000: SUPRAGLOTTIS

• 7 Distant site(s)/lymph node(s) involved
  • Distant lymph node(s)
    • Mediastinal
    • Supraclavicular (transverse cervical)
    • Other distant lymph node(s)
SUMMARY STAGE 2000: SUPRAGLOTTIS

- 7 Distant site(s)/lymph node(s) involved
- Extension to/through
  - Cervical esophagus; extrinsic (strap) muscles (omohyoid, sternohyoid, sternothyroid, thyrohyoid); oropharynx; skin; soft tissues of neck; thyroid cartilage; thyroid gland
- Further contiguous extension
- Metastasis
- 9 Unknown if extension or metastasis

LARYNX: SUBGLOTTIS

C32.2

SUMMARY STAGE 2000: SUBGLOTTIS

- 0 In situ
  - Noninvasive; intraepithelial
- 1 Localized only
  - Invasive tumor with normal vocal cord mobility confined to subglottis
  - Tumor involves adjacent region(s) of larynx
  - Vocal cords with normal or impaired mobility
  - Tumor limited to larynx WITH vocal cord fixation
  - Localized NOS
SUMMARY STAGE 2000: SUBGLOTTIS

• 2 Regional by direct extension only
  • Extension to:
    - Base of tongue
    - Hypopharynx NOS
    - Postcricoid area
    - Pre-epiglottic tissues
    - Pyriform sinus (pyriform fossa)
    - Vallecula

SUMMARY STAGE 2000: SUBGLOTTIS

• 3 Regional lymph node(s) involved only
  • Anterior deep cervical (laterotracheal) (recurrent laryngeal)
    - Paralaryngeal
    - Paratracheal
  • Pterygopalatine: Delphian node
  • Pretracheal
  • Cervical NOS

SUMMARY STAGE 2000: SUBGLOTTIS

• 3 Regional lymph node(s) involved only
  • Internal jugular, NOS:
    - Deep cervical, NOS:
      - Lower NOS
      - Jugulo-omohyoid (supraomohyoid)
    - Middle
  • Mandibular NOS
    - Submandibular (submaxillary)
    - Submental
    - Retropharyngeal
  • Regional lymph node(s) NOS
SUMMARY STAGE 2000: SUBGLOTTIS

- 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  - Codes 2 + 3
- 5 Regional NOS

SUMMARY STAGE 2000: SUBGLOTTIS

- 7 Distant site(s)/lymph node(s) involved
  - Distant lymph node(s)
    - Mediastinal
    - Supraclavicular (transverse cervical)
    - Other distant lymph node(s)

SUMMARY STAGE 2000: SUBGLOTTIS

- 7 Distant site(s)/lymph node(s) involved
  - Extension to/through
    - Cervical (upper) esophagus; cricoid cartilage; extrinsic (strap) muscles (omohyoid, sternothyroid, sternohyoid); oropharynx; skin; soft tissues of neck; thyroid cartilage; thyroid gland; trachea
    - Further contiguous extension
    - Metastasis
  - 9 Unknown if extension or metastasis
LARYNX: OVERLAPPING LESION OR NOS
C32.3, C32.8, C32.9

SUMMARY STAGE 2000: LARYNX OTHER

- 0 In situ
  - Noninvasive; intraepithelial
- 1 Localized only
  - Invasive tumor confined to site of origin
  - Impaired vocal cord mobility
  - Tumor involves adjacent region(s) of larynx
  - Tumor limited to larynx WITH vocal cord fixation
  - Localized NOS

SUMMARY STAGE 2000: LARYNX OTHER

- 2 Regional by direct extension only
  - Extension to:
    - Hypopharynx NOS
    - Postcricoid area
    - Pre-epiglottic tissues
    - Pyriform sinus (pyriform fossa)
    - Vallecula
SUMMARY STAGE 2000: LARYNX OTHER

- 3 Regional lymph node(s) involved only
  - Internal jugular, NOS
    - Deep cervical, NOS
      - Lower NOS
        - Jugulo-omohyoid (supraomohyoid)
        - Middle
        - Upper NOS
          - Jugulodigastric (subdigastric)
SUMMARY STAGE 2000: LARYNX OTHER

- 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  - Codes 2 + 3
- 5 Regional NOS

SUMMARY STAGE 2000: LARYNX OTHER

- 7 Distant site(s)/lymph node(s) involved
  - Distant lymph node(s)
    - Mediastinal
    - Supraclavicular (transverse cervical)
    - Other distant lymph node(s)

SUMMARY STAGE 2000: LARYNX OTHER

- 7 Distant site(s)/lymph node(s) involved
  - Extension to/through
    - Cervical (upper) esophagus; cricoid cartilage; extrinsic (strap) muscles (omohyoid, sternothyroid, sternothyroid, thyrohyoid); oropharynx; skin; soft tissues of neck; thyroid cartilage; thyroid gland; trachea
    - Further contiguous extension
    - Metastasis
- 9 Unknown if extension or metastasis
POP QUIZ
• Radical laryngectomy and bilateral neck dissection: 2 cm poorly differentiated verrucous carcinoma of epiglottis extends into and through thyroid cartilage with microinvasion of the thyroid; 36 lymph nodes removed; 1 malignant ipsilateral cervical node

POP QUIZ
• What is the Summary Stage 2000?
  a. 0 In situ
  b. 1 Localized only
  c. 2 Regional by direct extension only
  d. 3 Regional lymph node(s) involved only
  e. 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  f. 5 Regional NOS
  g. 7 Distant site(s)/lymph node(s) involved

COLLABORATIVE STAGE DATA COLLECTION SYSTEM (CS) V0205
CS SCHEMAS

- LarynxGlottic
  - C32.0
- LarynxSupraglottic
  - C32.1
- LarynxSubglottic
  - C32.2
- LarynxOther
  - C32.3, C32.8, C32.9

SSF1: SIZE OF LYMPH NODES

- Code largest diameter of involved regional nodes
- Clinical assessment
  - Code size as described in clinical or radiographic exam
- Pathologic assessment
  - Code size as described on pathology report

SSF3 – SSF6: LYMPH NODE LEVELS FOR HEAD AND NECK

- SSF 3: Levels I-III
- SSF 4: Levels IV, V, retropharyngeal nodes
- SSF 5: Levels VI, VII, facial nodes
- SSF 6: Parapharyngeal, parotid, and suboccipital/retroauricular nodes
SSF3 – SSF6: NODE LEVELS

- Code presence or absence of node involvement
- One digit used to represent lymph nodes of a single level
- If you only have information about one level of lymph nodes, code all other lymph levels as 0
- If you know regional lymph nodes are positive but the lymph node level is unknown, code 000
- If no lymph nodes are involved clinically or pathologically, code 000

SSF9: EXTRACAPSULAR EXTENSION

- Extracapsular extension
  - Tumor within lymph nodes extends beyond the wall of the node into the perinodal fat
- Macroscopic
  - May be described in gross dissection
  - Takes priority over microscopic description
- Microscopic
  - May not be evident in gross exam
  - Described in microscopic section of path report

DIAGNOSIS AND TREATMENT
TREATMENT-LARYNX

• Two categories
  • Supraglottic
  • Glottic
  • No standardized NCCN guidelines for subglottic primaries because they are so rare

EARLY STAGE

• In situ
  • Endoscopic removal
  • Stripping
  • Laser
  • Radiation therapy
• Clinical T1-T2, N0, or select T3’s
  • Radiation
  • Partial larynx preserving endoscopic surgery
  • Radiation and/or chemotherapy if adverse features

CT3 N0-1

• Concurrent systemic therapy or radiation
  • If residual tumor, then may have a neck dissection
  • If clinical N1 prior to therapy, they will do clinical assessment 4-6 weeks after therapy completed. If this is positive they will do a neck dissection.
  • Laryngectomy with ipsilateral thyroidectomy
  • Neck dissection if cN1
  • Salvage surgery and neck dissection if residual tumor of the primary site
  • Induction chemotherapy
  • Clinical trials
### SURGERY

- **Hemilaryngectomy (30)**
  - Left or right half of larynx including thyroid cartilage, false cord, ventricle, and true vocal cord.
- **Partial laryngectomy (30)**
  - Part of thyroid cartilage and corresponding portions of laryngeal mucosa.
- **Supraglottic laryngectomy (33)**
  - Part of larynx superior to the true vocal cord (transection through the ventricles).
- **Total laryngectomy (41)**
  - Entire larynx.
- **Radical laryngectomy (42)**
  - Entire larynx and adjacent sites.

### SURGERY

- **Unresectable tumor**
  - Surgeon does not feel they can remove all gross tumor
  - Local control of the tumor will not be achieved
- **Salvage surgery**
  - Patients who do not have a complete clinical response to chemotherapy or radiation may have salvage surgery.

### CT3 N2-3

- Concurrent systemic therapy or radiation
  - If residual tumor, then may have a neck dissection
    - Will do clinical post treatment assessment 4-8 weeks after therapy completed. If this is positive they will do a neck dissection.
  - Laryngectomy with ipsilateral thyroidectomy
    - Neck dissection if cN1
    - Salvage surgery and neck dissection if residual tumor of the primary site
- Induction chemotherapy
- Clinical trials
CT4A

- Total laryngectomy with thyroidectomy and neck dissection if indicated followed by adjuvant radiation and/or chemotherapy

EPI MOMENT

EPIDEMIOLOGY OF LARYNX CANCER

- Analyzed in Head & Neck Group or alone
- Rare, 3.2 per 100,000 (mortality 1.1 per 100,000)
- 5-year survival 61%
- Three anatomic subsites (differ in etiology, tx, and survival)
  - Glottic & supraglottic (Majority of tumors)
  - Subglottic
  - Predominantly squamous
  - Incidence 6 times higher in men than women
  - Higher in blacks than whites
  - Etiology unclear
  - Risk factors—tobacco, alcohol, poor nutrition, workplace exposures
EPIDEMIOLOGY OF THYROID CANCER

- Analyzed alone (although subsite of Endocrine System)
- Rare, 13.5 per 100,000 (mortality 0.5 per 100,000)
- Survival high, 5-year survival 98%
- 4 major histologies
  - 75-80% are papillary
  - 15% are follicular
  - 5% medullary or anaplastic
- Incidence 3x higher in women
- Etiology unclear
- Risk factors—high dose ionizing radiation (tx may increase risk)
- Risk factors—hx of thyroid conditions
- Highest rates in Iceland, Philippines, Hawaii, and Filipino immigrant populations in US (LA and Hawaii)
CURRENT CINA RESEARCH

- Medullary thyroid carcinoma (MTC)
- FDA required study
- Monitor number of new MTC cases to identify any potential increase of MTC due to specific drugs for type 2 diabetes
  - liraglutide, exenatide once-weekly, or other GLP-1 receptor agonists
- No current research specifically for laryngeal cancers

QUESTIONS?
The hypothalamus and the pituitary in the brain control the normal secretion of thyroid hormones, which in turn control metabolism.
THYROID HISTOLOGY

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

THYROID HISTOLOGY

- Main histologic types
  - Differentiated – 10 year survival is 93%
  - Papillary (80%)
  - Follicular (11%)
  - Hurthle (3%)
  - Medullary (4%)- 10 year survival is 85%
  - Anaplastic (2%)- 10 year survival is 76%

*Based on 53,856 patients treated for thyroid cancer between 1985 and 1995

MPH RULES-OTHER

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QUESTION
• How many primaries should be reported when a complete thyroidectomy specimen shows two tumors: 1.8 cm papillary carcinoma with tall cell features (8344/3) and a 0.4 cm papillary thyroid carcinoma (8260/3)?

QUESTION
• Is papillary thyroid carcinoma an NOS histology qualifying for rule M16, thus leading to a single primary, or would M17 apply (multiple primaries)?
• The histology codes are different at the second digit (8260 and 8344)?
• While rule M16 doesn’t include papillary thyroid carcinoma in the listed histologies, it seems like it may be an NOS histology for the thyroid. In addition, code 8260/3 is listed as NOS in the ICD-O-3.

ANSWER
• Apply rule M16 and abstract a single primary.
• These two thyroid tumors, one papillary carcinoma with tall cell features (8344/3) and one papillary thyroid carcinoma, fit the criteria for rule M16, although not explicitly listed there.
• We will clarify this in the next version of the rules.
AJCC CANCER STAGE: THYROID

- ICD-O-3 Topography Codes
  - C73.9
- ICD-O-3 Histology Code Ranges
  - 8000-8576, 8940-8950, 8980-8981

AJCC CANCER STAGE: THYROID CLASSIFICATION

- Clinical staging
  - Evidence prior to treatment
  - Inspection and palpation of thyroid gland and regional lymph nodes
  - Laryngoscopy
  - Thyroid gland tumor biopsy
  - Imaging
- Pathologic staging
  - Evidence obtained in clinical staging and in histologic study of surgically resected specimen
AJCC CANCER STAGE: THYROID

• T Category
  • T1: Primary tumor cannot be assessed
  • T0: No evidence of primary tumor
  • T1: 2 cm or less in greatest dimension limited to thyroid
    • T1a: 1 cm or less, limited to thyroid
    • T1b: More than 1 cm but not more than 2 cm in greatest dimension, limited to thyroid
  • T2: More than 2 cm but not more than 4 cm in greatest dimension limited to thyroid

• T Category
  • T3: More than 4 cm in greatest dimension limited to thyroid or any tumor with minimal extrathyroid extension
  • T4a: Moderately advanced disease. Any size extending beyond thyroid capsule to invade subcutaneous soft tissues, larynx, trachea, esophagus, or recurrent laryngeal nerve
  • T4b: Very advanced disease. Invades prevertebral fascia or encases carotid artery or mediastinal vessels

• T Category
  • All anaplastic carcinomas are considered T4
    • T4a: Intrathyroidal anaplastic carcinoma
    • T4b: Anaplastic carcinoma with gross extrathyroid extension
AJCC CANCER STAGE: THYROID

• Descriptors to subdivide T categories
  • Solitary tumor – (s)
  • Multifocal tumor – (m)

AJCC CANCER STAGE: THYROID

• N Category:
  • NX: Regional lymph nodes cannot be assessed
  • N0: No regional lymph node metastasis
  • N1: Regional lymph node metastasis
  • N1a: Metastasis to Level VI (pretracheal, paratracheal, and prelaryngeal/Delphian) lymph nodes
  • N1b: Metastasis to unilateral, bilateral, or contralateral cervical (Levels I, II, III, IV, or V) or retropharyngeal or superior mediastinal lymph nodes (Level VII)

AJCC CANCER STAGE: THYROID

• M Category
  • M0: No distant metastasis
  • M1: Distant metastasis
AJCC CANCER STAGE: THYROID
Papillary or follicular (differentiated)
Under 45 years

<table>
<thead>
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<th>M</th>
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AJCC CANCER STAGE: THYROID
Papillary or follicular (differentiated)
45 years and older

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AJCC CANCER STAGE: THYROID
Papillary or follicular (differentiated)
45 years and older

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### AJCC CANCER STAGE: THYROID

**Medullary carcinoma (all age groups)**

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### AJCC CANCER STAGE: THYROID

**Medullary carcinoma (all age groups)**

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### AJCC CANCER STAGE: THYROID

**Anaplastic carcinoma**

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POP QUIZ

- 2/2/15 50 year old white female with palpable thyroid mass
- 2/2/15 CT of neck and chest: Right lobe thyroid lesion, 3.5 cm; no lymphadenopathy; no lung abnormalities
- 2/4/15 Needle biopsy, thyroid: Papillary carcinoma, moderately differentiated
- 2/18/15 Thyroidectomy with lymph node sampling: 3.5 cm papillary carcinoma, moderately differentiated; of thyroid extends into the cricothyroid and inferior pharyngeal constrictor muscles. 1 Delphian node positive of 5 nodes removed

What is the AJCC clinical stage?
- cT2 cN0 cM0 Stage II

What is the AJCC pathologic stage?
- pT4a pN1a pM_ Stage IVa

Summary Stage 2000
http://seer.cancer.gov/tools/ssm/

THYROID
C73.9
SUMMARY STAGE 2000: THYROID

0 In situ
  Noninvasive; intraepithelial

1 Localized only
  Single or multifocal invasive tumor(s) confined to thyroid
  Into or through thyroid capsule, but not beyond
  Localized NOS

2 Regional by direct extension only
  Extension to
    Blood vessel(s) (major)
    Carotid artery; jugular vein; thyroid artery or vein
    Cricoid cartilage
    Esophagus
    Larynx
    Nerves
    Recurrent laryngeal; vagus

Parathyroid
Pericapsular soft/connective tissue
Sternocleidomastoid muscle
Strap muscle(s): Omohyoid, sternohyoid, sternothyroid
Thyroid cartilage
Tumor is described as "FIXED to adjacent tissues"
SUMMARY STAGE 2000: THYROID

• 3 Regional lymph node(s) involved only
  • Anterior deep cervical (laterotracheal) (recurrent laryngeal)
  • Paralaryngeal
  • Paratracheal
  • Prelaryngeal: Delphian node
  • Pretracheal
  • Cervical NOS

SUMMARY STAGE 2000: THYROID

• 3 Regional lymph node(s) involved only
  • Internal jugular, NOS
  • Deep cervical, NOS
    • Lower NOS
      • Jugulo-omohyoid (supraomohyoid)
      • Middle

SUMMARY STAGE 2000: THYROID

• 3 Regional lymph node(s) involved only
  • Mediastinal NOS
    • Posterior mediastinal (tracheoesophageal); upper anterior mediastinal
    • Retropharyngeal
    • Spinal accessory (posterior cervical)
    • Supraclavicular (transverse cervical)
    • Regional lymph node(s) NOS
SUMMARY STAGE 2000: THYROID

- 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  - Codes 2 + 3
- 5 Regional NOS

SUMMARY STAGE 2000: THYROID

- 7 Distant site(s)/lymph node(s) involved
  - Distant lymph node(s)
    - Mandibular
    - Submandibular (submaxillary); submental
    - Other distant lymph node(s)

SUMMARY STAGE 2000: THYROID

- 7 Distant site(s)/lymph node(s) involved
  - Extension to: Bone; mediastinal tissues; skeletal muscle, other than strap or sternocleidomastoid muscle; trachea
  - Further contiguous extension
  - Metastasis

- 9 Unknown if extension or metastasis
POP QUIZ

• 2/2/15 50 year old white female with palpable thyroid mass
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POP QUIZ

• What is the Summary Stage 2000?
  a. 0 In situ
  b. 1 Localized only
  c. 2 Regional by direct extension only
  d. 3 Regional lymph node(s) involved only
  e. 4 Regional by BOTH direct extension AND regional lymph node(s) involved
  f. 5 Regional NOS
  g. 7 Distant site(s)/lymph node(s) involved

CS V0205
THYROID C73.9
SSF1: SOLITARY VS. MULTIFOCAL TUMOR
- Record whether thyroid cancer is solitary tumor or multifocal

DIAGNOSIS AND TREATMENT

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

THYROID NODULES

- Hot nodule
  - Absorbs iodine on thyroid scan

- Cold Nodule
  - Does not absorb iodine on thyroid scan

TREATMENT FOR PAPILLARY AND FOLLICULAR CARCINOMA

- Surgery
  - Ipsilateral lobectomy plus isthmusectomy (23)
  - Total thyroidectomy (50)
  - Completion thyroidectomy (50)

- Iodine-131 (I-131 or RAI)
  - Unresectable tumors
  - Post thyroidectomy
  - Radiation Treatment Volume should be coded to 33-Whole Body
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)

- Synthroid should be coded as hormonal treatment for thyroid cancer.
  - This drug has two benefits:
    - It supplies the missing hormone the thyroid would normally produce
    - It suppresses the production of thyroid-stimulating hormone (TSH) from the pituitary gland. High TSH levels could conceivably stimulate any remaining cancer cells to grow.

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)
  • External beam radiation

• Anaplastic Carcinoma
  • Surgery if localized
  • External beam radiation
  • Chemotherapy

QUESTIONS?
COMING UP…
• Collecting Cancer Data: Pancreas
  • 6/4/15
• Survivorship Care Plans
  • 7/9/15

AND THE WINNERS ARE…..

CE CERTIFICATE QUIZ/SURVEY
• Phrase
• Link