



Larynx and Base of Tongue

NAACCR 2024-2025 MONTHLY WEBINAR SERIES



Q&A

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

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.

2



Fabulous Prizes

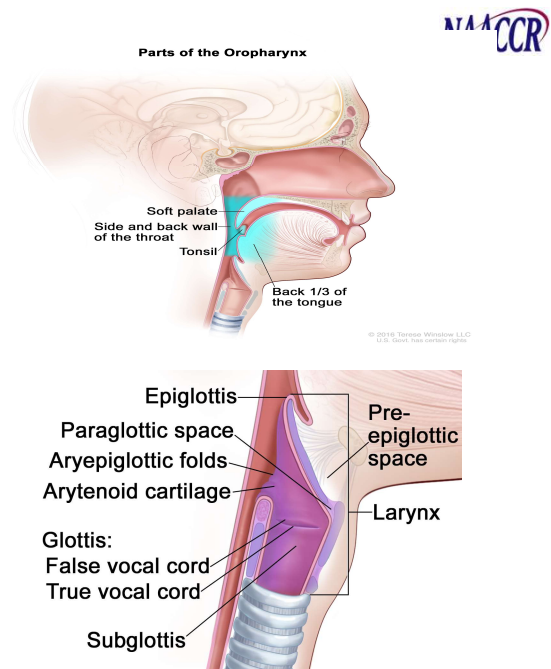


Guest
Presenter

- Wilson Apollo, MS, ODS

Agenda

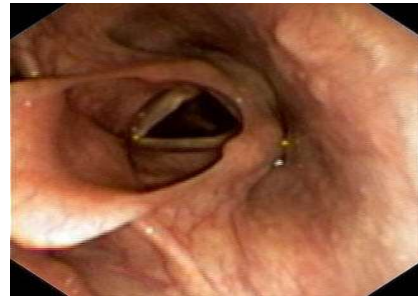
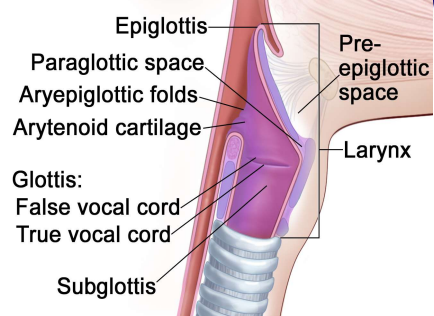
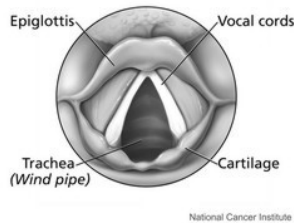
- Anatomy
- Staging/SSDI
- Solid Tumor Rules
- Treatment
- Case Scenarios



Overview

Larynx Anatomy

- Larynx, NOS (C32.9) is divided into 3 Sections
 - Supraglottis (C32.1)
 - Area above vocal cords,
 - Includes
 - Laryngeal epiglottis
 - Arytenoids
 - Aryepiglottic folds
 - false cords
 - Glottis (C32.0)
 - containing
 - True vocal cords
 - Anterior and posterior commissures
 - Subglottis C32.2)
 - below the vocal cords
- Overlapping lesion of the larynx (C32.8)

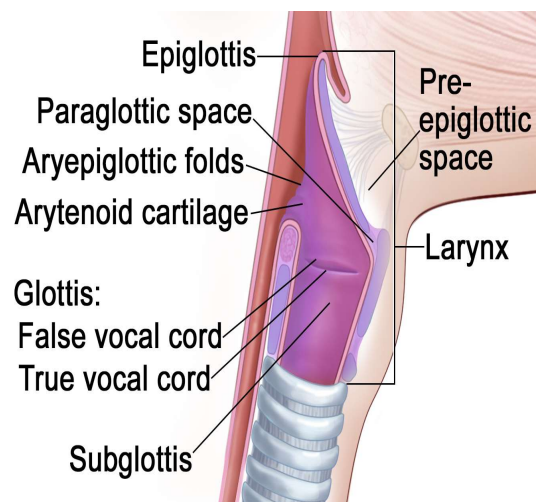


Staging Larynx


- Summary Stage 2018; EOD Four separate chapters/Schemas
 - Glottis (C32.0)
 - Supraglottis (C10.1, C32.1)
 - Subglottis (C32.2)
 - Other (C32.3/cartilage, C32.8, C32.9)

AJCC

- One chapter but different T definitions based on primary site.



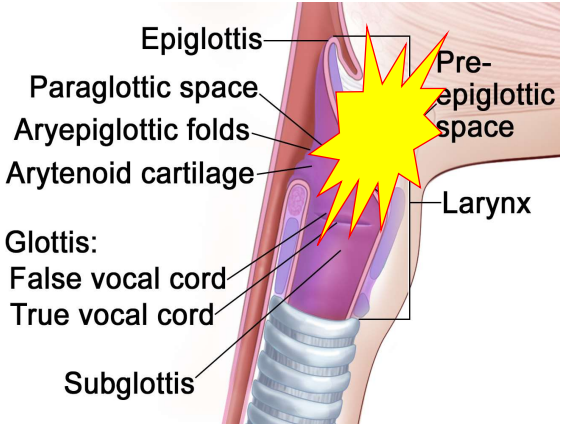
Glottis



000	In situ, intraepithelial, noninvasive
100	One vocal cord with normal vocal cord mobility
150	Both vocal cords with normal vocal cord mobility
200	Invasive tumor with normal vocal cord mobility Intrinsic larynx Laryngeal commissure(s) (anterior, posterior) Vocal cord(s) (true cord(s), true vocal cord(s), NOS) Confined to glottis, NOS Localized, NOS
250	Impaired vocal cord mobility Adjacent region(s) of larynx involved Subglottis Supraglottis <ul style="list-style-type: none"> > Aryepiglottic fold > Cartilage (arytenoid, corniculate, cuneiform, laryngeal, NOS) > Epiglottis (infrahyoid, laryngeal [posterior] surface of epiglottis) > Epiglottis (suprahyoid) (including tip, lingual (anterior) and laryngeal surfaces) > Epilarynx, NOS > False cords: ventricular bands/cavity/vestibular fold
300	Limited to larynx WITH vocal cord fixation Intrinsic muscle(s) of larynx <ul style="list-style-type: none"> > Aryepiglottic > Arytenoid > Cricarytenoid > Cricothyroid > Thyroarytenoid > Thyroepiglottic > Vocalis

Localized

Glottis



400	Paraglottic space Thyroid cartilage (inner cortex) (minor erosion)
500	Base of tongue Hypopharynx, NOS Postcricoid area Pre-epiglottic space Pre-epiglottic tissues Pyriform sinus (pyriform fossa) Vallecula
600	Cricoid cartilage Esophagus Extrinsic muscle(s) of tongue <ul style="list-style-type: none"> > Genioglossus > Geniohyoid > Hyoglossus > Mylohyoid > Palatoglossus > Styloglossus Oropharynx, NOS Skin Soft tissues of neck Strap muscle(s) <ul style="list-style-type: none"> > Omohyoid > Sternohyoid > Sternothyroid > Thyrohyoid Thyroid cartilage (outer cortex, NOS) Thyroid gland Trachea
700	Carotid artery (encased) Mediastinal structure(s) Prevertebral space Further contiguous extension

Regional
Distant

Follow along on page 155 of your AJCC manual.

Supraglottis

Code	Description
000	In situ, intraepithelial, noninvasive
100	Invasive tumor confined to one subsite with normal vocal cord mobility
	Supraglottis
	<ul style="list-style-type: none"> › Aryepiglottic fold › Cartilage (arytenoid, corniculate, cuneiform, laryngeal, NOS) › Epiglottis (infrahyoid, laryngeal [posterior] surface of epiglottis) › Epiglottis (suprahyoid) (including tip, lingual (anterior) and laryngeal surfaces) › Epilarynx, NOS › False cords: ventricular bands/cavity/vestibular fold
	Confined to epiglottis, NOS
	Confined to supraglottis, NOS
	Localized, NOS
200	Mucosa of more than one subsite of supraglottis listed in code 100 and/or glottis
	Limited to larynx, NOS
250	Mucosa of
	<ul style="list-style-type: none"> › Base of tongue › Pyriform sinus (medial wall) › Vallecula
300	Tumor limited to larynx with vocal cord fixation

Regional

Localized

BASE OF TONGUE



HPV and Oropharyngeal Cancer

- HPV positive patients
 - Younger and healthier
 - Respond well to treatment (may require less treatment)
 - Better overall survival than HPV negative



Schema Discriminator 2: Oropharyngeal p16

- Note 1: A schema discriminator is used to discriminate between oropharyngeal tumors that are p16 positive and oropharyngeal tumors that are p16 negative OR p16 status unknown.
- Note 2: Only the HPV p16+ test can be used. If another HPV test is done, code 9.

Code	Description	Schema ID #/Description
1	p16 Negative; Nonreactive	00111: Oropharynx (p16-)
2	p16 Positive; HPV Positive; Diffuse, Strong reactivity	00100: Oropharynx HPV-Mediated (p16+)
9	Not tested for p16; Unknown	00111: Oropharynx (p16-)



SEER Site-Specific Fact 1 Human Papilloma Virus (HPV) Status

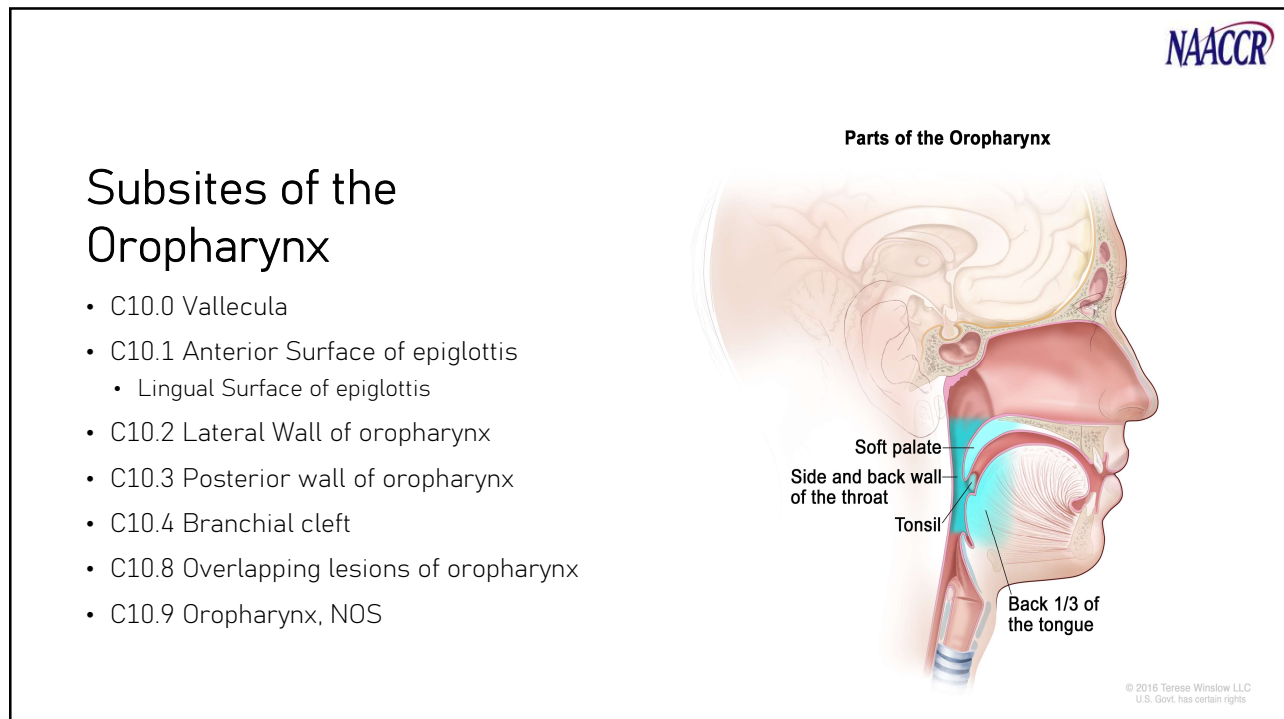
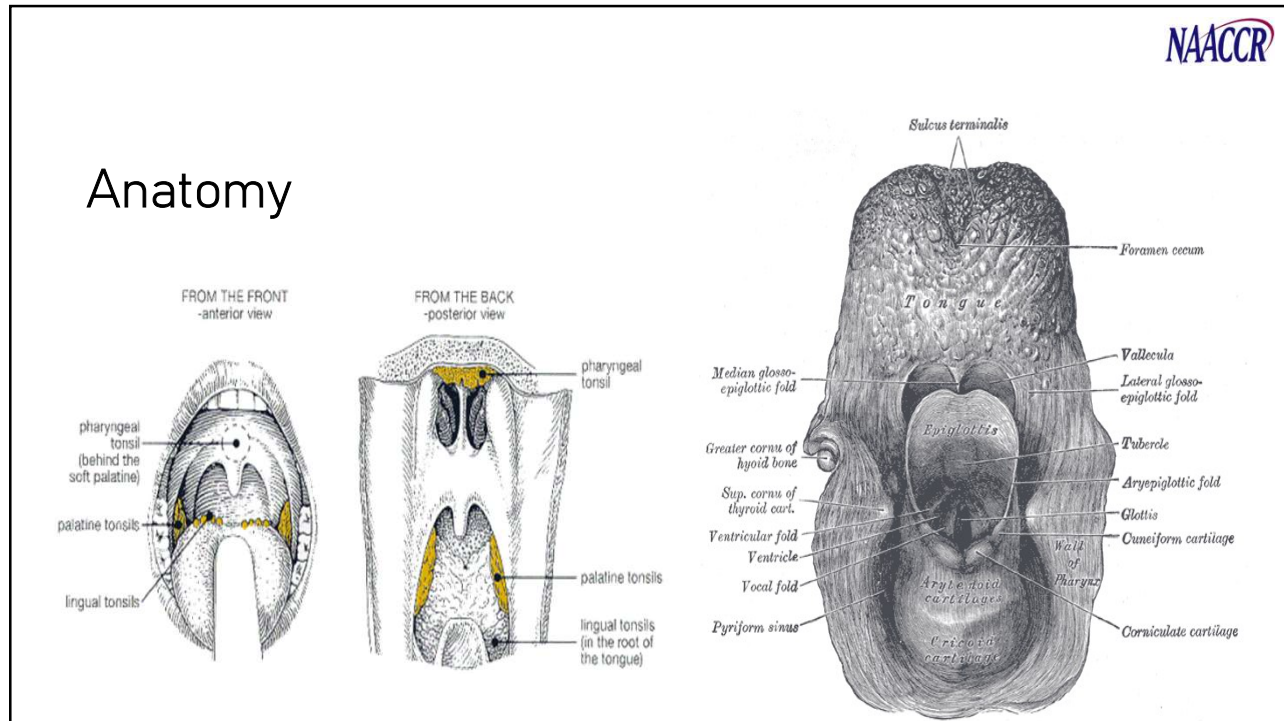
- Note 2: Record the results of any HPV testing performed on pathological specimens including surgical and cytological (from cell blocks) tissue from the primary tumor or a metastatic site, including lymph nodes. Do not record the results of blood tests or serology.
- Note 3: There are several methods for determination of HPV status.
 - The most frequently used test is IHC for p16 expression which is surrogate marker for HPV infection. Do not record the results of IHC p16 expression in this field.
 - The rest of the tests (based on ISH, PCR, RT-PCR technologies) detect the viral DNA or RNA.
 - This data item is only for HPV status determined by tests designed to detect viral DNA or RNA.
- Note 4: HPV-type 16 refers to virus type and is different from p16 overexpression (p16+).
- Note 5: Codes 0-7 (10-71) are hierarchical; use the highest code that applies.



SEER Site-Specific Factor 1 Human Papilloma Virus (HPV) Status

- Note 2: Record the results of any HPV testing performed on pathological specimens including surgical and cytological (from cell blocks) tissue **from the primary tumor or a metastatic site, including lymph nodes**. Do not record the results of blood tests or serology.
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- Note 4: HPV-type 16 refers to virus type and is different from p16 overexpression (p16+).
- Note 5: Codes 0-7 are hierarchical; use the highest code that applies. (should say 10-71).

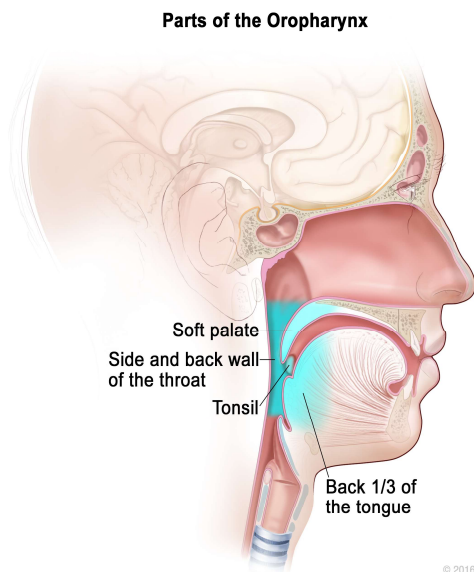
Code	Description
10	HPV negative by p16 test
11	HPV positive by p16 test
20	HPV negative for viral DNA by ISH test
21	HPV positive for viral DNA by ISH test
30	HPV negative for viral DNA by PCR test
31	HPV positive for viral DNA by PCR test
40	HPV negative by ISH E6/E7 RNA test
41	HPV positive by ISH E6/E7 RNA test
50	HPV negative by RT-PCR E6/E7 RNA test
51	HPV positive by RT-PCR E6/E7 RNA test
70	HPV status reported in medical records as negative, but test type is unknown
71	HPV status reported in medical records as positive, but test type is unknown
97	Test done, results not in chart
99	Not documented in medical record HPV test not done, not assessed, or unknown if assessed



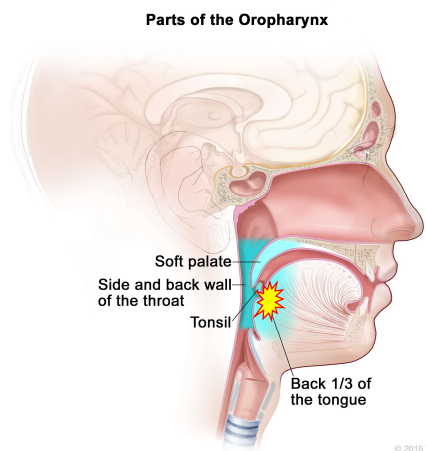


Subsites of the of Oropharynx

- C01.9 Base of tongue (root of tongue)
- C02.4 Lingual tonsil
- C05.1 Soft palate
- C05.2 Uvula
- C09.0 Tonsillar fossa
- C09.1 Tonsillar pillar



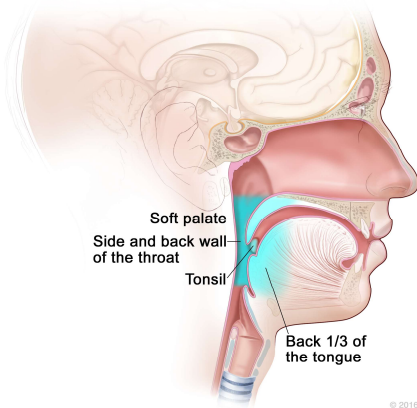
Base of the Tongue



Code	Description
000	In situ, intraepithelial, noninvasive
100	Any size tumor with extension to
	All sites
	> Confined to site of origin
	> Localized, NOS
	Oropharynx (C090-C091, C098-C099, C100, C102-C104, C108-C109)
	> Base of tongue (including lingual tonsil)
	> Tonsil (palatine, NOS)
	> Tonsillar pillar/fossa
	> Wall (anterior [including vallecula], lateral, posterior)
	Pharyngeal Tonsil (C111)
	> Adenoid
	> Nasopharynx (inferior wall, superior surface of soft palate)
	> Pharyngeal tonsil (nasopharyngeal tonsil)
	> Posterior superior wall (vault)
	Soft Palate (C051, C052)
	> Invasion of
	>> Lamina propria, submucosa, musculature
	> Tumor crosses midline
	Tongue Base (C019, C024)
	> Base of tongue for lingual tonsil
	> Invasion of
	>> Lamina propria, submucosa, musculature (intrinsic)
	> Lingual tonsil for base of tongue
	> Tumor crosses midline

Base of the Tongue

Parts of the Oropharynx

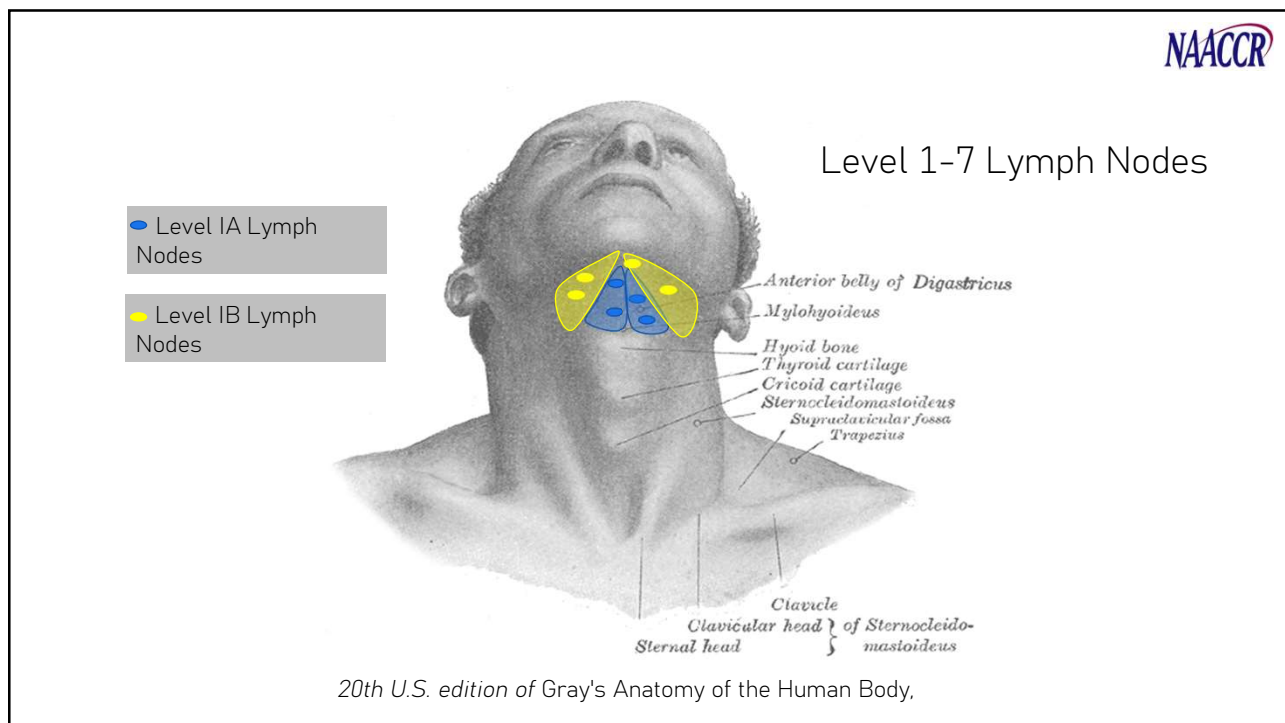
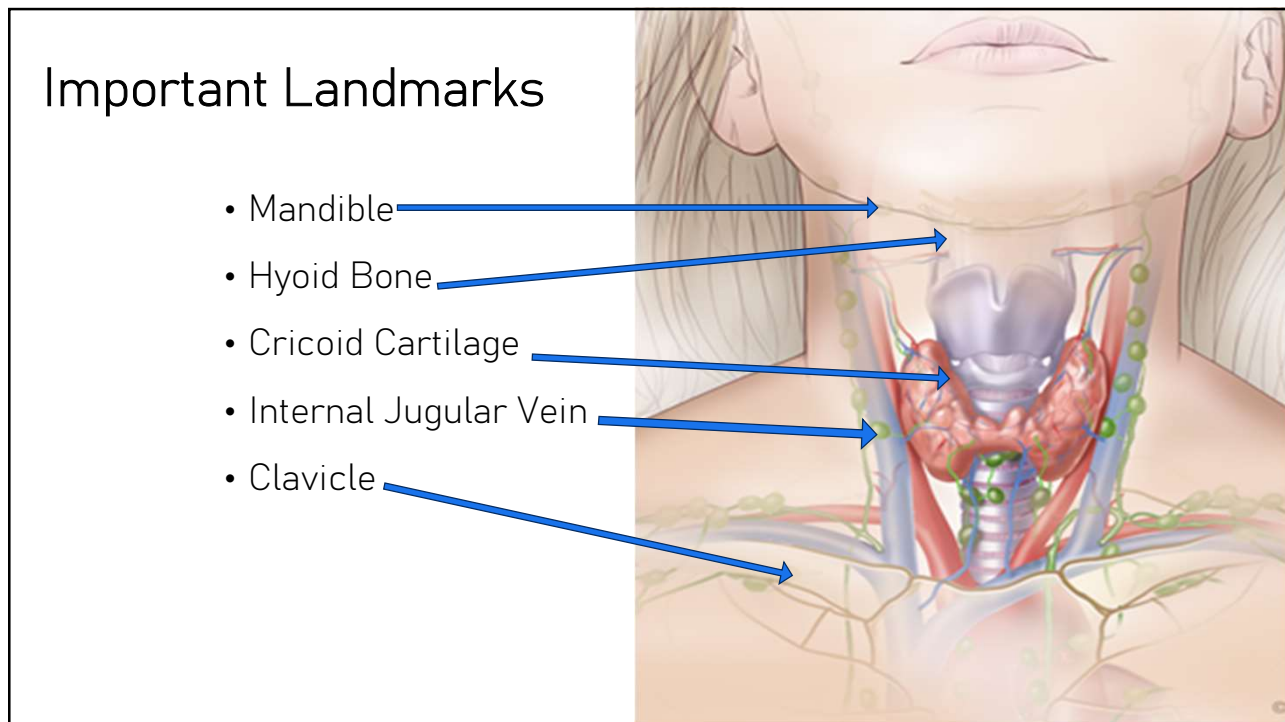


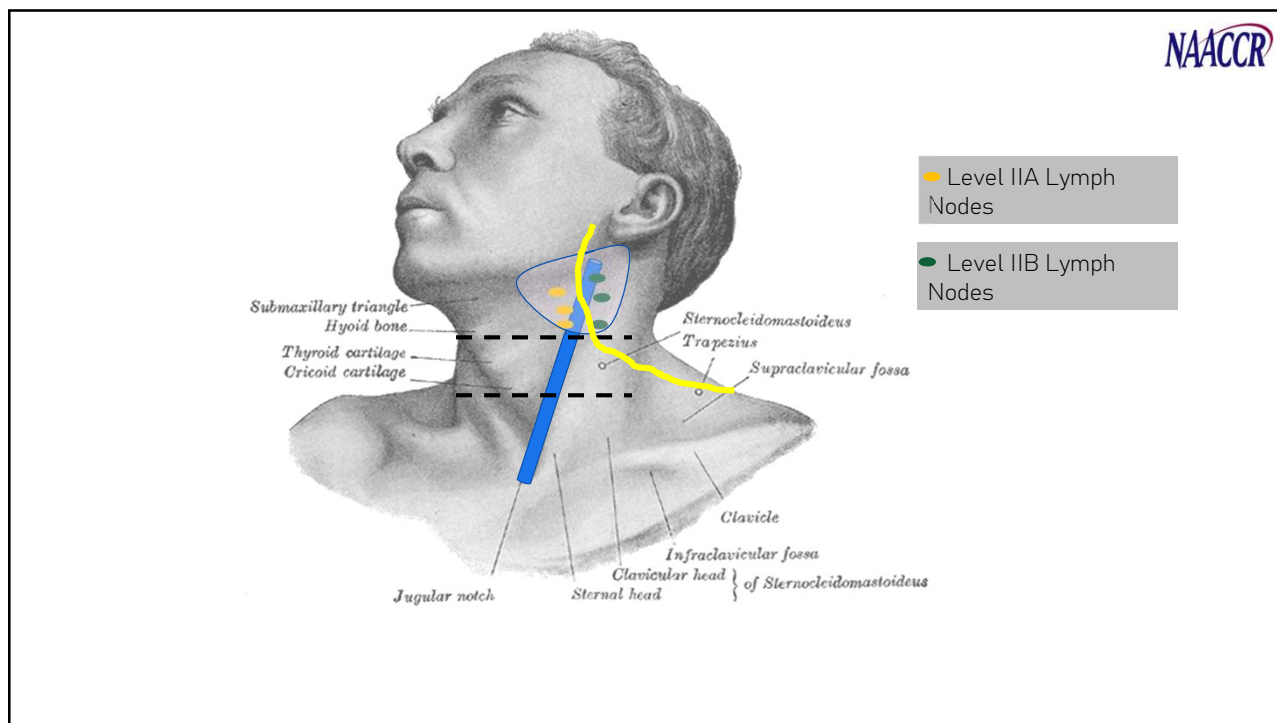
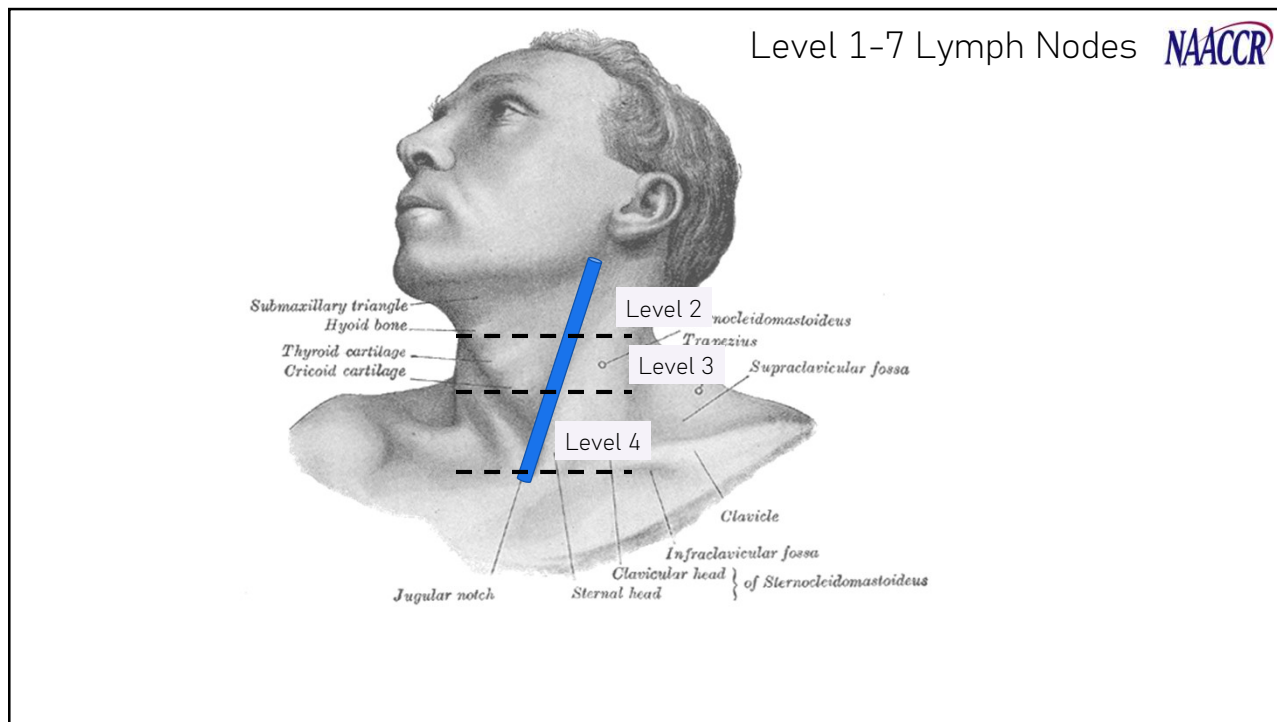
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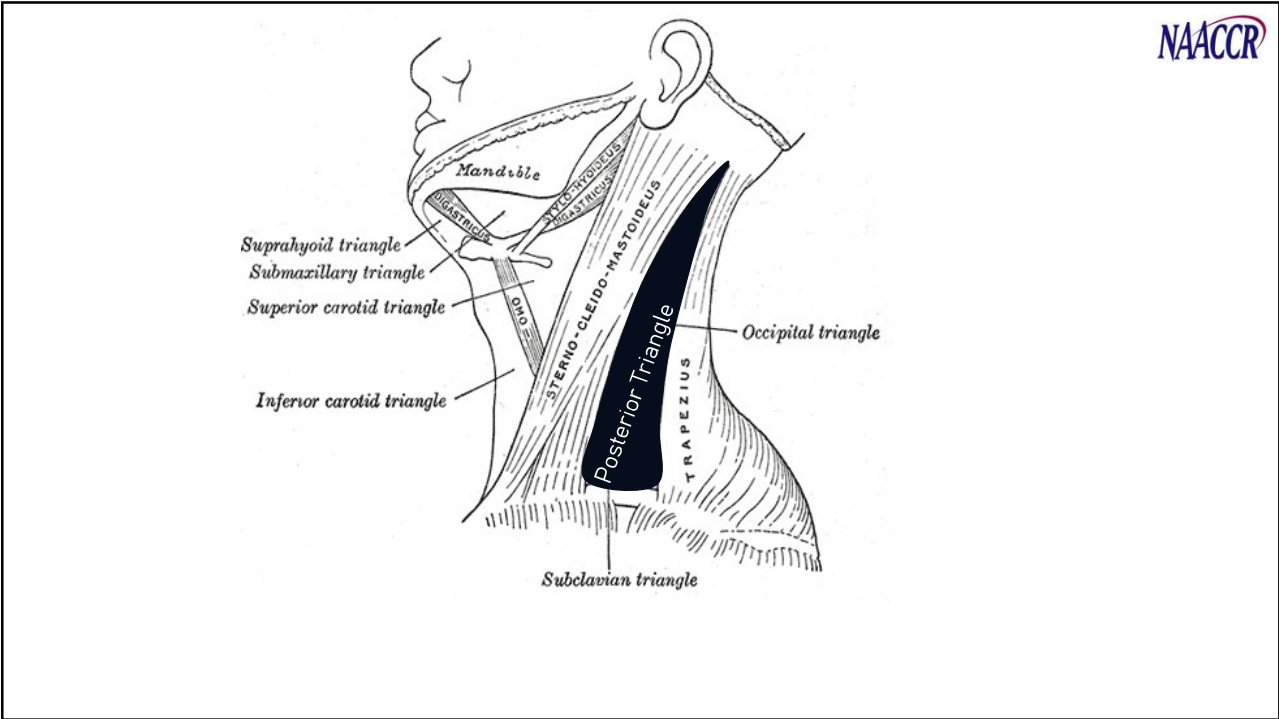
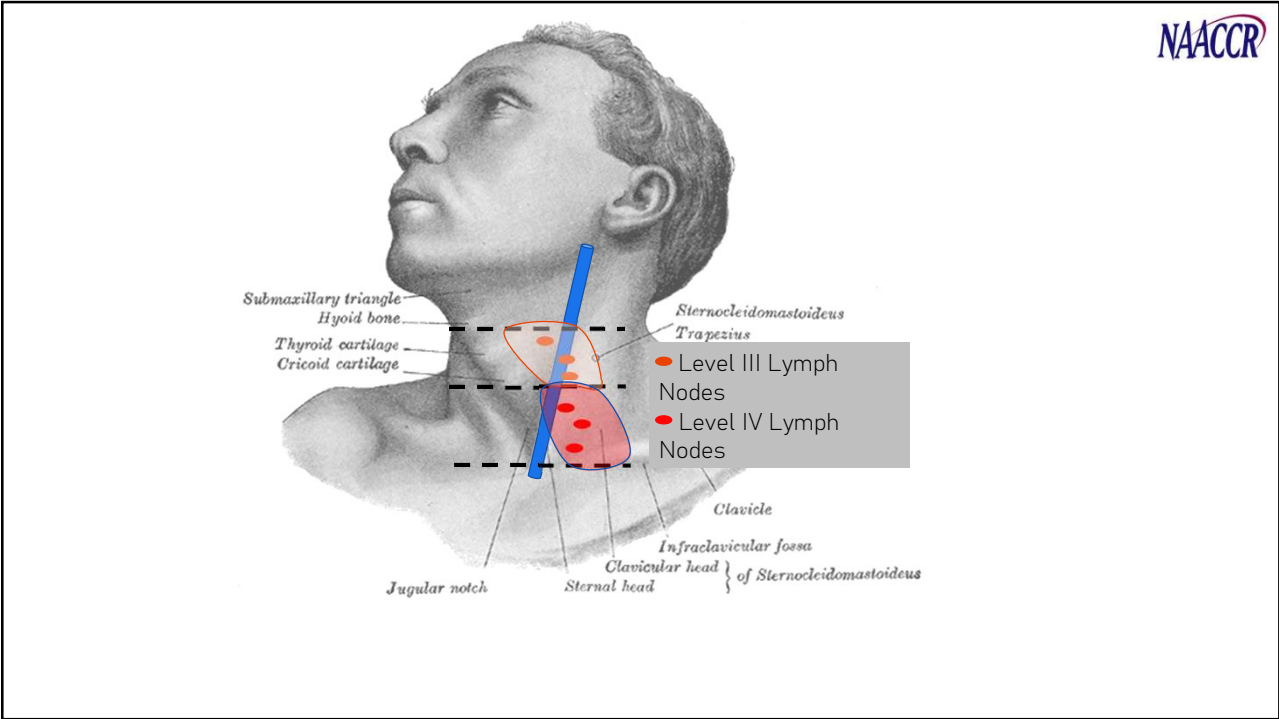
200	<p>Any size tumor with extension to</p> <p>Oropharynx (C090-C091, C098-C099, C100, C102-C104, C108-C109)</p> <ul style="list-style-type: none"> > Buccal mucosa > Floor of mouth > Gum (gingiva) > Lateral walls (both) through soft palate or base of tongue > Soft palate (inferior surface including uvula, superior [nasopharyngeal] surface, NOS) <p>Pharyngeal Tonsil (C111)</p> <ul style="list-style-type: none"> > Nasal cavity > Oropharynx > Pterygopalatine fossa > Soft palate, inferior surface including uvula <p>Soft Palate (C051, C052)</p> <ul style="list-style-type: none"> > Buccal mucosa (inner cheek) > Gum (gingiva), upper > Lateral pharyngeal wall > Tonsils, including tonsillar pillars and fossae <p>Tongue Base (C019, C024)</p> <ul style="list-style-type: none"> > Anterior two-thirds of tongue for base of tongue > Floor of mouth > Glossopiglottic fold > Glossopharyngeal fold > Lateral pharyngeal wall > Lower gingiva > Pharyngopiglottic fold > Soft palate, inferior surface or NOS including uvula > Sublingual gland > Tonsil, tonsillar pillars and fossae
300	Epiglottis, lingual surface
400	Epiglottis, lingual surface plus both lateral walls through soft palate or base of tongue or other structures in code 200 or Epiglottis WITH fixation
600	<p>Oropharynx (C090-C091, C098-C099, C100, C102-C104, C108-C109)</p> <ul style="list-style-type: none"> > Hypopharynx, NOS > Larynx, NOS > Posterior surface of epiglottis > Prevertebral fascia/muscle > Pyramiform sinus

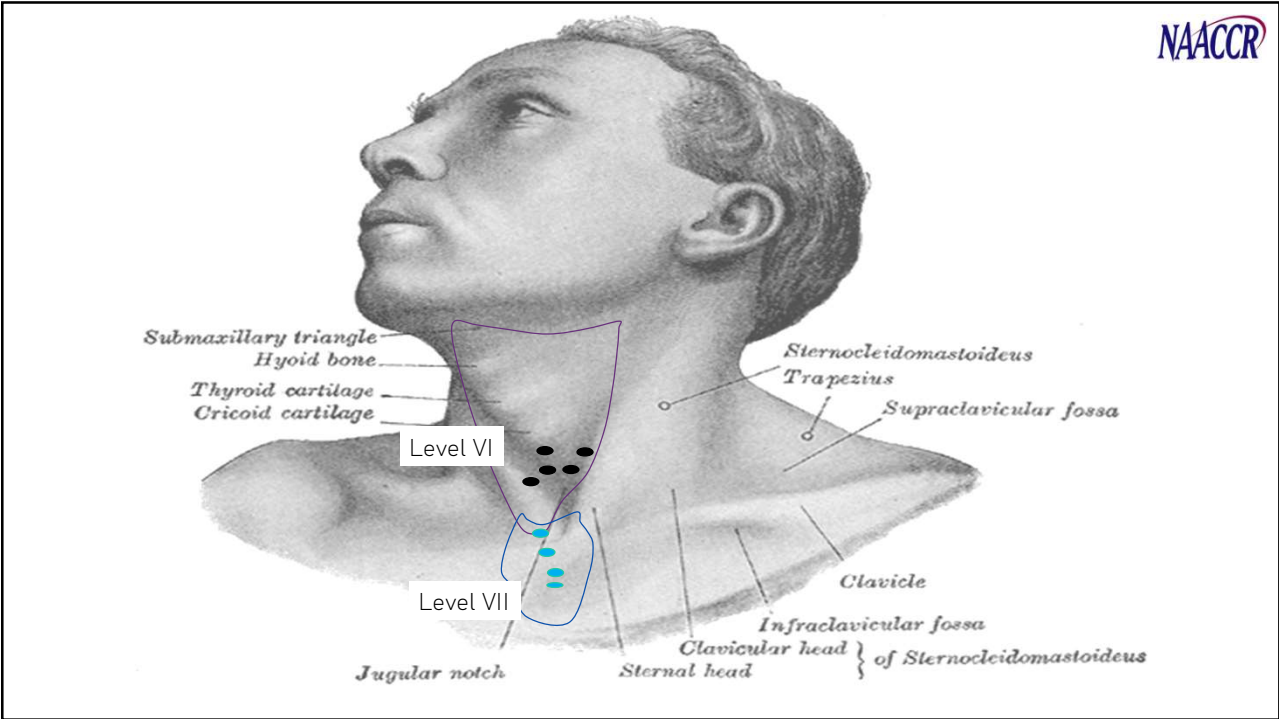
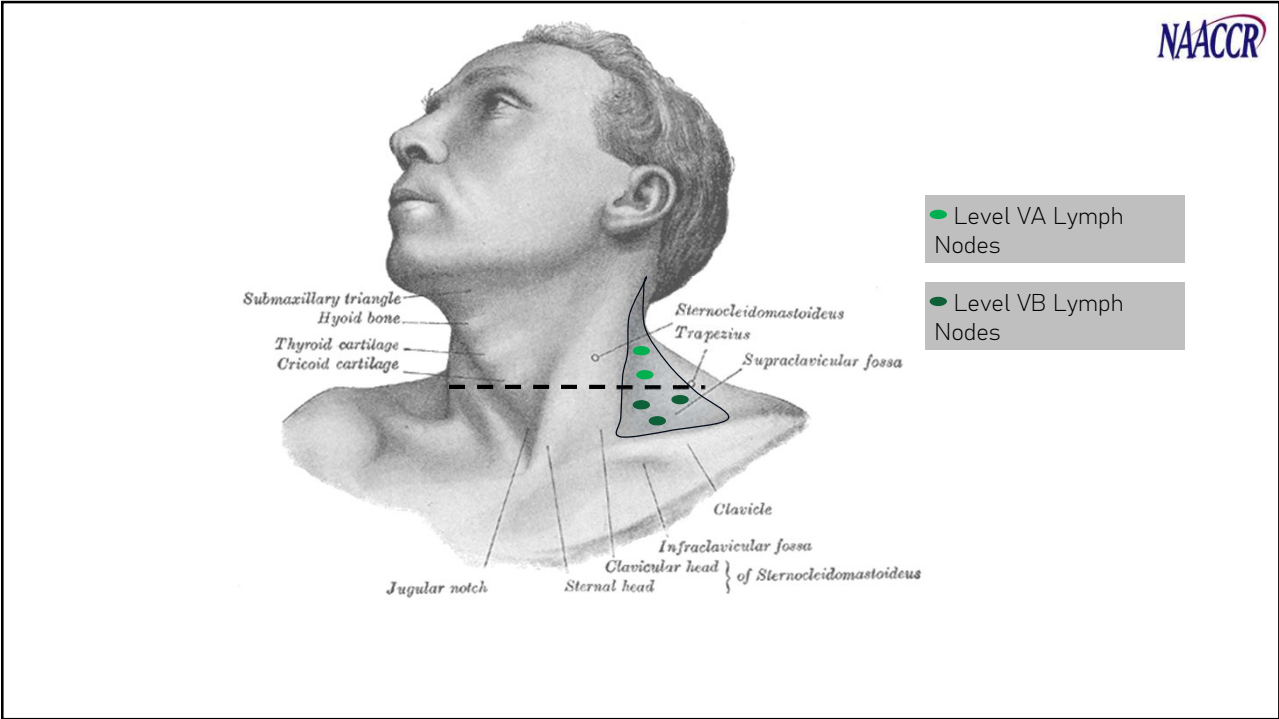


HEAD AND NECK LYMPH NODES



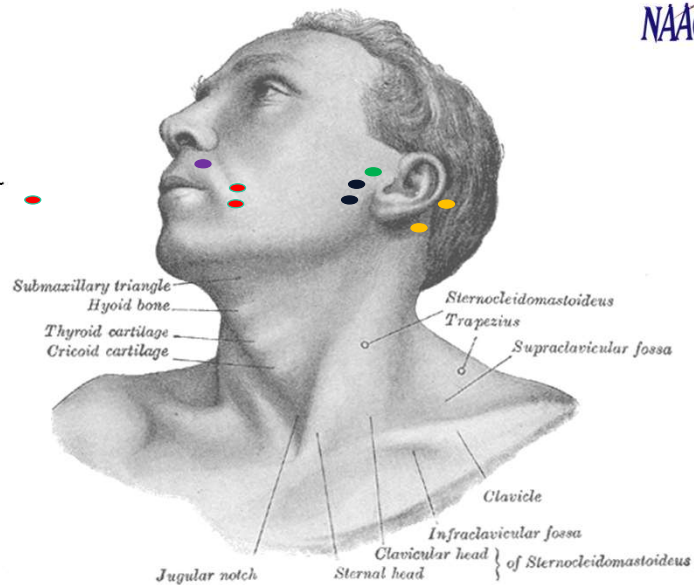






Other Lymph Node Groups

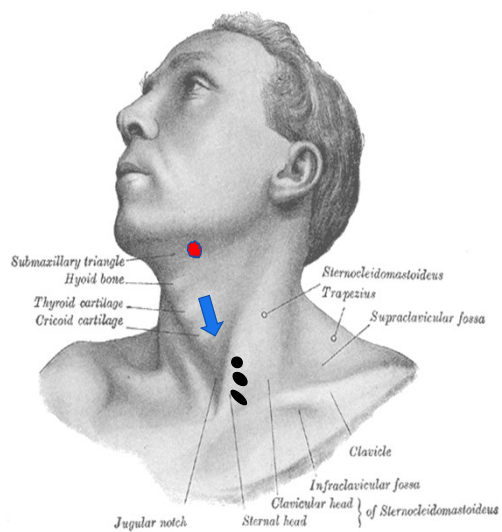
- Facial/Buccinator ●
- Nasolabial ●
- Parotid ●
- Preauricular ●
- Occipital ●



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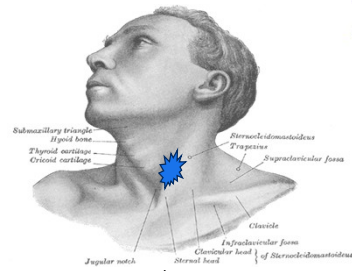
First Echelon Lymph Nodes

- Oropharynx
 - Level II (A or B)
 - Level III
 - Level V (A or B)



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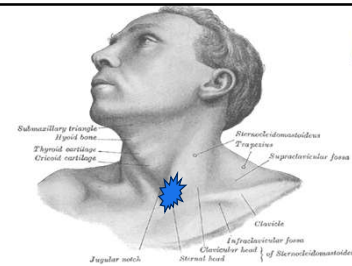
Extranodal Extension Head and Neck Clinical



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- Note 2: The assessment of ENE must be based on evidence acquired prior to definitive surgery of the primary site, chemotherapy, radiation or other type of treatment, i.e., the clinical time-frame for staging.
 - The assessment for ENE in addition to physical examination may include imaging, biopsy of the regional lymph node, and/or biopsy of tissues surrounding the regional lymph node.
 - Imaging alone is not enough to determine or exclude ENE.
- Note 3: Be aware that the rules for coding ENE for head and neck sites compared to non-head and neck sites are different.
- Note 4: Code 0 when lymph nodes are determined to be clinically positive and physical examination does not indicate any signs of extranodal extension.

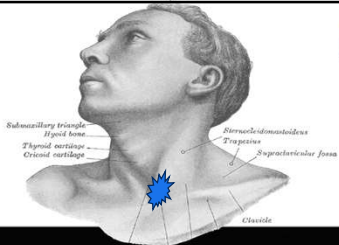
Extranodal Extension Head and Neck Clinical



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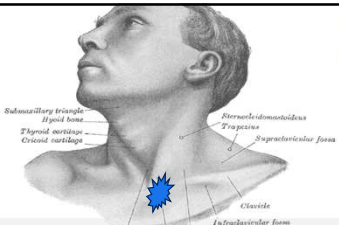
- Note 5: Code 1 when
 - ENE is unquestionable as determined by physical examination
 - Clinical ENE is described in the AJCC Head and Neck Staging System as **"Unambiguous evidence of gross ENE on clinical examination (e.g., invasion of skin, infiltration of musculature, tethering to adjacent structures, or cranial nerve, brachial plexus, sympathetic trunk, or phrenic nerve invasion with dysfunction)"**
 - The terms 'fixed' or 'matted' are used to describe lymph nodes
 - Other terms for ENE include: 'extranodal spread', 'extracapsular extension', or 'extracapsular spread'

Extranodal Extension Head and Neck Clinical



Code	Description
0	Regional lymph node(s) involved, ENE not present/not identified during diagnostic workup
1	Regional lymph node(s) involved, ENE present/identified during diagnostic workup, based on physical exam WITH or WITHOUT imaging
2	Regional lymph node(s) involved, ENE present/identified during diagnostic workup, based on microscopic confirmation
4	Regional lymph nodes involved, ENE present/identified, unknown how identified
7	No lymph node involvement during diagnostic workup (cN0) Non-invasive neoplasm (behavior /2)
8	Not applicable: Information not collected for this case (If this information is required by your standard setter, use of code 8 may result in an edit)
9	Not documented in medical record ENE not assessed during diagnostic workup, or unknown if assessed Clinical assessment of lymph node(s) not done, or unknown if done

Extranodal Extension Head and Neck Pathological

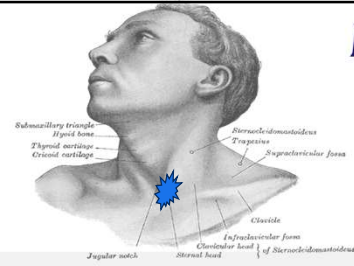


Note 3: Code the status of ENE assessed on histopathologic examination of **surgically resected** involved regional lymph node(s). Do not code ENE from a lymph node biopsy (FNA, core, incisional, or the absence of ENE from a sentinel). Do not code ENE for any distant lymph nodes. Code the status of ENE based on the following criteria

- > Code 0.0
 - > Absence of ENE, positive lymph nodes assessed by lymph node dissection
 - > 1292: Scope of Regional Lymph Node Surgery must be 3-7
- > Codes 0.1-9.9, X.1, X.2, X.3, X.4 as appropriate for
 - > Presence of ENE assessed by Sentinel Lymph Node biopsy
 - > Presence of ENE assessed by lymph node biopsy
 - > 1292: Scope of Regional Lymph Node Surgery must be 2-7
- > Code X.7 as appropriate for
 - > Lymph nodes negative for cancer assessed by Sentinel lymph node biopsy or lymph node dissection
 - > 1292: Scope of Regional Lymph Node Surgery must be 2-7
- > Code X.9
 - > Absence of ENE, positive lymph nodes assessed by Sentinel Lymph Node biopsy
 - > A positive Sentinel Lymph Node biopsy cannot assess the absence of ENE, only the presence of it. This is because there is not enough surrounding tissue in a Sentinel Lymph node biopsy to accurately assess ENE

> If codes 0.1-0.9, X.1-X.7 are used, this indicates that the lymph nodes were surgically resected or a Sentinel Lymph Node biopsy was done and Scope of Regional Lymph Node Surgery [NAACCR Data Item: 1292] must be 2-7

LN Size



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Notes

Note 1: Physician statement of Lymph Nodes Size can be used to code this data item when no other information is available.

Note 2: If the same largest involved node (or same level) is examined both clinically and pathologically, record the size of the node from the pathology report even if it is smaller.

> **Example:** Clinical evaluation shows 1.5 cm (15 mm) Level II lymph node, pathological examination shows Level II 1.3 cm (13 mm). Code 13.0.

Note 3: If the largest involved node is not examined pathologically, use the clinical node size.

Note 4: Do not code the size of any distant nodes.



QUESTIONS

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Solid Tumor Rules

<https://seer.cancer.gov/tools/solidtumor/>

Head and Neck STR 2024 Update File:

https://seer.cancer.gov/tools/solidtumor/current/Head_Neck_STM.pdf



2024 Revision History

- Table 3: Tumors of the Pyriform Sinus, Hypopharynx, Larynx, Trachea and Parapharyngeal Space
 - Chondrosarcoma 9220/3 row: Subtype added Chondrosarcoma, grade 1 9222/3 (1/1/2022 forward)
 - Liposarcoma 8850/3 row: synonyms deleted, subtype added Liposarcoma, well differentiated 8851/3
 - 8240 row: term updated to Neuroendocrine tumor, NOS, Synonym added: Well differentiated neuroendocrine carcinoma



2024 Revision History

- Table 5: Tumors of the Oropharynx, Base of Tongue, Tonsils, Adenoids
 - Note added regarding coding SCC with HPV status
 - Squamous Cell carcinoma 8070 row: subtypes added:
 - Basaloid squamous cell carcinoma 8083
 - Lymphoepithelial carcinoma 8062
 - Papillary squamous cell carcinoma 8052
 - Squamous cell carcinoma, spindle cell 8074
 - Verrucous Carcinoma/Carcinoma Cuniculatum 8051

Head and Neck Solid Tumor Rules 2024 Update

- Code the most specific histology from biopsy or resection. If discrepancy code from the most representative specimen
- Beginning with cases diagnosed 1/1/2022 for Table 5: Tumor of the Oropharynx, Base of Tongue, Lingual Tonsil, Tonsils, Adenoids/pharyngeal tonsil only
 - p16 test results can be used to code SCC, HPV positive (8085) and SCC, HPV negative (8086) (Table 5)
 - Non-keratinizing SCC HPV positive coded 8085 for sites listed in Table 5 only
 - Keratinizing SCC HPV negative coded 8086 for sites listed in Table 5 only



Equivalent or Equal Terms

- Squamous cell carcinoma; squamous carcinoma; squamous cell epithelioma; epidermoid carcinoma
- Squamous cell carcinoma, HPV-negative; squamous cell carcinoma, HPV-independent (8086)
- Squamous cell carcinoma, HPV-positive; squamous cell carcinoma, HPV-associated; squamous cell carcinoma, HPV-related (8085)
- Squamous cell carcinoma with verrucous growth pattern; squamous cell carcinoma
 - *Growth pattern is not a histological type*



Equivalent or Equal Terms

- Tumor, mass, tumor mass, lesion, neoplasm
 - *Disregard the terms **UNLESS** there is a physician's statement that the term is malignant/cancer*
 - ***Only*** used to determine multiple primaries
 - ***Do Not*** use for casefinding or determining reportability



NOT Equivalent

- Component is not equivalent to subtype/type/variant
- Pre 2022
 - P16 positive not equivalent to HPV positive
 - P16 negative not equivalent to HPV negative



Coding the Primary Site

Priority Order

1. Tumor Board
2. Tissue/Pathology from resection or biopsy
3. Scans
4. Physician Documentation
5. Tables 1-9
 - Compare histology diagnosis to fields in table for the involved sites
 - When it is listed for only one primary site (only listed in one table) code that primary site.

Multiple Primary Rules

Rule M3 – Larynx primary site

- Abstract multiple primaries when there are separate/non-contiguous tumors in any two of the following sites:
 - Glottis C320 and/or supraglottis C321 and /OR subglottis C322 and/or laryngeal cartilage C323

- Does M3 apply?

1/22/24-patient diagnosed with Squamous cell carcinoma confined to the left true vocal cord (C32.0) and another tumor confined to the left false vocal cord (C32.1).



YES

1/22/24-patient diagnosed with Squamous cell carcinoma confined to the true vocal cord. Patient has a history of laryngeal carcinoma diagnosed in 2017 (C32.9)



NO



Rule M6 – Greater than 5 years

- Abstract multiple primaries when tumor after **clinically disease-free for greater than five years** after original diagnosis or last recurrence
 - No evidence or recurrence on follow up
 - Time interval is from the date of the last recurrence
 - If unknown/not documented of patient recurrence use the date of diagnosis to compute time interval
 - More than one Head or Neck primary use the last date of recurrence for ANY tumor
 - **Physician statement of recurrence – do not interpret the physician statement FOLLOW THE RULES**

Head and Neck Equivalent Terms and Definitions
 C000-C148, C300-C339, C410, C411, C479, C754, C755
 (Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Column 1 contains specific and NOS histology terms.

- Specific histology terms **do not** have subtypes/variants
- NOS histology terms **do** have subtypes/variants.

Column 2 contains synonyms for the specific or NOS term. Synonyms have the **same** histology code as the specific or NOS term.

Column 3 contains subtypes/variants of the NOS histology. Subtypes/variants **do not** have the **same** histology code as the NOS.

Specific or NOS Term and Code	Synonyms	Subtypes/Variants
Adenoid cystic carcinoma 8200	ACC (rare)	
Chondrosarcoma 9220/3	Chondrosarcoma grade 2/3 Chondrosarcoma NOS	Chondrosarcoma, grade 1 9222/3 (cases diagnosed 1/1/2022 forward)
Liposarcoma 8850/3		Liposarcoma, well differentiated 8851/3
Neuroendocrine tumor, NOS 8240/3	Carcinoid Neuroendocrine carcinoma grade 1 Well-differentiated neuroendocrine carcinoma	Large cell neuroendocrine carcinoma/LCNEC 8013/3 Neuroendocrine carcinoma grade 2/moderately-differentiated neuroendocrine carcinoma/atypical carcinoid 8249/3 Small cell neuroendocrine carcinoma/small cell carcinoma/SmCC 8041/3
Squamous cell carcinoma (SCC) 8070	Epidermoid carcinoma Conventional Squamous cell carcinoma NOS	Adenosquamous carcinoma (ASC) 8560 Basaloid squamous cell carcinoma (BSCC) 8083 Lymphoepithelial carcinoma (LEC)/lymphoepithelioma-like carcinoma 8082 Keratizing squamous cell carcinoma 8071 Non-keratinizing squamous cell carcinoma 8072 Papillary squamous cell carcinoma (PSCC) 8052 Spindle cell squamous cell carcinoma (SC-SCC) 8074 Verrucous squamous cell carcinoma (VC) 8051

Use of Tables 1-9: Rules M7, M8, M12

- Rule M7
 - Abstract Multiple primaries when
 - Separate/non-contiguous tumors
 - Two or more different subtypes/variants in Column 3 of appropriate site table
 - Timing is irrelevant

Head and Neck Equivalent Terms and Definitions
 C000-C148, C300-C339, C410, C411, C479, C754, C755
 (Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Column 1 contains specific and NOS histology terms.

- Specific histology terms **do not have subtypes/variants**
- NOS histology terms **do have subtypes/variants**.

Column 2 contains synonyms for the specific or NOS term. Synonyms have the **same** histology code as the specific or NOS term.

Column 3 contains subtypes/variants of the NOS histology. Subtypes/variants **do not** have the **same** histology code as the NOS.

Specific or NOS Term and Code	Synonyms	Subtypes/Variants
Adenoid cystic carcinoma 8200	ACC (rare)	
Chondrosarcoma 9220/3	Chondrosarcoma grade 2/3 Chondrosarcoma NOS	Chondrosarcoma, grade 1 9222/3 (cases diagnosed 1/1/2022 forward)
Liposarcoma 8850/3		Liposarcoma, well differentiated 8851/3
Neuroendocrine tumor, NOS 8240/3	Carcinoid Neuroendocrine carcinoma grade 1 Well-differentiated neuroendocrine carcinoma	Large cell neuroendocrine carcinoma/LCNEC 8013/3 Neuroendocrine carcinoma grade 2/moderately-differentiated neuroendocrine carcinoma/atypical carcinoid 8249/3 Small cell neuroendocrine carcinoma/small cell carcinoma/SmCC 8041/3
Squamous cell carcinoma (SCC) 8070	Epidermoid carcinoma Conventional Squamous cell carcinoma NOS	Adenosquamous carcinoma (ASC) 8560 Basaloid squamous cell carcinoma (BSCC) 8083 Lymphoepithelial carcinoma (LEC)/lymphoepithelioma-like carcinoma 8082 Keratizing squamous cell carcinoma 8071 Non-keratinizing squamous cell carcinoma 8072 Papillary squamous cell carcinoma (PSCC) 8052 Spindle cell squamous cell carcinoma (SC-SCC) 8074 Verrucous squamous cell carcinoma (VC) 8051

Use of Tables 1-9: Rules M7, M8, M12

- Rule M8
 - Abstract Multiple primaries when
 - Separate/non-contiguous tumors
 - Different rows in the appropriate site table
 - Timing is irrelevant

*This is Table 3

Head and Neck Equivalent Terms and Definitions
 C000-C148, C300-C339, C410, C411, C479, C754, C755
 (Excludes lymphoma and leukemia M9590 – M9993 and Kaposi sarcoma M9140)

Specific or NOS Term and Code	Synonyms	Subtypes/Variants
Adenoid cystic carcinoma 8200		
Polymorphous adenocarcinoma 8525	Cribriform adenocarcinoma Polymorphous low-grade adenocarcinoma Terminal duct carcinoma	
Squamous cell carcinoma 8070 <i>Note 1:</i> Beginning 1/1/2022, keratinizing squamous cell carcinoma, HPV negative is coded 8086 for sites listed in Table 5 <i>only</i> . A diagnosis of keratinizing squamous cell carcinoma, NOS is coded 8071. <i>Note 2:</i> Beginning 1/1/2022, non-keratinizing squamous cell carcinoma, HPV positive is coded 8085 for sites listed in Table 5 <i>only</i> . A diagnosis of non-keratinizing squamous cell carcinoma, NOS is coded 8072.	Conventional Squamous cell carcinoma NOS	Basaloid squamous cell carcinoma 8083 Keratizing squamous cell carcinoma 8071 (see note 1) Lymphoepithelial carcinoma 8082 Non-keratinizing squamous cell carcinoma 8072 (see note 2) Papillary squamous cell carcinoma 8052 Squamous cell carcinoma HPV-negative 8086* Cases diagnosed prior to 1/1/2022: <i>Note:</i> HPV-negative is not equivalent to HPV-mediated (p16-). According to the 2018 SEER Manual, HPV-type 16 refers to virus type and is different from p16 overexpression (p16+). HPV status is determined by tests designed to detect viral DNA or RNA. Tests based on ISH, PCR, RT-PCR technologies detect the viral DNA or RNA; whereas, the test for p16 expression, a surrogate marker for HPV, is IHC. HPV testing must be negative by viral detection tests in order to code histology as 8086. Cases diagnosed 1/1/2022 forward: <i>Note:</i> HPV mediated (p16-) test results can be used to assign code 8086. Squamous cell carcinoma HPV-positive 8085*

Multiple Primary Rules - Use of Tables 1-9

- Rule M12
 - Abstract single primaries when
 - Separate/non-contiguous tumors
 - In the same primary site
 - On the same row in the appropriate site table
 - Timing is irrelevant

*This is Table 5



Multiple Primary Rules – Less than or equal to 60 days

- Rule M10
- Abstract a single primary (invasive)
- Invasive tumor dx less than or equal to 60 days after in-situ
- In same primary site



Multiple Primary Rules –60 days rule

- Rule M11
- Abstract multiple primaries
- Invasive tumor dx more than 60 days after in-situ

NOTE: Abstract multiple primaries even if physician states the invasive tumor is recurrence or progression



A slide with a white background. In the top right corner, the NAACCR logo is displayed. A short blue horizontal line is positioned in the upper left area. The title "IMPORTANT NOTES for Identifying Histology" is centered in a large, black, sans-serif font. Below the title, there are two bullet points:

- Code histology diagnosed **prior** to neoadjuvant treatment
- Most specific histology from either resection or biopsy



Priority Order for Identifying Histology

1. Tissue or path report from biopsy or resection of primary site
2. Cytology of primary site (FNA)
3. Tissue or path report from metastatic site
4. Scan: CT, MRI, PET
5. Histology documented by physician when the others are not available.



Coding Histology

1. Code the most specific histology or subtype/type/variant regardless of whether it is described as **majority or predominate part of tumor; minority of tumor; a component.**
2. Code the histology described as differentiation or features/features of **ONLY** when there is a specific ICD-O code for the "NOS with __features or "NOS with ___differentiation"
3. Code the specific histology described by ambiguous terminology* **ONLY** when A or B is true
 - A. The only diagnosis available is one histology term described by ambiguous terminology
 - B. There is a NOS histology and a more specific described by ambiguous terminology
 - Specific histology is clinically confirmed by a physician OR
 - Patient is receiving treatment based on the specific histology described by ambiguous term

*pg 48 lists the ambiguous terminology for the Head and Neck Histology Rules



Histology Coding Rules

Single Tumor

- H1: code histology when only one histology identified
- H2: code invasive histology when in situ and invasive histologies present in same tumor
- H3: Code the subtype/variant when there is a NOS and a single subtype/variant of that NOS

Multiple Tumors

Abstract as a Single Primary

- H4: code histology when only one histology is identified **for all tumors**
- H5: Code invasive histology when
 - All tumors have both invasive and in situ elements OR One or more tumors are invasive and one or more tumors are in situ
- H6: Code subtype/variant when all tumors are a NOS and a single subtype/variant of that NOS



Case Scenario 2

- 3/2024 Pathology FNA of right next level II lymph node= metastatic squamous cell carcinoma
- HPV in situ hybridization HPV low risk (6/11) negative, HPV high risk (16/18/33) positive
- Patchy expression of p16 by immunohistochemistry
- Primary site stated to be base of tongue
- What would the histology be?
 - Squamous Cell Carcinoma HPV positive 8085/3

Case Scenario 3

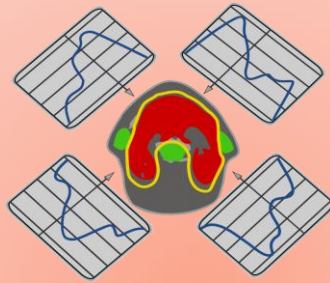
- 6/2024 Pathology FNA of right next level II lymph node consistent with metastatic squamous cell carcinoma
- IHC Stain for p16 strongly positive
- Primary site stated to be base of tongue
- What would the histology be?
 - Squamous Cell Carcinoma HPV positive 8085/3

Questions?



TREATMENT





Base of Tongue (BOT) & Laryngeal (Glottic) Cancer Role of Radiation Therapy

Wilson Apollo, MS, ODS, RTT(retired)



WHA Consulting

NAACCR Fall Webinar Series

October 3, 2024

WHA Consulting

2

2



Larynx- The picture

Table 1. Estimated Number* of New Cancer Cases and Deaths by Sex, US, 2023

	Estimated New Cases			Estimated Deaths		
	Both sexes	Male	Female	Both sexes	Male	Female
Respiratory system	256,290	131,150	125,140	132,330	71,170	61,160
Larynx	12,380	9,900	2,480	3,820	3,070	750
Lung & bronchus	238,340	117,550	120,790	127,070	67,160	59,910
Other respiratory organs	5,570	3,700	1,870	1,440	940	500

3

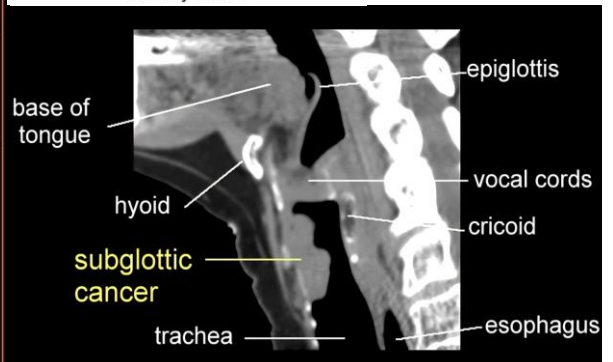
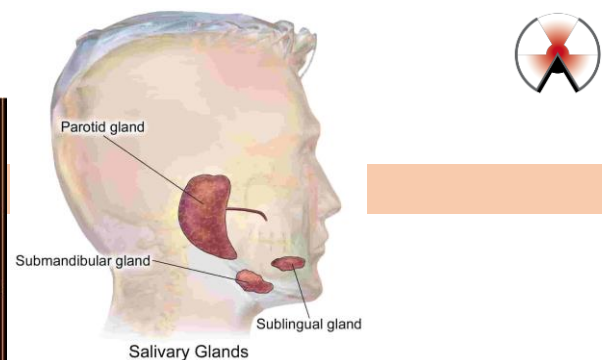
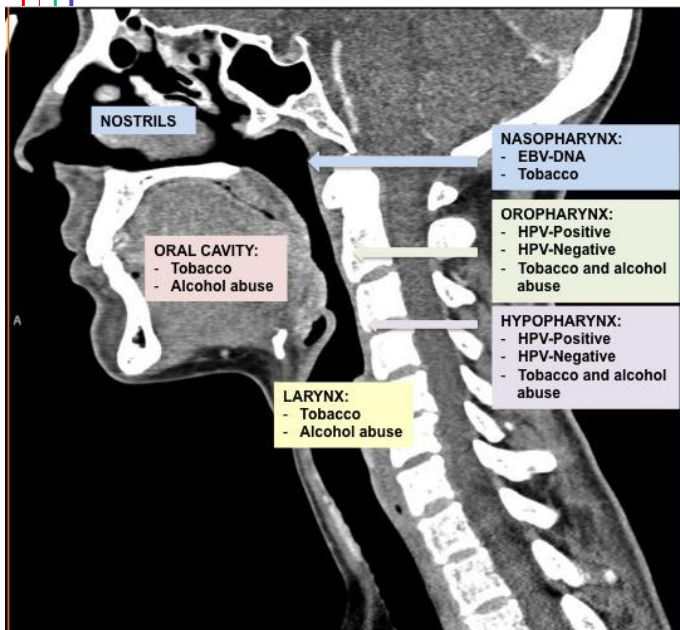


Glottic Cancer

- Low incidence rate, higher in males,
- Strong link to smoking & alcohol abuse, 15-30x higher in smokers vs. nonsmokers,
- GERD also a risk factor,
- Squamous cell carcinoma makes up >90% of cancers of the larynx.
- Glottic cancers most often arise in the anterior 1/3 of vocal cords.
- Glottic cancer **less likely to spread via lymphatics** as the glottis has a **poor** lymphatic supply compared to the supraglottis and subglottis.
- **Supraglottic** cancers more likely to present with regional lymph node spread.

4

Glottic Cancer



5

Glottic Cancer Case #1



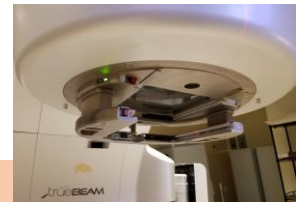
- 71-year-old Caucasian male with history of hypertension, hyperlipidemia, diabetes mellitus, who presented with a four-week period of worsening dysphonia and hoarseness.
- On exam, no palpable masses or tenderness on neck. No palpable lymphadenopathy. Fiberoptic exam revealed a left vocal cord white lesion. No other lesions noted.

Txt Site	Energy	Dose/fx	# of fx	Total dose (cGy)	Start date	End date
Glottis	6X/IMRT	2.25	28	6300	4/21/24	6/2/24

6



Glottic Cancer Case #1



Field ID	1	2
Field Name	1VMAT Larynx	2VMAT Larynx
Technique	ARC	ARC
Direction	LPO	RPO
Machine	TrueBeamSN2640	TrueBeamSN2640
Energy	6X	6X
Bolus	-	-
X1 cm	+3.7	+2.3
X2 cm	+3.5	+3.2
Y1 cm	+2.6	+2.9
Y2 cm	+3.5	+3.5
Gantry Rtn (deg)	100.0 CCW 260.0	260.0 CW 100.0
Coll. Rtn (deg)	5.0	90.0

VMAT: Volumetric Modulated Arc Therapy

ARC: Arc therapy/rotational therapy

LPO: Left Posterior Oblique

RPO: Right Posterior Oblique

6X: Beam energy denoting photon therapy

Gantry Rotation:

CCW: Counterclockwise

CW: Clockwise

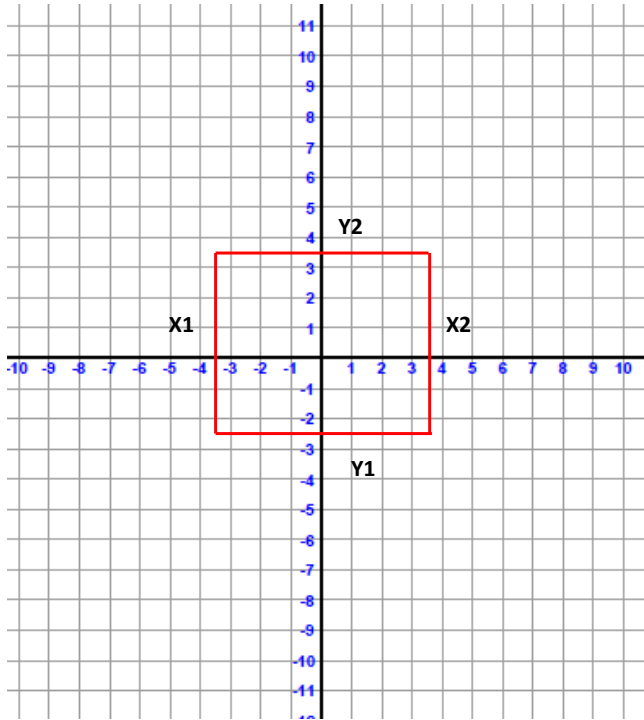
X1/X2-Y1/Y2 refers to collimator settings/Field size,

Field 1: 7.2 cm x 6.1 cm

7

Field ID 1-LPO

Asymmetric
collimator(jaw)
settings
Field Size=
7.2 cm x 6.1 cm



8

Glottis Field Size



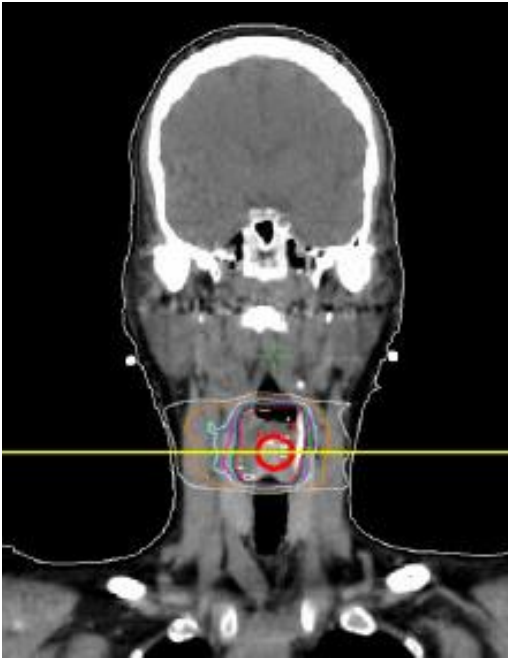
- Field 1:
7.2 cm x 6.1 cm
- Field 2:
5.5 cm x 6.4 cm



9



Glottis: Case #1



10

Case 1- Glottis

Seg	#	Field	Code/Definition
Summary	1	Rad/Surg Sequence	0 No RT and/or surgery
	2	Reason No Rad	0 Radiation was admin..
	3	Location of Rad	1 All RT at this facility
	4	Date RT Started/Flag	04/21/24
	5	Date RT Ended/Flag	06/02/24
	6	Number of Phases of RT	01
	7	RT Discontinued Early	01 Radiation completed
	8	Total Dose	006300
Phase 1	9	Primary Treatment Volume	23 Larynx (glottis)
	10	Rad to Draining LNs	00 No RT to draining LNs
	11	Treatment Modality	02 External beam photon
	12	Planning Technique	05 IMRT
	13	Dose per Fraction	225
	14	Number of Fractions	028
	15	Phase I Total Dose	006300
Phase 2	16	Primary Treatment Volume	00
	17	Rad to Draining LNs	
	18	Treatment Modality	
	19	Planning Technique	
	20	Dose per Fraction	
	21	Number of Fractions	
	22	Phase II Total Dose	
Phase 3	23	Primary Treatment Volume	
	24	Rad to Draining LNs	
	25	Treatment Modality	
	26	Planning Technique	
	27	Dose per Fraction	
	28	Number of Fractions	
	29	Phase III Total Dose	

Case 1 Rationale:

#10: Cancer of the glottis is not known for lymphatic spread due to nearly absent lymphatic drainage. Regional LNs are not included in irradiated field.

#11: Beam energy of 6X is indicative of photon modality.

#12: IMRT noted in RT completion summary. In addition, the dosimetry plan mentions VMAT/ARC, to support IMRT coding.

#13-15: As per RT completion summary; treatment given in a single phase.



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BOT Cancer Case #2

- 67-year-old female w/ h/o CKD, HTN, HLD, who presented to PCP w/ a palpable RT neck mass w/ discomfort/swelling.
- Current smoker (1 PPD).
- **CT neck/soft tissue:** Enlarged **3.0 cm** right level IIA lymph node concerning for metastatic adenopathy. No other enlarged lymph nodes. No abnormal nodular or masslike enhancement within the visualized aerodigestive tract.
- **PET/CT:** FDG uptake co-registering with the enlarged RT level IIA lymph node (SUV max 20.2) noted on previous CT scan. Asymmetric FDG uptake at right root of tongue. No other sites of FDG uptake to suggest metastatic disease.

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BOT Cancer Case #2

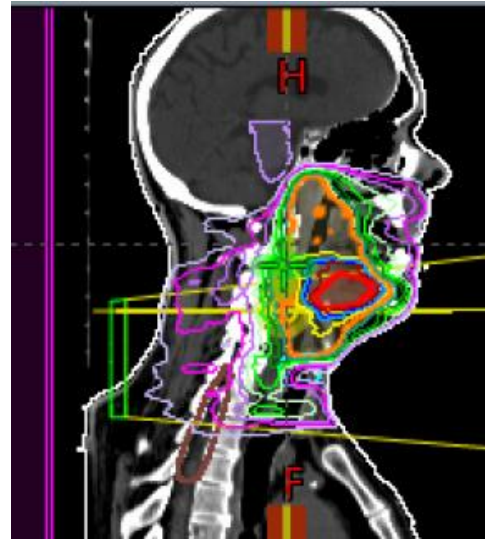
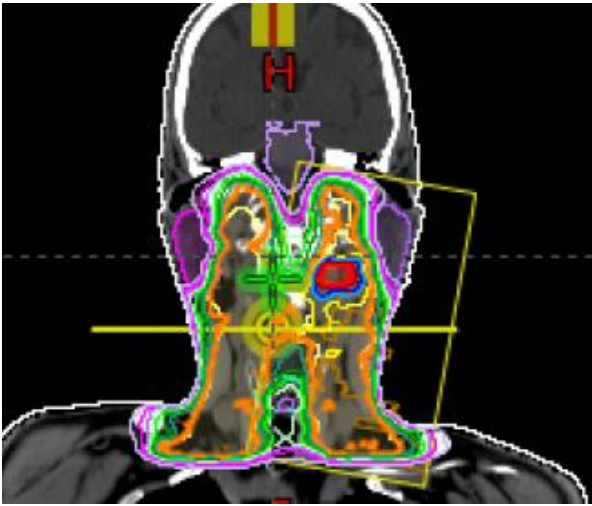
- FNA of right neck level II lymph node= metastatic squamous cell carcinoma.
- 2/1/24: Cisplatin concurrent with EBRT

Txt Site	Energy	Dose/fx (cGy)	# of fx	Total dose (cGy)	Start date	End date
BOT/H&N	6X/ARC	200	35	7,000	2/1/24	3/20/24

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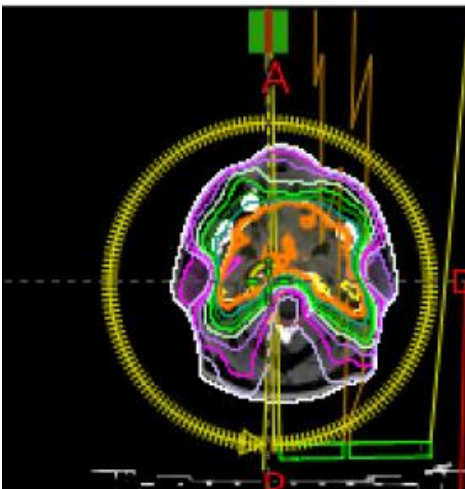
Case 2-BOT: Dose Distribution for Primary Site & Regional Lymph Nodes



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Case 2-BOT: Dose Distribution for Primary Site & Regional Lymph Nodes



Beam Description
1 VMAT HN Oropharynx
Beam ID: 1

Accelerator: TB2895
Energy: 6X
Gantry: 179 CCW to 182

Beam Description
2 VMAT HN Oropharynx
Beam ID: 2

Accelerator: TB2895
Energy: 6X
Gantry: 181 CW to 178

15

BOT Cancer Case #2

OARs

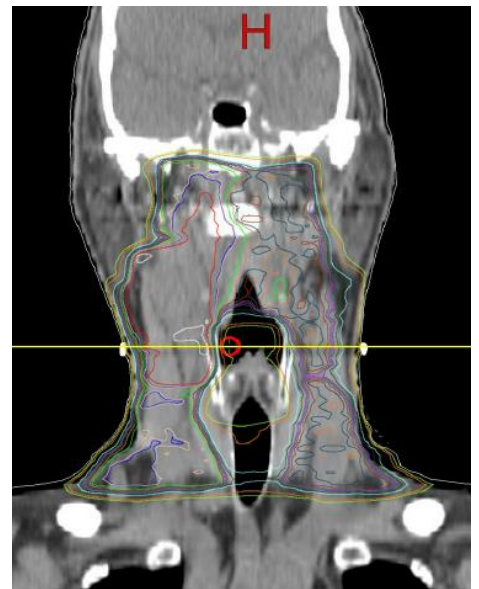
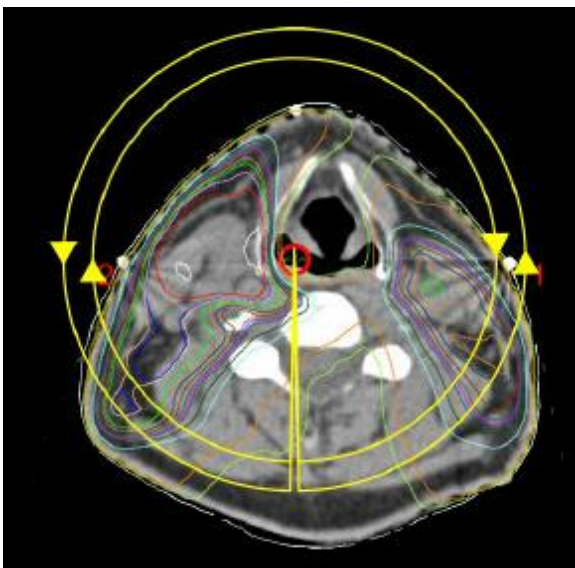


- Brainstem,
- Esophagus,
- Larynx,
- Mandible,
- LT/RT parotid,
- Spinal cord,
- Submandibular,
- Brachial plexus

16



H&N



Field size: 23.3 cm X 19.0 cm

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BOT Case #2



Field ID	Technique	Machine/Energy	MLC
1	ARC-I	TB2895 - 6X	VMAT
2	ARC-I	TB2895 - 6X	VMAT
3	ARC-I	TB2895 - 6X	VMAT

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Case 2- BOT

Seg	#	Field	Code/Definition
Summary	1	Rad/Surg Sequence	0 No RT and/or surgery
	2	Reason No Rad	0 Radiation was admin..
	3	Location of Rad	1 All RT at this facility
	4	Date RT Started/Flag	02/01/24
	5	Date RT Ended/Flag	03/20/24
	6	Number of Phases of RT	01
	7	RT Discontinued Early	01 Radiation completed
	8	Total Dose	007000
Phase 1	9	Primary Treatment Volume	22 Oropharynx
	10	Rad to Draining LNs	01 Neck LNs region
	11	Treatment Modality	02 External beam photon
	12	Planning Technique	05 IMRT
	13	Dose per Fraction	200
	14	Number of Fractions	035
Phase 2	15	Phase I Total Dose	007000
	16	Primary Treatment Volume	00
	17	Rad to Draining LNs	
	18	Treatment Modality	
	19	Planning Technique	
	20	Dose per Fraction	
Phase 3	21	Number of Fractions	
	22	Phase II Total Dose	
	23	Primary Treatment Volume	
	24	Rad to Draining LNs	
	25	Treatment Modality	
	26	Planning Technique	
	27	Dose per Fraction	
	28	Number of Fractions	
	29	Phase III Total Dose	

Case 2 Rationale:

#10: Unlike glottic cancer, BOT cancer tends to present with lymphatic spread/mets.

#11: Beam energy of 6X is indicative of photon modality. When EBRT is used for H&N cases, expect a beam energy of **6X/6MV** for vast majority of cases.

#12: Arc/rotational therapy (VMAT) noted in RT completion summary, supporting IMRT coding.

#13-15: As per RT completion summary; treatment given in a single phase.



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BOT Cancer Case #3



- 69-year-old male w/ h/o thyroid nodule, HTN, HLD, who presented w/ a palpable lump @ angle of the jaw on the RT side w/ associated TMJ symptoms. Also dysphagia.
- Nonsmoker.
- **CT Neck/soft tissue= 1.5 cm** lobulated enhancing RT base of tongue mass noted, consistent with neoplasm. Mass extends to the level of the vallecular. Bilateral cervical chain metastatic lymphadenopathy with prominent RT level II 1.9 cm nodal mass
- **PET/CT=** Abnormal hypermetabolic activity in RT tongue base mass (SUV max 20.1), consistent with biologic tumor activity. Conglomerate RT level II cervical lymph nodes (SUV max 21.2) and left cervical level II subcentimeter lymph nodes (SUV max 5.8). No other sites of abnormal FDG uptake.

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BOT Cancer Case #3



- **Right-sided neck level II lymph node US-guided FNA=** positive for malignant cells, necrotic neoplastic cells, consistent with metastatic squamous cell carcinoma.
- 4/24/24: Cisplatin concurrent with EBRT

Txt Site	Energy	Dose/fx (cGy)	# of fx	Total dose (cGy)	Start date	End date
Oropharynx /Neck	6X/VMAT	200	35	7,000	4/14/24	6/19/24

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BOT Case 3 Planning Contours



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Case 3- BOT

Seg	#	Field	Code/Definition
Summary	1	Rad/Surg Sequence	0 No RT and/or surgery
	2	Reason No Rad	0 Radiation was admin..
	3	Location of Rad	1 All RT at this facility
	4	Date RT Started/Flag	04/14/24
	5	Date RT Ended/Flag	06/19/24
	6	Number of Phases of RT	01
	7	RT Discontinued Early	01 Radiation completed
	8	Total Dose	007000
Phase 1	9	Primary Treatment Volume	22 Oropharynx
	10	Rad to Draining LNs	01 Neck LNs region
	11	Treatment Modality	02 External beam photon
	12	Planning Technique	05 IMRT
	13	Dose per Fraction	200
	14	Number of Fractions	035
	15	Phase I Total Dose	007000
Phase 2	16	Primary Treatment Volume	00
	17	Rad to Draining LNs	
	18	Treatment Modality	
	19	Planning Technique	
	20	Dose per Fraction	
	21	Number of Fractions	
	22	Phase II Total Dose	
Phase 3	23	Primary Treatment Volume	
	24	Rad to Draining LNs	
	25	Treatment Modality	
	26	Planning Technique	
	27	Dose per Fraction	
	28	Number of Fractions	
	29	Phase III Total Dose	

Case 3 Rationale:

#10: Unlike glottic cancer, BOT cancer tends to present with lymphatic spread/mets.
#11: Beam energy of 6X is indicative of photon modality.
#12: VMAT (rotational therapy) noted in RT completion summary, supporting IMRT coding.
#13-15: As per RT completion summary; treatment given in a single phase.



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Clinical Scenario 4: H&N SIB



- 72 Y/O W/F, long-term smoker, who presented w/ cough and mild dysphagia and was eventually dx'd base of tongue SCC.
- Pt treated w/ concurrent cisplatin and EBRT.
- All PTVs treated concurrently with **Tomo IMRT**.
- Start date: 4/22/24 End Date: 6/7/24

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Helical Tomotherapy (HT)



- Beam generated by **6 MV linac** mounted on a slip ring gantry.
- Ring gantry continuously rotates while pt is moved through the rotating beam plan. Dose is delivered in helical fashion (**Arc/rotational therapy**).



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Clinical Scenario 4-EBRT Simultaneous Integrated Boost (SIB) Treatment

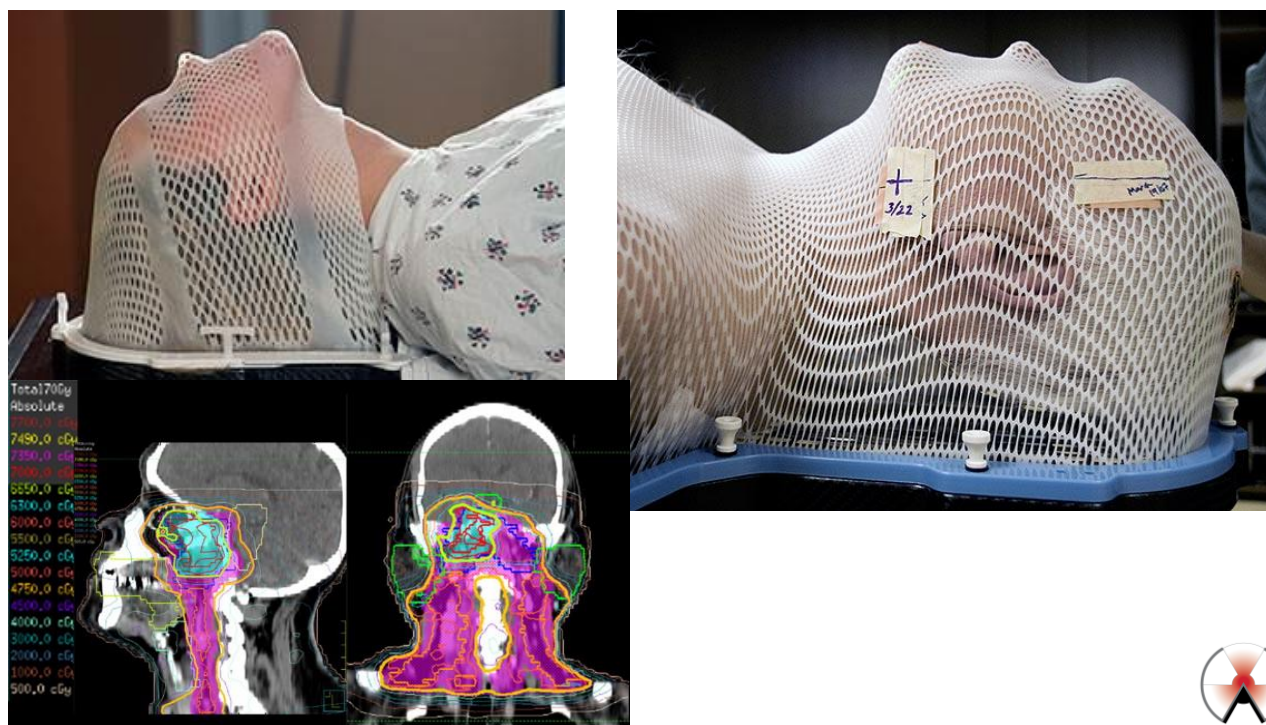


Txt Site	Energy	Dose/Fx (cGy)	Fractions	Total Dose (cGy)
PTVp1_70Gy. Primary & LN	6X	200	35	7000
PTVp_66.5Gy Primary subclinical	6X	190	35	6650
PTVn_60Gy RT neck	6X	171	35	5895
PTVn_56Gy LT neck	6X	160	35	5600

Treatment Modality = 02: external beam, photons(6X)
 Planning Technique = 05: IMRT(arc therapy)

26

26



27

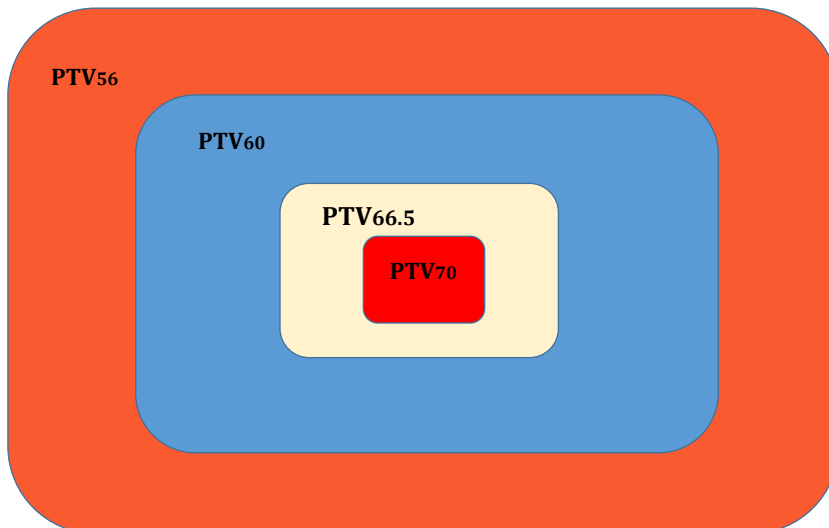


Clinical scenario 4- H&N w/ SIB-IMRT...

- When Simultaneous Integrated Boost (SIB) is used, the regional dose along with the boost doses are delivered **at the same time every day.**
- This is why each phase consists of 35 fractions.
- The Planned Tumor Volume (PTV) is basically reduced to deliver the boost daily.

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Simultaneous Integrated Boost (SIB)



29

Case 4-SIB

Summary	1	Rad/Surg Sequence	0 No radiation and/or sur
	2	Reason No Rad	0 Radiation was admin..
	3	Location of Rad	1 All RT at this facility
	4	Date Started/Flag	04/22/24
	5	Date Finished/Flag	06/07/24
	6	Number of Phases	04
	7	Discontinued Early	01 Radiation completed
	8	Total Dose	007000
Phase 1	9	Volume (PTVp1_70Gy)	22 Oropharynx
	10	Rad to draining LNs	01 Neck lymph node regions
	11	Modality	02 External beam, photons
	12	Planning Technique	05 IMRT
	13	Number of Fractions	035
	14	Dose per Fraction	00200
	15	Total Phase 1 Dose	007000
Phase 2	16	Volume (PTVn_66.5Gy)	22 Oropharynx
	17	Rad to Nodes	0 No RT to draining lymph nodes
	18	Modality	02 External beam, photons
	19	Planning Technique	05 IMRT
	20	Number of Fractions	35
	21	Dose per Fraction	00190
	22	Total Phase 2 Dose	006650
Phase 3	23	Volume (PTVn_60Gy)	01 Neck lymph node regions
	24	Rad to Nodes	88 NA
	25	Modality	02 External beam, photons
	26	Planning Technique	05 IMRT
	27	Number of Fractions	035
	28	Dose per Fraction	00171
	29	Total Phase 3 Dose	005985

Case 4 Rationale:

#6: There will be cases that exceed the 3-phase limit. However, we must still count them here and document them in the abstract.

This information can potentially lead to increasing the # of phases we capture in the future.

#13, 20, 27: When SIB is used, number of fx should be the same for all phases of SIB.

Note: Since all PTVs are treated simultaneously (SIB), order phases from largest delivered dose to lowest delivered dose.

See **Case #13** in CTR Guide-STORE Manual



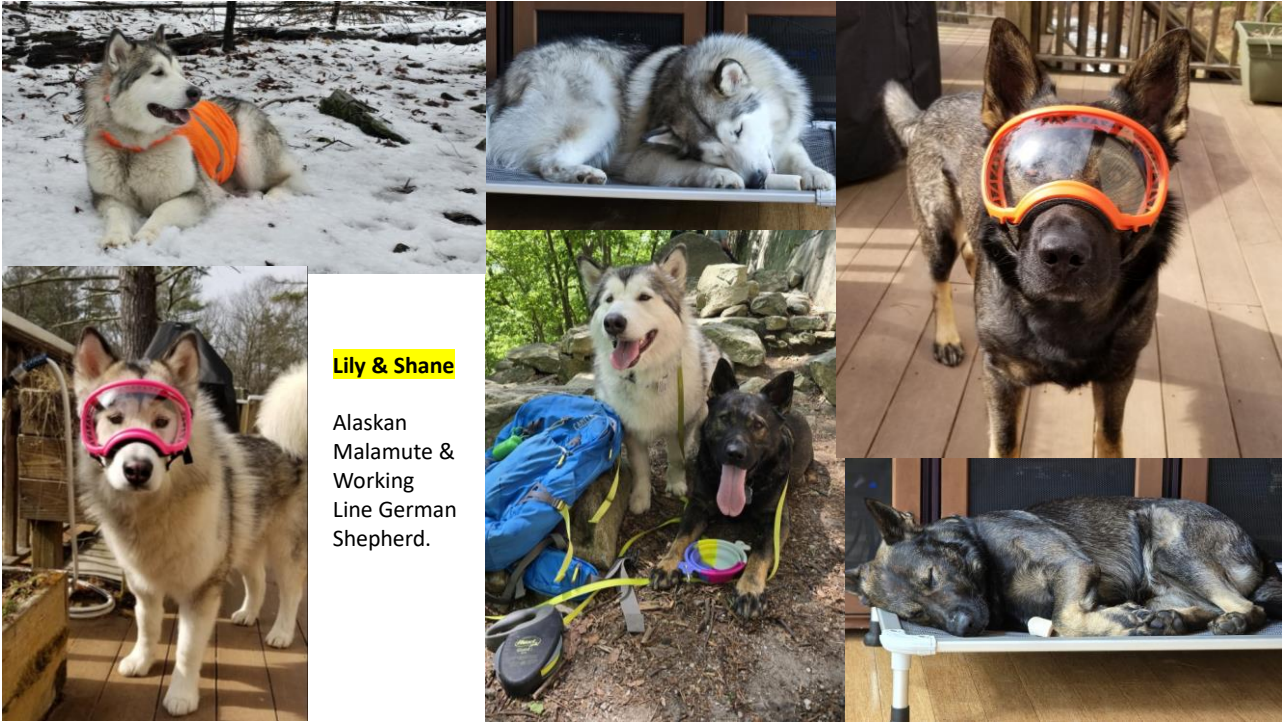
30

H&N Summary

- All H&N patients must be cleared by dentist prior to starting RT; treatment start can be delayed due to this requirement; important to document delays in the abstract,
- Patients undergoing H&N RT may experience treatment interruptions due to effects of RT (dysphagia, odynophagia, mucositis, dysgeusia [altered taste], moist skin desquamation),
- Most patients lose significant body weight during treatment,
- Some patients may need to be intubated for feeding,
- Critical to minimize dose to salivary glands to avoid xerostomia, particularly when BOT is being irradiated.

31





Lily & Shane

Alaskan Malamute & Working Line German Shepherd.

32

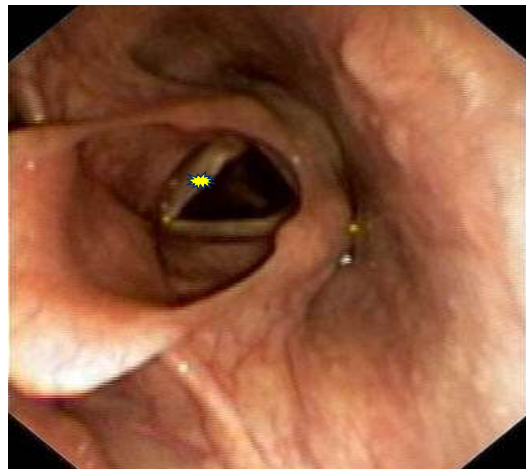


33

SURGERY

Larynx

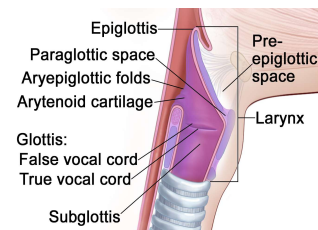
- A200 Local tumor excision, NOS
 - A260 Polypectomy
 - A270 Excisional biopsy
- Any combination of A200 or A260–A270 WITH
 - A210 Photodynamic therapy (PDT)
 - A220 Electrocautery
 - A230 Cryosurgery
 - A240 Laser ablation
 - A250 Laser excision
 - A280 Stripping



Transoral laser microsurgery

Larynx

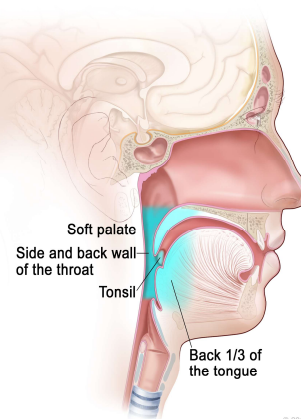
- A300 Partial excision of the primary site, NOS; subtotal/partial laryngectomy NOS; hemilaryngectomy NOS
 - A310 Vertical laryngectomy (removal of one side of larynx)
 - A320 Anterior commissure laryngectomy
 - A330 Supraglottic laryngectomy
- A400 Total or radical laryngectomy, NOS
 - A410 Total laryngectomy ONLY
 - A420 Radical laryngectomy ONLY
- A500 Pharyngolaryngectomy



Base of Tongue Oral Cavity Surgery Codes

- A200 Local tumor excision, NOS
 - A260 Polypectomy
 - A270 Excisional biopsy
- Any combination of A200 or A260–A270 WITH
 - A210 Photodynamic therapy (PDT)
 - A220 Electrocautery
 - A230 Cryosurgery
 - A240 Laser ablation
 - A250 Laser excision

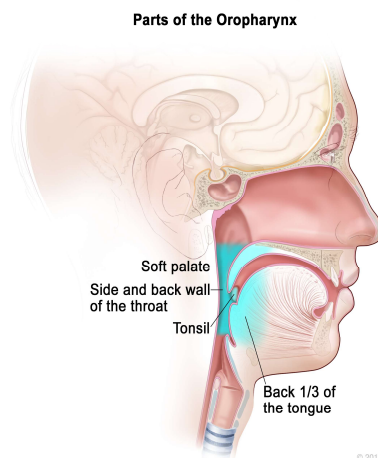
Parts of the Oropharynx



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Base of Tongue Oral Cavity Surgery Codes

- A300 Wide excision, NOS
 - Code A300 includes:
 - Hemiglossectomy Partial glossectomy
- A400 Radical excision of tumor, NOS
 - A410 Radical excision of tumor ONLY
 - A420 Combination of A410 WITH resection in continuity with mandible (marginal, segmental, hemi-, or total resection)
 - A430 Combination of A410 WITH resection in continuity with maxilla (partial, subtotal, or total resection)
 - Codes A400–A430 include:
 - Total glossectomy
 - Radical glossectomy



SYSTEMIC TREATMENT



Systemic

- Chemotherapy
 - **Cisplatin**
 - Carboplatin
 - 5-fluorouracil (5-FU)
 - Docetaxel (Taxotere)
 - Paclitaxel (Taxol)
 - Methotrexate
 - Capecitabine (Xeloda)
- BRM
 - Cetuximab (Erbix)
 - Nivolumab (Opdivo)



RADIATION



QUESTIONS?



REVIEW OF CASE SCENARIOS

Fabulous Prize Winner



NAACCR

Coming UP...

- Bladder 2024
 - Denise Harrison, BS, CTR
- Hematopoietic 2024 Part 1
 - Juliet Wilkins, MA, ODS-C



CE Certificate Quiz/Survey

CE Phrase

Link

Thank you!!!

