

# Head and Neck Cancers

## III: Treatment and Survival



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Division of Cancer Prevention and Control  
NCCDPPH, CoCHP  
Centers for Disease Control and Prevention  
Atlanta, Georgia



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# Surgery



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# Lip

- ◆ Surgery might be the only treatment
  - Mohs surgery
  - Reconstruction may be required
- ◆ Chemo/Radiation if needed
- ◆ Rarely is neck dissection recommended

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## Lip

### ◆ Survival

AJCC Stage	5-year Relative Survival
I	83%
II	73%
III	62%
IV	47%

Source: AJCC Cancer Staging Manual, 6<sup>th</sup> ed.

### ◆ Follow-up

- Annual physical exam
- If positive finding, refer to appropriate medical care provider

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## Surgery Codes: Tongue

- 30 Wide excision (includes hemi- or partial glossectomy)
- 40 Radical excision (includes total or radical glossectomy)
  - 41 Excision tumor only
  - 42 Excision and mandible excision

### ◆ Neck lymph node resections

### ◆ Organ-sparing

#### ● Salvage Surgery

- ◆ Indications: severe pain, necrotic bone, draining wounds

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## Other Options: Tongue

### ◆ Reconstruction

- Split thickness skin graft (STSG)
- Forearm or lateral arm muscle reconstruction

### ◆ Radiation

- Especially early stage
- Brachytherapy versus beam
- With or without chemotherapy

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## Tongue

### ◆ 5-Year Relative Survival by Stage

Local	74.5%
Regional	50.1%
Distant	27.9%
Unknown	40.1%

Source: <http://seer.cancer.gov>

### ◆ Follow-up

- H&P every 3 mo. x 1 yr
- H&P every 4 mo. next yr
- H&P every 6 mo. next 3 yrs
- Annually after 5 yrs
  
- CXR yearly?
- CT neck?



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## Other Oral Cavity Organs

Choice of treatment depends on:

- |               |             |                 |
|---------------|-------------|-----------------|
| ◆ Site        |             | ◆ Competence    |
| ◆ Location    | <i>and</i>  | ◆ Convenience   |
| ◆ Histology   | <i>also</i> | ◆ Cost          |
| ◆ Stage       |             | ◆ Compliance    |
| ◆ Node Status |             | ◆ Complications |

Head & Neck Cancer: A Multidisciplinary Approach, 2<sup>nd</sup> ed., pg 275



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## Surgery Codes: Oral Cavity

- |                                 |                                     |
|---------------------------------|-------------------------------------|
| 10 Local tumor destruction, NOS | Any combination of 20 or 26–27 WITH |
| 11 Photodynamic therapy         | 21 Photodynamic therapy (PDT)       |
| 12 Electrocautery; fulguration  | 22 Electrocautery                   |
| 13 Cryosurgery                  | 23 Cryosurgery                      |
| 14 Laser                        | 24 Laser ablation                   |
| 20 Local tumor excision, NOS    | 25 Laser excision                   |
| 26 Polypectomy                  |                                     |
| 27 Excisional biopsy            |                                     |



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## Surgery Codes: Oral Cavity

- 30 Wide excision, NOS
- 40 Radical excision of tumor, NOS
- 41 Radical excision of tumor ONLY
  - 42 Combination of 41 WITH resection in continuity with **mandible** (marginal, segmental, hemi-, or total resection)
  - 43 Combination of 41 WITH resection in continuity with **maxilla** (partial, subtotal, or total resection)



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## Surgery Codes: Salivary Glands

- 00 – 25 Same as Oral
- 30 Less than total
  - 31 Facial nerve spared
  - 32 Facial nerve sacrificed
- 33 Superficial lobe ONLY
  - 34 Facial nerve spared
  - 35 Facial nerve sacrificed
- 36 Deep lobe (Total)
  - 37 Facial nerve spared
  - 38 Facial nerve sacrificed
- 40 Total gland removal NOS
  - 41 Facial nerve spared
  - 42 Facial nerve sacrificed
- 50 Radical excision NOS
  - 51 WITHOUT removal of temporal bone
  - 52 WITH removal of temporal bone
  - 53 WITH removal of overlying skin (requires graft or flap coverage)



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## Salivary Gland Treatment Decisions

	T1, T2 Low grade	T1, T2 High grade	T3	T4
Parotid gland	Complete resection	Resection Neck dissect.; RT if LN pos	Resection Neck dissect.; RT if LN pos	Resection Resection of other organs Neck if pos
Submandibular	Complete resection	Wide excision RT	Wide excision, nerves if pos RT	Excision of involved areas RT



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## Salivary Glands

### ◆ 5-Year Relative Survival by Stage

AJCC Stage	5-year Relative Survival
I	86%
II	66%
III	53%
IV	32%

Source: AJCC Cancer Staging Manual, 6<sup>th</sup> ed.

### ◆ Follow-up

- H&P every 3 mo. x 1 yr
- H&P every 4 mo. next yr
- H&P every 6 mo. next 3 yrs
- Annually after 5 yrs
- CXR yearly
- TSH yearly if thyroid radiated

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## Surgery Codes: Pharynx

- |  |   |
|--|---|
| 00 – 25 same as Oral   | 41 WITH laryngectomy (laryngopharyngectomy)                         |
| 15, 28 Stripping   | 42 WITH bone [mandibulectomy]                                       |
| 30 Pharyngectomy, NOS  | 43 WITH both 41 and 42  |
| 31 Limited/partial pharyngectomy; tonsillectomy, bilateral tonsillectomy     | 50 Radical pharyngectomy (includes total mandibular resection), NOS |
| 32 Total pharyngectomy   | 51 WITHOUT laryngectomy   |
| 40 Pharyngectomy WITH laryngectomy OR removal of contiguous bone tissue, NOS | 52 WITH laryngectomy  |

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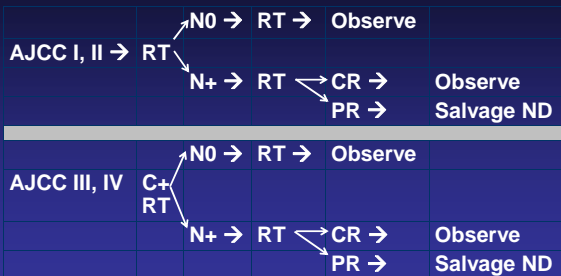
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## Nasopharynx Treatment

RT = Radiation    C = Chemotherapy



CR = Complete Response; ND = Node dissection

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## Pharynx: 5-Year Relative Survival by Stage

AJCC Stage	I	II	III	IV
Oropharynx	57%	54%	43%	30%
Nasopharynx	63%	52%	56%	39%
Hypopharynx	41%	36%	36%	20%

Source: AJCC Cancer Staging Manual, 6<sup>th</sup> ed.

◆ **Follow-up:** Similar to other oral sites



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## Laryngectomies

- ◆ Cordectomy
- ◆ Frontolateral laryngectomy
- ◆ Anterior frontal laryngectomy
- ◆ Hemilaryngectomy
- ◆ Total



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## Surgery Codes: Larynx

- |  |                                       |
|--|---------------------------------------|
| 00 – 28 same as Oral and stripping   | 40 Total or radical laryngectomy, NOS |
| 30 Partial excision of primary site, NOS; subtotal/partial laryngectomy NOS; hemilaryngectomy, NOS | 41 Total laryngectomy ONLY            |
| 31 Vertical laryngectomy   | 42 Radical laryngectomy ONLY          |
| 32 Anterior commissure laryngectomy  | 50 Pharyngolaryngectomy               |
| 33 Supraglottic laryngectomy   | 80 Laryngectomy, NOS                  |



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## Other Treatment: Larynx

- ◆ Reconstruction
  - Pneumatic speech
  - Esophageal speech
  - Tracheoesophageal puncture speech (TEP)
  - Electrolarynx
  - Talking keyboards
- ◆ Early Stage: surgery OR radiation
- ◆ Surgery and radiation
  - Positive margins
  - Cartilage invasion
  - Bulky disease
  - Positive lymph nodes
  - Add chemotherapy for N2, N3 disease

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## Larynx

- ◆ 5-Year Relative Survival by Stage
 

AJCC Stage	5-Year Relative Survival
I	80%
II	66%
III	55%
IV	37%
- ◆ Follow-up
  - H&P every 3 mo. x 1 yr
  - H&P every 4 mo. next yr
  - H&P every 6 mo. next 3 yrs
  - Annually after 5 yrs
  - CXR yearly?
  - CT neck?
  - Laryngoscopy

Source: AJCC Cancer Staging Manual, 6<sup>th</sup> ed.

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## Surgery Codes: Thyroid

- ◆ 13 Local tumor destruction, NOS (no path)
- ◆ 25 Removal of less than a lobe, NOS
- ◆ 26 Local surgical excision
- ◆ 27 Removal of a partial lobe ONLY
- ◆ 20 Lobectomy and/or isthmectomy
  - 21 Lobectomy ONLY
  - 22 Isthmectomy ONLY
  - 23 Lobectomy WITH isthmus
- ◆ 30 Removal of a lobe & partial removal of contralateral lobe
- ◆ 40 Subtotal or near total thyroidectomy
- ◆ 50 Total thyroidectomy
- ◆ 80 Thyroidectomy, NOS

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## Hormone Therapy: Thyroid

<p><b>Generic Thyroid Drugs</b></p> <ul style="list-style-type: none"> <li>◆ Levothyroxine /L-thyroxine</li> <li>◆ Liothyronine</li> <li>◆ Liotrix</li> <li>◆ Methimazole</li> <li>◆ Natural Thyroid</li> <li>◆ Propylthiouracil / PTU</li> <li>◆ Thyrotropin alfa             <ul style="list-style-type: none"> <li>◆ Code post-op hormone</li> <li>◆ replacement for papillary and follicular ca.</li> </ul> </li> </ul>	<p><b>Brand Name Thyroid Drugs</b></p> <ul style="list-style-type: none"> <li>◆ Armour Thyroid</li> <li>◆ Cytomel</li> <li>◆ Levothroid</li> <li>◆ Levoxyl</li> <li>◆ Naturethroid</li> <li>◆ Synthroid</li> <li>◆ Tapazole</li> <li>◆ Thyrogen</li> <li>◆ Thyrolar</li> <li>◆ Unithroid</li> <li>◆ Westthroid</li> </ul>
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## Other Treatment: Thyroid

<p>◆ <b>I-131</b></p> <ul style="list-style-type: none"> <li>● Papillary and follicular</li> </ul> <p>◆ <b>Beam</b></p> <ul style="list-style-type: none"> <li>● Lymphoma</li> <li>● Anaplastic?</li> <li>● Metastatic disease?</li> </ul>	<p>◆ <b>Chemotherapy</b></p> <ul style="list-style-type: none"> <li>● Anaplastic</li> <li>● Lymphoma</li> </ul> <p>◆ <b>Palliative</b></p> <ul style="list-style-type: none"> <li>● Tracheostomy</li> </ul>
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## Thyroid 5-Year Relative Survival

PAPILLARY	5-yr Rel. Surv.	FOLLICULAR	5-yr Rel. Surv.
I	100%	I	100%
II	100%	II	100%
III	96%	III	79%
IV	45%	IV	47%

MEDULLARY	5-yr Rel. Surv.	ANAPLASTIC	Relative Surv.
I	100%	Median	< 6 mos
II	97%	3-yr surv	11%
III	78%	5-yr surv	9%
IV	24%		

Source: AJCC Cancer Staging Manual, 6<sup>th</sup> ed. 24

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## Thyroid Cancer Follow-up

- ◆ Thyroglobulin (lab)
- ◆ PE
- ◆ I-131 scan (papillary & follicular)
- ◆ CT neck
- ◆ Chest X-ray

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## Risk of Lymph Node Metastases

- ◆ T3 – 4 tumors: 50%
- ◆ Site
- ◆ Younger age
- ◆ Larger tumor
- ◆ Perineural, perivascular invasion
- ◆ Poorly differentiated

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## Diagnosing Neck Metastases

- ◆ Physical Exam
- ◆ Radiology
  - CT
  - MRI
  - PET
  - Sonogram

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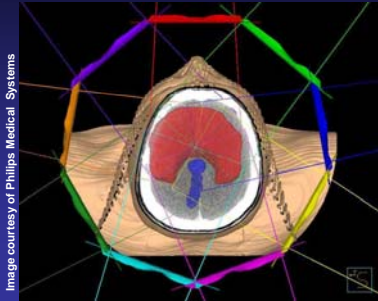
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# Radiation Therapy



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## Radiation Treatments

- ◆ Usual dose
- ◆ Hyperfractionated, accelerated
- ◆ IMRT
- ◆ Brachytherapy

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## How Does Radiation Therapy Work?

- ◆ 4 R's
  - Repair
  - Repopulation
  - Redistribution
  - Reoxygenation

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# Chemotherapy



CDC

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# Chemotherapy

- ◆ Recurrent/metastatic disease
  - Originally single drug
  - Now combined
- ◆ Newly diagnosed
  - Concomitant
  - Interrupted

CDC

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# Types of Chemotherapy

<p><b>Single drugs</b></p> <ul style="list-style-type: none"> <li>◆ Bleomycin</li> <li>◆ Camptosar (Ifosfamide)</li> <li>◆ Carboplatin</li> <li>◆ Cisplatin</li> <li>◆ Docetaxel (Taxotere)</li> <li>◆ 5FU</li> <li>◆ Irinotecan</li> <li>◆ Methotrexate</li> <li>◆ Paclitaxel (Taxol)</li> <li>◆ Vinorelbine (Navelbine)</li> </ul>	<p><b>Combinations</b></p> <ul style="list-style-type: none"> <li>◆ 5FU/Cisplatin</li> <li>◆ Docetaxel/Platinum</li> <li>◆ Docetaxel/5FU</li> <li>◆ Docetaxel/5FU/Platinum</li> </ul>
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CDC

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## Radiosensitizing Chemotherapy

- ◆ *To code ... or not to code ... that is the question...*
  - Lower dose
    - ◆ 500 mg m<sup>2</sup> vs regular 600 mg m<sup>2</sup>
  - Synergistic effect with RT

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## New Treatment Choices

- ◆ Erbitux (cetuximab) – combined with radiation – FDA approved February 2006
- ◆ Tykerb (lapatinib) – clinical trial February 2007
- ◆ Sulindac – clinical trial for pre-cancerous lesions
- ◆ Velcade and Taxotere – clinical trial
- ◆ Alimta and Oxaliplatin – clinical trial
- ◆ Other (acupuncture, biomarkers, tumor suppressor genes)

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## Resources

- ◆ [www.emedicine.com](http://www.emedicine.com)
- ◆ Myers E, Suen J, Myers J, Hanna E. *Cancer of the Head and Neck*. 4th ed. PA: Saunders; 2003
- ◆ Harrison LB, Sessions RB, Hong WK, Mendenhall W, Medina J, Kies MS, Wenig B, O'Malley B. *Head and Neck Cancer: A Multidisciplinary Approach*. 2nd ed. PA: Lippincott; 2004

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The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the Centers for Disease Control and Prevention.

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For information about CDC's  
Cancer Prevention and Control Programs  
and the  
National Program of Cancer Registries

Please visit

[www.cdc.gov/cancer/npcr](http://www.cdc.gov/cancer/npcr)



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