ASSOCIATION OF DIRECTORS OF ANATOMIC AND SURGICAL PATHOLOGY
Final Anatomic Diagnosis Checklist

LIP, ORAL CAVITY, OROPHARYNX CARCINOMA

(Ver 1.1, 11-03)

Accession No.: **Part No(s).** **Date:**

Patient Name:

ORGAN, SITE, OPERATION

ORGAN	SITE	OPERATION
Upper lip	Right	Excision
Lower lip	Left	En bloc excision
Floor of mouth		Modified radical neck dissection, type 1/2/3
Oral tongue		Supraomohyoid neck dissection
Base of tongue		Posterolateral neck dissection
Upper gingiva		Lateral neck dissection
Lower gingiva		Anterior compartment neck dissection
Buccal mucosa (inner surface of cheek)		Extended radical neck dissection
Hard palate		Glossectomy
Soft palate		Hemiglossectomy
Retromolar trigone		
Anterior tonsillar pillar		
Tonsillar fossa		
Posterior tonsillar pillar		
Pyriform sinus		
Pharyngeal wall		
Submandibular Gland, Sternomastoid Muscle, Internal Jugular Vein and Cervical Lymph Nodes		Total Submandibular Radical Neck Dissection Lymphadenectomy
Lymph nodes		

_____
(specify)

Other _____
_____

-Primary Tumor Diagnosis *Required*

Carcinoma in situ (specify the histologic type, e.g. squamous)
Squamous cell carcinoma
Verrucous squamous cell carcinoma
Spindle cell carcinoma
Adenoid (pseudoglandular) squamous cell carcinoma
Basaloid squamous cell carcinoma
Adenocarcinoma of minor salivary gland origin

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Mucoepidermoid carcinoma
Adenoid cystic carcinoma
Polymorphous low-grade carcinoma
Acinic cell carcinoma
Carcinoma ex pleomorphic adenoma
Epithelial-myoepithelial carcinoma
Clear cell carcinoma
Adenosquamous carcinoma
Salivary duct carcinoma
Sinonasal undifferentiated carcinoma
Lymphoepithelioma-like carcinoma
Other_____

Note: *Although many of the tumor types listed above may be more frequently encountered in other sites of the head and neck, they are included here as they may be encountered in the oral cavity or oropharynx as a result of local extension. If such a lesion is detected (such as sinonasal undifferentiated carcinoma), a different pTN staging system might apply. Please refer to the AJCC staging manual in such cases.*

A. Tumor Grade: *Required* I II III

Note: *Grading salivary gland tumors is dependent on the type of tumor. Four methods of grading these tumors generally apply (according to the AFIP fascicle). Most tumors are graded as a function of their designation. For example, acinic cell carcinoma, basal cell adenocarcinoma, and polymorphous low grade adenocarcinoma are low grade tumors whereas salivary duct carcinoma, primary squamous cell carcinoma, and undifferentiated carcinoma are high grade. Adenocarcinoma NOS is graded according to classic cytomorphologic features. Adenoid cystic carcinoma is graded as II (intermediate grade) if the predominant growth pattern is tubular-cribriform. However, if the majority of the tumor is solid, it is considered grade III (high grade). Mucoepidermoid carcinoma presents its own grading systems. The grading system presented below is extracted from Auclair et al. as well as the AFIP fascicle and is based on 5 morphologic features: intracystic compononent (space occupied by cysts), neural invasion, necrosis, ≥ 4 mitoses per 10 HPF, and cytologic anaplasia.*

Grading of Mucoepidermoid Carcinoma

Feature	Point value
Intracystic Component (<20%)	2
Neural Invasion	2
Necrosis	3
≥ 4 mitoses per 10 HPF	3
Cytologic anaplasia	4

Grade	Total Point Score
I (low grade)	0-4
II (intermediate grade)	5-6
III (high grade)	7-14

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B. Size of Tumor: ***Required*** _____cm. x _____cm. x _____cm.

C. Extent of Tumor: ***Required***

Tumor extends across the midline
Tumor does not extend across the midline
Tumor is confined to the oral cavity, but invades
- Lamina propria
- Superficial muscles of the tongue
- Skeletal muscles (do NOT use for tongue tumors)

Tumor invades the following adjacent structure(s):
- Deep muscles of the tongue
- Periosteum
- Cortical bone
- Maxillary sinus
- Skin
- Larynx _____ (specify site)
- Other _____
_____

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-Margins of Excision: *Required*

Margins are free from invasive or in situ carcinoma.

Margins are free from invasive carcinoma

Invasive carcinoma is present at the following margin(s):
_____

In situ carcinoma is present at the following margin(s):
_____

Invasive carcinoma is _____ cm from the nearest surgical margin (please specify)

Other _____
_____

Note: *The following lymph node groups are a complete listing of possible regional lymph nodes that may be included in neck dissections for carcinoma of the oral cavity. In many instances only a few lymph node groups will be received; often the lymph nodes will only be designated as neck node. Whatever lymph nodes are received, they are required to be reported.* ***Required***

-Lymph Nodes, Anterior (submental and submandibular):

A. Number examined:_____
B. Number positive:_____
C. Comment:_____
_____

(specify extranodal extension into perinodal adipose tissue.)

-Lymph Nodes, Superior Jugular:

A. Number examined:_____
B. Number positive:_____
C. Comment:_____
_____

(specify extranodal extension into perinodal adipose tissue.)

-Lymph Nodes, Middle Jugular:

A. Number examined:_____
B. Number positive:_____
C. Comment:_____
_____

(specify extranodal extension into perinodal adipose tissue.)

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-Lymph Nodes, Inferior Jugular:

A. Number examined:_____
B. Number positive:_____
C. Comment:_____

_____

(specify extranodal extension into perinodal adipose tissue.)

-Lymph Nodes, Posterior (posterior triangle):

A. Number examined:_____
B. Number positive:_____
C. Comment:_____

_____

(specify extranodal extension into perinodal adipose tissue.)

-Lymph Nodes, _____ *(specify)*:

A. Number examined:_____
B. Number positive:_____
C. Comment:_____

_____

(specify extranodal extension into perinodal adipose tissue.)

-Lymph Nodes, _____ *(specify)*:

A. Number examined:_____
B. Number positive:_____
C. Comment:_____

_____

(specify extranodal extension into perinodal adipose tissue.)

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Note: *The following defines lymph node groups.*

Level I. Submental group Lymph nodes within the triangular boundary of the anterior belly of the digastric muscles and the hyoid bone.

Submandibular group Lymph nodes within the boundaries of the anterior and posterior bellies of the digastric muscle and the body of the mandible. The submandibular gland is included in the specimen when the lymph nodes within this triangle are removed.

Level II. Upper jugular group Lymph nodes located around the upper third of the internal jugular vein and adjacent spinal accessory nerve extending from the level of the carotid bifurcation (surgical landmark) or hyoid bone (clinical landmark) to the skull base. The posterior boundary is the posterior border of the sternocleidomastoid muscle and the anterior boundary is the lateral border of the sternohyoid muscle.

Level III. Middle jugular group Lymph nodes located around the middle third of the internal jugular vein extending from the carotid bifurcation superiorly to the omohyoid muscle (surgical landmark), or cricothyroid notch (clinical landmark) inferiorly. The posterior boundary is the posterior border of the sternocleidomastoid muscle, and the anterior boundary is the lateral border of the sternohyoid muscle.

Level IV. Lower jugular group Lymph nodes located around the lower third of the internal jugular vein extending from the omohyoid muscle superiorly to the clavicle inferiorly. The posterior boundary is the posterior border of the sternocleidomastoid muscle, and the anterior boundary is the lateral border of the sternohyoid muscle.

Level V. Posterior triangle group: This group comprises predominantly the lymph nodes located along the lower half of the spinal accessory nerve and the transverse cervical artery. The supraclavicular nodes are also included in this group. The posterior boundary is the anterior border of the trapezius muscle, the anterior boundary is the posterior border of the sternocleidomastoid muscle, and the inferior boundary is the clavicle.

Lymph node groups removed from the areas not included in the above levels, e.g. scalene, suboccipital and retropharyngeal, should be separately identified and reported separately from levels.

-Additional Tumor Features: ***Optional***

A. Lymphatic Vessel Invasion: Identified Not Identified

B. Blood Vessel Invasion: Identified Not Identified

C. Perineurial Invasion: Identified Not Identified

D. Necrosis: Absent Mild / Moderate / Extensive

E. Other: _____

-Additional Findings and Comments: *Optional*

The surrounding mucosa demonstrates:
Dysplasia, keratinizing/nonkeratinizing mild/moderate/severe
Keratosis without dysplasia
Atypia, consistent with radiation changes
Chronic inflammation
Other _____

-Ancillary Studies: *Optional*

Special stains are performed, the results are as follows:
A._____
B._____
C._____
D._____
Interpretation:_____
_____

Immunohistochemical studies are performed, the results are as follows:
A._____
B._____
C._____
D._____
Interpretation:_____
_____

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pTN Stage: *Required*

Lip and Oral Cavity

A. Primary Tumor:

pTX Primary tumor cannot be assessed
pT0 No evidence of primary tumor
pTis Carcinoma in situ
pT1 Tumor 2 cm or less in greatest dimension
pT2 Tumor more than 2 cm but not more than 4 cm in greatest dimension
pT3 Tumor more than 4 cm in greatest dimension
pT4 **Lip:** Tumor invades through cortical bone, inferior alveolar nerve, floor of mouth, or skin of face (i.e., chin or nose).
pT4a **Oral Cavity:** Tumor invades adjacent structures e.g. through cortical bone, into deep (extrinsic) muscle of tongue, maxillary sinus, skin.
PT4b Tumor invades masticator space, pterygoid plates, or skull base and/or encases internal carotid artery

Nasopharynx

A. Primary Tumor:

pTX Primary tumor cannot be assessed
pT0 No evidence of primary tumor
pTis Carcinoma in situ
pT1 Tumor confined to the nasopharynx
pT2 Tumor extends to soft tissues
pT2a Tumor extends to the oropharynx and/or nasal cavity without parapharyngeal extension
pT2b Any tumor with parapharyngeal extension
pT3 Tumor involves bony structures and/or paranasal sinuses
pT4 Tumor with intracranial extension and/or involvement of cranial nerves, infratemporal fossa, hypopharynx, orbit, or masticator space

Oropharynx

A. Primary Tumor:

pTX Primary tumor cannot be assessed
pT0 No evidence of primary tumor
pTis Carcinoma in situ
pT1 Tumor 2 cm or less in greates dimension
pT2 Tumor more than 2 cm but not more than 4 cm in greatest dimension
pT3 Tumor more than 4 cm in greatest dimension
pT4a Tumor invades the larynx, deep/extrinsic muscle of the tongue, medial pterygoid, hard palate, or mandible
pT4b Tumor invades lateral pterygoid muscle, pterygoid plates, lateral nasopharynx, or skull base or encases the carotid artery

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Hypopharynx

A. Primary Tumor:

pTX Primary tumor cannot be assessed
pT0 No evidence of primary tumor
pTis Carcinoma in situ
pT1 Tumor limited to one subsite of hypopharynx and 2 cm or less in greatest dimension
pT2 Tumor invades more than one subsite of hypopharynx or an adjacent site, or measures more than 2 cm but not more than 4 cm in greatest diameter without fixation of hemilarynx
pT3 Tumor more than 4 cm in greatest dimension or with fixation of hemilarynx
pT4a Tumor invades thyroid/cricoid cartilage, hyoid bone, thyroid gland, esophagus, or central compartment soft tissue
pT4b Tumor invades prevertebral fascia, encases carotid artery, or involves mediastinal structures

B. Regional Lymph Nodes:

Lip, oral cavity, oropharynx, hypopharynx

pNX Regional lymph nodes cannot be assessed
pN0 No regional lymph node metastasis
pN1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension
pN2 Metastasis in a 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 greatest dimension
  pN2a Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension
  pN2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension
  pN2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension
pN3 Metastasis in a lymph node more than 6 cm in greatest dimension

Nasopharynx

pN1 Unilateral metastasis in lymph node(s), 6 cm or less in greatest dimension, above the supraclavicular fossa
pN2 Bilateral metastasis in lymph node(s), 6 cm or less in greatest dimension, above the supraclavicular fossa
pN3 Metastasis in a lymph node(s) greater than 6 cm and or/ to supraclavicular fossa
  pN3a Greater than 6 cm in dimension
  pN3b Extension to the supraclavicular fossa

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References:
1. AJCC Cancer Staging Manual. Lippincott-Raven Press, 6th edition, 2002 (pg. 23-45).
2. Ellis GL, Auclair Paul L. Tumors of the Salivary Gland. AFIP Fascicle No. 17, Third Series. American Registry of Pathology, Washington D.C. 1996
3. Auclair PL, Goode RK, Ellis GL. Mucoepidermoid carcinoma of intraoral salivary glands. Evaluation and application of grading criteria in 143 cases. *Cancer* 1992;69(8):2021-30.
4. Richard J. Zarbo. Salivary Gland Neoplasia: A Review for the Practicing Pathologist. *Mod Pathol* 2002 15: 298-323.