# A guide to Carcinomas of the Oral Cavity Histopathology Reporting

Includes the International Collaboration on Cancer reporting dataset denoted by *

## Microscopic findings

<table>
<thead>
<tr>
<th><strong>S3.01</strong></th>
<th>Tumour type</th>
<th>See p3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S3.02</strong></td>
<td>Histologic grade</td>
<td>Not applicable</td>
</tr>
<tr>
<td><em>This is conditional on Squamous cell carcinoma being selected in S3.01</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1: Well differentiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G2: Moderately differentiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G3: Poorly differentiated</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.03</strong></td>
<td>Tumour size (greatest surface dimensions or diameter)</td>
<td>_ x _ mm</td>
</tr>
<tr>
<td>Notes: length x width</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.04</strong></td>
<td>Depth of invasion</td>
<td>See p3</td>
</tr>
<tr>
<td><strong>S3.05</strong></td>
<td>Growth pattern of invasion at the invasive front</td>
<td>Cohesive</td>
</tr>
<tr>
<td>Non-cohesive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widely dispersed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad bulbous islands of cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strands of cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(&gt;15 cells across)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Presentation of non-cohesive cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narrow strands or small islands of infiltrating cells</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single infiltrating keratinocytes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.06</strong></td>
<td>Lymphovascular invasion</td>
<td>Not identified</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cannot be assessed, specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.07</strong></td>
<td>Perineural invasion at tumour front</td>
<td>Not identified</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can’t be assess’d, specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.08</strong></td>
<td>Bone invasion</td>
<td>Absent</td>
</tr>
<tr>
<td>Present</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can’t be assess’d, specify</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>S3.09</strong></td>
<td>SURGICAL MARGIN STATUS</td>
<td>See p3</td>
</tr>
<tr>
<td><strong>S3.10</strong></td>
<td>Other microscopic comment</td>
<td>Text</td>
</tr>
</tbody>
</table>

## Clinical details

<table>
<thead>
<tr>
<th><strong>S1.02</strong></th>
<th>Clinical information on request form</th>
<th>Not provided OR Text OR Structured entry below:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S1.03</strong></td>
<td>Pathology accession number</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S1.04</strong></td>
<td>Principal clinician</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S1.05</strong></td>
<td>Copy to doctors</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S1.06</strong></td>
<td>Comments</td>
<td>Text</td>
</tr>
</tbody>
</table>

## Macroscopic findings

<table>
<thead>
<tr>
<th><strong>S2.01</strong></th>
<th>Specimen labelled as</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S2.02</strong></td>
<td>Operative procedure</td>
<td>See p2</td>
</tr>
<tr>
<td><strong>S2.03</strong></td>
<td>Specimen submitted</td>
<td>See p2</td>
</tr>
<tr>
<td><strong>S2.04</strong></td>
<td>Appearance</td>
<td>Text</td>
</tr>
<tr>
<td><strong>S2.05</strong></td>
<td>Macroscopic tumour site</td>
<td>See p2</td>
</tr>
<tr>
<td><strong>G2.01</strong></td>
<td>Tumour focality</td>
<td>Unifocal Bilateral Multifocal, specify number of tumours in specimen Cannot be assessed, specify</td>
</tr>
<tr>
<td><strong>S2.06</strong></td>
<td>Maximum tumour surface dimension (largest tumour)</td>
<td>Cannot be assessed, specify OR _ mm</td>
</tr>
<tr>
<td><strong>S2.07</strong></td>
<td>Macroscopic depth of invasion</td>
<td>Cannot be assessed, specify OR _ mm</td>
</tr>
<tr>
<td><strong>S2.08</strong></td>
<td>Ink application and block identification key</td>
<td>Text</td>
</tr>
<tr>
<td><strong>G2.02</strong></td>
<td>Additional macroscopic comments</td>
<td>Text</td>
</tr>
</tbody>
</table>
S2.03 Specimen submitted
Not specified
OR
Select all that apply:
- Lip
- Tongue
- Gingiva
- Floor of mouth
- Hard palate
- Buccal mucosa
- Buccal vestibule
- Retromolar trigone
- Alveolar process
- Mandible
- Maxilla
- Other, specify

S2.04 Macroscopic tumour site
Text
OR
Select all that apply:

Laterality
- Left
- Midline
- Right
- Laterality not specified
- Lip
  - Vermillion border upper lip
  - Vermillion border lower lip
  - Mucosa of upper lip
  - Mucosa of lower lip
  - Comissure of lip
- Oral cavity
  - Lateral border of tongue
  - Ventral surface of tongue
  - Dorsal surface of tongue, not otherwise specified (NOS)
  - Anterior two-thirds of tongue, NOS
  - Upper gingiva (gum)
  - Anterior floor of mouth
  - Floor of mouth, NOS
  - Hard palate
  - Buccal mucosa (inner cheek)
  - Retromolar trigone
  - Vestibule of mouth -
    - Maxillary
    - Mandibular
  - Alveolar process -
    - Maxillary
    - Mandibular
- Other, specify

Note: *If a neck dissection is submitted, then a separate protocol is used to record the information.

S1.02 / S2.02 Operative procedure
- Not specified
- Biopsy (excisional, incisional), specify
- Resection, specify
  - Glossectomy, specify
  - Buccal mucosa, specify
  - Lip, specify
  - Mandibulectomy, specify
  - Maxillectomy, specify
  - Palatectomy, specify
- Neck (lymph node) dissection*, specify
- Other, specify

Note: *If a neck dissection is submitted, then a separate protocol is used to record the information.

S1.02 Neoadjuvant therapy
- Information not provided
- Not administered
- Administered, specify type (select all that are applicable)
  - Chemotherapy
  - Radiotherapy
  - Targeted therapy, specify if available
  - Immunotherapy, specify if available
  - Time interval since therapy, specify
S3.01 Tumour type
Text
OR
Select all that apply:
• Salivary gland neoplasm
• Squamous cell carcinoma
  ◊ Vermillion border upper lip
  ◊ Conventional
  ◊ verrucous carcinoma
  ◊ Basaloid squamous cell carcinoma
  ◊ Papillary squamous cell carcinoma
  ◊ Spindle cell squamous cell carcinoma
  ◊ Acantholytic squamous cell carcinoma
  ◊ Adenosquamous
  ◊ Carcinoma cuniculatum
• Neuroendocrine carcinoma, specify type
• Mucoepidermoid carcinoma
  ◊ Low grade
  ◊ Intermediate grade
  ◊ High grade
• Adenoid cystic carcinoma
  ◊ Tubular/cribriform pattern predominant
  ◊ Solid pattern (specify if <30% or >30%)
• Polymorphous adenocarcinoma
  ◊ Classic, specify grade
  ◊ Cribriform
• (Hyalinizing) clear cell carcinoma
• Myoepithelial carcinoma
• Adenocarcinoma, NOS
  ◊ Low grade
  ◊ Intermediate grade
  ◊ High grade
• Carcinoma ex pleomorphic adenoma, specify tumour type(s)
  ◊ e.g., salivary duct adenocarcinoma, NOS
  ◊ Intracapsular
  ◊ Minimally invasive
  ◊ Widely invasive
• Undifferentiated (no or limited differentiation)
• Other, specify type
• Cannot be assessed, specify

S3.02 Coexistent pathology
None identified
OR
Select all that apply:
• Proliferative verrucous leukoplakia
• Fungal infection
• Dysplasia, specify grade
• HPV positive dysplasia
• Submucosal fibrosis
• Inflammation
• Other, specify

S3.03 Radiation induced tissue damage
• Not identified
• Identified, specify
• Cannot be assessed, specify

If identified, specify a description of induced damage, if possible.
If cannot be assessed, specify a reason if possible.

G4.01 Ancillary test findings
IMMUNOHISTOCHEMICAL STAINS
Performed
• No
• Yes
Antibodies - List (as applicable):
Positive
Negative
Equivocal
Interpretation

S5.01 Pathological staging
(AJCC 8th Edition)##

TNM descriptors
m - multiple primary tumours; y - post therapy; r - recurrent

Primary Tumour (T)
TX Primary tumour cannot be assessed
Tis Carcinoma in situ
T1 Tumour ≤2 cm with depth of invasion (DOI)* ≤5 mm
T2 Tumour ≤2 cm, with DOI* > 5 mm and ≤10 mm or tumour > 2 cm and ≤4 cm, with DOI* ≤10 mm
T3 Tumour > 2 cm and ≤4 cm with DOI* > 10 mm or tumour > 4 cm with DOI* > 10 mm
T4 Moderately advanced or very advanced local disease
T4a Moderately advanced local disease.
  Tumour >4 cm with DOI* > 10 mm or tumour invades adjacent structures only (e.g., through cortical bone of the mandible or maxilla, or involves the maxillary sinus or skin of the face)
T4b Very advanced local disease.
  Tumour invades masticator space, pterygoid plates, or skull base and/or encases internal carotid artery

Note: Superficial erosion of bone/tooth socket (alone) by a gingival primary is not sufficient to classify a tumour as T4
*DOI is depth of invasion and not tumour thickness

S3.04 Depth of invasion
• ≤5 mm depth of invasion
• >5 mm and ≤10 mm depth of invasion
• >10 mm depth of invasion
• Cannot be assessed, specify

G3.01 Response to neoadjuvant therapy
• No prior treatment
• Incomplete response
• Complete response
• Response cannot be assessed, explain reasons

S3.09 Surgical margin status
Text (specify margin)
AND
• Not involved
• Involved
  ◊ Invasive
  ◊ High grade dysplasia*/Carcinoma in situ

Note that the margin, and whether it is positive or negative, may need to need to be repeated for each surgical margin.
*High grade dysplasia is synonymous with moderate/severe dysplasia
Primary Tumour (T)

TX Primary tumour cannot be assessed
Tis Carcinoma in situ
T1 Tumour < 2 cm with depth of invasion (DOI)* < 5 mm
T2 Tumour < 2 cm, with DOI* > 5 mm and ≤ 10 mm or tumour > 2 cm and ≤ 4 cm, with DOI* ≤ 10 mm
T3 Tumour > 2 cm and ≤ 4 cm with DOI* > 10 mm or tumour > 4 cm with DOI*<10 mm
T4 Moderately advanced or very advanced local disease
T4a Moderately advanced local disease.
Tumour > 4 cm with DOI* > 10 mm or tumour invades adjacent structures only (e.g., through cortical bone of the mandible or maxilla, or involves the maxillary sinus or skin of the face)
T4b Very advanced local disease.
Tumour invades masticator space, pterygoid plates, or skull base and/or encases internal carotid artery

Note: Superficial erosion of bone/tooth socket (alone) by a gingival primary is not sufficient to classify a tumour as T4

*DOI is depth of invasion and not tumour thickness

Regional Lymph Nodes (pN)

NX Regional lymph nodes cannot be assessed
N0 No regional lymph node metastasis
N1 Metastasis in a single ipsilateral lymph node, 3 cm or smaller in greatest dimension and ENE(-)
N2 Metastasis in a single ipsilateral lymph node, 3 cm or smaller in greatest dimension and ENE(-);
or larger than 3 cm but not larger than 6 cm in greatest dimension and ENE(-);
or in multiple ipsilateral lymph node(s), none larger than 6 cm in greatest dimension, ENE(-)
N2a Metastasis in a single ipsilateral node 3 cm or smaller in greatest dimension and ENE(-);
or a single ipsilateral node larger than 3 cm but not larger than 6 cm in greatest dimension and ENE(-)
N2b Metastasis in multiple ipsilateral nodes, none larger than 6 cm in greatest dimension and ENE(-)
N2c Metastasis in bilateral or contralateral lymph node(s), none larger than 6 cm in greatest dimension and ENE(-)
N3 Metastasis in a lymph node larger than 6 cm in greatest dimension and ENE(-);
or in a single ipsilateral node larger than 3 cm in greatest dimension and ENE(+);
or multiple ipsilateral, contralateral or bilateral nodes any with ENE(+);
N3a Metastasis in a lymph node larger than 6 cm in greatest dimension and ENE(-)
N3b Metastasis in a single ipsilateral node larger than 3 cm in greatest dimension and ENE(+);
or multiple ipsilateral, contralateral or bilateral nodes any with ENE(+);
or a single contralateral node of any size and ENE(+)

Note: A designation of “U” or “L” may be used for any N category to indicate metastasis above the lower border of the cricoid (U) or below the lower border of the cricoid (L) Similarly, clinical and pathological ENE should be recorded as ENE(-) or ENE(+)

Distant Metastasis (pM)

M0 No distant metastasis
M1 Distant metastasis

Anatomical Stage/Prognostic Group

Stage 0 Tis N0 M0
Stage I T1 N0 M0
Stage II T2 N0 M0
Stage III T3 N0 M0
Stage IV T4a N0 M0
Stage IVA T4a N1 M0
Stage IVB Any T N3 M0
Stage IVB Any T Any N M1

G5.01 Diagnostic summary

The ‘Diagnostic summary’ section of the final formatted report should include:

- Type of specimen
- Anatomical site
- Tumour type
- Histological grade
- Tumour dimensions
- Depth of invasion
- Pattern of invasion
- Lymphovascular invasion
- Perineural invasion
- Bone invasion
- Involved or close margins with measurements

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