DUODENUM AND AMPULLA NEUROENDOCRINE TUMOR

Note: For high-grade neuroendocrine carcinomas arising in the duodenum or ampulla, use the template for carcinomas from that site

Procedure:
- Duodenum, segmental resection
- Pancreaticoduodenectomy (Whipple resection)
- Resection of ___

Tumor Site (select all that apply)
- Duodenum
- Ampulla of Vater
- Other (specify): __________________________
- Cannot be determined

Tumor Size (greatest dimension): ___ cm
Specify size of largest tumor if multiple tumors are present

Tumor Focality
- Unifocal
- Multifocal, number of tumors: ___
- Cannot be determined

Histologic Type and Grade:
- G1: Well-differentiated neuroendocrine tumor
- G2: Well-differentiated neuroendocrine tumor
- G3: Well-differentiated neuroendocrine tumor
- GX: Well-differentiated neuroendocrine tumor, grade cannot be assessed

<table>
<thead>
<tr>
<th>Grade</th>
<th>Mitotic rate (/10 HPF)</th>
<th>Ki67 index (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>&lt;2</td>
<td>&lt;3</td>
</tr>
<tr>
<td>G2</td>
<td>2-20</td>
<td>3-20</td>
</tr>
<tr>
<td>G3</td>
<td>&gt;20</td>
<td>&gt;20</td>
</tr>
</tbody>
</table>

Mitotic Rate:
- <2 mitoses per 2 mm²
- 2-20 mitoses per 2 mm²
- >20 mitoses per 2 mm²
- Cannot be determined (explain): __________

Note: 10 HPF is defined as a 2 mm² area. AJCC recommends counting 10 mm² and dividing by 5. The area will vary based on your eyepiece field number. If your field number is “22” (written on your eyepiece), using a 40x objective, 42 HPF = 10 mm² & 8.4 HPF = 2 mm²
**Ki-67 Labeling Index:**
*AJCC recommends counting 500 to 2000 cells in area of highest labeling*
- <3% in area of highest labeling
- 3-20% in area of highest labeling
- >20% in area of highest labeling
- Cannot be determined (explain): ____________

**Tumor Extension (for duodenal tumors):** (select all that apply)
- Invades mucosa
- Invades submucosa
- Invades muscularis propria
- Invades pancreas
- Invades peripancreatic adipose tissue
- Penetrates visceral peritoneum (serosa)
- Invades other organs (specify): _____________________
- Cannot be assessed

**Tumor Extension (for ampulla tumors):** (select all that apply)
- Confined to sphincter of Oddi
- Invades through sphincter into duodenal submucosa
- Invades through sphincter into duodenal muscularis propria
- Invades the pancreas
- Invades peripancreatic soft tissues
- Penetrates visceral peritoneum (serosa)
- Invades other organs (specify): _____________________
- Cannot be assessed

**Margins**
- Negative (all margins including proximal, distal, and radial margins are uninvolved by tumor)
- Negative (all margins including proximal, distal, pancreatic parenchymal, bile duct, and retroperitoneal margins uninvolved by tumor)
- Involved by tumor (specify margin):
- Cannot be assessed

**Lymphovascular Invasion**
- Not identified
- Present
- Cannot be determined

**Regional Lymph Nodes**
- No lymph nodes submitted or found
- Number of lymph nodes involved / nodes examined:
**Distant Metastasis:**
Yes, site(s):
Unknown

**Pathologic Stage Classification (AJCC 8th Edition)**

**TNM Descriptors (required only if applicable)**
- m (multiple primary tumors)
- r (recurrent)
- y (posttreatment)

**Primary Tumor (pT)**
- **T1**: *Duodenal*: Tumor invades the mucosa or submucosa only and is ≤1 cm
  *Ampullary*: Tumor is ≤1 cm and confined within the sphincter of Oddi
- **T2**: *Duodenal*: Tumor invades the muscularis propria or >1 cm (duodenal)
  *Ampullary*: Tumor invades through sphincter into duodenal submucosa or muscularis propria, or is >1 cm
- **T3**: Tumor invades the pancreas or peripancreatic adipose tissue
- **T4**: Tumor invades the visceral peritoneum (serosa) or other organs

**Regional Lymph Nodes (pN)**
- **N0**: No regional lymph node involvement
- **N1**: Regional lymph node involvement

**Distant Metastasis (pM)** (required only if confirmed pathologically in this case)
- **M1**: Distant metastasis
  - **M1a**: Metastasis confined to liver
  - **M1b**: Metastasis in at least one extrahepatic site (eg, lung, ovary, nonregional lymph node, peritoneum, bone)
  - **M1c**: Both hepatic and extrahepatic metastases