Head and Neck Pathology Grossing Guidelines

Do not cut any HN specimens unless you are fully oriented anatomically

- Orient by anatomic structures and attached soft tissue, if any.
- Assess grossing needs on a case by case basis as these specimens vary greatly
- Refer to the OP note to aid in your orientation.
- Always ask for help if unsure of how to proceed.
- Take photographs from multiple angles (medial/lateral, anterior/posterior, superior/inferior).
- Remove any attached teeth (may be easier on fresh vs. fixed tissue).
- Ink soft tissue resection margins.
- Document overall measurements and measurements for other obvious attached tissue (i.e. paranasal sinuses, periorbital soft tissue, skin, etc.).
- For optimal sections which often include bone and soft tissue, you must freeze the specimen in liquid nitrogen (obtained from TPCL) in order to cut in composite sections. This aids in soft tissue preservation when using the saw. (Specimen can be fixed or fresh before placing in liquid nitrogen).
- Describe all abnormalities: size (staging cutoffs: 2 cm, 4 cm), location, extent of involvement with attached structures/bone.
- Measure and sample all margins (if grossly close, e.g. within 1 cm, submit perpendicular section; otherwise submit a shave of the margin).
- Generally, section perpendicular to the long axis of the specimen, but before you decide the plane of sectioning:
  - Think about why you are sectioning a specimen in a certain manner and consider staging elements. For complex specimens determine origin of tumor and what structures the tumor is extending into /invading, (i.e. a paranasal sinus SCC lesion may show invasion into the soft tissue surrounding and/or including the eye. Careful assessment to margins is critical at the time of gross exam!)
- Sections of tumor:
  - Show relationship to all inked margins (usually anterior, posterior, medial, lateral, superior, inferior).
  - Show involvement with bone/attached structures (even if not grossly obvious).
- Always submit sections of mass that have not be decalcified (no bone in a few sections) as decalcifying agents interfere with IHC stains.
- Diagrams and gross photos are appreciated.
Specimen Type: MANDIBULECTOMY

Gross Template:
Labeled with the patient’s name (***) , medical record number (***) , designated “***” , and received [fresh/in formalin] is a [right, left] [hemi, composite] mandibulectomy measuring *** cm (anterior - posterior) x *** cm (left - right) x *** cm (superior - inferior) with attached [disarticulated, if so] ramus measuring *** cm (anterior -- posterior) x *** cm (left -- right) x *** cm (superior -- inferior). [Describe orientation provided, if any].
[Describe and measure floor of mouth soft tissue, tongue, or other soft tissue if present and provide location on specimen- anterior, medial, lateral, etc]. [Describe number of teeth, absent teeth, and if fillings or other grossly evident dental work is present].

The [mucosa, soft tissue, bone] is remarkable for [describe lesion/ area of ulceration/ area of fibrosis – location, size]. Sectioning reveals the lesion has a [describe cut surface- soft, calcified, necrotic, hemorrhagic, mucinous]. The lesion [describe extension into attached structures and bone involvement] and has a *** cm depth of invasion. The lesion measures [provide distance from bone and all soft tissue and mucosal margins].

The remaining cut surface of the soft tissue is [smooth, pink, unremarkable]. The uninvolved bone is [tan-yellow, firm, soft]. Representative sections are submitted [describe cassette submission- indicate which sections are decalcified in the gross description]. Gross photographs are taken.

Ink Key (sample):
Anterior- blue
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Posterior- purple
Medial - green
Deep- black
Lateral- orange

Cassette Submission:
- Shave of all bone margins
  o Hemimandible without ramus:
    ▪ Anterior/Midline
    ▪ Posterior (there may not be a posterior bone margin)
    ▪ Superior
  o Hemimandible with ramus
    ▪ Anterior/Midline mandible
    ▪ Superior ramus
  o Hemimandible with disarticulated ramus
    ▪ Anterior/Midline
    ▪ *Articulated joints are not bone margins*
- Soft tissue and mucosal margins/inked surfaces
  o Perpendicular sections of tumor at closest approach to these margins
- One cassette per 1 cm of lesion
  o Include bone involvement or adjacent structures
  o 1-2 cassettes which do not require decalcification