FWCC Guidelines for HEAD AND NECK CANCERS: Jan 2011

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Diagnosis and Work Up

1. H&P
2. Fibre optic exam + Panorex + Panendoscopy where indicated
3. CT of Head & Neck + Chest (MRI if needed)
4. Biopsy;
5. CT
6. PET/CT
7. Dental Evaluation;
8. Preanaesthesia Studies;
9. Multidisciplinary Decision making
Head and Neck Cancers:

1) Expected cases in 2010: Approx 50,000 and expected deaths 11,500
2) 3% of all new cancers in US
3) Alcohol and Tobacco common etiologic agents
4) HPV16 has strong causal relationship in the development of oropharyngeal cancer
AJCC TNM STAGING FOR LIP (7th edition, 2010)

GX: Grade cannot be assessed
G1: Well differentiated
G2: Moderately differentiated
G3: Poorly Differentiated
G4: Undifferentiated

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma in situ
T1: Tumor 2cm or less in greatest Dimension
T2: Tumor more than 2cm but not more than 4cm in greatest dimension
T3: Tumor more than 4cm in greatest dimension
T4a: Moderately Advanced (Invasion of Cortical bone, Inferior Alveolar nerve, skin of face)
T4b: Very Advanced Local disease (Invading masticator space, pterygoid plates, skull base or encasing internal carotid artery)

Nx: Regional LN cannot be assessed
N0: No regional LN metastasis
N1: Single ipsilateral LN less than 3cm or less
N2:
  N2a: Single ipsilateral LN >3cms and <6cms or
  N2b: Multiple ipsilateral LN, none more than 6cms or
  N2c: Bilateral or contralateral LN, none more than 6cms
N3: LN greater than 6cms

M0: No distant Metastasis
M1: Distant Metastasis


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<tr>
<td>Stage IVB</td>
<td>Any TN3M0, T4b Any N M0</td>
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<td>Stage IVC</td>
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Treatment: Lip cancer

A) For Localized and Resectable Cancer: T1-2, N0
  a) Single modality treatment with either surgery or
  b) External beam Radiation or IMRT

B) For medically fit patients with advanced resectable cancer (T3, T4a, N0 or Any T with N1-3)
  a) Surgery
  b) Surgery followed by Adjuvant radiation OR chemo-radiation based on adverse risk factors

C) For medically unfit patients with advanced resectable cancer (T3, T4a, N0 or Any T with N1-3)
  a) Chemo-radiation

D) Unresectable T4b disease
  a) Clinical trial H10-109
  b) Chemo-XRT
AJCC TNM STAGING FOR ORAL CAVITY (7th edition, 2010)

GX: Grade cannot be assessed
G1: Well differentiated
G2: Moderately differentiated
G3: Poorly Differentiated
G4: Undifferentiated

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma in situ
T1: Tumor 2cm or less in greatest Dimension
T2: Tumor more than 2cm but not more than 4cm in greatest dimension
T3: Tumor more than 4cm in greatest dimension
T4a: Moderately Advanced (Invasion of Cortical bone, Inferior Alveolar nerve, skin of face)
T4b: Very Advanced Local disease (Invading masticator space, pterygoid plates, skull base or encasing internal carotid artery)

Nx: Regional LN cannot be assessed
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M0: No distant Metastasis
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Treatment Oral Cavity

a. Early stage (T1-2, N0-1):
   1) Surgery or
   2) Definite Radiation

b. Locally advanced resectable (T3-4a, N0-1):
   1) Surgery followed by Adjuvant RT (Optional)-Node negative
   2) Surgery followed by Chemo-Radiation (Category 1) or Re-excision (Category 1) or Adjuvant RT
   3) Induction chemotherapy followed by surgery for borderline resectable

c) Locally Advanced Unresectable /For T4b with unresectable nodal disease
   1) Clinical Trial H10-109 preferred
   2) PS 0-1: Chemo-Radiation (Category 1) or Induction Chemotherapy followed by Chemo-Radiation (category 3)
   3) PS 2: Definite RT + Concurrent Systemic Chemotherapy
   4) PS 3: Definite RT or Best supportive care
AJCC TNM STAGING FOR PHARYNX (7th edition, 2010): OROPHARYNX

T1: Tumor 2cm or less in greater dimension
T2: Tumor more than 2cms but not more than
T3: Tumor more than 4cm or extension to lingual surface of glottis.
T4a: Tumor invading larynx, extrinsic muscle of tongue, medial pterygoid, hard palate or mandible.
T4b: Tumor invading lateral pterygoid muscle, pterygoid plates, lateral nasopharynx or skull base or encases carotid artery

Nx: Regional LN cannot be assessed
N0: No regional LN metastasis
N1: Metastasis in a single ipsilateral node, 3cm or less.
N2: N2a: Single ipsilateral LN >3cms and <6cms or
N2b: Multiple ipsilateral LN, none more than 6cms or
N2c: Bilateral or contralateral LN, none more than 6cms
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Oropharynx Treatment: (Determine HPV status)

1) Early Stage: (T1-2, N0-1)
   a) Definite RT
   b) Surgery
   b) For T2, N1: Chemo-Radiation(category 2B)

2) Locally advanced Resectable: (T3-4a, N0-1)
   a) Clinical trial H10-109
   b) Concurrent Chemo-Radiation –Cisplatin based (Category 1) or
   c) Surgery with Adjuvant RT
   d) Induction Chemotherapy followed by RT or Chemo Radiation (outside clinical trial) (Category 3)

3) Locally Advanced Unresectable /For T4b with Unresectable nodal disease
   1) Clinical Trial preferred H10-109
   2) PS 0-1: Concurrent Chemo-Radiation (Category 1) or Induction Chemotherapy followed by Chemo-Radiation (category 3)
   3) PS 2: Definite RT + Concurrent Systemic Chemotherapy
   4) PS 3: Definite RT or Best supportive care
AJCC TNM STAGING FOR PHARYNX (7th edition, 2010): HYOPHARYNX

T1: Tumor limited to one subsite of hypopharynx and less than 2cm
T2: Tumor in more than one subsite or adjacent site, measures >2cms but <4cms. Without fixation to hemilarynx
T3: Tumor more than 4cm or with fixation of hemilarynx or extension to esophagus
T4a: Tumor invading thyroid, Cricoid, Hyoi, larynx, or central compartment soft tissue
T4b: Tumor invades prevertebral fascia, encases carotid artery or involves mediastinal sturctures

Nx: Regional LN cannot be assessed
N0: No regional LN metastasis
N1: Metastasis in a single ipsilateral node, 3cm or less.
N2: N2a: Single ipsilateral LN >3cms and <6cms or
     N2b: Multiple ipsilateral LN, none more than 6cms or
     N2c: Bilateral or contralateral LN, none more than 6cms
N3: Metastasis to LN greater than 6cms

M0: No distant Metastasis
M1: Distant Metastasis

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<td>Stage IVC</td>
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Hypopharynx Treatment:

1) Early stage
   For (T1, N0, Selected T2, N0): Not requiring Larynectomy
      a) Definite Radiation
      b) Surgery: Partial laryngectomy + Neck dissection

2) Advanced Stage requiring total laryngectomy
   For (T1, N+; T2-3 any N, T4a or T4b)
      a) Clinical trial
      b) Induction Chemotherapy (TPF) followed by Definite RT (Category 1) or Chemo-Radiation (category 2b)
      c) Concurrent chemo-radiation
      d) Surgery followed by RT or Chemo-Radiation (Preferred for T4a)
AJCC TNM STAGING FOR LARYNX (7th edition, 2010): SUPRAGLOTTIS and Glottis

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma *in situ*
T1: Tumor limited to one subsite of supraglottis with normal vocal cord mobility
T2: Tumor invades mucosa or more than one adjacent subsite of supraglottis or glottis or region outside the supraglottis without fixation of larynx
T3: Tumor limited to larynx with vocal cord fixation or invades postcricoid area, pre-epiglottic space, paraglottic space and or inner cortex of thyroid
T4a: Tumor invades through thyroid cartilage and invades tissues beyond larynx (trachea, soft tissue of neck, deep extrinsic muscles of tongue, strap muscle, thyroid or esophagus)
T4b: Tumor invades prevertebral space or encases carotid artery or involves mediastinal sturctures

Nx: Regional LN cannot be assessed
N1: Metastasis in a single ipsilateral node, 3cm or less.
N2:
  - N2a: Single ipsilateral LN >3cms and <6cms or
  - N2b: Multiple ipsilateral LN, none more than 6cms or
  - N2c: Bilateral or contralateral LN, none more than 6cms
N3: Metastasis to LN greater than 6cms

M0: No distant Metastasis; M1: Distant Metastasis

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<th>T4b Any N M0, Any T N3 M0</th>
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Supraglottic Cancer Treatment

a) Early stage (T1-2, N0): 1) Surgery (Partial laryngectomy) or Definite RT
   b) Advanced stage

   For (T3, N0), Node Negative (requiring laryngectomy)
   1) Medically Fit: Chemo-Radiation-(category 1)
   2) Medically Unfit: Definite RT
   3) Surgery followed by Observation or Adjuvant Chemo-Radiation or Adjuvant RT only

   For T3, N2-3: Requiring Total laryngectomy
   1) Concurrent Chemo radiation (Category 1) followed by surgery as needed
   2) Surgery-Followed by Observation or Chemo-Radiation or RT only
   3) Induction Chemotherapy or Clinical trial H10-109(Category 2B)

   For T4a, N0-3
   1) Surgical Candidates: Surgery followed by Chemo-Radiation (Category 1) or RT alone
   2) Non surgical Candidates:
      Clinical trial or
      Chemo-Radiation or
      Induction Chemotherapy followed by Chemo-Radiation (Category 2B)

   For T4b with unresectable nodal disease
   1) Clinical Trial H10-109 preferred
   2) PS 0-1: Concurrent Chemo-Radiation (Category 1) or Induction Chemotherapy followed by Chemo-Radiation (category 3)
   3) PS 2: Definite RT + Concurrent Systemic Chemotherapy
   4) PS 3: Definite RT or Best supportive care
AJCC TNM STAGING FOR LARYNX (7th edition, 2010): GLOTTIS

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma in situ
T1: Tumor limited to vocal cords with normal mobility
  T1a: Tumor limited to one vocal cord
  T1b: Tumor involves both vocal cords
T2: Tumor extends to supraglottis and or subglottis and or with impaired vocal cord mobility
T3: Tumor limited to larynx with vocal cord fixation or invades paraglottic space and inner cortex of thyroid cartilage
T4a: Tumor invades through outer cortex of the thyroid cartilage and invades tissues beyond larynx (trachea, soft tissue of neck, deep extrinsic muscles of tongue, strap muscle, thyroid or esophagus)
T4b: Tumor invades prevertebral space or encases carotid artery or involves mediastinal sturctures

N Stage
Nx: Regional LN cannot be assessed
N1: Metastasis in a single ipsilateral node, 3cm or less.
N2:  
  N2a: Single ipsilateral LN >3cms and <6cms or 
  N2b: Multiple ipsilateral LN, none more than 6cms or 
  N2c: Bilateral or contralateral LN, none more than 6cms
N3: Metastasis to LN greater than 6cms

M Stage:
M0: No distant Metastasis
M1: Distant Metastasis

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<td>T4b Any N M0, Any T N3 M0</td>
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<td>Stage IVC</td>
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Supraglottic Cancer Treatment
a) Early stage (T1-2, N0): 1) Surgery (Partial laryngectomy) or Definite RT
b) Advanced stage

For (T3, N0), Node Negative (requiring laryngectomy)

1) Medically Fit: Chemoradiation-(category 1)
2) Medically Unfit: Definite RT
3) Surgery followed by Observation or Adjuvant Chemo-Radiation or Adjuvant RT only

For T3, N2-3: Requiring Total laryngectomy

1) Concurrent Chemo radiation (Category 1) followed by surgery as needed
2) Surgery-Followed by Observation or Chemo-Radiation or RT only
3) Induction Chemotherapy or Clinical trial H10-109(Category 2B)

For T4a, N0-3

1) Surgical Candidates: Surgery followed by Chemo-Radiation (Category 1) or RT alone
2) Non surgical Candidates:
   Clinical trial or
   Chemo-Radiation or
   Induction Chemotherapy followed by Chemo-Radiation (Category 2B)

For T4b with unresectable nodal disease

1) Clinical Trial H10-109 preferred
2) PS 0-1: Concurrent Chemo-Radiation (Category 1) or Induction Chemotherapy followed by Chemo-Radiation (category 3)
3) PS 2: Definite RT + Concurrent Systemic Chemotherapy
4) PS 3: Definite RT or Best supportive care
AJCC TNM STAGING FOR PHARYNX (7th edition, 2010): NASOPHARYNX

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma in situ
T1: Tumor confined to nasopharynx, or extends to oropharynx
T2: Tumor with parapharyngeal extension
T3: Tumor involves bony structure of skull base and or paranasal sinuses
T4: Tumor with intracranial extension, involvement of cranial nerves, hypopharynx, orbit or extension to infratemporal fossa/masticator space

Nx: Regional LN cannot be assessed
N0: No regional LN metastasis
N1: Unilateral metastasis in cervical nodes, 6 cm or less, above supraclavicular fossa, and or unilateral or bilateral, retropharyngeal lymph nodes.
N2: Bil metastasis in cervical nodes 6 cm or less above supraclavicular fossa
N3: Metastasis in a lymph node >6 cm and/or to supraclavicular fossa
   N3a: More than 6 cm in dimension
   N3b: Extension to the supraclavicular fossa.

M0: No distant Metastasis
M1: Distant Metastasis

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Nasopharynx Treatment:

A) Early stage: (T1N0M0):
   a. Definite Radiation (66-70 Gy–2Gy Fraction For Primary, For Uninvolved 44-64Gy-2Gy Fraction)

B) Locally Advanced: (T1–4, N1-3)
   a. Chemo-Radiation (cisplatin based) followed by adjuvant chemotherapy Category 1

C) Metastatic
   a. Platinum based Combination chemotherapy
   b. On complete clinical response: Chemo/RT or Definite RT
AJCC TNM FOR STAGING FOR NASAL CAVITY AND PARANASAL SINUSES (7th edition, 2010)

TX:  Primary tumor cannot be assessed
T0:  No evidence of Primary Tumor
Tis:  Carcinoma in situ

Maxillary Sinus:
T1:  Tumor limited to maxillary sinus mucosa without erosion or destruction of bone
T2:  Tumor causing bone erosion or destruction including extension into the hard palate and or middle nasal meatus except extension to posterior wall of maxillary sinus and pterygoid plates
T3:  Tumor invades posterior wall of maxillary sinus or subcutaneous tissue or floor or medial wall of orbit, pterygoid fossa, ethmoid sinuses
T4a: Tumor invades anterior orbital contents, skin of cheek, pterygoid plates, infratemporal fossa, cribiform plate, sphenoid or frontal sinuses
T4b: Tumor invades orbital apex, dura, brain, middle cranial fossa, cranial nerves other than maxillary division of trigeminal nerve nasopharynx or clivus.

Nasal Cavity and Ethmoid Sinus:
T1:  Tumor restricted to any one subsite with or without bony invasion
T2:  Tumor invading two subsites in a single region or extending to involve an adjacent region within the nasoethmoidal complex with or without bony invasion.
T3:  Tumor extends to invade the medial wall or floor of the orbit, maxillary sinus, palate or cribiform plate.
T4a: Tumor invades any of following: anterior orbital contents, skin of nose or cheek, minimal extension to anterior cranial fossa, pterygoid plates, sphenoid or frontal sinus
T4b: Tumor invades orbital apex, dura, brain, middle cranial fossa, cranial nerves other than V2, nasopharynx or clivus.

N Stage
Nx:  Regional LN cannot be assessed
N1:  Metastasis in a single ipsilateral node, 3cm or less.
N2:  
  N2a: Single ipsilateral LN >3cms and <6cms or
  N2b: Multiple ipsilateral LN, none more than 6cms or
  N2c: Bilateral or contralateral LN, none more than 6cms
N3:  Metastasis to LN greater than 6cms

M Stage:
M0:  No distant Metastasis
M1:  Distant Metastasis

Grade
GX:  Grade cannot be assessed
G1:  Well differentiated
G2:  Moderately differentiated
G3:  Poorly Differentiated
G4:  Undifferentiated

Anatomic stage/Prognostic Groups- Nasal Cavity and Paranasal Sinuses

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Treatment for Ethmoid Sinus Tumor

1) T1-2:
   a. Complete resection (Preferred) followed by Adjuvant RT OR
   b. Complete resection followed by Chemo-Radiation for intracranial extension or positive margins (Category 2B) OR
   c. Complete resection followed by Observation (for T1 only)-Category 2B
   d. Definitive Radiotherapy

2) T3-4a
   a. Complete resection followed by Adjuvant RT
   b. Complete resection followed by Adjuvant Chemo-Radiation for intracranial extension or positive margins (Category 2B)

3) T4b:
   a. Clinical Trial (preferred) OR
   b. Chemo-Radiation OR
   c. Definite RT

Treatment for Maxillary sinus tumor

1) Adenoid Cystic Tumor:
   a. Above Ohngrens line: Complete resection + Postoperative Radiation
   b. Below Ohngrens line: Complete resection followed by observation or Radiation

2) All other histologies except Adenoid cystic tumor:
   a. T1-2, N0: Surgery followed by Observation or RT or Chemo-Radiation if + for adverse features
   b. T3-4a, N0: Surgery followed by RT or Chemo-Radiation if + for adverse features
   c. T1-T4, N+: surgery with Neck dissection followed by RT or Chemo-Radiation if + for adverse features
   d. T4b, Any T: Clinical trial OR Definitive Radiation or Chemo-Radiation
AJCC TNM STAGING FOR MAJOR SALIVARY GLANDS (Parotid, Submandibular and Sublingual) (7th edition, 2010)

TX: Primary tumor cannot be assessed
T0: No evidence of Primary Tumor
Tis: Carcinoma in situ
T1: Tumor 2cm or less without extraparenchymal extension
T2: Tumor >2cm <4cms, without extraparenchymal extension
T3: Tumor > 4cms, with extraparenchymal extension
T4a: Tumor invades skin, mandible, ear canal and or facial nerve
T4b: Tumor invades skull base and or pterygoid plates and or encases carotid artery
Nx: Regional LN cannot be assessed
N0: No regional LN metastasis
N1: Metastasis in a single ipsilateral node, 3cm or less.
N2: N2a: Single ipsilateral LN >3cms and <6cms or
N2b: Multiple ipsilateral LN, none more than 6cms or
N2c: Bilateral or contralateral LN, none more than 6cms
N3: Metastasis to LN greater than 6cms
M0: No distant Metastasis
M1: Distant Metastasis

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<tbody>
<tr>
<td>Stage II</td>
<td>T2N0M0</td>
</tr>
<tr>
<td>Stage III</td>
<td>T1N1M0, T2N1M0, T3N0M0, T3N1M0</td>
</tr>
<tr>
<td>Stage IVA</td>
<td>T4aN0M0, T4aN1M0, T1N2M0, T2N2M0, T3N2M0, T4aN2M0</td>
</tr>
<tr>
<td>Stage IVB</td>
<td>T4b Any N M0, Any T N3 M0</td>
</tr>
<tr>
<td>Stage IVC</td>
<td>Any T Any N M1</td>
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</tbody>
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Adverse features: High grade or Intermediate grade, Neural, Perineural invasion; LN mets, Lymphovascular invasion.

Treatment

1) **For T1-T2:**
   a. Excision followed by follow up for benign of low grade pathology
   b. Excision followed by RT or adenoid cystic or indeterminate or high grade pathology

2) **T3-T4a:** Excision with or without neck dissection
   a. Excision followed by follow up (with no adverse features)
   b. Excision followed by Adjuvant RT in Adenoid cystic tumor
   c. Excision followed by Adjuvant RT or Chemo-Radiation (2B) for adverse features

3) **T4b:** No surgical resection possible
   a. Definite RT or
   b. Chemo-Radiation (2B)
AJCC TNM STAGING FOR MUCOSAL MELANOMAS OF HEAD AND NECK (7th edition, 2010)

Primary Tumor
T3: Mucosal disease
T4a: Tumor involving deep soft tissue, cartilage, bone or overlying skin
T4b: Tumor involving brain, dura, skull base, lower cranial nerves (IX, X, XI, XII), masticator space, carotid artery, prevertebral space or mediastinal structures

Regional Lymph Nodes (N)
Nx: Regional lymph nodes cannot be assessed
N0: No regional LN metastasis
N1: Regional lymph node metastases present

M Stage:
M0: No distant Metastasis
M1: Distant Metastasis

Grade
GX: Grade cannot be assessed
G1: Well differentiated
G2: Moderately differentiated
G3: Poorly Differentiated
G4: Undifferentiated

<table>
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<tr>
<th>Stage III</th>
<th>T3N0M0</th>
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<tbody>
<tr>
<td>Stage IVA</td>
<td>T4aN0M0, T3-4aN1M0</td>
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<tr>
<td>Stage IVB</td>
<td>T4b Any N M0</td>
</tr>
<tr>
<td>Stage IVC</td>
<td>Any T Any N M1</td>
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</tbody>
</table>

Treatment:
Sinus cavity mucosal melanoma:
1) Stage III: Wide resection + Postoperative radiation (preferred)
2) T4a, N0: Wide resection + Postoperative Radiation
3) T3-4a, N1: Resection + neck dissection followed by postoperative radiation to primary and neck
4) Stage IVB: Clinical trial (Preferred) or Primary radiation or Systemic therapy for melanoma
5) Stage IVC: Clinical trial (preferred) or Best supportive care or Primary radiation or Systemic therapy for melanoma

Oral cavity/Oropharynx/Larynx/Hypopharynx-Mucosal Melanoma:
1) Stage III: Wide resection + Neck dissection followed by postoperative RT (preferred)
2) Stage IV: Wide resection + Neck dissection followed by postoperative RT
3) Stage IVB: Clinical trial (Preferred) or Primary radiation or Systemic therapy for melanoma
4) Stage IVC: Clinical trial (preferred) or Best supportive care or Primary radiation or Systemic therapy for melanoma
Chemotherapy Regimens:

For Lip, Oral Cavity, Oropharynx, Hypopharynx, Glottic Larynx, Supraglottic Larynx, Ethmoid Sinus, Maxillary Sinus and Occult Primary:

Chemo- Radiation (Systemic chemotherapy + Concurrent RT)

Clinical trial H10-109:

Induction chemotherapy weekly for 6 weeks
Paclitaxel 80mg/m2 IV q weekly
Carboplatin AUC 2IV q weekly
Cetuximab 400mg/m2 IV first week followed by weekly 250mg/m2

Following induction chemotherapy concurrent chemo-radiotherapy with

Weekly Cisplatin 30mg/m2 during XRT + Weekly cetuximab 250mg/m2 during XRT

Concurrent Chemo-Radiation – Category I recommendations:

A. Cisplatin Alone:
   i. Cisplatin 100mg/m2 IV on Day 1, 22 and 43 +
   ii. RT at 2Gy/day for total dose of 70 Gy

B. Cetuximab Alone:
   i. Cetuximab loading at 400 mg/m2 iv 1 week before XRT, then 250 mg/m2 iv Q weekly +
   ii. RT at 2Gy/day for total dose of 70 Gy

Concurrent Chemo-Radiation – Category 2A recommendations:

A. Cisplatin + Taxol + RT:
   i. Cisplatin (CDDP) 75 mg/m2 iv +
   ii. Paclitaxel (Taxol) 135 mg/m2 continous IV infusion for 24 Hrs, cycle repeated every 3 weeks.

B. Cisplatin + Infusional 5 FU + RT:
   i. Cisplatin (CDDP) 100 mg/m2 iv on Day 1 +
   ii. 5-FU 1000 mg/m2/d continous IV infusion from Day 1-4 , Cycle repeated every 3 weeks.

C. Carboplatin + Paclitaxel + RT (Category 2B):
   i. Carboplatin AUC 6 iv +
   ii. Paclitaxel 200 mg/m2 iv over 3 h Q3w;
   iii. Reference: Clark JJ et al. , Cancer 2001; 92:2334

D. Carboplatin + Infusional 5FU + RT:
   i. Carboplatin 70 mg/m2/d iv d1-4, 22-25 and 42-46 +
   ii. 5-FU 600 mg/m2/d civi d1-4, 22-25 and 43-46;

Postoperative Chemo-Radiation:

A. Cisplatin Alone:
   i. Cisplatin 100mg/m2 IV on Day 1, 22 and 43 +
   ii. RT at 2Gy/day for total dose of 70 Gy
**Induction Chemotherapy with Sequential Chemoradiation**
Followed by either RT alone (Category 1) or Chemo-Radiation

i. Docetaxel (Taxotere) 75 mg/m² iv over 1 hour d1
ii. Cisplatin (CDDP) 100 mg/m² iv over 30 min-3 hours d1
iii. 5-FU 1000 mg/m²/d civi d1-4
iv. All of the 3 above every 3 weeks for 3 cycles.
v. Followed by: (3-8 weeks later): Carboplatin AUC 1.5 iv over 1 hour qw x 7 w + RT 2 Gy/d to a total of 70-74 Gy
   Followed by Surgical evaluation (6-12 weeks later)

**Induction Chemotherapy with sequential Radiation**
Followed by either RT alone (Category 1) or Chemo-Radiation

i. Docetaxel (Taxotere) 75 mg/m² iv over 1 hour d1
ii. Cisplatin (CDDP) 75 mg/m² iv over 1 hr d1
iii. 5-FU 750 mg/m²/d civi d1-5
iv. All of the 3 above every 3 weeks for 4 cycles.
v. Followed by: (4-7wks later: RT 1.8gy - 2 Gy/d to a total of 66-70

**Nasopharynx: Treatment: Cisplatin + RT followed by Cis/5Fu (Category 1):**

I. Cisplatin (CDDP) 100 mg/m² iv d1, 22 and 43 + XRT 2 Gy/d to a total of 70 Gy
II. Cisplatin (CDDP) 80 mg/m² iv d1 + 5-FU 1000 mg/m²/d civi d1-4; Q4w x 3 cycles

**Recurrent / Metastatic Chemo Regimens:**

**Clinical trial E1305:**

**E1305:** A Phase III Randomized Trial of Chemotherapy With or Without Bevacizumab in Patients with Recurrent or Metastatic Head and Neck Cancer

**5-FU + Cisplatin + Cetuximab: Until disease progression or unacceptable toxicity. Category 1**

i. Cisplatin (CDDP) 100 mg/m² iv over 1 hour d1q3w x 6 cycles
ii. 5-FU 1000 mg/m²/d civi d1-4 q3w x 6 cycles
iii. Cetuximab Loading dose of 400 mg/m² iv over 2 hours d1 then followed by 250 mg/m² iv over 1 Q week1

**5-FU + Carboplatin + Cetuximab Category 1**

i. Carboplatin (Paraplatin) AUC 5 iv over 1 hour d1q3w x 6 cycles
ii. 5-FU 1000 mg/m²/d civi d1-4 q3w x 6 cycles
iii. Cetuximab loading dose 400 mg/m² iv over 1 hour d1, followed by 250 mg/m² iv over 1 hour Qweekly
A) Follow Up:

A) H&P: Q1-3 months for 1st year, Q2-4 months for 2nd year, Q4-6 months from 3-5 years and Q6-12 months after 5 years
B) CT scan of Primary within 6 months of treatment. Further imaging if clinically indicated
C) CT Chest as clinically indicated
D) TSH Q6-12 months if Neck irradiated
E) Speech/hearing and swallowing evaluation if clinically indicated
F) Smoking cessation and alcohol counseling
G) If PET is used for follow up, Perform 12 wks after treatment