PRINCESS MARGARET CANCER CENTRE
CLINICAL PRACTICE GUIDELINES

HEAD AND NECK

OROPHARYNX
# Head & Neck Site Group – Oropharynx

1. **INTRODUCTION** .......................................................... 3

2. **PREVENTION** .......................................................... 3

3. **SCREENING AND EARLY DETECTION** ............................. 3

4. **DIAGNOSIS** ............................................................ 3

5. **PATHOLOGY** ............................................................ 4

6. **MANAGEMENT** ........................................................ 6

   MANAGEMENT ALGORITHMS ........................................... 6
   6.1 SURGERY ............................................................... 9
   6.2 CHEMOTHERAPY .................................................... 10
   6.3 RADIATION THERAPY .............................................. 13
   6.4 ONCOLOGY NURSING PRACTICE ............................... 15

7. **SUPPORTIVE CARE** .................................................... 15

   7.1 PATIENT EDUCATION .............................................. 15
   7.2 DENTAL CARE ....................................................... 15
   7.3 SYMPTOM MANAGEMENT ....................................... 15
   7.4 CLINICAL NUTRITION ............................................ 15
   7.5 PALLIATIVE CARE .................................................. 15
   7.6 SPEECH PATHOLOGY .............................................. 16

8. **FOLLOW-UP CARE** .................................................. 16

9. **REFERENCES** .......................................................... 17
1. Introduction

- Over 90% of oropharyngeal carcinomas are squamous cell carcinoma (SCC), and these are the subject of these guidelines
  - Tumors arising from minor salivary gland, lymphomas (and other haematolymphoid tumors), and mesenchymal tumors also occur in the oropharynx, but require separate consideration and will not be covered in this guideline
- Predominant risk factors for oropharynx SCC are tobacco use and heavy alcohol intake
- Human papilloma virus (HPV) infection, especially subtypes 16 and 18, is now recognized as an important causative agent in oropharyngeal malignancy, particularly in the non-smoking (or minimal smoking history) population

2. Prevention

- Factors associated with increased risk of oropharyngeal cancer include
  - Tobacco use
  - Alcohol consumption: dose-related; and synergistic effect with tobacco
  - Programs directed at reduction / elimination of these substances are important in reducing the risk of oropharyngeal cancers
- Human papilloma virus (HPV) infection is associated with increased risk of oropharyngeal SCC
  - Vaccination programs which are currently directed against HPV-infection in women to prevent uterine cervical carcinomas may result in a reduction of HPV-related oropharyngeal carcinomas in the future
- There may be some protective effect from diets rich in antioxidants and trace elements

3. Screening and Early Detection

- There is at present no role for screening / early detection in oropharyngeal carcinomas

4. Diagnosis / Initial Assessment

All patients should be assessed prior to treatment intervention, by the multidisciplinary Head & Neck Team

**History and Physical evaluation:**
- Record height, weight and ECOG performance status
- History and Physical examination including mucosal survey for synchronous primaries
  - Record smoking and alcohol history
    - smoking
      - Non-smoker / Current / ex-smoker
      - pack years
    - alcohol history in standard drinks/week;
- None / Light <10 drink/wk/ Mod 10-20 / Heavy >20
- Record history of exposures to betel-nut, oral tobacco, or other carcinogens
  - Record stage (current edition TNM)
- Specify location of primary including dimensions and involvement of anatomic subsites:
  - Lateral wall
    - Tonsil Region:
      - Tonsillar fossa
      - Anterior faucial pillar
      - Posterior faucial pillar (rare with more adverse prognosis)
      - Glossotonsillar sulcus
    - Lateral oropharyngeal wall
  - Anterior wall
    - Base of Tongue
    - Vallecula
  - Superior wall
    - Soft Palate
    - Uvula
  - Posterior wall
    - Posterior oropharyngeal wall
- Documentation of specific nodal level(s) involved and description
  - Size and extent of nodal involvement (e.g. number, fixed/mobile, skin involvement, any overlying scars)

**Investigations (Baseline):**
- Panendoscopy or examination under anaesthesia if deemed necessary
- Biopsy
  - pathology review; molecular diagnostic testing including HPV status
- CT scan Head and Neck
- MRI Head and Neck (T1 + gadolinium, T2 sequences) is recommended; always indicated if base of tongue is suspected or involved
- CT thorax if indicated (e.g. node-positive disease, smoking history), or otherwise CXR
- PET scan may be beneficial particularly in patients in whom treatment decisions regarding managing nodal disease must be made
- Bloodwork: CBC, creatinine, electrolytes, liver function, glucose, coagulation studies (APTT, INR)
- Pregnancy test where indicated
- Other staging investigations as clinically indicated (bone scan etc)
5. Pathology

- Over 90% of tumors arising in the oropharynx are squamous cell carcinomas, often characterized by keratinization with variable pearl formation and invasive growth
  - Variants such as basaloid squamous carcinoma (high-grade), and others may occur uncommonly
- Genetics
  - Tumors in smokers harbour higher rates of p53 mutation than those of non-smokers
  - Up to 50% of oropharyngeal carcinomas harbour integrated HPV-DNA
- Pathology reporting (for surgical specimens) should follow a standard format for larynx carcinoma, and include the following SYNOPTIC DATA:
  - Specimen:
  - Procedure:
  - Specimen Size:
    - Greatest dimension:
    - Additional dimension(s):
  - Specimen Laterality:
  - Tumor Site:
  - Tumor Laterality:
  - Tumor Focality:
  - Tumor Size:
    - Greatest dimension:
    - Additional dimension(s):
  - Histologic Type:
    - Histologic Grade:
  - Margins:
    - Location of Margin(s):
      - Distance from closest margin:
      - Margin(s):
    - Margins for carcinoma-in-situ (includes moderate and severe dysplasia):
      - Margin(s):
      - Distance from closest margin:
  - Lymph-Vascular Invasion:
  - Perineural Invasion:
  - Lymph Nodes, Extranodal Extension:
  - TNM Descriptors:
    - Primary Tumor (pT):
    - Regional Lymph Nodes (pN):
      - Number of regional lymph nodes examined:
      - Number of regional lymph nodes involved:
      - Size (greatest dimension) of the largest positive lymph node: 1.1 cm
    - Distant Metastasis (pM):
  - Additional Pathologic Findings:
6. Management

**Overall Management Approach**
- These guidelines apply to patients with squamous cell carcinoma of oropharynx
- Oropharyngeal function/organ preservation using a radical radiotherapy approach +/- surgery for the neck as required is the usual approach undertaken
- There is also a role for transoral approaches (i.e. transoral robotic surgery transoral laser microsurgery, transoral alone) in the management of small volume primary tumors (e.g. T1, T2) with limited nodal disease, where it is felt that there would not be significant functional morbidity with a primary surgical approach.
- All patients should be assessed for inclusion on available current trial protocols and, if eligible and appropriate, offered inclusion on trial
- Oropharyngeal primaries always require elective treatment of regional lymph node regions at risk of involvement
- Several principles govern management and especially addressing the elective regional node areas to be treated in a selective manner. Some tumors, especially those arising on the posterior wall of the oropharynx, do not lend themselves to selective regional node targeting and treatment needs to be more comprehensive.

**General principles influencing lymph node management**
- The location of gross nodal disease may influence the extent of elective nodal treatment
- The minimum radiotherapy extent of the elective neck should include ipsilateral levels 2 to 4 in the N0 situation. In this situation the uppermost extent should be the point where the digastric muscle crosses the jugular vein (C1 / C2 interspace)
- Gross involvement of any nodal region ordinarily mandates
  - inclusion of the lateral retropharyngeal node region to the base of skull on the side of nodal involvement.
  - inclusion of ipsilateral level 1B and level V, even though their risk of involvement is very low (<5%) even with ipsilateral pathologically proven neck disease and calls into question their routine inclusion in any target volume
  - radical radiotherapy dose must be augmented to 70 Gy in 35 fractions or equivalent doses (+/- chemotherapy or altered fractionation) delivered to “gross” target areas discerned by imaging with the “elective” moderate doses prescribed to remaining neck regions judged to also be at risk as mentioned above and below.

“*Neck*” and primary tumor factors guiding radiotherapy targeting of the neck  
(ipsilateral vs bilateral treatment)
Several additional factors influence radiotherapy targeting of the neck as follows:

- **Neck factors – ipsilateral vs bilateral radiotherapy**
  - In N0-N1 disease, unilateral neck radiotherapy may be considered assuming that the primary tumor conditions permit this as discussed below.
  - However in N2a-b and unilateral N3 disease, it is generally considered prudent to treat bilateral necks electively in addition to the targets needed for the grossly apparent neck disease.

- **Primary tumor factors – bilateral radiotherapy**
  - Bilateral elective radiotherapy is usual in tumors originating in the midline region of the oropharynx
   - Includes lesions of posterior pharyngeal wall (where bilateral retropharyngeal nodes should also be treated) and posterior tonsillar pillar lesions which should be treated in the same way as posterior pharyngeal wall.
   - Carcinomas arising in the soft palate / uvula generally warrant elective irradiation of both sides of the neck including the retropharyngeal nodes.
  - Base of tongue and vallecular tumors are similarly treated to bilateral nodal regions but the retropharyngeal nodes may be omitted in N0 presentations.
  - Although lateral originating lesions may be treated with ipsilateral radiotherapy approaches (see below) those with medial extension (within 1 cm of midline on palate and/or base of tongue) generally require bilateral elective RT.

- **Primary tumor factors – ipsilateral radiotherapy**
  - Ipsilateral elective radiotherapy is possible (provided only modest nodal disease is present) in lateralized tonsillar cancers (including origin in the fossa and anterior pillar).
  - Very small palate and lateral pharyngeal wall (i.e. lateralized T1 tumors).
  - PET scan is desirable to enhance the confidence of this approach.

**Treatment Approach by Stage**

**T1 N0-1**

**Standard Treatment (off clinical trial)**

*Dose fractionation schedules*

- **Standard radiotherapy**: 70 Gy in 35 fractions, over 7 weeks (5 fractions/wk)
OR

- **DAHANCA schedule:** 70Gy in 35 fractions, over 6 weeks (6 fractions/wk)
  - +/- concurrent cetuximab Rx (400 mg/m² loading dose week prior to commencing RT, then 250mg/m² weekly during RT)

- **60 Gy in 25 fractions, over 5 weeks (5 fractions/week)**
  - for patients not suitable (performance status/co-morbidity) for ‘standard’ radical treatment options above

- **OR**
  - **Transoral Resection with Neck Dissection(s)**
    - Transoral resection can be considered with resectable primary site disease with the aim to achieve a negative margin resection. Unilateral neck dissection of levels 2-4 should be performed at the time of primary site resection or staged within 3 weeks of primary tumor resection. Branch ligation of external carotid artery feeding vessels such as the lingual artery, facial artery and/or ascending pharyngeal artery should be performed at the time of resection. Consideration to the bilateral neck dissection should be given for tumors at high risk for contralateral nodal metastasis.

**T2 N0-1**

*Standard Treatment (off clinical trial)*

**Dose fractionation schedules**

- **Standard radiotherapy:** 70 Gy in 35 fractions, over 7 weeks (5 fractions/wk)

OR

- **DAHANCA schedule:** 70Gy in 35 fractions, over 6 weeks (6 fractions/wk)
  - +/- concurrent cetuximab Rx (400 mg/m² loading dose week prior to commencing RT, then 250mg/m² weekly during RT)

OR

- **HARDWINS accelerated radiotherapy alone:** 64Gy in 40 fractions, over 4 weeks (bid, 10 fractions/week) for bulky T2 (eg approximating 4cm in all dimensions)

- **60 Gy in 25 fractions, over 5 weeks (5 fractions/week)**
  - for patients not suitable (performance status/co-morbidity) for ‘standard’ radical treatment options above

OR

- **Transoral Resection with Neck Dissection(s)**
  - Transoral resection can be considered with resectable primary site disease with the aim to achieve a negative margin resection. Unilateral neck dissection of levels 2-4 should be performed at the time of primary site resection or staged within 3 weeks of primary tumor resection. Branch ligation of external carotid artery feeding vessels such as the lingual artery, facial artery and/or
ascending pharyngeal artery should be performed at the time of resection. Consideration to the bilateral neck dissection should be given for tumors at high risk for contralateral nodal metastasis.

*Any T, Any N, Resectable ‘N’, M0*

**Standard Treatment (off clinical trial)**

*Dose fractionation schedules +/- chemotherapy*

- **Standard chemo-radiotherapy:** 70 Gy in 35 fractions, over 7 weeks (5 fractions/wk) + concurrent cisplatin (100mg/m2, wks 1, 4, 7 of radiotherapy). For patients who are not candidates for high dose cisplatin, weekly cisplatin may be considered (40mg/m2).

  OR

- **HARDWINS accelerated radiotherapy alone:** 64Gy in 40 fractions, over 4 weeks (bid, 10 fractions/week)

  OR

- **DAHANCA schedule:** 70Gy in 35 fractions, over 6 weeks (6 fractions/wk)
  - +/- concurrent cetuximab Rx (400 mg/m\(^2\) loading dose week prior to commencing RT, then 250mg/m\(^2\) weekly during RT)

  OR

**Other**

- **60 Gy in 25 fractions, over 5 weeks (5 fractions/week)**
  - for patients not suitable (performance status/co-morbidity) for ‘standard’ radical treatment options above

*Any T, unresectable ‘N’, M0*

**Standard Treatment with preference for concurrent chemotherapy**

- **70 Gy in 35 fractions, over 7 weeks (5 fractions/wk) + concurrent cisplatin** (100mg/m2, wks 1, 4, 7 of radiotherapy). For patients who are not candidates for high dose cisplatin, weekly cisplatin may be considered (40mg/m2).
  - **HARDWINS accelerated radiotherapy alone:** 64Gy in 40 fractions, over 4 weeks (bid, 10 fractions/week)
    - For fit patients who cannot tolerate chemotherapy (hearing, renal compromise etc)
OR

- **DAHANCA schedule**: 70Gy in 35 fractions, over 6 weeks (6 fractions/wk)
  - +/- concurrent cetuximab Rx (400 mg/m² loading dose week prior to commencing RT, then 250mg/m² weekly during RT) where available

**Patients not suitable for radical treatment**
Refer to separate guideline: Palliative Management of Patients with H&N malignancy *(SECTION 12)*

### 6.1 Surgery

- **Initial treatment (no prior treatment administered)**
  - T1-2 N0-1: transoral excision and elective neck treatment (surgical or radiotherapy)
  - T1 – T4a, any N+ stage: organ preservation strategy
  - T4b: tracheostomy if needed for airway control, otherwise inoperable
    - Consider organ preservation strategy in select patients
- **Salvage treatment (recurrence or persistence following treatment)**
  - Primary site
    - Surgical resection to extent of initial tumor
    - Often requires lip split and mandibulotomy to provide access
    - Mandibulectomy depending on bone involvement
    - Microvascular free tissue transfer, dependent on characteristics of defect
  - Neck
    - Following non-surgical treatment of neck:
      - Definition: persistent neck mass ≥ 3 months after completion of treatment and size ≥ 1.5 cm on MRI or CT imaging
      - Salvage selective neck dissection based on extent of initial tumor disease and residual tumor volume

### 6.2 Chemotherapy

- See above *(Overall Management, 5)* for indications for chemo-radiotherapy

- **CONCURRENT CHEMO-RADIOTHERAPY:**
  - **DEFINITIVE:**
    - Cisplatin 100mg/m², concurrent with weeks 1, 4, 7 of radiotherapy
  - **POST-OPERATIVE:**
    - Cisplatin 100mg/m², concurrent with weeks 1, 4 of radiotherapy

---

Last Revision Date – August 2019
- Overnight admission in inpatient chemotherapy suite
  - Pre-treatment Assessment:
    - Bloodwork: CBC, lytes, creatinine, liver function hepatitis B and C profile, weight, height and BSA.
  - Pre-Medication / Hydration
    - Anti-emetics:
      - ondansetron 16 mg IV q24hrs day 1,2 over 15 minutes
      - dexamethasone 10 mg IV day 1 (dose reduction or omission based on Hep B profile may occur), then 2 mg IV day 2 (AM)
      - OR ondansetron 16mg po OD days 1 and 2 aprepitant 125 mg PO day 1, 80 mg PO day 2
        - prochlorperazine 10 mg IV/PO q6hrs prn
    - Hydration with
      - 1000 mL Normal Saline (0.9%) + Potassium Chloride 20mEq + magnesium sulfate 2g IV over 2 hr, pre-cisplatin
  - CHEMO: CISPLATIN 100mg/m² IV in 1000mL normal saline, with mannitol 20g over 2 hrs
  - Post-chemo supportive care:
    - 1000mL Normal Saline (0.9%) over 4 hours post-cisplatin, then decrease to 30 mL/hr until discharge
    - dexamethasone 2 mg IV-int over 15 minutes q12hrs for 3 doses while in hospital, starting with the second dose of ondansetron (dose reduction of omission depending on Hep B profile may occur)
    - Anti-emetics on discharge on day 2:
      - ondansetron 24 mg po q24hrs day 3,4
      - dexamethasone 2 mg PO bid starting day 2 (PM) x 5 doses (i.e. day 2-4)
      - aprepitant 80 mg PO day 3
      - prochlorperazine 10 mg IV/PO q6hrs prn
  - dose reduction / delay of chemotherapy dose should be considered for toxicities including (but not limited to):
    - Cytopenia
      - Absolute neutrophil count (ANC)
        - 1-1.4 x 10e9/L: consider delay for 1 week, or 75% dose reduction
        - <1.0 x 10e9/L: delay cycle, and recheck bloodwork 1 week
    - Renal impairment
      - >60 ml/min: 100% dose; 45-59 ml/min: consider 50-75% dose; <45 ml/min omit cisplatin
    - Weight loss: less than 10% from baseline: 100% dose; > 10% loss: consider 75% dose, or discontinuation at physician’s discretion
    - Neurotoxicity and Ototoxicity: Dose modification or discontinuation may be required
o Other precautions:
  • Potential mutagen: Women of childbearing age must practice an appropriate form of contraception while being treated.
  • Neutropenia: fever of other evidence of infection should be investigated promptly and treated aggressively
  • Hepatitis B: For patients who are Hepatitis B surface antigen positive, consider anti-viral prophylaxis and lower dose of dexamethasone to lower the risk of viral reactivation
  • Appropriate management of constipation with stool softeners and laxatives if required

• CONCURRENT RADIOTHERAPY + TARGETED THERAPY
  o Cetuximab 400mg/m² loading dose week prior to radiotherapy, then 250mg/m² weekly concurrent with radiotherapy
  o SETTING:
    ▪ outpatient chemotherapy suite
  o Pre-treatment Assessment:
    ▪ Bloodwork: CBC, lytes, creatinine, liver function
    ▪ Vital signs
  o Pre-Medication / Hydration
    ▪ Diphenhydramine 50mg IV, 30-60 mins prior to each dose
    ▪ Dexamethasone 10mg IV, 30-60 mins prior to each dose

  o CETUXIMAB
    ▪ supportive care:
      • Allergic/Anaphylactic reaction:
        o Grade 1: decrease infusion rate to 50%
        o Grade 2: hold cetuximab, administer bronchodilators/antihistamine/corticosteroid as indicated; once resolved to grade 1 or less, resume at 50% infusion rate for the first occurrence. If second occurrence, discontinue cetuximab
        o Grade 3 or 4: stop cetuximab; administer epinephrine/bronchodilators/antihistamine/corticosteroid/O2/IV fluids/vasopressors as indicated; discontinue cetuximab
      • SKINCARE:
        o For management of rash, there is no evidence based recommendation.
        o Consideration can be given to clindamycin 2% and hydrocortisone 1% to be applied topically tid prn.
        o Severe rash (e.g. grade 3 rash) can be managed with dose delay 1-2 weeks and/or adding minocycline 100 mg PO bid.
Consideration can be given to treat patients prophylactically with minocycline 100 mg po bid.

- **OTHER CHEMOTHERAPY TREATMENT OPTIONS: CONCURRENT RADIOTHERAPY and WEEKLY CISPLATIN**
  - Consider for patients not suitable for high-dose cisplatin
  - **SETTING:**
    - Out-patient chemotherapy suite
  - Pre-treatment Assessment:
    - Bloodwork: CBC, lytes, creatinine, liver function, , hepatitis B and C profile, weight, height and BSA.
  - Pre-Medication / Hydration
    - Anti-emetics:
      - dexamethasone 8mg PO or IV at least 1 hour prior to chemotherapy
      - ondansetron 16 mg po or IV starting at least 1 hour prior to chemotherapy
    - Others:
      - Magnesium sulfate 2g IV in normal saline 250 ml over 1 hour only if magnesium level = 0.5-0.6 mmol/L (call physician for magnesium level less than 0.5 mmol/L).
  - **CHEMO:**
    - CISPLATIN 40 mg/m² IV in 500mL normal saline, over 1 hr
  - Post-chemo supportive care:
    - Hydration 500mL normal saline over 30-60 minutes
    - Ondansetron 16 mg PO day 2
    - Dexamethasone 4mg BID PO days 2-3
    - Prochlorperazine 10mg Q6H PRN
  - **dose reduction / delay of chemotherapy dose should be considered for toxicities including (but not limited to):**
    - **Cytopenia**
      - Absolute neutrophil count (ANC)
        - 1-1.4 x 10⁹/L: consider delay for 1 week, or 75% dose reduction
        - <1.0 x 10⁹/L: delay cycle and recheck bloodwork 1 week
    - **Renal impairment**
      - Creatinine clearance >60 ml/min: 100% dose; 45-59 ml/min: consider 50-75% dose; <45 ml/min omit cisplatin
    - **Weight loss**: less than 10% from baseline: 100% dose; > 10% loss: consider 75% dose or discontinuation at physician’s discretion
    - **Neurotoxicity and Ototoxicity**: Dose modification or discontinuation may be required
  - **Other precautions:**
Potential mutagen: Women of childbearing age must practice an appropriate form of contraception while being treated.

- Neutropenia: fever of other evidence of infection should be investigated promptly and treated aggressively
- Appropriate management of constipation with stool softeners and laxatives if required

6.3 Radiation Therapy

Pre-Treatment Assessment

- Dental assessment
- Nutritional assessment and consultation (pre-treatment, or during first weeks of treatment)
- Prophylactic feeding G-J tube
  - All patients receiving chemo-radiotherapy or accelerated fractionation schedules should be considered
  - Patients with existing nutritional impairment (due to swallowing dysfunction etc), planned for radical treatment
- Pharyngeal function assessment (speech/swallow) if indicated
- Audiology
  - Pts receiving platinum-type chemoRx
  - Pts receiving high-dose adjacent to auditory apparatus
- Medical Oncology assessment (in patients potentially eligible for chemotherapy)
- Ophthalmology consult as indicated
- Written consent to be obtained prior to simulation
- Pre-radiotherapy review: patients are reviewed by the radiation oncologist in the week prior to commencing treatment for assessment and to review the treatment plan

CONTOURING:

- DEFINITION / DELINEATION of TARGETS:
  - All patients treated to a gross disease with a radical dose for definitive RT
  - Regions at risk of microscopic spread (anatomy adjacent to primary GTV and uninvolved at risk nodal zones) will receive elective irradiation doses

Primary tumor targeting:

- GTV: Definition of GTV for definitive treatment based on clinical exam and radiology with contrast enhanced CT and MRI to define additional invasion into the pterygoid structures, para- oropharynx or nasopharynx etc
- High dose CTV defined as 0.3 cm expansion on GTV limited by anatomic barriers to spread and expanded along potential anatomic routes of spread
  - Particular attention is needed to address superficial disease characterized by erythema and aberrations in surface texture that may not be discernible by imaging. This particularly applies to disease in the faucial arch and soft palate/uvular areas.
  - a deceptive spread pattern superiorly and inferiorly may be associated with skip lesions associated with submucosal spread requiring wider margins in these planes.
- Microscopic low dose CTV to be treated with a minimum 1 cm expansion on the primary site
  - includes potential routes of anatomic spread (e.g. gross involvement of retromolar trigone requires expansion of the microscopic low dose CTV to include the buccal–alveolar space, pterygoid region, oral tongue, or any other relevant areas)
  - Excludes relevant anatomical boundaries, such as bone, where there is not clinical concern for invasion

**Lymph node targeting:**
- GTV: based on clinical exam and radiology with contrast enhanced CT
- CTV:
  - High dose CTV expansion of 0.5 cm will be applied to grossly involved nodes
  - An intermediate dose nodal CTV expansion of 0.5 cm can be defined to treat nodes <1 cm in diameter
  - Microscopic low dose CTV defined to cover all nodal zones at risk of microscopic spread of tumor according to the location of the primary site and nodal anatomy as discussed earlier

**Radical doses are defined by the following prescriptions:**
- 70 Gy in 2 Gy fractions over 6-7 weeks in 35 fractions
  - 63 Gy in 35 fraction intermediate dose
  - 56 Gy in 35 fraction elective dose
- 64 Gy in 1.6 Gy fractions BID prescription over 4 weeks in 40 fractions
  - 56 Gy in 40 fractions intermediate dose
  - 46 Gy in 40 fraction elective dose
- 60 Gy in 2.4 Gy per day fractions over 5 weeks in 25 fractions
  - 56 Gy in 25 fractions intermediate dose
  - 50 Gy in 25 fraction elective dose

**TREATMENT**
- CLINICAL CARE DURING RADIOTHERAPY:
  - Pts shall be reviewed by the RO at least weekly during RT
o ASSESSMENT:
  ▪ acute toxicities (RTOG criteria) documented in MOSAIQ
  ▪ Weight and nutritional review (weekly nutritional review for pts with G-tube, or as clinically indicated)
  ▪ Bloodwork prior to each cycle of chemotherapy, or as clinically indicated

• Management of acute toxicities: refer to Nursing / Supportive Care guideline

6.4 Oncology Nursing Practice

Refer to Head and Neck Nursing Care

7. Supportive Care

7.1 Patient Education

Refer to general patient education practices

7.2 Dental Care

Refer to dental care for Head and Neck Cancers

7.3 Symptom Management

Refer to general symptom management care guidelines

7.4 Clinical Nutrition

Refer to general clinical nutrition care guidelines

7.5 Palliative Care

Refer to palliative management of Head and Neck Cancers

7.6 Speech Pathology

Refer to speech language pathology for Head and Neck Cancers

8. Follow-up Care

• Setting: Assessment in multidisciplinary clinic
• Schedule:
o 2-6 weeks post radiotherapy
o Q3 months or more frequent for two years
o Q4 months or more frequent for third year
o Q6 months or more frequent for years 4-5
o Annually for years 6-10

- Investigations and assessment (follow-up):
  - Fibre-optic nasendoscopy
  - Imaging
  - CT head and neck at 10-12 weeks post-treatment (to determine adequacy of response to radiotherapy in case neck dissection is required)
  - MRI Head and Neck if indicated
  - Pharyngeal function (speech/swallow), if indicated
  - Dental assessment where applicable
  - Audiometry or ophthalmology where applicable

**ASSESSMENT and MANAGEMENT of PERSISTENT / RECURRENT DISEASE (SALVAGE)**

- Biopsy / histological confirmation
- Record site of failure (local, regional, distant)
- Date of failure/recurrence
- Determine site of recurrence relative to the initial target volume
- RE-STAGE
  - CT Head, neck, thorax
  - Other imaging as clinically indicated
- salvage options:
  - refer to NECK DISSECTION policy for management of suspected / confirmed persistent regional disease
  - RE-IRRADIATION: refer to guideline for re-treatment of pts with H&N malignancy for re-irradiation
    - RT volumes
    - Fractionation
    - Use of concurrent Rx
References:

