*Evolent	
Clinical guidelines **HEAD AND NECK CANCER**	**Original Date: June 2013**
Radiation Oncology	**Last Revised Date: May 2023**
Guideline Number: Evolent_CG_131	**Implementation Date: January 2024**

GENERAL INFORMATION

- *It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.*
- *Where a specific clinical indication is not directly addressed in this guideline, medical necessity determination will be made based on widely accepted standard of care criteria. These criteria are supported by evidence-based or peer-reviewed sources such as medical literature, societal guidelines and state/national recommendations.*

INDICATIONS FOR RADIATION THERAPY

2D, 3D, IMRT and Brachytherapy techniques may be used as appropriate, depending on the tumor location and stage of disease. [1] Brachytherapy, where appropriate, may be utilized as a boost for 2D, 3D or IMRT courses of radiation therapy.

- Pre-operative radiation therapy
    - 2D/3D/IMRT – up to 35 fractions
- Definitive radiation therapy with or without concurrent chemotherapy
    - 2D/3D/IMRT – up to 42 fractions
        - Hyperfractionation - 81.6 Gy, 1.2 Gy per fraction BID (up to 68 fractions)
        - GRID radiation therapy uses a special block which turns a conventional radiation photon beam into multiple pencil beams. By using this block all the surrounding tissues would be blocked and radiation would be delivered to the GTV/tumor only. This block enables radiation oncologists to deliver high doses of radiation therapy (equivalent to SBRT doses) in one fraction. These treatments would be delivered sequentially, therefore, the total number of fractions. The only technique that would not be approvable would be SBRT because SBRT cannot be combined with any other form of radiation therapy.

- Post-operative radiation therapy (up to 40 fractions)
    - Presence of adverse factors
        - Oral cavity – T1-2, N0 with one positive node without adverse features
        - pT3 or pT4 primary tumors
        - N2-3
        - Perineural invasion

        - Vascular tumor embolism
        - Extracapsular spread
        - Positive surgical margin
- Palliative radiation therapy if symptomatic up to 20 fractions

P16+ Oropharyngeal Cancer

Due to better prognosis, staging of these cancers is different from P16-negative ones (16). De-escalation studies support less intensive treatments including lower doses of radiation therapy.

TREATMENT OPTIONS REQUIRING TO BE REVIEWED ON A CASE-BY-CASE BASIS PHYSICIAN REVIEW

Stereotactic Body Radiation Therapy (SBRT)

Stereotactic Body Radiation Therapy is not a standard treatment option for the treatment of head and neck cancer. SBRT may be indicated for reirradiation.[1]

Proton Beam Radiation Therapy[2]

Proton beam is not a standard treatment option for head and neck cancer and should not be used routinely. Medical necessity will be determined on a case-by-case basis.

- Re-irradiation up to 34 fractions may be indicated if no metastatic disease present
- Advanced (e.g., T4) and/or unresectable head and neck cancers[3-14]
- Cancers of the paranasal sinuses and other accessory sinuses

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BACKGROUND

According to the American Society of Clinical Oncology, about 4% of all cancers in the United States occur in the head and neck. The majority of these tumors are squamous cell carcinoma, with human papilloma virus infection, tobacco and alcohol use regarded as risk factors.[15] Due to the complexity of tumors arising from the head and neck region, it is not unusual for management to include an initial evaluation and development of a plan by a multidisciplinary team, including surgery, radiotherapy, medical oncology, and dental. Although single modality treatment with either surgery or radiotherapy is not uncommon with patients with early stage disease, combined modality therapy is appropriate for the majority of patients with locally or regionally advanced stage of disease.[1] The primary sites for head and neck tumors include paranasal sinuses, the lip, oral cavity, salivary glands, oropharynx, hypopharynx, glottic larynx, supraglottic larynx, nasopharynx, and occult head and neck primary sites. This guideline outlines several methods suitable for delivering radiation therapy to the head and neck area. Various radiotherapy techniques may be used as appropriate, depending on the stage, location, and expertise of the radiation oncologist.[1] Multidisciplinary management is recommended to best achieve tumor control while reducing toxicity.[15] These are generally accepted practice guidelines, however, and cannot incorporate all possible clinical variations. Thus, they are not intended to replace good clinical judgment or individualization of treatments.

IMRT, 3D, 2D, and brachytherapy techniques may be used as appropriate, depending on the tumor location, stage of disease, and experience/availability of dosimetry/medical physics support.[1] Intensity modulated radiation therapy (IMRT) has been shown to be useful in reducing long-term side effects in oropharyngeal, paranasal sinus, and nasopharyngeal cancers by reducing dose to normal surrounding tissue, including the salivary gland and brain (including temporal lobes, auditory apparatus, and optic structures). The application of IMRT to other sites of the head and neck is evolving with the recommendation to use at the discretion of the treating physicians. IMRT can be delivered with various dose fractionation schemes, including simultaneous integrated boost, sequential boost, and concomitant accelerated boost. IMRT has been shown to be beneficial in treating certain head and neck cancers by reducing dose to the salivary glands, brain, auditory apparatus, and optic structures. Low dose or high dose brachytherapy may be appropriate in certain cases.

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POLICY HISTORY

Date	Summary
May 2023	Added the following under Post-operative Radiation Therapy • Oral cavity – T1-2, N0 with one positive node without adverse features Added the following: • P16+ Oropharyngeal Cancer Due to better prognosis, staging of these cancers is different from P16-negative ones (16). De-escalation studies support less intensive treatments including lower doses of radiation therapy. • Added the following to Definitive radiation therapy: GRID radiation therapy uses a special block which turns a conventional radiation photon beam into multiple pencil beams. By using this block all the surrounding tissues would be blocked and radiation would be delivered to the GTV/tumor only. This block enables radiation oncologists to deliver high doses of radiation therapy (equivalent to SBRT doses) in one fraction. These treatments would be delivered sequentially, therefore, the total number of fractions. The only technique that would not be approvable would be SBRT because SBRT cannot be combined with any other form of radiation therapy • Deleted Additional Resources • Removed “physician review” language
January 2022	Add the following under Proton Beam Radiation Therapy: • Re-irradiation up to 34 fractions may be indicated if no metastatic disease present • Advanced (e.g., T4) and/or unresectable head and neck cancers • Cancers of the paranasal sinuses and other accessory sinuses

Reviewed / Approved by Clinical Guideline Committee

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